

TUARASCÁIL ón gComhchoiste Fiosrúcháin i dtaobh na Géarchéime Baincéireachta

An tAcht um Thithe an Oireachtais
(Fiosrúcháin, Pribhléidí agus Nósanna Imeachta), 2013

REPORT of the Joint Committee of Inquiry into the Banking Crisis

Houses of the Oireachtas
(Inquiries, Privileges and Procedures) Act, 2013

Volume 1: Report
Volume 2: Inquiry Framework
Volume 3: Evidence

Central Bank
CB: Core Book 10

January 2016

Table of contents – by line of inquiry

R2: Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a: The effectiveness of the use of supervisory powers

Description	Bates Number [Relevant Pages]	Page
Report On AIB FX 7/12/04 (Extract)	PUB00280 [006-011, 013-016]	2-11
Letter PTSB to CEO of FR including stress test scenario results 06 Apr 06	PTSB01401 [001-008]	12-19
Central Bank & Financial Services Authority Paper dated 21 June 2010 "Banking Supervision: Our New Approach"; Annual Performance Statement (Financial Regulation) 2010-2011, Annex 2, (Extract)	PUB00057 [006, 042, 053]	20-22
Central Bank Annual Performance Statement Financial Regulation 2011 – 2012, (Extract)	PUB00059 [005, 038, 068, 069]	23-26
Letter from Bank of Ireland to Mary Burke on Sectoral Concentration Limits 29 Mar 07	BOI01640 [001-009]	27-35
Fin. Stability Committee Agenda 1st Quarter 2009	INQ00072 [001]	36
CB's Summary Document on Policy Efforts 2003 - 2010 re Governance Architecture of Banks and Building Societies	CB00069 [001-015]	37-51
R2a Information Summary (Section 33AK)	INQ00019 [001-004]	52-55
Narrative on R2a – The effectiveness of the use of supervisory powers Information Summary (Section 33AK	INQ00022 [001-004]	56-59
Narrative for R2a Documents	INQ00026 [001-003]	60-62
R2a Narratives Legally approved O'Reilly	INQ00039 [001-002]	63-64
Narrative for R2a Documents	INQ00040 [001-003]	65-67
R2a Information Summary (Section 33AK)	INQ00012 [001-003]	68-70
Narrative for R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking sector	INQ00027 [001-002]	71-72
BOI response to FR questions about potential sector concentration limit breaches 06 Mar 2006	BOI05526 [001]	73
Letter BOI to CEO of FR including stress test scenario results 03 Apr 06	BOI03786 [001-008]	74-81
CBFSAI Response to 'Financial Stability Issues Scoping Paper	INQ00170 [001-002]	82-83
Narrative: The effectiveness of use of supervisory powers	INQ00171 [001]	84

R2b: Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

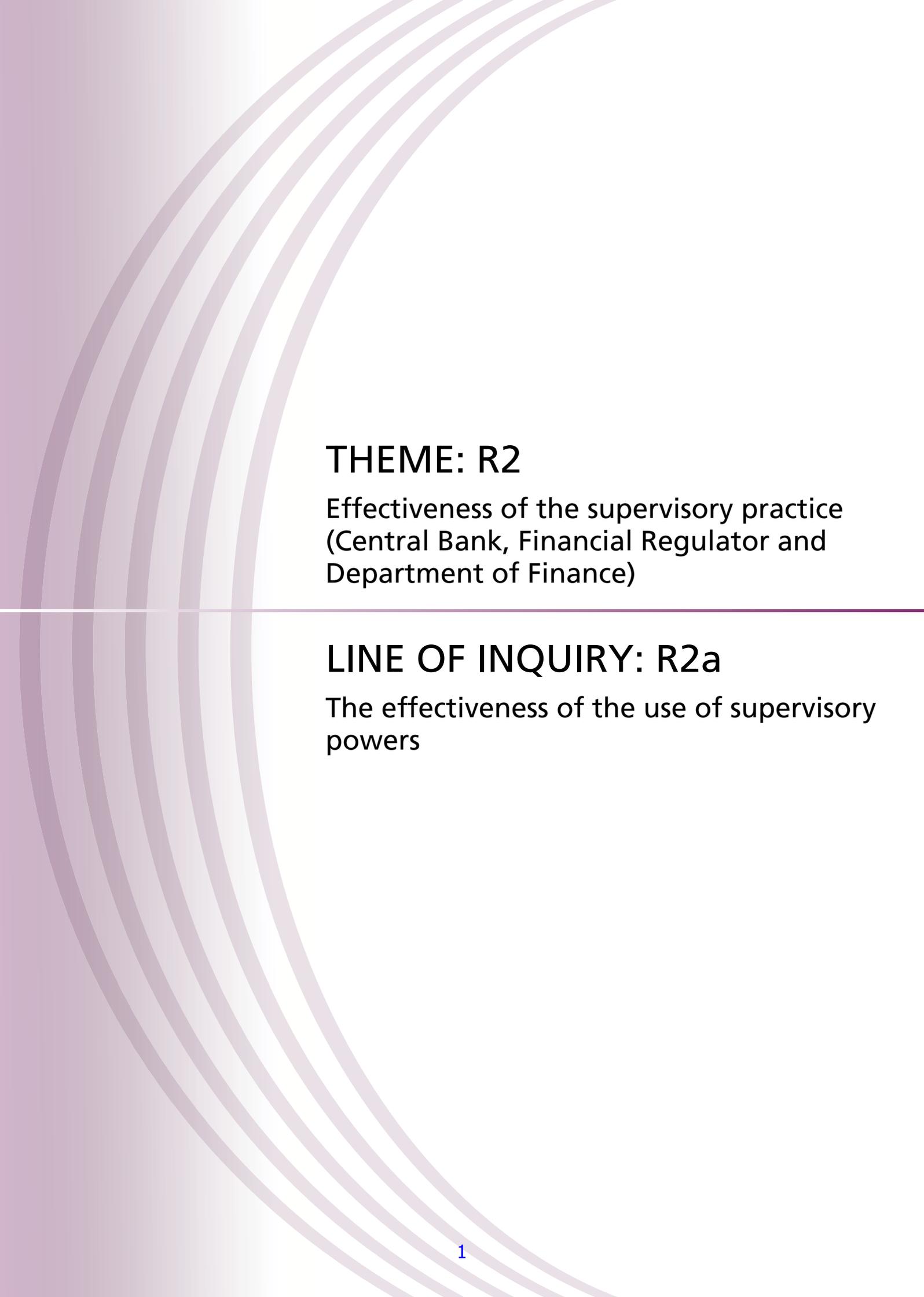
Description	Bates Number [Relevant Pages]	Page
Anglo Board Meeting 17 Sep 2008	IBRC00595 [001-002]	86-87
Anglo Board Meeting 29 Sep 2008	IBRC00605 [001]	88
Anglo Board Meeting 30 Sep 2008	IBRC00606 [001-002]	89-90
Anglo Board Meeting 04 Nov 2008	IBRC00612 [001-002]	91-92
Draft Letter from EBS to IFSRA on recent inspection	EBS01619 [001-004]	93-96
Letter from Financial Regulator to AIB	AIB00730 [001]	97
2005 Financial Stability report	PUB00020 [001-060]	98-157
2006 Financial Stability Report, Part 2, page 63 (Extract)	PUB00034 [003]	158
Central Bank Financial Stability Report 2006 (Extract)	PUB00036 [001, 009]	159-160
Financial Stability Report 2007	PUB00044 [001-072]	161-232
Context Phase Hearing Professor Patrick Honohan 15 Jan 2015 (Extract)	PUB00273 [001, 003, 010-012]	233-237
AIB Credit Review Report to Group Executive Committee and the Board, November 2008	BOI01640 [001-009]	238-246
IFSRA Meeting Minutes 2007 Narrative	InQ0073 [001]	247
Survey of mortgage lending practices	INQ00169 [001-002]	248-249
Central Bank Board Meeting Minutes, Q1 2009, subject to S.33AK, Central Bank Act, 1942.	INQ00157 [001]	250
IFSRA meeting 23-24 September meeting subject to S.33AK Central Bank Act 1942.	INQ00158 [001]	251
Financial Stability papers and narratives	INQ00058 [001-021]	252-272
IMF Article IV Report 1999 (Extract)	PUB00286 [001, 004, 005, 011, 012, 013]	273-278
Letter from FR to all covered banks	INQ00166 [001-002]	279-280
Pre Budget Letters from Central Bank	INQ00070 [001-003]	281-283
PCAR 2011 Review	PUB00167 [005, 033, 034, 039]	284-287

CBFSAI papers and board discussions	INQ0067 [001-018]	2288-305
Narratives pages R2b	INQ00030 [001-019]	306-324
IFSRA Meeting Minutes 2003/2004 Narrative	INQ00042 [001]	325
Narrative pages R2b	INQ00023 [001-009]	326-334
Property price fall of 30-50 p.c. possible if credit growth not curbed', Finance Ireland, William Slattery, 02/2000 (Extract)	WSL00001 [001]	335
INBS board minutes dated 19 September 2008 (Extract)	IBRC00796 [001, 005]	336-337
Budget 2009: An assessment for CBFSAI	INQ00167 [001]	338
The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008, P. Honohan (Extract)	JBE00011 [001, 011, 016-017, 019, 025-026, 040-048, 050, 054, 061-066, 073, 082-085, 087-088, 093-105]	339-382
Central Bank, Fit and Proper Requirements May2006	CB07235 [001-025]	383-407

R2c: Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Description	Bates Number [Relevant Pages]	Page
Central Bank Annual Report 2010 (Extract)	PUB00056 [016-030]	409-423
Document providing a summary or narrative of the general reasons why enforcement actions for breaches of prudential supervision by credit institutions were typically not taken, or powers not utilised A, in three different periods (1992- 2002, 2003- 2010 and 2010- 2013	CB05464 [001-005]	424-428
World Economic Outlook April 2008 (Extract)	DOF07557 [132-135]	429-432
Tony Grimes Narrative R2c	INQ00025 [001]	433
R2a, R2b, R2c Information Summary (Section 33AK)	INQ00002 [001-020]	434-453
R2c Information Summary (Section 33AK)	INQ00020 [001-009]	454-462
R2c Narratives Legally approved O'Reilly	INQ00054 [001-002]	463-464
Letter to a large financial institution	INQ00044 [001-005]	465-469
R2c Information Summary (Section 33AK)	INQ00013 [001-009]	470-478
Narratives of document CB06943-01	INQ00024 [001]	479
Aide Memoire for the Government on Financial Market Developments, 13 November 2007 (Extract)	DOF04057 [001, 003-004]	480-482

Narrative for R2c Documents	INQ00052 [001-005]	483-487
Central Bank of Ireland Financial Measures Programme Report (Extract)	PUB00171 [001-016]	488-503
The-future-of-financial-reform Mark Carney, Governor of the Bank of England (Extract)	PUB00278 [001-003]	504-506
Narrative on R2c – Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector	INQ00009 [001-005]	507-511



THEME: R2

Effectiveness of the supervisory practice
(Central Bank, Financial Regulator and
Department of Finance)

LINE OF INQUIRY: R2a

The effectiveness of the use of supervisory
powers

Part 1 – Foreign Exchange and Other Charging Issues

Background

On 20 April 2004, the Financial Services Regulator became aware, through an anonymous caller, of concerns regarding the notification of charges for certain retail foreign exchange transactions in AIB. This notification is required by Section 149 of the Consumer Credit Act, 1995. Following preliminary inquiries, these matters were raised with AIB on 30 April and were confirmed following a second meeting with AIB on 6 May 2004, when it became clear that AIB had applied a retail margin on certain foreign exchange services in excess of that specified in the notification to the Regulator.² The Financial Services Regulator escalated the investigation, which included an on-site inspection at AIB Bankcentre, Dublin that commenced on 7 May.

On 11 May, to assist the Financial Services Regulator in its investigation, Mr Lauri McDonnell, former Comptroller and Auditor General, was appointed to assure the integrity and independence of the investigation. Deloitte & Touche LLP was appointed as independent investigating accountants on all Section 149 notification issues and it reported to the Financial Services Regulator and AIB.

Also, when the issues in relation to Section 149 charges emerged, an investigation into unregulated charges (i.e. non-Section 149 charges) in AIB was also instigated. This led to the identification of instances of customers being charged in excess of the contracted amount (See Appendix 1).

Interim Progress Report and Findings

The Financial Services Regulator published a progress report on 23 July 2004. The priority at that time was to identify the amounts involved, the number of customers affected and an appropriate method for repaying those customers.

The main findings of the progress report were:

1. AIB provided an incorrect notification of charges to the Regulator, both in relation to FX and non-FX notifications, contrary to what was required under Section 149 of the Consumer Credit Act, 1995.
2. The total amount involved in relation to foreign exchange charges over the notified amount was confirmed at €25.6 million.
3. The total number of foreign exchange transactions affected was estimated at three million.
4. The charges AIB levied in relation to FX were in excess of the notified charges, but appear to have been in line with those charged by its competitors.
5. Section 149 notification breaches identified during the investigation, other than those relating to foreign exchange, amounted to €0.5 million, affecting about 14,500 transactions.

² 'Regulator' refers to the relevant regulator at the time – Office of the Director of Consumer Affairs from 14 May 1996 to 30 April 2003 and the Irish Financial Services Regulatory Authority since 1 May 2003. (See Appendix 2).

6. AIB agreed to repay the above amounts, even though there was no legal obligation on them to do so either in contract law or in the legislation then in place.
7. Following a full investigation into unregulated (non-Section 149) charges, instances of charging over the amount agreed with the customer were found. These totalled €8.1m including interest, and involved 24 categories of charges. AIB has a legal obligation to refund in this case and has committed to refunding this amount to the customers involved.

The most significant facts identified in the progress report of 23 July 2004 were that the total amount of excess charges identified came to €34.2 million and that AIB failed to comply with Section 149 of the Consumer Credit Act, 1995 and failed to bring these breaches to the attention of the Regulator.

Subsequent Findings

Since the publication of the progress report, the Financial Services Regulator has continued its investigations, which focused on when the discrepancies came to light, how they were handled within AIB, how they persisted over an extended period of time and why the Regulator was not informed. The following are the findings of this final phase of the investigation:

1. From 1996 onwards, when Section 149 operated, certain staff and management within certain areas of AIB appear to have been aware of the fact that AIB were charging over the amount notified to the Regulator.

2. There was inadequate documentary evidence of decisions made in relation to changes in charges, including the original notification. There was also inadequate record keeping within AIB around the issue of Section 149 charges and other charges.
3. At least seven opportunities arose for certain staff and management within certain areas of AIB to identify and/or disclose the discrepancies to the relevant Regulators. These opportunities arose in March 1998, September 2002, December 2002, February 2003, May 2003, August 2003 and November 2003. These ranged from requests from the Regulators to confirm that notified charges were correctly applied, to a situation where a particular internal memorandum in 2002, analysed the issue and drew attention to the need to inform the Regulator. This was not done.
4. During the period from January to April 2004, a number of deliberate measures were taken which resulted in the relevant charge being reduced in April 2004 to the level notified to the Regulator in 1996. The Regulator was not informed. These measures are open to the interpretation that it was intended to subsequently notify the Regulator of a proposed increase without ever drawing attention to the previous breach.
5. The procedures for reporting up the line within AIB proved inadequate and resulted in the matter not being resolved.

6. Controls within AIB were weak in relation to monitoring customer charges. In this regard, the Compliance Function in AIB was insufficiently resourced to effectively monitor the application of charges.

Repayments to Customers

The repayment process is now underway. The Financial Services Regulator will ensure that AIB continues to employ all reasonable and necessary resources and that stringent efforts are applied to ensure that as many customers as possible can be identified and that the repayments are speedily made.

Section 149 FX refunds

- About €3.5 million, or 52%, of the estimated €5.6 million has been repaid to customers to date in relation to FX transactions. These repayments have been made into almost 180,000 accounts comprising in excess of 1.1 million transactions, some in very small amounts. The majority of these repayments represent the outcome of an automated refund process.
- For the remainder of the payments, AIB is now endeavouring to match transactions manually to individual customers and has established a Matching Centre to carry out this process. As part of this process, AIB placed public notices in the national press in the weeks beginning 9 October, 16 October, 7 November and 14 November encouraging affected customers to come forward.

- AIB had originally estimated that 10% of customers (by value) would be difficult to identify. However the manual matching process is proving difficult and, despite the efforts of AIB, combined with a relatively limited response to the advertising campaign, it is likely that significantly more than the originally estimated 10% of transactions may not be matched to individual customers.

Other refunds

- While AIB had indicated to the Financial Services Regulator that its records would permit identification of all customers affected by the non-FX cases, a number of difficulties also have emerged in relation to these cases. The total repayments involved in non-FX cases amounts to €8.6 million. (€0.5m relates to the other Section 149 charges while €8.1m relates to the non-Section 149 charges) Of this, €2.2 million was repaid by 2 December. The delay in making some of these repayments is due to the complexity of the work involved. While all efforts are being made to identify affected customers, it may not be possible to match a number of transactions to individuals, due to a lack of records.

In the case of all of the above charges, the Financial Services Regulator encourages all customers of AIB to review their records and contact AIB in the event that they believe that they may be due a repayment.³ AIB has confirmed that all customers will indefinitely be able to receive repayments. In addition, AIB has agreed that the residual amount not repaid will be disbursed by AIB in a manner so that it would not

³ The AIB helpline number is 1800 211 418.

Part 2 – Deal Allocation and Associated Issues

Background

In late August 2003, the Managing Director of AIB Investment Managers (AIBIM), a subsidiary of AIB, was made aware of a former client relationship between AIBIM and a British Virgin Island investment company, Faldor Ltd ('Faldor'). This relationship was established in 1989 and ceased in 1996. The persons whose funds were managed through Faldor ('the beneficiaries') were then senior executives of AIB, and/or related parties. Because of concerns about the nature of the relationship, the Managing Director of AIBIM correctly alerted the senior management and Board of AIB. Initial inquiries into the origins and activities of Faldor had indicated possible taxation issues. AIB reported their initial findings to the Financial Services Regulator and to the Revenue Commissioners in September 2003. An investigation was carried out into the facts surrounding the relationship between AIBIM, Faldor, the former senior executives who were beneficiaries and any other possible beneficiaries. The investigation also involved an examination of all relevant internal control issues.

Following the conclusion of that phase of the investigation, the Financial Services Regulator sought additional information relating to the matters under investigation. Mr. Maurice O'Connell, former Governor of the Central Bank, was appointed to assure the integrity and independence of the investigation and maintained close contact with the Financial Services Regulator throughout this phase. Information relating to the investigative process was announced publicly on 27 May 2004.

Findings

The findings of the investigation are as follows:

1. Faldor, which was managed by Allied Irish Investment Managers Limited (now AIBIM), benefited from inappropriate favourable deal allocations, by way of artificial deals, amounting to approximately €48,000 out of AIBIM's own funds. The Financial Services Regulator has no evidence to indicate that the beneficiaries of Faldor influenced or were aware of these allocations. The allocations took place between 1989 and 1991.
2. AIBIM's own trading funds were used to boost, through the unacceptable practice of artificial deals, the performance of certain clients' portfolios, other than Faldor.
3. Further inappropriate deal allocation practices relating to eight transactions in the period 1991 to 1993 were identified which adversely affected the performance of two specialist unit trusts, amounting to a total of €174,000, to the advantage of other clients. These were unrelated to Faldor. AIB has made ex-gratia payments of €170,000⁴, to include an amount for the lapse of time involved, to the affected clients.

⁴ This differs from the amount stated in the AIB Press Release of 27 May because of an increase in the rate of interest used for the calculation

4. In 1991 the Internal Audit function in AIB did identify some inappropriate dealing practices. While the practices subsequently ceased in respect of certain categories of trades, a further internal audit in 1993 revealed that the practices had continued in other areas and that the practices had been more widespread than had been reported in 1991. There is no evidence that the Faldor account was identified in the 1991 or 1993 audits, nor was there evidence that it was brought to the attention of the Audit Committee in AIB.

5. No disciplinary action was taken against individuals involved in these practices at the time and compensation was not paid to the unit trusts affected. A disciplinary process is now underway and, as indicated at 3 above, compensation has been paid.

Overall, the conclusion of the Financial Services Regulator is that in certain parts of AIB, there were ineffective standards of governance and a culture that led to unacceptable behaviour and practices in the late 1980s and 1990s.

There has been a fundamental change in the way client relationships are managed by investment firms, such as AIBIM, following the enactment of the Investment Intermediaries Act, 1995. Since that time, Codes of Conduct and Client Money rules, which require deals to be allocated immediately to the specific client, have been issued and investment managers have been required to invest substantially in compliance functions. Breaches of these, should they occur today, could be subject to sanctions under recently introduced legislation.

The Financial Services Regulator acknowledges that AIB acted properly in fulfilling its reporting obligations when these matters came to light in 2003. This included bringing the matter to the attention of the Financial Services Regulator and the Revenue Commissioners at the time and contacting and extensively questioning all available parties who may have had knowledge of the events that occurred in the period. The Board of AIB also conducted an analysis of the current control systems operating in AIBIM and has provided assurance in this regard to the Financial Services Regulator that those systems operate, and will operate, to prevent these kinds of practices being repeated.

IB

Power, Jennie

From: Ferguson, John
Sent: 19 April 2006 14:32
To: Power, Jennie
Subject: FW: STRESS TEST

Jennie,
I promised to send this to you.
John
John Ferguson
General Manager - Finance
Permanent tsb
Tel. - 6695391
Fax - 6628007

-----Original Message-----

From: Ferguson, John
Sent: 07 April 2006 10:02
To: 'allan.kearns@centralbank.ie'
Subject: STRESS TEST

Allan,
As agreed I am sending you the results of the stress test exercise that you requested the bank undertake. The hard copy response has been sent to the D. G's office this morning.
I have had a number of problems in getting this mail to you, so to reassure me would you confirm receipt pls.
John



Draft 1
Response.doc



Stress Test
emplate 2006 FINA.

John Ferguson
General Manager - Finance
Permanent tsb
Tel. - 6695391
Fax - 6628007

Mr William A Barron
 Director General
 Central Bank & Financial Services
 Authority of Ireland
 PO Box No 559
 Dame Street
 Dublin 2

6th April 2006

Dear Mr. Barron

RE: Sensitivity Analysis Assuming Hypothetical Scenarios

I refer to your letter of 28 February 2006.

On foot of your letter, senior executives in the Bank have undertaken an analysis of each business area likely to be impacted by the hypothetical scenarios set out therein.

The analysis, which we believe to be conservative, covered all of the Group's banking business in Ireland but did not extend to its Life Assurance business.

In relation to the key assumption on house price inflation we have assumed, as agreed with your Monetary Policy and Financial Stability Department, that the impact occurs evenly through 2006.

The impact of the various scenarios on profitability is set out in the table below:

Movement in Profit and Loss Account Under Different Scenarios

	Baseline			Shock 1			Shock 2		
	2006 €m	2007 €m	2008 €m	2006 €m	2007 €m	2008 €m	2006 €m	2007 €m	2008 €m
Bank's original projected profit before tax	176.9	232.2	293.0	176.9	232.2	293.0	176.9	232.2	293.0
Reduced Nil	0.0	-1.5	-7.0	-9.7	-41.6	-91.6	-9.7	-42.9	-94.9
Reduced Fees & Commissions	0.0	-0.0	-0.2	-0.3	-0.9	-1.2	-0.4	-0.9	-0.6
Movement in Operating Costs	-0.0	0.0	0.2	0.0	0.4	0.7	0.0	0.4	0.7
Increase in Specific Bad Debts	0.0	0.0	0.5	-6.7	-19.2	-19.3	-7.3	-19.8	-18.6
Net Movement	0.0	-1.5	-6.5	-16.7	-61.4	-111.3	-17.3	-63.3	-113.4
Restated profit before tax	177.0	230.7	286.4	160.2	170.8	181.6	159.6	168.9	179.5

As you can see IFSRA's baseline scenario is only modestly more conservative than that adopted by the bank in the preparation of its own 3 year plan. Of the two scenarios tested, scenario 2 with its combination of increased unemployment, falling house prices and rising interest rates has the greatest impact on bank profitability.

The impact of each scenario is surprisingly similar, the principal reason for this is the common assumption of 50,000 new housing units while the impact of the 1.25% increase in interest rates in scenario 2 is modified by a slightly stronger economic performance than assumed in scenario 1.

The profit and loss line most severely impacted is NII, this is driven by the decline in new business volumes anticipated under both scenarios. Provisions in respect of loan impairments also rise in response to increased unemployment and the impact of falling house prices.

The following is a summary of the bank's conclusions having assessed the impact of the various scenarios on business volumes and credit:

1. Impact on business volumes

- IFSRA Baseline :
New business lending volumes are marginally lower versus bank's own 3 year plan and these have been factored into this scenario. Resource balances are unaffected.
- Shock scenario 1 :
The combination of falling house prices, an increasing unemployment rate and a reduction in economic activity impacts significantly on new business lending volumes. This is particularly noticeable in the residential mortgage market with new business levels for 2006, 2007 and 2008 at 70%, 54% and 47% respectively of the bank's projections for these years. Commercial mortgage new business volumes are similarly impacted. Smaller reductions have been factored into new business projections for the bank's other lending portfolios.

In relation to resources, we have assumed that current account balances are below present projections. This view is based on the premise that, in an environment where unemployment is rising, individuals use existing resources to fund loan repayments and day-to-day expenses. There is a counter argument that in times of reduced economic activity the savings ratio increases; however, as the purpose of the exercise is to stress test the bank's financial position we have taken the more conservative view that balances fall.

- Shock scenario 2 :
The significant reductions in house prices and rising interest rates have a significant impact on borrowing levels in the residential mortgage market, notwithstanding that the unemployment figures and economic activity are more favourable than shock 1. Residential mortgage new business volumes are 70%, 51% and 43% of the bank's projections for 2006, 2007 and 2008.

The impact on commercial mortgage loan activity is similar to residential mortgages. Term lending is moderately affected while overdraft and credit card portfolios are unlikely to be impacted to any great extent by interest rate increases of this magnitude.

We have taken the view that, with rising interest rates, deposit offerings such as term and notice accounts become attractive due to the higher return available and we have factored in some growth in this area.

2. Impact on credit

For the purposes of evaluating the impact of the different scenarios on bad debts, we analysed each of the bank's main portfolios as follows:

	Current balance (€m)
➤ Residential mortgages	17,352 (85%)
➤ Commercial mortgages	1,387 (7%)
➤ Term and other loans	1,632 (8%)

The residential mortgage portfolio includes residential investment loans (RIPs).

- IFSRA baseline:
There is no increase in bad debt experience under the baseline relative to the bank's original projections.
- Shock scenario 1 & 2 :
The bank's key credit risk models/parameters (PD, EAD and LGD) were used to assess the impact of the stress environment supplied by you.

Unsurprisingly, the unemployment and economic assumptions as reflected in negative house price movements were the major drivers in a significant increase in non-performing loans. The impact of this taken together with the concentration of defaults in loans granted in more recent years results in a significant increase in EAD and consequently provisions.

There is no significant difference between the impact of Shock 1 and Shock 2.

3. Balance Sheet

The Bank's balance sheet remains robust through each shock scenario.

With regard to liquidity no undue strain is anticipated principally due to the fall off in new business volumes and the bank's existing committed credit facilities.

As a result of lower new business volumes risk weighted assets show very modest growth. Existing capital is adequate to support this growth and relative to baseline capital ratios strengthen through the shock scenarios.

In conclusion, the results of the scenario analysis indicate that Irish Life & Permanent's banking division would remain profitable throughout. As mentioned earlier we have erred on the conservative side in estimating business volumes in order to respect the stress objectives of the scenarios. In addition we have made no allowance for any actions we would take in respect of costs other than those directly related to business acquisition. The projected balance sheet for each scenario shows that the bank's capital and liquidity ratios would remain strong. Accordingly, I believe that the analysis highlights the strong financial fundamentals in place within the Group's banking division.

A lot of detailed work underpins the projected impact of the modelled scenarios. The bank's management will be happy to meet with your colleagues if they wish to obtain a more detailed understanding of the methodology applied. In any event should you require anything further please do not hesitate to contact me.

Yours sincerely

David Went
Group Chief Executive

Please outline the systems and methodologies used in the following analysis

Year ending	2006				2007				2008			
	Original	Baseline	Shock 1	Shock 2	Original	Baseline	Shock 1	Shock 2	Original	Baseline	Shock 1	Shock 2
	Euro m											
Income Statement												
Interest Income	1,431.6	1,431.8	1,398.1	1,398.0	1,603.8	1,598.6	1,459.2	1,454.7	1,819.4	1,795.0	1,501.3	1,489.6
Interest Expense	-1,019.5	-1,019.6	-995.6	-995.5	-1,142.0	-1,138.4	-1,039.1	-1,035.9	-1,295.6	-1,278.2	-1,069.1	-1,060.7
Net Interest Income	412.2	412.2	402.5	402.5	461.7	460.2	420.1	418.8	523.8	516.8	432.2	428.9
Non-Interest Income	46.3	46.3	46.0	45.9	53.4	53.4	52.5	52.5	60.1	59.9	58.9	59.5
Gross Income	458.4	458.5	448.5	448.4	515.1	513.6	472.6	471.3	583.9	576.7	491.1	488.3
Operating expenses	-267.0	-267.0	-267.0	-267.0	-267.6	-267.6	-267.2	-267.2	-274.7	-274.5	-274.0	-274.1
Net Income	191.4	191.4	181.5	181.4	247.5	246.0	205.3	204.0	309.1	302.2	217.1	214.3
Provisions												
(a) Loans												
<i>specific</i>	-8.2	-8.2	-13.5	-14.0	-8.8	-8.8	-23.8	-24.7	-9.4	-9.4	-23.8	-23.6
<i>general</i>	-6.3	-6.3	-7.8	-7.8	-6.5	-6.5	-10.7	-10.5	-6.8	-6.3	-11.7	-11.1
(b) Other												
Profit before tax	176.9	177.0	160.2	159.6	232.2	230.7	170.8	168.9	293.0	286.4	181.6	179.5
Profit after tax	148.5	148.6	133.9	133.4	196.4	195.1	142.6	141.0	248.9	243.2	151.5	149.6
Earnings per share (if applicable)												

Please outline the systems and methodologies used in the following analysis

TABLE 2												
Year ended	2006				2007				2008			
Balance Sheet	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m
Assets												
Loans and advances to customers:												
(a) commercial loans (secured)	1,718	1,718	1,552	1,552	2,185	2,185	1,532	1,510	2,761	2,761	1,559	1,516
(b) residential mortgages	24,487	24,487	22,308	22,308	28,972	28,544	23,059	22,779	34,437	33,071	23,990	23,405
(c) unsecured loans:												
personal	509	509	503	503	554	554	536	508	602	602	557	511
commercial	35	35	35	35	38	38	37	35	42	42	39	36
(d) other	1,242	1,242	1,203	1,203	1,312	1,313	1,163	1,161	1,384	1,351	1,086	1,089
Loans and advances to banks	5,297	5,297	4,498	4,498	6,619	6,476	4,581	4,469	8,280	7,814	4,675	4,449
Other Assets	7,174	7,174	7,174	7,174	7,541	7,541	7,325	7,325	7,933	7,933	7,524	7,524
Total Assets	40,463	40,463	37,274	37,274	47,221	46,650	38,234	37,788	55,439	53,575	39,430	38,530
Liabilities												
Shareholders Funds	3,593	3,593	3,578	3,577	3,660	3,659	3,592	3,590	3,773	3,766	3,607	3,603
Interbank deposits	3,501	3,501	3,183	3,183	4,170	4,113	3,275	3,231	4,980	4,794	3,391	3,301
Non-bank deposits												
(a) retail	6,897	6,897	6,897	6,897	6,995	6,995	6,734	6,849	7,356	7,356	6,855	7,096
(b) wholesale	24,611	24,611	21,748	21,748	30,531	30,018	22,742	22,226	37,460	35,789	23,662	22,614
Provisions for liabilities and charges:												
(a) provisions for bad and doubtful debts:												
specific	34	34	40	40	37	37	57	59	40	40	74	76
general	21	21	22	22	22	22	28	28	24	23	35	35
(b) other												
Other Liabilities	1,806	1,806	1,806	1,806	1,806	1,806	1,806	1,806	1,806	1,806	1,806	1,806
Total Liabilities	40,463	40,463	37,274	37,274	47,221	46,650	38,234	37,788	55,439	53,575	39,430	38,530

Please outline the systems and methodologies used in the following analysis

TABLE 3

Year ended	2006				2007				2008			
	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m	Original Euro m	Baseline Euro m	Shock 1 Euro m	Shock 2 Euro m
Capital Adequacy												
Tier 1 Capital (net of deductions)	2,830.9	2,830.9	2,816.3	2,815.7	3,133.5	3,132.2	3,065.1	3,062.9	3,499.1	3,492.2	3,333.4	3,329.3
Tier 2 Capital	1,454.7	1,454.7	1,456.2	1,456.2	1,456.2	1,456.2	1,462.3	1,462.1	1,457.7	1,457.2	1,469.4	1,468.8
Total Own Funds (net of deductions)	2,245.1	2,245.1	2,232.0	2,231.5	2,337.7	2,336.4	2,275.4	2,273.0	2,477.2	2,469.7	2,323.1	2,318.4
Total Risk weighted assets	18,586.3	18,586.3	17,126.0	17,125.9	21,678.1	21,435.5	17,493.0	17,276.7	25,442.0	24,633.4	17,949.2	17,521.7
Solvency Ratio (%)	12.08%	12.08%	13.03%	13.03%	10.78%	10.90%	13.01%	13.16%	9.74%	10.03%	12.94%	13.23%
Asset Quality												
Non-performing loans: (defn. as per prudential return)												
(a) commercial loans (secured)	39.1	39.1	61.7	64.0	37.5	37.5	95.5	102.5	35.2	35.2	118.1	125.3
(b) residential mortgages	247.1	247.1	431.0	450.5	257.0	257.0	731.6	791.9	275.4	275.4	955.2	1,018.6
(c) unsecured loans:												
personal	30.7	30.7	30.5	30.5	33.7	33.7	34.7	33.4	37.0	37.0	41.3	38.9
commercial	6.7	6.7	6.7	6.7	7.4	7.4	7.6	7.3	8.1	8.1	9.1	8.5
(d) other	8.3	8.3	8.1	8.1	8.8	8.8	7.8	7.8	9.3	9.1	7.3	7.3
Total	332.0	332.0	538.0	559.8	344.5	344.5	877.2	942.9	365.0	364.8	1,130.9	1,198.6
Provisions for Bad and Doubtful Debts: (defn. as per prudential return)												
(a) commercial loans (secured)	5.2	5.2	6.0	6.0	5.7	5.7	9.2	9.4	6.2	6.2	12.5	12.7
(b) residential mortgages	5.7	5.7	11.8	12.3	6.2	6.2	29.3	31.3	6.7	6.7	45.7	48.0
(c) unsecured loans:												
personal	21.5	21.5	21.4	21.4	23.4	23.4	24.2	23.5	25.5	25.5	28.7	27.4
commercial	4.7	4.7	4.7	4.7	5.1	5.1	5.3	5.2	5.6	5.6	6.3	6.0
(d) other	18.2	18.2	17.8	17.8	19.1	19.1	17.5	17.4	20.0	19.6	16.5	16.4
Total	55.2	55.2	61.8	62.3	59.5	59.5	85.5	86.8	64.0	63.6	109.6	110.4
Sectoral Analysis of Non-Government Credit												
(definition as per Sectoral Return)												
Construction	48.6	48.6	44.4	44.4	57.4	56.6	45.7	45.1	68.1	65.6	47.2	46.1
Hotels and Restaurants	56.9	56.9	52.1	52.1	67.2	66.4	53.5	52.9	79.8	76.9	55.4	54.0
Wholesale/Retail Trade & Repairs	52.7	52.7	48.2	48.2	62.2	61.4	49.6	48.9	73.8	71.2	51.3	50.0
Real estate, Renting and Business	961.6	961.6	879.5	879.5	1,135.7	1,121.0	904.4	892.9	1,347.5	1,299.4	935.4	912.2
Personal (Private Households)	25,435.7	25,435.7	23,263.9	23,263.9	30,042.4	29,653.4	23,923.5	23,619.9	35,643.8	34,373.3	24,744.1	24,130.8
Equity Investments (quoted and unquoted)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	1,436.7	1,436.7	1,314.0	1,314.0	1,696.9	1,674.9	1,351.3	1,334.1	2,013.3	1,941.5	1,397.6	1,363.0
Total	27,992.1	27,992.1	25,602.0	25,602.0	33,061.9	32,633.7	26,327.9	25,993.8	39,226.2	37,828.0	27,231.1	26,556.0
Liquidity Ratio (liquid assets/total borrowings)	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%	25.2%

As part of the EU-IMF Financial Measures Programme, the PCAR and Prudential Liquidity Assessment Review (PLAR) stress tests were undertaken in early 2011 to assess the capital adequacy of the domestic banks and the need for restructuring. This exercise was conducted with the assistance of external advisors. Table 1 also sets out the additional capital requirements for the banks.

Work on these issues will continue into 2011 and is a key priority of our Regulatory Performance Plan. The Bank published its three year strategic plan in July 2010. The strategy in relation to regulation is based on the need to develop and implement a new model of regulation, an assertive risk-based approach, underpinned by a credible threat of enforcement. The objective is to be better at not only identifying risks but also in challenging firms on the risks they face and ensuring the risks are mitigated as far as possible. Increased staff resources have been deployed, up from 349 in 2009 to 507 in 2010. A further increase to 725 is planned for 2011. The Bank will continue to improve its risk based approach to supervision, by completing the development of a risk model (PRISM – Probability Risk and Impact System) which will help it determine the correct quantity and quality of resources required to supervise effectively.

The Bank has made substantial progress with improving the regulatory framework. In this regard, the Bank assisted the Department of Finance with the transposition of the two Directives (CRD II and CRD III) which have improved the regulatory framework for banks. Among the more significant amendments were the strengthening of capital requirements for the trading book and re-securitisations, and enhanced disclosure requirements. The Bank also introduced new corporate governance requirements for banks and insurers and rules on related party lending. Following from our themed inspection in 2010 and the implementation of the EU Capital Requirements Directive (CRD III), the Bank has issued requirements on how remuneration may be set in the financial services industry, that take effect from 2011. An enhanced fitness and probity regime will be implemented in 2011, based on the new powers given to us in the Central Bank Reform Act 2010 and the lessons learnt from the financial crisis.

The regulatory system has been reformed at EU level with the establishment of the European Systemic Risk Board (ESRB), and three European Supervisory Authorities (ESAs) – European Banking Authority (EBA), European Insurance and Occupational Pensions Authority (EIOPA) and European Securities and Markets Authority (ESMA). A dedicated Policy division was established in 2010 to monitor and influence the development of EU financial services policies, particularly prudential banking and insurance policy. It is also responsible for the development of the Bank prudential banking and insurance policies.

Progress has also been made in a number of other areas, including making preparations from the new EU Solvency II regime, unwinding the Prospectus and Market Abuse delegations with the Irish Stock Exchange, undertaking a strategic review of the credit union sector and setting a statutory minimum liquidity requirement for all credit unions.

The Governor (at the request of the Minister for Finance) submitted a report on the role of the Central Bank and Financial Regulator in the lead up to the banking crisis. His report “The Irish Banking Crisis – Regulatory and Financial Stability Policy 2003-2008” was published in May 2010. The Bank’s response to the issues raised in the Governor’s report were included in its strategy for the banking sector: “Banking Supervision: Our New Approach”, along with a range of initiatives to be taken. Appendix 2 includes a progress report on the actions being taken to address the issues raised by the Governor.

On the Consumer Protection front, the Code of Conduct on Mortgage Arrears was amended on two occasions during 2010. In February 2010, the Bank required that a regulated firm must wait at least twelve months from the time arrears first arise before applying to the courts to commence enforcement of any legal action on repossession of a borrower’s primary residence. In December 2010, the Bank revised the code in light of the recommendations of the Government’s Expert Group on Mortgage Arrears and Personal Debt. In particular, lenders have been directed not to impose arrears charges or surcharge interest on borrowers who are in arrears and who are co-operating with the new Mortgage Arrears Resolution Process with effect from January 2011. The Bank has also initiated public consultations with a view to strengthening the Consumer Protection Code and Minimum Competency Requirements. New codes will be issued during 2011.

Table 16 – Changes in Regulatory Staffing since 2009²¹

Division (end year figure)	2009 Actual	2010 Actual	2011 Planned
Banking	78	114	140
Insurance	42	77	113
Credit Unions	20	34	42
Funds	63	60	67
Investment Services Providers	47	60	61
Markets and Corporate Finance	26	35	87
Consumer Protection	55	56	80
Policy	4	25	55
Enforcement	12	38	73
Management	2	8	7
Total	349	507	725

Table 17 – Income and Expenses since 2009

	Outturn 2009 €'m	Outturn 2010 €'m	Budget 2011 €'m
Income ²²	62.063	73.805	131.966
Expenses ²³	60.251	71.72	131.966

Enforcement

The Enforcement Directorate was established in June 2010 to address a major gap in our regulatory regime, namely, the ability to take action against financial institutions which fail to manage their risks adequately. The Directorate was established in June 2010 and is organised into two divisions. The Enforcement I Division deals with enforcement actions under the administrative sanctions and market abuse regimes, special investigations and fitness and probity cases. The Enforcement II Division was established to monitor, inspect, report and enforce Anti-Money Laundering (AML) and Counter Terrorism Financing (CTF) requirements and EU Financial Sanctions. It is also responsible for investigation of unauthorised business activity.

Policy and Risk

Prudential Policy

The establishment, in June 2010, of a dedicated Prudential Policy Division within our Policy and Risk Directorate recognised the scale of the challenge of participating in, monitoring and influencing EU and international policy proposals and implementing EU legislative changes into our system of supervision. Our Prudential Policy Division focuses on both banking and insurance policy with a broader remit to monitor and co-ordinate input into wider EU and international policy areas. Our policy teams work in co-operation with frontline banking and insurance supervision divisions. However, the establishment of a dedicated Policy Division recognises and reduces the impact on frontline supervision when resources are diverted to policy and other support functions.

²¹ Figures have been rounded.

²² Includes subvention from the Bank but excludes prospectus fees payable to the Bank but which were retained by the Irish Stock Exchange (ISE) to put towards the costs that it had incurred in undertaking the delegated functions under the delegation agreements.

²³ Excludes contribution towards costs incurred by the ISE in the form of fees retained by the ISE for undertaking the delegation functions in the form of prospectus fees (as outlined in the footnote above).

Appendix 2

The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008 (Honohan Report) – A Report to the Minister for Finance by the Governor of the Central Bank 31 May 2010

When the Bank published *Banking Supervision: our new approach* in June 2010, it set out our response to the conclusions of the Honohan Report in relation to micro prudential policy. This section outlines the progress made during 2010.

Summary of micro prudential policy related issues raised	Response planned as set out in 'Banking Supervision: our New Approach' June 2010	Action taken
<p>1.9 – By relying excessively on a regulatory philosophy emphasising process over outcomes, supervisory practice focused on verifying governance and risk management models rather than attempting an independent assessment of risk, whether on a line-by-line or whole-of-institution basis.</p>	<ul style="list-style-type: none"> » Risk based more asserting and challenging approach to supervision. » Introduction of a Risk Model. » Enhanced Supervisory Review and Evaluation Process incorporating quantitative and qualitative analysis, rigorous stress testing and increased focus on business models/ strategies. » Establishment of a Prudential Analytics Unit to support supervisors. » Establishment of a Regulatory Transactions Division where all processing of regulatory returns and routine regulatory transactions will be centralised with common risk-based processes. 	<ul style="list-style-type: none"> » Developing a New Regulatory Model is a key objective of the <i>Strategic Plan 2010-2012</i>. The Plan states 'No regulatory system can guarantee a 'zero failure' outcome. However, a system based on concentrating efforts and resources where the greatest risks lie, minimises the risk of failure. It is our intention to implement a framework of assertive risk-based regulation underpinned by the credible threat of enforcement. Our emphasis will be on: <ul style="list-style-type: none"> – Risk mitigation and challenge. – Assessment of business risk, not just controls and rules . – Using the risk model to systematically assess firms and set the supervisory agenda'. » <i>Banking supervision: our new approach</i> published on 21 June 2010. It identified four main ways in which supervision is to change: <ul style="list-style-type: none"> – Supervisory structures – resources, risk advisors, internal decision making structures. – Supervisory culture and approach – supervisory themes, culture, risk model, supervisory review and evaluation process, supervisory colleges, not a 'one size fits all' approach, financial stability assessment. – Supervisory regime – governance, remuneration, capital, credit, liquidity, conduct of business, structural issues, special resolution scheme, and sectoral concentration limits. – International supervisory co-operation – Too big to fail, EU regulatory architecture. » A Prudential Analytics Unit to support supervisors was established in May 2010. The purpose of the Prudential Analytics Team is to bring greater focus to the scrutiny of banks' risk management arrangements and to enhance our own understanding of bank business models and commercial operations. » Introduction of the <i>Prudential Capital Assessment Review</i> (PCAR) (Bank of Ireland, Allied Irish Bank and EBS completed by Mar 2010, Irish Life and Permanent – September 2010). » New rules on large exposures implemented – Awaiting specific rules at European level before progressing further. » Regulatory Transactions Division to process regulatory returns and routine regulatory transactions to be established – July 2011.

Executive Summary - Main Issues Addressed in 2011 and Plans for 2012

During 2011, the Bank carried out a challenging programme of work that marked further progress in meeting the targets for the stabilisation and restructuring of the banking sector under the EU – IMF Financial Assistance Programme. In March 2011, the Bank published its Financial Measures Programme (FMP) which provided a comprehensive and thorough assessment of the capital and liquidity conditions and needs of domestic banks. The Bank's methodologies and calculations were subject to extensive external validation. As a result, the total capital requirements of AIB, Bank of Ireland, EBS and Irish Life & Permanent were revised upwards by €24bn as set out in Table 1 below.

Table 1 – Prudential Capital Requirements Imposed in 2010 and 2011

Bank	2010 PCAR	NAMA Uplift	Total for 2010	March 2011	Total 2010 and 2011
AIB	€7.40bn	€3.00bn	€10.4bn	€13.3bn	€23.7bn
Bank of Ireland	€2.66bn		€2.66bn	€5.2bn	€7.86bn
Irish Life & Permanent	€145m		€145m	€4.0bn	€4.145bn
EBS	€875m		€875m	€1.5bn	€2.375bn
Irish Nationwide	€2.60bn		€2.60bn	-	€2.60bn
Anglo Irish Bank	€8.30bn		€8.30bn	-	€8.30bn
Total	€21.980bn	€3.00bn	€24.98bn	€24.00bn	€48.98bn

Restructuring of the banking sector included the merging of AIB and EBS to create one of two Pillar banks – the other being Bank of Ireland. Deposits and matching assets were transferred from Anglo Irish Bank to AIB and from Irish Nationwide Building Society to Irish Life & Permanent. During 2011, the Pillar Banks and Irish Life & Permanent began the process of reducing their balance sheets through both asset disposal and sale of non-core assets. The Financial Measures Programme 2012 will comprise a further comprehensive analysis of the Irish banks' assets and liabilities supported by an extensive data collection process. The development of the Bank's data analysis capability for transaction level data and the development of loan loss forecasting models is planned.

The roll-out of the PRISM (Probability Risk and Impact System) supervisory framework substantially enhances the Bank's supervisory approach with a system that is unified and a more systematic risk-based framework – making it easier for banking and insurance supervisors to challenge the financial firms they regulate, judge risks and take early action to mitigate those risks. The system is calibrated to allocate and focus resources on areas of greatest risk and will be subject to continual review and refinement to maintain supervisory sharpness. PRISM will be fully rolled out for all financial institutions in 2012.

At EU level, the Bank is a member of each of the European Supervisory Authorities which cover banking, insurance/occupational pensions and securities/markets - the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities & Markets Authority (ESMA). During 2011, the Bank increased and deepened its participation in key committees and working groups and the Deputy Governor (Financial Regulation) was elected to the Management Board of EIOPA and has also been appointed as Alternate Chair of the EBA.

Policy and Risk

Delivering Risk Based Supervision through PRISM

PRISM

In November 2011, the Bank launched PRISM (Probability Risk and Impact System) to enhance the Bank's ability to deliver judgement-based, outcome-focused regulation. PRISM gives the Bank a unified and much more systematic risk-based framework – making it easier for banking and insurance supervisors to challenge the financial firms they regulate, judge risks and take action to mitigate those risks – securing meaningful change on behalf of consumers, citizens and the State.

Box 7 – What is Risk-Based Supervision?

Risk-based supervision starts with the premise that not all firms are equally important to the economy and that a regulator can deliver most value through focusing its energies on the firms which are most significant and on the risks that pose the greatest threat to financial stability and consumers. A risk-based system will also provide a systematic and structured means of assessing different types of risk, ensuring that idiosyncratic approaches to firm supervision are avoided and that potential risks are analysed for the higher impact firms using a common framework. This will allow judgements about potential risk in different firms to be made using a common risk typology on a common scale.

PRISM is the vehicle that the Bank has developed to put the theory of risk-based supervision into practice. It is designed to be implemented by a few hundred supervisors on several thousand regulated firms. PRISM is both a supervisory tool and a software application.

PRISM is designed to allow the Bank to:-

- Adopt a consistent way of thinking about risk across all supervised firms;
- Allocate resources based on impact and probability;
- Undertake a sufficient level of engagement with all higher impact firms;
- Assess firm risks in a systematic and structured fashion;
- Ensure that action is taken to mitigate unacceptable risks in firms;
- Provide firms with clarity around the Bank's view of the risks they pose;
- Operate a risk-based supervisory framework similar to that operated by significant financial regulators such as the Office of the Superintendent of Financial Institutions in Canada, the Australian Prudential Regulation Authority in Australia, the US Federal Reserve, De Nederlandsche Bank in The Netherlands, and the new Prudential Regulation Authority in the UK;
- Use quality control mechanisms to encourage challenge and sharpen the Bank's supervisory approach; and
- Analyse better management information about the risk profiles of the firms and sectors the Bank supervises.

Under PRISM, the most significant firms - those with the ability to have the greatest impact on financial stability and the consumer - will receive a high level of supervision under structured engagement plans, leading to early interventions to mitigate potential risks. Those firms which have the lowest potential adverse impact will be supervised reactively or through thematic assessments, with the Bank taking targeted enforcement action against firms across all impact categories whose poor behaviour risks jeopardising the Bank's statutory objectives including financial stability and consumer protection.

High Level Goal 4 – Ensure that the best interests of consumers of financial services are protected

Consumer Protection

At end 2011, the Consumer Protection Directorate developed its strategy in the context of its mission of 'Getting It Right for Consumers'. The strategy's priorities are captured in the framework below and referred to as the 5 Cs:



Confidence: Informing consumers, consumer bodies and other key stakeholders of the Consumer Protection Directorate's role and remit; taking action to deal with risks and existing potential consumer detriment.

Culture: Changing culture in the financial services industry; building and understanding of consumer protection at home and abroad.

Compliance: Coherent consumer protection framework; financial sector compliance support; monitoring and enforcing compliance and inspections.

Challenge: Develop internal challenge processes; challenging firms in how they deal with consumers.

Consumer: Identifying and understanding consumer risk; representing the consumer interest.

As part of the Bank's strategy development, there was engagement with a number of key stakeholders including those who also share and contribute to the key objective of protecting consumers. This comprehensive engagement process proved very beneficial and has resulted in the development of an ambitious, consumer-focused strategy that strives to build on and enhance sustainable consumer protection, now and in the future. This new strategy will be rolled out over the next three years. Some of the key messages and priorities coming forward from those discussions for consideration in the development of the Bank's new consumer strategy included mortgage arrears, over-indebtedness of consumers, the complexity of financial products, low levels of awareness among consumers of protections available, a need for more targeted consumer information, issues relating to overcharging and mis-selling of financial products, incentives for selling financial products and the potential impact of developments in mobile technology for consumers of financial services.

In meeting the Bank's consumer strategy during 2012, its key priorities and focus will be on the following:

- i) **Mortgage arrears:** continuing the Bank's work on Mortgage Arrears Resolution Strategies (MARS) for each of the lenders in order to ensure that lenders are delivering appropriate solutions to consumers in mortgage arrears.
- ii) **Policy agenda:** to undertake reviews of the statutory Switching Code, the Code of Conduct on Mortgage Arrears (CCMA), the Code of Conduct for Business Lending to Small & Medium Sized Enterprises (SME Code) and to continue to contribute to the domestic and EU regulatory agenda in relation to consumer issues.

- iii) **Themed inspections:** continue to use the themed inspection model as a tool to test compliance of regulated firms with the Bank's suite of consumer protection rules. During 2012, these themed inspections will include regulated firms' readiness for the implementation of the revised Consumer Protection Code, mortgage arrears, payment protection insurance and the best execution of investment transactions to ensure investment firms are meeting the minimum standards; and, themed inspections in the retail intermediaries sector to assess compliance with consumer and prudential requirements.
- iv) **Retail Intermediaries:** strengthen the Bank's supervisory approach to the retail intermediary sector in order to identify and understand the specific risks that the retail intermediary sector poses for consumers including the introduction of an on-line reporting mechanism for this sector.
- v) **Advocacy:** continue to advocate for and represent the consumer interest through ongoing engagement with the Bank's many stakeholders and continued input and involvement on many initiatives including the development of a regulatory regime for debt management companies and the roll-out of a basic payment account. In addition, the Bank will develop how it can provide information directly to consumers, highlighting the protections available to them under the Bank's consumer protection role.



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29 March 2007



Review of Sectoral Concentration Framework

Dear Ms. Burke

Your letter dated 23 February 2007 to John Murphy, Group Regulatory Risk & Compliance refers.

The attached appendix sets out Bank of Ireland's approach to the management of concentration risk and includes, as requested, details of diversification strategies, policies, procedures and limits used to monitor and manage those concentrations.

In relation to the Sectoral Concentration Framework, Bank of Ireland has no issues concerning single name concentrations. Bank of Ireland approaches policy limits on a conservative basis relative to the regulatory maxima, setting limits by reference to Tier One Capital rather than Total Own Funds. Bank of Ireland's calculation of total exposure also includes settlement and other risk limits for non-Bank counter parties.

Bank of Ireland would, however, highlight that the regulatory limits and the reporting of the single name concentrations do not take into account the risk profile of the actual loans (with the exception of an allowance for netting of certain collateral).

The regulations impose an additional concentration limit that a credit institution "shall not have risk assets amounting to more than 200% of own funds concentrated in any one sector or business or economic activity which is subject to a predominant risk factor; where a common risk could be considered to apply to two or more separate sectors ... not more than 250% of own funds shall be employed with such sectors in aggregate." (*"Licensing and Supervision Requirements and Standards for Credit Institutions" (1995)*).

As your letter notes, Bank of Ireland exceeds the 200% limit in Real Estate, Renting and Business category. Bank of Ireland remains comfortable with the exposure in this category because of the diversification of the loan book, in terms of both lending type and geographical spread, and the underlying quality of the individual transactions. Bank of Ireland undertakes an annual review of the commercial real estate portfolio and, where appropriate, sets limits or caps on individual sub-sectors. In the past twelve months,

Legal information

Bank of Ireland - incorporated in Ireland with limited liability
Bank of Ireland is regulated by the Financial Regulator

Registered information

Registered No. C-1

MS
21/4/07
22/4/07
23/4/07

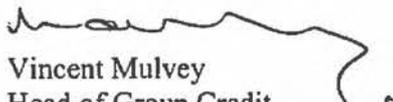
Bank of Ireland has imposed a cap on exposure to landbank transactions, and monitors and reviews the loan book and market developments in this area closely.

Bank of Ireland would highlight that, from a practical perspective, sector, business or economic activity limits can prove more difficult, given the subjective approach required to determine which sectors are subject to a predominant risk factor. The requirement also does not reflect the relative risk profiles of the individual sectors and applies a single limit regardless of those individual sector risk factors.

Bank of Ireland's belief is that internal bank risk management techniques are better placed to determine the appropriate sectoral risk profile of a loan book. Bank of Ireland would suggest that, while reporting of sectoral exposures could continue for information purposes, the imposition of hard limits is inappropriate and should be reconsidered.

Should you have any queries on our response, please do not hesitate to contact the undersigned.

Yours sincerely.



Vincent Mulvey
Head of Group Credit
Bank of Ireland

APPENDIX

Bank of Ireland - Approach to Concentration Risk

1. General

A concentration of credit risk is an exposure to a single entity, or group of entities engaged in similar activities, and having similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

For internal purposes, Bank of Ireland adopts an approach to concentration that is closely aligned to the regulatory framework, i.e. both single name and sectoral concentrations. The approach is to adopt a conservative calculation of Total Exposures (such as the inclusion of non-bank counterparty settlement risk in gross exposure calculations). These concentrations (by sector and by name) are measured against the required regulatory maximum limits.

Country risk concentration limits are operated for some countries. Other concentration limits may be applied for individual types of exposure (such as Collateral Debt Obligations (CDOs), investment trusts, Leverage Finance, Project Finance). Single name concentration (bitesize) limits exist in a number of specific policies (such as Leverage Finance, Asset Finance).

In setting concentration limits, Bank of Ireland seeks to avoid large unexpected credit losses, which may or may not pose a threat to compliance with regulatory capital ratios or solvency, but which would be beyond the point at which external perceptions of risk management competencies could lead to unacceptable impacts on funding, capital-raising ability and share price.

When dealing with single name concentrations, Bank of Ireland manages the risk of credit events leading to default that would leave a counterparty unable to meet its obligations. In managing this risk, the probability of default of the counterparty, as measured by reference to statistically based models that consider financial, business and economic factors, is considered.

With regard to country risk, Bank of Ireland seeks to manage large concentrations of exposures to countries where the political or economic risks are significantly higher than in our core markets (Western Europe, specifically Ireland and the UK, and US). This risk is managed by reference to external ratings and internal assessment of default probability.

In setting sectoral limits, Bank of Ireland seeks to manage the risk of industry wide credit events giving rise to simultaneous difficulties across a range of counterparties, e.g. a sectoral limit may be applied to an industry that carries significant regulatory risk or market demand risk.

Regular calculation of Economic Capital (Ecap) for the entire loan book takes into account single name and country risk concentrations and associated correlations.

2. Counterparties and relationships between counterparties for single-name concentration risk

Bank of Ireland Group Credit Policy defines a Connected Risk Group (CRG) as two or more natural or legal persons, who unless it is shown otherwise, constitute a single risk because one of them, directly or indirectly has *control* over the others or they are so *interconnected* that if one of them were to experience financial problems, the other or all of the others would be likely to encounter repayment difficulties.

In this context 'control' includes a Parent, Subsidiary or Associated company relationship. The definition/meaning of 'interconnected' is more open to interpretation and requires lenders to apply internal subjective judgement based on available information.

A material inter-dependence exists if the default of one borrower would materially impact the on-going viability of the other borrowers. Material inter-dependence is assumed if any of the following apply:

- There are inter-company or inter-borrower (in the event that the borrowers are individuals rather than legal entities) loans or trading;
- The borrowers are members of a group of companies

In the case of invoice discounting products where there is exposure to entities by way of an assignment or charge on their debts, limits are established for the amount of exposure Bank of Ireland will take and these are aggregated with our direct exposures.

For transactions such as Real Estate Opportunity Funds (REOFs), when lending money to an investment fund secured by its uncalled capital commitments, exposures to investors across different obligors are aggregated. However, no aggregation of exposures to borrowers/entities where the exposure is by way of a participation in a Collateral Debt Obligations (CDO) or other entity that buys debt instruments is undertaken, but limits on aggregate exposures to CDOs/Investment trust etc. are set.

3. Measurement of exposures - Total Group Exposure (TGE) and Potential Future Exposure (PFE)

Bank of Ireland measures amounts at risk as TGE, which is in effect the aggregate of all approved (drawn and undrawn) facilities (committed or uncommitted). Guarantees are typically included under their nominal amounts but may be increased to cover the max amount that could be due under them (such as guarantees that can be called more than once e.g. Custom & Excise). Intra-day transactions are not typically included in TGE. Settlement exposure is typically included (except in interbank exposures).

Derivative exposures with future volatility such as interest rate or currency swaps are added to TGE on a Risk Weighted Basis. The approach to measuring exposure under a derivative contract is to define it as the sum of the current market value of the contract (mark to market) plus an estimate of the Potential Future Exposure (PFE) that could arise over the remaining life. The PFE is estimated by looking at each specific type of derivative and defining a "worst case" outcome to 95% confidence level. Following industry benchmarking, 50% of the "worst case" weighting is used as a reasonable

estimate of the PFE on each deal to reflect portfolio considerations. The Group Market Risk team calculates the “worst case” weightings, using standard statistical techniques.

Single Name, Sectoral and Country concentrations are measured on a Group basis using the TGE method outlined above. The basis of this is a conservative one that applies limited deductions (through risk weightings) to nominal exposures in selective exposure types where loss on default is a function of rewriting risk.

TGE is integral to the decision-making process and forms the basis for determining the appropriate level for approval of lending decisions (along with Probability of Default (PD) / Loss Given Default (LGD)). Deliberate or approved breaches of internal sectoral limits are treated as policy exceptions.

In Securities Lending transactions, Bank of Ireland sets limits on both the direct exposure to Borrowers and to the collateral held. Borrower limits are risk weighted in a manner similar to the PFE method used for derivative exposures. Borrowers in Securities Lending transactions are typically large banking counterparties for whom Bank of Ireland has overall limits in place. The risk weighted lines for Securities Lending must be allocated from these Group Limits.

Collateral limits are in place to limit reliance on security from any one Borrower. These seek to limit exposures to single issuers of security and to single issues of securities (with the latter limit in place to address liquidity risk on a single issue – e.g. 5 year bond)

4. Monitoring and Managing Concentration Risk

Single name concentrations are monitored at Group Level. Country concentrations limits are set at Group level and monitored centrally. Regulatory imposed sector limits are also monitored at Group level. Compliance with product or sub sector policy limits is monitored at divisional level with deliberate or approved breaches of such limits treated as policy exceptions and reported to Group level.

4.1. Single Name Concentration Risk

Single name concentration risk is managed centrally, with all large exposures approved by Group Credit Committee.

Factors considered in determining the level of exposure taken on a counterparty include:

- The sector
- Geographical location (higher concentrations taken on counterparties in our core markets)
- Relationship – whether a corporate borrower has a relationship with the Bank or whether the provision of debt is merely as a participant in a syndicate.
- The role of Bank of Ireland in provision of debt – e.g. Lead Arranger and Underwriter vs syndicate participant
- The Risk profile (PD) of the borrower – Higher concentrations accepted in lower credit risk borrowers.

- The Security held – e.g. larger concentrations taken on debt secured by cash than debt secured by enterprise value.
- The size of the counterparty – e.g. Bank limits are set with reference to rating but also the size of the counterparty bank’s equity base.

Individual requests for large exposures are considered on a case-by-case basis by the appropriate sanctioning authority. Policy limits are in place limiting the single name concentration that can be approved by Group Credit Committee. This is expressed as a percentage of Tier One Capital. Requests for single name concentrations above this amount have to be sent to the Board for approval or ratification. This “internal limit” on the management’s ability to take single concentration risk is significantly lower than the limit imposed by the Financial Regulator.

Certain maximum counterparty exposure policy guidelines are set for sector or product. However these are typically quite low and even at maximum amounts, the single name concentrations would not approach the % of Tier One Capital internal limit or the Financial Regulator limit.

A RAROC analysis is adopted for all large exposures. The approach is relatively standard and uses a combination of PD, LGD and operational risk inputs to determine the capital usage of individual loans/connections.

4.2 Sectoral Concentration Risk

Decisions on whether to increase, reduce or maintain existing levels of exposure are based on sectoral concentration risk analysis. Where appropriate, recommendations in sectoral or product exposures include specific guidepoints on exposures. Factors that determine these guidepoints will include:

- Riskiness of the Sector - including PD, Expected Loss (EL), LGD and ECap.
- Expected loss and Structure of lending within the sector.
- Compatibility with Group risk appetite.
- Existing relationships.
- Risk-adjusted returns available on transactions/portfolio.
- Complexity of the sector (and/or the degree to which lending standards could be eroded by competitive pressures).
- Degree of correlation within sector/ within the rest of the loan book.
- % of Tier One Capital represented by the sector.

4.3. Country Concentration Risk

Bank of Ireland controls exposure to specific country risks in all countries outside the Eurozone, United States and other higher rated countries through a series of maximum maturities and maximum exposure limits (MEL’s) based on country sovereign ratings.

Appropriate MEL’s / maturity limits are approved annually by our senior risk committee, for lending in countries apart from Eurozone countries rated AA- or

above and in other countries rated AAA/AA+, on the recommendation of Global Markets division through the Group Credit Risk function.

Countries are risk-graded on the basis of an assessment of each country's economic, financial and political strength and stability using a risk scoring model and Moodys / Standard & Poors ratings. Maximum Exposure Limits (MEL's) and maximum maturity limits are set for each grade of country within the overall policy for country risk and individual specific country limits are set within our Global Markets division's discretion. Limit usage is reviewed annually by Global Markets and advised to the Group Credit Risk function.

Some regional limits are also set for particular regions where political instability may be more strongly correlated.

4.4. Bank Guarantee Risk (Collateral Risk)

Limits on Bank guarantee risk (collateral risk) are operated, with all bank guarantees taken as collateral allocated from overall Bank counterparty limits.

5. Stress Testing

Bank of Ireland takes account of concentration risk in its stress testing process. This process is part of the Internal Capital Adequacy Assessment Process (ICAAP). Concentration risk is stressed in the context of understanding the macro economic drivers that cause credit losses i.e. stress scenarios are designed that will stretch different segments of the book. Consideration is given to the impact on niche sectors within a suite of stressed scenarios. In addition, sector specific stresses are conducted covering areas such as property, maritime, project finance etc.

The stresses are based on a nested approach. On the top level, the macro economic impact is assessed. In addition, sensitivity analyses for specific sectors and risk profiles are conducted. The ICAAP stresses are conducted at least half yearly, and run more frequently as required. The process is designed to identify threats to capital adequacy and to structure action plans to mitigate these threats. Therefore if the process as a threat identifies an explicit concentration risk, a management response will be triggered. Tests on specific segments are run as needed, to facilitate business decision-making.

Concentration risk is actively measured in ECap quantification and will be evidenced by spikes in ECap usage. This is monitored quarterly. The ICAAP process facilitates a continued systematic focus on this area of concentration and includes formalised governance.

6. Intra-Group Exposures

Intra-group exposures are not treated as credit risk where companies are 100% subsidiaries of Bank of Ireland. Where lending is provided to less than 100% subsidiary companies, standard lending principles and any applicable limits apply on a strictly arm's length basis.

7. Credit Risk Mitigation Techniques and Concentration Risk

Credit Risk Mitigation techniques are predominantly based on the taking of security. Bank of Ireland Group Credit Policy states that repayment capacity is the primary criterion in credit assessment, but it is the norm that security will also be required. Where security is a material consideration, it is Group policy that Bank of Ireland ranks on at least an equal basis with other secured lenders providing similar facilities. The nature and level of security required depends upon the extent of the exposure, type of facility being provided, the term of the facility, the borrower's own cash input and the lender's evaluation of the level of risk involved in the proposal.

Bank of Ireland adopts an approach whereby single name concentrations can be mitigated by the adoption of a clean risk approach where both TGE and Clean Risk are quoted. Clean Risk is a netting approach that nets off the value of cash collateral or bank guarantees held. Netting is provided against bank guarantees to prevent double counting of exposures as bank guarantees are only accepted as collateral mitigation where there are lines in place for the issuing bank.

Where permitted, netting of certain collateral (called "exemptions") against gross commitments is adopted for the purposes of Single Name exposure reporting. Typically, these 'exemptions' would be in line with the netting applied internally to deliver clean risk. Where Bank of Ireland provides a defeased lease, exemption is claimed only where the cash taken in support of the defeased lease is retained in cash or invested in specified investments (typically zone A government securities).

Netting in derivative contracts is typically achieved through the usage of standard ISDA agreements that provide for legally enforceable netting.

Where there is extensive dealing with specific bank counterparties and there are single name concentration issues, it is policy to put in place a collateral agreement ('CSA'). A threshold amount is agreed with each counterparty, and if the net Mark To Market ('MTM') exceeds the threshold, collateral is exchanged

Exposure to a collateralised counterparty is defined as the sum of the net MTM position, plus a one month add-on set by the market risk unit. It is policy to net the collateral balances held or received against the Pre-settlement limit for the counterparty. This is because trades are netted which means line utilisation is lowered if the trades have a negative MTM. However, to the extent that a cash collateral payment is made to the counterparty, the line utilisation will reflect this.

Credit derivatives are primarily used on the credit trading desk for the purpose of taking proprietary risk rather than for mitigating credit risk on counterparties. Exposure to derivative counterparties are included in our inter bank lines.

8. Indirect Concentration Risk

Concentration issues to issuers of collateral and providers of unfunded credit protection can arise in respect of Bank counterparties. Such exposures are recorded under TGE and concentration risk is managed in the same way as direct risk. Where exposure arises as a

result of facilities being 'wrapped' by monoline insurers, the aggregate exposure to individual insurers is tracked and reported.

9. Governance and Reporting

Compliance with internal limits is monitored by Credit Departments with independent audit check by a Group Credit Audit function. Internal limits are soft, in that the appropriate credit authority may approve exceptions. Exceptions are reported centrally. Regulator limits are hard.

Single Name Concentrations are monitored and reviewed through the Group Large Exposures Listing, which is collated and reported to The Financial Regulator on a quarterly basis and includes:

- Top 50 exposures to clients and groups of connected clients (other than Credit Institutions and Specified Investment Institutions) by gross exposure (TGE), Net exposure (clean credit commitments) and as a % of total own funds (Tier 1 and Tier 2 capital).
- Top 20 exposures to Credit Institutions and Specified Investment Institutions by Gross exposure, Net weighted amount and as a % of total own funds.
- Certain exposures to Central Governments, Central Banks and European Communities.

A summarised version of this report including Tier One Capital analysis is sent to the senior Risk Policy Committee on a quarterly basis.

Compliance with regulator sector concentration limits is monitored through Regulator returns. Sectoral and product exposures and concentrations are monitored and analysed by Group Credit Risk and the senior Risk Policy Committee in the course of:

- Sectoral Policy Reviews
- Business Unit Credit Policy Reviews
- Product Policy Reviews
- Monitoring of Market Developments

Frequency of sectoral monitoring is a function of the following:

- The extent of previously identified concentrations
- The complexity of a sector
- The perceived risk factors of a sector
- The Bank's experience of the sector

Bank of Ireland has a Portfolio Review Group of Senior management tasked, inter alia, with the identification of emerging risk concentrations and unused risk appetite growth opportunities.

Senior Management is therefore provided with single name concentration information at least quarterly. Sectoral information is provided at different times but information about the main sectoral concentrations is provided at least annually.

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Narrative

The minutes of a meeting of the Financial Stability Committee shortly after the banking guarantee was issued record the Committee referring to a letter and note of Alan Gray on the exit strategy with regard to the government guarantee.

CENTRAL BANK OF IRELAND

ITEM 14

**THE CENTRAL BANK'S POLICY EFFORTS DURING THE PERIOD
2003 – 2010 TO REVISE THE GOVERNANCE ARCHITECTURE OF
BANKS AND BUILDING SOCIETIES TO MEET SPECIFIC
OBLIGATIONS REQUIRED OF THEM, INCLUDING BUT NOT
LIMITED TO, DIRECTORS COMPLIANCE STATEMENTS, FIT AND
PROPER REQUIREMENTS AND A CORPORATE GOVERNANCE
CODE FOR BANKS AND BUILDING SOCIETIES.**

THE CENTRAL BANK'S POLICY EFFORTS DURING THE PERIOD 2003 – 2010 TO REVISE THE GOVERNANCE ARCHITECTURE OF BANKS AND BUILDING SOCIETIES TO MEET SPECIFIC OBLIGATIONS REQUIRED OF THEM, INCLUDING BUT NOT LIMITED TO, DIRECTORS COMPLIANCE STATEMENTS, FIT AND PROPER REQUIREMENTS AND A CORPORATE GOVERNANCE CODE FOR BANKS AND BUILDING SOCIETIES.

Background

During the period 2003 - 2010 the main prudential supervisory requirements applicable to banks were general requirements contained in the Companies Acts and in financial services legislation - primarily the Central Bank Acts 1971 and 1989 applicable to banks and in the Building Societies Act 1989 applicable to building societies together with various Statutory Instruments implementing EU Directives. These general requirements were supplemented by non-statutory 'Licensing and Supervision Requirements and Standards for Credit Institutions' originally published by the Central Bank in the 1980's and updated in the Central Bank's Quarterly Bulletin Winter 1995 ("the 1995 Standards"). In addition to providing guidance to credit institutions, the information contained in the 1995 Standards was used by the Central Bank to guide it in the assessment of applications for bank licences and in the supervision of credit institutions.

More recently in the late 2000's the Central Bank developed more prescriptive, statutorily based and legally enforceable Codes and Guidelines relating to (i) Fitness and Probity, (ii) Corporate Governance, and (iii) Directors' Compliance Statements.

(1) Fit and Proper Requirements

EU and Irish law require that the directors and managers of financial services firms meet standards of competence and probity. These standards are usually referred to in shorthand as 'fit and proper' standards. 'Fitness' requires that a person appointed as a director or manager has the necessary qualifications, skills and experience to perform the duties of that position. 'Probity' requires that a person is honest, fair and ethical. The 1995 Standards required that

before being appointed, a new director or manager had to go through a process to demonstrate to the satisfaction of the Central Bank that he or she met the fit and proper standards. This is the ‘fit and proper test’.

The 1995 Standards specified that the Central Bank must be satisfied that executive directors and senior executives are fit and proper persons with appropriate competence and experience in banking and financial services to enable them to fulfil their duties and non-executive directors are fit and proper persons and have suitable relevant experience. All appointments to the board of a credit institution and its subsidiaries were subject to the prior approval of the Central Bank on foot of information supplied to the Central Bank by the credit institution, including curriculum vitae outlining the proposed appointee’s relevant experience.

During the early 2000’s the process of checking the fitness and probity of the directors and managers of credit institutions and of other regulated institutions (e.g. insurance companies, securities firms, investment firms, collective investment schemes) was based on the completion of Individual Questionnaires (IQs) by newly proposed directors or managers. The form of the IQ varied from one sector to another. The completed IQs were then scrutinised and validated by the relevant Supervision Department of the Central Bank.

In February 2005 the Central Bank (Financial Regulator) issued Consultation Paper 11 (“CP 11”) on Financial Services Regulation: Comprehensive Framework of Standards for testing the probity and competence of Directors and Managers (Approved Persons) of all Financial Services Firms except Credit Unions (the requirements relating to Credit Unions were developed separately). Having analysed the responses to CP11, the Bank followed up with CP15 ‘Second Consultation on Fit and Proper Test’ in February 2006 to provide clarity on certain issues raised by respondents to the earlier CP11. The aim of these consultations was primarily to standardise the Fit and Proper requirements and procedures throughout the Central Bank with a view to establishing a common test and consistency of treatment for all sectors regulated by the Central Bank. This culminated in the implementation of new common Fit and Proper Requirements for Directors and Senior Managers, announced on 9 November 2006 effective from 1 January 2007.

The new framework consisted of two documents (subsequently updated in December 2008), one setting out guidance for completion of the fit and proper test, including guidance on the considerations that underlie the concepts of fitness and probity and the second comprising an Individual Questionnaire (IQ) to be completed by proposed new directors and managers and

signed by appointing firms. The IQ elicited information concerning the person's qualifications, experience and personal history. In a series of questions, information was sought to assist the Central Bank to form a view as to the fitness and probity of the person.

Existing directors or managers did not have to complete the new IQ since they had already been subject to the pre-existing sector-specific tests but they were subject to the test for any subsequent new proposed positions.

The new common test placed explicit responsibility on the appointing regulated firm to select people that are fit and proper for approved positions. Firms were expected to fulfil this responsibility by making fitness and probity part of the recruitment or selection process and embedding the new requirements within its own procedures. When they wanted to make an appointment, they sent the completed IQ to the Central Bank, with a confirmation in writing stating they are satisfied that the proposed person is fit and proper. The Central Bank reserved the right to also pursue its own enquiries. During the period of a person's appointment, the firm was expected to ensure that the Approved Persons remain fit and proper and to inform the Central Bank of any changes.

The legal provisions that applied in the early 2000's in relation to the Fit and Proper test varied in terms of the powers and duties of the Central Bank (Financial Regulator) as well as in matters of detail. The review of Fit and Proper policy and processes in CP11 in 2005 referred to the necessity for amendment of existing legislation. The Central Bank sought and eventually obtained the necessary legal powers regarding Fitness and Probity in Part 3 of the Central Bank Reform Act, 2010.

For information - related policy initiatives post 2003 – 2010

The Central Bank subsequently placed its Fitness and Probity regime on a statutory basis following powers conferred on the Bank on 1 October 2010 by Part 3 of the Central Bank Reform Act, 2010. This provides that a person performing a controlled function ('CF') must have a level of fitness and probity appropriate to the performance of that particular function. The Central Bank also has the power to prescribe a subset of CFs as functions for which the prior approval of the Central Bank is required before a person can be appointed (PCFs).

The related Consultation Paper, CP 51 was published CP 51 on 22 March 2011, and the resulting Regulations (SI No 437 of 2011), Final Standards (Code issued under Section 50 of the Central Bank Reform Act, 2010), Final Guidance and Feedback Statement were published in Q4 of 2011. The Standards and Guidance were subsequently updated in 2014.

(2) Corporate Governance Code for Credit Institutions and Insurance Undertakings

The 1995 Standards specified that the Central Bank must be satisfied with the structure of the board and senior management of a credit institution and the internal control systems and reporting arrangements are such as to provide for the effective, prudent and efficient administration of its assets and liabilities. The European Communities (Licensing and Supervision of Credit Institutions) Regulations, 1992 (S.I. No 395) required that every credit institution shall manage its business in accordance with sound administrative and accounting principles and shall put in place and maintain internal control and reporting arrangements and procedures and ensure that the business is so managed.

In 2005 the Central Bank (Financial Regulator) prepared a draft Consultation Paper (CP) on ‘Corporate Governance Guidelines for Credit Institutions and Insurance Undertakings’ which was presented to the Board of the Financial Regulator (“the Authority”) in May 2005 where the recommendation was to proceed to consultation for a period of six months. Before issuing the CP for general comment, the Central Bank (Financial Regulator) conducted a pre-consultation exercise with twelve institutions. The results of this consultation were presented to the Authority in September 2005. A decision was made to delay the formal issuing of the CP. There was further pre-consultation with representative bodies for banking and insurance in late 2006. A decision was taken in early 2007 to delay the Corporate Governance Guidelines for Credit Institutions pending the development of organisational requirements at EU level which would likely have required an update to the Guidelines for Credit Institutions.

The next policy development by the Central Bank regarding a Corporate Governance Code for Credit Institutions (CIs) and Insurance Undertakings (IUs) was the issuance of CP41 on 27 April 2010 culminating in the issuance of the Corporate Governance Code for CIs and IUs on 8 November 2010 (“the 2010 CG Code”), effective from 1 January 2011. The 2010 CG Code sought to incorporate international best practice in corporate governance at that time including the relevant EU Directive (CRD III) and the UK Corporate Governance Code.

The 2010 CG Code set out minimum statutory requirements on how banks and insurance companies should organise the governance of their institutions. The purpose of these new rules was to ensure that robust governance arrangements were in place so that appropriate oversight exists to avoid or minimise the risk of a future crisis. The Code included provisions on the membership of the Board of Directors, the role and responsibilities of the Chairman and other directors and the operation of various board committees. It applied to existing directors and boards from 1 January 2011.

The 2010 CG Code adopted a two tier approach by imposing minimum core standards upon the boards of directors of banks and insurers in general with additional requirements defined for firms that the Central Bank designated as major institutions.

The Code requirements included:

- Boards must have a minimum of seven directors in major institutions and a minimum of five in all others;
- Requirements on the role and number of independent non-executive directors;
- Criteria for director independence and consideration of conflicts of interest;
- Limits on the number of directorships which directors may hold in financial and non-financial companies to ensure they can comply with the expected demands of board membership of a credit institution or insurance company;
- Clear separation of the roles of Chairman and CEO;
- A prohibition on an individual who has been a CEO, director or senior manager during the previous five years from becoming Chairman of that institution;
- A requirement that board membership is reviewed at a minimum every three years;
- A requirement that boards set the risk appetite for the institution and monitor adherence to this on an ongoing basis;
- Minimum requirements for board committees including audit and risk committees;
- A requirement for an annual confirmation of compliance to be submitted to the Central Bank (further details provided under 'Directors' Compliance Statements' below).

The new requirements applied generally to all credit institutions and insurers based in Ireland (including re-insurance firms but excluding captives – a separate CG Code was developed for captives). Differentiated standards applied to Irish subsidiaries of foreign regulated firms in a number of areas.

The 2010 CG Code applied to existing directors and boards with effect from 1 January 2011. Those institutions which needed time to implement changes to systems and structures to become compliant were given until 30 June 2011 to do so. Where changes to membership of the Board were necessary, this period was extended to 31 December 2011 to identify and assess suitable candidates with appropriate experience and diversities.

Failure to comply with the requirements are subject to supervisory action and disciplinary procedures by the Central Bank, including sanction under the Administrative Sanctions Framework, criminal prosecution or the Central Bank using its new regulatory powers to refuse to approve directors, or to suspend, remove or prohibit directors under the Central Bank Reform Act 2010.

For information - related policy initiatives post 2003 – 2010

The Central Bank has subsequently updated the 2010 CG Code, CP 69 was published on 1 August 2013 and a revised ‘Corporate Governance Code for Credit Institutions and Insurance Undertakings’ was issued on 23 December 2013, effective from 1 January 2015.

The main changes to the updated Code are:

- Institutions will be required to appoint a Chief Risk Officer (CRO) and a new section has been introduced which outlines the role and responsibilities of the CRO. The risk committee will be made up of a majority of non-executive or independent non-executive directors, one of whom must be the Chairman of the committee;
- The risk and audit committees will be required to have a minimum of three members;
- Institutions will be required to ensure that there is at least one shared member between the risk and audit committees. In addition, High Impact institutions will be required to have at least one shared member between the risk and remuneration committees;
- Institutions will be required to introduce a diversity policy for board membership;

- The minimum number of board meetings required for High Impact (see Note 1 below) institutions has been reduced from eleven to six per annum;
- The Chairman can now hold the role of Chairman in other credit institutions and / or (re)insurance undertakings within the group, subject to prior approval by the Central Bank; and
- The Chief Executive Officer (CEO) of a Medium-Low or Low Impact (see Note 1 below) institution can now hold up to two additional CEO positions provided they are in Medium-Low or Low Impact institutions, subject to prior approval by the Central Bank.

Note 1 – please refer to Item 22 (when provided) in relation to PRISM which provides details on the impact categories assigned to institutions including High/Medium/Low Impact.

(3) Directors' Compliance Statements

A discretionary power contained in Section 26 of the CBFSAI Act 2004 (that inserted a new Part IV into the Central Bank Act, 1997) enabled the Central Bank to require a Directors' Compliance Report (Section 25 CBA 1997) and an auditor's report thereon (Section 26 CBA 1997). To understand the approach of the Central Bank to Directors' Compliance Statements during the period 2003 - 2010 it is necessary to understand analogous provisions within company law.

Company Law

The requirement for Directors' Compliance Statements was first mooted by the Review Group on Auditing (RGA) in Chapter 14 of its report published in July 2000 (<http://www.djei.ie/publications/commerce/2000/auditing/report.pdf>). The RGA's recommendations were very wide-ranging, essentially that directors of all companies should report annually to shareholders on the company's compliance with its obligations under company law, tax law or 'other relevant statutory or regulatory requirements' (this would include financial services legislation and Central Bank requirements for financial institutions) and that auditors should include within the Audit Report their opinion on whether the directors' report on compliance with its obligations was reasonable.

- A diluted version of this recommendation relating to companies was enacted as Section 45 of the Companies (Auditing and Accounting) Act, 2003 (the 'original'

Section 45) but was not commenced by Ministerial Order as it was viewed as potentially being detrimental to Ireland's competitiveness and too onerous and costly to implement.

- The RGA recommendation was amended in that instead of applying to all companies the original Section 45 only applied to listed companies and to certain large companies;
 - Instead of requirement a positive statement of absolute compliance, the original Section 45 adopted a 'policies and procedures' type approach and directors were required to give the opinion that they had 'used all reasonable endeavours to secure the company's compliance with its relevant obligations';
 - 'Relevant obligations' were defined as any enactments that provide a legal framework within which the company operates and that may materially affect the company's financial statements'.
- As a result of the issues associated with original Section 45, on 21 April 2005 the then Minister for Commerce and Trade requested the Company Law Review Group (CLRG) to examine and report to him by 31 July 2005 its views on the proportionality, efficacy and appropriateness of the original Section 45.
- The CLRG recommended a 'mitigated' Section 45 in 2005 which was included within the Department of Jobs, Enterprise and Innovation's (DJEI) Modernisation and Consolidation of Company Law project.
- A 'comply or explain' approach is adopted, directors confirm that they have in place 'appropriate arrangements or structures that are designed to secure material compliance with its 'relevant obligations';
 - Relevant obligations is confined to fewer company law requirements (obligations where a failure to comply would be a category 1 or category 2 offence a serious Market Abuse offence or a serious Prospectus offence) and tax law – a statement regarding compliance with 'other enactments' is no longer required;
 - The requirement for an auditor's report was removed.
- The 'mitigated' Directors' Compliance Statement provision in company law is now included as Section 225 of the Companies Act 2014, signed by the President on 23 December 2014 and expected to come into effect in June 2015.

Financial Services Law

Chapter 15 of the RGA report, which addressed issues relating to communication between the Central Bank and auditors of financial institutions, stated that the recommendations applicable to companies in Chapter 14 should apply also to financial institutions with the reports on compliance being made by directors and external auditors to the Central Bank. This was enacted as an enabling (non-mandatory) power in Sections 25 and 26 of the CBA 1997 (as substituted by Section 26 of the CBFSAI Act 2004). Section 25 is much closer to the original RGA recommendations and is more onerous than the provisions in company law in that it requires directors to make a positive statement of compliance and does not reflect the dilution from the RGA recommendations that occurred in company law in the original Section 45 or the ‘mitigated’ Section 45 recommended by the CLRG in 2005 now included in Section 225 of the Companies Act 2014.

Central Bank’s Policy Efforts on Directors Compliance Statements

The Financial Regulator took a decision at its Board meeting on 26 November 2004 to prepare a consultation paper on the issue, with the assumption that the new requirements would become operational from 1 January 2006. This decision was affirmed at the Authority meeting on 26 January 2005 when it was decided that a public consultation paper should be issued. Instead of invoking the powers contained in Section 25 of the Central Bank Act 1997 which were deemed to be very onerous, the Financial Regulator considered the alternative of relying on Section 45 of the Companies (Auditing and Accounting) Act, 2003 provided that the “relevant obligations” of Directors encompassed financial services legislation and Central Bank regulatory requirements. However this possibility was closed off by the ‘mitigated’ Section 45 recommended by the CLRG in 2005 which concentrated only on certain provisions of company law and tax law and excluded other enactments such as financial services legislation. The Central Bank conducted an informal pre-consultation process during October-November 2006 among Industry Bodies (IBF, FSI, IIF, PIBA, IBA and IAIM) and the Central Bank’s Industry and Consumer Panels. Resistance to this proposal from industry included the following:

- The legislation is impaired by the absence of a materiality threshold and the extent of the confirmation required.

- The Company Law Review Group (CLRG) recommendations on Section 45 of the Companies (Auditing and Accounting) Act 2003 are not reflected in the CBFSAI legislation;
- The wording in Section 26 of the CBFSAI Act 2004 requires the regulated entity to specify whether it has complied with its relevant obligations as opposed to using a 'comply or explain' approach and confirming that they have in place appropriate 'arrangements or structures' to secure material compliance;
- The Compliance Statement provision is not principles based;
- This requirement would have a negative impact on Ireland's competitiveness.

The then CEO of the Financial Regulator reported to the Authority in November 2006 that the Department of Finance, following contacts with industry bodies regarding their concerns, requested that the Financial Regulator not proceed with the consultation process on the implementation of this requirement without engaging in further discussion with the Department. The Authority was also informed in December 2006 that the Minister for Finance felt that it was important to assess the competitiveness issue.

Following a discussion with the Department of Finance it was agreed by the Financial Regulator not to implement the provision as set out in the Central Bank Act, 1997 and to examine the requirement for compliance statements from financial service providers in the context of the project to consolidate and modernise financial services legislation. The Financial Regulator stated publicly in its 'Regulatory Connection' publication in May 2007 that, while some clarity was requested on the proposed implementation of the legislation, the major issues raised by respondents related to the legislative provision itself. The Financial Regulator considered that the issues raised called into question the practical application of the legislation. The Department of Finance agreed that Section 26 should be reviewed as part of the Consolidation and Modernisation of Financial Services legislation project which had been announced on 1 December 2006 as part of the Government's 'Better Regulation' agenda.

In the meantime the Financial Regulator did not propose to exercise the power provided by Section 26, apart from extremely exceptional circumstances, pending the outcome of that review.

More recently Directors' Compliance Statements are now required in the context of the Corporate Governance Code, which confirms compliance with the Code. On 9 August 2011 the Central Bank issued guidance to industry in the form of 'Guidelines on the Annual Compliance Statement' which institutions are required to provide to the Central Bank under Section 25 of the Corporate Governance Code for Credit Institutions and Insurance Undertakings. The Guidelines include minimum templates for completion as part of the Annual Compliance Statement and credit institutions are submitting Compliance Statements since June 2012.

(4) Additional Policy Efforts

4.1 Code of Practice on Related Party Lending

Following a public consultation process in CP43 issued on 13 May 2010 the Central Bank published a 'Code of Practice on Related Party Lending' (RPL Code) on 20 October 2010, effective from 1 January 2011. This introduced statutory requirements in relation to lending by banks and building societies to related parties. The RPL Code, which replaced previous non-statutory requirements in the 1995 Standards, broadened the definition of a related party and introduced stricter limits on the maximum amount that can be loaned to an individual related party and the aggregate amounts that can be loaned to all related parties. Related parties include a director, senior manager or significant shareholder of the credit institution or an entity in which the credit institution has a significant shareholding, as well as a connected person of any of the aforementioned persons.

The RPL Code was introduced to seek to prevent abuses arising from exposures to related parties and to address possible conflicts of interest in this area. It required that such lending be on an arm's length basis, be limited to a percentage of the institution's own funds, and be subject to appropriate and effective management oversight and limits.

The RPL Code requires that:

- Loans to related parties shall not be granted on more favourable terms than comparable loans to non-related parties;
- Loans to related parties or any variation of the terms require prior Board approval or approval by a subcommittee of the Board established specifically

to deal with related party lending where that subcommittee reports directly to the Board;

- Actions in respect of the management of such loans (e.g. grace periods, interest roll-up, loan write-off) require prior Board approval or approval by a subcommittee of the Board established specifically to deal with related party lending where that subcommittee reports directly to the Board; and
- Where loans to a related party exceed €1 million the prior approval of the Central Bank is required.

The RPL Code applies to all credit institutions licensed and authorised by the Central Bank of Ireland and it applies to lending in or outside the State. Credit institutions are required to submit details of related party lending to the Central Bank on a quarterly basis. Non-compliance with the RPL Code may be considered under the Administrative Sanctions Procedure.

For information - related policy initiatives post 2003 – 2010

The RPL Code was updated in June 2013, primarily to provide for amendment regarding Debt for Equity Swaps, the inclusion of civil partners within the definition of related parties and the reduction of the administrative burden regarding applications to the Central Bank for exemptions for intra-group lending and the introduction of a De Minimis limit below which the prior approval of the credit institution's Board would not apply for personal lending to natural connected persons.

4.2 Conditions on licences of Banks/Directions on Authorisations of Building Societies regarding Public Disclosure of Lending to Directors and Connected Persons

The Companies (Amendment) Act 2009 imposed on banks more detailed requirements regarding public disclosure of loans to directors and to connected persons of directors than what previously existed in the Companies Act 1990 so that:

- (i) the following details must be disclosed, individually for each director, in the annual audited financial statements:
 - the amount owed by the person to whom the loan or agreement was made in respect of principal and interest at the beginning and end of the period covered by the financial statements
 - the maximum amount of the liability during the period

- the amount of any unpaid interest, and
 - the amount of any provision that has been made in respect of any failure, or anticipated failure, to repay all or part of the loan.
- (ii) The aggregate figures for loans to connected persons of directors on ‘favourable terms’ and the number of persons involved must be disclosed. In addition the maximum number of persons involved and the maximum amount outstanding during the year must be disclosed.

The Central Bank imposed conditions on banks’ licences in August 2009 requiring them to disclose in their annual audited accounts all lending to ‘connected persons’ in aggregate and the maximum liability during the year. Thus the Bank’s condition was more onerous than what applied in the Companies Acts in that it extended the public disclosures to all lending to connected persons of directors and not just lending on favourable terms.

A direction was imposed at the same time (August 2009) on the authorisations of building societies imposing similar public disclosures relating to

- (i) loans to directors as were required for banks under the Companies Act, 1990 as amended by the Companies (Amendment) Act, 2009; and
- (ii) lending to ‘connected persons’ of directors as were imposed by the Central Bank as conditions on banks’ licences.

4.4 Requirements in CRD, with particular reference to Remuneration

The Central Bank issued a ‘Dear CEO’ letter on 30 November 2010 outlining the findings of its ‘Review of Remuneration Policies and Practices in Irish Retail Banks and Building Societies’. It emphasised the importance of preparing for incoming CRD requirements and related Guidelines issued by the Committee of Banking Supervisors (CEBS).

The Central Bank issued a letter to credit institutions on 21 December 2010 regarding transposition of CRD II and certain aspects of CRD III in Ireland and the requirement for institutions to comply with CEBS Guidelines.

For information - related policy initiatives post 2003 – 2010

The Central Bank issued a further letter on 16 February 2011 advising formally that the remuneration requirements of CRD III were transposed into Irish law by S.I. No. 625 of 2010, effective from 1 January 2011. It stated, inter alia, that the Central Bank would have particular regard to institutions' compliance with the CEBS Guidelines on Remuneration Policies and Practices issued on 10 December 2010 when assessing institutions' compliance with their obligations under Irish law.

R2 – Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a – The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period	Summary
<ul style="list-style-type: none"> Letters from Financial Regulator to the CEO of two large Irish lending institutions 	2003	<p>These letters set out some control weaknesses in respect of mortgage lending as follows:</p> <p>Institution A</p> <ul style="list-style-type: none"> • Lack of income verification • Stress testing not being carried out or evidenced • Use of Equity Release mortgage for property investment purposes • Frequent lending policy changes (4 times in a 12 month period) • High level of policy exceptions (24%) being allowed <p>Institution B</p> <ul style="list-style-type: none"> • High level (32%) of non-standard approvals • Dual role of Commercial Development Manager
<ul style="list-style-type: none"> Financial Stability Co-ordination Committee: Draft Minutes 	2004	<ul style="list-style-type: none"> • The Financial Regulator reported under Financial Stability Matters on recent discussions at the boards of the CBFSAI and IFSRA. • It was reported that the CBFSAI had not convinced market participants that there may be “systemic risk” building up in the banking sector and that there may be a “degree of euphoria building up in the property lending markets and that the boards and management of banks are being myopic about the potential risks.” • A work programme was outlined, this would include a “roadshow” designed to convince the bank boards of the “rationale to curb lending” but did not recommend any direct regulatory action.

Auditors management Letter	2003	<ul style="list-style-type: none"> • This letter included a number of recommendations to improve the firm’s monitoring and control of commercial property lending including: <ul style="list-style-type: none"> ○ Progress reports on all developments ○ Reports on credit status of borrowers ○ Information relating to market developments ○ Confirmation from legal advisers whenever a change of title occurs ○ Submission of quarterly reports to the Board.
IFSRA Chief Executive’s Report	2004	<p>Concerns were expressed about two of the largest lenders:</p> <ul style="list-style-type: none"> ○ Bank A had experienced growth of 30% pa in the loan portfolio over the previous 4 years and, as at 2004, 61% of this portfolio now comprised Property Investment Lending. The Report also suggests that this same bank was advancing monies prior to receipt of valuations and solicitors undertakings. ○ Bank B advised that the Financial Regulator was to commission an external review of the commercial loan portfolio at another institution – this was being conducted in the light of concerns raised by the Regulator and the auditors.
Financial Regulator letter to a director of a large financial institution	2004	<ul style="list-style-type: none"> • The letter refers to a meeting which took place in September 2003 and a follow up meeting in February 2004. A period of 9 months had elapsed between the two meetings, though the following serious concerns had been raised in the first letter: <ul style="list-style-type: none"> ○ the inadequacy of Internal Audit, ○ the substantial increase in the commercial loan book, ○ the lack of progress in the review of commercial loan files, and ○ the failure to segregate “front” & back

		<p>office functions in Treasury.</p> <ul style="list-style-type: none"> • The letter does not indicate that any regulatory action had been taken as a result of the findings.
<p>Central Bank Summaries prepared for and submitted to the Banking Inquiry</p>	<p>1992 - 2003</p>	<ul style="list-style-type: none"> • Provides a summary of enforcement action from 1992 through to the establishment of the Enforcement Division in 2010. During this period, if there were prudential breaches, these were dealt with via the interactive engagement with institutions on a moral suasion basis. • Provides a summary of the steps the Central Bank sought to take between 2003 and 2010 to improve Bank Governance, i.e.: <ul style="list-style-type: none"> ○ Directors Compliance Statements ○ Fit and Proper Requirements and the Corporate Governance Code. • In relation to the Directors Compliance Statements there was a significant delay in implementation (i.e. until 2011) due to: <ul style="list-style-type: none"> ○ Central Bank action ○ Consultation process ○ Discussions with the Department of Finance • Sets out the legislative basis for licensing of Credit Institutions between 2002 and 2013. <ul style="list-style-type: none"> ○ In 2007, the Central Bank introduced a document that provided guidance to institutions seeking to apply for a banking licence. The Bank’s website provides an indication of the comprehensive approach to applications for new banking licences. • Provides a summary of the evolution of supervisory engagement from 2003 to 2013. <ul style="list-style-type: none"> ○ The document reflects the comments in the Honohan Report and, in particular, describes how the engagement has moved from “principles-based” to a much more intrusive and assertive regime.

		<ul style="list-style-type: none">• Brief outline of the Financial Regulator’s approach to the inspection of firms, and refers to the escalation process which, until 2010, was not formalised.
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R2 – Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a – The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none"> Budget and Remuneration Committee 	<ul style="list-style-type: none"> 2005-20010

- Concerns expressed re resources and skill sets
- Staffing issues were a concern and an urgent need for recruitment was recognised. *“The Budget and Remuneration Sub-Committee, while making no final recommendation as to the staffing requirements of the Financial Regulator for the remainder of 2005 and 2006 recognised the urgent need for recruitment of a number of specialist staff for a number of Prudential Departments”*
- The resource in supervision remained an issue in 2010.

“In that context it was planned to recruit a 100 additional staff over those previously sanctioned by the Board during 2010.”

Document category	Time period	Summary
<ul style="list-style-type: none"> Letters from Financial Regulator to the CEO of two large Irish lending 	2003	These letters set out some control weaknesses in respect of mortgage lending as follows: Institution A <ul style="list-style-type: none"> Lack of income verification Stress testing not being carried out or evidenced

<p>institutions</p>		<ul style="list-style-type: none"> • Use of Equity Release mortgage for property investment purposes • Frequent lending policy changes (4 times in a 12 month period) • High level of policy exceptions (24%) being allowed <p>Institution B</p> <ul style="list-style-type: none"> • High level (32%) of non-standard approvals • Dual role of Commercial Development Manager
<ul style="list-style-type: none"> • Financial Stability Co-ordination Committee: Draft Minutes 	<p>2004</p>	<ul style="list-style-type: none"> • The Financial Regulator reported under Financial Stability Matters on recent discussions at the boards of the CBFSAI and IFSRA. • It was reported that the CBFSAI had not convinced market participants that there may be “systemic risk” building up in the banking sector and that there may be a “degree of euphoria building up in the property lending markets and that the boards and management of banks are being myopic about the potential risks.” • A work programme was outlined, this would include a “roadshow” designed to convince the bank boards of the “rationale to curb lending” but did not recommend any direct regulatory action.
<p>Auditors management Letter</p>	<p>2003</p>	<ul style="list-style-type: none"> • This letter included a number of recommendations to improve the firm’s monitoring and control of commercial property lending including: <ul style="list-style-type: none"> ○ Progress reports on all developments ○ Reports on credit status of borrowers ○ Information relating to market developments ○ Confirmation from legal advisers whenever a change of title occurs ○ Submission of quarterly reports to the Board.
<p>IFSRA Chief Executive’s Report</p>	<p>2004</p>	<p>Concerns were expressed about two of the largest lenders:</p> <ul style="list-style-type: none"> ○ Bank A had experienced growth of 30% pa in the loan portfolio over the previous 4 years and, as at 2004, 61% of this portfolio now comprised Property Investment Lending. The Report also suggests that this same bank was

		<p>advancing monies prior to receipt of valuations and solicitors undertakings.</p> <ul style="list-style-type: none"> ○ Bank B advised that the Financial Regulator was to commission an external review of the commercial loan portfolio at another institution – this was being conducted in the light of concerns raised by the Regulator and the auditors.
Financial Regulator letter to a director of a large financial institution	2004	<ul style="list-style-type: none"> ● The letter refers to a meeting which took place in September 2003 and a follow up meeting in February 2004. A period of 9 months had elapsed between the two meetings, though the following serious concerns had been raised in the first letter: <ul style="list-style-type: none"> ○ the inadequacy of Internal Audit, ○ the substantial increase in the commercial loan book, ○ the lack of progress in the review of commercial loan files, and ○ the failure to segregate “front” & back office functions in Treasury. ● The letter does not indicate that any regulatory action had been taken as a result of the findings.
Central Bank Summaries prepared for and submitted to the Banking Inquiry	1992 - 2003	<ul style="list-style-type: none"> ● Provides a summary of enforcement action from 1992 through to the establishment of the Enforcement Division in 2010. During this period, if there were prudential breaches, these were dealt with via the interactive engagement with institutions on a moral suasion basis. ● Provides a summary of the steps the Central Bank sought to take between 2003 and 2010 to improve Bank Governance, i.e.: <ul style="list-style-type: none"> ○ Directors Compliance Statements ○ Fit and Proper Requirements and the Corporate Governance Code. ● In relation to the Directors Compliance

		<p>Statements there was a significant delay in implementation (i.e. until 2011) due to:</p> <ul style="list-style-type: none"> ○ Central Bank action ○ Consultation process ○ Discussions with the Department of Finance <ul style="list-style-type: none"> ● Sets out the legislative basis for licensing of Credit Institutions between 2002 and 2013. <ul style="list-style-type: none"> ○ In 2007, the Central Bank introduced a document that provided guidance to institutions seeking to apply for a banking licence. The Bank’s website provides an indication of the comprehensive approach to applications for new banking licences. ● Provides a summary of the evolution of supervisory engagement from 2003 to 2013. <ul style="list-style-type: none"> ○ The document reflects the comments in the Honohan Report and, in particular, describes how the engagement has moved from “principles-based” to a much more intrusive and assertive regime. ● Brief outline of the Financial Regulator’s approach to the inspection of firms, and refers to the escalation process which, until 2010, was not formalised.
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R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
IFSRA inspections relating to <ul style="list-style-type: none">• Prudential & Sectoral limit compliance• Bank A review over time	2003 - 2007

Bank & Financial Regulator correspondence : 2003

Sectoral Limits : 2003

- Q3, Bank request to Financial Regulator (FR) to exceed 250% sectoral concentration limit.
- Q4, Internal FR note concluding to request additional information from Bank

No conclusion in documentation

Bank & Financial Regulator correspondence : 2004

Continued correspondence on issue

- Q2, Internal FR note concluding with FR letter to Bank requesting additional information
- Q2, Bank internal memo concluding request to FR to consent to breach limit

- Q4, internal FR note raised with FR management, and response delayed due to EU consultation

No conclusion in documentation

Bank & Financial Regulator correspondence : 2005

Continued correspondence on issue

- Q1, Internal FR note concluding no prudential concerns
- Q2, letter from FR to Bank to provide non sectoral limit information,

No conclusion in documentation

Bank & Financial Regulator correspondence : 2006

Continued correspondence on issue

- Q1, FR inspection report, no mention of sectoral limits
- Q2, letter from FR to Bank follow up findings, no mention of sectoral limits
- Q4, letter from Bank to FR with bank response to identified inspection findings

No conclusion in documentation

Bank & Financial Regulator correspondence : 2007

Continued correspondence on issue

- Q1, Letter from Bank to FR advising of new system changes to assist in sectoral limit composition
- Q1, letter from FR to Bank, no mention of sectoral limits
- Q2, letter from FR to Bank, requesting findings to be responded to

- Q2, FR letter to Bank “FR is not objecting to the proposal at this time but will require further information”, provided new changes support acceptable data, future inspection to take place by end Q3
- Q4, internal report and memo, insufficient evidence provided by Bank on sectoral limit diversification

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a – The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none"> Financial Stability Co-ordination Committee Draft Minutes 	A Meeting from April 2004

X reported under Financial Stability Matters on recent discussions at the boards of the CBFSAI and IFSRA. He suggested that the CBFSAI had not convinced market participants that there may be “systemic risk” building up in the banking sector. Indeed, he indicated that there may be a “degree of euphoria building up in the property lending markets and that the boards and management of banks are being myopic about the potential risks.” X outlined a work programme including a “roadshow” designed to convince the bank boards of the “rationale to curb lending” no direct regulatory action was recommended .

CB Batch 6 B017-F28-0002.PDF Bates No. CB04593-001

Document category	Time period
<ul style="list-style-type: none"> Two letters from Financial Regulator to the 	December 2003

CEO of two large lending institutions	

There are a number of examples where control weaknesses were identified by the Financial Regulator (from inspection findings, auditors management letters, internal audit reports etc). These two letters, dating from December 2003, set out serious weaknesses in residential lending practices.

CB Batch 6 B106-F01-0003.PDF Bates No. CB05153-001

CB Batch 6 B094-F03-0001.PDF Bates No. CB05025-001

Document category	Time period
<ul style="list-style-type: none"> Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	2003/2004

- Supervision agreed at the November 2003 meeting to put in place an IFSRA Task Force to address issues of corporate governance and commercial lending that had arisen following discussions with former executives of an institution.
- The results of this Task Force had not been seen.

CB Batch 6 USB2A-0408.PDF Bates No. CB07004-001

- It was reported to the December 2004 meeting that work had now been completed on putting in place appropriate reporting of consolidated large exposures in another large bank.
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CB Batch 3 B013-F01-0004.pdf Bates No. CB01581-001

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a – The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

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-

CB Batch 3 B013-F01-0004.pdf Bates No. CB01581-001

Document category	Time period
<ul style="list-style-type: none"> • Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	2007

- Members of the Authority discussed the lessons learnt from recent events in the financial sector and agreed further work was required on:
 - Communication of the role of the Financial Regulator
 - The relationship between authorised and other entities in the financial sector
 - Crisis management including relations and communications with other regulators
 - Role and accountability of independent directors

CB Batch 3 B015-F03-0002.pdf Bates No. CB01713-002

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a – The effectiveness of the use of supervisory powers

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period	Summary
<ul style="list-style-type: none"> • Letters from Financial Regulator to the CEO of two large Irish lending institutions 	2003	<p>These letters set out some control weaknesses in respect of mortgage lending as follows:</p> <p>Institution A</p> <ul style="list-style-type: none"> • Lack of income verification • Stress testing not being carried out or evidenced • Use of Equity Release mortgage for property investment purposes • Frequent lending policy changes (4 times in a 12 month period) • High level of policy exceptions (24%) being allowed <p>Institution B</p> <ul style="list-style-type: none"> • High level (32%) of non-standard approvals • Dual role of Commercial Development Manager
<ul style="list-style-type: none"> • Financial Stability Co-ordination Committee: Draft Minutes 	2004	<ul style="list-style-type: none"> • The Financial Regulator reported under Financial Stability Matters on recent discussions at the boards of the CBFSAI and IFSRA. • It was reported that the CBFSAI had not convinced market participants that there may be “systemic risk” building up in the banking sector and that there may be a “degree of euphoria building up in the property lending markets and that the boards and management of banks are being myopic about the potential risks.” • A work programme was outlined, this would include a “roadshow” designed to convince

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		<ul style="list-style-type: none">○ the inadequacy of Internal Audit,○ the substantial increase in the commercial loan book,○ the lack of progress in the review of commercial loan files, and○ the failure to segregate “front” & back office functions in Treasury. <ul style="list-style-type: none">● The letter does not indicate that any regulatory action had been taken as a result of the findings.
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R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

(R2a – The effectiveness of the use of supervisory powers)

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period	Summary
<ul style="list-style-type: none"> Letter from Financial Regulator (FR) to the CEO of a large Irish lending institutions 	February 2008	<p>This letter shows a number of things:</p> <ul style="list-style-type: none"> It responds to a letter dd. August 2007 (i.e. more than 5 months prior) It relates back to an inspection of the bank in 1H 2007, i.e. some 9 months previously The letter indicates that follow up enquiries are still ongoing Other responses note the institution's response No indication of assertive action being taken by the FR despite a range of shortcomings

Document category	Time period	Summary
<ul style="list-style-type: none"> Note of a meeting between FR & auditor of a major Irish lender 	June 2008	<p>This note covers a range of key issues following the year end audit:</p> <ul style="list-style-type: none"> Overview of the control environment Discussion as to the auditor's Going Concern statement (i.e. "what would have to change for xxxx not to be considered a Going Concern. Concentration of commercial loan book

Document category	Time period	Summary
<ul style="list-style-type: none"> Report by an auditing firm on Commercial and Property Lending at a major Irish lender 	June 2008	<p>Report commissioned by the FR reporting a number of significant findings:</p> <ul style="list-style-type: none"> Credit Committee terms not being adhered to Board approval not on file Lending best practice not being met Loan approval process not in the right sequence Incomplete lending documentation 100%+ lending for speculative lending

Richard,

In response to your query regarding Sectoral Concentration Data for December 2005 dated 6th March 2006.

As mentioned in our telecon Bank of Ireland examines the Prudential Lending data on a line-by-line basis.

In section 8.6 of the “Licensing and Supervision Requirements and Standards for Credit Institutions, 1995” it mentions that a Credit Institution shall not have risk assets amounting to more than 200 per cent of own funds concentrated in any one sector of business or economic activity which is subject to a common predominant risk factor, where a common risk factor could be considered to apply to two or more separate sectors not more than 250 per cent. of own funds shall be employed with such sectors in aggregate.

In Bank of Ireland we consider line K11SPC “Speculative property investment / development with no rental income” and FCONST “Construction” to be subject to a common predominant risk factor. We do not consider K12PRP “Property Investment / Development with **contracted rental income**” to be subject to predominantly the same risk factors as K11SPC and FCONST as income is obtained from a rental contract.

As set out in section 8.6, the details of the concentration of risk assets at Dec 05 is as follows:

K11SPC	“Speculative property investment / development with no rental income”	2,724,769
FCONST	“Construction”	4,167,756
Total		6,892,528
OWNFND		6,348,432
Combined % age (Ceiling 250%)		109%
K12PRP	“Property Investment / Development with contracted rental income”	10,129,237
OWNFND		6,348,432
Combined % age (Ceiling 200%)		160%

It should also be noted that a large percentage of Item K12PRP “Property Investment / Development with contracted rental income” relates to the UK and as such would not command similar common economic risk factors than business relating to Ireland.

I hope this clarifies our view on this report but if you need any further information please do not hesitate to give me a call .

Regards

John

03 April 2006

Mr. Liam Barron,
Director General,
Monetary Policy & Financial Stability Department,
Central Bank and Financial Services Authority of Ireland,
PO Box No 559,
Dame Street,
Dublin 2.

Re Sensitivity Analysis Assuming Hypothetical Scenarios

Dear Sir or Madam:

I refer to your letter dated 28 February 2006. The Bank has carried out the sensitivity analysis as requested, following the assumptions proposed in your letter.

Attached are 2 appendices. Appendix 1 (Stress Test Template) contains the following:

Tables 1 to 3:	Projections for 2006, 2007 & 2008 under the proposed scenarios;
Table 4:	Matrix of Interbank Exposures as at December 2005;
Table 5:	Distribution of Loan-to-Value ratios for Outstanding Stock of Residential Mortgages (Republic of Ireland Loans only).

Appendix 1 has been completed on two bases:

Appendix 1a: This shows the Irish operations of the Group. However, these tables do not include Earnings Per Share, a full balance sheet nor capital adequacy figures as these are relevant only at the overall Group level. Republic of Ireland lending to Irish clients is shown.

A number of the Group's Divisions have both Irish and International aspects to their operations; in such cases we have attempted to differentiate between these two elements in arriving at the Irish component by excluding business & lending deals with non-Irish clients.

Appendix 1b: This shows the overall Group projections and includes Earnings Per Share and Capital Adequacy projections together with a consolidated balance sheet.

Appendix 2: This sets out the economic assumptions underlying the preparation of the Bank's Original Base Case. These assumptions are compared to those used for the Baseline and the two Shock scenarios

The accompanying disc includes all the material listed above.

Systems and methodologies used in the analysis.

The Group has just completed its budgets for 2006/07 (year to March 2007). Financial projections for the following two financial years have been centrally updated to reflect the changes in momentum implied by the finalised 2006/07 budget. These projections constitute the Bank's "Original Base Case".

For the purposes of this exercise we have used the following financial years and year-end positions:

Tables	BOI – Financial Year	BOI – year-end
2006	2006-07	March 2007
2007	2007-08	March 2008
2008	2008-09	March 2009

The 2006 projections used in Appendix 1a and Appendix 1b reflect business unit budget projections for the 2006-07 financial year. The following two years projections are extrapolated from current and expected trends. The projections take account of a number of items:

- They include the acquisition of Customer Confidentiality in February 2006.
- The projections assume capital raising in the years 2006/07, 2007/08 and 2008/09 of €1.4bn/€1.5bn per annum, (equating to circa €4.3bn in total). If this funding was not raised and the conditions set out in the *Shock 1 Scenario* were to occur as projected, the total capital ratio would still be close to 8.5% (Group minimum regulatory capital requirement) by March 2009. Capital funds are expected to be raised evenly over the 3 years. Given the absence of an immediate deterioration, which would almost certainly further reduce the actual capital requirement due to slower RWA growth, at least a portion of the planned capital issuance would take place. The capital figures in the shock scenarios assume no incremental capital over that to be raised in the Original Base Case projections.
- The Bank's own projections take account of its minimum capital ratio targets for each year end, namely a Tier 1 ratio of between 6.5% and 7.0% and a total capital (solvency) ratio of between 10.0% and 10.5%. The latter target is assumed to be exceeded at each year-end in the Bank's projections due to the assumption that Tier 2 capital requirements may be pre-funded in part.
- Risk weighted asset and capital projections have been completed on the basis that Basel I rules still apply.
- Projections are on an IFRS basis.

For the purposes of this submission, business volumes are assumed to be lower and loan losses higher for the Baseline scenario when compared with the Original Base Case projections. In general, margins, other income and costs are assumed to be similar.

In the following pages a brief commentary on the impact of the scenarios on each of the areas requested is presented.

1. Lending Levels

The planned growth in lending for Republic of Ireland is set out below. In comparing our Original Base Case projections with the Baseline Scenario, we would expect lending volumes to grow at a slightly slower pace in the case of the latter through the time horizon. This reflects the different economic assumptions.

It is projected that a significant slowdown in growth would occur in *Shock 1 Scenario* and a lesser slowdown in *Shock Scenario 2*. The economic stresses in *Shock 1 Scenario* reduce projected growth across the lending book, although positive growth is still projected in 2008/09. In the event that lending and hence risk weighted asset growth was lower than projected in 2008/09, this would be positive for capital ratios since loan losses would not be as high and the impact on income would be limited.

The decreases in house completions implied in both shock scenarios will reduce the new mortgage lending pool. However, the levels of new mortgage lending relative to the existing mortgage lending will still produce levels of growth in the portfolio.

The scenarios were applied to lending exposures based in the Republic of Ireland. It does not include international corporate lending, which whilst booked in Ireland is advanced to non-Irish clients.

The following table shows the projected growth for mortgage and non-mortgage lending under each of the scenarios:

% Change – Average Volumes			2006/07	200708	2008/09
ROI	Mortgage	Volume growth			
	Original		22.5%	20.0%	17.0%
	Baseline		20.1%	19.1%	17.2%
	Shock 1 Scenario		16.0%	11.0%	7.0%
	Shock 2 Scenario		18.0%	13.0%	10.0%
ROI	Non Mortgage	Volume growth			
	Original		20.4%	18.0%	17.0%
	Baseline		17.2%	15.7%	13.2%
	Shock 1 Scenario		14.8%	7.8%	1.7%
	Shock 2 Scenario		16.4%	11.9%	6.9%
ROI	Total Volume growth*				
	Original		21.3%	18.9%	16.5%
	Baseline		18.5%	17.2%	15.0%
	Shock 1 Scenario		15.3%	9.2%	4.2%
	Shock 2 Scenario		17.1%	12.4%	8.2%

* Mortgage plus non-Mortgage lending

2. Key Segment: Residential Mortgages

The Bank's Republic of Ireland loan book is well diversified and carries a low risk profile. At December '05, approximately 43% of the Republic of Ireland loan book comprised residential mortgages. The loan to value profile as at December '05 is presented in Table 5 of the submission. It is summarised below, using the 'mixed' LTV approach, where original property values are compared to current mortgage balances. Note that on current property valuations, the 'current' LTV profile is significantly better than is represented in Table 5, where the 'mixed' LTV approach is applied.

<60%	44%
>=60% & <75%	18%
75% - 92%	33%
>92%	5%

3. Recoverability of Loans

3.1 Macroeconomic Stress Testing

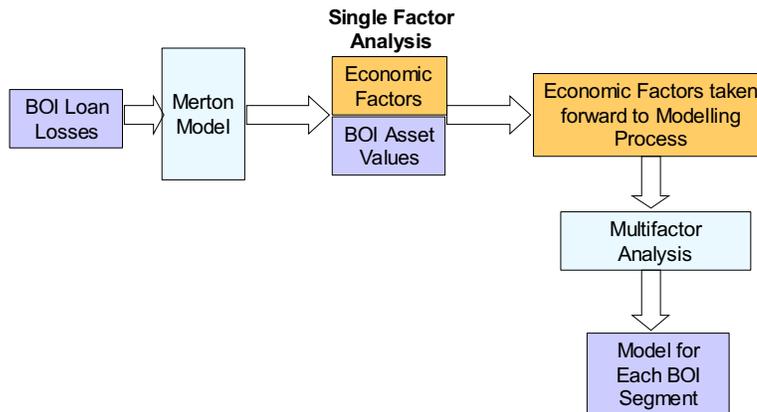
The following loan loss projections for each of the scenarios are based on outputs from the Group Loan Portfolio Model Stress Test Engine. The Stress Test Engine incorporates macroeconomic stress test models across product and geographic lines. Its purpose is to estimate loan losses under different economic conditions. It should be noted that Bank of Ireland are in the process of refining their approach to stress testing in preparation for their initial ICAAP submission. The refined approach that will be implemented for ICAAP may produce different outcomes for *Shock 1 Scenario* and *Shock 2 Scenario*.

The main drivers considered are GDP growth, inflation, unemployment, house price changes and interest rates. For this exercise macroeconomic stress test models were applied to the following portfolio segments:

- Irish Corporate Lending
- Irish Business Lending
- Irish Mortgage Lending
- Irish Consumer Lending

The model approach employs the Merton Model to determine historic asset quality in the portfolios. Individual macroeconomic variables demonstrating strong historic relationships with asset quality were identified through Single Factor Analysis. The optimal combination of relationships were selected and blended (Multi Factor Analysis) to produce the macroeconomic models. The changes in asset quality, as dictated by the model, are applied to the PD's and used to estimate losses (PD*EAD*LGD).

Macroeconomic Stress Test Modelling Process



3.1.1 *Non Linearity*

The use of the Merton Model, which assumes that poor quality lending performance deteriorates more in economic downturns, caters for some of the non-linearity that characterises the relationship between losses and deteriorations in the economy.

3.1.2 *Endogeniety*

The scenarios presented evolve over a three-year horizon so the concept of risk evolution must be considered. The model methodology employed by Bank of Ireland captures the concept that loan losses will compound and accelerate in a three year scenario. Therefore we have not explicitly compounded losses, since the compounding effect is implicitly captured in the model methodology

From a technical perspective, the modelling methodology incorporates the relationship between historic loan losses and macroeconomic variables. It forecasts loan losses that reflect a given macroeconomic environment. If the projected losses are ‘compounded’ by taking one projected outcome as the base on which to determine the next projected outcome, the relationship between these loan losses and the macroeconomic variables will be adversely distorted as the macroeconomic influence will be applied in duplicate.

From a business perspective, the compounded loss effect will be mitigated by the stricter credit policy which Bank of Ireland would employ, in the evolution of such a scenario.

3.1.3 *Mortgage LGD Estimation*

In terms of mortgage losses in a downturn such as *Shock 1 Scenario* and *Shock 2 Scenario*, it must be recognised that the collateral value will decrease leading to an increase in the LGD parameter. This reduction in collateral value has been accounted for in the LGD model methodology. The LGD model used for the loss projection is built along Basel II guidelines. Given the lack of downturn experience in the Irish market, the methodology employed incorporates the Group’s adverse experience in the UK housing downturn in the early nineties, to account for house price volatility.

The Stress Test Engine was employed to generate projected loan losses under the Base Case, *Shock Scenario 1* and *Shock Scenario 2*. The projected loan losses are reflected in the Asset Quality and Provisioning sections of Appendix 1a and Appendix 1b.

3.1.4 *Asset Quality & Provisioning*

The projected impact on loan loss charges for Republic of Ireland lending is as follows:

Basis points annual charge / Average Volumes

Mortgages	2006/07	2007/08	2008/09
Shock 1 (bps)	6	8	17
Losses €m	11	18	42
Average Loans €m	19,992	22,794	24,906
Shock 2 (bps)	5	7	13
Losses €m	11	17	35
Average Loans €m	20,115	23,355	26,103
Non-Mortgages	2006/07	2007/08	2008/09
Shock 1 (bps)	66	136	361
Losses €m	172	396	1,101
Average Loans €m	25,965	29,058	30,492
Shock 2 (bps)	64	108	104
Losses €m	167	323	343
Average Loans €m	26,100	29,932	32,849

Shock 1 Scenario and *Shock 2 Scenario* are projected to have a minor impact on the loan loss levels for the mortgage book compared with other Irish based lending. Deteriorating economic conditions may trigger a large increase in the projected loan loss levels for non-mortgage lending. The asset quality of Non-Republic of Ireland based lending has not been stressed so the provisioning levels for this lending used are the group's original projections.

As noted above, historically loan losses in respect of mortgages have been minimal and interest rates have been a major driver of mortgage losses. Under the stressed scenarios, it is anticipated that mortgage losses would be higher in new lending where equity has not been built up. The impact on mortgage losses of *Shock 1 Scenario* and *Shock 2 Scenario* is dampened by static interest rates.

Cumulative loan losses 2006/07 through to 2008/09 inclusive of Republic of Ireland

(€m)	Loan Loss		
	2006/07	2007/08	2008/09
Mortgage Lending			
Original	1	2	3
Baseline	1	2	3
Shock 1	11	29	71
Shock 2	11	28	63
Non Mortgage lending			
Original	75	167	279
Baseline	88	231	392
Shock 1	172	568	1669
Shock 2	167	490	833

4. Liquidity

The projections assume that the liquidity ratio is maintained in excess of 25% at all times. Under the *Shock 1 Scenario* the percentage of funding provided from wholesale sources (which include debt securities in issue) is expected to be lower than would have been the case for the other scenarios, given the reduction in Republic of Ireland lending. In March 2009 the wholesale funding percentage is expected to be 45.5% under the *Shock 1 Scenario* compared to 49.4% under the original projections. The absolute reduction in the wholesale funding requirement in March 2009 is approximately €19bn or 16% by comparison with the Original Base Case projections.

5. Earnings, Profits and Capital

Our analysis suggests the following reductions in profits (versus the profits planned):

Bank of Ireland Group		2006/07	2007/08	2008/09
	€m			
Profit before tax				
Original base case		1557	1820	2130
Baseline		1533	1750	2047
Change		(24)	(70)	(83)
% Change		(1.5%)	(3.8%)	(3.9%)
Shock 1 Scenario		1434	1402	865
Change vs Original Base Case		(123)	(418)	(1264)
% change		(7.9%)	(23.0%)	(59.4%)
Shock 2 scenario		1444	1522	1742
Change vs Original Base Case		(113)	(298)	(388)
% change		(7.3%)	(16.4%)	(18.2%)

Whilst total own funds, net of deductions, are projected to reduce in comparison with the Original Base Case, the solvency ratio is projected to improve due to the predicted reduction in the growth of risk-weighted assets.

Republic of Ireland only

€m	2006/07	2007/08	2008/09
Profit before tax			
Original Base Case	865	999	1143
Baseline	841	929	1061
Change vs Original Base Case	(24)	(70)	(82)
% Change	(2.8%)	(7.0%)	(7.2%)
Shock 1 Scenario	742	588	(88)
Change vs Original Base Case	(123)	(430)	(1264)
% change	(14.2%)	(43.0%)	(110.6%)
Shock 2 Scenario	776	706	789
Change vs Original Base Case	(113)	(312)	(388)
% change	(14.6%)	(31.2%)	(33.9%)

Notwithstanding the severity of the assumptions, the Group will continue to make significant profits in the given scenarios. In the case of the ROI business, *Shock 1 Scenario* would make a small loss in 2008/09.

March	2007	2008	2009
Solvency (Total Capital) ratio %			
Original Base Case	10.9%	10.9%	10.9%
Baseline	11.0%	11.1%	10.9%
Change vs Original Base Case	0.1%	0.2%	-

Shock 1 scenario	11.0%	11.3%	11.3%
Change vs Original Base Case	0.1%	0.4%	0.4%
Volume reduction versus Original base case %			
Total own funds (net of deductions)	(0.4%)	(1.7%)	(5.9%)
Risk weighted assets	(1.8%)	(4.8%)	(8.6%)

Shock 2 scenario	11.0%	11.2%	11.3%
Change vs Original Base Case	0.1%	0.3%	0.4%
Volume reduction versus Original base case %			
Total own funds (net of deductions)	(0.4%)	(1.2%)	(2.7%)
Risk weighted assets	(1.3%)	(3.3%)	(5.9%)

Should you require any further information or wish to discuss this in more detail please do not hesitate to contact Brian Kealy.

Yours sincerely,

R2a: The effectiveness of the use of supervisory powers

Information Summary (Section 33 AK)

Note: All references are aggregated

Categories of Documents summarised:	CBFSAI response to Department of Finance paper on "Financial Stability Issues Scoping Paper"
Time period covered:	Q2 2008

Document Name: TAB AB.pdf

Bates No.: WBE00003

The CBFSAI welcomed the opportunity to comment on the paper produced by the Department of Finance called "Financial Stability issues-Scoping paper" 2nd draft.

The CBFSAI wanted to highlight the practical commitments of DOF to resolving a financial stability problem and noted. *"In this regard, the issue of guarantees that might need to be extended from the Minister of Finance appears understated overall in the paper."*

The CBFSAI looked for a reference to nationalisation as an additional tool available for crisis management *"...and to spell out its forms and steps necessary to implement it."*

The CBFSAI was mainly concerned with an institution being :

1. Illiquid but solvent;
2. Insolvent or approaching insolvency.

"In practice it is likely to be very difficult to determine the solvency position..." of an institution.

The CBFSAI commented on the definition of systemically important institutions or in other words an institution that is *"To Big to Fail."* The CBFSAI noted that it would be *"...appropriate to be somewhat less definitive in the definition."*

The CBFSAI wanted the following sentence deleted from the paper as it was too prescriptive, It is *"...essential that the Central Bank have the tools to assess TBTF institutions at short notice in a crisis situation and should be seen to be based on detailed expert analysis."*

The paper noted the role of the CBFSAI when lending to insolvent institutions, the CBFSAI noted a letter of comfort from the Minister of Finance to cover the risk to the CBFSAI may not

be sufficient and a comprehensive guarantee would be necessary.

The CBFASI notes a third scenario for the paper, - When it is unclear if an institution is insolvent or illiquid.

In market turmoil it is very hard to determine the value of assets. Therefore it is much more difficult to know if an institution is illiquid or insolvent, especially in cases where there are incentives for a bank to hide the state of its health from the Central Bank/Financial Regulator.

The CBFSAI highlighted two risks.

1. Risks of lending to an insolvent institution –[Moral Hazard] Institution may gamble for resurrection, [Only gives the risk from the point of view of the stability of the banking system]
2. Second risk- refusing to lend to a bank mistakenly thought to be insolvent. This is potentially much more serious. May drive a sound bank into liquidation. It could then become insolvent as creditors petition for a winding up of a bank.

R2a: The effectiveness of the use of supervisory powers

Information Summary (Section 33 AK)

Note: All references are aggregated

Categories of Documents summarised:	Internal Report CBFSAI on "Crisis resolution Options"
Time period covered:	Q2 2008

Document Name: TAB AC.pdf

Bates No.: WBE00004

The CBFSAI produced an internal report on "Crisis Resolution Options". In the report the CBFSAI looked at temporary nationalisation to prevent system-wide disruption. The CBFSAI noted, *"There remain significant questions in relation to this option....would it take a long time to enact such legislation?"* The question remained, whether an announcement of intent to nationalise is enough to stop a run on the banks. *"If not then nationalisation should be ruled out as an option for swift resolution."*

It was noted that looking at internationalisation and EU legislation, both imposed more constraints like for example a *"Guarantee would be needed.... the authorities would need to be cognisant of the long term reputational damage for Ireland as a financial centre"*.

In the report the CBFSAI recommended that the DOF prepare emergency nationalisation/guarantee legislation. It was noted that this could take more time to process and require primary legislation. Initial indications also suggested that it might not be as easy as previously presumed to enact legislation for a Guarantee.

THEME: R2

Effectiveness of the supervisory practice
(Central Bank, Financial Regulator and
Department of Finance)

LINE OF INQUIRY: R2b

Nature and effectiveness of the operational
implementation of the macro economic and
prudential policy

ANGLO IRISH BANK CORPORATION plc (the "Bank")**Minutes of a Meeting of the Board of Directors
held at Stephen Court, 18/21 St. Stephen's Green, Dublin 2
on Wednesday, 17th September 2008 at 12.00 noon**

Present:	D. Drumm M.D. Jacob N. Sullivan P. Whelan	Chief Executive
In Attendance:	S. P. FitzPatrick L. Bradshaw N. Harwerth A. Heraty G. McGann D. O'Connor D. Quilligan W.A. McAteer N. Mercer J. Bowe	Chairman - By Conference Call By Conference Call Secretary

Background: David Drumm recapped on the events which had led to the calling (by the Chairman) of the Board Meeting at short notice, namely the very negative impact of market events on the Bank's liquidity position. He reported that there was extreme negativity in capital markets following the unexpected demise of Lehman Brothers, announced on Monday, 15th September, compounded by the news of the near collapse of AIG (saved by a US Government bailout) and the trouble at HBOS, now the subject of a takeover by Lloyds TSB.

Liquidity Update: David Drumm reported in detail on the outflows which had occurred on Monday and Tuesday of this week, commenting that the main outflows related to institutional money. He added that a total of €1.5billion had been withdrawn from this source (€0.5billion on Monday and €1billion on Tuesday). Also, the Bank had received a high level of calls from its retail deposit base, with an outflow of €34m from this source. The volume of calls from the UK retail customer base was low, with no net outflows.

He advised that the Executive Management team was on "red alert" in recognition of the new threats posed by the extreme negative market sentiment, specifically the potential for negative ratings action due to volatility, and the risk of and the severe impact on all of the Banks should an indigenous Irish institution, such as Irish Nationwide Building Society fall.

John Bowe, Director Capital Markets and International Division, who had joined the meeting, reported in further detail on the Bank's current liquidity position, contrasting the current position with events in March, explaining that the behaviour of corporate deposit holders had changed resulting in significant outflows from this section of the deposit base.

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The Board noted that under the current rules the Bank has limited access to the ECB's repo facility which applied more to residential mortgages, thereby restricting an avenue of funding available to the other Irish Banks, who could avail of this facility, using their residential mortgage books as collateral.

David Drumm outlined to the Board the proposals which (if implemented) would enhance the Bank's liquidity position.

He further advised (referring to his discussions with Pat Neary) that the Financial Regulator, although fully aware (as is the Central Bank) of the Bank's liquidity position through ongoing dialogue and meetings, and of the challenges currently facing the Irish banking sector, has not agreed a solution for the Bank or the sector as a whole.

In light of the lack of certainty from the Regulator with regard to the quantum and shape of financial support in the event that it is required, the Board agreed that the Chairman and Chief Executive should meet with the senior officials in the Central Bank and explain the dire consequences not just for the Bank but for Ireland as a whole, should they not act quickly to re-establish liquidity in the Irish banking sector. It was agreed that contact should also be made with the Taoiseach to highlight the current issues and to ensure that there is Government support for a workable solution.

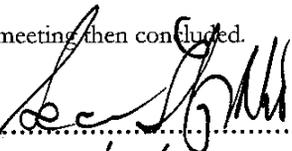
The Board also agreed that the Chairman and Chief Executive should meet with senior officials within the Department of Finance to discuss the ramifications for the Bank and the country if swift and appropriate action is not taken.

**Discussions on
INBS & IL&P:**

David Drumm referred to the challenges being experienced by Irish Nationwide Building Society (INBS) in the current environment and the request received from the Financial Regulator with regard to a possible takeover of that entity by the Bank (supported by a guarantee from the Central Bank). He summarised his subsequent discussions with the CEO of Irish Life & Permanent (IL&P), Denis Casey with regard to a possible co-operation with IL&P in the acquisition of INBS, also, outlining the funding benefits of the proposition.

Any other Business: The Chairman updated the Board with regard to recent discussions with Sean Quinn.

The meeting then concluded.

.....  Chairman

..... 25/11/2008 Date

Chairmans
Initials



ANGLO IRISH BANK CORPORATION plc (the "Bank")

Minutes of a Meeting of the Board of Directors
held at at Stephen Court, 18/21 St Stephen's Green, Dublin 2
on Monday, 29th September 2008 at 6.00pm.

Present: S. P. FitzPatrick Chairman
D. Drumm Chief Executive
D. Quilligan
P. Whelan

In Attendance: L. Bradshaw By Conference Call
N. Harwerth By Conference Call
A. Heraty By Conference Call
M.D. Jacob By Conference Call
G. McGann By Conference Call
D. O'Connor By Conference Call
N. Sullivan By Conference Call
W.A. McAteer Secretary

Update: The CEO reported that following on from an extremely difficult week in the Money Markets post the collapse of Lehman Brothers, that conditions had not improved and the Group experienced another day of outflows on the Wholesale Funding Desk.

The Chairman and CEO reported on their meeting with the Governor and CEO of Banking of Ireland during the day and the Chairman's phone conversations with the Chairman of Allied Irish Banks. Both banks expressed deep concern at the deterioration in money markets. A joint approach to Government was proposed to both banks and Bank of Ireland felt it was worthwhile. The Chairman noted with disappointment that the AIB chairman had declined an invitation to meet.

The Chairman and CEO then reported on a number of discussions during the day with the Central Bank Governor with referral to the urgent need for a solution to the systemic liquidity issues which are severely impacting on the Irish banking system, and the Governor had advised the bank that this would be forthcoming.



Legal Advice Privilege

.....  Chairman
..... 25/11/2008 Date

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ANGLO IRISH BANK CORPORATION plc (the "Bank")

Minutes of a Meeting of the Board of Directors
held at Stephen Court, 18/21 St. Stephen's Green, Dublin 2
on Tuesday 30th September 2008 at 6.00p.m.

Present: S. P. FitzPatrick Chairman
W.A. McAteer
P. Whelan

In attendance: D. Drumm By Conference Call
L. Bradshaw By Conference Call
N. Harwerth By Conference Call
A. Heraty By Conference Call
M.D. Jacob By Conference Call
G. McGann By Conference Call
D. O'Connor By Conference Call
D. Quilligan By Conference Call
N. Sullivan By Conference Call
N. Mercer Secretary

Chief Executive Update:

David Drumm referred to the announcement by the Government this morning of the introduction of a Government Guarantee for Irish Bank's liabilities, a significant move which has already had a positive impact on customer sentiment, evidenced by an influx of customer deposits. Notwithstanding the positive impact of the guarantee and deposit inflows, management remains on "high alert" and the liquidity/funding remains a key priority.

Also, he reported on the meeting the Chairman and he had attended with the Financial Regulator, Pat Neary, Con Horan and Mary Burke at which they had been advised of the conditions which may attach to Government support, which they then relayed to the Board. They include, inter alia, a review of the business model, a reduction in the balance sheet by €20billion over a twelve month period, the appointment to the Board of a Government appointed Director, a curb on dividends and directors remuneration. The Chairman proposed and it was agreed to hold a Board meeting on Friday, 8th October to review and discuss in detail the strategic options for the Bank in light of recent market events and in particular to review the Bank's business model. Legal Advice Pri...



The Chairman then reported on the second meeting which he and David Drumm had attended earlier in the day with Tony Grimes and Brian Halpin at which they had outlined the Bank's cash position.

There had been some discussion at the meeting as to the nature and quantum of the fee for the guarantee. The Board agreed that at this early stage in the process

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it would be beneficial to engage with the other Banks, in particular Bank of Ireland and AIB with regard to developing a proposal on the fee.

Also, in light of recent and expected future media attention with regard to the guarantee, in particular, the damaging speculation about the Bank's funding position, it was agreed that a contingency response should be available so as to deal swiftly and appropriately with adverse publicity should it manifest.

Conclusion: There being no further business the meeting then concluded.

 Chairman

25/11/2008 Date

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Chairmans
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ANGLO IRISH BANK CORPORATION plc (the "Bank")

**Minutes of a Meeting of the Board of Directors
held at Stephen Court, 18/21 St. Stephen's Green, Dublin 2
on Tuesday 4th November, 2008 at 12.00 noon**

Present: S. P. FitzPatrick (Chairman)
L. Bradshaw
D. Drumm
A. Heraty
M. Jacob
W. McAteer
G. McGann
D. O'Connor
D. Quilligan
N. Sullivan
P. Whelan

In Attendance: N. Mercer (Secretary)

Apologies: N. Harwerth

Chief Executive Update: David Drumm reported on his meeting with Kevin Cardiff on the 31st October, which had also been attended by Ann Nolan and William Beausang. At the meeting, David Drumm had given a detailed presentation on the Bank's business model covering an analysis of the loan book/ bad debts, and finishing with details of the strategic options which had been discussed at the Board meeting on the 24th October.

The Bank's obligations under the Government Guarantee Scheme were discussed. A further meeting has been arranged for Thursday 7th November at 5.00 pm with all Bank's. David Drumm added that he had also attended, at the request of the Governor of the Central Bank, John Hurley, a meeting with the Governor, Tony Grimes and Brian Halpin on Thursday 30th October, which had a similar agenda. This had been followed by a meeting with Michael Somers and Oliver Whelan of the NTMA, at which Mr. Whelan had expressed his thanks to the Bank for their support in respect of its take up of 20 % of their Bond issuance.

The Chairman commented on his meeting with Charlie McCreavy and also his positive meetings with the Minister for Finance yesterday morning, and separately with Kevin Cardiff and David Doyle. The key matters covered in the meetings were:-

PWC Report for the Financial Regulator:

Whilst the Minister had not seen the PWC Report, he had been advised by Kevin Cardiff that the Bank's performance with regard to the stress case scenario's were not good.

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Deposits:

The Chairman stated that the Bank's current funding position was satisfactory albeit that the building of the granular retail deposit base would take time.

Bad debts:

He had advised that the Bank will be able to cover bad debts from profits.

Strategic Options:

He had reported that the Board believed that the best option for the Bank was to remain independent and to secure private equity, albeit that a proposal would not be crystallised by the 3rd December.

Lending Growth:

They had discussed the Bank's approach to managing lending growth.

Annual Report & Accounts:

It has been confirmed that the contents of the Annual Report and Accounts would be discussed with the Department of Finance before publication, in particular, the note on the Director's Remuneration and Interests. The sensitivity around Directors' Remuneration, in the context of public sentiment was also discussed. Allied to this was their comment on the importance of their being no surprises in the Accounts.

Government Directors:

It is expected that the Government nominated appointees will be notified to the Chairman by the end of this week.

Vendor due Diligence:

David Drumm asked the Board to consider postponing further works on the vendor due diligence process for a short time, until mid December, explaining that it was in the Bank's best interest to complete the External Audit of the Accounts and to expedite the PWC Report for the Financial Regulator.

It was further agreed that a detailed master timetable should be drawn up to incorporate various streams of work, timelines for delivery and by whom and that this should be distributed to the Board. It was noted also that Private Equity houses were also not in a position to adhere to the timescale set by Morgan Stanley.

The Board discussed the matter and concluded that the priority was the completion of the Accounts and to facilitate the completion of the PWC Report for the Financial Regulator.

The meeting then concluded.

[Signature]
..... Chairman

31/12/09
..... Date

✓ Version tabled
on 27/8 at Board

Dr. Liam O'Reilly
Chief Executive
Irish Financial Services Regulatory Authority
PO Box No. 9138
College Green
Dublin 2

27 August 2003

Dear Dr. O'Reilly

I refer to your letter of 31 July 2003 concerning the examination of EBS lending policies and practices carried out by IFSRA in April of this year. The contents of your letter and the issues set out in Schedule 1 which was attached to your letter were discussed at our Board meeting earlier today.

We welcome the fact that IFSRA has carried out this credit inspection. At EBS we share your concerns about the level of mortgage credit growth and house prices, and have corresponded with the Central Bank on this matter very regularly over the past five years, most recently in December 2002. The current economic backdrop is weaker than it has been over the past decade, although we take comfort from the fact that the economy has proven to be relatively resilient over the past three years to economic and market challenges, not least of which were US recession, the Foot & Mouth crisis in the UK, 9/11, fragile equity markets, depressed global economic growth, the downturn in the technology sector and reducing net EU transfers. We are of the view that the next ten years will be more challenging than the past ten, and that, although the ESRI predicts strong (if lower) average growth rates of 6% (GDP) in the medium term, some sectors of the economy will fare worse than others and all are dependent on a pick up in the global economy. Domestic pressures in the form of declining competitiveness and the current high level of government expenditure remain.

Management have examined all of the "key findings" set out in the Schedule attached to your letter and have provided a response to each item – see attached. Having reviewed these responses we are satisfied that our lending standards remain robust and meet the prudent loan assessment guidelines given by the Central Bank in July 2001 (which were specifically incorporated in our Residential Credit Policies). Over the same period as the credit inspection, GE Capital (our new Mortgage Indemnity Insurance provider) and Ernst & Young separately undertook detailed reviews of our residential lending policies and practices and reported that they were satisfied with them.

Page 1 of 4

We do not believe that any action is required to improve on these standards on foot of the credit inspection, but we are very aware of the need to maintain these standards on an ongoing basis.

There are some references in the schedule attached to your letter of individual loan cases being approved 'outside policy'. I can assure you that this is not the case. On reading through the "key findings" it is clear that there is some misunderstanding about the difference between standard guidelines, which are communicated to the distribution network, and the policies in their entirety.

Our residential credit policies incorporate general principles, standard assessment guidelines and the discretion exercised by the underwriting team in approving a credit.

Examples of principles are :

- There is clear separation of function between loan origination and loan approval, and
- All material changes in credit policy are approved by the Board.

Examples of guidelines are :

- With some exceptions, LTVs should not exceed 90% , and
- Loans are assessed on the basis of whether net disposable (sustainable) income is sufficient to meet household and living costs.

The final important element of our policy is the discretion we allow the centralised team of experienced, independent underwriters in assessing loan applications. They use the principles and guidelines to help them evaluate a credit, but they also use their own judgement in assessing all aspects of a case and may approve loan amounts which are lower or higher than the guidelines would indicate based on the specific details of the case.

Loan applications are 'routed' to appropriate underwriters based not only on the size of the loan, but also the risk rating we have attached to the loan application based on our proprietary risk matrix which incorporates the key guidelines on affordability and security exposures. All loans are approved within delegated approval authority limits which are set by the Board and which were most recently reviewed in March 2002.

In many instances the "key findings" are limited to the standard guidelines in isolation. All aspects of our policy carry equal weight and we believe that the management responses to the "key findings" clarify how credit policy is exercised on a daily basis.

Our residential credit policies were reviewed and ratified by the Board on 28 March 2003 following an extensive review of the economic environment, the housing market and the risk profile of our loan books. We have discussed our policies at this morning's meeting and are satisfied that no further changes are required at this time, although there will inevitably be changes in our policies in the future in line with **changes in market and economic conditions.**

The Board is provided with extensive information on credits being underwritten on an ongoing basis in the Enterprise Risk Report. Your colleagues have copies of the reports for January, February and March 2003 in which there is a significant focus on asset quality, underwriting discretion, new lending risks, market trends and exposures and concentrations. This monthly monitoring of our policy and market trends is supplemented with specific reports and presentations on issues affecting credit policy as they arise.

No external or internal experts (including the IMF in their report on Ireland earlier this month) have been able to model the Irish housing market with any degree of accuracy to confirm or refute the possibility that we are in the middle of a house price bubble. We do believe that house prices will fall at some point in the future either in nominal or in real terms. But when, and by how much, is a question no-one seems to have the answer to.

As you know, EBS is a credit institution whose primary aim is to help people purchase homes. Recognising that the mortgage market is characterised by uncertainty and increasing competitive pressures, we are continuing to invest heavily in people, processes and tools to enable us to manage this uncertainty effectively.

Over the past twelve months alone we have made significant enhancements to our loan application systems, established a link with the Irish Credit Bureau, invested in and customised a credit scoring and decisioning solution which will be implemented later this year and established a business Credit Risk Committee to review trends and exposures on a monthly basis. All of these developments have facilitated the improvement in the reporting of risk to the Board.

We welcome your comment about organising a third stress test exercise with all credit institutions involved in mortgage credit. We found the previous two exercises very beneficial, and believe their value could be further enhanced if IFSRA was to publish some summary overview of their findings for the previous exercises to the participating institutions.

Finally, we believe that a more collaborative approach to assessing credit risk would prove beneficial for both EBS and the Regulatory Authority. This is the first formal communication we have received from IFSRA, raising issues which were not raised during the annual review of EBS which was conducted in June of this year. We believe that, had the management been given the opportunity to explain the details of these cases to the inspectors during their inspection, most of the queries would not have arisen. This was the approach adopted by the Central Bank in previous years. With this in mind, we look forward to taking part in some discussions on the forthcoming stress testing exercise ; the collaborative approach adopted for the second stress test exercise significantly increased the value of the **exercise for both the credit institutions and the Regulatory Authority.**



A copy of the minutes of this morning's meeting will be sent to you at the end of September when the Board next meets and when the minutes have been approved.

Yours sincerely

Brian Joyce
Chairman



FINANCIAL REGULATOR
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GCOMP

23 February 2007

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Ballsbridge
Dublin 4

Copy Sham Phattarajya
Kevin Bennett
David Griffin
Kevin McHugh

Sham, will you arrange
to have a response
drafted please
AW 20/2

Review of Sectoral Concentration Framework

Dear Mr. Brennan

In light of the new requirements of the Capital Requirements Directive and in particular Pillar 2 requirements on 'concentration risk,' the Financial Regulator is currently reviewing its sectoral concentration framework. As part of this review I am contacting credit institutions that have experienced difficulties with the current sectoral limits.

I note from the quarterly sectoral returns that your credit institution exceeds the 200 per cent limit on the Real Estate, Renting and Business and Unallocated categories. In order to facilitate a comprehensive review of the sectoral framework, the Financial Regulator is requesting details of diversification strategies and policies and procedures, including internal limits, used to monitor and manage these concentrations. I understand that Allied Irish Banks plc submitted information on its real estate exposures to the Financial Regulator in November 2006. You may wish to update this submission or submit additional details relating to your sectoral concentrations.

**Financial Stability Report
2005**

Notes

1. The commentary in this report is based on data available up to end-September 2005.
2. The following symbols are used:
 - e estimated
 - f forecast
 - Q quarter

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Contents

	Page
Foreword	5
PART I	
Summary	7
1. Introduction	15
2. Assessment of the Irish Financial Sector	16
2.1 Macroeconomic Review	16
2.2 Household Sector	22
2.2.1 Household Indebtedness	22
2.2.2 Outlook for the Household Sector	25
2.2.3 Housing-Sector Developments	25
2.2.4 Risks to the Household Sector	32
2.3 Non-Financial Corporate Sector	34
2.3.1 Indebtedness	34
2.3.2 Credit Growth	35
2.3.3 The Commercial Property Market	36
2.3.4 Realised Credit Risks from the Corporate Sector	36
2.3.5 Financial Position	37
2.3.6 Risks to the Non-Financial Corporate Sector	38
2.4 Banking Sector	38
2.4.1 Financial Condition of the Irish Banking System	38
2.4.2 Internal Risks to the Irish Banking System	47
2.5 Insurance Sector	49
2.6 Payment and Settlement System	52
2.6.1 Operation of the Large-Value Payment System in 2004	52
2.6.2 View of 2004 Outcome	53
3. International Dimension	53
3.1 Overview	53
3.2 Risks to Outlook	58
Boxes	
A. Dynamics of PSC/GDP Ratio	20
B. Irish Private-Sector Credit Growth and Living Standards	23
C. Comparison of Rental Indices	28
D. An Accounting Exercise in Property Investment	33
E. The Effect of Mortgage Loan Volumes on Mortgage Credit Growth	40
F. Financial Soundness Indicators	44
G. Financial Soundness Indicators for the Insurance Sector	50
H. Some Measurement Issues in relation to the US Current-Account Deficit	55
I. Global Imbalances	57

PART II

The Growth in Mortgage Indebtedness in Ireland	63
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PART III

The Role of Liquidity in Financial Stability by Frank Browne and Anne Marie McKiernan	81
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The current conjuncture is one of ample liquidity in international financial markets and buoyant asset markets. In the past, this combination has often led to the build-up of vulnerabilities in financial systems and been followed by episodes of financial stress. In this environment, this conceptual article looks at the general role of liquidity in financial stability. Concepts of liquidity are presented, before exploring the nature of the relationship between liquidity and asset prices. The ways in which liquidity can both contribute to and undermine financial stability are set out, and highlight how, when a shock hits the economy or financial system, the behaviour of liquidity has the potential to exacerbate its effects. Given the number of shocks which hit the world economy in the past decade, the evolution of liquidity more recently is presented. Finally, some of the implications of these issues for Ireland are briefly explored.

The prices of virtually all asset classes have seen substantial gains over the last two to three years, following on from the more mixed performances that occurred after the rapid succession of shocks in the early years of this decade. At the same time, liquidity conditions over this entire period can be broadly characterised as exceptionally easy. This was reflected in strong money growth and low short-term interest rates. This article examines the relationship between these liquidity conditions and asset price developments. Our graphical and highly tentative results indicate considerable monetary laxity as proxied by both excess money growth and the gap between the short-run real interest rate and its estimated equilibrium value (i.e., the natural rate of interest). The graphical evidence suggests that this lax liquidity situation began to impact positively on asset prices around the end of 2002 and the beginning of 2003. What is especially noteworthy is the escalation of prices across all asset classes since then. This suggests, subject to more rigorous econometric testing, that abundant liquidity has imparted significant momentum to asset prices across the board. This description seems to be broadly correct for the three economic regions examined, the US, the euro area and the UK.

The Decline in the Volatility of Output Growth: Its Causes and its Consequences for Financial Stability

by Frank Browne, David Cronin and Bernard Kennedy

111

Over the last four decades or more, the volatility of output growth in six of the G-7 industrialised economies has fallen significantly. In this article, we illustrate the decline in output growth volatility, review the factors identified in the literature as being behind this fall, and examine the implications for financial stability. We conclude that a broad confluence of structural, financial and policy factors likely explain this fall-off in volatility and can be expected to continue to have an ameliorating effect in calming the economy in the face of shocks. Fluctuations in economic activity have long been recognised as a source of financial instability and so the macroeconomic phenomenon of declining output growth volatility is likely to be, in its own right, of considerable benefit from this perspective.

Assessing Interest-Rate Risk from the Rate's Constituent Components by Frank Browne and Mary Everett

123

Any increase in interest rates will have implications for the Irish economy, and more specifically for the stability and soundness of the Irish financial system. The overall impact of an interest-rate rise will depend on the factors behind the increase. This paper examines some of the likely causes and consequences of an interest-rate hike. In order to understand how the nominal interest rate might evolve over the short and medium term, we decompose the nominal interest rate into its constituent components, the most important of these being the equilibrium real rate of interest. Analysis of various models of the equilibrium real rate of interest for the euro area shows that in the short-run, there does not appear to be a likelihood of a substantial increase in the nominal interest rate stemming from a significant shift in the underlying equilibrium real rate of interest, or from the other components of the nominal interest rate. Over the medium-term horizon (chronologically approximately three to seven years), however it is likely that the euro area economy will revive and will see a much higher equilibrium real rate of interest. A steady state growth rate of 3 per cent, combined with an inflation rate of about 2 per cent (consistent with the ECB's inflation objective) and a risk premium of 1 per cent would add up to an equilibrium mortgage rate of approximately 6 per cent. With the typical variable mortgage rate of interest being around 3 per cent now (October 2005), an increase in interest rates to this putative equilibrium level would double the repayments burden. For highly indebted borrowers, this would be an intolerable burden and would almost certainly mean a sharp increase in the ratio of non-performing loans.

Regulatory Developments in the Capitalisation of Banks: A Financial Stability Perspective

by Caroline Gavin and Rebecca Stuart

139

The ability of the financial system to withstand adverse shocks is a key concern for those charged with responsibility for financial stability. The banking system, which is at the centre of the financial system, has a number of buffers in place to absorb unexpected losses, one of which is capital. To strengthen the stability of the international banking system, the Basel Committee on Banking Supervision proposed a framework, the Basel Accord, introduced in 1988, designed to set capital adequacy rules for banks and thereby strengthen the stability of the international financial system. This formula was largely successful but developments in the market accentuated certain limitations in the Accord, creating the necessity for revisions. Basel II, which comes into effect in 2007, has been developed to address these weaknesses. This paper discusses these developments in the regulation of banks' capital and considers some implications of the developments for financial stability.

The Implications of a Construction Sector 'Correction' by Maurice McGuire and Diarmaid Smyth

153

The aim of this paper is to examine the effects of a 'correction' in the residential construction sector, whereby the current high level of house building reverts back towards a more 'normal' rate of building. The paper looks at the extent to which the housing sector has grown in Ireland and its contribution to overall growth in the economy as well as comparing it with European countries. From this it is quite evident that current rates of house building in Ireland are excessive and will need to fall back towards rates more in line with the underlying or medium-term demand for housing.

Through using the Bank's econometric models, the consequences of quite a rapid fall in housing output, toward medium-term levels, is examined over a four-year and two-year horizon. This is modelled as an exogenous shock to housing investment. Overall, the effects of a correction are found to be significant but could probably be accommodated reasonably well by the economy if other sectors continued to grow and the international environment remained favourable. The likelihood of such a sharp fall against an otherwise favourable background is also assessed and considered to be limited. The inflated size of the construction sector could, however, be a source of additional vulnerability, if the economy were hit by other adverse shocks, such as a large loss of competitiveness or a sharp fall-off in foreign direct investment (FDI).

Large-Value Payment Systems: An Introduction to Operation, Design and Risk Mitigation by Paul O'Brien

163

Large-value payment systems play a pivotal role in modern economies. They facilitate the ultimate settlement of obligations arising from transactions in both the real and the financial economy. The volumes and values of such transactions require robust and efficient mechanisms. Central banks oversee and, in many cases, operate such large-value payment systems, which operate on the basis of real-time gross settlement (RTGS). Such systems are designed to minimise risk in the financial infrastructure. They also facilitate the implementation of monetary policy by central banks.

Foreword



I am pleased to present to you our second stand-alone Financial Stability Report. The central aim of the report is to analyse and assess the systemic health of the financial system in Ireland and to point to areas where risks and vulnerabilities may be present or may arise.

The report is essentially divided into three complementary sections: the main commentary, which provides an analysis of domestic and international economic and financial developments and highlights potential areas of concern relevant to the Irish financial system; a special thematic piece on the growth in mortgage indebtedness; and a number of research articles which provide more in-depth analysis. The purpose of these articles is to support the conclusions reached in the main commentary, and to add to knowledge among our stakeholders about financial stability issues. The diversity of topics addressed in the research articles highlights the wide-ranging scope of our financial stability mandate.

The publication of this report derives from the Central Bank's mandates under both domestic and European law. The Central Bank & Financial Services Authority of Ireland Act, 2003, requires the Central Bank to contribute to the overall stability of the Irish financial system, while the mandate of the European System of Central Banks requires the European Central Bank and national central banks to contribute to financial stability in the euro area. While the Central Bank has overall responsibility for financial stability, the Financial Regulator is responsible for overseeing the prudential health of individual financial institutions. The Central Bank and Financial Regulator cooperate fully on matters relating to financial stability. A joint committee, the Financial Stability Committee (FSC), chaired by the Director General of the Central Bank and with senior representatives from the Financial Regulator, oversees financial stability matters. The Financial Stability Report reflects the extensive input of the FSC.

The overall conclusion of the report is that the Irish banking system continues to be in a good state of health. Our central expectation, based on our assessment of the risks facing both the household and non-financial corporate sectors, as well as the current shock-absorption capacity of the banking system, is that this current state of health will not be compromised over the short- to medium-term horizon. There are, as always, risks to the outlook which could cause the outturn to be somewhat different to this central expectation.

Where last year's report focused on the risks arising from strong house price growth and the possibility of a sudden and unanticipated fall in the level of house prices accompanied by an increase in the default rate among borrowers as the key risk facing the banking sector, this year's report highlights the risks posed by the growth in indebtedness in Ireland in some detail. This includes an exploration of the factors that may explain the sustained growth in levels

of mortgage indebtedness, which has been the main factor behind the rise in our private-sector debt to GDP ratio to one of the highest ratios in the EU.

As well as the analysis of domestic and international financial developments, other financial stability issues examined in this report include the operation of the payments and settlements system, the role of liquidity generally and, specifically, its links with asset markets, the falling volatility of output growth, and the move to the new Basel II framework.

I hope that this comprehensive analysis, which is part of a regular series, conveys to lenders and borrowers the importance of a stable financial system and that its key messages may serve as an essential input into decision-making by all financial market participants and the wider public.

A handwritten signature in black ink, appearing to read 'John Hurley', with a stylized flourish at the end.

John Hurley,
Governor

Summary

Overall Assessment

The Bank's 2004 Financial Stability Report identified the risk of an unanticipated and sudden fall in residential property prices, combined with an increase in the default rate among mortgage holders, as the risk that posed the greatest threat to the health of the banking system. A moderation in house price growth in the meantime suggests that, while the risk identified in last year's report of a sudden fall in prices cannot be dismissed, this risk may have receded somewhat. However, tentative evidence suggests that this moderation may not have persisted. If house price growth were to reaccelerate, this would increase the risk of a sharp correction in house prices in the future.

At present, the primary risk is considered to be credit growth and indebtedness levels. Last year's report singled out the speed with which private-sector debt was accumulating as an especially worrying development. Since then, the rate of debt accumulation has accelerated, with virtually all categories of bank debt increasing at rapid rates. As a result, Ireland's debt-to-income ratios are now close to the top of the European league.

The stability and health of the Irish banking system appears generally sound, according to the standard indicators of financial health such as asset quality, profitability, solvency, liquidity and credit ratings. The central expectation, based on an assessment of the risks facing both the household and corporate sectors, as well as the current shock absorption capacity of the banking system, is that the current health of the banking system leaves it reasonably well placed to withstand pressures from potential adverse developments in the short to medium term. However, there are a number of vulnerabilities, in the medium term, particularly from the very high rate of credit growth.

This report is an important tool in creating awareness among all participants in the financial system of the potential impact of their behaviour on the health of the system. The Bank continues to monitor and analyse financial stability issues on an on-going basis. A key feature of this analysis has been the development of indicators to aid early identification of emerging stress in the financial system. The assessment presented in this report reflects analysis of these indicators, as well as a

general review of economic and financial pressures. Stress-testing exercises are also conducted periodically with domestic credit institutions to inform the risk assessment.

The Bank engages in on-going dialogue on financial stability issues with domestic credit institutions in order to exchange views on the risks to the financial system and on the strength of the banking system to withstand these risks. The Bank also continues to develop procedures to deal with a potential crisis and to facilitate an orderly resolution, should the stability of the financial system be threatened.

Economic and Sectoral Summary

Domestic Macroeconomic Outlook

National Accounts data show that the volume of GDP increased by 4.5 per cent last year, with a corresponding increase in GNP of 4 per cent. Some deceleration was observed during the first half of 2005, however, with preliminary growth rates in GNP and GDP of 3.4 per cent and 3.1 per cent, respectively. Output growth this year is being driven to a significant extent by a pick-up in some components of domestic demand, including consumer spending and business equipment investment. By contrast, the external performance of the economy was very muted during the first half of 2005. This reflected developments in both merchandise and services exports, although the weakness in the latter largely reflected apparently one-off developments in insurance related transactions. Construction activity is expected to remain at a high level over the next two years. However, a much lower contribution to growth is expected to come from the housing construction sector, which was a key driver of growth in 2003 and 2004.

GNP growth is currently projected to average around 4½ per cent this year with a broadly similar outturn expected for 2006. GDP growth is projected to average around 4¼ per cent this year, rising to around 4¾ per cent next year. There are, however, some significant downside risks to these projections arising from both the external and domestic environment.

Other broad indicators of economic activity remain generally favourable. The labour market continues to perform well with particularly strong employment growth in construction and some parts of the private

services sector. The unemployment rate is projected to remain close to 4 $\frac{1}{4}$ per cent in both 2005 and 2006. Despite continued strong employment growth and the modest tightening of labour market conditions, inflationary pressures remain relatively subdued. The headline HICP figure is expected to average 2 $\frac{1}{4}$ per cent this year with a modest pick-up to around 2 $\frac{1}{2}$ per cent in 2006.

Following a rapid expansion between mid-2003 and mid-2004 (when world growth expanded at its fastest pace for over three decades), global economic growth lost some of its momentum in the second half of last year and in the first six months of 2005. The reduction partly reflects an inevitable move to a more sustainable – but still robust – level of activity, following the exceptional pace of growth in the preceding year. Looking ahead, global activity is expected to continue to moderate in the second half of the year. Risks to this outlook are generally perceived to be on the downside, and are related to concerns over oil price movements, global imbalances and financial market developments. Furthermore, while the central projection is for continued robust activity in the remainder of the year, it has become increasingly apparent that concerns over these risks – none of which are new – are growing, increasing the probability of a less favourable outcome.

The Bank's central forecast for the economy is for overall economic growth to remain broadly stable over the next two years (for instance, GNP growth is currently projected to average around 4 $\frac{1}{2}$ per cent this year with a broadly similar outcome expected for 2006). Moreover, this forecast is accompanied by noteworthy domestic and international risks to the outlook. These risks are set out here to increase awareness among financial system participants and the wider public of where risks could affect financial stability. It should be stressed that, in alluding to these risks, the Bank is not predicting that they will materialise.

At this juncture, the risks to the economy are predominantly from the international environment. The three most important international risks are considered to be the prospects for continuing high and volatile oil prices, large and growing global imbalances and the associated risk of a sharp movement in exchange rates, and possible mispricing in international bond and some other asset markets. A sustained high level of oil prices could impact negatively on both global and domestic economic growth and inflation. In addition, Ireland is exposed to fluctuations in the health of the US economy

and, in particular, the value of the euro against the dollar. The possibility of adverse developments in the US economy leading to a rapidly appreciating euro is a significant risk to Irish growth and employment prospects. Finally, there is a risk of a correction in international bond and some other asset markets, where possible overpricing and narrowing of spreads reflect an ongoing search for yield leading to a possible understatement of overall risks. Any sharp correction would have implications for global growth, resulting, *inter alia*, in an increase in the cost of borrowing for Irish households and corporates and thus impinge on growth and employment.

Apart from these significant international risks, a number of vulnerabilities exist on the domestic front. The first is the possibility of a correction in the domestic construction sector, which is currently producing housing units apparently well in excess of medium-term requirements. A lower contribution to economic growth and employment is expected to come from a gradual slowdown in the housing construction sector in the next few years. However, a sharp fall in construction output cannot be entirely ruled out and, given the size of the sector in the economy, such an event could have significant adverse effects on employment and growth. A second domestic risk, in the medium term, is for further deterioration in Ireland's competitiveness, following four years of decline already. This would leave the economy at a significant disadvantage relative to our main trading partners, especially if the deterioration were to continue alongside a sharply appreciating euro. The result would be painful adjustment costs through lower future output and employment.

The threat to financial stability in Ireland comes from the possible realisation of the above risks, especially if there were a simultaneous realisation of more than one of them. Their impact would be felt on unemployment and growth, with negative effects on the banking sector. Any significant increase in unemployment, given the rise in household indebtedness, would strain high-debt households' repayment capacity, especially if interest rates had moved into a tightening cycle. Alongside this increase in household indebtedness has been rapid credit growth to the corporate sector, especially for property-related lending, leading to increased vulnerability of the banking sector to growth and employment risks.

Private-Sector Credit and Indebtedness

Private-sector indebtedness, measured as the value of private-sector credit to the value of GDP or GNP, is

growing at historically high rates. The Irish private debt-to-income (GDP) ratio has grown from 115 per cent in 2003 to 134 per cent by end-2004 and could, if recent trends persist, be as high as 160 per cent by end-2005. There is no longer any doubt that the private sector is highly indebted by international standards and that the level of indebtedness will soon match the levels recorded in Europe's most indebted economies.

The most worrying aspect of private-sector indebtedness patterns is the accelerating speed at which debt is increasing in the context of an already high level of indebtedness. The rate of increase in the indebtedness ratio rose by over 16 per cent in 2004 and could increase by 19 per cent in 2005. This accelerating growth in the debt ratio is significantly above the record rates last seen in the late-1990s but at that time economic growth and interest-rate trends were much more favourable. This persistent trend upwards in debt ratios raises concern because the increased level of private-sector indebtedness is a domestic vulnerability, which in the event of a domestic or external negative shock to the Irish economy, could have serious consequences for borrowers and lenders and the wider economy. Moreover, if credit growth does not slow significantly over the next few years, Ireland's level of indebtedness will become even more significant and possibly an outlier among international comparators.

Private-sector indebtedness continues to increase, and at an accelerating rate, from already relatively high levels by international standards. As mentioned previously, this acceleration is above record levels last seen in the late-1990s, but at that time economic growth was significantly higher and interest rates were still trending downwards. The acceleration in household debt accumulation largely reflects residential mortgage growth, which represents around four-fifths of personal lending. The rate of growth in mortgages remains at elevated levels. The combination of slowing house price growth along with expected lower new house construction levels, expected in the next number of years, might normally be expected to contribute to a slowdown in mortgage credit growth, albeit with a lag. Concerns will remain until evidence of this emerges. The other major element of household credit – personal credit for non-housing purposes – is also growing very quickly. This poses risks for financial stability in the medium term.

As well as very high rates of residential mortgage lending growth, commercial property lending has also grown

significantly. Up to half of the banking system's aggregate loan book is now in the broadly-defined property category. Credit booms in many countries have passed without causing significant difficulties for their banking systems but international experience suggests that persistently high rates of credit growth, mostly driving property booms, have been important, if not decisive, factors leading to fragility in the banking system.

From a system-wide perspective, the investment of a significant share of the banking system's assets in this one, albeit broadly defined, asset class raises some concerns. The broad nature of property-related lending provides diversification benefits since all sectors of the property market may not be closely correlated. The concern, however, is that the various segments that may not be correlated in normal times, could, in a serious and widespread downturn, become correlated. An adverse shock originating from, or impacting on, the property market would affect all domestic credit institutions simultaneously. This increases financial instability risks.

The rapid accumulation of private-sector debt poses potential financial stability concerns in the medium term. These concerns are shared by the IMF. The experience is that persistently high rates of credit growth have been an important leading indicator of future fragility in banking systems. In particular, increasing indebtedness incurred for asset purchase, possibly reflecting excessive exuberance by leveraged borrowers, carries inherent dangers. The more indebted is the private sector, the more susceptible it is to risk of default if any shocks hit the economy which impact negatively on employment and/or incomes. In mitigation of this, it should be noted that, in the international context, many credit booms have faded without posing significant difficulties for the banking system or the wider economy.

Household Sector

The household sector is becoming increasingly indebted, with the ratio of personal-sector credit to disposable income estimated to increase to 133 per cent in 2005. As with private-sector credit growth, a worrying aspect is the speed at which this indebtedness is increasing: the estimate of almost 19 per cent in 2005 is a continuation of a similar record rate of growth in 2004. The largest component of personal-sector credit is residential mortgage credit (80 per cent share of total) continues to grow at an exceptional rate (25.7 per cent in the twelve months to August 2005) and will remain a matter of concern until some evidence of a slowdown materialises.

The other major element of household credit – credit for non-housing purposes – has also experienced considerable growth in recent quarters, reaching 30 per cent at the end of 2004 before slowing in the second quarter of 2005 to 24.9 per cent. Bank lending to the corporate (non-financial) sector is also growing at a fast pace, especially to the construction and real estate sectors (over 40 per cent growth in 2004 and approximately 45 per cent in recent quarters).

A further concern is that, while average indebtedness does not appear to be excessive, this disguises the fact that a proportion of households and individuals are quite significantly indebted relative to their incomes. In particular, some recent newly mortgaged households are more heavily exposed to the potential for lower income growth, poorer employment prospects and rising interest rates. Because of the weight of mortgages in overall private-sector credit growth and its recent rapid rate of growth, the Bank has paid particular attention to this area in this report.

The Growth of Mortgage Indebtedness in Ireland

It is important to identify whether exceptionally fast mortgage credit growth and increasing mortgage indebtedness in Ireland can, to some extent, be accounted for by changes in fundamental factors. These factors include income and employment growth, falling interest rates and demographics. The issue is whether mortgage credit growth and mortgage indebtedness have become significantly misaligned from underlying factors and could therefore be more susceptible to one or more shocks to the economy or financial system.

The Bank's analysis¹ examines a number of macroeconomic influences – coming from both the demand and supply sides of the loan market – and assessing if these exogenous influences can largely “explain” the pattern of mortgage credit growth and the associated increase in household indebtedness. The results are tentative and subject to a number of caveats. However, they provide some tentative evidence that the way in which mortgage indebtedness has evolved over the past couple of decades can, to a significant extent, be accounted for by demand and supply-side factors which are both macroeconomic and structural.

On the demand side, these factors include the exceptional growth in the economy, particularly in the

last decade; the accompanying pickup in employment creation to its strong current level; demographic trends, particularly the increase in the household-formation cohort of the population and significant net inward migration; demand for higher loan-to-value ratios, reflecting the release of earlier pent-up mortgage loan demand from an era of formal and indicative guidelines on sectoral credit allocation to the now higher financing-capacity of households and firms in the low interest-rate environment; lower public-sector indebtedness, which facilitated easier fiscal conditions and therefore higher private debt repayments, and the decline in average inflation over the period, which eased the front loading of real mortgage repayments and increased entry into the mortgage market by customers who previously would have been unable to meet the initial repayment burden.

On the supply-side of the mortgage loan market, important explanatory factors include financial liberalisation, the removal of regulations and controls in credit markets and the reduction in liquidity ratios; the full integration of the money market in the euro area as a result of monetary union in 1999, and the entry of foreign banks. All of these factors contributed to a greater availability of loan funding, and a reduction in the cost of funding for banks, which has in turn facilitated their ability to extend more credit to the private sector. A further contributing factor is the trend fall in the volatility of output growth over the business cycle, both in Ireland and internationally, which could be seen as contributing to a lower risk of default by borrowers, insofar as output volatility is a contributor to default risk.² Lower default risk, in turn, makes it feasible for banks to undertake further lending. Additional support to lending growth from the supply side comes from the effect of product innovation, such as interest-only mortgages, equity withdrawal products, and longer maturity mortgages, which have been able to meet the diverging needs of customers in the loan markets.

The modelling exercise identifies a number of fundamental factors that have been important in explaining the growth in mortgage credit over the last twenty years. These factors are fundamental in the sense of not being subject to any imbalances or misalignments, which allows the inference that the indebtedness that has accumulated to date can be justified, and deemed not to be excessive. This suggests that mortgage market

¹ This analysis is presented in the article “The Growth in Mortgage Indebtedness in Ireland”, in Part II of this report.

² The financial stability aspects of falling output growth volatility are explored in more detail in the article “The Decline in the Volatility of Output Growth – Its Causes and Its Consequences for Financial Stability”, in Part III of this report.

developments to date are not a source of systemic fragility. The modelling of the above factors helps to explain a significant portion of the change in households' mortgage indebtedness levels until fairly recently, but does not imply that there is little cause for concern for financial stability.

In this regard, there are a number of concerns. Although developments in these same fundamental factors can account for the rapid growth in mortgage credit to date, it appears unlikely that these factors can continue to improve significantly in the future. For example, it is unlikely that interest rates, inflation and unemployment can fall much lower. Furthermore, it appears likely that incomes will not grow for a prolonged period at similarly high rates to those experienced over the past decade. Therefore, mortgage credit trends should reflect the fact that underlying fundamentals cannot continue to support the kind of growth rates experienced in recent years and consequently one would expect the rate of growth of mortgage credit to be relatively lower in the medium term. In the short-term, however, it is expected that mortgage credit will continue to grow strongly despite the slowdown in the rate of house price growth as the volume of house completions and purchases is expected to remain high. It would be of concern if the high rate of growth were nevertheless to continue in the medium term because this would signal a departure from that justified by fundamental factors.

Another concern is that, even if rapid credit growth could be accounted for in terms of supposed fundamentals, there is scope for any of these fundamental determinants of loan growth to deteriorate significantly in a short space of time causing problems for over-indebted households in servicing their debts. This could arise as a result of factors originating in either the domestic or international economies. These include, for example, a fall in incomes or a rise in unemployment, which would negatively impact on debt affordability, or a change in net inward migration trends (also likely to reflect a shock to economic activity) which would reduce demand for residential property and lead to lower returns on investment in such property for many borrowers and possibly lead to higher defaults. There is also a risk arising from the fact that the mortgage interest rate is currently at the bottom of the interest-rate cycle and only about half of its estimated long-run equilibrium level.

A further concern relates to the fact that the model captures an element of house price speculation. This would seem to suggest that households, in particular, who are keen to borrow on the strength of their existing asset base and who have a favourable repayment capacity, are borrowing increasingly to fund further property investment. These activities could drive house prices too high, with the result that they may get out of line with fundamentals. Mortgage borrowing for purposes other than the purchase of housing in Ireland (e.g., the purchase of foreign property or general household consumption) may introduce new risks and make financial stability assessment more difficult.

The confluence of an unusual number of demand and supply influences helps significantly in explaining the evolution of mortgage indebtedness patterns over two decades. However, concerns remain from a financial stability point of view. The primary concern is the risk that the level of mortgage indebtedness in the economy could continue to rise significantly and to go beyond that largely explained by changes in fundamental and structural factors. Should a decoupling occur between accelerating mortgage indebtedness and underlying fundamentals the result could be a build up of greater vulnerabilities in the financial system. These vulnerabilities, if realised in the context of a threat to borrowers' ability to repay, coming from either higher unemployment or much higher interest rates, could have important spillover effects not just on the private sector but also on the banking sector. In addition, given the extent to which domestic indebtedness relates to domestic property, that market would also be affected. This concern is exacerbated by the extent to which the domestic economy generally has become reliant on the performance of the construction sector and, in particular, residential and commercial property construction.³

House Prices

There are clear signs that overall house prices are slowing, although there are differences in the performance of different market sectors. Second-hand house price growth showed a steady decline since mid-2003, as the annual rate declined from 11.5 per cent in August 2004 to 6.1 per cent in August 2005 while new house price growth also declined but remained somewhat higher at 7.0 per cent in the twelve months to August 2005. Annualised rates of growth, based on figures for the first eight months of 2005, suggest

³ This issue is explored in more detail in the article "The Implications of a Construction Sector Correction" in Part III of this report.

national average house price growth of 6 to 7 per cent in 2005. The continued increases in housing supply may in part explain the gradual easing of house price growth; record housing output was experienced in 2004 for the tenth successive year, with an estimated 77,000 house completions.

Residential property investors remain an important segment of the market, accounting for 21.1 per cent of purchases in 2004. Despite this large market share, research suggests that there was a net reduction in the number of transactions involving investors in the market during 2004, which reversed a two-year trend of the share of investors purchasing properties outweighing the share selling. The net reduction in investor numbers in 2004 may, in part, reflect the decline in rental income experienced over the last number of years.

Rents have tended to stabilise recently. The annual decline of 5 per cent in the second quarter of 2004 recovered somewhat to an annual growth of 2 per cent in August 2005. Despite the recent pick-up in rental values, the divergent trends for house prices and rental values evident in recent years has continued for most of 2005 and, as a consequence, rental yields have continued to fall and remain low by historical standards. As highlighted in last year's Financial Stability Report, the current trend in rents could leave recent investors in the housing market facing a shortfall in terms of their ability to cover mortgage repayments with rental income; the shortfall between rents and mortgage repayments is more pronounced for recent investors in second-hand property. Despite this shortfall, it appears unlikely that existing investors will exit the market, given the current environment of positive growth in capital values and, for those in the market for some time, their relatively lower mortgage repayments compared to more recent investors.

The current slowdown in Irish house prices mirrors the trend seen internationally. In the UK, for example, house price growth declined significantly over the course of the last year. While it is too early to say what effect the slowdown in house price growth will have on these economies, previous international evidence suggests that a stabilisation in house prices need not impact negatively on the health of the economy.

Non-Financial Corporate Sector

The rate of increase in lending by resident credit institutions to non-financial corporates continued to pick-up in the first half of 2005 further intensifying the

rebound in credit growth evident since 2002. This pick-up is evident across most sectors. Credit growth to construction and real estate continues apace at just over 45 per cent, slightly above its 2004 level. Commercial property-related lending is the largest component of outstanding loans to the non-financial corporate sector in 2005. However, realised credit risks remain at low levels. For example, the rate of potentially insolvent liquidations remains significantly below its long run average.

There appears to be no substantial short- to medium-term risks to financial stability arising from the corporate sector. However, the skewed distribution of debt, with a disproportionately small number of firms holding the majority of debt, suggests that this overall assessment for the corporate sector is dependent on the continuing health of this small group of large firms. However, the debt of these companies is likely to have been sourced from outside the Irish financial system thereby reducing the financial stability implications for the Irish banking system somewhat.

Banking Sector

Growth of the domestic banking sector remains high with no obvious signs that it may slow down in the near future. The current annual nominal growth rate of Irish banks' assets is 24.6 per cent, which is approximately double the growth rate of the euro area banking system (11.6 per cent). The health of the banking system remains generally solid, when measured by asset quality, profitability, solvency, liquidity and credit ratings of the Irish banks. Earnings growth has been strong and capital ratios are generally well in excess of minimum requirements; total own funds as a percentage of risk weighted assets average 10.5 per cent, approximately, compared to a regulatory minimum of 8 per cent.

There are, however, five main concerns with respect to the outlook for the health of the banking system over the medium term. First, the rate of credit growth and indebtedness is exacerbating the vulnerabilities of the system to a variety of potential shocks, both domestic and external. Second, the share of the loan book in property-related sectors continues to increase very rapidly and now constitutes the greater part of the outstanding loan book. This suggests a significant and possibly excessive concentration of the loan book in property, albeit broadly defined. While the increase in property-related lending implies a higher fraction of the

loan book is secured by tangible collateral and may, therefore, be somewhat less risky than the unsecured loans for which property lending is substituting, the concentration of risks in one, albeit broad, sector is a concern. Third, net interest margins are declining. While banks are cushioned somewhat from these declining margins by the current strong rate of lending growth, this has been at the expense of a possible over-concentration in property-related lending. In the face of declining margins, banks may be tempted to seek alternative and possibly riskier sources of higher-yielding interest and non-interest sources of income. Fourth, banks are having to source increasing amounts of funding from non-retail sources, including international sources. There is a risk that a country-specific shock to the Irish economy would constrain the supply and/or raise the price of this funding sharply. Finally, banks' provisioning levels are already low by historical comparison and the adoption of International Financial Reporting Standards will see these provisioning levels fall further.

Insurance Sector

The rapid growth of the banking sector over the period 1998 to 2004 (averaging 22.4 per cent per annum) has been almost matched by that of the insurance sector (averaging 18.7 per cent per annum). The latest data suggest that the domestic insurance sector may now be about one third the size of the group of mortgage-lending domestic banks. Insurance companies can affect financial stability mainly through

1. bancassurance groups, where banks own life insurance companies or vice versa, and
2. the provision of insurance products which are crucial to the real economy.

The structure of the industry in Ireland suggests that financial stability risks arising from the insurance sector are currently very low.

Payments System

The payment and settlement systems in Ireland continue to operate satisfactorily, suggesting that risks to financial stability through these systems are very limited. The overall availability of the TARGET system in 2004 was 99.8 per cent. Availability of the IRIS component of TARGET was 99.6 per cent in 2004 – which exceeds ECB requirements – and, in nine months in 2004, was 100 per cent. An elaboration on the financial stability implications of developments in payments systems is set

out in a separate article (“Large-Value Payment Systems: An Introduction to Operation, Design and Risk Mitigation”) later in this report.

Conclusions

The Bank's 2004 Financial Stability Report identified the risk of an unanticipated and sudden fall in residential property prices, combined with an increase in the default rate among mortgage holders, as the risk that posed the greatest threat to the health of the banking system. A moderation in house price growth in the meantime suggests that, while the risk identified in last year's report of a sudden fall in prices cannot be dismissed, this risk may have receded somewhat. However, tentative evidence suggests that this moderation may not have persisted. If house price growth were to reaccelerate, this would increase the risk of a sharp correction in house prices in the future.

The Bank's central forecast for the economy is for overall economic growth to remain stable for the next two years but this is accompanied by external and domestic downside risks. The main external risks to the outlook are uncertain prospects for oil prices, large global imbalances (and the associated risk of a sharp movement in exchange rates), as well as possible mispricing in international bond and some other asset markets. Some growing domestic vulnerabilities relate to the construction sector and competitiveness. At present, the risks to the economy are predominantly from the international environment. The possibility exists that the realisation of these international risks could trigger the domestic risks and lead to a greater cumulative impact on economic growth.

The central expectation, based on an assessment of the risks facing both the household and corporate sectors, as well as the current shock absorption capacity of the banking system, is that the current health of the banking system leaves it reasonably well placed to withstand pressures from potential adverse developments in the short to medium term. However, there are a number of vulnerabilities, in the medium term, particularly that ensuing from the very high rate of credit growth. The Bank's concern in this respect relates to the rapid rate of accumulation of private-sector indebtedness. In particular, increasing indebtedness incurred for asset purchase, possibly reflecting excessive exuberance about prospective returns by leveraged borrowers, contain inherent dangers for creating fragility in the

banking system. There are many elements of the very benign economic environment, which has persisted over the last decade or so and which were important in driving rapid rates of mortgage growth (such as falling inflation, interest rates and unemployment, as well as rapidly rising disposable incomes). These favourable elements almost certainly cannot be repeated over the coming years. This, along with the predictable pattern of amortisation of outstanding mortgage debt, would point

to a medium-term slowdown in mortgage debt growth. A failure of mortgage growth to slow in line with these developments would be a worrying indicator for financial stability. It should also be borne in mind that the ability of fundamental factors to account for the rapid pace of mortgage growth to date does not completely allay financial stability concerns since these fundamental factors themselves can be vulnerable to shocks which could leave many borrowers facing default.

Financial Stability Report 2005

Part 1

1. Introduction

This is the fifth annual Financial Stability Report to be published by the Bank. The central aim of the report is to analyse and assess the overall health of the Irish financial system.

In Part I of the report, the main commentary provides an analysis of domestic and international financial developments, highlighting potential areas of concern relevant to the Irish financial system. This commentary is organised as follows: Section 2 presents an assessment of the risks to the health of the Irish financial system with regard to developments in the household, corporate and financial (banking and insurance) sectors as well as the payment and settlement system. Section 3 contains an overview of the risks emanating from the international economic environment, which could impact on the stability of the Irish financial system.

There is a thematic article in Part II of the report, titled *The Growth in Mortgage Indebtedness in Ireland*, which analyses the way in which mortgage indebtedness has evolved over the past couple of decades and finds that it can, to a significant extent, be accounted for by demand and supply-side factors which are both macroeconomic and structural.

The first two articles in Part III of the report provide analysis on the topic of liquidity. Frank Browne and Anne Marie McKiernan present some concepts of liquidity and explore the nature of the relationship between liquidity and asset prices in *The Role of Liquidity in Financial Stability*. The paper sets out ways in which liquidity can both contribute to and undermine financial stability, and highlights how, when a shock hits the economy or financial system, the behaviour of liquidity has the potential to exacerbate its effects. In *Recent Developments in Asset Prices and Liquidity in the Context of an Evolving Relationship*, Frank Browne, David Cronin and Edward O'Brien examine the relationship between developments in liquidity-sensitive variables and changes in asset prices by placing current asset prices, general inflation rates and measures of liquidity in a historical context, thereby allowing an identification of a number of features of the current relationship between these variables that are unusual.

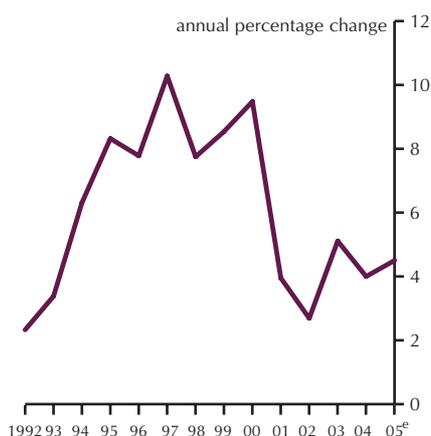
Developments in economic conditions that help to mitigate financial stability risks are to be welcomed. In *The Decline in the Volatility of Output Growth: Its Causes and Its Consequences for Financial Stability*, Frank Browne, David Cronin and Bernard Kennedy explore the recent phenomenon of lower volatility of output growth and its expected beneficial impact on financial stability.

The implications of an interest-rate rise for the Irish economy generally, and more specifically for the stability and soundness of the Irish financial system, depend on the factors driving any such increase. In *Assessing Interest Rate Risk from the Rate's Constituent Components*, Frank Browne and Mary Everett examine a range of possible causes and likely consequences of an interest-rate hike.

The health of the Irish banking sector is considered in depth in the main assessment. Caroline Gavin and Rebecca Stuart discuss developments in the regulation of credit institutions' capital and offer some implications for financial stability in *Regulatory Developments in the Capitalisation of Banks – A Financial Stability Perspective*.

As a follow-up to the special theme in last year's financial stability report on the Irish housing market, Maurice McGuire and Diarmaid Smyth seek to measure the effect on the economy of a house building "correction", in their paper *The Implications of a Construction Sector 'Correction'*, as current levels of house building are well in excess of the economy's medium-term requirements.

Chart 1: Real GNP Growth



Source: CSO and CBFSAI calculations

An essential component of a stable financial system is a smooth functioning payment and settlement system. Paul O'Brien provides an overview of large-value payment systems, which play a pivotal role in modern economies, in *Large Value Payment Systems: An Introduction to Operation, Design and Risk Mitigation*.

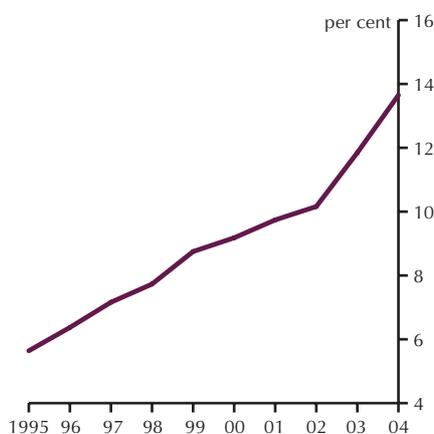
2. Assessment of the Irish Financial Sector

2.1 Macroeconomic Review

—Economic Growth

National Accounts data show that the volume of GDP increased by 4.5 per cent last year, with a corresponding increase in GNP of 4 per cent (Chart 1). Some deceleration was observed during the first half of 2005, however, with preliminary growth rates in GNP and GDP of 3.4 per cent and 3.1 per cent, respectively. Output growth this year is being driven to a significant extent by a pick-up in some components of domestic demand, including consumer spending and business equipment investment. By contrast, the external performance of the economy was very muted during the first half of 2005. This reflected developments in both merchandise and services exports, although the weakness in the latter largely reflected apparently one-off developments in insurance-related transactions. Construction activity is expected to remain at a high level over the next two years. However, a much lower contribution to growth is expected to come from the housing construction sector, which was a key driver of growth in 2003 and 2004. For instance, residential investment accounted for about 13.6 per cent of GNP in 2004, compared with 5.6 per cent in 1995 (Chart 2).

Chart 2: Contribution of Housing Investment to GNP



Source: CSO

GNP growth is currently projected to average around $4\frac{1}{2}$ per cent this year with a broadly similar outturn expected for 2006. GDP growth is projected to average around $4\frac{1}{4}$ per cent this year, rising to around $4\frac{3}{4}$ per cent next year. There are, however, some significant downside risks to these projections. On the external front, these include uncertainty over the future path of oil prices and the exchange rate. Domestic risks to the projections mainly relate to the relatively high reliance on the construction sector for growth in recent years and the possibility of a quite sharp contraction of the house-building sector.

Other broad indicators of economic activity remain generally favourable. The labour market continues to perform well with particularly strong employment growth in construction and some parts of the private-services sector. The unemployment rate is projected to remain close to $4\frac{1}{4}$ per cent in both 2005

and 2006. Despite continued strong employment growth and the modest tightening of labour market conditions, inflationary pressures remain relatively subdued. The headline Harmonised Index of Consumer Prices (HICP) figure is expected to average $2\frac{1}{4}$ per cent this year with a modest pick-up to around $2\frac{1}{2}$ per cent in 2006.

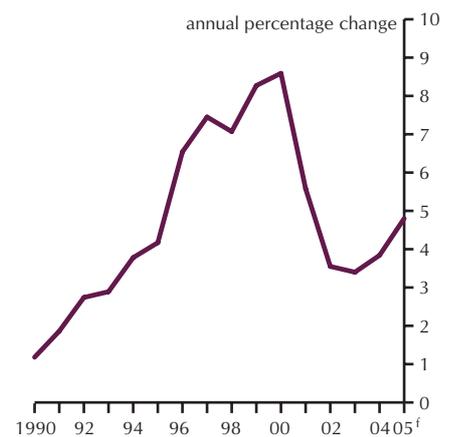
While overall economic growth is expected to remain broadly stable over the next two years, some change in the composition of demand growth is expected. In particular, private consumption growth, which was relatively weak between 2002 and 2004, is likely to accelerate during this period (Chart 3). Personal consumption growth increased to around 5 per cent, year-on-year, during the first half of 2005. While growth in real disposable incomes may decelerate slightly next year, the release of funds invested in SSIA's may provide some support for consumption growth in both 2006 and 2007. A weaker contribution to domestic demand growth is expected from investment expenditure, particularly residential investment. It would appear as if current levels of house building are significantly in excess of the medium-term requirements of the economy. A gradual contraction of the house-building sector is, therefore, expected in the coming years. (See *The Implications of a Construction Sector 'Correction'* in Part III which seeks to measure the effect on the economy of a correction in the house-building sector.) This may be counterbalanced to some extent by a pick-up in non-residential construction activity.

On the external side, export growth was very weak during the first part of this year. National Accounts data show a 0.6 per cent annual decline in the total volume of exports of goods and services during the first half of 2005. The relatively weak merchandise export performance during the first half of the year was partly due to output weakness in the chemicals sector. Recent history has shown, however, that output trends in this sector can be very volatile and a period of negative output growth is not necessarily an indication of underlying weakness of the sector. There are also signs that competitiveness pressures, including the relatively high level of the real exchange rate, are having an impact on the exporting sectors of the economy. Services exports were also weak during the first half of the year, which seems to have been related in large part to one-off changes to insurance exports and imports. Overall export volume growth is expected to fall from 7 per cent in 2004 to around $1\frac{3}{4}$ per cent in 2005 with a pick-up to around $5\frac{1}{4}$ per cent in 2006 (Chart 4). The deceleration this year and the subsequent acceleration are exaggerated, however, by the impact of the one-off changes to insurance services exports already mentioned. Import volumes are also expected to increase next year in line with stronger export and consumption growth. However, the growth rates projected for export volumes do not imply any return to the type of market share gains experienced by Irish exporters during the 1990s.

—Labour Market Developments

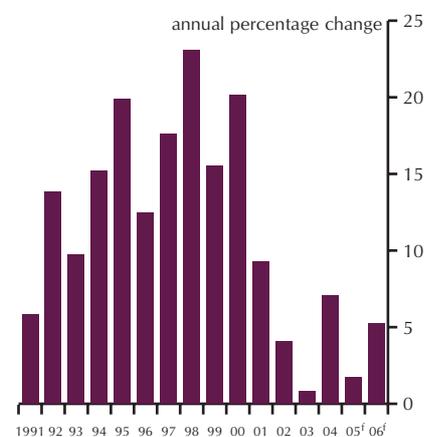
The labour market continued to perform strongly last year, with total employment growth of around 3 per cent. Employment growth was strongest in the construction sector and some parts of the private-services sector, including financial and business services and wholesale and retail trades. Labour force growth of 2.8 per cent also exceeded most expectations, mainly due to a combination of high net inward migration and an increase in the

Chart 3: Real Personal Consumption Growth



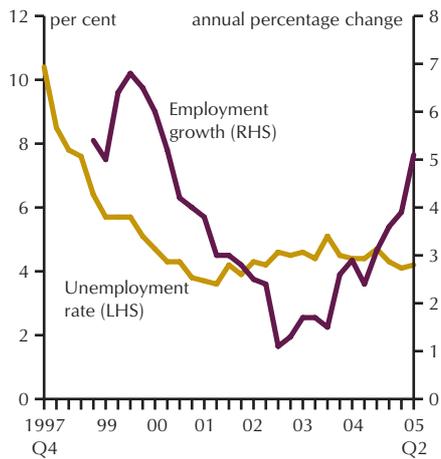
Source: CSO and CBFSAI calculations

Chart 4: Real Export Growth



Source: CSO

Chart 5: Employment Growth and Unemployment Rate

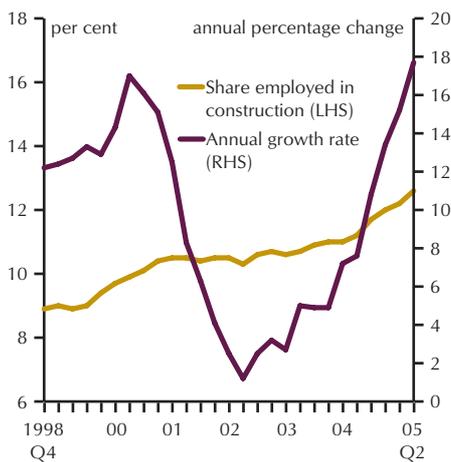


Source: CSO

female participation rate. Employment growth picked up further during the first half of 2005, with an annual increase of 4.5 per cent year-on-year (Chart 5). The corresponding increase in the labour force was 4.3 per cent. Annual employment growth of 5.1 per cent in the second quarter of this year was the fastest rate of growth since mid-2000, driven in particular by very strong growth in construction employment (up 17.7 per cent) (Chart 6). The annual increase in the labour force during the second quarter was 4.9 per cent. Net immigration, particularly from the new EU Member States, was a significant contributory factor to the increase in the labour force.

Employment growth is expected to moderate slightly in 2006 as the output of the construction sector slows. Nevertheless, it is expected that employment increases can continue to keep pace with the growth of the labour force and the unemployment rate is, therefore, expected to remain stable at around $4\frac{1}{4}$ per cent over the next two years. Total employment growth of around 4 per cent this year and $2\frac{1}{4}$ per cent in 2006 is projected, driven mainly by continued strong growth in private-services employment.

Chart 6: Employment in the Construction Sector



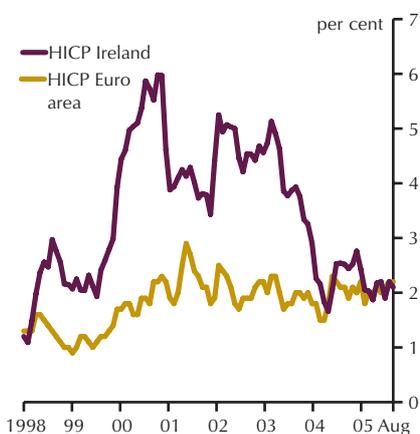
Source: CSO

Average non-agricultural earnings increased by around 5.6 per cent last year, boosted by benchmarking payments in the public sector. Despite strong employment growth, some moderation in pay increases is expected this year. This partly reflects the relatively low inflation environment and also, partly, lower public-sector pay increases. It is estimated that average pay increases of around 5 per cent will be recorded this year, with some modest decrease to around $4\frac{3}{4}$ per cent expected next year.

—Price Developments

Following several years of high inflation, the rate of increase in the HICP has now fallen back into line with the average for the euro area (Chart 7). The average increase in the overall HICP in 2004 was 2.3 per cent, down from 4.7 per cent in 2002 and 4.0 per cent in 2003. Inflationary pressures have remained relatively subdued during 2005, with the HICP averaging around 2.1 per cent during the first eight months of the year. Underlying inflationary pressures have been even weaker, with the overall HICP figure boosted by rising oil prices over the past year. The HICP increase, excluding the energy component, averaged only 1.3 per cent during the first eight months of 2005. There have been several reasons for the decline in inflation over the recent past and the reduction of the differential vis-à-vis the euro area average. The decline in goods price inflation has been largely driven by the appreciation of the euro exchange rate, particularly against the dollar — although this was reversed somewhat during the first half of this year. Weaker services-sector inflation, meanwhile, coincided with weaker domestic demand growth and the lower wage increases in services that have persisted since the downturn in 2001. The absence of any changes in indirect taxes in the last Budget also contributed to the narrowing of the differential vis-à-vis the euro area during this year.

Chart 7: Inflation Rates (HICP)



Source: Eurostat and CSO

HICP inflation is expected to average around $2\frac{1}{4}$ per cent this year, rising to around $2\frac{1}{2}$ per cent in 2006. A particularly important challenge for economic policy in the coming years will be to avoid a re-emergence of domestic inflationary pressures. Following seven years, between 1998 and 2004, during which period Irish inflation was above the euro area average, Ireland has now

overtaken Finland to become the most expensive country in the euro area for consumer goods and services. Indeed, it would appear as if prices in Ireland are now above their sustainable level, i.e., the level that can be justified by economic fundamentals including incomes, wealth and productivity. An excessive price level is associated with a number of economic costs and disadvantages relating to consumer welfare and economic competitiveness. A deterioration in the cost competitiveness of the Irish economy has also occurred over the past four years, reflecting lower productivity growth in many sectors and wage increases in excess of those in our main trading partners in addition to the appreciation of the exchange rate. Any further increase in relative prices or costs would leave the Irish economy at a competitive disadvantage relative to our main trading partners which could potentially lead to painful adjustment costs in the form of lower output and employment in the future. This underlines the importance of maintaining a low-inflation environment and ensuring that pay settlements are consistent with lower inflation and productivity developments.

—External Risks

The possibility of a further rise in oil prices constitutes an upside risk to the inflation forecast and a downside risk to the growth forecast. The other main risk for the economy at the current juncture relates to the possibility of a further appreciation of the euro against the dollar, which would have a negative effect on the economy's export competitiveness and might make Ireland a less attractive location for inward foreign direct investment from the US (Charts 8 and 9). The possibility of such an appreciation against the dollar is enhanced by the large external deficits currently prevailing in the US economy.

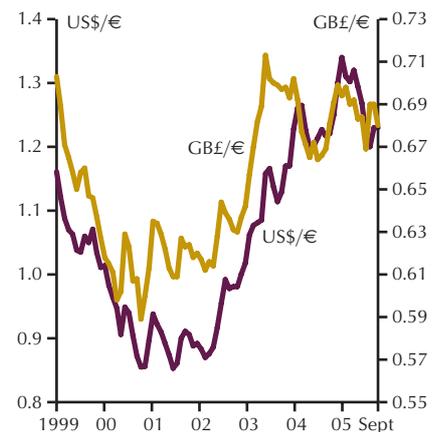
—Fiscal Position

The public finances remain in sound condition — the Exchequer Returns for 2004 showed an Exchequer Surplus of €33 million and a General Government Surplus of 1.3 per cent of GDP. Furthermore, a debt to GDP ratio of around 30 per cent was recorded at end-2004. The 2005 Budget forecast an Exchequer Deficit of €2,988 million and a General Government Deficit of 0.8 per cent of GDP. The Exchequer Returns for the three quarters of the year showed stronger-than-anticipated tax revenue combined with below profile total expenditure levels for this stage of the year. Based on these trends, it now seems likely that a significantly lower Exchequer Borrowing Requirement is in prospect for 2005 as a whole compared with the €3 billion target envisaged in the 2005 Budget.

—Private-Sector Indebtedness

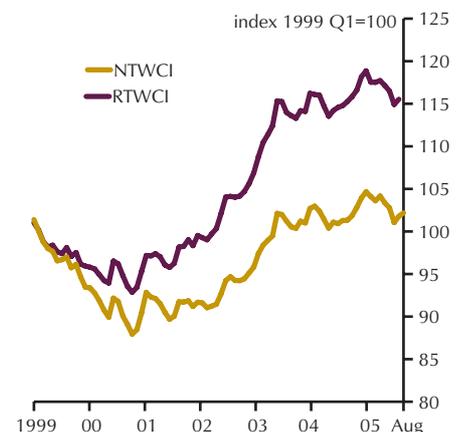
The strong growth in private-sector credit (PSC) continued into 2005. The year-on-year underlying adjusted growth rate of private-sector credit was 28.2 per cent in August 2005 compared with 24.7 per cent in August 2004. The rate of growth in private-sector credit (i.e., credit to households, corporates and non-bank financial institutions) outpaced the growth in GDP and GNP such that the ratio of PSC to GDP (a proxy for private-sector indebtedness) increased from 115.3 per cent in 2003 to 134.4 per cent by the end of 2004 (a 16.5 per cent increase) (Chart 10). These figures suggest the ratio of credit to income (i.e., PSC/GDP) in Ireland increased by more than the corresponding euro area average in 2004 (approximately 3 per cent). Furthermore, a projection for PSC/GDP based on current forecast for GDP

Chart 8: US\$ and STG£ Exchange Rates vis-à-vis €



Source: ECB

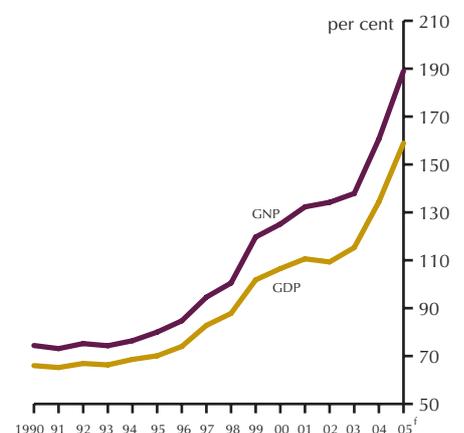
Chart 9: Trade Weighted Competitiveness Indices



Source: CBFSAI

Note: NTWCI is the nominal trade weighted competitiveness index and RTWCI is the real trade weighted competitiveness index.

Chart 10: Private-sector Credit as a % of GDP and GNP

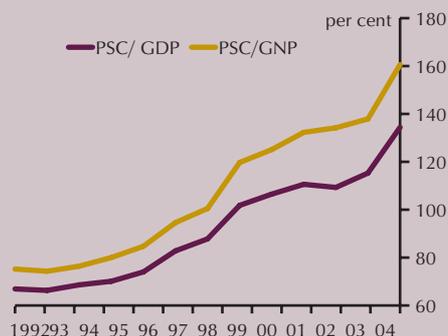


Source: CBFSAI and CSO

Note: Data for 2005 are an estimate.

Box A: Dynamics of PSC/GDP Ratio

Chart 1: Private-sector Credit as a % of GDP and GNP for Ireland



Source: CBFSAI

During the mid- to late- 1990s the PSC/GDP ratio in Ireland increased rapidly and following a slowdown during 2001 and 2002 it increased significantly again in 2003 and 2004. As of end-2004 the PSC/GDP ratio in Ireland was at a historical high of 134.3 per cent (Chart 1) and if recent trends persist could be as high as 160 per cent by end-2005. If GNP, which is a better indicator of income accruing to Irish residents due to the significant proportion of income generated in Ireland accruing to multinational enterprises, is used instead, the ratio is even higher (around 161 per cent as of 2004). In a comparison with other euro area countries both ratios place Ireland at the higher end of the scale. Ireland is placed third, of the twelve, behind the Netherlands and Portugal using the PSC/GDP ratio while the PSC/GNP ratio places Ireland as the second most indebted country, once again behind the Netherlands. The cross-country comparison in Table 1 shows that PSC/GDP (and indeed PSC/GNP) ratios can vary widely from country to country. Under both measures Finland is the least indebted with a ratio of only 69 per cent as opposed to the Netherlands who, with a PSC/GDP ratio of 157 per cent and a PSC/GNP ratio of 169 per cent, are the most indebted.

Table 1: PSC as % of GDP and GNP for euro area countries

Country	% of GDP	% of GNP
Netherlands	157	169
Portugal	144	153
Ireland	134	161
Spain	125	127
Germany	112	112
Austria	105	106
France	91	90
Italy	88	88
Greece	79	79
Belgium	73	72
Finland	69	69

Source: Eurostat and IMF IFS

Note: Countries are ranked in descending order based on PSC/GDP ratio. Data are as of 2004.

It is the relative growth rates in PSC and GDP that determine the development in the PSC/GDP ratio. For instance if both components are growing at the same rate then the PSC/GDP ratio will remain constant. The upward trend in the PSC/GDP ratio in Ireland in recent years is due to the fact that PSC has been growing at a faster rate than GDP.

It is possible that the stage of a country's credit and/or economic cycles may contribute to the wide spread of PSC/GDP ratios. In looking at credit cycles two aspects are important, the first is the rate of new lending and the second is the rate of amortisation (i.e., the rate at which outstanding loans are repaid). The impact of new lending and amortisation on PSC is given by:

$$PSC_t = PSC_{t-1} + NL_t - A_t, \text{ and therefore}$$

$$\Delta PSC_t = NL_t - A_t$$

that is, the change in PSC in period t is determined by the amount of new lending (NL) in period t and the amount of loans repaid (i.e. the amount amortised, A) in period t.

A hypothetical example is presented to illustrate how different stages of the credit cycle impact on both the rate of new loan growth and the amortisation rate and therefore the rate of growth in PSC. The example assumes that PSC is made up of mortgage loans only, with all mortgages assumed to have a fixed interest rate and duration of 20 years. A one-year credit boom is assumed during which new lending is 300 units. Before and after the boom new loans are 100 units a year. A zero per cent growth rate is assumed for GDP so as to isolate the effect of the credit cycle on the PSC/GDP ratio.

Table 2 shows the development of the various components over time. During the credit boom (period t) the rate of loan growth is high while the rate of amortisation initially remains unchanged. This results in a high PSC growth rate and, for a constant level of GDP, an increase in the PSC/GDP ratio. In the years following the credit boom the combined effect of changes in the new lending and amortisation rates result in the PSC growth rate falling from its boom levels. This results in a fall in the PSC/GDP ratio. Immediately after the boom (period t+1) there is a significant fall in the rate of new loan growth (from 26 per cent to 7 per cent). It is this fall in the rate of new lending that initiates a decrease in the PSC growth rate and the PSC/GDP ratio. As time progresses (from t+2 onwards), however, and the effects of the boom work their way through the loan book, it is the amortisation rate that becomes the dominant component. From t+2 onwards increases in the amortisation rate outweigh increases in the rate of new lending, this results in the PSC growth rate continuing to fall, thereby continuing the decline in the PSC/GDP ratio. This continues until the effects of the credit boom fall out of the loan book (t+21). When this happens the amortisation rate and rate of new lending return to pre-boom levels. As a result the PSC growth rate falls back to pre-boom levels as does the PSC/GDP ratio.

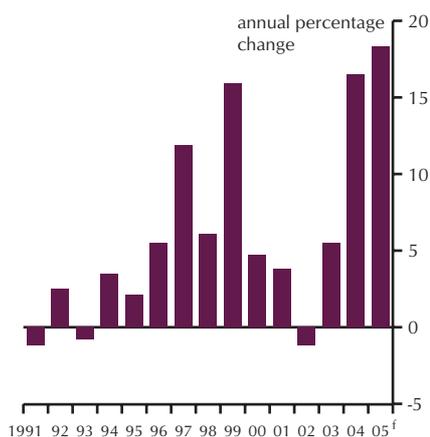
Table 2: Results of the Hypothetical Scenario

Time period	GDP units	PSC units	PSC growth %	New loans units	New loan growth ^a %	Amount amortised units	Amortisation rate ^a %	PSC/ GDP %
t-2	854	1,147.7		100		100.0		134.4
t-1	854	1,147.7	0.00	100	8.71	100.0	8.71	134.4
t	854	1,347.7	17.43	300	26.14	100.0	8.71	157.8
t+1	854	1,340.3	-0.55	100	7.41	107.4	7.97	157.0
t+2	854	1,332.6	-0.57	100	7.46	107.7	8.03	156.1
t+3	854	1,324.7	-0.59	100	7.50	107.9	8.10	155.1
t+4	854	1,316.6	-0.61	100	7.54	108.1	8.16	154.2
t+5	854	1,308.2	-0.64	100	7.60	108.4	8.23	153.2
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:								
t+17	854	1,185.7	-1.00	100	8.35	111.9	9.35	138.9
t+18	854	1,173.4	-1.04	100	8.43	112.3	9.47	137.4
t+19	854	1,160.8	-1.08	100	8.52	112.7	9.60	135.9
t+20	854	1,147.7	-1.12	100	8.62	113.1	9.74	134.4
t+21	854	1,147.7	0.00	100	8.71	100.0	8.71	134.4

^aNew loan growth and the amortisation rate are calculated as new loans (amortised amount) in a given period as a percentage of the stock of PSC at end of previous period.

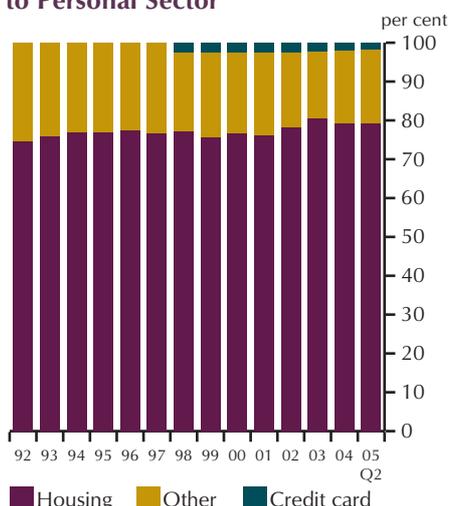
The example suggests that the high and increasing PSC/GDP ratio in Ireland in recent years could in part be due to the fact that we have been experiencing a credit expansion in recent years. The example suggests that during a credit expansion loan growth is high and that the amortisation rate does not increase. This could have played a role in the particularly strong growth in PSC/GDP ratio in Ireland in recent years. However, as the credit cycle develops, changes in both the rate of new lending and the amortisation rate may naturally contribute toward a fall in the PSC/GDP ratio bringing the ratio back towards earlier levels.

Chart 11: Annual Growth in the Ratio of Private-sector Credit to GDP



Source: CBFSAI and CSO

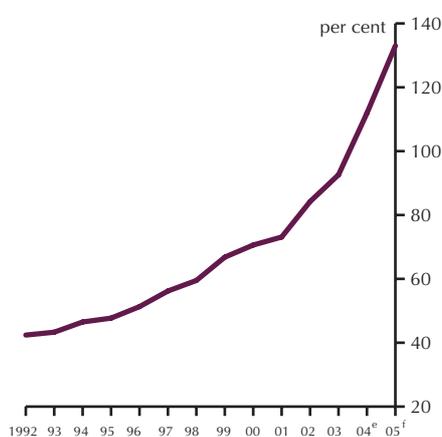
Chart 12: Distribution of Advances to Personal Sector



Source: CBFSAI

Note: Credit card is in "others" prior to 1998.

Chart 13: Personal-sector Credit as a % of Disposable Income



Source: CBFSAI and CSO

and a continuation of the current rate of PSC growth, indicates a ratio of approximately 160 per cent by end-2005. (See Box A for a discussion on the dynamics of the PSC/GDP ratio.)

The overall level of indebtedness, and in particular the speed at which it is rising, is a matter for concern. In the first place, all things being equal, an increasing level of indebtedness results in an increasing aggregate repayment burden on the private sector, which increases the sensitivity of the private sector to any adverse shock (such as a significant increase in interest rates, falling income or a rise in unemployment). This increased sensitivity has implications both for the financial position of the private sector and for the health of the wider economy, in particular, investment and consumption. In summary, a higher level of indebtedness increases the vulnerability of the private sector and the economy. Although it is usual for economies experiencing increasing income per capita to experience an increasing level of indebtedness, the current level of private-sector indebtedness is also high by average international standards. Ireland's credit expansion compared with developments in other European countries is examined in Box B and analysis is provided of the relationship between growth in income per capita and increasing levels of indebtedness in Ireland. If credit growth does not slow significantly over the next few years, Ireland's level of indebtedness will become even more significant and possibly an outlier among international comparators.

The second and more worrying aspect of the level of private-sector indebtedness is the speed at which it is increasing. The level of indebtedness rose by 16.5 per cent in 2004 and is likely to increase by about 18 per cent in 2005 (Chart 11). Thus, the growth rate is accelerating and the projected increase this year would be significantly higher than that experienced in the late-1990s, a time when economic growth was significantly higher than is forecast for the near future and interest rates were still trending downwards. This pace of growth poses dangers because, notwithstanding current robust economic growth in Ireland, there are domestic and external risks to the macroeconomic outlook. This debt will still have to be serviced should these risks be realised.

2.2 Household Sector

2.2.1 Household Indebtedness

Growth in personal-sector credit continues apace. Personal-sector credit, which currently accounts for approximately 45 per cent of private-sector credit, grew at an annual rate of 28.6 per cent in the second quarter of 2005, compared with 29.2 per cent in the same quarter of 2004. Personal-sector debt predominantly comprises lending for housing-related purposes: 79 per cent of personal-sector credit in Ireland was for housing in the second quarter of 2005 compared with an average of approximately 69 per cent in the euro area as a whole. Credit-card lending accounts for 2 per cent of household debt, while other non-housing finance (i.e., finance for investment and other personal advances) contributes a further 19 per cent (Chart 12).

Households are becoming increasingly indebted. It is estimated that personal-sector credit was almost 112 per cent of disposable income in 2004, compared with just over 92.6 per cent in 2003 (Chart 13). Growth in this ratio has accelerated in recent years. Year-on-year, the ratio grew by 20.9 per cent in 2004, which is above the long-run average growth rate (1994 to 2004) of

Box B: Irish Private-Sector Credit Growth and Living Standards

In recent times, concern has been expressed about the strong growth in private-sector indebtedness in Ireland. In particular, the ratio of private-sector credit to GDP was 134.4 per cent at the end of 2004. This box addresses two issues. First, Ireland's credit expansion is placed in a European context. Second, the box examines the relationship between the increase in Irish indebtedness and the expansion in economic growth. From the mid-1990s Ireland's economic output accelerated dramatically and allowed Irish living standards to converge on those enjoyed in the principal European economies.

Chart 1 looks at the relationship between PSC/GDP ratios and national output per capita in purchasing power standards (PPS).¹ The use of PPS eliminates price differentials between countries and therefore allows a comparison of living standards across countries. The results for all countries are expressed relative to the average performance of the core euro area countries, in 2004.² In this context, Ireland enjoyed one of the highest levels of output per head (€31,500) in 2004, even when prices are taken into account.

One of the most striking features to emerge from this graph is the marked divergence between the EU-15 countries and the new member states.³ The EU-15 countries are generally characterised by high-income and high-debt while the new member states are seen to be low-debt, low-income countries. Cyprus emerges as an exception to this trend. As can be seen from the chart, in 2004 Ireland is clearly aligned with the high-income countries.

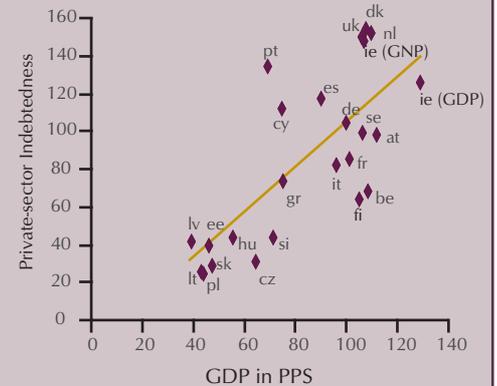
However, even though per capita GDP figures are widely used for international comparison purposes, they fail to yield an accurate description of Irish living standards because of the large number of foreign multinationals located in Ireland. When GNP is used in Chart 1, the Irish PSC/GNP ratio increases and provides a more representative portrayal of Irish indebtedness relative to living standards.

The second issue to be addressed is the relationship between the increase in domestic credit and an expansion in economic growth. Chart 1 shows that there is a positive relationship between output per head and private-sector indebtedness, at a particular point in time, given the sample of countries chosen. Additionally, by examining the evolution of this relationship over time, as is done in Chart 2, the increase in Irish PSC/GDP ratio is shown to track economic development quite consistently. Portugal is chosen as a reference country because in 1990 it had similar levels of GDP per head and its PSC/GDP ratio was in the same range as Ireland's ratio. However, by 2004 the situation had changed dramatically. Portuguese residents had become more heavily indebted than Irish residents but their income per head had not increased to the same extent, as in Ireland.

McKinnon (1973)⁴ finds that the ratio of private-sector credit to national income is positively related to per capita income. Countries such as post-war Germany and Japan, which experienced high levels of economic growth, are highlighted as examples. An interesting point to note is that as Ireland's economic growth accelerated in the mid 1990s, private-sector indebtedness also jumped by a large amount.

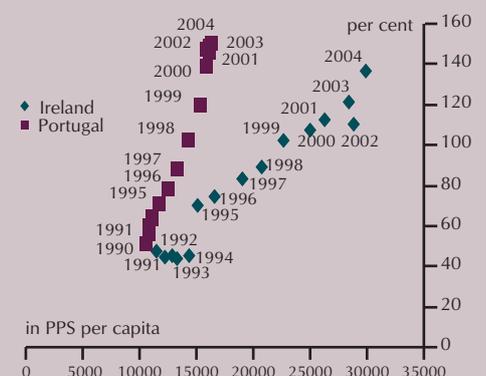
It is, however, extremely difficult to determine the direction of causality between economic activity and credit growth within a specific period. An expansion of credit markets can stimulate the real economy through its positive effect on consumption decisions. Likewise, economic growth impacts strongly on both the supply and demand for credit. When an economy develops, primary industries decline in importance and financial markets develop and deepen. Credit institutions are more willing to extend their loan book if the probability of default is low. Regarding demand for credit, consumers will revise their expectations upwards if it is assumed that the country's future economic prospects will remain favourable. These expectations are based on the most current information set. An increased demand for liquidity will boost consumption, if credit markets are accommodating.

Chart 1: Private-Sector Credit / GDP to GDP in PPS Per Capita. Euro Area Average =100. (2004)



Source: Eurostat and IMF IFS

Chart 2: PSC/GDP to GDP in PPS (1990-2004)



Source: Eurostat and IMF IFS

In the Irish case, there are many well-documented reasons for the recent expansion in private-sector credit growth.⁵ During the 1990s, the introduction of the euro was widely anticipated. It was expected that nominal interest rates and domestic inflation rates would decrease in line with German rates. As a consequence, the real cost of borrowing would decline. Furthermore, there was extensive liberalisation of the domestic financial market during this time.

¹ As many countries measure private-sector credit differently, the IMF International Financial Statistics were used, to obtain consistent and comparable figures.

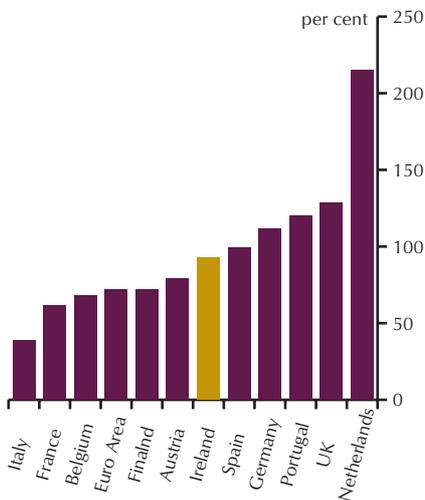
² Luxembourg is omitted due to lack of data on PSC. The average wealth per capita in PPS for this set of countries is forecasted at €24,418 for 2004, while the average private-sector credit/GDP ratio is approximately 107 per cent.

³ Those countries, which entered the EU on May 1 2004.

⁴ McKinnon, (1973), *Money and Capital in Economic Development*, Washington: The Brookings Institution.

⁵ See "The Growth in Mortgage Indebtedness in Ireland" in section 2 of this report and Kelly, (2004), "Benchmarking Irish Private-Sector Credit" in *Quarterly Bulletin* CBFSAI, for a discussion on trends in Irish private-sector credit.

Chart 14: Personal-sector Credit as a % of Disposable Income (EU) 2003



Source: Eurostat, National Statistics, CBFSAI
Note: All data are for 2003.

approximately 9.1 per cent and more than double the rate of increase in 2003 (9.9 per cent). Projections based on a continuation of recent growth rates in disposable income and personal-sector credit suggest that personal-sector credit as a percentage of disposable income could increase to 133 per cent by end-2005, which would represent an increase of almost 19 per cent in household indebtedness compared with a year earlier. This rapid accumulation of debt by the Irish household sector is worrying as Irish households are already highly indebted by international standards. For instance, a cross-country comparison of the ratio of household debt to disposable income in 2003¹ showed Ireland (92.6 per cent) to be above the average euro area level (72 per cent), although still somewhat behind the most heavily indebted EU countries such as Germany (112 per cent), Portugal (120 per cent), UK (129 per cent) and the Netherlands (215 per cent) (Chart 14). However, the gap between Ireland and these countries is closing quickly. For example, the UK's ratio increased from 129 per cent in 2003 to 141 per cent in 2004. The corresponding increase for Irish households was from 92.6 per cent to almost 112 per cent.

Chart 15: Underlying Rates of Residential Mortgage Growth



Source: CBFSAI

Non-housing personal-sector credit exhibited a slowdown in growth in the second quarter of 2005 to 24.9 per cent following particularly strong growth in the previous two quarters of 29.9 per cent and 32.9 per cent, respectively. Such a strong pace of growth has not been experienced in this segment of the loan market since the start of 2000, when lending increased by almost 35 per cent.

Although residential mortgage growth appears to have peaked, reaching an annual growth rate of 27.8 per cent in mid-2004, it remains at a very high level of 25.7 per cent growth in the twelve months to August 2005 (Chart 15).² This gradual slowdown in mortgage credit growth may be the result of the recent easing of house price inflation. At these levels, mortgage credit growth continues to be a concern, although the combination of a slowdown in the rate of increase in house prices with a lower level of new house construction, expected in the next number of years, might normally be expected to contribute to a slowdown in the rate of mortgage credit growth, albeit with a lag.

¹ 2003 is the last year for which the relevant data are available for the sample of countries.

² Data for residential mortgages include securitised mortgages.

Variable-rate mortgages continue to be the predominant mortgage product availed of by borrowers. In the second quarter of 2005, 85 per cent of the value of outstanding mortgage debt was at variable rates. This is a slight increase from 82 per cent in the same quarter of 2004 and is also above the five-year average of 74.7 per cent. There are no indications that the share of variable-rate mortgages will fall significantly in the near future as variable-rate mortgages accounted for 94.4 per cent of the value of new mortgage business in June 2005.³

The mortgage repayment burden of a typical first-time buyer is estimated to increase slightly in 2005 to 30.1 per cent of disposable income (Chart 16).⁴ This increase reflects the continued growth in house prices at a time when interest rates have remained stable. First-time buyers who acquired a mortgage prior to 2003 are likely to have experienced a significant decline in their mortgage repayment burdens over time (Chart 17). While average indebtedness does not appear to be excessive this disguises the fact that a proportion of households and individuals are quite significantly indebted relative to their incomes. In particular, some recent newly mortgaged households are more heavily exposed to the potential for lower income growth, poorer employment prospects and rising interest rates.

2.2.2 Outlook for the Household Sector

Household disposable incomes are expected to rise significantly again in 2005. In addition, labour market conditions are currently very positive. The unemployment rate was 4.5 per cent in 2004, and is forecast to fall to 4 $\frac{1}{4}$ per cent in 2005. The construction sector, in particular, recorded strong growth in employment in the second quarter of 2005 (17.7 per cent). However, employment in this sector is expected to fall-off somewhat in the next few years as the residential house-building sector slows.

Consumer sentiment, as measured by the IIB/ESRI Consumer Sentiment Index, fluctuated during the first eight months of 2005 (Chart 18). The index, which summarises consumer sentiment about both current economic conditions and conditions over the next 12 months, showed a marked decline in August 2005 as it fell to its lowest level since June 2004. Analysis of the index suggests that increasing energy prices weighed heavily on consumer sentiment prompting a less benign outlook for economic activity and less confidence in the prospects for the jobs market.

2.2.3 Housing-Sector Developments

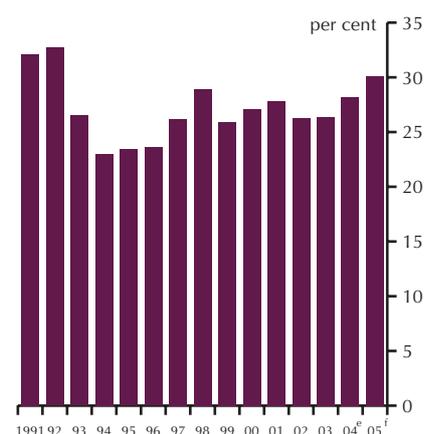
The largest single asset class, which dominates most household balance sheets, is residential property. Consequently, developments in the housing market are crucial to assessing the financial position of the household sector.

There are signs of a general slowdown in the rate of house price appreciation. However, recent tentative evidence suggests that the extent of this moderation may not be as great as was anticipated. Data from the Department of the Environment, Heritage and Local Government (DoEHLG) show that new house prices increased at an annual rate of 11.8 per cent in June 2005. The equivalent increase in second-hand house prices amounted

³ For new mortgage business, variable-rate mortgages are defined as loans for house purchases that are either at a floating rate or up to one-year initial fixation.

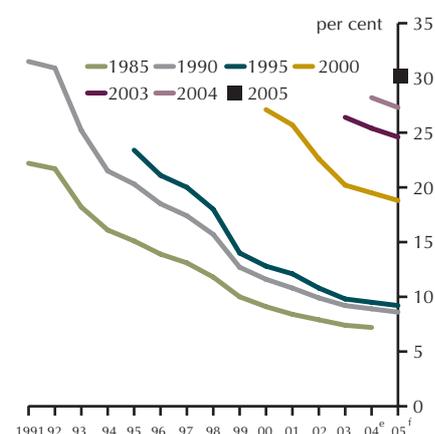
⁴ These calculations assume repayments on a mortgage of 90 per cent of the value of a new house with a maturity of 20 years at a variable rate of interest. The ratio is against the average household disposable income.

Chart 16: First-time Buyer Mortgage Repayment Burden



Source: CBFSAI calculations

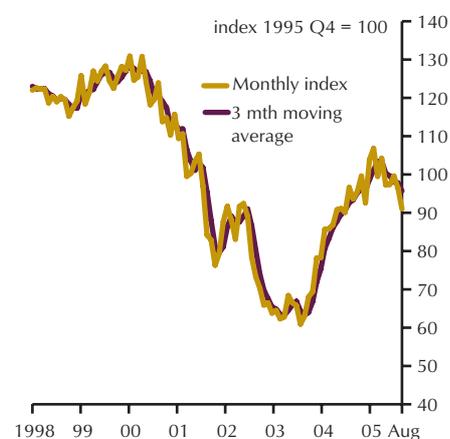
Chart 17: Mortgage Repayment as a % of Average Household Disposable Income



Source: CBFSAI calculations

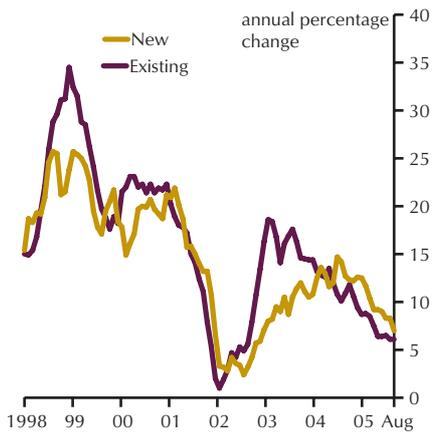
Note: Years refer to when mortgage was issued.

Chart 18: Irish Consumer Sentiment



Source: ESRI/IIB

Chart 19: PTSB House Price Index



Source: Permanent TSB/ESRI

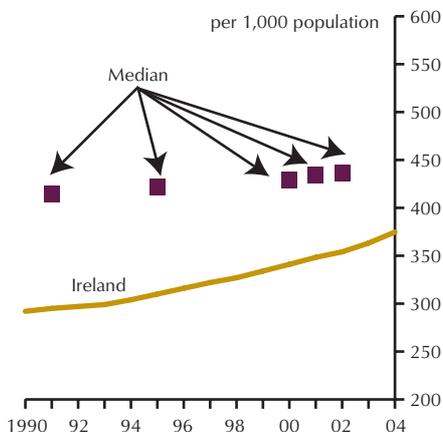
to 10.1 per cent. While these growth rates are broadly similar to the corresponding June 2004 figures, they represent a decline over the 2003 figures. Over the same period, house price growth, as measured by the permanent tsb/ESRI (ptsb) national house price index also eased. House prices grew by 6.2 per cent in June compared with 11.4 per cent a year earlier. Despite both DoEHLG and ptsb data showing a general decline in house price growth, from about 14 per cent in 2003, there remains some ambiguity in relation to the scale of the decline. According to DoEHLG, house prices increased at over 10 per cent while ptsb showed growth in the order of 6 per cent year-on-year. This may be as a result of different methodologies involved in calculating the respective series. The DoEHLG series is a simple average of all house purchases for which a mortgage was approved. The ptsb index comprises a smaller sample than the DoEHLG data, but is adjusted for compositional differences. More recent ptsb data show that this trend of declining growth continued into the second half of this year. Nationally, house prices grew at 6.1 per cent in the twelve months to August, whereas in the year to August 2004 house prices had increased at an average annual rate of 11.5 per cent. Similar trends are found in the sub-categories, new and second-hand houses. Second-hand house prices saw a general decline in the rate of growth throughout 2004 and into 2005 (Chart 19). Annual growth was 6.18 per cent in August 2005, while this represented a slight increase on the previous month's figure it was below the 10.9 per cent experienced in August 2004. While slowing gradually, the rate of new house price growth has remained reasonably strong, with an increase of 7 per cent in the twelve months to August.

An analysis of buyer classifications shows that house price appreciation for first-time buyers is currently outpacing that for second-time purchasers. House price appreciation for second-time buyers amounted to 5.4 per cent for the year-end August while house prices rose by 9.1 per cent for first-time buyers. The higher rate of house price growth has been attributed to first-time buyers purchasing more existing rather than new property.

Annualised rates of growth, based on growth rates for the year to August, suggest that national house prices are growing by 6 to 7 per cent. The trend is similar for both new and second-hand property. Both new and second-hand house prices are growing at an annualised rate of 6.1 per cent. Market commentary forecasts growth in house prices in the 5 to 15 per cent range for 2005 with many commentators suggesting that an easing of house price growth will occur.

The continued increases in housing supply may, in part, explain the gradual easing of house price growth, as supply is progressively catching up with demand. Record housing output was experienced in 2004 for the tenth successive year with 77,000 completions. This represents a 12 per cent increase from the 2003 figure. The DoEHLG notes that Ireland has the highest rate of house production in Europe, at 19 units per 1,000 of population in 2004. Despite this record output in housing units, Ireland continues to lag behind the rest of Europe in terms of total dwelling stock relative to the size of the population (Chart 20). This relative undersupply of housing may still be contributing to Irish house price growth. In addition, the effect of increased supply may have been partially offset by the increase in the stamp duty threshold for first-time buyers introduced in Budget 2004.

Chart 20: Dwelling Stock per 1,000 Population



Source: United Nations Economics Commission for Europe

Investors (as distinct from owner-occupiers) remain an important component of the residential property market in Ireland. While the precise share of the housing stock owned by investors is not known, the importance of property investors can be inferred by analysing the proportion of housing transactions for which they are responsible. Research shows that there was a net reduction in the number of properties owned by investors during 2004.⁵ Investors accounted for 21.2 per cent of total purchases in 2004 and 26 per cent of sales. This reversed a two-year trend which saw investor purchases exceed sales. While this net reduction in the level of investor presence may be due to the decline in rental income, analysis of these sales data suggest that the majority of properties sold are older and in need of refurbishment. Data for the first half of 2005 suggest that the net decline in the role of investors has continued.

There have recently been tentative signs of a recovery in rent levels. The CSO private rental index increased by 2 per cent in the year to August 2005. This marked a return to positive growth in rental values following a period of decline; the latter began in August 2002 and reached a trough in May 2004 with an annual rate of decrease of 4.9 per cent. Data from Daft.ie, which are based on the advertisements placed on Daft's website, also support this trend showing rents rising by 1.4 per cent in July 2005 compared with a fall of 7.7 per cent for the same month in 2004. (Box C provides a comparison of a number of indices measuring rental growth in Ireland.)

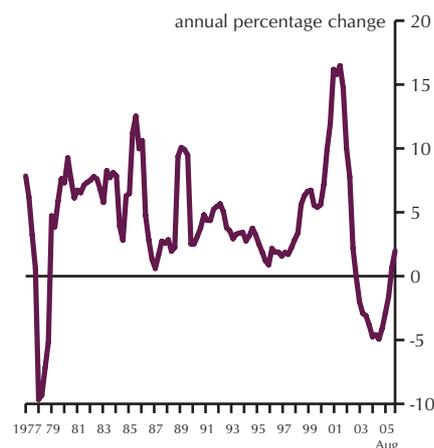
Despite the recent pick-up in rental values the divergent trends for house prices and rental values evident in recent years continued into 2005 (Chart 21). As a consequence, rental yields have continued to fall and remain low by historical standards (Chart 22). Yields were 4.45 per cent in the second quarter of 2005, compared with 5.12 per cent in 2004 and 5.92 per cent in 2003. As highlighted in last year's financial stability report, the current trend in rents could leave new investors in the housing market facing a shortfall in terms of the ability to cover mortgage repayments with rental income (Chart 23). This has continued into 2005 with the shortfall more pronounced for new investors in second-hand property.

A longer-term analysis of the risk-adjusted returns to property suggests that investors may not exit the current market to a significant degree in the face of slower capital growth. This is because property has offered the best risk-adjusted return over the period 1988 to 2005Q2 compared with equities or bonds. A simple comparison based on capital gains only suggests that the gains to equity have outperformed both property and the return on Government bonds (Table 1). However, property appears a more attractive investment when the risk-adjusted returns across assets are compared. The Sharp ratio, as a measure of performance, normalises the return of an asset on a measure of risk.⁶ The data in Table 1 suggest that despite the large average returns generated by equities in the sample period, when risk is accounted for, property outperforms equities, regardless of whether this comparison is done including, or excluding, rental income and dividends.

⁵ Source: Sherry FitzGerald Research.

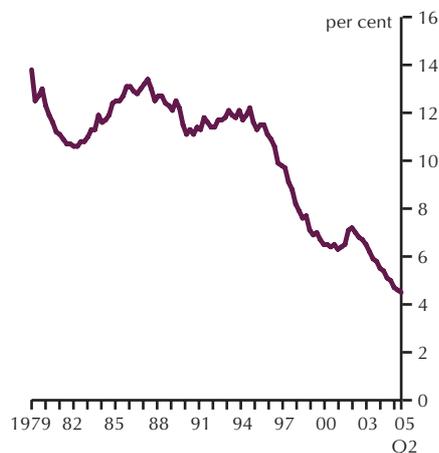
⁶ More formally, the Sharp ratio, or market price of risk, is calculated as: $\frac{E(r_p) - r_f}{\sigma_p}$, where $E(r_p)$ and σ_p are the expected return and variance from investing in portfolio P and r_f is the risk-free rate of return, in Ireland's case taken to be the return on 10-year Government bonds. The higher the Sharp ratio the better the expected return on the asset for a given level of risk.

Chart 21: Residential Property Rental Values



Source: CSO

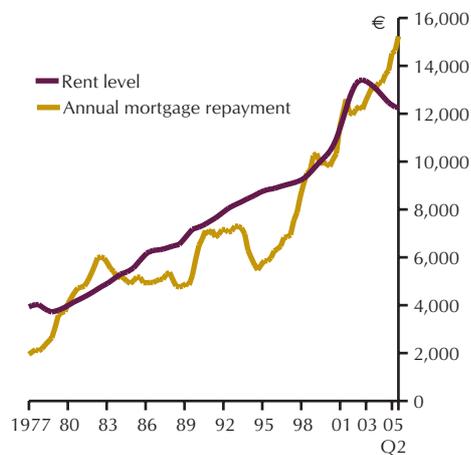
Chart 22: Irish Rental Yields



Source: DoEHLG, CSO and CBFSAI calculations

Note: Rents as a percentage of house prices.

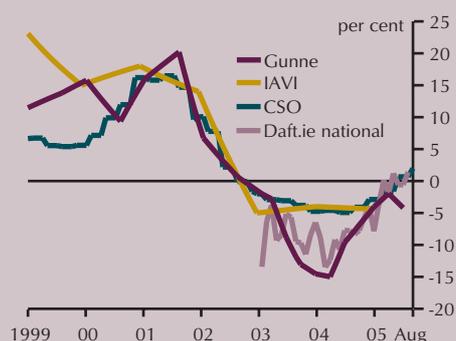
Chart 23: Rents and Mortgage Repayments for Buy-to-Let



Source: CBFSAI

Box C: Comparison of Rental Indices

Chart 1: Annual Growth in Rents



Source: Gunne, IAVI, Daft.ie and CSO

Chart 2: IAVI Annual Growth Rates

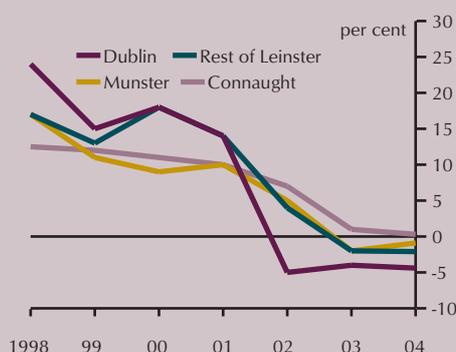
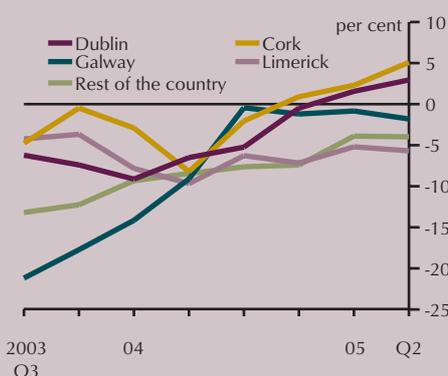


Chart 3: Daft.ie Annual Growth Rates



Returns to housing investment are often measured using price/earnings ratios. The earnings component of this ratio can be calculated using rental indices. However, for a number of reasons which are explored below, individual rental indices give different measures of the growth in rents. The purpose of the box is to examine a number of indices in order to ascertain the overall trends in rents. Rental indices from four different sources are used: the CSO, the Irish Auctioneers and Valuers Institute (IAVI), Daft.ie and Gunne.¹

Rental indices may vary for a number of reasons. First, indices may cover different geographical areas or property types. Second, the method of data collection may vary. Finally, the length and frequency of the series differs across indices.

The ideal scope of an index is not clear. A very broad, national index, like that of the CSO takes account of rents across the entire country. However, such an index does not take account of the variation in rents between particular areas of the country. At the same time, narrower indices, such as the Gunne indices, which focus entirely on the Dublin area, are useful for analysing a particular area, but provide no indication of the overall level of rents.

In this sense 'suites' of indices may be useful. The IAVI and Daft.ie both produce suites providing geographical breakdowns. The IAVI compile sub-indices for Dublin, Rest of Leinster, Munster and Connaught, while Daft.ie compile breakdowns of rents for Dublin, Cork, Galway, Limerick and the Rest of the Country.

The scope of indices may also vary by property type rather than by geographic location. Most indices generally measure a representative sample of properties on the rental market. However, both Gunne and Daft.ie also compile series by property type. Gunne compile indices for 1- and 2-bed apartments and 3-bed semi-detached houses in Dublin. Daft.ie compile data on studio/bedsits, 1-, 2-, 3- and 4-bed properties.

Data collection is the second aspect in which indices may differ. The CSO index is based on data for actual rents received for 1- and 2-bed apartments and 3- and 4-bed houses. These data are collected from approximately 30 estate agents across the country and averaged using weights based on property type. The Daft.ie indices are based on the advertisements placed on the Daft.ie website. The Gunne indices were initially based on the estimated rents for a set of specific properties that have been tracked since the indices began, but since end-2004 the indices have been calculated as expected rent for a property type in a specific area, rather than for a specific property. The IAVI indices are based on a survey of IAVI members' 'considered views on actual values' of rents.

The length and frequency of the series may also vary. The CSO index is compiled monthly and is the longest series of those surveyed here, though the sample changed somewhat in 2000 when the CSO began collecting data directly from estate agents rather than tenants. The Daft.ie series are both monthly and quarterly, though they only exist since 2002. The Gunne indices were bi-annual when first compiled in 1998, but have been produced quarterly since 2003. The IAVI indices are produced annually.

To illustrate the broad trends in rents in recent years, Chart 1 shows the year-on-year growth rates of the national indices compiled by Daft.ie and the CSO, and the growth rates for the Dublin indices compiled by Gunne and the IAVI. The Dublin index is the broadest available from Gunne. As Dublin accounts for approximately 34 per cent of all registered rental houses², it seems that the Dublin index is likely to be the most representative of the IAVI suite.

Year-on-year growth rates in rents have fallen since 2001, generally becoming negative in late-2002 and early-2003 (Chart 1). The trend of falling growth rates was reversed in 2004 however, with the CSO, Daft.ie and Gunne indices all reaching their

respective troughs in Q2 or Q3 2004 (the IAVI index is annual, and therefore could not show such a trough). The CSO and Daft.ie indices have both subsequently recorded positive year-on-year growth in 2005. This is the first positive year-on-year growth recorded by the CSO index since July 2002, while the Daft.ie index, which began in 2003, had never before recorded positive year-on-year growth.

All year-on-year growth rates of the various IAVI indices were lower in 2004 than in 1998 (Chart 2). The greatest reduction was in Dublin, where growth rates were -4.4 per cent in 2004, compared with 24 per cent in 1998. Connaught was the only area still recording positive rental growth (0.3 per cent) in 2004. The Daft.ie breakdowns for Dublin, Cork, Galway, Limerick and the Rest of the Country, show that year-on-year growth in all areas has been trending upwards since at least early-2004 (Chart 3). Over the period, growth in rents has generally been strongest in Dublin and Cork, where positive year-on-year growth was recorded in late-2004 and early-2005. By contrast, year-on-year growth in rents remains negative in Galway, Limerick and the Rest of the Country.

Finally, both Gunne and Daft.ie compile breakdowns by property-type in the Dublin area. The decreases in year-on-year growth rates for Gunne indices of rents for 1- and 2-bed apartments and 3-bed semi-detached houses in South Dublin have been slowing following lows in early-2004 (Chart 4). Daft.ie breakdowns for studios/bedsits, 1-, 2-, 3- and 4-bed properties in Dublin also show that decreases in year-on-year growth rates have been slowing since early 2004, and indeed, by Q2 2005 the growth rates for all property types had become positive (Chart 5). Both the Gunne and Daft.ie breakdowns indicate that no particular property type has recorded consistently higher growth in rents.

This survey has shown that there are a number of indices that provide interesting information on different aspects of the rental market. Differences in methodologies mean that indices will often differ, and it is important to bear this limitation in mind when analysing the rental market. However, the indices examined in this box suggest that there has been a reduction in the rate of decrease in rents, with rents in some areas becoming positive.

¹ The IAVI and Daft.ie compile data (growth rates and average rents) from which rental indices are calculated for this box.

² Data are from the Department of the Environment, Heritage and Local Government. Figures are for number of private rented houses registered at 31st August 2004 in Dublin City Council and Dun Laoghaire-Rathdown and Fingal County Councils.

Chart 4: Gunne Annual Growth Rates for South Dublin by Property Type



Chart 5: Daft.ie Annual Growth Rates for Dublin by Property Type

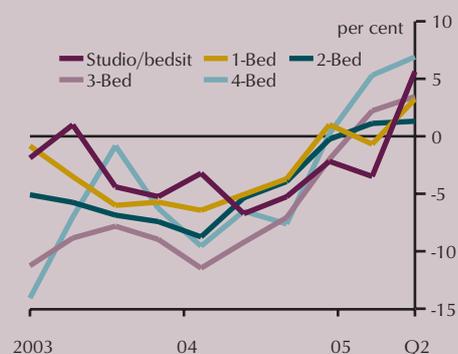
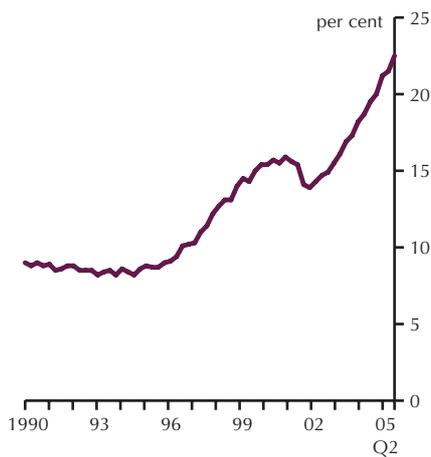


Table 1: Asset Portfolio Performance (1988 to 2005Q2)

	Equities		Residential housing	Residential housing (incl. rental)	Government 10-year bonds
	Equities	(incl. dividends)	Residential housing	Residential housing (incl. rental)	Government 10-year bonds
Average annual return (%)	12.893	15.986	10.613	20.100	6.585
Variance	543.326	577.299	46.320	41.951	4.904
Sharp ratio	0.012	0.016	0.087	0.322	—

As highlighted in last year's report an assessment of the risks posed by the housing market to financial stability requires a measure of the "fundamental" house price. The vulnerability of households' — and consequently banks' — balance sheets depends on the relationship between the fundamental price and the actual current level. However, the fundamental price is not directly observable and, hence, must be estimated. There are different methodologies for estimating the fundamental price, each of which gives different estimates of the extent to which current house prices may be overvalued. The price-earnings (P/E) ratio is a measure of fair value often applied to financial assets.

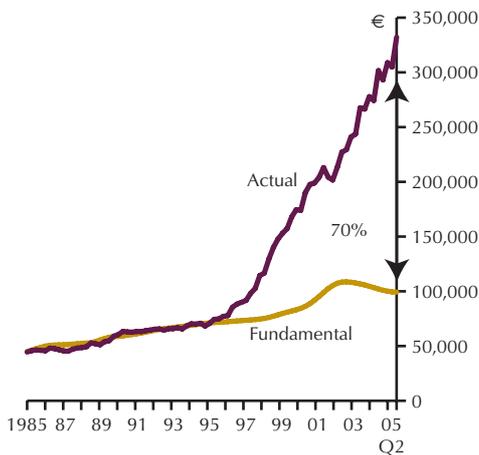
Chart 24: Residential Property P/E Ratio



Source: DoEHLG and CBFSAI calculations

The combination of rising house prices and the recent decline in rental values has seen the P/E ratio double since 1997 (Chart 24). Using the P/E ratio to estimate a fundamental value of house prices, the potential misalignment of house prices relative to rents has increased since the last financial stability report to 70 per cent (Chart 25). However, this type of estimation is subject to a number of caveats as this analysis only focuses on rent while excluding other key factors affecting house prices. As a consequence, this measure should be interpreted as an upper boundary of potential overvaluation.

Chart 25: Actual and Fundamental House Prices (2nd Hand Houses)

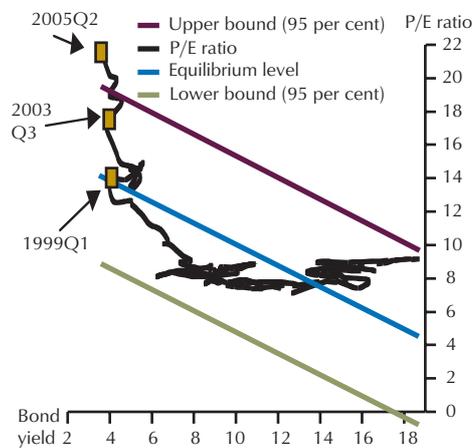


Source: DoEHLG and CBFSAI calculations

The discounted present value model of house prices, which gives a more forward looking view of the market, estimates the level of overvaluation to be of the order of 53 per cent. This estimate is based on the current 10-year Government bond yield and constant rental income at current levels. It would appear that in order to justify the current level of house prices an average annual rental income growth of 4.2 per cent per year would be required. Given current rental growth rates, this would suggest that investors' investment decisions are being influenced by expectations of favourable capital gains and a recovery in rental income growth.

The level of under or overvaluation of house prices given by the discounted present value model is sensitive to the assumption made about the level of interest rates. In order to obtain a better estimate of the extent of under or overvaluation the relationship between the P/E ratio and the actual rate of interest has to be estimated. This analysis provides an additional estimate of the possible overvaluation of house prices by measuring the current misalignment of the P/E ratio from its estimated equilibrium value.⁷ Chart 26 displays a scatter plot of the P/E ratio and the interest rate. The blue line in the chart represents the equilibrium relationship between the P/E ratio and the bond yield.

Chart 26: P/E Ratio and 10-Year Government Bond Yields



Source: CBFSAI calculations

This approach suggests a misalignment of about 11 per cent with a Government bond yield of 3.13 per cent (i.e., the mid-June 2005 level) and an overall misalignment with respect to the estimated equilibrium P/E ratio of 35 per cent. These compare with 6 per cent and 29 per cent, respectively, in last year's report which referred to the first quarter of 2004. The upper and lower 95 per cent confidence bands for the estimate of the equilibrium relationship between the P/E ratio and the interest rate represent the limits beyond which the actual values of the P/E ratio suggest a (statistically significant) misalignment of the actual P/E ratio from its estimated equilibrium rate. From Chart 26 it is clear that there have been periods for which the actual P/E ratio has diverged from its equilibrium value. However, despite these periods of misalignment, the P/E ratio did not become significantly misaligned, according to this model, until about 2003Q3. The misalignment is estimated to have persisted since this time. The vertical distance between the last data point (2005Q2) and the upper boundary (i.e., 11 per cent) is the extent to which the misalignment is statistically significant.

The analysis presented so far has focussed on the financial asset aspect of property. It has related the earnings' potential of property relative to historical averages and to interest rates. This has produced estimates of overvaluation

⁷ The estimation steps are outlined in (2004) "The Irish Housing Market: Fundamental and Non-Fundamental Influences" *Financial Stability Report*, September, CBFSAI.

ranging from 11 per cent to 70 per cent depending on the method used. An alternative approach is to analyse whether the growth in house prices can be accounted for by fundamental economic variables such as interest rates, demographics and the housing stock. This more general model would be able to encapsulate the economic changes that have taken place over the last number of years.

A number of developments have occurred over the last 15 years that may have contributed to movements in house prices as measured by the fundamental price. Demographics have been cited as an important factor in driving house prices. The share of the population currently in the household formation bracket, as measured by the last population estimate, remains historically high at 31 per cent. A continued trend of net migration⁸ and low levels of unemployment (4.5 per cent for 2004) will have further contributed to the effect of demographics on house prices.

Rising incomes have played a key part in determining house prices and are likely to continue to do so. The strong performance of the economy is likely to have been reflected in increased earnings per worker. Higher wage levels coupled with adjustments to income tax in the December 2004 Budget⁹ are likely to continue to impact positively on property prices.

The factors mentioned above can be counterbalanced somewhat by the significant increases in housing supply, with record levels of construction helping to ease the effect of high demand on the level of house prices.

A prolonged deviation between the fundamental and actual house prices could be interpreted as a misalignment in house prices. However, Chart 27 shows that actual prices have tracked the fundamental price throughout the period.¹⁰ This suggests that movements in fundamentals can explain the current trends in house prices with no sign of significant overvaluation. Overall, this analysis would suggest that actual and fundamental prices are not seriously misaligned. However, this does not preclude the possibility that a deterioration in any of the fundamental variables could lead to a corresponding downward adjustment in house prices.

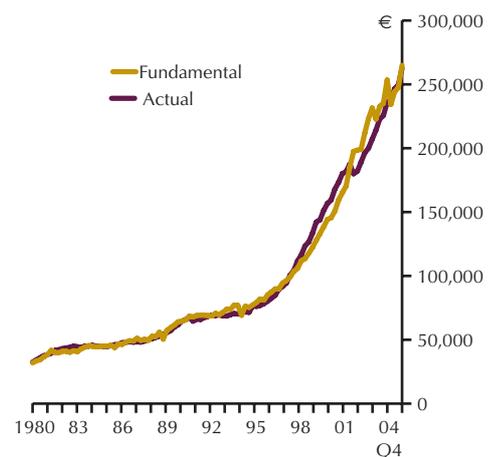
While different models of house price determination appear to offer conflicting results, an important consideration is the likely effect that a slowdown in house price growth will have on the wider economy. The current slowdown in the rate of increase of Irish house prices mirrors a trend seen internationally. In the UK, for example, house price growth declined over the latter half of 2004. House prices declined from an annual growth rate of 19.5 per cent in June 2004 to 6.1 per cent by the end of June this year. A sharper deceleration, albeit over a longer period, was experienced in Austria where the rate of increase in house prices declined from 18.9 per cent in 2003 to 2.8 per cent at the end of 2004. While it is too early to say what effect the slowdown in house price growth will have on these economies, previous international evidence suggests that a stabilisation in house prices need not

⁸ Net migration for the year-end April amounted to 53,400, a record under the present series of annual estimates.

⁹ Personal tax credits and the standard rate tax band were increased.

¹⁰ The estimate for the fundamental house price is based on McQuinn (2004), "The Irish Housing Sector: A Financial Stability Assessment", *Financial Stability Report*, September, CBFSAI.

Chart 27: Actual House Price and Fundamental House Price



Source: CBFSAI calculations

impact negatively on the health of the economy. Given the strong overall performance of the Irish economy any adverse effect from the current stabilisation in house prices would appear likely to be limited.

The effects of a declining rate of growth in nominal house prices on households can be examined through the user cost of capital in housing. The user cost of capital in housing is a concise measure of all the financial costs associated with owning property when all tax breaks and subsidies are factored in. It is a more comprehensive indicator of the cost of homeownership than the nominal or real mortgage rate. In contrast to the real mortgage rate, the user cost of housing, for a representative household, has been negative for long periods of time. A significant factor in keeping the user cost negative has been the rate of appreciation in house prices. However, the combination of higher mortgage repayments, due to the level of house prices and a stabilisation in the rate of house price growth would lead to an increase in housing costs as measured by the user cost. An increase in the user cost will reduce the financial incentive to invest in housing and hence lower the demand. This, in turn, will allow prices to stabilise further.

While existing investors in property have benefited from high rates of capital appreciation, a sustained period of low house price appreciation is likely to affect the decision of potential investors to enter the market. The house price appreciation experienced over the last decade has resulted in property representing a profitable short- to medium-term investment. However, reduced capital appreciation would lengthen the time investors would be required to hold property in order to make a profit. Based on current annual rates of growth of 6.1 per cent, investors would be required to invest in property for a period of at least four years in order to earn an after-tax real profit. This can be contrasted with a required holding period of 12 years if house prices appreciated at 4 per cent annually. While property would remain profitable, a reduced growth rate would effectively shift housing investment from a short- to medium-term investment to a more long-term investment. (See Box D for a more-in-depth discussion of the profitability of property investment.)

The scenario outlined above represents an orderly transition from a high growth rate in house prices to a lower more stable rate of change. While these scenarios do not preclude the possibility of an adverse shock, which could hinder such a transition, given the current environment a gradual decline in the rate of house price inflation appears likely to persist.

2.2.4 Risks to the Household Sector

The household sector continues to remain vulnerable to the prospect of rising interest rates as the indebtedness of the sector continues to increase. In particular, the predominance of variable-rate mortgages could be a point of vulnerability for the household sector, should interest rates increase. While at present, market sentiment indicates that there will be no significant rise in interest rates before the second quarter of 2006, it is inevitable that interest rates will rise from their current historically low levels to a significantly higher equilibrium rate at some point in the future. It is, therefore, important that borrowers make provision for servicing debt in advance of this rise.

Box D: An Accounting Exercise in Property Investment

The returns to property investment have outperformed other asset classes over the last number of years – a significant factor of this performance has been the high rates of capital appreciation. Given the current signs suggesting house price growth may have begun to moderate this box examines the returns investors might face under a number of scenarios relating to house price appreciation. The results suggest that a period of zero house price appreciation would render housing investment unprofitable.

At present, estimated rental income from an investment property is insufficient to cover mortgage repayments. The reason for this shortfall has been a decline in the level of rental income coupled with increased mortgage repayments brought about by rising house prices. One reason why investors may remain in the market despite this shortfall is the expectation of capital appreciation and a recovery in rental growth.

In previous years, high house price inflation has meant investors were able to recoup the initial cost of housing investment after one year. Table 1 outlines the typical financial costs and benefits associated with such an investment assuming house prices continue to appreciate at a rate of 6.1 per cent. The analysis is based on an investor purchasing a property costing €265,364. The purchase is financed through a 30-year mortgage, at a rate of 3.45 per cent, based on a loan amount equivalent to 80 per cent of the purchase price, with the remaining balance being financed through the investor's own funds. Based on current house price appreciation investors would be faced with a shortfall of €7,765 after the first year.¹

Table 1: Current Income and Expenditure Account for a Residential Investor

Costs	€	Income	€
Interest repayment and mortgage amortisation ^a	11,368	Net rental income ^b	9,652
Opportunity cost of owner funds ^a	764	Capital gains	16,187
Stamp duty ^a	13,268		
Legal costs ^a	3,980		
Estate agents fees ^c	4,223		
Capital gains tax ^c	–		
Total	33,605	Total	25,839

^a Cost associated with purchase.

^b Net rental income is based on average rental figures, allowing for 1 month's vacancy and adjusted for investor mortgage interest relief and subsequent taxation.

^c Cost associated with sale.

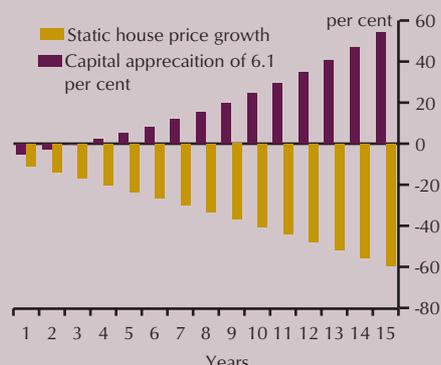
Under the assumption of constant rental income and mortgage rates, an investor would need to remain invested in property for two years in order to generate a nominal profit. When inflation is accounted for an investor would need to hold property for a period of four years.²

Under the assumption that house prices remain constant investors would not be able to generate a positive return from property investment. Net rental income is not sufficient to cover the cost of servicing the mortgage. The cost of investing in property would remain negative and grow throughout the life of the mortgage (Figure 1). Under this scenario the investors may choose to exit the market as soon as possible rather than bare any further costs. An intermediate house price appreciation rate of 4 per cent would require a holding period of 12 years in order to generate a positive real return on the investment.

¹ The required breakeven rate of house price appreciation after one year would be 9.6 per cent.

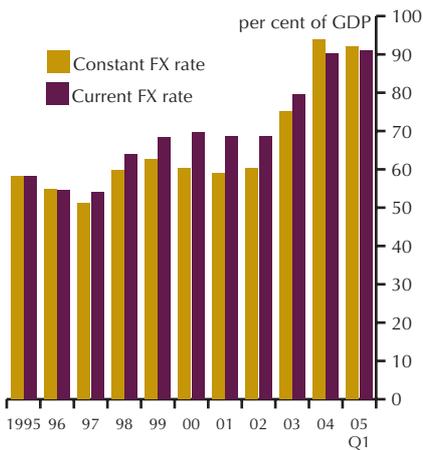
² Assuming an inflation rate of 2 per cent per annum.

Figure 1: Real Cumulative Investment Returns under Moderate House Price Growth



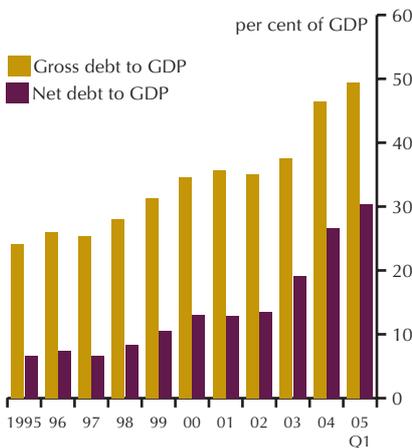
Source: CBFSAI Calculations

Chart 28: Total Corporate Indebtedness



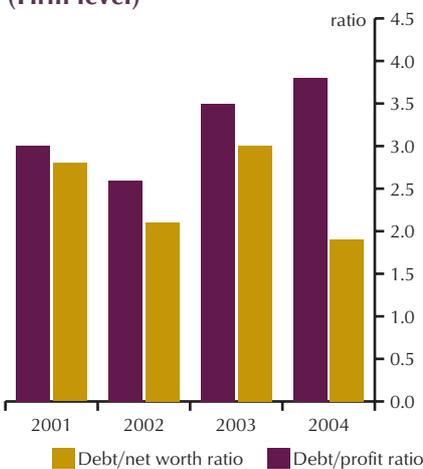
Source: BIS and CBFSAI

Chart 29: Resident Credit Institutions (Gross and Net Debt)



Source: CBFSAI

Chart 30: Corporate Indebtedness (Firm level)



Source: Bureau Van Dijk

Note: Based on a small sample of firms with available information in each year.

While employment conditions are currently positive, some risks remain. Employment in the construction sector is expected to fall off somewhat in the next few years as residential house-building slows. However, if there were to be a sudden correction to the construction sector, households experiencing an employment shock could suffer serious consequences for their debt servicing capabilities. An additional risk to employment conditions is the exposure of the Irish economy to contagion from shocks arising in the external economic environment that could bring about an employment or income shock.

2.3 Non-Financial Corporate Sector

2.3.1 Indebtedness

Corporate indebtedness, measured in terms of bank debt as a percentage of GDP, increased to approximately 90 per cent of GDP (Chart 28) in 2004 from 75 to 80 per cent the previous year.¹¹ There was a resurgence in the growth rate of lending from resident credit institutions to non-financial corporates (NFCs) in 2004. The ratio of non-financial gross corporate borrowing from resident credit institutions to GDP, which was 46.4 per cent at end-2004, rose to 49.5 per cent at 2005Q1. The growth in bank debt has outstripped deposit growth in recent years such that net indebtedness (i.e., the value of gross loans to NFCs minus the value of deposits held by NFCs with resident credit institutions) has also increased. Net indebtedness is now just above half the level of gross indebtedness (i.e., approximately 26.7 per cent of GDP at end-2004) as opposed to approximately one third of gross indebtedness in the late-1990s and early-2000s (Chart 29).

The aggregate indebtedness data are only a rough proxy for non-financial corporate indebtedness. A more accurate measure, relating the growth in debt to the growth in income or an estimate of net worth, is available for a small sample of Irish-based firms.¹² An analysis of this sample of firms suggests that the indebtedness ratio of non-financial corporates increased when measured against profits but fell when measured against net worth in 2004. The debt-to-profit ratio increased from 3.5 in 2003 to 3.8 in 2004 with the debt-to-net worth ratio falling to 1.9 from 3.0 in 2003 (Chart 30).

A further limitation of aggregate data is that they cannot convey the skewed distribution of indebtedness in the NFC sector. The credit risks to banks from NFCs originate in a few large firms because these firms hold the majority of the debt. Based on a sample of NFCs,¹³ it is estimated that the top 10 per cent of firms (in the sample) held in excess of 90 per cent of the outstanding debt in 2004 (Chart 31). However, these are large international firms and the debt of these companies is likely to have been sourced from outside the Irish

¹¹ These aggregate data include the value of NFCs' borrowing from overseas credit institutions and these data are denominated in US dollars. Therefore, the weakening of the US dollar in recent years affects the calculation of the level of indebtedness in euros. The "constant" exchange-rate series in Chart 28 seeks to filter this exchange-rate effect. Although the adjustment affects the overall level of indebtedness, the significantly increasing trend in indebtedness is evident in both series.

¹² The firm-level data are based on a sample of 193 firms in each year. This is the largest reliable panel that could be constructed. Net worth is calculated as the value of total assets minus the value of total liabilities. The aggregate ratios are calculated by summing the value of debt, profits before tax and net worth for the entire sample. The data are sourced from Bureau Van Dijk.

¹³ The sample is 2,124 firms with available data for year-end 2004.

financial system, thereby diversifying the risks to the Irish banking system somewhat.

2.3.2 Credit Growth

The rate of increase in lending by resident credit institutions to non-financial corporates continued to pick-up in the first half of 2005 further intensifying the rebound in credit growth evident since 2002. The rate of credit growth to the NFC sector is now at its highest level since 1999/2000 at 38.4 per cent (Chart 32).

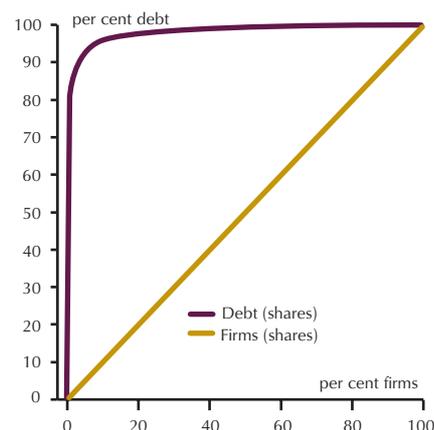
This pick-up in credit growth is evident across most sectors (Chart 33). Credit growth to construction and real estate continues apace at just over 45 per cent, slightly above its 2004 level. Lending to the transport sector as well as the retail, wholesale trade and tourism sector continued to grow strongly in the first half of 2005, with annual rates of growth of 13.2 per cent and 14.8 per cent, respectively. Despite experiencing a significant turnaround in the rate of growth in 2004 to 25 per cent, lending to the manufacturing sector contracted by almost 3 per cent in the second quarter of 2005.

Commercial property-related lending is the largest component of outstanding loans to the non-financial corporate sector in 2005. Loans to the construction and real estate sectors together accounted for almost 60 per cent of overall credit growth in 2004 and almost 47 per cent in the first half of 2005. The real estate and construction sectors currently account for 49.5 per cent of outstanding loans to NFCs, a share that has increased steadily in recent years. The corresponding share at end-2003 was 47 per cent and it was approximately 22 per cent in 1998. The retail and wholesale trade sector and the tourism sector account for a further 18.7 per cent while lending to the manufacturing sector accounts for 6.6 per cent of lending to NFCs. Other sectors, including transport and utilities, which saw relatively strong credit growth in early-2005, account for very small shares of lending to NFCs (Chart 34).

A more detailed look at the nature of property-related lending suggests that at least half of all lending to construction firms is for speculative construction activities (i.e., the construction of property or other projects which are not pre-let or pre-sold) with a minority of lending for construction activities undertaken to order.¹⁴ The opposite is the case for lending to real estate activities, where most of the lending is for projects with existing rental income with the remaining smaller share of lending for speculative property development/investment.

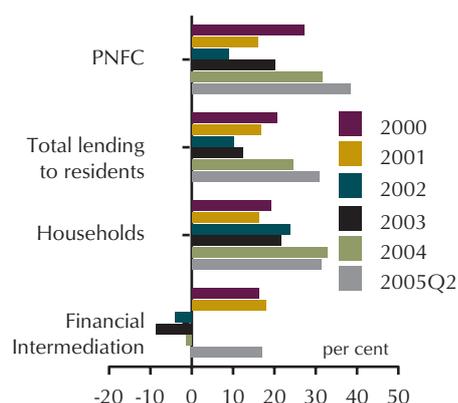
Nominal interest rates for corporate borrowers fell further in 2004 continuing the downward trend of recent years and are low by historical comparison. Real corporate lending rates, however, rose above zero due to a fall in the inflation rate. This reverses the situation in recent years when real rates were negative. Since 2003, lending rates on short-term finance (i.e., less than 1 year) fell proportionately more than rates on longer-term lending such that the

Chart 31: Cumulative Distribution of Debt Across Firms



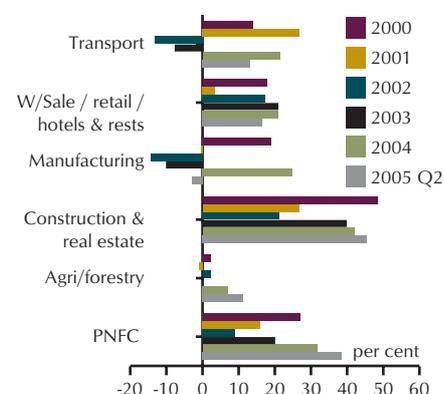
Source: Bureau Van Dijk
Note: Data as at 2004 for a sample of Irish-based companies.

Chart 32: Sectoral Distribution of Private-sector Loan Growth



Source: CBFSAI
Note: PNFC is private non-financial corporates.

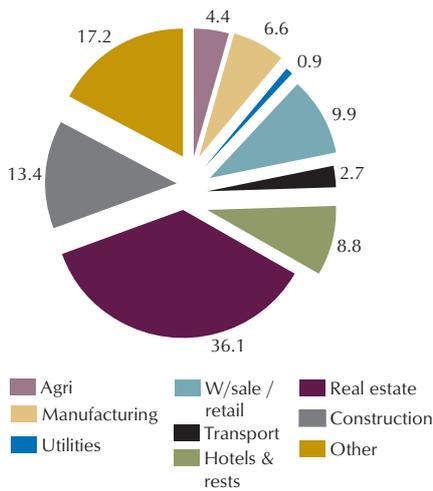
Chart 33: Breakdown of PNFC Lending Growth



Source: CBFSAI

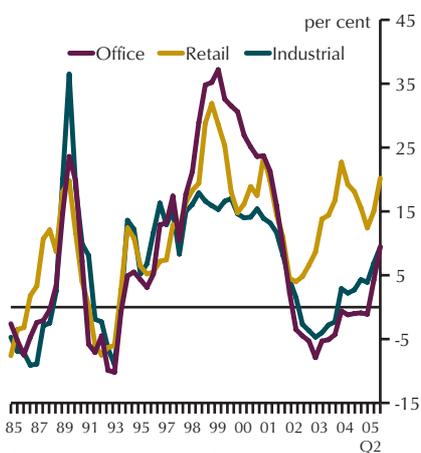
¹⁴ Some construction activities, which are speculative on commencement, may become contract-type activities (i.e., non-speculative) during the course of construction.

Chart 34: Composition of PNFC Loans (2005 Q2)



Source: CBFSAI

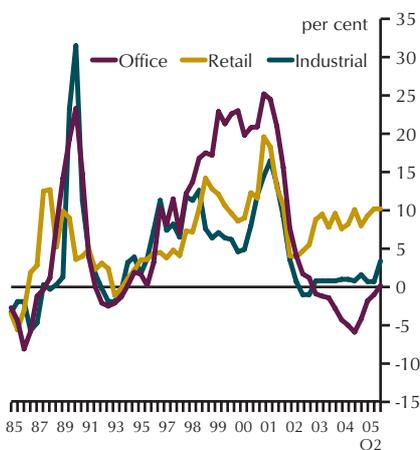
Chart 35: Capital Values Growth



Source: Jones Lang LaSalle

Note: Data from 1985 to 1996 are bi-annual and data from 1997 to date are quarterly.

Chart 36: Rental Values Growth



Source: Jones Lang LaSalle

Note: Data from 1985 to 1996 are bi-annual and data from 1997 to date are quarterly.

spread between short-term lending rates and longer-term rates has fallen.¹⁵ This may have contributed to an increase in the share of lending that is accounted for by short-term loans (from 18.5 per cent at end-2003 to around 27 per cent as at end-July, 2005). Longer-term lending (i.e. over 5 years) is still the dominant share of outstanding loans to the non-financial corporate sector accounting for just under half of lending to corporates.

2.3.3 The Commercial Property Market

The commercial property sector exhibited improved growth in early-2005 across all sectors: retail, industrial and office. The overall commercial property index saw the growth rate in capital values increase to 13.2 per cent in the year to June 2005, compared to 5.6 per cent in the same period of the previous year. The year-on-year growth in rental values of the overall index reached a trough in mid-2004 at -1.1 per cent but subsequently recovered to 3.2 per cent in June 2005.

The retail sector continues to be the strongest performing commercial property sector (Chart 35). While the sector's annual rate of increase in capital values slowed somewhat in 2004 to 12.4 per cent, it rebounded throughout the first half of 2005 to 20.2 per cent in June. Following a period of weak growth in capital values the performance of the industrial sector began to pick up in 2004 and strengthened further in the second quarter of 2005, with an annual growth rate of 9.4 per cent. The office sector has been performing badly for a number of years, experiencing declining capital values since the first quarter of 2002. However, in the second quarter of 2005, capital values recorded an annual increase of 9.5 per cent. Rental values in the retail sector also continue to perform strongly with growth of 10.2 per cent in the year to June 2005 (Chart 36). However, annual rental growth in the industrial and office sector was 3.4 per cent and 0.2 per cent, respectively, in the second quarter of 2005. Vacancy rates in the office market, which have been declining gradually since 2002, were 12.3 per cent in the second quarter of 2005 (Chart 37). A reassuring aspect of the commercial property market from a financial stability perspective is the manner in which rental growth continues to reflect capital growth in each segment.

The high vacancy rate in the office sector may be attributable to both the economic downturn in the early years of the decade and the large supply of premises that have come to the market in recent years. However, since developments in the commercial property market tend to be very sensitive to the business cycle (Chart 38) the stable outlook for economic growth may provide some support for the performance of commercial property and in particular the office sector.

2.3.4 Realised Credit Risks from the Corporate Sector

Credit risk in the corporate sector remains at an historically low level, as measured by the share of liquidated firms with outstanding unpaid debts (i.e., potentially insolvent firms) in the total number of liquidated firms. Both the

¹⁵ This analysis uses data on interest rates on existing business published in the CBFSAI's Monthly Statistics (Table B2.1, B2.2).

broad and narrow liquidation rates fell in 2004 (Chart 39).¹⁶ The overall rate of liquidations may fall further in 2005 to an annualised rate of 0.67 per cent, bringing it to almost its long-run average of 0.66 per cent. The annualised narrow rate of liquidations remains unchanged in 2005 from the previous year at 0.24 per cent and remains below its long-run average of 0.38 per cent. However, the share of liquidations accounted for by potentially insolvent firms is rising in 2005 to an annualised rate of 36.1 per cent from 30.4 per cent in 2004, but remains significantly below its long-run average of 53 per cent (Chart 40).

2.3.5 Financial Position

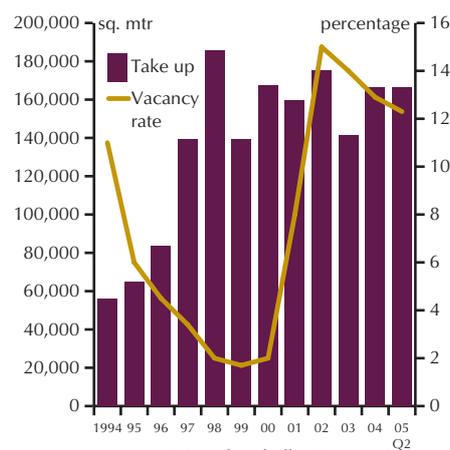
There are two main challenges when assessing the financial position of the corporate sector. First, there are no timely data on the profitability of the corporate sector. Our analysis relies on aggregate data on retail sales, output indices and measures of business confidence. Second, non-financial corporate debt is disproportionately held by a small number of large firms and, consequently, the health of this particular group of firms may be crucial to assessing the credit risks from the NFC sector to the banking sector. However, these large firms also borrow from capital markets and banks operating outside Ireland. This poses difficulties in assessing the credit risk for the Irish banking sector.

Analysis of a representative sample of firms suggests that 10 per cent of these firms held in excess of 90 per cent of the debt of the sample group of firms. On the face of it, this suggests a worryingly high level of concentration of debt. However, in addition to the fact that these are large international firms, it is likely that at least some of their debt has been sourced outside the domestic financial system, an analysis of the health of this group of firms is also somewhat reassuring. The group became, in the aggregate, less indebted over the course of 2004 when indebtedness is measured vis-à-vis their net worth. The total debt to net worth ratio for these firms, which was 3.4 in 2003, fell to 2.0 in 2004.¹⁷

A liquidity ratio (current assets/total liabilities), based on firm level data, shows that the non-financial corporate sector experienced a marginal increase in liquidity in 2004. The ratio of current assets to total liabilities increased from 0.71 in 2003 to 0.72 in 2004. This is the average level since 2001 (Chart 41). The level of liquidity differs significantly across firms. As might be expected, the liquidity ratio for the top decile of heavily indebted firms at 0.73 is below the liquidity ratio of the remaining 90 per cent of firms who hold less than 10 per cent of all outstanding debt. The liquidity ratio of this latter group was 1.33 in 2004. The corresponding ratio in 2003 was 1.04.

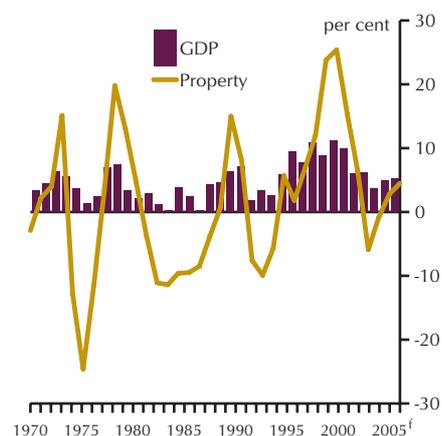
The aggregate available sales and output data give a mixed outlook for different segments of the non-financial corporate sector. The retail segment appears buoyant while industrial production is declining. The volume of retail sales (excluding motor trades) increased by 3.1 per cent in 2004, significantly above the rates seen in the previous two years. Figures for the first seven

Chart 37: Vacancy Rates of Dublin Office Market



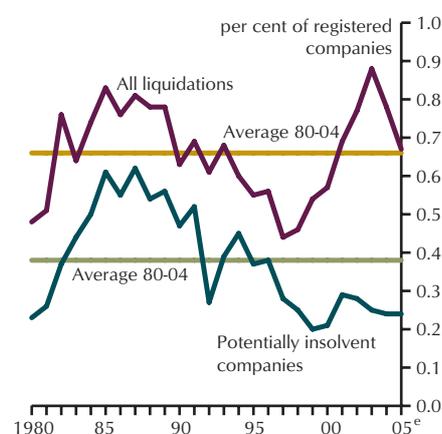
Source: CB Richard Ellis Gunne & CBFSAI calculations
Note: Take-up rates are estimated for 2005.

Chart 38: Real Commercial Property Price Inflation and Real GDP Growth



Source: Jones Lang LaSalle and CSO

Chart 39: Liquidation Rates

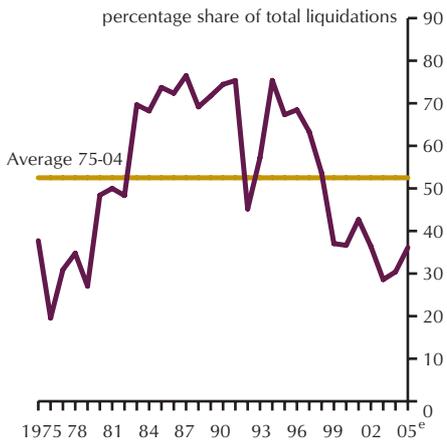


Source: Department of Enterprise, Trade and Employment and CBFSAI calculations

¹⁶ The broad liquidations rate is the share of all registered companies that are liquidated. The narrow rate is the share of all registered companies with unpaid debts only that are liquidated. This latter group of firms is classified as “potentially insolvent firms”.

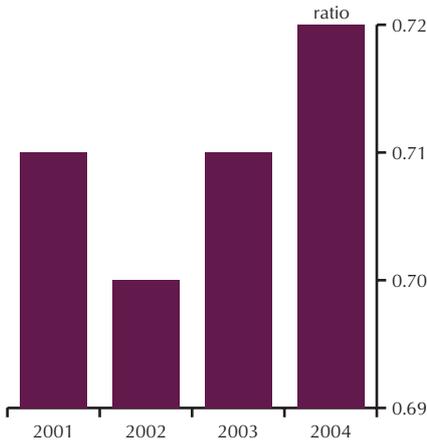
¹⁷ The sample size is 107 firms and these firm-level statistics are sensitive to the choice of sample of firms.

Chart 40: Share of Potentially Insolvent Liquidations



Source: Department of Enterprise, Trade and Employment and CBFSAI calculations

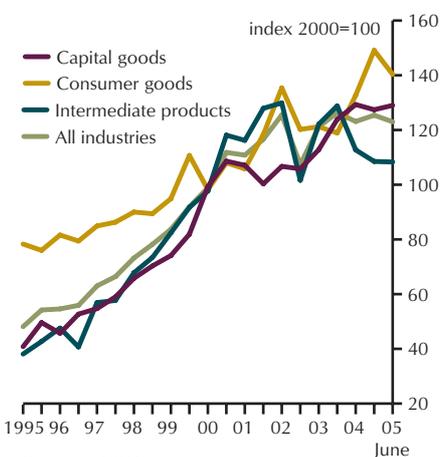
Chart 41: Corporate Liquidity Ratio



Source: CBFSAI

Note: Ratio of current assets to total liabilities and based on a sample of 1,354 firms.

Chart 42: Volume Indices of Production



Source: CSO

months of 2005 suggest that retail sales picked up even further, with the annual percentage change as of July being 6.2 per cent. In contrast, the output data suggest that production volumes fell in 2004 ending slightly below the 2003 level and initial figures for 2005 suggest volumes have fallen further. The disaggregated production data suggest that a decline in the production of intermediate goods was the driving factor behind the overall fall in production volumes in 2004 (Chart 42) as there were increases in the volume of production in both capital and consumer goods, with the latter seeing particularly strong growth. In 2005, the intermediate sector continues to perform poorly and the consumer goods sector has experienced falling volumes of production.

There has been an improvement in corporate confidence. While order books remained below their expected levels throughout 2004, they did move closer to net balance indicating that the pick-up in confidence since the low of early-2003 continued in 2004. While data for early-2005 suggested that this pick up in confidence was gathering pace with orders moving significantly towards net balance, confidence fell again in the second quarter. The general improvement in confidence since 2003 may also reflect a reduction in the expected excess capacity available at corporate firms for the year ahead.

2.3.6 Risks to the Non-Financial Corporate Sector

There are no substantial short- to medium-term risks to financial stability arising from the non-financial corporate sector. The robust rates of growth in lending to the non-financial corporate sector suggest that resident credit institutions' exposure to the sector is increasing significantly. However, the health of the commercial property market will require continuous monitoring because non-residential property-related lending to the real estate and construction sectors is an increasingly important share of the aggregate banking system's loan book.

2.4 Banking Sector

2.4.1 Financial Condition of the Irish Banking System

Aggregate Data

The analysis in this section focuses on the domestic banking system only. This excludes a large number of branches and subsidiaries of foreign banks, that although physically located in Ireland in the International Financial Services Centre, tend to conduct their business internationally. The channels through which they can impact on the Irish financial system are much more indirect by comparison with those institutions whose business is primarily domestic. The analysis therefore concentrates on the domestic banking system where the links to the financial system are pivotal to that system's stability.

—Growth of the Banking System

The rate of growth of the domestic banking system, measured by total assets, accelerated in 2004 to 31.8 per cent from approximately 19 per cent in 2003. The growth rate has slowed in 2005 with the latest year-on-year growth rate of total assets at 27.1 per cent (Chart 43). However, this growth rate remains high by international comparison and is approximately double the growth rate of the euro area banking system (11.6 per cent as of July 2005).

Over 70 per cent of the assets of domestic banks are held vis-à-vis residents – a slight increase by comparison with early-2004. A key difference between the nature of the current growth in the system’s assets and that experienced last year is that the growth then was strongest to non-residents (48.3 per cent). The situation now is somewhat different and the growth in banks’ assets vis-à-vis domestic residents and foreign residents have been growing at more similar rates in 2005 (25.7 per cent and 30.5 per cent, respectively).

The nature of the risks facing Irish banks from domestic and non-domestic residents is markedly different. An analysis of the composition of assets in 2004 showed that loans to the private sector accounted for about three-quarters of claims against Irish residents (Chart 44). In contrast, loans to private-sector non-residents accounted for only 15 per cent of all assets held vis-à-vis non-residents. The overwhelming majority of gross assets held against non-residents in 2004 were held vis-à-vis other credit institutions. A similar analysis in 2005 shows no significant change in the composition of the assets held against residents or non-residents.

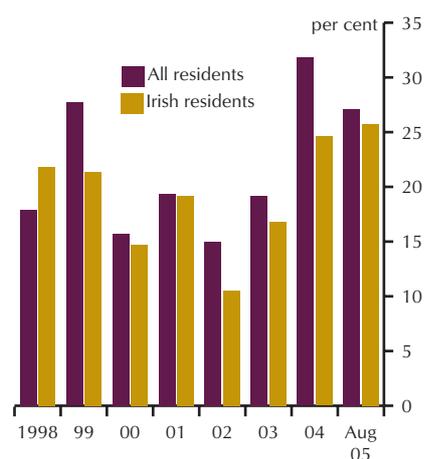
–Lending Growth

The rate of growth of total private-sector credit accelerated in late-2004 and 2005. The current rates of growth are historically high with similar rates last seen in early-2000 (Chart 45). The average annual underlying adjusted rate of growth in private-sector credit was 23.5 per cent in 2004 but the rate has accelerated in the second half of 2005 and the rate of growth in private-sector credit is now about 28 per cent.

The key developments in lending since late-2004 have been a continued strong rate of growth in mortgage credit accompanied by resurgence in the rate of growth of non-mortgage credit (i.e., non-mortgage lending to the household sector and lending to the non-financial corporate sector) (Chart 46). The rate of increase in mortgage lending has driven the overall rate of credit growth since late-2001. (See Box E for a discussion of the effect of increasing mortgage volumes on mortgage credit growth.) Indeed, it has been usual during much of this period for the rate of mortgage growth to be double that of non-mortgage credit. However, this gap began to close in late-2003 and has continued such that the latest data suggest the rate of non-mortgage credit (28.1 per cent) exceeds the growth rate of mortgage credit (25.7 per cent).

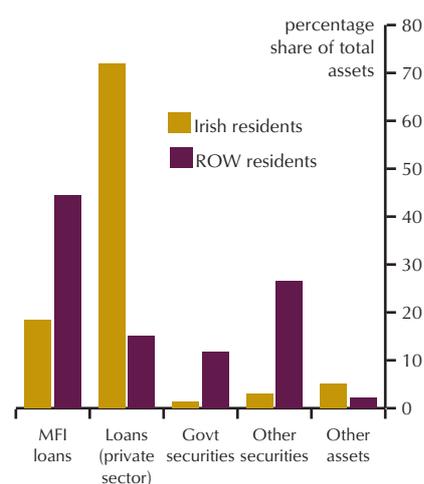
Lending can be further categorised by sector. A sectoral breakdown shows that credit growth accelerated to both non-financial corporates and households in 2004 (Chart 47). The accelerating trend has continued into 2005 for the non-financial corporate sector but has stabilised for the household sector. Credit growth to the household sector was 28.6 per cent at Q2 2005 compared with 29.2 per cent a year earlier. The corresponding growth rates for lending to the non-financial corporate sector were 25.6 per cent in 2004 and 38.4 per cent in 2005. The current growth rates to both sectors are high by historical standards. The current growth rates for lending to the household sector were last seen in 1999/2000 while the current rate for the NFC sector is the highest rate of growth recorded since the Bank’s records began in the early-1990s.

Chart 43: Banking System Asset Growth



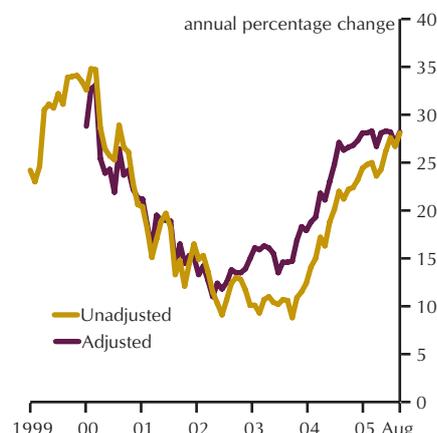
Source: CBFSAI
Note: 'All residents' is Irish and rest of world residents.

Chart 44: Composition of Assets (August 2005)



Source: CBFSAI
Note: ROW is rest of world residents (incl. euro area).

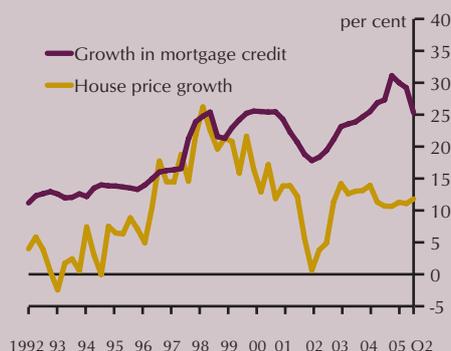
Chart 45: Private-sector Credit Growth



Source: CBFSAI
Note: Adjusted includes securitised mortgages.

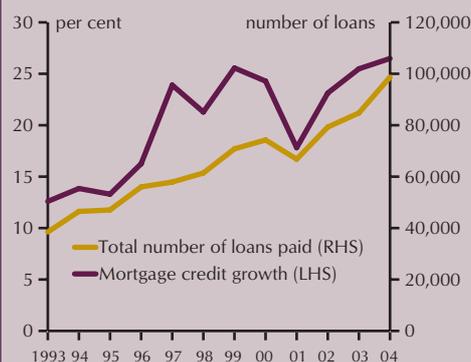
Box E: The Effect of Mortgage Loan Volumes on Mortgage Credit Growth

Chart 1: Mortgage Credit Growth and House Price Growth



Source: CBFSAI and DoEHLG

Chart 2: Number of Mortgages Paid and Mortgage Credit Growth



Source: CBFSAI and DoEHLG

The high rate of mortgage credit growth currently observed began in the mid-1990s. This box examines the effect of increasing mortgage volumes on mortgage credit growth. It suggests that mortgage credit growth is still likely to increase should the rate of growth in house price slow significantly or should prices decline.

Mortgage credit growth increased at an annual rate of 25.7 per cent in August 2005. The upward trend in mortgage credit growth in recent years has been attributed to increasing house prices (Chart 1). However, the increase in the number of mortgages granted, which have almost doubled over the last decade (Chart 2), is also an important factor in explaining the strength of mortgage credit growth.

In a simplified case, mortgage credit growth is the total value of new mortgages granted minus the value of the outstanding mortgage credit that is amortised or paid off. Assuming a constant loan-to-value ratio (90 per cent of the house price), the effect of a change in house prices ('price effect') on mortgage credit growth will depend on the number of loans taken out ('quantity effect'). Four scenarios are outlined in Table 1 to illustrate these 'effects'. Scenario A shows the effect of a repeat of 2004 volumes and latest average mortgage amounts on the current mortgage stock. Scenario B shows the effect of an increase in the volume of mortgages on mortgage credit growth holding the price effect constant. Scenario C shows the effect of a decrease in average loan amounts due to the effects of a fall in house prices, holding the number of mortgages granted constant. While scenario D shows the effect of an increase in mortgage numbers coupled with a fall in the average mortgage amount. In all four of these stylised examples mortgage credit growth remains robust at rates in excess of 20 per cent.

Table 1: Effect of Mortgage Volume on Mortgage Credit Growth

Scenario	Average mortgage amount	No. of mortgages ^a	Total new mortgages	Current mortgage stock	New mortgage stock ^b	Mortgage growth
	€		€ million			%
				89,376		
A	238,828	98,709	23,574		112,950	26.4
B	238,828	108,709	25,963		115,339	29.1
C	214,945	98,709	21,217		110,593	23.7
D	214,945	94,167	20,241		109,617	22.7

^a The number of mortgages are for 2004 and are from the DoEHLG.

^b No adjustment has been made for the amortisation of the mortgage stock.

The robustness of mortgage credit growth to fluctuations in both price and quantity can be demonstrated by the events of 2001. Annual house price growth declined from 13.8 per cent in 2000 to 0.6 per cent in the final quarter of 2001 before reaccelerating again. This moderation in house prices had an effect of reducing the mortgage credit growth rate by 6.5 percentage points to 17.8 per cent. The persistence of mortgage growth can be attributed to sustained levels of new mortgage business.

Looking forward, the current trend in net inward migration and the high proportion of the Irish population in the household formation age group (measured at 31 per cent by the latest population estimates) are likely to keep mortgage volumes at sustained levels. Continued high volumes are likely to support growth in mortgage credit into the future.

A more detailed breakdown of growth in lending to non-financial corporates by sector and by type of lending to households has been discussed in Sections 2.2 and 2.3. In summary, this sectoral analysis suggests a continued increase in the exposure of the banking system's loan book to property (Chart 48). Property-related lending, whether for house purchase or otherwise, accounted for 73.4 per cent of the growth in private-sector credit in 2004 and in the first half of 2005 accounted for about 58 per cent. The strong growth of lending for commercial property means that the contributions of residential lending and commercial lending have become more even. Since October 2004, residential mortgage lending no longer accounts for the greater part of the monthly increase in private-sector credit. The latest data indicate that residential mortgages accounted for approximately 42 per cent of the monthly increase in outstanding private-sector credit.¹⁸ The robust growth in lending to construction and real estate companies has resulted in property-related lending accounting for the bulk of the value of outstanding loans of the banking system vis-à-vis Irish residents. By the second quarter of 2005, 53.6 per cent of the value of private-sector credit was property related.¹⁹ This is above the long run average (1992 to 2003) of 41 per cent. This share of the overall loan book in property may also be high by international standards. For example, the estimate for the UK banking system is approximately 43.8 per cent (i.e., the sum of the following shares: construction sector 1.3 per cent; real estate sector 8.3 per cent and residential mortgages 34.2 per cent).

—Funding

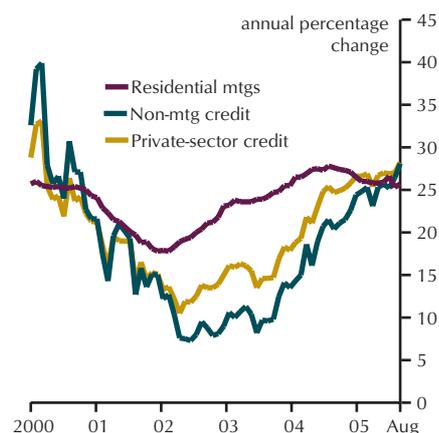
Banks typically fund their assets through a combination of deposits, interbank borrowing or capital market issues. Traditionally deposits have been the primary source of funding in the Irish banking system. However, there has been a need in recent years to supplement deposits with alternative sources of funding. The funding gap between Irish domestic credit institutions and the Irish private sector increased again in 2004. The funding gap is particularly acute now with respect to private-sector residents. The private sector's value of deposits with credit institutions is only some 59 per cent of the value of its outstanding loans with the same institutions in August 2005 (compared to almost 73 per cent in 2003) (Chart 49). The Irish banking sector's domestic private-sector funding gap is among the highest of the euro area countries where the median ratio of private-sector deposits to loans would be approximately 75 per cent.

Primarily as a result of the funding gap vis-à-vis the private sector, the external financing needs of credit institutions (i.e., sources of funding other than Irish-resident private-sector deposits) increased further in the first eight months of 2005. The majority of these funds are sourced from other credit institutions via the interbank market (58.9 per cent), with the next highest share being from debt securities issuance (25.8 per cent). Non-resident private-sector deposits (10.8 per cent) and central bank/government deposits (4.3 per cent) make up the balance of external financing. These shares are broadly stable when compared to 2004 shares – with only marginal declines in both the interbank market and non-resident private-sector deposits categories. The overwhelming bulk of both non-resident interbank borrowing (83 per cent)

¹⁸ This is the average contribution measured over June, July and August 2005.

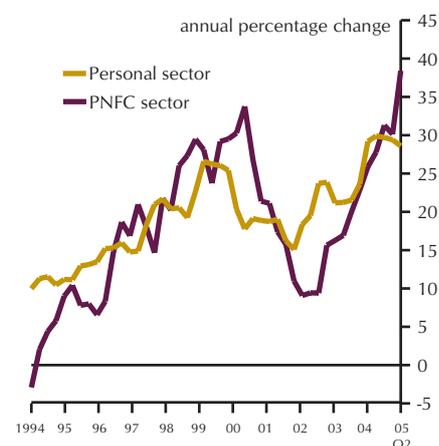
¹⁹ Property-related lending is the sum of lending to real estate, construction and household sectors.

Chart 46: Underlying growth rates of PSC



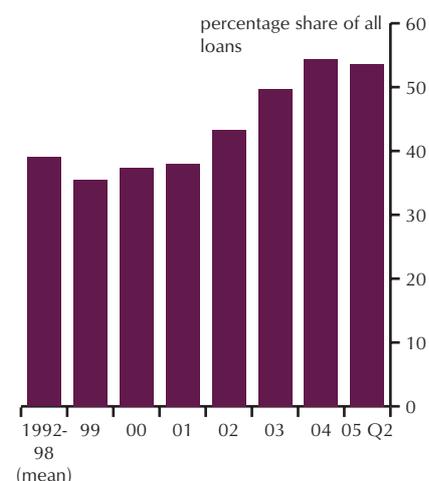
Source: CBFSAI

Chart 47: Lending to Non-Financial Sectors



Source: CBFSAI

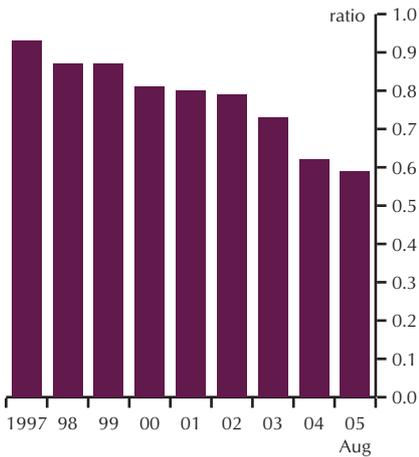
Chart 48: Property-related Lending



Source: CBFSAI

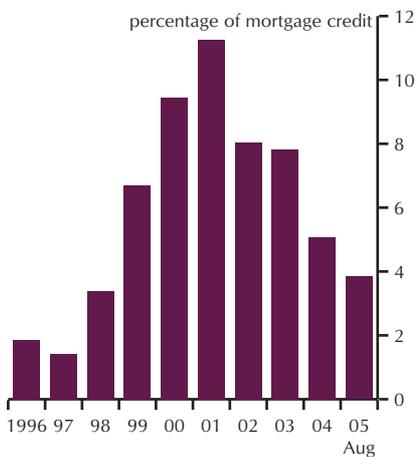
Note: Includes commercial and residential property.

Chart 49: Ratio of Deposits to Loans



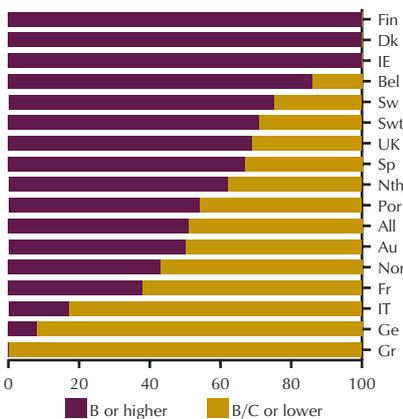
Source: CBFSAI
 Note: vis-à-vis Irish residents only.

Chart 50: Securitisation Rate



Source: CBFSAI

Chart 51: Fitch Ratings (Individual Banks)



Source: Bankscope (BVD)
 Note: Number of rated banks varies by country and not every bank in a country is rated in the first instance.

and debt securities issued and held by non-residents (87 per cent) are vis-à-vis non-euro area residents.

Non-deposit sources of funding are typically more expensive than deposits. However, the domestic banking system has been somewhat cushioned from the cost of a greater recourse to external financing because they have benefited in recent years from a steady downward trend in the typical interest rate paid on interbank borrowing and debt securities. The limited data available suggest that debt securities were the only source of funds to have become significantly cheaper during 2004 and 2005. The typical average rate paid on interbank liabilities remained stable in 2004 and 2005.

—Off Balance-Sheet Activities

The volume of securitisation, as a percentage of overall mortgage credit, has fallen since 2001. The current value of securitised mortgage loans is approximately 3.9 per cent of outstanding mortgage credit by comparison with 11.3 per cent in 2001 (Chart 50). There are a number of possible causes for this fall off in securitisation. First, securitisation is expensive and tends to be conducted infrequently. Second, risk-management is only one of the motivations for securitisation. If the motivation is to obtain funds to engage in further lending, a credit institution has other alternatives to securitisation which would leave the mortgages on-balance sheet (such as issuing bonds). Finally, there appear to be some advantages for credit institutions issuing asset covered securities (ACS) rather than engaging in securitisation, namely, price and the proposed treatment of both ACS and securitisations under Basel II.

—Hedge Funds

An increasing volume of international commentary suggests that the growth of the hedge fund industry may pose risks for credit institutions, and by extension this growth may be important to an assessment of financial stability. However, there is no consensus on whether the net contribution of hedge funds to financial stability is positive or negative. The potential positive benefits are a combination of an increase in the liquidity of markets, perhaps more efficient markets that help the price discovery process, and stabilization of markets because of their contrarian investment strategies.

Hedge funds may impact in a direct and indirect way on the well-being of credit institutions. Credit institutions can have direct exposures to hedge funds by providing either prime brokerage services, lending to hedge funds or investing directly in funds. Thus, credit institutions can have significant earnings risk, credit risk or trading risk from their dealings with hedge funds. The large domestic Irish institutions appear not to be significantly exposed to hedge funds in this direct manner. Credit institutions are affected also indirectly by movements in the financial markets in which hedge funds may be operating, and it is through this channel that the domestic credit institutions would be more likely to be affected by the on-going health of the hedge fund industry. Hedge funds may have significant influence on market momentum. In the event of a serious shock, funds would tend to liquidate their positions simultaneously. In these circumstances, banks would be concerned about the potential impact on their reputations if they were known to be heavily reliant on hedge fund business.

—Market Information

The available market information suggests that the large domestic credit institutions continue to be rated highly. There has been no significant change in the credit ratings of these institutions recently (Chart 51).

The sub-index of Irish financial companies performed strongly throughout 2004 and into 2005. The trend so far in 2005 has been for the ISEF to outperform the ISEQ. The latest year-on-year growth rate for the ISEQ is 20.4 per cent compared with 30.1 per cent for the ISEF. This marks a turnaround in the performance of financial companies relative to the overall index. The average annual growth was 25.6 per cent for the ISEQ and 14.1 per cent for the ISEF in 2004 (Chart 52). This change in the trend has not been experienced in the UK. Growth in the general index has remained stronger than that for the FTSE 350 Banking index through 2004 and into 2005.

Aggregated Micro-Prudential Indicators

Banks' continuing health, and their shock absorption capacity in particular, depends on the strength of their various prudential ratios. The full year results for the 2004 accounting year for credit institutions suggest that the health of the banking sector remains robust with no significant new trends. (Box F provides a checklist of financial soundness indicators for Ireland.)

—Asset Quality and Provisioning

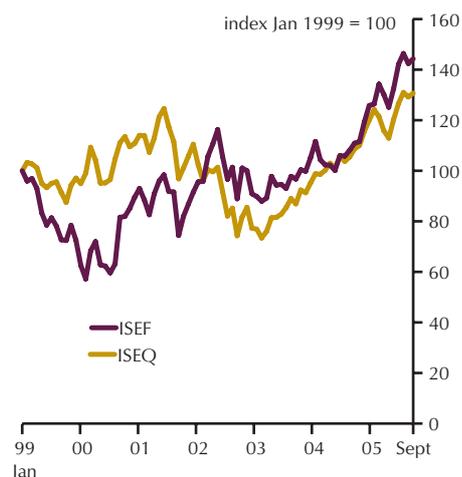
The reduction in non-performing assets, experienced since early-2003, continued during 2005. Non-performing assets were 0.76 per cent of the value of outstanding loans at Q2 2005, compared with 0.98 per cent for the same period in 2004, and 1.26 per cent in 2003 (Chart 53). The level of provisioning has been trending downwards since 2002. Provisions were 0.68 per cent of the value of outstanding loans in the second quarter of 2005 compared with 1.39 per cent for the first quarter of 2002. The cover ratio of provisions (provisions to non-performing assets), where non-performing assets are measured as the gross value of the outstanding non-performing loans with no account being taken of the recoverable value of any collateral, was 90 per cent in the second quarter of 2005 compared with 94.4 per cent in the same period of 2004 (Chart 54).

The stock of provisions is the sum of general and specific provisions. General provisions are those made against inherent but unidentified losses in the loan book. The ratio of general provisions to loans fell further in 2004 and is currently at a historically low level (Chart 55). Specific provisions are those made against losses identified in individual loans and should, therefore, directly reflect the level of non-performing assets. These provisions, as a percentage of gross loans, continued to fall also, reaching historically low levels, confirming that there had been no pick-up in non-performing assets.

—Profitability

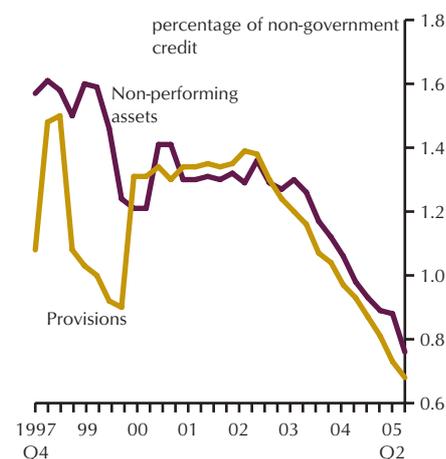
The profitability trends experienced by the Irish banking system in preceding years continued in 2004. Profitability as measured by Return on Assets (ROA) fell further to reach its lowest level since records began in 1993. Over the period since 1993, the ROA of the Irish banking system halved from 2 per cent in 1993 to just 1.1 per cent in 2004 (Chart 56). ROA is calculated as the multiple of profit margin (profit before tax and provisions over total income)

Chart 52: Equity Indices



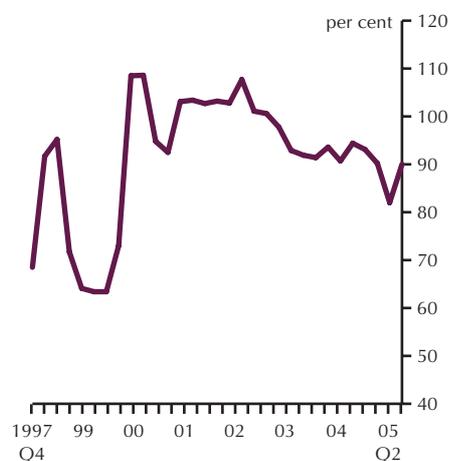
Source: Bloomberg and Irish Stock Exchange

Chart 53: Asset Quality



Source: ESRI/IBEC

Chart 54: Cover Ratio of Provisions



Source: CBFSAI

Note: Ratio of provisions to non-performing loans.

Box F: Financial Soundness Indicators

Financial crises have severe consequences for global financial markets and economic activity. The incidence of such crises in both industrial and developing countries in recent years has prompted research into the development of an early warning system to detect possible risks to financial stability. The IMF has been instrumental in identifying a series of Financial Soundness Indicators (FSIs) for this purpose. Combining such indicators with macroeconomic analysis can be very useful in detecting financial fragility. In last year's financial stability report, a set of FSIs for Ireland was outlined along with a description of the background research. This box serves to build on that work and provide an analysis of developments since that report.

The banking sector lies at the heart of a country's financial infrastructure. Accordingly, the IMF advocates the analysis of aggregated micro-prudential data, when compiling country specific FSIs for the banking sector. In the banking literature, the pro-cyclical nature of balance-sheet development is often highlighted. During a period of sustained and stable economic growth as is the Irish situation, there is a lower probability of loan default and hence a decrease in non-performing loans (NPL's). This allows banks to lower their level of provisioning, which in turn increases their capital base and profitability figures. Furthermore, bank optimism regarding this reduced credit risk leads to a rise in credit supply and subsequently boosts the asset component of the balance sheet. Nevertheless, it is still necessary to analyse the figures under these conditions, as an expansion of economic activity can cause the banking sector to be more exposed in the event of an adverse shock arising from the non-banking sector. The analysis of FSIs can serve as an early warning system in this instance.

In 2003, the Irish banking sector was quite robust with the only warning signal being the return on assets (ROA) indicator. This trend continued in 2004.¹ ROA comprises two components, the profit margin and asset utilisation (i.e., ratio of gross income to total assets). In recent years, even though profit margins have trended upwards, asset utilisation has fallen. This fall in asset utilisation has been due to a decline in net-interest margins, which began in the early 1990s. However, both the cost/income ratio and the net interest margin indicators remain stable. In analysing banks' solvency, risk-based capital ratios are used. These ratios give a more realistic indication of the Irish banking sector's capacity to absorb adverse income shocks. In contrast with our figures for 2003, the total capital ratio fell marginally in 2004. However, even though this ratio declined marginally in 2004, the Irish banking system is well capitalised with both ratios well above the regulatory minima.² In examining the issue of asset quality, the share of non-performing loans (NPLs) to total loans is used. Figures for 2004 show that banks' credit risk portfolios remain in good condition with aggregate NPL data continuing a downward trend. Therefore, as can be seen from the table below, the value of this ratio lies well below the threshold. In summary, the financial soundness indicators for the banking sector remained benign in 2004. Banks' balance sheets are well capitalised and are in a comfortable position to absorb adverse shocks.

The non-financial sector can be decomposed into households and corporations. Households impinge on the banking sector both directly and indirectly through balance sheet effects. An increase in household indebtedness would therefore increase banks' exposure to this sector. Additionally, households become more sensitive to employment and interest-rate changes with a larger stock of debt. Looking at the FSIs for this sector, the annual growth rate of personal-sector debt to nominal GDP issues a warning for the second consecutive year.

There has been a gradual easing in Irish house price inflation in 2004. Department of the Environment, Heritage and Local Government figures record a year-on-year growth rate of 11.3 per cent for the average price of a new house in Ireland in Q4 2004. This contrasts with a growth rate of 13.9 per cent for the same period in 2003. This development, coupled with an increase in disposable income for 2004, means that the ratio of house prices to disposable income no longer surpasses the calculated threshold for the series as it did last year. However, the mortgage repayment burden indicator shows a negative signal, as the 2004 value marginally exceeds the calculated

threshold. Recent strong growth in residential mortgage credit may have impacted negatively on households' balance sheets.

As discussed in the report there appear to be no immediate substantial risks to financial stability arising from the corporate sector. The health of this sector is very dependent on developments in the macroeconomy. Movements in asset prices, interest-rate changes and household consumption pattern all impact on their balance sheets. If corporations find themselves in financial difficulty for a prolonged period of time, this will pose a substantial credit risk for banks. Of note, is the continued strong rate of increase in lending by resident credit institutions to non-financial corporates in 2004, further intensifying the rebound in credit growth evident since 2002. Although the rate of increase in the exposure of banks' loan books to non-financial corporates was slower in 2004 than in the previous year this indicator continues to signal a warning. A good measure of distress in this sector is the liquidation rate. The narrow liquidation rate is used as an FSI and measures the share of potentially insolvent liquidations to the total number of companies on the live register for a given year. The latest figure lies well below the threshold.

Macroeconomic developments have both a direct and indirect impact on all of the sectors and therefore it is necessary to incorporate this analysis with FSIs, when evaluating the possible risks to financial stability. As can be seen, these variables remain favourable. The only early warning in this section comes from private-sector indebtedness. Figures for the end of 2004 in the below table, show that this ratio outpaces its threshold by a significant amount.

Indicator	2004			2003		
	Threshold	Value	Signal	Threshold	Value	Signal
Banking Sector^a						
Tier One/risk weighted assets ^b	7.32	7.96	No	7.38	7.64	No
Total capital/risk weighted assets ^b	10.91	10.80	Yes	11.01	11.01	No
Non/performing loans/total loans	2.35	0.77	No	2.42	0.89	No
Return on assets	1.43	1.10	Yes	1.45	1.24	Yes
Interest margin/gross income	64.53	67.40	No	64.74	65.95	No
Non-interest expense/gross income	61.78	52.40	No	62.07	55.40	No
Corporate Sector						
Loans to non-financial corporates/total loans ^{c,d}	5.51	5.87	Yes	5.04	6.74	Yes
Liquidations rate	0.52	0.24	No	0.53	0.25	No
Household Sector						
Personal debt/GDP ^c	11.90	24.48	Yes	11.46	15.39	Yes
House prices/disposable income ^c	7.40	5.06	No	7.09	10.23	Yes
Mortgage repayment burden ^c	6.74	6.76	Yes	6.59	3.41	No
Real Estate Sector						
House prices ^c	16.07	11.28	No	16.08	13.93	No
Mortgage loans/total loans ^c	12.29	7.23	No	11.93	11.20	No
Real estate loans/total loans ^c	20.83	10.11	No	18.39	25.85	Yes
Macroeconomic Variables						
Private sector credit/GDP ^c	7.29	16.49	Yes	7.42	6.76	No
GDP growth	2.00	4.50	No	2.02	3.63	No
GNP growth	0.44	4.00	No	0.42	2.77	No
Inflation	9.90	2.61	No	10.09	1.93	No
Real interest rates	0.74	0.17	No	0.75	-0.15	No
Real consumption growth	0.40	2.75	No	0.38	2.61	No

^a Banking data are available from 1993-2004, except for NPL data, which are from 1995 to 2004. Also, results for individual banks were weighted by their share of total assets, to account for the uneven structure of the Irish banking sector.

^b Data only available for a subset of Irish banks.

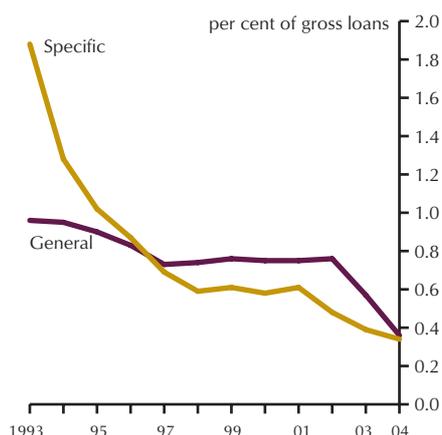
^c Variables are calculated as the one-year percentage change.

^d Data have been revised since the Financial Stability Report, 2004.

¹ See last year's financial stability report for details of methodology used in creating and assessing FSIs.

² This fall in the Own Funds Ratio may be partially explained by the small sample of banks, for

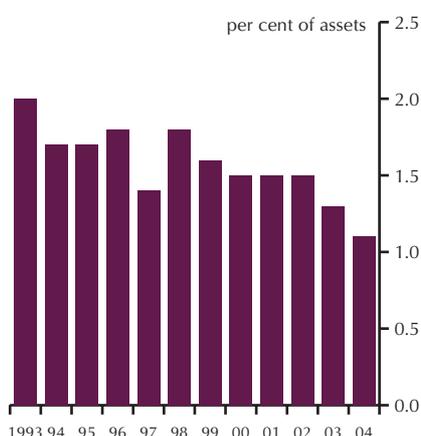
Chart 55: Provisions by Type



Source: Annual reports

Note: Weighted average of sample of banks.

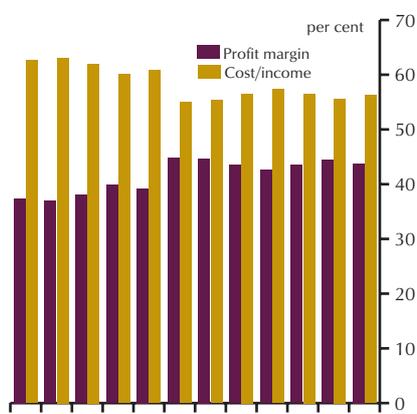
Chart 56: Return on Assets



Source: Annual reports

Note: ROA is profit before tax and provisions to total assets and all data are weighted average of sample of banks.

Chart 57: Profit Margins and Efficiency



Source: Annual reports

Note: Cost/income is non-interest expenses to income and all data are weighted average of sample of banks.

and asset utilisation (the ratio of gross income to total assets). The reduction in ROA was driven by a decline in asset utilisation that more than halved since 1993 to a current level of 2.5 per cent. In contrast, profit margins have tended to increase marginally in the most recent years but fell slightly in 2004. Profit margins tend to move inversely with cost-income ratios and the average cost-income ratio increased slightly in 2004 (Chart 57).

The asset utilisation ratio has been falling in recent years because the growth in assets has exceeded the growth in income. Net interest margins have traditionally been a larger contributor to the overall asset utilisation ratio by comparison with the non-interest margin. Net interest margins, which had fallen steadily in preceding years, fell again in 2004 (Chart 58). The downward trend in net interest margins in recent years should perhaps be considered in the context of other contemporaneous developments, for example, improvement in banks' cost-efficiency, historically low levels of retail interest rates (Chart 59) and a greater recourse to wholesale markets for financing.

Declining net interest margins may be disproportionately important for credit institutions whose primary business is mortgage lending. The overwhelming share of pure mortgage lenders' income is sourced from interest income. The share of income from interest sources rose for mortgage lenders in 2004.²⁰ This share rose marginally from 89.5 per cent in 2003 to 91 per cent in 2004 and is now high by historical comparison. In contrast, credit institutions whose business involves non-mortgage lending activities derive a greater share of their income from non-interest sources (approximately one-third of all income) and, therefore, may be less vulnerable to declining net interest margins (Chart 60).

A bank's interest rate risk reflects the extent to which its financial condition is affected by changes in market interest rates. An adverse movement in market interest rates (which increases the cost of funding) can impact negatively on banks' earnings if the higher costs cannot be passed onto borrowers through higher lending rates. The prevalence of variable rate mortgages (almost 86 per cent of the outstanding total) and variable rate loans for non-financial corporates²¹ in the Irish market may mitigate some of the earnings risk from an unanticipated increase in funding costs (e.g., money market interest rates) from the credit institutions' perspective because any such increase in funding costs can be passed on to households.

—Solvency

Irish banks remain well capitalised with solvency ratios significantly in excess of the regulatory minima. Both the weighted average Tier One and total own funds ratios are broadly unchanged in the first half of 2005 by comparison with end-2004 (Chart 61). In those individual institutions where solvency has fallen, a principal explanation is the significant growth in lending which has exceeded the growth rate in own funds. Total own funds as a percentage of risk-weighted assets has declined only marginally to 10.48 per cent (from

²⁰ This data is reported for a very small sample of credit institutions whose primary business is mortgage lending.

²¹ The share of floating-rate loans to non-financial corporates is proxied by the share of new business in the floating or fixed for one year or less category in Table B2.2 (CBFSAI Monthly Bulletin).

10.51 per cent at end-2004) but remains slightly below the 1997 to 2004 average of 10.95 per cent. The Tier One capital ratio has increased marginally to 7.85 per cent.

—Liquidity

The liquidity of domestic banks improved further in 2005. The latest weighted average level of liquidity (measured as the ratio of liquid assets to total borrowings) is 35.4 per cent by comparison with 32.1 per cent in mid-2004. The ratio is comfortably above the 25 per cent regulatory minimum level. In general, almost all liquid assets are deposits held with other credit institutions (approximately 95 per cent). A sizeable share (approximately one third) of total borrowings is in the form of borrowings from other credit institutions.

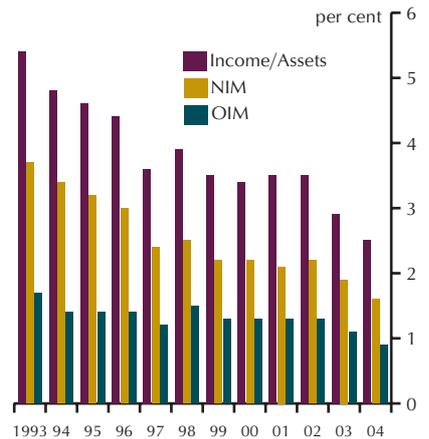
2.4.2 Internal Risks to the Irish Banking System

The health of the banking system remains robust when measured by asset quality, profitability, solvency, liquidity and credit ratings of the Irish banks. There are, however, five main concerns with respect to the outlook for the health of the banking system and which originate from within the system. First, the rate of credit growth may be excessively high. Second, the share of the loan book in property-related sectors continues to increase rapidly and is now the bulk of the outstanding loan book. Third, net interest margins have declined. Banks are cushioned somewhat from these low margins by the current strong rate of lending growth which, as noted above, appears to be concentrated in property-related lending, albeit broadly defined. In addition, banks may be tempted to seek alternative and possibly riskier sources of higher margin interest and non-interest income. Fourth, banks are having to source increasing amounts of funding from non-retail sources, including international sources. There is a risk that a country-specific shock to the Irish economy would constrain the supply and/or raise the price of this funding. Finally, banks' provisioning levels are already low by historical standards and the adoption of International Financial Reporting Standards (IFRS) will see these provisioning levels fall further.

The rate of credit growth may be excessively high. In the report for 2004, the persistent strong rate of credit growth and especially lending for property-related purposes raises some concerns. Since then, there has been no significant reduction in the rate of mortgage credit growth. Furthermore, there has been a resurgence in credit growth in many of the sectors where credit had been growing relatively slowly. A persistently rapid rate of credit growth has been a significant indicator prior to banking crises in many other countries in the past. Furthermore, these high rates of lending are of more concern now because, although similarly high rates of lending occurred in previous years, the lending is occurring to a much more highly indebted private sector than was the case in previous years.

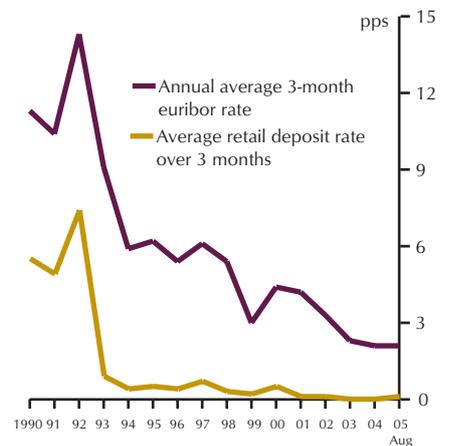
The share of the loan book accounted for by loans to property-related sectors continues to increase rapidly and it is now the greater part of the outstanding loan book. This suggests a significant and possible over concentration of the aggregate loan book in property (defined in the broadest sense to include the many different segments that comprise the property market) that may affect banks in two ways: an accumulation of credit risk in one sector and an increasing reliance of income and profitability on property-related business.

Chart 58: Income Margins



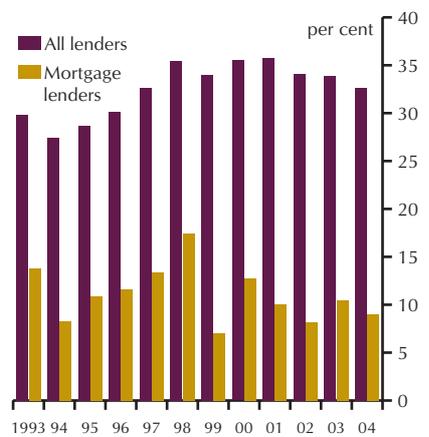
Source: Annual reports
Note: Income/assets is gross income to assets, NIM is net interest income to assets, OIM is non-interest income to assets and all data are weighted average of sample of banks.

Chart 59: Interbank Lending and Retail Deposit Rates



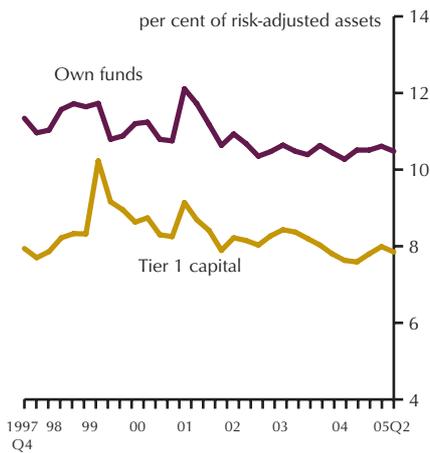
Source: ECB and CBFSAI
Note: Retail deposit rate relates to new business.

Chart 60: Non-interest Income



Source: Annual reports
Note: As a % share of total income. Mortgage is a subset of lenders whose primary business is residential mortgage lending. All data are weighted average of sample of banks.

Chart 61: Solvency



Source: CBFSAI

An assessment of the appropriate share of lending by banks to the property sector from a credit risk perspective is complicated because property-related lending has a key advantage in that it tends to be secured. In addition, the broad nature of property-related lending provides diversification benefits since all sectors of the property market may not be closely correlated. The concern, however, is that the various segments that may not be correlated in normal times, could, in a serious and widespread downturn, become correlated. However, a vulnerability for financial stability may exist when a large proportion of domestic banks have significant exposures to the same asset class (i.e., property). This is the case now in Ireland where any problem in residential property or commercial property markets will be transmitted to every domestic credit institution simultaneously. Furthermore, banks' income and profitability growth would be hit in the event that problems originating in property markets reduced the demand for property-related loans. A significant reduction in the demand for property-related loans, which was not compensated for by a pick-up in demand for other types of lending, would have a knock-on effect on profitability.

Net interest margins, the ratio of net interest income to interest-earning assets, have declined. Banks are cushioned somewhat from these declining margins by the current strong rate of lending growth, which as noted above, appears to be concentrated in property-related lending. In the face of declining margins, banks may be forced to seek alternative and possibly riskier sources of higher-margin interest and non-interest income.

Banks are having to source increasing amounts of funding from non-retail sources, including international sources. This development is a natural by-product of many years of rapid credit growth, significantly exceeding retail deposit growth, and combined with a small domestic market that limits the ability of credit institutions to raise sufficient market funds domestically. Retail deposits are traditionally a more stable source of funds. However, credit institutions are limited in their ability to increase the volume of retail deposits significantly without increasing interest rates. This has led institutions to source market funds through the interbank and debt securities markets. It would appear that institutions have had no difficulty in obtaining these funds and, as such, this may be interpreted as a vote of confidence by the international financial community in the health of the domestic banking system. However, these alternative market sources of funding pose a liquidity or refinancing risk for institutions. The Irish domestic requirement for such funds is relatively small, given the size of these markets in the euro area, thus easing concerns that these international markets would be incapable of satisfying Irish requirements into the future. But market funding is more volatile than retail funding, as there is a risk that a country-specific shock to the Irish economy would constrain the supply and/or raise the price of this funding.

Finally, the level of credit institutions' provisions against loan losses is low by historical standards. This in part reflects the fall in non-performing assets. However, the dominant share of provisions in recent years has been 'general' provisions rather than 'specific' provisions. General provisions are loan loss reserves made in anticipation of difficulties arising in the loan book but which have not been identified yet. Such general provisions will be phased out with the adoption of the new international financial reporting standards. Banks will

have to report their consolidated financial statements in accordance with the IFRS from 2005 onwards. This phasing out of general provisions will reduce the forward-looking element in the level of provisioning against loan losses and will reduce the level of provisioning further.

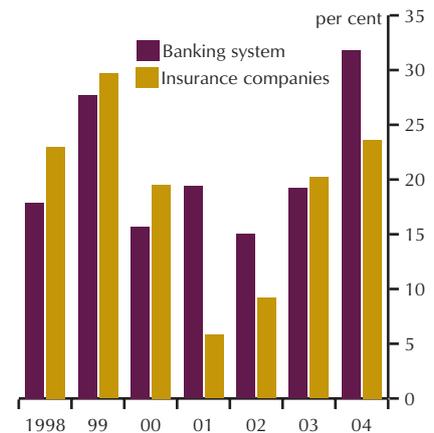
2.5 Insurance Sector

The IMF states that “. . . insurance is an important and growing part of the financial sector in virtually all developed economies . . .” which can “. . . significantly contribute to economic growth . . .”. The rapid growth of the banking sector over the period 1998 to 2004 (averaging 22.4 per cent per annum) was almost matched by that of the insurance sector (averaging 18.7 per cent per annum) (Chart 62). The latest data suggest that the domestic insurance sector may be almost one-third the size of the group of mortgage-lending domestic banks.²² This growth in the insurance sector and its large size relative to the banking sector may imply that there is now greater scope for that sector to impact on financial stability. A main channel through which this could occur is through cross-ownership between banks and insurance companies. Three significant credit institutions have shareholdings in life/health insurance companies only.²³ The contribution to overall profitability of these three credit institutions differs somewhat with one substantial bancassurance operation and a significantly smaller contribution to overall profitability from the insurance operations in the other two groups.

The financial stability implications arising from general insurers and life insurers with no direct links to banks are less obvious. Perhaps most obviously, the availability of a smoothly functioning insurance market is important to the operation of the real economy. The probability of insurance companies encountering solvency difficulties is in part dependent on the structure of their products. In particular, the structure of the life insurance industry in Ireland reduces the possibility further of a systemic problem emerging from the life sector. In general, the risks are borne by households and not insurance companies through the predominance of ‘unit-linked’ policies rather than ‘with-profits’ policies. The former policies transfer the risk to the clients and away from the insurance companies.

Overall, the data suggest that the insurance sector has been recovering slowly from a decline in 2001. Profit in the *non-life* sector (measured as a percentage of premiums) was 48.5 per cent in 2004, compared with 34.7 per cent in 2003. Real growth in net premiums slowed in 2004 to 6.1 per cent from 8.7 per cent in 2003. In the *life* sector, profitability (measured as a percentage of income) continued to recover in 2004. Profit was 67.7 per cent of income in 2004 compared with 66.7 per cent in 2003. Real growth in premiums was 39.7 per cent in 2004, recovering from a fall of 11.6 per cent in 2003. (Box G provides a more detailed analysis of long term trends in both the non-life and life insurance sectors.)

Chart 62: Domestic Banking and Insurance Companies' Asset Growth



Source: Insurance Statistical Review, CBFSAI calculations

²² The size of the insurance sector in Ireland is calculated by benchmarking total assets held by all insurance sector undertakings (i.e., life and non-life companies) with head offices in Ireland against those of the mortgage-lending banking sector.

²³ See Section 12.2 of the ‘Licensing and Supervision Requirements and Standards for Credit Institutions’, Central Bank of Ireland, 1995.

Box G: Financial Soundness Indicators for the Insurance Sector

The rapid growth of the insurance sector in recent years, and the increasing links between the insurance and banking sectors, may have increased the importance of the insurance sector to the assessment of financial stability. Indeed, the IMF has noted that 'insurance is an important and growing part of the financial sector in virtually all developed economies' which can 'significantly contribute to economic growth'¹. As a result, the IMF has suggested a core set of indicators for assessing the financial soundness of the insurance sector.

The indicators in this box have been largely developed using this suggested set of financial soundness indicators (FSIs). These indicators cover three broad areas for both the Life and Non-Life sub-sectors.

- **Earnings and Profitability.** Earnings are a key long-term source of capital; low profitability may be an important signal of diminishing solvency.
- **Reinsurance and Actuarial Issues.** The risk exposure of firms and the reserves firms maintain to cover their risks are important indicators of stability.
- **Management Soundness.** Sound management is crucial for the stability of the insurance sector and may result in increasing efficiency within the sector.

The ratios are compiled separately for Life and Non-Life companies because the nature of both types of business are different. Life companies rely on investment returns and have stable payments. Non-Life business is more short term in nature – premium income and claims ratios are relatively more important.

There is no generally accepted definition of what may constitute a systemically important insurance company from an Irish financial stability perspective. Therefore, the sample of insurance companies used for these indicators is 'Undertakings with Head Offices in Ireland'. This sample accounted for approximately 93 per cent of the value of total premiums of all insurance companies providing regulatory returns to the Financial Regulator in 2004. The data are presented for the period 1997 to 2004.

Non-Life Indicators

Non-Life indicators are presented in Table 1. The Earnings and Profitability Indicators show that profitability (profit as a percentage of premium) continued to strengthen in 2004 after a dip in 2000, though real growth in net premium slowed. Profit is driven by the underwriting result (premium less incurred claims less expenses) and investment income. The ratios suggest that the increase in profitability may have been largely driven by the relative changes in premiums and claims. This may be seen from the reduction in the Loss Ratio (total claims/net premiums) between 1997 and 2004. At the same time, income (investment income/net premium ratio) and earnings efficiency [management expenses and commission ratios (management expenses/net premiums and net commissions/net premiums)] exhibited only marginal increases over the period.

The Reinsurance and Actuarial Issues Indicators show that the sector increased both the proportion of its risk that was reinsured and the value of reserves held as a proportion of claims. The reduction in the risk retention ratio (net premium income/gross premium income) indicates that the sector was bearing less risk, by reinsuring greater amounts of their premiums. The survival ratio (technical reserves/average of net claims in last three years) is a measure of companies' estimates of reported and outstanding claims. This ratio indicates that firms are maintaining reserves well in excess of net claims.

The Management Soundness Indicators show that management efficiency in the sector increased over the period. This may be seen from the small increases in both the gross premium/number of employees and the assets per employee ratios between 1997 and 2004.

Table 1

	1997	1998	1999	2000	2001	2002	2003	2004
Earnings and profitability indicators (%)								
Profit as % of premium	14.2	11.1	7.9	3.6	15.4	22.3	34.7	48.5
Real growth in net premium	—	20.0	9.5	6.1	9.1	15.5	8.7	6.1
Loss ratio	80.1	74.6	77.1	79.0	76.7	69.5	59.9	55.5
Management expenses ratio	10.9	10.3	10.1	8.0	10.4	9.6	9.7	9.9
Commission ratio	12.5	12.5	14.4	13.0	13.9	13.2	14.1	12.5
Investment income/net premium	12.1	10.6	9.8	13.0	14.1	10.3	10.3	11.3
Reinsurance and actuarial issues indicators (%)								
Risk retention ratio	82.8	82.7	77.3	74.9	76.2	—	—	—
Survival ratio	—	—	436	399	406	437	494	557
Management soundness indicators								
Gross premium/no. employees (€/employee)	0.4	0.5	0.5	0.5	0.7	0.8	0.8	0.9
Asset per employee ratio (€/employee)	1.4	1.5	1.7	1.8	2.1	2.4	2.7	3.1

Source: Insurance Statistical Reviews (1997 to 2004) and OECD Insurance Statistics Yearbook 1994-2001.

Life Indicators

The Life sector indicators are presented in Table 2. The real growth in net premiums picked up in 2004 following a dip in 2003, while the Earnings and Profitability Indicators (profit as a percentage of total income) suggests that profitability is returning to pre-2001 levels. Recent increases in the Claims/Premiums ratio suggest that this increase in profitability may have been driven more by investment income than the underwriting result. Having increased for the first time since 1997 in 2003, Returns on Investment Assets (investment income/value of total assets) appear to have recovered somewhat, despite a marginal decrease in 2004. Gains in earnings efficiency [management expenses and commission ratios (management expenses and net commissions to net premiums)] also contributed.

Table 2

	1997	1998	1999	2000	2001	2002	2003	2004
Earnings and profitability indicators (%)								
Profit as % of income	68.3	62.2	72.5	64.9	49.8	52.1	66.7	67.7
Real growth in net premium	—	55.6	52.8	35.6	-7.1	14.6	-11.6	39.6
Claims/premiums	50.2	49.1	29.0	28.5	37.3	29.6	35.3	34.2
Management expenses ratio	10.4	7.7	6.0	5.5	6.2	5.6	6.8	5.0
Commission ratio	6.8	6.5	5.6	5.2	6.4	5.7	5.2	3.9
Return on investment assets	5.4	5.0	4.0	3.6	2.8	2.7	3.2	3.1
Reinsurance and actuarial issues indicators (%)								
Risk retention ratio	97.1	97.2	96.1	84.5	62.0	—	—	—
Management soundness indicators								
Gross premium/no. employees (€/employee)	0.6	0.9	1.3	1.7	1.8	2.2	2.1	3.2
Asset per employee ratio (€/employee)	4.1	4.8	5.8	5.1	7.5	8.4	10.7	14.5

Source: Insurance Statistical Reviews (1997 to 2004) and OECD Insurance Statistics Yearbook 1994-2001.

The reduction in the risk retention ratio over the period shows that firms were reinsuring greater amounts of risk over time.

Management Soundness Indicators show that there has been an increase in management efficiency. Increases in both the premium/number of employees and the assets per employee ratios over the period illustrate this improvement.

Overall, these indicators suggest that, despite a dip in performance in 2000 and 2001, there has been a general improvement in the performance of both the Life and Non-Life sectors over the period 1997 to 2004.

¹ Das, U. S., N. Davies and R. Podpiera, (2003), 'Insurance and Issues in Financial Soundness', IMF Working Paper 03/138, 2003.

–*Business Continuity and Contingency Measures*

To rectify the shortcomings identified in the Bank's assessment of IRIS, enhanced domestic contingency arrangements, which include an off-site back-up system on which IRIS transactions are fully replicated, were introduced in December 2004.

–*TARGET2*

The further development of Eurosystem proposals to replace individual national TARGET platforms with a single common platform, to be known as TARGET2, continued in 2004. The Governing Council approved the *General Functional Specifications* for the **Single Shared Platform** (or SSP) in July 2004, and in December of the same year accepted an offer made by the Banca d'Italia, Banque de France and Deutsche Bundesbank to build this platform, which will replace individual national RTGS platforms and constitute the TARGET2 system.

2.6.2 View of 2004 Outcome

The overall assessment of the payment and settlement system in Ireland from the financial stability perspective is that it continued to operate satisfactorily in 2004. As mentioned above, there was no evidence of liquidity or collateral constraints in the operations of domestic participants in the TARGET system.

3. International Dimension

An assessment of the risks to financial stability in Ireland would not be complete without an appraisal of developments in the international economic environment. The openness of the Irish economy renders it susceptible to shocks originating abroad. The occurrence of such shocks are thought to be the main threat which would bring about the realisation of the vulnerabilities in the household, corporate and banking sectors, such as increases in interest rates and income or employment shocks as discussed in Section 2.

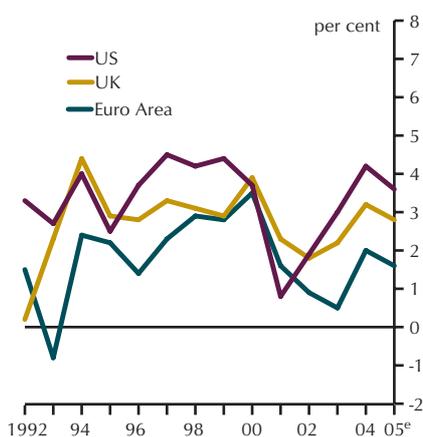
3.1 Overview

Following a rapid expansion between mid-2003 and mid-2004 (when world growth expanded at its fastest pace for over three decades), global economic growth lost some of its momentum in the second half of last year, and first six months of 2005. The reduction partly reflects an inevitable move to a more sustainable – but still robust – level of activity, following the exceptional pace of growth in the preceding year. The increase in activity in the second-half of 2003 partly reflected significant one-off factors; in the US, tax cuts and a sharp increase in refinancing activity boosted household expenditure, while in South-east Asia the economy rebounded from a SARS related slowdown. Against the backdrop of positive fundamentals – a low inflationary environment and favourable financing conditions – these factors provided the catalyst to a significant strengthening of global activity, with world trade and industrial production picking-up sharply. Accordingly, some slowdown in the growth rate was not only inevitable, but also desirable (particularly in the case of China, where fears of overheating have persisted in recent years). However, the reduction has also reflected one of the two major financial market developments of recent years, a sharp rise in oil prices. Higher oil prices, which have resulted from a combination of high demand, uncertainties (both geopolitical and over OPEC's output plans), low levels of excess capacity,

and, more recently, the impact of Hurricane Katrina, are increasingly putting pressure on households' purchasing power, and are also having an increasingly significant impact on corporate balance sheets. Following a decline in the final months of last year, Brent crude oil prices have accelerated sharply in 2005, reaching fresh nominal highs of close to \$70 per barrel in August. This represents a 70 per cent appreciation in prices at the turn of the year, and a 120 per cent appreciation on oil prices at the start of 2004.

Meanwhile growth differentials across the major regions, which have narrowed somewhat during the first half of 2005, remain significant. Widening growth differentials were one of the consequences of the slowdown in activity in late-2004; whereas growth had become increasingly broad based in the second half of 2003, the expansion was clearly less balanced in the final quarters of last year. More recently, however, a combination of slower (but still robust) economic activity in the US, and a strengthening of activity in Japan have resulted in the dispersion in global activity declining modestly. Output growth in South-East Asia (and China in particular) remains considerable, but has been much more subdued in the euro area.

Chart 63: Real GDP Growth Rates



Source: Eurostat

In the US, real GDP expanded by 4.2 per cent in 2004, a five-year high (Chart 63). Growth continued to be driven by private consumption, with fixed investment spending playing an increasingly important role as the year progressed. In the first half of this year, activity has remained robust, with household spending only marginally weaker, despite the increase in energy prices. This reflects ongoing strength in the housing market, against the backdrop where the personal savings ratio has declined to just 0.3 per cent. It remains to be seen how big an impact Hurricane Katrina will have on activity in the coming quarters. Typically the impact on GDP of natural disasters balances out, with an initial decline in activity compensated for later on by reconstruction spending. The Hurricane's ultimate impact may therefore depend on how it affects future oil prices.

In the euro area, on the other hand, the recovery lost considerable momentum over the course of 2004. An annual expansion of 2 per cent masked a significant deterioration in the quarterly growth rate, from 0.7 per cent in the first three months of the year to just 0.2 per cent in the fourth quarter. This moderation was largely the result of a considerable decline in the external contribution, which was only partially compensated for by higher domestic demand. Real GDP growth did pick-up in the first three months of this year, to 0.4 per cent, but this reflected two significant once-off effects – positive calendar effects and a sharp decline in imports. As a result the 0.3 per cent increase in the second quarter gives a more accurate picture of the underlying strength of the euro area economy. Against the backdrop of a subdued labour market and marginal wage growth, households remain reluctant to increase expenditure. Accordingly, growth will likely continue to be driven by external stimulus in the second half of the year.

Finally, developments in the major Asian economies have been, for the most part, encouraging, since the turn of the year. In China, while the growth rate moderated somewhat during 2004 – reflecting tightening measures introduced by the government – the economy continued to expand robustly (9.5 per cent annual growth), with a slowdown in investment growth offset

Box H: Some Measurement Issues in relation to the US Current-Account Deficit

In recent times, the trend increase in the US current-account deficit has been mentioned as a risk to the world economy (Chart 1). This box highlights the fact that statistical discrepancies concerning the recording of US merchandise exports of goods may have resulted in the US current-account deficit being overstated in previous years.

A number of measurement issues may have resulted in US merchandise exports being under-recorded and, consequently, the trade deficit being overstated for some time in the past. The Census Bureau highlighted this issue in 1998 and suggested a number of reasons that could explain the under-recording of merchandise exports. These factors include, amongst others, the under-recording of low-valued transactions. Exporters were not required to record consignments of exports valued at less than \$2,500 and the methodology used to estimate low-value transactions was then (in 1998) outdated and did not reflect recent shifts in trade patterns.

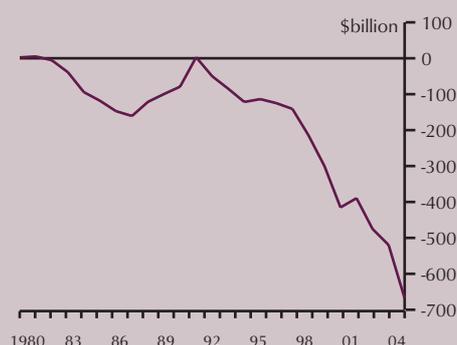
Chart 2 compares US merchandise exports to a number of its trading partners with the same countries' recorded value of merchandise imports from the US. The analysis here is based on annual merchandise trade data made available through the IMF Direction of Trade Statistics. The variables used in the analysis are merchandise exports (f.o.b.) and merchandise imports (c.i.f.). In the absence of exchange-rate fluctuations, exports from Country A to Country B should equal Country B's imports from Country A. In reality a number of practical issues can prevent this from happening. These include classification issues regarding the destination of trade and the time of recording. A further issue concerns the classification of insurance and freight. If imports are valued on a c.i.f. basis where this includes the cost of transporting the goods, they will automatically be recorded at a higher value than the corresponding exports. An issue that remains somewhat unresolved is how to value imports excluding the cost of transport associated with such goods. The IMF acknowledges the lack of reliable global data associated with insurance and freight costs. Against this background, for the purposes of summary tables on the direction of trade, the IMF adjusts all import data reported on an f.o.b. basis to a c.i.f. basis by applying a c.i.f./f.o.b. factor of 1.1. Here 1.1 represents the cost of freight and insurance and the IMF acknowledges that this represents a simplified estimate of these transport costs. The choice of a factor representing freight and insurance costs is arbitrary. However, for the purposes of this exercise, all export data is reported on an f.o.b. basis, and all import data originally reported on a c.i.f. basis is divided by 1.1 to extract freight and insurance costs.

Chart 2 illustrates total merchandise exports and imports from the US to its main trading partners¹. It can be seen that total merchandise exports from the US to these economies have been consistently less than recorded total merchandise imports into these economies from the US up to and including the year 2000. It is apparent from the data that for 2001 and 2002, this recording error has begun to decline substantially and this is clearer from Chart 3.

It can be seen from Charts 2 and 3 that throughout the 1990s there appeared to be a systematic pattern of under recording US merchandise exports. It is also obvious that in recent years, especially from 2001 onwards, this recording error has decreased rapidly. Consequently, the recent increase in the US current-account deficit, as measured by the adjusted series, has been greater than the uncorrected figures would suggest in Chart 4.

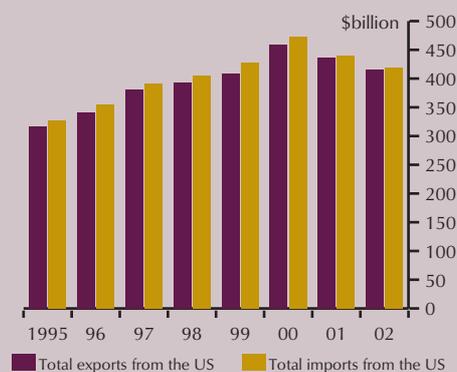
A number of factors can result in the value of merchandise trade statistics deviating from the value of merchandise exports and imports as recorded on a balance-of-payments basis. These factors, as outlined in the IMF International Financial Statistics can include classification issues, the time of recording of transactions, and the coverage of transactions. However, for the countries being examined, the difference in the recorded volume of merchandise exports using each methodology appears insignificant³.

Chart 1: Balance on US Current Account



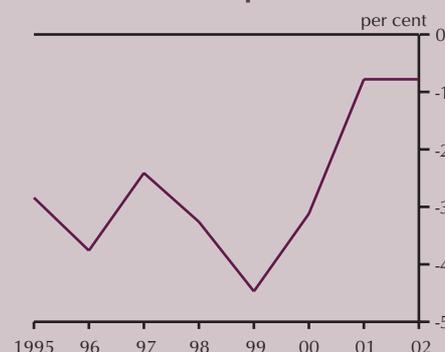
Source: Bureau of Economic Analysis

Chart 2: Total Exports and Total Imports Between the US and its Main Trading Partners



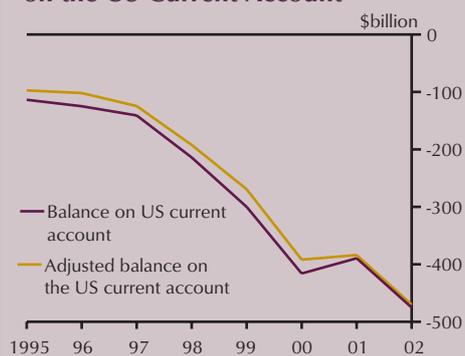
Source: Direction of Trade Statistics and CBFSAI calculations

Chart 3: Estimate of Measurement Error Associated with the Recording of Merchandise Exports²



Source: Direction of Trade Statistics and CBFSAI calculations

Chart 4: Balance and Adjusted Balance on the US Current Account



Source: Bureau of Economic Analysis and CBFSAI calculations

US current-account deficits are nothing new and little attention has been paid to the under-recording of US merchandise exports. It would appear, based on a preliminary analysis of the data, that for a number of years US merchandise exports were being understated and, consequently, the US current-account deficit was being overstated. This problem seems to have declined greatly in recent years; however, it also means that the increase in the US current-account deficit since then has been greater on a modified basis.

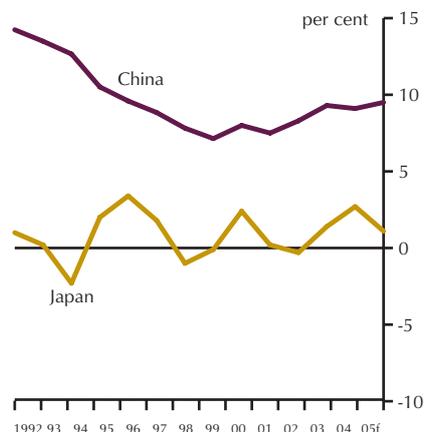
¹ The countries that are considered the main trading partners of the US economy for this exercise are: Canada, China, France, Germany, India, Japan, Mexico and the U.K. Collectively, these economies accounted for 61 per cent of US merchandise exports in 2001.

² The formula used to estimate the size of the recording error is $[(X/M) \times 100 - 100]$ where X is aggregate exports from the US to its main trading partners, and M is aggregate imports into the US's main trading partners from the US.

³ For the countries being examined, the difference between merchandise exports and the value of recorded merchandise exports on a balance of payments basis was small and in most cases amounted to 1 to 2 per cent.

by a pick-up in exports. This year, growth has continued to exceed expectations, and as a result overheating risks remain a concern. In Japan, activity has also exceeded expectations and the economy appears to be gaining momentum; having entered technical recession in the second and third quarters of last year, real GDP picked-up by 1.4 and 0.8 per cent in the first and second quarters of 2005, respectively (Chart 64).

Chart 64: Real GDP Growth Rates



Source: Eurostat and National Bureau of Statistics, China

Despite the narrowing of growth differentials, the already significant global imbalances have continued to widen; the US current account deficit increased by almost a full percentage point to 5.7 per cent of GDP in 2004, and has breached the 6 per cent barrier this year (on an annualised basis). (See Box H for a discussion of measurement issues in the US current account deficit.) An accelerating US external deficit has driven the second major financial market development of recent years – a broadly weaker US dollar. Between 2002 and 2004, the dollar depreciated by 16 per cent in nominal effective terms, and while it picked-up modestly in the first half of this year – as financial markets focused more on interest rate and growth differentials – it appears to have resumed its downward trend in recent months. Previously, reflecting the fixed nature of many of the Asian currencies against the dollar – most notably the Chinese renminbi – and significant intervention by the Japanese authorities, the US currency's decline had been particularly marked against the euro. Given the limited exchange rate reforms announced by the Chinese authorities earlier this year, the euro is likely to continue to bear much of the burden of any renewed dollar depreciation. It would appear that the passthrough of exchange rate changes to domestic US prices is low. Furthermore, the price sensitivity of US exports seems to have fallen, possibly attributable to the changing composition of exports. Both of these factors would seem to be behind the doubts being expressed about the sensitivity of the US trade balance to exchange rate developments. (Box I provides a review of possible explanations for the continued widening of global imbalances and the risks to financial stability.)

In general, financial conditions have remained favourable, and as a result capital spending has played an increasingly important role in supporting the recovery. Despite a significant tightening of policy rates in some of the major economies – in the US the Federal Reserve have raised the federal funds rate 275 basis points since the middle of last year (to 3.75 per cent), while in the

Box I: Global Imbalances

The continued widening and persistence of global imbalances has prompted much debate on the possible explanations for this phenomenon and the associated financial stability risks. The more conventional view argues that foreign portfolio investment in the US faces very low yields and the possibility of significant capital losses. It is therefore not inconceivable that the current rate of inflow might fall abruptly. This could lead to a sharp drop in the value of the US dollar along with a sudden and possibly substantial increase in US interest rates. This could bring the US housing boom to an end and possibly reverse some of the surge in other asset prices, which have occurred alongside low interest rates over the last few years. The negative effect on consumer confidence and on the US construction industry could impact severely on the US economy. The longer the adjustment is delayed, according to this view, the more abrupt it is likely to be and the greater the threat to financial stability.

An alternative explanation puts forward the internal saving-investment imbalances in the US and in Asian countries as drivers of the current-account imbalance, with 'excess' savings in Asian countries and a 'deficiency' of savings in the US (both public and private) being reflected in the US current-account deficit. In this view, a sharp reduction in the rate of capital inflow from Asian countries might be needed to correct the imbalance. If this were to occur in an unstable way, the fallout would have implications for financial stability. It is likely that such an event would be accompanied by a significant fall in the US dollar and possibly an abrupt increase in US interest rates. Although the former would be beneficial for US exports, it is likely that the interest rate effect would be the more important. The repercussions for the Irish economy could be severe. It could be impacted by a loss of competitiveness, by a slowing US economy and, as a consequence, by a slowdown in the rate of FDI inflow into the Irish economy. The risks are significant since they depend on two asset prices (i.e., the US dollar/euro exchange rate and US bond prices) which can move rapidly in a short space of time.

The extent of any exchange-rate adjustment needed to correct the current-account imbalance depends on the extent of this imbalance. Ultimately, a judgement call on the issue of sustainability can only be made if the underlying causes of the high and growing US deficit can be diagnosed. In this context, a number of different arguments have been put forward with varying conclusions. Many countries, especially rapidly growing developing countries, seem to place a high weight on exchange-rate stability particularly vis-a-vis the US dollar, in the belief that large gyrations in exchange-rate values are very disruptive to the businesses of their exporters. They therefore tend to peg their currencies to the US dollar, leading in many cases to undervalued real exchange rates and huge accumulations of foreign reserves, which tend to be invested in short-term US financial assets, particularly treasury securities. This results in a low cost of borrowing in the US, a high level of absorption relative to output and an ongoing balance of payments deficit.

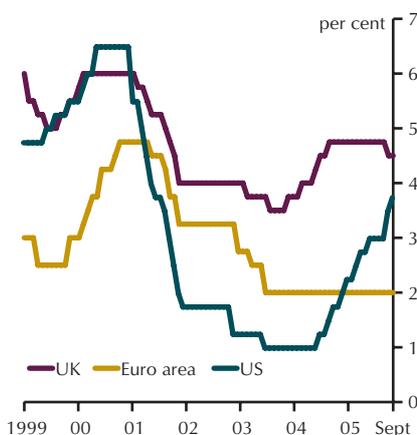
Another explanation focuses on 'excess' private savings in many countries, both rich and developing, combined with a 'deficiency' of savings in the US, both private and public. Domestic savings in the former lack good investment opportunities at home and therefore tend to be invested in the US or, as in the case in many South East Asian countries, reluctance to invest at home following the financial crisis in 1997/98.

A variation on this theme argues that it is puzzling that poor developing countries, where the return on capital is high, are exporting vast amounts of capital to the US where the return on capital is lower. This behaviour may be motivated by a desire to build up liquidity buffers (in the form of holdings of short-term US financial assets) as insurance against the possibility of another 1990s-type debt crisis in South East Asia.

A further motivation has recently been propounded¹ which focuses on the underdeveloped state of financial markets in developing countries. Such financial markets are not capable of converting the high level of savings in these countries into long-term risk capital that would be suitable to the requirement of the local business community. Gross savings are therefore exported to the US, are processed there by the most sophisticated and efficient capital markets in the world and are returned to developing countries by US multinationals usually in the form of foreign direct investment (FDI). The US provides an intermediation service in converting short-term portfolio capital into long-term risk capital suitable to the development needs of these developing countries. An important part of this explanation is that developing countries have to do more than just open their borders to foreign FDI. They also have to post collateral for that investment. Hence their willingness to accumulate large holdings of US short-term assets, which provides insurance to the US (since they can in principle be frozen by the US government) against any threat that US-originated FDI would be usurped by the developing country. This international collateral supports the two-way trade in financial assets that frees capital accumulation in developing countries from inefficient local credit markets and provides the US with the option of accessing good investment opportunities in developing countries as well as access to buoyant consumer markets. If this argument is correct then not only is the US current-account deficit sustainable but it is an integral part of a successful international financial system.

¹ Dooley, Folkerts-Landau and Garber (2004): "The US Current-Account Deficit and Economic Development: Collateral for a Total Return Swap", NBER Working Paper 10727, August.

Chart 65: Interest Rates



Note: US federal funds rate, Bank of England repo rate and ECB main refinancing rate.

UK the base rate is 100 basis points higher (at 4.5 per cent) than in late-2003²⁴ (in spite of the Bank of England cutting rates 25 basis points in August) – long term interest rates in the major markets remain surprisingly low (Chart 65). The 10-year US government benchmark's yield is currently below its pre-rate tightening level, while measures of inflation-adjusted yields indicate that real returns are also abnormally depressed, developments that Federal Reserve chairman Alan Greenspan has described as 'a conundrum'.

Turning to inflationary developments, while the elevated level of energy prices have resulted in accelerating headline price pressures, core rates of inflation are still contained. For example, underlying inflationary pressures in the euro area economy remain very weak; core prices increased just 1.4 per cent in July – a four year low, despite the headline rate persisting above 2 per cent (Chart 66). Reflecting the modest pace of recovery in the region, and the cumulative impact of the euro's appreciation, there is little evidence of second-round effects emerging from the recent strength of oil prices. However, the strength of liquidity growth does point to some risks to price stability in the medium term, further emphasising the continued need for vigilance.

3.2 Risks to Outlook

Looking ahead, global activity is expected to continue to moderate in the second half of the year. However, as mentioned above, this partly reflects a move to a more sustainable level of output growth, and the growth rate itself

²⁴ In the euro area, reflecting the weak nature of the recovery, policy interest rates have been left unchanged since June 2003.

is likely to remain robust by historical standards.²⁵ Risks to this outlook are generally perceived to be on the downside, and tend to be related to concerns over oil price movements, global imbalances and potential financial market developments. Furthermore, while the central projection is for continued robust activity in the remainder of the year, it has become increasingly apparent that concerns over these risks – none of which are new – are growing, increasing the probability of a less favourable outturn ahead.

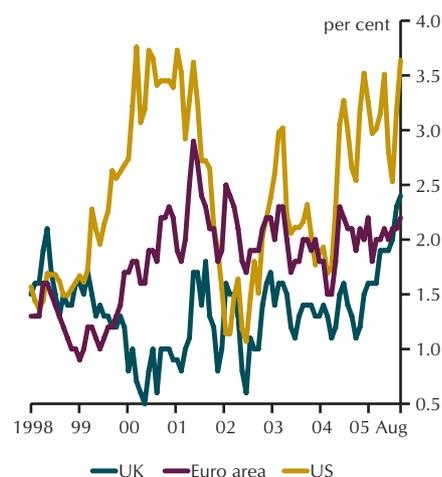
Risks related to oil price developments have, quite rightly, received the most attention in recent months, and will likely continue to dominate the economic outlook in both the short and medium term. Following a decline in the final months of 2004, energy prices have recovered to reach new nominal highs in the wake of Hurricane Katrina, ending August around 70 per cent higher than at the beginning of the year, as the market remains highly vulnerable to shocks (Chart 67). A particularly worrying development has been the rise in long-term futures prices, suggesting that a more persistent rise in prices may have taken place. The elevated level of prices appear to have had only a modest influence on growth since the second half of 2004; as has already been mentioned, positive wealth effects from the strength of the housing market in the US have compensated somewhat for higher energy costs. Furthermore, the fact that the current price spike has been demand driven, (rather than a supply shock as previous oil price shocks have been) may also explain the less significant impact. If prices were to remain at their current levels for a prolonged period, however, it is likely they would have a more considerable influence on activity in the second half of the year. Certainly any further significant rise in oil prices would be problematic and could even raise concerns about the possible emergence of stagflation, a period that sees a decline in activity combined with rising inflation rates, although this would seem less likely now since it is primarily escalating demand rather than supply disruptions that is driving oil prices. Nevertheless, the limited ability to increase capacity in the short run means that the world economy is vulnerable to supply disruptions, including those that could arise from geopolitical risks. The existing high level of oil prices, and the realistic prospect of further increases, poses a significant risk to the spending power of both the household and corporate sectors. This could precipitate an abrupt slowdown in overall activity which, if it spills over into the Irish labour markets, could be worrying for financial stability in Ireland.

While risks related to oil prices have been receiving most attention over the last year, concerns over global imbalances should not be ignored. Even central forecasts project growth differentials to persist amongst the largest global economies, and, accordingly, global imbalances are likely to continue to deteriorate over the second half of the year. The US and China will once again be the driving forces behind global activity, with the euro area recovery continuing at a more modest pace.²⁶ The US current account deficit reached an unprecedented level in nominal terms in 2004 – \$668 billion, up around

²⁵ It remains to be seen how big an impact Hurricane Katrina will have on US output growth in the second half of the year; the Congressional Budget Office recently suggested it could shave 0.5 to 1 per cent off the growth rate. However, as mentioned above, and from a purely growth accounting point of view (in other words, excluding the potential impact on energy prices) we would expect any negative impact to be compensated by reconstruction spending early in 2006.

²⁶ This excessive reliance on the US and China is itself a risk, raising the prospect of a more significant global slowdown if activity were to decline in these countries simultaneously.

Chart 66: International Inflation Rates



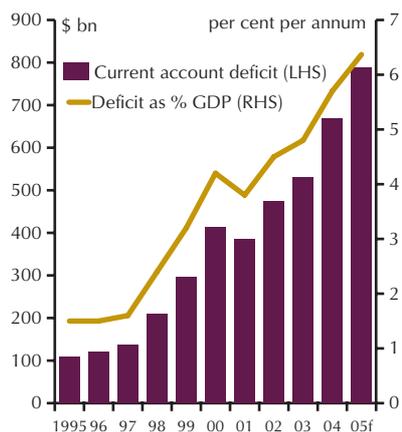
Source: Eurostat and Federal Reserve Economic Database (FRED)
Note: Inflation figures for UK and euro area are based on EU HICP, while US are CPI.

Chart 67: Oil Prices (Brent Crude Oil)



Source: Ecwin

Chart 68: US Current Account Deficit



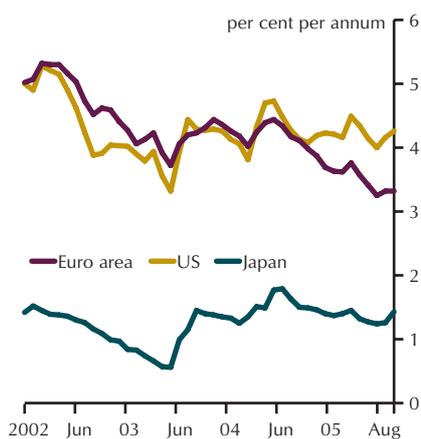
Source: Bureau of Economic Analysis and CBFSAI calculations

Note: 2005 forecast based on 2005 Q2 data.

30 per cent from 2003, and is on target to reach a new record level this year (Chart 68). The US authorities have had little problem in financing this growing external deficit to date, as Asian central banks have been more than willing to recycle excess foreign reserves by purchasing US Treasury bonds. This activity, however, cannot continue indefinitely; as US assets come to make-up ever increasing portions of Asian portfolios, their appetite to hold them may fall, increasing the likelihood of a disorderly adjustment. Resolving the imbalances issue is a multilateral task, one in which the authorities in the US (fiscal adjustment), euro area (introducing structural reforms) and Asia (allowing exchange rate flexibility) all have a role to play. However, up until now there has been little progress on any of these policy requirements, and with the view gaining ground in the US – that it is an excess of global savings rather than US dissaving which is driving developments – the risks related to global imbalances may increase in the coming quarters. Furthermore, given that exchange rate developments have increasingly become linked with the evolution of imbalances, this has potential implications for exchange rate movements and growth developments, especially in the euro area.

Given the extremely low level of bond yields, there is also the risk that financial market conditions could tighten significantly if US bond prices were to undergo a sharp correction (Chart 69). The data suggest that US government bond yields are substantially below where they should be given the current cyclical position of the US economy. Historically there has been a close relationship between bond yields and nominal GDP growth. However, since the beginning of 2002 this relationship seems to have broken down as the two variables diverged. The reasons for these low yields would appear to be heavy investment by Asian central banks, the recycling of petrodollars, increased demand arising from pension fund reform and, reportedly, investment coming from hedge funds. If these sources of demand just noted were to fade, then bond prices would be subject to a sharp downward correction. Given the extent of the apparent misalignment and the speed with which financial prices can jump, the scope for financial stress in the wake of any such correction in bond yields cannot be easily dismissed. Despite the fact that euro area bond yields are not out of kilter with developments in the economy, any significant correction in US bond yields would undoubtedly spread throughout the world given the large size of this market even by global standards.

Chart 69: 10-year Bond Yields



Source: ECB

Higher long-term interest rates would affect both household and businesses spending, with the former particularly at risk in economies where high personal debt is combined with low savings levels, such as in the US. While a number of factors – benign inflation expectations, a high level of monetary policy credibility, gradual monetary tightening – have been put forward to justify the current level of yields, there are also growing concerns about the mispricing of risk in financial markets, which may be encouraging the build-up of highly leveraged positions and excessive risk taking. The consensus expectation is that yields will move upwards in an orderly fashion, but risks of a less benign adjustment remain.

Systemic Consequences of Long-Run Trends in Banking

1. Introduction

Financial markets and the banking industry worldwide have been subject to profound changes over the last three decades or so. There has also been fairly radical change in Irish banking over the same period. One of the purposes of this paper is to examine to what extent this change reflects what has been happening to banking internationally. Another objective of the paper is to relate the observed evolution in international banking to a number of underlying driving forces. The focus of attention is how these underlying forces have shaped banks' balance sheets and to what extent the balance sheets of Irish banks conform to this general evolving pattern. The bottom line of the exercise is to assess whether these long-term trends are making banking systemically more, or less, robust.

Has the evolution of the banking system deepened its resilience and shock-absorption capacity such that a shock of a given size now has less of a destabilising effect than in the past? And, if the well-established patterns, as reflected in banks' balance sheets, persist into the future, what does this say for the future stability of the banking system? Whatever the verdict, there may be implications for regulatory and financial stability-related policies.

The following rather bullish assessment of the current health of the banking system internationally has been made by Standard and Poor's: "The potential for nationwide banking crises and individual bank failures over the medium term appears lower in 2006 than at any point in the last decade. The past few years through to the present is looking more and more like a golden age in global banking"¹. Others would make a much more cautious assessment. For example, a number of papers produced by the BIS emphasise the tendency for financial imbalances and associated real economy distortions to arise in the recovery and boom phase of the business cycle when, according to the usual indicators of financial health, banks appear to be thriving. Occasionally, this process goes too far and sows the seeds of potentially destabilising corrections in financial

markets at a later stage.² If this argument is correct, those who now see global banking as going through a "golden age" may be taking a perspective that is too short term.

Probably the most salient trend affecting banking to emerge for this review is the secular decline in relative importance of traditional banking in financial intermediation. Banks are systematically losing out to financial markets in the business of transmitting funds between savers and investors. This is true both at a national and international level.³ The analysis undertaken here would suggest that this trend is set to persist into the future. Although the implications of this for financial stability are largely benign there may be pitfalls in the transition to this diminished role for banks in financial intermediation.

An overriding consideration in this development is the trade-off between the efficiency and the stability of the banking system. It is undeniable that, in the past, regulators thought that they could easily underpin the stability of the banking system by discouraging competition and favouring a high level of concentration in banking. This was indeed the policy course actually followed by the governments and regulators of most advanced industrial countries following the Great Depression in the US and the financial market turbulence (to which the former was widely attributed) in the late-1920s and early-1930s. The policy u-turn favouring deregulation of the financial system that occurred in the 1970s was inspired by the belief that the previous policy was no longer working and that banks had become relatively inefficient and were being weakened by a lack of competition arising from being overly protected.⁴ There seems to be general agreement that, post-liberalisation, banks have become more efficient. Whether the financial system has become systemically stronger or weaker in the light of the direction that banks' balance sheets have taken since then is the ultimate question we wish to address in this paper.

¹ Standard and Poor's (2006).

² For an example of this work see Borio and White (2004).

³ Banks are responding to this trend and are successfully competing for other related areas of business, which shows up in the increasing fraction of income coming from off-balance sheet activities.

⁴ Whether a high level of competition in banking contributes to its stability or results in building of vulnerabilities leading to later instability is disputed. A recent IMF study by Schaeck, *et al.* (2006) favours the latter effect.

Bottom-Up Stress Testing: The Key Results

by Allan Kearns, Maurice McGuire, Anne Marie McKiernan and Diarmaid Smyth¹

ABSTRACT

The CBFSAI has a mandate to contribute to the stability of the domestic and euro area financial system. One of the elements in the discharge of this mandate is a bottom-up stress-testing programme. In this programme, a group of retail banks evaluates the impact of hypothetical economic downturns on their financial position. The programme is designed primarily to inform the CBFSAI's assessment of the robustness of the financial system to a sharp and significant downturn. This paper gives an overview of this process, as well as the results of the 2006 bottom-up stress test. The broad finding of the banks' replies, in which they describe their financial position in a serious economic downturn suggests that the banking system's shock-absorption capacity is strong. In particular, the banks' replies indicate that a significant reduction in both the growth of the system and the level of asset quality could be expected to occur in the shock scenario, but the health of the banking sector would remain robust when measured by the standard indicators of solvency, liquidity, profitability and asset quality. This positive assessment, in part, reflects the considerable weight placed by institutions on the realisable value of collateral in a downturn. It must be stressed that there is a number of limitations inherent in the methodology and the broadly positive results must be interpreted with these in mind. The broad finding of the bottom-up exercise is supported by the second stress-testing exercise undertaken in 2006 called the top-down stress test. The detailed results of the latter exercise are reported elsewhere in this Report.

1. Introduction

The CBFSAI has a mandate to contribute to the stability of the domestic and euro area financial system. One of the elements in discharging this mandate is a bottom-up stress-testing programme. In this programme, a group of retail banks evaluates the impact of hypothetical recessions on their financial position. The programme is designed to inform the CBFSAI's assessment of the robustness of the financial system, to encourage credit institutions to take account of how macroeconomic shocks could affect their business and to encourage the development of the infrastructure required to complete the stress tests. This paper gives an overview of this process, as well as the results of the 2006 bottom-up stress-testing exercise.

2. Stress-Testing Methodologies

The 2006 exercise is the latest in a series of such exercises which began in 1999 and have been completed every two to three years. In documenting the last exercise, Mawdsley *et al.* (2004) outlined the CBFSAI's bottom-up stress-testing methodology in some detail.² The approach in the 2006 exercise is broadly similar. Stress testing is a generic term used to describe a range of techniques designed to gauge the potential

vulnerability of financial institutions and/or financial systems to exceptional but plausible shocks. One technique is sensitivity testing, whereby any financial vulnerability in a credit institution is measured with respect to individual risks. For example, the impact of adverse developments in credit risk would be analysed separately from developments in interest-rate risk or foreign-exchange risk. A more encompassing technique is scenario analysis where the vulnerability is measured with respect to many risks occurring simultaneously. The primary approach adopted to-date by the CBFSAI in its stress-testing framework has been scenario analysis; this involves assessing the impact of an economic scenario of a downturn on key aspects of banks' financial positions. This has been supplemented with sensitivity tests on topical issues. For example, the 2006 exercise includes sensitivity analysis on banks' interbank exposures and on the structure of their residential mortgage loan books.

The mechanics of the latest stress-testing exercise are similar to previous exercises. The starting point was to consider a range of shocks that might plausibly hit the economy over the next few years. These shocks were

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² This section summarises the discussion in the article "The Stress Testing of Irish Credit Institutions" by Mawdsley, A., M. McGuire and N. O'Donnell, Financial Stability Report 2004, CBFSAI.

Table 3: Examples of Typical Losses (% of Loan Outstanding)

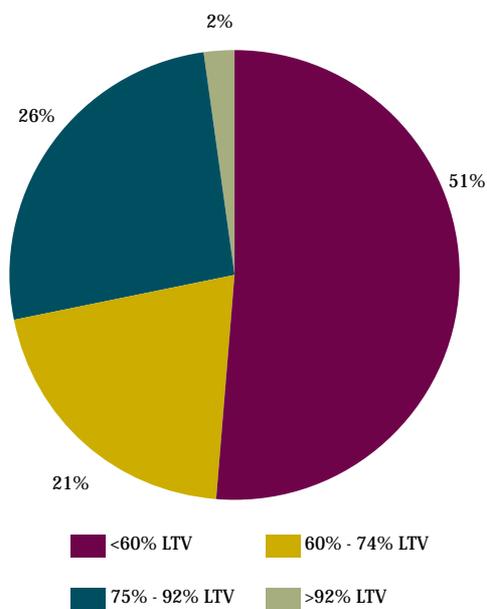
LTV before lower prices:	100%	92%	75%	60%
	% of outstanding mortgage			
Scenario:				
10% price fall	10	2	0	0
25% price fall	25	18	0	0
50% price fall	50	46	33	17

Source: Authors' calculations

Note: Data are losses from different sizes of house price reductions and are a percentage of value of the mortgage. These losses vary with the LTV prior to the price change.

has defaulted (i.e., loss-given-default) is the difference between the re-sale value of the property and the value of the outstanding mortgage. The lower the loan-to-value (LTV) ratio is below 100 per cent, the greater the distance house prices have to fall before the outstanding value of the property would be less than the outstanding value of the mortgage and the bank would then have to absorb a loss (Table 3).

Chart 7: Breakdown of Mortgage Book by Range of LTV Ratios



Note: The range of LTVs are based on the current outstanding loan amount relative to the current estimated value of the property.

The stress test included a sensitivity test which was designed with two purposes in mind:

- i) to document the structure of each bank's residential mortgage book by loan-to-value ratios; and

- ii) to assess the ability of each bank to absorb the first-round losses from hypothetical scenarios of lower house prices.

The credit institutions documented the structure of their mortgage books indicating that, on average, a slight majority of the value of the mortgage book has an LTV ratio of less than 60 per cent and a relatively small proportion of the book (2 per cent approximately) has an LTV of greater than 92 per cent (Chart 7).¹¹ The method of measuring LTV ratios varies across credit institutions because of differences in the methodologies used to update the LTV from the date at which a loan was originated. However, the shares of mortgages in different LTV categories are broadly similar across these methodologies.

The banking system appears to have an adequate capacity to absorb the first-round losses from a moderate fall in house prices because the banks report that a significant proportion of their loan books have relatively low LTV ratios. The CBFSAI picked a range of hypothetical house-price scenarios (10 to 50 per cent price falls), regardless of their probability of occurring, with the explicit intention of estimating the impact of the losses that arise in these scenarios on the financial soundness of each bank.¹² Specifically, the analysis assessed the ability of each bank to afford to pay for the losses in each scenario out of the total value of their reserves (i.e., the sum of provisions, profits and capital). The scenarios where house prices fall by up to 25 per cent and default rates (only of those mortgages in negative equity) are 10 per cent or lower appear to yield manageable losses. In these scenarios, the losses on average amount to less than 3 per cent of the value of total reserves. Any combination of higher default rates

¹¹ These figures are from those institutions using the methodology that gives the most up-to-date measurement of loan-to-value ratios. These institutions account for half of the banking sector's mortgage lending.

¹² This test is replicating the broad approach outlined in Box D entitled "First-Round Effects on the Banking System of Falling House Prices" in the CBFSAI's Financial Stability Report 2004.

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2007**

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Notes

1. The commentary in this report is based on data available up to end-September 2007.

2. The following symbols are used:

e estimated
f forecast
Q quarter

3. The following abbreviations are used:

AU Australia
AT Austria
BE Belgium
CA Canada
DK Denmark
FI Finland
FR France
DE Germany
GR Greece
IE Ireland
IT Italy
JP Japan
KR Korea
LV Latvia
LU Luxembourg
MT Malta
NL Netherlands
NZ New Zealand
NO Norway
PL Poland
PT Portugal
SI Slovenia
ZA South Africa
ES Spain
SE Sweden
CH Switzerland
UK United Kingdom
US United States

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Contents

	Page
Foreword	5
Achoimre	7
Summary	11
PART I	
1. Introduction	21
2. Assessment of the Irish Financial Sector	22
2.1 Macroeconomic Review	22
2.1.1 Economic Outlook	22
2.1.2 Private-Sector Credit and Indebtedness	26
2.2 Property Sector Developments	29
2.2.1 Residential Property	29
2.2.2 Commercial Property	33
2.3 Household Sector	34
2.3.1 Household Indebtedness	34
2.3.2 Risks to the Household Sector	41
2.4 Non-Financial Corporate Sector	44
2.4.1 Indebtedness	44
2.4.2 Credit Growth	44
2.4.3 Realised Credit Risks related to the Corporate Sector	45
2.4.4 Financial Position	46
2.4.5 Forward-Looking Indicators	46
2.4.6 Risks to the Non-Financial Corporate Sector	47
2.5 Banking Sector	47
2.5.1 Irish Banking System	47
2.5.2 Financial Conditions	49
2.5.3 Internal Risks to the Banking Sector	53
2.6 Insurance Sector	60
2.6.1 Non-Life Insurance Sector	60
2.6.2 Life Insurance Sector	61
3. International Dimension	62
3.1 Overview	62
3.2 International Macroeconomic Risks and Developments in Global Financial Markets	62
3.3 International House Price Developments and Household Debt	70
3.4 Corporate Sector Developments	71
Boxes	
A. Recent Trends in Employment Growth	24
B. Scenario Analysis – Mortgage Eligibility in the Residential Housing Market	27
C. The Economic Literature on International House-Price Cycles	30
D. Financial Position of the Household Sector	36
E. Households' Mortgage Repayment Burdens	39
F. Financial Stress in Irish Households	42
G. Financial Soundness Indicators	50
H. Results of Top-Down Stress Testing Exercise	54
I. Asset Quality and Provisioning for Loan Losses	59
J. The US Subprime Mortgage Market	63
K. Subprime, CDOs and the Financial Market Fallout	66

PART 2**A Financial Stability Analysis of the Irish Commercial Property Market by Maria Woods 75**

While most research and analysis have tended to focus on the Irish residential market, it could be argued that developments in the commercial property market have greater consequences for the stability of the Irish financial system. This may be especially true in the light of international experience regarding recent financial crises in developed economies, the results of stress-testing exercises and the current historically high share of commercial property-related lending to private non-financial corporates. Over the period 2003 to 2006, there was a large increase in capital values in the Irish commercial property market without a correspondingly large increase in rents. Consequently, income yields on all types of commercial property reached very low levels in 2006. Of additional concern, from a financial stability perspective, has been the rapid rates of increase in lending for commercial property-related purposes during the same period. This paper investigates whether these trends are unique to Ireland, and considers the extent to which the growth in commercial property values can be explained by fundamental factors.

The Significance of Residential Property Investors by Allan Kearns 91

Residential property investors have grown in importance in recent years and now play a significant role in both the housing market and as borrowers from the banking system. It is sometimes suggested that investors, unlike owner occupiers, potentially pose a risk to the stability of the housing market insofar as they may attempt to exit the market and at short notice. This may be an unlikely event whenever capital growth is strong and the return on investing in property is correspondingly high. The concern is that the slowdown in residential prices may encourage existing investors to realise their capital gains, or prospective investors to postpone their purchases, thus slowing capital growth further, thereby amplifying any downturn, and potentially weakening the residential market further. This paper reviews the arguments on both sides of the debate as to how residential property investors might respond to a slowdown in the housing market.

A Financial Stability Perspective on Irish Banks' Foreign Business by Allan Kearns 103

The financial health of the Irish banking sector is dependent on the health of the Irish economy and a persistent financial stability concern is that a significant shock to the Irish economy could weaken the banking system. However, the macroeconomic risks to the sector's health might be diversified away from the domestic economy because several Irish banks earn a significant part of their income from operations in other countries. On the other hand, there might be fewer diversification benefits if economic growth between these foreign locations and Ireland were found to be highly correlated such that it might be likely the banks could still be faced with a downturn in all their key markets at the same time. This paper aims to identify the scale and location of Irish banks' foreign business and to assess the level of co-movement between economic activity in these locations and the Irish economy.

**Measuring the Sectoral Distribution of Lending to Irish Non-Financial Corporates
by Rory McElligott and Rebecca Stuart 115**

There has been a rapid increase in lending to the Irish non-financial corporate (NFC) sector in recent times accompanied by a significant shift in the sectoral distribution of lending. At first glance, the effect of this appears to have been to increase the concentration of the NFC loan portfolio. However, there are a number of measures of concentration and it is possible that different measures would yield different results. In the first part of this paper we use a number of measures of concentration to determine whether Irish banks' loan portfolios have become more or less concentrated in recent times. In the second part of this paper, we take a closer look at sectoral concentration. Firstly, we review the literature in this area. Secondly, we present a European comparison of the sectoral distribution of the NFC loan book. Finally, we list some possible mitigating factors that may apply specifically to the Irish NFC loan book.

**Credit Institutions Operating in the Irish Market: Their Exposures to Hedge Funds, Private Equity
and the Subprime Sector by Gavin Doheny 129**

From an international perspective, the profitability of traditional banking activities has been in decline in recent years. Accordingly, international banks are believed to have supplemented their income from sources other than traditional banking activities. In particular, it appears the growth of the subprime, hedge fund and private equity sectors has been facilitated somewhat by the increased involvement of international banks. Notwithstanding the fact that numerous Irish banks earn significant levels of non-interest income, typically the Irish banking sector continues to earn the greater part of its earnings from traditional banking activities. A combination of exceptionally strong economic growth over the past 15 years and a booming housing market has placed the Irish banking sector in an unusual position by international standards. To some degree, this combination of developments has meant that traditional banking activities have remained highly profitable in the Irish market. Therefore, it is not obvious that credit institutions operating in the Irish market have had the same incentives to engage with non-traditional banking activities. This article documents a survey of exposures that licensed credit institutions operating in the Irish market hold in relation to the hedge fund, private equity and subprime sectors.

Foreword



I am happy to present our latest assessment of the stability of the domestic financial system. The Financial Stability Report 2007 is intended to update financial market participants and the wider public on developments in the economic and financial environment, with particular attention to the key risks.

The publication of this Report is one way in which the Central Bank & Financial Services Authority of Ireland fulfils its legal mandate, under both domestic and European law, to contribute to financial stability both at home and abroad. The Central Bank and Financial Regulator have shared responsibilities in this regard and cooperate fully on matters relating to financial stability. This Report reflects the joint views of the Bank and the Financial Regulator.

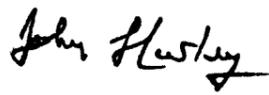
Our overall assessment is that financial stability risks have, on balance, increased since the 2006 Report. Nevertheless, the overall conclusion is that the Irish financial system's shock absorption capacity remains robust and the system is well placed to cope with emerging issues.

To date, 2007 has provided a more challenging international environment for financial stability. There has been considerable turbulence in international financial markets as problems, which arose initially in the US subprime mortgage market, spread to the European banking sector. The possible spillover effects from these events could be important for domestic financial stability because of the potential impact on the banking sector and on the economy. However, we are reassured by the fact that our credit institutions do not have significant exposures to the subprime market, either directly or indirectly, and their shock-absorption capacity is sufficient to deal with the current period of heightened stress in financial markets.

On the domestic front, this year has been a turning point in some key respects because there has been an improvement in several of the risks identified in earlier financial stability reports. In particular, the upward momentum in residential property prices has abated, thus reducing the vulnerability posed by the previous substantial increases in house prices. Furthermore, the rate of credit growth has eased and the rate of accumulation of private-sector indebtedness has moderated accordingly. Against a more uncertain international backdrop, the indications are that the domestic economy continues to perform solidly although, as indicated in the Report, downside risks remain.

I hope that the wide-ranging analyses in this Report convey to our readers the importance of a stable financial system and encourages discussion of the current financial-stability environment. The main commentary provides an analysis of domestic and international economic and financial developments

and highlights potential areas of concern relevant to the Irish financial system. There are also a number of research articles in Part 2 of the Report which provide more in-depth analyses of issues raised in the main commentary. The property market is important for financial stability and the Report includes papers on commercial property and residential property investors. The remaining articles deal with the banking sector. These include the results of a survey of banks' exposures to subprime lending, private equity and hedge funds. The issue of concentration in loan portfolios and the international dimension of Irish banks' business are also considered.



John Hurley,
Governor.

Achoimre

Is é an measúnú foriomlán ná go bhfuil méadú tagtha tríd is tríd ar rioscaí cobhsaíochta airgeadais ó foilsíodh Tuarascáil BCÚSAÉ ar Chobhsaíocht Airgeadais don bhliain 2006. Shainithin Tuarascáil na bliana 2006 trí phríomh-leochaileacht intíre do chobhsaíocht airgeadais: fás tréan creidmheasa agus féichiúnas atá ag ardú, móiminteam aníos i bpraghsanna tithe agus droch-thionchar ualaí aisíocaíochta méadaitheacha ar dheabhail earnáil an teaghlaigh. Ó shin, tharla roinnt feabhsuithe maidir le rioscaí intíre agus fáiltítear rompu seo. Ar an gcéad dul síos, tá maolú tagtha ar an móiminteam aníos i bpraghsanna na réadmhaoine cónaithe, rud a laghdaíonn an leochaileacht a bhí ann mar thoradh ar an méadú suntasach a tharla roimhe sin i bpraghsanna tithe. Ar an dara dul síos, mhoilligh ráta fáis creidmheasa agus mhaolaigh ráta carntha fhéichiúnais na hearnála príobháidí dá réir. Tá saincheistanna tagtha chun cinn, áfach, maidir leis an ngeilleagar intíre mar thoradh ar an dul in olcas níos fadtéarmaí san iomaíochas, an laghdú sa mhéid a dhéanann an ghníomhaíocht in earnáil na foirgníochta cónaithe chun cur leis an bhfás foriomlán, agus na héifeachtaí a d'fhéadfadh a bheith ag an tsuaiteacht sna margaí airgeadais idirnáisiúnta. D'eascair an tsuaiteacht seo do réir mar a leathnaigh fadhbanna i margadh na morgáistí fophríomha i SAM go dtí go raibh athphraghsáil rioscaí i roinnt margaí airgeadais. Cé gur céim í seo ar an mbealach chuig praghsáil níos normalaithe riosca, d'fhéadfadh tábhacht a bhaint le haon éifeachtaí iarmhartacha a leanfadh ón gcoigeartú seo do chobhsaíocht airgeadais sa bhaile agus i gcéin mar gheall ar an anáil phoitéinsiúil ar earnáil na bainc'éireachta agus ar an ngeilleagar. Táthar ag súil go bunúsach, áfach, bunaithe ar mheasúnú na rioscaí atá i ndán d'earnáil an teaghlaigh agus don earnáil chorparáideach neamh-airgeadais, ar dheabhail earnáil na bainc'éireachta agus ar thorthaí na tástála intí ar strus a rinneadh le déanaí, d'ainneoin na suaiteachta sna margaí airgeadais idirnáisiúnta, go leanfaidh córas bainc'éireachta na hÉireann de bheith i riocht maith chun teacht slán ó fhorbairtí codarsnacha eacnamaíocha agus earnálacha sa ghearrthéarma agus anonn sa mheántéarma.

Measúnú foriomlán

Baineann neamhchinnteacht idirnáisiúnta méadaithe le héifeachtaí iarmhartacha na bhfadhbanna in earnáil na morgáistí fophríomha i SAM. Go luath i 2007, tharla lagú

géar sna margaí cothromais domhanda, áit ar oibrigh athmheasúnú diúltach den dearcadh geilleagrach i SAM mar cheann tiomána. Chlaochlaigh sé seo, níos déanaí sa bhliain, go dtí an tréimhse thuasluaite ina raibh mórshuaiteacht sna margaí. Ba iad príomhthréithe na suaiteachta seo ná luaineacht a bhí ag méadú, leachtacht a bhí ag laghdú agus athphraghsáil géar riosca. Rud tábhachtach a rannchuidigh leis seo ná go rabhtas ag éirí i bhfad níos buartha, ó lár 2007 ar aghaidh, faoi neamhchosaint réimse leathan d'urrúis a bhí bainteach le morgáistí agus táirgí struchtúrtha creidmheasa ar chaillteanais mhéadaitheacha i margadh na morgáistí fophríomha i SAM. Mar thoradh ar neamhchinnteacht maidir le méid agus dáileadh na neamhchosaintí ar rioscaí creidmheasa agus caillteanais bhainteacha mhéadaigh an drogall roimh riosca a thuilleadh. Dá bharr sin bhí tionchar géar ag athphraghsáil leanúnach riosca creidmheasa i gcoitinne a leathnaigh agus a bhí le feiceáil mar mheon an-diúltach i leith an mhargaidh do mhaoiniú gearrthéarmach comhthaobhaithe. Chuir sé seo isteach ar shreafaí leachtachta na mbanc, de réir mar a bhí sé ag éirí níos deacra páipéar tráchtála faoi chumhdach sócmhainne (ABCP) a rolladh thart. I dteannta leis an neamhchinnteacht faoi neamhchosaintí na mbanc do shócmhainní rioscúla, mhéadaigh an imní maidir le riosca contrapháirtí agus thosaigh fadhbanna ag síneadh amach go dtí an margadh idirbhainc. Thosaigh roinnt banc ceannais, ag leanúint lorg an BCE, ag frithghníomhú go pras chun na fadhbanna seo a mhaolú trí instealltaí substaintiúla leachtachta a sholáthar. Mhaolaigh na gníomhartha seo na fadhbanna ag an taobh an-gherr den mhargadh idirbhainc cé nach bhfuil coigeartú iomlán déanta fós ag rátaí níos fadtéaramaí agus go bhfuil na raonta difríochta idir na rátaí seo agus rátaí beartais i gcónaí cuíosach leathan. Tríd is tríd, áfach, beidh an trasdul chuig praghsáil riosca níos normalaithe tairbhiúil do chobhsaíocht airgeadais idirnáisiúnta san fhadtéarma.

Tá na héifeachtaí iarmhartacha a d'fhéadfadh eascair ón luaineacht a bhí ann le déanaí i margaí airgeadais tábhachtach do chobhsaíocht airgeadais mar gheall ar an tionchar poitéinsiúil ar an bhfíorghéilleagar, go domhanda agus in Éirinn. Baineann na rioscaí ón ngeilleagar idirnáisiúnta leis an neamhchinnteacht breise maidir le hionchais fháis dhomhanda agus leis an imní mhéadaithe i measc infheisteoirí, ós rud é go bhféadfadh préimheanna riosca ardú agus go mbeidh coinníollacha

creidmheasa níos teinne le hiarmhairtí codarsnacha don fhás eacnamaíoch thar na príomhréigiúin. Tugann réamhaisnéisí ó na príomhinstitiúidí eacnamaíocha idirnáisiúnta le tuiscint go mbaineann na rioscaí taobh thíos is troime le SAM. Bhí an geilleagar domhanda agus geilleagar limistéar an euro ag fás go téagartha sular ar thosaigh an tsuaiteacht sna margaí le déanaí agus siúd is gur chosúil go gcabhróidh sé seo lena n-athléimneacht, bhainfeadh moilliú mór i bhfás SAM cuid mhaith den spreagadh on ngníomhaíocht sa chuid eile den domhan. Go háirithe, fágann na naisc shuntasacha trádála agus infheistíochta idir Éirinn agus SAM go bhfuil geilleagar na hÉireann thar a bheith leochaileach do mheathlú ar bith san fhás i SAM. Tá an riosca idirnáisiúnta seo do gheilleagar na hÉireann ann de bhreis ar shaincheisteanna leanúnacha maidir le praghsanna fuinnimh atá ard agus luaineach agus an seans go bhféadfadh an euro láidriú a thuilleadh i gcoinne dollar SAM mar chuid de phróiseas chun míchothromaíochtaí idirnáisiúnta i gcuntais reatha a cheartú.

Bhí drochthionchar ag imeachtaí a tharla le déanaí ar an gcóras idirnáisiúnta baincéireachta, go díreach mar gheall ar chaillteanas na mbanc ina sócmhainní fophríomha i SAM, agus go hindíreach trí sheilbh a bheith acu ar infheistíochtaí atá oscailte do chaillteanas fhophríomha SAM, mar gheall ar cheangaltas chreidmheasa do chainéil/fheithiclí sainchuspóireacha agus mar gheall ar chur isteach ginearálta ar ghnó. Ina leith sin, níl na bainc intíre ag tuairisciú go bhfuil aon neamhchosaint mhór dhíreach acu ar mhorgáistí fophríomha SAM agus nach bhfuil ach neamhchosaint an-teoranta acu trí infheistíochtaí agus línte creidmheasa a cuireadh ar fáil do chomhlachtaí airgeadais eile nó do fheithiclí sainchuspóireacha. Is ar éigean a laghdaíodh cumas na mbanc intíre chun turraingí a ionsú mar thoradh ar na tarlúintí seo.

Sa mhéid a bhaineann leis an bpríomhfhorbairt intíre, laghdaigh an maolú suntasach i bhfás praghsanna na tithíochta cónaithe cuid de na príomhábhair inní a luadh i dTuarascáil na bliana seo caite. Cé gur mhéadaigh praghsanna tithe ar bhonn náisiúnta beagnach 12 faoin gcéad ar an meán sa bhliain 2006, mhoilligh siad go suntasach sa dara leath den bhliain. Lean an moilliú i 2007 agus anois tá praghsanna thart ar 3½ faoin gcéad níos ísle ar bhonn bliain-go-dáta. Ba chóir na forbairtí seo a mheas in aghaidh na ngnóthachán i bpraghsanna tithe le blianta beaga anuas. Thairis sin, tá laghdú tagtha ar an inní go ngluaisfeadh praghsanna tithe i dtreo go mbeadh siad níos lú i gcomhréir leis na buntosca agus go rachadh inacmhainneacht tithíochta in olcas ó foilsíodh Tuarascáil

na bliana seo caite. Maidir le forbairtí i bpraghsanna tithe amach anseo, tá tábhacht faoi leith ag baint le tosca amhail rannpháirtíocht infheisteoirí sa mhargadh réadmhaoine, inbhuanaitheacht rátaí reatha inimirce, an treo a leanfaidh beartas airgeadaíochta sa todhchaí agus feidhmiú mhargadh an tsaothair agus dealraíonn sé go bhfuil na buntosca i gcónaí láidir. Tugann cnámha lárnacha an scéil le tuiscint, mar sin, gur cosúla go mbeidh tuirlingt bhog ná tuirlingt chrua ann.

Leanann ráta carnaithe fiachais teaghlach agus corparáidí neamh-airgeadais de bheith ag maolú don dara bhliain as a chéile. Tá an ráta reatha i gcónaí ard, áfach, de réir comparáidí idirnáisiúnta. Bhí méadú tagtha ar an gcóimheas idir creidmheas na hearnála príobháidí agus OTN in Éirinn sna blianta atá díreach thart, rud a léiríonn leibhéal na gníomhaíochta geilleagraí i gcoitinne agus, go háirithe, an t-éileamh méadaithe ar thithíocht agus ghníomhaíocht infheistíochta. Cé go gcuireann ardleibhéal fiachais leochaileach na hearnála príobháidí do thurraingí ioncaim agus rátaí úis, tá tosca maolaitheacha tábhachtacha ann freisin amhail glanfhiúchas foriomlán na hearnála agus an dearcadh dearfach atá ann maidir leis an ngeilleagar agus nuair a déantar measúnú orthu siúd in éineacht leis an moilliú san iasachtaíocht laghdaíonn siad an leochaileacht seo beagáinín.

Tá ualaí aisíocaíochta teaghlach cobhsaithe beagáinín ó foilsíodh Tuarascáil na bliana seo caite ach tá an dearcadh i gcónaí neamhchinnte. Chobhsaigh na hualaí aisíocaíochta toisc gur lean ioncaim indiúscartha teaghlach de bheith ag fás go láidir agus chuidigh athruithe cánach sa bhuiséad chun na costais bhreise a bhain le méaduithe éagsúla i rátaí úis a tharla roimhe sin a chealú. Tá earnáil an teaghlaigh i gcónaí leochaileach do rátaí níos airde úis, áfach, toisc go bhfuil formhór na morgáistí reatha chomh maith le sreabhadh iasachtaí nua morgáiste ag rátaí athraitheacha.

I gcomhthéacs idirnáisiúnta níos neamhchinnte tá comharthaí ann go bhfuil an geilleagar intíre ag feidhmiú go téagartha i gcónaí. Tríd is tríd tá an scéal maidir le fás eacnamaíoch sásúil i gcoitinne sa timpeallacht idirnáisiúnta atá neamhchinnte faoi láthair i ndiaidh tréimhse ina raibh an fás ard. Ar an taobh dearfach den scéal, tá na buntosca eacnamaíocha — riocht buiséadach maith, fás eacnamaíoch láidir, geilleagar inoiriúnaithe — i gcónaí fóna. Táthar ag súil le díluasghéarú éigin san fhás geilleagrach i 2008, ach tá réamh-mheastacháin fháis i gcónaí cuíosach dearfach de réir caighdeáin idirnáisiúnta. De réir mar a mhoillíonn an fás

geilleagrach, is cosúil go n-ardóidh an ráta dífhostaíochta. Táthar ag súil, áfach, go mbeidh an méadú seo cuíosach beag agus táthar ag tuar go bhfanfaidh an geilleagar gar dá riocht de lánfhostaíocht. Thairis sin, de réir mar atá fás an aschuir intíre ag lagú, táthar ag súil go n-ísleoidh brúnna boilscitheacha sa gheilleagar freisin.

In ainneoin na timpeallachta geilleagraí seo atá réasúnta fabhrach, tá líon áirithe rioscaí fós ann agus táthar buartha go rachaidh rioscaí éagsúla díobh seo i gcion ar an ngeilleagar ag an am chéanna. Ó pheirspictíocht intíre, táthar imníoch i gcónaí faoin sciar ard atá ag earnáil na foirgníochta sa ghníomhaíocht eacnamaíoch, cé go bhfuil sé seo ag titim, agus faoi na cailteanais níos fadtéarmaí san iomaíochas. Táthar ag súil go dtitfidh sciar ard na foirgníochta de réir a chéile sna blianta amach romhainn, agus go ndéanfar an laghdú i ngníomhaíocht chónaitheach a fhritháireamh ar bhealach le fás láidir leanúnach i bhfoirgníocht na hearnála poiblí agus na hearnála príobháidí neamhchónaithe. Léiríonn meathlú an iomaíochais tosca éagsúla lena n-áirítear praghsanna agus costais táirgthe atá ag ardú i gcomparáid lenár gcomhpháirtithe trádála, láidriú ráta malairte an euro, go háirithe i gcoinne an dollar agus fás níos laige táirgiúlachta. Ag féachaint d'oscailteacht an gheilleagair, tá Éire thar a bheith leochaileach do thurraingí domhanda. Chomh maith leis an tsuaiteacht reatha sna margáí, tá saincheisteanna i gcónaí ann a bhaineann le praghsanna arda luaineacha fuinnimh mar aon le láidriú breise an euro i gcoinne dollar SAM mar chuid de phróiseas chun míchothromaíochtaí na gcuntas reatha idirnáisiúnta agus neamhchinnteachtaí maidir le geilleagar SAM a cheartú.

Tá dhá fhorbairt eile ann ó foilsíodh an Tuarascáil dheiridh ar fiú breathnú orthu. Ar an gcéad dul síos, murab ionann agus an margadh cónaitheach, tá praghsanna na maoinne tráchtála i gcónaí ag luachmhéadú ag rátaí atá cuíosach ard. D'fheidhmigh margadh na maoinne tráchtála go láidir feadh gach

earnála (i.e. earnálacha na n-oifigí, na miondíola agus an tionscail) i 2006 agus go luath i 2007, le luachmhéadú caipitiúil ag baint ráta bliantúil de 24 faoin gcéad amach anuraidh. Bhíothas buartha ní hamháin toisc go raibh rátaí fáis chaipitil i margadh na maoinne tráchtála ard ach freisin toisc gur dhealraigh sé gur eisréimnigh siad ó rátaí fáis comhfhreagracha cíosanna sa tslí gur tiomáineadh fáiltais chuig na leibhéil is ísle dá raibh riamh ann. Dá bhrí sin fáiltítear roimh an maolú atá tosaithe i luas an luachmhéaduithe chaipitiúil, roimh an laghdú atá ag teacht ar an mbearna idir fhás caipitiúil agus fás cíosanna, agus roimh an laghdú fadtéarmach i bhfáltais in Éirinn atá ar aon dul lena bhfuil ag tarlú go hidirnáisiúnta de réir dealraimh.

Ar an dara dul síos, tá éifeacht chomhcheangailte ag corrlaigh ísle glanúis agus costais mhaoinithe níos airde ar earnáil na baincéireachta i dtimpeallacht ina bhfuil toirt an fháis níos ísle. D'fhéadfadh margadh tithíochta níos moille in éineacht le fás geilleagrach atá rud beag níos moille agus anáil na suaiteachta reatha i margáí airgeadais ar thoilteanas na mbanc chun iasachtaí a sholáthar, cuidiú chun toirt an fháis a ísliú amach anseo. I gcomhthéacs ina mbaineann na leochaileachtaí agus na rioscaí seo leis na hionchais don gheilleagar, ní mór córas baincéireachta folláin a bheith ann atá i gcumas turraingí a ionsú i dtreo gur féidir leis córas airgeadais cobhsaí a chothú. Tá dea-bhail i gcónaí ar an gcóras baincéireachta arna thomhas ag na gnáththáscairí: sócmhainneacht, brabúsacht, leachtacht, caighdeán sócmhainní agus táscairí margaidh. Táthar ag súil go bunúsach, bunaithe ar mheasúnú na rioscaí atá i ndán d'earnáil an teaghlaigh agus don earnáil chorparáideach neamh-airgeadais, ar dhea-bhail earnáil na baincéireachta agus ar thorthaí na tástála intí ar strus a rinneadh le déanaí, d'ainneoin na suaiteachta sna margáí airgeadais idirnáisiúnta, go leanfaidh an córas baincéireachta de bheith i riocht maith chun teacht slán ó fhorbairtí codarsnacha eacnamaíocha agus earnálacha sa ghearrthéarma agus anonn sa mheántéarma.

Summary

The overall assessment is that financial stability risks have on balance increased since the CBFSAI's Financial Stability Report 2006. The 2006 Report identified three major domestic vulnerabilities for financial stability: strong credit growth and rising indebtedness, upward momentum in house prices and the adverse impact of increasing repayment burdens on the health of the household sector. Since then, there has been a number of welcome improvements with respect to domestic risks. First, the upward momentum in residential property prices has abated, thus reducing the vulnerability posed by the previous substantial increase in house prices. Second, the rate of credit growth has eased and the rate of accumulation of private-sector indebtedness has moderated accordingly. However, issues have arisen with respect to the domestic economy arising from the longer-term deterioration in competitiveness, the moderation in the contribution of residential construction-sector activity to overall growth, and the possible effects of international financial-market turbulence. This turbulence arose as problems in the US subprime mortgage market broadened into a repricing of risk in a number of financial markets. Although this is a transition to a more normalised pricing of risk, the possible spillover effects from this adjustment could be important for financial stability both at home and abroad because of the potential impact on the banking sector and on the economy. However, the central expectation, based on an assessment of the risks facing both the household and non-financial corporate sectors, the health of the banking sector and the results of recent in-house stress testing is that, notwithstanding the international financial market turbulence, the Irish banking system continues to be well placed to withstand adverse economic and sectoral developments in the short to medium term.

Overall Assessment

Increased international uncertainty is associated with the fallout arising from problems in the subprime mortgage sector in the US. In early-2007, there was a sharp weakening in global equity markets, where the key driver was a negative re-assessment of the economic outlook in the US. This developed, later in the year, into the period of severe market turbulence mentioned above and was characterised by rising volatility, declining liquidity and a sharp repricing of risk. An important contributing factor was a significant heightening of

concern, from mid-2007 onwards, about the exposure of a wide range of mortgage-related securities and structured credit products to mounting losses in the US subprime mortgage market. Uncertainty about the size and distribution of credit risk exposures and related losses caused risk aversion to heighten further. This triggered a sharp spillover from the ongoing repricing of credit risk generally to particularly negative sentiment towards the market for collateralised short-term financing. This disrupted banks' liquidity flows, as asset-backed commercial paper (ABCP) became increasingly difficult to rollover. Allied to the uncertainty about banks' exposures to risky assets, concerns about counterparty risk heightened and problems began to spillover to the interbank market. A number of central banks, led by the ECB, reacted promptly to alleviate these problems through the provision of substantial liquidity injections. These actions alleviated the problems at the very short-end of the interbank market, although longer-term rates have not yet fully adjusted and spreads between these rates and policy rates remain relatively wide. Overall though, the transition to a more normalised pricing of risk will be beneficial for international financial stability in the long run.

The possible spillover effects from recent volatility in financial markets are important for financial stability because of the potential impact on the real economy, both globally and in Ireland. The risks from the international economy relate to the heightened uncertainty about global growth prospects and increased investor nervousness, with the possibility that risk premia will rise and credit conditions will be tighter with adverse consequences for economic growth across the major regions. Forecasts from the major international economic institutions suggest that the downside risks are most pronounced for the US. While the resilience of the global and euro area economies should be helped by the fact that both were growing solidly before the recent outbreak of market turbulence, a marked slowdown in US growth would remove considerable impetus to activity in the rest of the world. In particular, the significant trade and investment links between Ireland and the US leave the Irish economy particularly vulnerable to any downturn in growth in the US. This international risk to the Irish economy is in addition to continuing issues about high and volatile energy prices and the possibility of further strengthening of the euro

against the US dollar as part of a correction process for international current-account imbalances.

The international banking system has been negatively affected by recent events, both directly through banks' losses on their US subprime assets, and indirectly through holdings of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. In this respect, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity has not been much reduced by these events.

Regarding the main domestic development, the significant easing in residential house price growth has reduced some of the key concerns noted in last year's Report. While house prices increased nationally by almost 12 per cent on average in 2006, they slowed significantly in the second half of the year. The slowdown continued in 2007 and prices are now about 3½ per cent lower on a year-to-date basis. These developments should be assessed against the gains in house prices in recent years. Furthermore, concerns that house prices would move further out of line with fundamentals and that housing affordability would worsen have lessened since last year's Report. Regarding future house price developments, factors such as investors' participation in the property market, the sustainability of current rates of immigration, the future direction of monetary policy and the performance of the labour market are all important. The underlying fundamentals of the residential market continue to appear strong. The central scenario is, therefore, for a soft, rather than a hard, landing.

The rate of accumulation of debt by households and non-financial corporates has continued to ease for a second successive year. However, the current rate remains high by international comparison. The ratio of private-sector credit to GNP in Ireland had increased in recent years reflecting the level of economic activity generally and, specifically, the increased demand for housing and investment activity. Although a high level of indebtedness increases the vulnerability of the private sector to income and interest-rate shocks, there are also important mitigating factors such as the sector's overall net worth and the positive outlook for the economy which, when assessed alongside the slowdown in borrowing, reduce this vulnerability somewhat.

Households' repayment burdens have stabilised somewhat since the publication of last year's Report but the outlook remains uncertain. Repayment burdens had stabilised because households' disposable incomes continued to grow robustly and budgetary tax changes helped offset the additional costs of some earlier interest-rate increases. The household sector remains, however, vulnerable to higher interest rates because the bulk of both the stock of existing mortgages as well as the flow of new mortgage loans are at variable rates.

Against a more uncertain international backdrop, the indications are that the domestic economy continues to perform solidly. The overall picture for economic growth is generally satisfactory in the current uncertain international environment and follows a period of high growth. On the positive side, economic fundamentals – a good budgetary position, strong employment growth, an adaptable economy – continue to be sound. The outlook is for some deceleration of economic growth in 2008, but growth projections remain reasonably positive by international standards. As economic growth slows, an upturn in the unemployment rate is likely. However, this is expected to be modest and the forecast is for the economy to remain at close to its full-employment position. Moreover, as domestic output growth weakens, inflationary pressures in the economy are expected to reduce.

Despite this relatively favourable economic environment, a number of risks remain and the concern is that the economy may be affected by several of these risks at the same time. From a domestic perspective, there are continuing concerns about the high, if declining, share of the construction sector in economic activity and the longer-term losses of competitiveness. The high share of construction is expected to decline gradually in the coming years, with the reduction in residential activity offset in part by continued strong growth in public sector and private non-residential construction. The deterioration in competitiveness reflects a number of factors including rising prices and production costs relative to our trading partners, the strengthening of the euro exchange rate, particularly against the dollar, and weaker productivity growth. Given the openness of the economy, Ireland is particularly vulnerable to global shocks. In addition to the current market turbulence, there are continuing issues about high and volatile energy prices as well as the further strengthening of the euro against the US dollar as part of a correction process for international current-account imbalances and uncertainties relating to the US economy.

There are two additional developments since the last Report which merit consideration. First, in contrast to the residential market, commercial property prices continue to appreciate at relatively high rates. The commercial property market performed strongly across all sectors (i.e., office, retail and industrial) in 2006 and early-2007, with capital appreciation reaching an annual rate of 24 per cent last year. The concern was not only that capital growth rates in the commercial property market were high, but they also appeared to have diverged from the corresponding rental growth rates such that yields were driven to unprecedented low levels. It is welcome, therefore, that the pace of capital appreciation has begun to ease, the divergence between capital and rental growth has begun to decline, and the long-run decline in yields in Ireland appears to mirror the international experience.

Second, there is the combined effect on the banking sector of low net interest margins and higher funding costs in an environment of lower volume growth. A combination of a slower housing market, somewhat slower economic growth and the impact of the current turbulence in financial markets on banks' willingness to supply loans, could all contribute to lower volume growth in the future. In the context of these vulnerabilities and risks to the economic outlook, a healthy banking system with good shock-absorption capacity is needed to support a stable financial system. The health of the banking system remains robust when measured by the usual indicators: solvency, profitability, liquidity, asset quality and market indicators. The central expectation, based on an assessment of the risks facing both the household and non-financial corporate sectors, the health of the banking sector and the results of recent in-house stress testing is that, notwithstanding the international financial market turbulence, the Irish banking system continues to be well placed to withstand adverse economic and sectoral developments in the short to medium term.

CBFSAI's Mandate

The CBFSAI's legal mandate is to contribute to the maintenance of financial stability in both Ireland and the euro area. Financial stability is an issue of major importance for both the Central Bank and the Financial Regulator. The key elements in the discharge of this mandate are to raise awareness of financial stability matters through initiatives like the publication of the annual financial stability report, maintaining a dialogue with domestic credit institutions in order to highlight issues for the financial system and, finally, to continue

to develop procedures to deal with potential disruptive events and to facilitate an orderly resolution. In relation to cross-border financial institutions, the Central Bank and Financial Regulator maintain ongoing dialogue with their counterpart central banks and financial regulators.

Economic and Sectoral Commentary

Domestic Macroeconomic Outlook

Economic growth in the Irish economy remains strong and labour market conditions remain favourable, although the projections for growth in 2007 have been revised downwards marginally since the last Report. Last year the volume of GNP increased by 6.5 per cent with a corresponding increase in GDP of 5.7 per cent. While these rates of growth were somewhat above the estimated potential growth rate of the economy, slower growth is expected during 2007 and 2008. This partly reflects developments in the residential construction sector, the output of which appears to have peaked during 2006. Private consumption growth is also expected to moderate somewhat next year as the impact of maturing SSIA funds lessens. As a result, GNP growth is projected to fall to around 4³/₄ per cent this year with a further decline to around 3¹/₄ per cent in 2008. The corresponding projections for GDP growth in 2007 and 2008 are 4³/₄ per cent and 3¹/₂ per cent, respectively.

The labour market continues to perform well, although the projections for unemployment have been revised upwards slightly since the publication of the last Report. Total employment increased by 4.4 per cent in 2006, with particularly strong increases in construction (9.7 per cent), health (8.2 per cent) and wholesale and retail trades (4.6 per cent). Despite some well-publicised adverse employment news recently, the aggregate data indicate that the strong labour market performance looks set to continue. As economic growth slows, an upturn in the unemployment rate is expected. However, this is expected to be modest and the forecast is for the economy to remain at close to its full-employment position.

Domestic Macroeconomic Risks

Despite the relatively favourable economic outlook, a number of significant risks remain. First, from a domestic perspective, there are concerns about the continuing high share of the construction sector in economic activity. This is expected to decline gradually in the coming years with the reduction in residential activity mitigated in part by continued strong growth in public-sector and private-non-residential construction. However, a sharper-than-expected fall in housing output

would have a negative impact on both GDP growth and employment.

A second domestic risk relates to longer-term losses of competitiveness. While the economy was in an extremely strong, but probably unsustainable, competitiveness position at the beginning of the current decade, the situation has subsequently deteriorated. As already noted, this has been due to a number of factors including rising prices and wages relative to our main trading partners, an appreciation of the exchange rate and lower productivity growth. While the overall competitiveness position of the economy does not appear to be too strained, judging from data on inward FDI flows, nevertheless, a continuation of underlying trends could lead to a more significant adjustment in the longer run.

International Macroeconomic Risks and Financial Market Developments

Given the openness of the Irish economy, its financial system is potentially vulnerable to global shocks and to the current developments in the international financial system. The most significant issue since the last Financial Stability Report has been signs of significant distress in the US subprime mortgage sector, which came to a head in early- to mid-2007. From late-June onwards, concerns were heightened about the exposure of a wide range of mortgage-related securities and structured credit products to mounting losses in the US subprime mortgage market, causing problems in the market for asset-backed commercial paper (ABCP), where investors were reluctant to rollover financing given the increased nervousness about the associated risks. Uncertainty about the size and distribution of credit risk exposures and related losses affected market conditions, and what started as a credit market sell-off quickly evolved into a bout of severe market turbulence characterised by rising volatility, declining liquidity and a sharp repricing of risk. Risk aversion heightened further when the problems – which, up to then, had been concentrated in hedge funds and US financial institutions involved in mortgage business – began to spread to the more broad-based banking sector internationally especially through banks' connections with ABCP conduits or structured investment vehicles. Thus, the generalised ongoing repricing of credit risk caused a drying up of liquidity in the collateralised short-term commercial paper market.

Allied to the uncertainty about banks' exposures to the repricing of risky assets, concerns about counterparty

risk heightened from early-August and problems began to spillover to the interbank market. With banks becoming very reluctant to lend to one another, even at very short maturities, overnight rates began to rise sharply. A number of central banks – led by the ECB – reacted promptly to alleviate problems in the interbank money market through the provision of substantial liquidity injections. These actions succeeded in alleviating the problems at the very-short end of the interbank market, with overnight rates reverting to their earlier levels. Longer-term rates, however, have not yet fully adjusted and spreads between these rates and policy rates remain relatively wide. This is likely to place upward pressure on the cost of borrowing, as will the widening of spreads on lower-rated corporate debt. There is also the possibility that creditworthy borrowers will face some rationing of credit which could have adverse implications for global growth prospects.

Prior to the above events, the outlook for the global economy was favourable but there were also risks to the outlook which could have knock-on implications for the domestic outlook. The assessment made prior to the US subprime crisis was that the international macroeconomic environment had remained supportive of financial stability given its robust pace of expansion, in spite of high and volatile oil prices, a sharp slowdown in the US housing market and earlier financial market turbulence. Risks to the inflation outlook, however, had been tilted to the upside, relating to increased capacity utilisation, high oil prices and the prospect that wage pressures would intensify as labour markets improved. As a result, monetary policy had generally been either in a stable or tightening phase. While a broader economic assessment of the implications of recent events in international financial markets depends on the duration of disturbed market conditions and the associated uncertainty, the current assessment is that the overall outlook for growth remains positive although clearly downside risks have risen somewhat. A key consideration is that, even if market liquidity improves, risk spreads are likely to remain higher on a long-term basis than they have been in recent years.

Forecasts from the major international economic institutions suggest that the downside risks are most pronounced for the US. This reflects the view that the problems in financial markets are likely to intensify the downturn in the US housing market, where forward-looking indicators of conditions were pointing lower even before the recent turbulence began. In addition to the direct impact of US housing market weakness on

GDP, the weakness of US house prices, higher mortgage rates and tighter lending terms also threaten to dampen US consumer spending, which has been the main engine of growth in recent years. While the resilience of the global and euro area economies should be helped by the fact that both were growing solidly before the recent market turbulence, a marked slowdown in US growth would remove considerable impetus to activity in the rest of the world. Quite apart from this dampening influence, however, the generalised repricing of risk and tightening of financing conditions has, of itself, moved the balance of risks to the downside for the rest of the global economy.

There is an argument that current market developments could be positive over the medium-term for international financial stability, by reversing a perceived mispricing of risk in financial markets that has persisted for a number of years. More generally, the mispricing of risk reflected excessive risk taking over the last number of years and may have pushed many asset prices beyond sustainable values. A pervasive search for yield had characterised financial markets and had driven risk premia across a very wide range of financial assets to very low levels. Although there is no clear consensus as to the ultimate driving force behind this search for yield, there is little doubt that low interest rates and easy availability of funding had boosted the appetite for risk significantly. There was always the possibility, however, that a reversal of the search for yield along with a tightening of credit could have resulted in a widespread correction of a range of asset prices which may be overvalued, as reflected in risk premia that were until recently unsustainably low.

In early-2007 and prior to recent events, longer-term market rates had begun responding more than before to the tightening in official rates. In current market conditions, longer-term rates have oscillated reflecting the offsetting impacts of expectations of higher inflation with a flight to quality. The behaviour of yields has been different for sovereign and corporate debt; government bond yields have fallen while yields on corporate bonds have increased.

Oil prices have moved higher in recent months. At the beginning of 2007 oil prices declined sharply, reaching their lowest level since mid-2005, but subsequently increased due to continuing strong demand and prevailing weather and political conditions. Looking ahead, expected robust demand, coupled with continued limited spare capacity, is likely to sustain oil

prices at relatively high levels. Futures markets suggest that oil prices will remain at high levels in the medium term.

The risk from global imbalances has not abated and remains significant. The US current-account deficit was 6.5 per cent of GDP in 2006, close to its level in the previous year. Some commentators expect a decline in the size of the deficit in 2007. However, the risk remains that any shortfall in the scale of capital flows required to finance the large US current-account deficit could pose problems for global financial stability. To date, the US authorities have had little difficulty in financing this growing external deficit. However, the stability of global foreign exchange and other financial markets is vulnerable to any significant drop in demand for US dollar assets.

Private-Sector Credit and Indebtedness

The rate of accumulation of debt by households and non-financial corporates in Ireland has continued to ease for a second successive year, although the current rate remains high by international comparison. In 2006, the annual rate of increase in total loans to the private sector was 25.4 per cent compared with 30.5 per cent in 2005. There has been a further welcome easing of year-on-year increases in private-sector credit in 2007 (the estimated annualised rate of growth for 2007 is currently about 19 per cent) and, accordingly, the debt-to-GNP ratio is increasing at a slower pace now (12 per cent) by comparison with 2006 (14 per cent). The overall level of indebtedness could reach 248 per cent of GNP by end-2007 compared with 222 per cent at end-2006. This level of indebtedness continues to represent a vulnerability in the event of an adverse shock to the repayment capacity of borrowers, although some comfort can be taken from the persistent easing in credit growth as well as the healthy net worth position of the private sector alongside the outlook for the economy.

Residential Property Market

The main domestic development in the financial stability risk profile since the 2006 Report has been in the residential property market. According to the permanent tsb/ESRI house price index, annual increases in house prices peaked at 15.4 per cent in July and August 2006. Subsequently, there has been a slowdown that has continued into 2007 and prices are now about 3½ per cent lower on a year-to-date basis. These developments should be assessed against the gains in house prices in recent years, whereby prices rose by about 12 per cent in 2006 alone and by over 50 per cent between 2002

and 2006. The average house price is now at mid-2006 levels.

This recent moderation is welcome because it reduces some of the key concerns noted in last year's Report. The reacceleration in annual house price increases that had emerged in early-2006 was of particular concern for three reasons. First, it was not obvious that the earlier reacceleration was driven by fundamental factors and the concern was that a higher level of house prices that was not supported by fundamental factors would be more prone to a sudden correction. In particular, it was argued that continuing strong income growth and demographics in early-2006 should have been counteracted to some extent by higher interest rates and continuing high levels of housing supply. Second, the large increases in house prices combined with higher interest rates appeared to be reducing the pool of available purchasers in the market, defined as the proportion of the population that could afford to borrow to purchase an average house. This could have undermined the stability of the housing market by reducing the pool of potential purchasers and increasing pressure for a compensating liberalisation of lending standards. Third, the robust rate of house price appreciation relative to rents was reducing yields for residential investors. Unlike owner-occupiers, investors pose a risk to the stability of the market insofar as they may be more prone to exit the market, and at short notice. Nevertheless, it was argued in 2006 that investors were less likely to leave while they could still reap a return from the high rates of capital growth.

In the event, a number of developments suggest that risks to house prices have improved somewhat since last year's Report. First, house prices appear to have become more responsive to fundamental factors, with higher interest rates and current levels of supply now appearing to have a significant effect. Housing supply remains strong compared with the economy's medium-term requirements, although housing completions will be somewhat down on last year's record figure. Demand, on the other hand, has been affected by the progressive raising of short-term interest rates in recent years which has made mortgage finance more expensive, albeit partly offset by the impact of tax changes in the last Budget and growth in incomes. Second, the outlook for the size of the pool of potential purchasers in the housing market, defined as the proportion of the population able to borrow to purchase an average house, is improved due to the moderation in house price increases, notwithstanding higher interest rates. This

should reduce concerns over the stability of the housing market by maintaining the existing size of the pool of potential purchasers.

While rents continue to recover and are now increasing at a high rate, the stabilisation of house prices has reduced the attractiveness of residential investment for investors. Although, in early-2007, rental growth exceeded house price growth for the first time since April 2002, a shortfall between mortgage repayments and rental income remains for highly leveraged new investors. Investors relied heavily on capital growth for their returns in recent years, and the moderation in house price increases in an environment of higher borrowing costs has, most likely, increased the incentive for investors to delay their investments or for existing investors to realise capital gains, thereby slowing capital growth further. There are other mitigating arguments made, however, with respect to these incentives, namely, the relatively high risk-adjusted return for property for potential investors that has been apparent in recent decades, the recovery in rents and the significance of transactions costs for existing investors.

Regarding future house price developments, factors such as the level of investors' participation in the property market, the sustainability of current rates of immigration and the future direction of monetary policy are all important. However, the underlying fundamentals of the residential market continue to appear strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft landing.

Commercial Property Market

Commercial property prices in Ireland continue to appreciate at relatively high rates. The commercial property market performed strongly across all sectors (i.e., office, retail and industrial) in 2006 and 2007, in terms of capital appreciation. The annual rate of increase in capital values in the industrial sector is approximately 11 per cent (2007Q3), with increases of 10.1 and 9 per cent, respectively, in the retail and office sectors. These are lower rates of appreciation by comparison with early-2006.

The concern is not only that capital growth rates in the commercial property market have been high but they had also diverged from the corresponding rental developments in 2006. Rents in the office and industrial sector are increasing at an annual rate of 6.5 per cent and 1.4 per cent, respectively, and by 7.9 per cent in the

retail sector (2007Q3). In 2006, rents had risen by 5.7 per cent, compared with a rate of capital appreciation of 23.1 per cent. This divergence had resulted in considerable yield compression in recent years and it is therefore notable that the divergence fell somewhat in the first half of 2007.

Yields on all types of Irish commercial property have followed a general downward trend since the mid-1990s. It may be of comfort that some international markets have also mirrored this trend of robust appreciation in capital values, indicating that global factors may explain some of these trends. Furthermore, other markets have not only experienced robust capital growth but have also experienced relatively static rental growth such that, in general, it appears that yields on European commercial property have also declined significantly.

Household Sector

The key risks arising in the household sector relate to the level of indebtedness and repayment burdens, but these risks must be assessed against the sector's healthy net worth position and low unemployment levels. Households' indebtedness continues to increase, but at a slower rate, and average repayment burdens have stabilised in the past year. Moreover, the general macroeconomic outlook appears favourable with economic growth, employment and income conditions expected to remain positive. The aggregate data suggest that the strong labour market performance looks set to continue. As economic growth slows, an upturn in the unemployment rate is expected. However, this is expected to be modest and the forecast is for the economy to remain at close to its full employment position. In addition, the household sector, in aggregate, is in a healthy net worth position.

The annual increase in mortgage lending has slowed in line with the housing market. The annual growth rate of personal-sector credit and residential mortgage lending in particular, has been declining recently. The annual growth rate of personal-sector credit in mid-2007 was 17.8 per cent, compared with 27.5 per cent in mid-2006. The annual underlying increase in residential-mortgage credit has been declining consistently over the past year and the annual increase is now approximately 16 per cent. Data from the Irish Banking Federation and PricewaterhouseCoopers also suggest that the mortgage market has been slowing somewhat in recent months.

The gross indebtedness of the household sector in Ireland, before account is taken of its financial net worth, is high by comparison with other euro area countries. As of August 2007 the stock of lending from monetary

financial institutions to domestic households was almost 78 per cent of GDP in Ireland. This puts Ireland in a group of four countries – with the Netherlands, Spain and Portugal – as the most highly indebted countries in the euro area. However, the growth rate in the Irish ratio has begun to slow, suggesting that the situation may be stabilising. Nevertheless concerns about household indebtedness remain.

The average repayment burden stabilised somewhat since the publication of last year's Report but the outlook for repayment burdens remains uncertain. The position stabilised between late-2006 and early-2007 because budgetary tax changes to mortgage interest relief and income taxes had the effect of approximately offsetting the additional costs of two $\frac{1}{4}$ percentage point interest-rate increases. However, market participants' expectations for future interest rates have been affected by market turbulence although it is still uncertain whether these changes amount to a postponement of the expected date of any future increases or a view that the top of the cycle might be lower than was expected 6 months ago. There may also be some pass-through of higher funding costs from banks to households in the form of higher borrowing rates. With the bulk of both the stock of existing, and flow of new, mortgage debt at variable interest rates, there is a concern surrounding the ability of some categories of households to continue to meet their debt repayments.

There are no firm indications so far of a significantly higher level of mortgage arrears recorded by the banking system. However, this does not preclude the possibility that repayment difficulties may be increasing for households and could be manifesting themselves in different ways, for instance, in terms of rescheduling repayments or a greater incidence of arrears on items such as utility bills.

Non-Financial Corporate Sector

Concerns relating to non-financial corporates (NFCs) have arisen largely from the high rate of growth in lending to the corporate sector. In particular, the strong increases in lending to the commercial property-related sector have been of concern. While remaining high, recent data suggest that a slowdown is occurring in the growth of lending, easing concerns somewhat. Risks associated with this high lending growth are somewhat mitigated by the continued low rate of defaults from the corporate sector and the seemingly robust state of its financial position.

The indebtedness of the non-financial corporate (NFC) sector has increased in recent years. As measured by bank debt, corporate sector indebtedness increased to 139 per cent of GDP in 2007Q1, from approximately 103 per cent in 2005. The Irish corporate sector remains highly indebted by European comparison.

Credit growth to NFCs has been increasing strongly in recent years following a period of relatively low growth in the early-2000s, but there may be indications that the rate is slowing. In 2007Q2, year-on-year credit growth was 30.8 per cent. Though this is high, it marks a slowdown on the rate in 2006Q2, when growth peaked at almost 40 per cent. The commercial property-related sector continues to be the fastest growing sector in terms of credit growth and accounts for approximately 85 per cent of all new lending to NFCs. However, there has been a marked slowdown in growth to this sector in early-2007.

Defaults in the corporate sector continue to be at a historically low level. The annualised rate of liquidations involving potentially insolvent firms was 0.22 per cent of all companies, the same as the 2006 rate, and below the long-run average of 0.37 per cent. The share of liquidations accounted for by potentially insolvent firms is forecast at approximately 26 per cent of all liquidations for 2007, significantly below the long-run average of 55.4 per cent. In 2006, this figure was 27.6 per cent. In addition, preliminary data on corporates' interest repayment burdens suggest that these have been trending downwards recently. This is complemented by preliminary indications that both the profitability and liquidity of the corporate sector improved in 2006.

Banking Sector

The turbulence in financial markets will pose challenges for the domestic banking sector, although the sector's shock absorption capacity has not been much reduced by these events. The domestic banking system reports no significant direct exposures to US subprime mortgages and very limited exposures through investments and through links with other financial companies or special purpose vehicles which themselves were negatively affected by the current market turmoil.

The health of the banking system remains robust when measured by the usual indicators and the results of in-house stress testing. The banking sector continues to grow strongly, albeit at a slower rate than heretofore. The assets of the domestic banking sector expanded by an annual rate of 19.4 per cent in the second quarter of

2007 compared with 24.5 per cent in 2006. This reduction in growth has occurred in both resident and non-resident business. The downward trend in credit growth has continued in 2007. Private-sector credit growth has declined from 30.9 per cent in February 2006 (the highest rate of credit growth since August 2000) to 20.4 per cent in September 2007. The Irish banking sector remains well capitalised with the majority of banks reporting an increase in both their overall solvency and Tier 1 capital ratios. The profitability figures reported for 2006 represent the first full year for all banks reporting under the new International Financial Reporting Standards (IFRS) accounting system. In particular, net interest margins have stabilised at a relatively low level. Asset quality remains high by historical standards. The ratings of Irish credit institutions continue to support the view that the Irish banking system remains healthy.

The domestic banking sector has minimal direct involvement in the Irish subprime residential mortgage market. The Irish market is characterised by limited mainstream banks involvement in the market, the relatively very small – albeit growing – size of the market and generally modest average loan-to-value ratios.

A number of issues in the banking sector were identified in the 2006 Report, namely, excessive credit growth, concentration in property-related business, a private-sector funding gap, falling net interest margins, and a persistent reduction in provisioning. There has been an improvement in many of these issues, where some longer-term trends have stabilised.

First, the concentration of banks' resident loan portfolios in property-related business has persisted since the publication of last year's Report. Secondly, the persistently high growth in private-sector credit has declined. Although the current rate remains high, the trend appears to be moving in the right direction. Thirdly, the funding gap of the Irish banking system, i.e., the difference between private-sector deposits and private-sector loans, has stabilised. While any funding gap represents some risk, a fuller assessment of this risk in an Irish context indicates the significant medium-term maturity element of many of these liabilities as well as the relatively wide range of funding options available to the domestic banking sector. Fourthly, preliminary analysis suggests that net interest margins may have stabilised – albeit at a low level. Margins over the longer-term have fallen significantly. This has increased banks' reliance on volume growth to support income growth and has pointed to their need to find alternative sources

of non-interest income. Margins may come under renewed pressure in the short-term because of higher market funding costs. Finally, the level of loan impairment charges (provisions) is no longer falling and appears to have stabilised, albeit at a historically low level. This trend has reflected both the benign economic environment and the introduction of new accounting standards in recent years.

A key development is the combined effect on the banking sector of low net interest margins and higher funding costs in an environment where volume growth may be lower. A combination of a slower housing market, somewhat slower economic growth and the impact of the current turbulence in financial markets on banks' willingness to supply loans could all contribute to lower volume growth in the future. The effect will be to reduce the profitability of traditional banking activities because volume growth in lending will be less likely to

continue to compensate for low margins. To some extent, the exceptionally good performance of the Irish economy over the last 15 years has placed the Irish banking sector in an unusual position by international standards. Although many Irish banks earn significant levels of non-interest income, in general, the banking sector has continued to reap the larger part of its earnings from traditional banking activities. Strong economic growth combined with a booming housing market has ensured, at least to date, that traditional banking activities have remained profitable for Irish banks. Although Irish banks share the experience of other countries with respect to the pressures on net interest margins, they have been more than able to compensate for this by rapidly expanding the scale of their on-balance sheet business. However, the current environment may make it more difficult for banks to continue to compensate for low margins with relatively high levels of volume growth.

Financial Stability Report 2007

Part 1

1. Introduction

This is the seventh annual Financial Stability Report to be published on the stability and health of the Irish financial system. Part 1 of the Report is the main commentary which provides a broad overview of developments relevant to the financial system. In particular, there is an update on various domestic and international macroeconomic developments, a description of financial developments in the household and non-financial corporate (NFC) sectors and a broad overview of the health of the domestic banking sector. The focus is primarily on identifying any emerging vulnerabilities in these areas as well as the potential events that might trigger those vulnerabilities. There are several boxes placed throughout the Report which explore topical issues in greater detail.

This commentary is complemented by a number of research articles in Part 2 of the Report, which provide further support for the conclusions reached in the main commentary.

There are two articles on the Irish property market. In recent times, there has been a large increase in capital values in the Irish commercial property market, without a corresponding large increase in rents. There has also been strong growth in commercial property-related lending to private non-financial corporates. In *A Financial Stability Analysis of the Irish Commercial Property Market*, Maria Woods examines developments in this sector and suggests some driving forces that may be underpinning the rapid pace of capital appreciation. In *The Significance of Residential Property Investors*, Allan Kearns explores the significant role that residential property investors now play in both the housing market and as borrowers from the banking system. The paper outlines the arguments on both sides of the debate as to how property investors might react to the moderation in house price inflation.

There is an article on the banking sector which highlights the international dimension of Irish banks' business. In *A Financial Stability Perspective on Irish Banks' Foreign Business*, Allan Kearns explores the scale and geographic location of Irish banks' foreign operations and outlines the possible implications for financial stability.

Historical experience shows that concentration of credit risk in asset portfolios is a risk for banks. In Ireland, year-on-year growth in lending to non-financial corporates is currently running at approximately 30 per cent, with growth particularly strong in the commercial property-related sub-sector. In *Measuring the Sectoral Distribution of Lending to Irish Non-Financial Corporates*, Rory McElligott and Rebecca Stuart use a number of measures of concentration to determine whether Irish banks' NFC loan portfolios have become more or less diversified in recent times.

In recent years, global financial market conditions have been characterised by strong growth, low inflation, innovation and increasing globalisation. These

developments have driven a search for yield among many financial institutions. Rapid growth in areas such as hedge funds, private equity and subprime lending can be seen as an extension of this phenomenon. In *Credit Institutions Operating in the Irish Market: Their Exposures to Hedge Funds, Private Equity and the Subprime Sector*, Gavin Doherty reports on a survey of credit institutions operating in the Irish market, which examines their exposures to hedge funds, private equity and subprime lending.

2. Assessment of the Irish Financial Sector

2.1 Macroeconomic Review

2.1.1 Economic Outlook

Economic growth in the Irish economy remains strong. Last year the volume of GNP increased by 6.5 per cent with a corresponding increase in GDP of 5.7 per cent (Chart 1). The latest data show that this momentum was sustained during the first half of 2007, with annual increases in GNP and GDP of 5.7 per cent and 6.7 per cent, respectively. As the year progressed, however, a gradual deceleration appears to have occurred and growth for this year as a whole is expected to be around $4\frac{3}{4}$ per cent in both GNP and GDP terms. A further easing of growth is likely in 2008. This will partly reflect a quite significant slowdown in the residential construction sector, which appears to have peaked during 2006. Private consumption growth is also expected to moderate somewhat next year as the impact of maturing Special Savings Incentive Accounts (SSIAs) lessens. As a result, GNP growth is projected to fall to around $3\frac{1}{4}$ per cent in 2008, with perhaps a slightly higher outturn of around $3\frac{1}{2}$ per cent in terms of GDP growth. Moreover, there are a number of significant downside risks to the outlook, both domestic and external, which are discussed later in this section. As economic growth slows, some upturn in the unemployment rate is expected while inflationary pressures in the economy are expected to ease. HICP inflation, which picked up during 2006 and remained quite high during 2007, is expected to come broadly into line with the euro area average during 2008.

Chart 1: Real GNP Growth

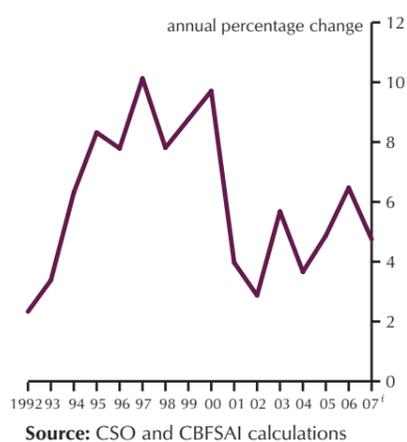
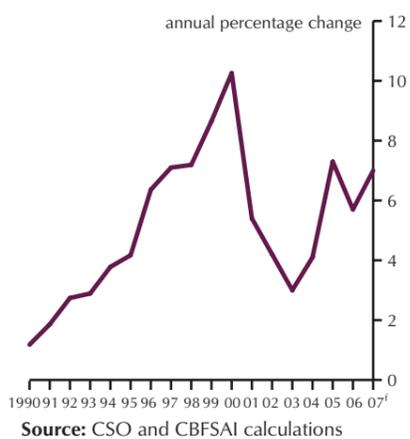


Chart 2: Real Personal Consumption Growth



In recent years, domestic demand has provided the major impetus to output growth with a somewhat more muted contribution from the external sector. Private consumption growth, for example, increased by 7.3 per cent and 5.7 per cent in 2005 and 2006, respectively, and is estimated to have increased by a further 7 per cent this year (Chart 2). The acceleration in consumer demand in 2007 reflects a combination of continued strong increases in personal disposable income and a positive boost from maturing SSIA funds. As the impact of the SSIAs weakens, together with some moderation in the rate of increase in disposable incomes, private consumption growth is projected to fall to a much lower rate of around $3\frac{3}{4}$ per cent in 2008.

Weaker growth in private investment will also contribute to a decline in domestic demand growth next year. This essentially reflects developments in the housing sector where, following several years of extremely strong activity, output growth appears to have peaked. Last year, allowing for certain statistical effects which pushed up the headline figure for housing completions, the number of new housing units built was around 88,000. Available indicators point to a figure of around 75,000 units for this year, with a further fall to around 65,000 units expected in 2008. The slowdown in residential building is likely to be only partly offset by continued growth in

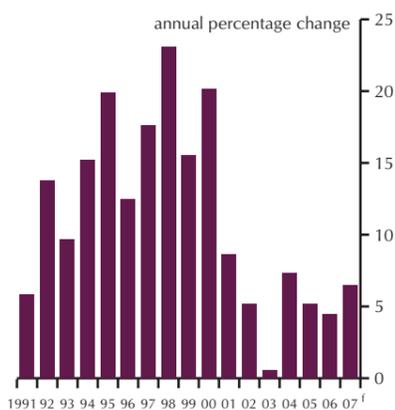
non-residential construction, including public projects, and private equipment investment. Overall, investment growth is estimated to have fallen from 3.1 per cent last year to around 1 per cent this year with a decline in investment expenditure of around ½ per cent expected in 2008.

Export growth has strengthened this year following a subdued performance in 2006. In volume terms, the rate of increase was 7.7 per cent in the first half of 2007. This compares with increases of 4.4 per cent, 5.2 per cent and 7.3 per cent, respectively, in 2006, 2005 and 2004 (Chart 3). The recovery this year reflects in part an improvement in key sectors including information and communications technology (ICT) and chemicals. However, export growth has been relatively muted in recent years, resulting in some loss of export market share and contributing to an increased balance-of-payments deficit. Lower export growth in chemicals and ICT sectors, due to a combination of sector-specific factors and competitiveness pressures, largely explains the decline in merchandise export growth in recent years. More recently, the weakening of sterling against the euro has also weighed on the competitiveness of Irish exports. The deterioration in competitiveness reflects a number of factors, including rising prices and production costs relative to our trading partners, the strengthening of the euro exchange rate, particularly against the dollar, and weaker productivity growth (Chart 4). The decline in merchandise export growth has been partly offset by strong growth in services exports in recent years, particularly insurance, financial and business service exports. For this year as a whole, it is expected that export growth will be around 6½ per cent with perhaps a slight deceleration to around 6 per cent in 2008. However, this will still be below the expected growth in Ireland's export markets and, accordingly, further modest declines in market share are expected in the coming years.

Strong domestic demand growth in recent years has been reflected in the continued strong performance of the labour market. Total employment increased by 4.4 per cent in 2006, with particularly strong increases in construction (up 9.7 per cent), health (up 8.2 per cent) and wholesale and retail trades (up 4.6 per cent) (Chart 5). (See Box A on Sectoral Employment Trends.) Strong employment growth was facilitated by a marked increase in the labour force of 4.5 per cent last year, due to a combination of strong inward migration and increased labour force participation, particularly among females. Both employment and labour force growth rates have moderated in 2007 and this trend is expected to continue in 2008, partly due to the expected decline in employment in the construction sector. The unemployment rate is expected to increase gradually, averaging around 4¾ per cent this year and 5¼ per cent in 2008. Nevertheless, this remains quite low in comparison with other EU countries.

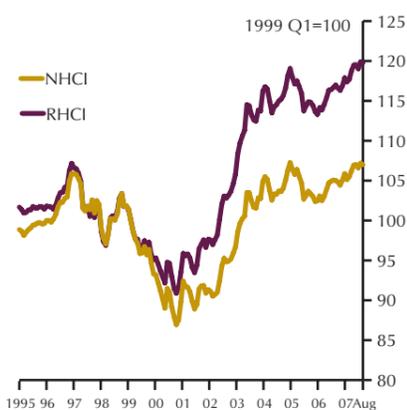
Consumer price inflation picked up during 2006, having been close to the euro area average during the preceding two years, and remained reasonably high during most of 2007. The average rate of HICP inflation last year was 2.7 per cent, which was above the corresponding average rate for the euro area of 2.2 per cent. An average rate of 2.8 per cent is expected this year. The increase in inflation has been mainly due to domestic inflationary pressures, most notably an acceleration of services sector inflation. The outlook is for HICP inflation to decline gradually to close to the euro area

Chart 3: Real Export Growth



Source: CSO and CBFSAI calculations

Chart 4: Harmonised Competitiveness Indices

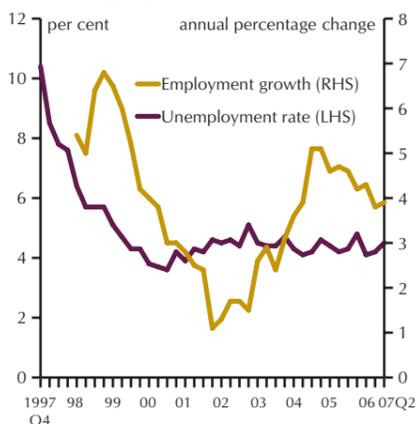


Source: CBFSAI

Note: NHCI is the nominal harmonised competitiveness index and the RHCI is the real harmonised competitiveness index.

A rise in an indicator implies a deterioration in competitiveness while a fall represents an improvement.

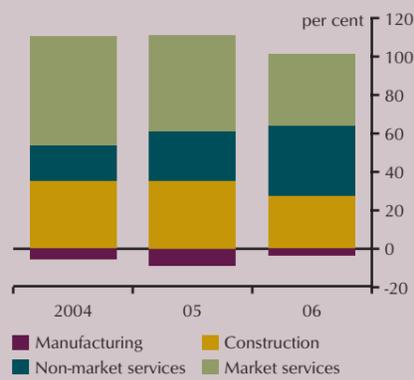
Chart 5: Employment Growth and Unemployment Rate



Source: CSO

Box A: Recent Trends in Employment Growth

Chart 1: Sectoral Distribution of Employment Growth 2004 to 2006



Source: CSO

Sectoral Distribution of Employment Growth

The robustness of employment growth has been a particularly impressive aspect of the labour market's recent performance. Between 2004 and 2006, employment growth averaged 4 per cent per annum, with an increase in the numbers employed of approximately 230,000 persons over this period. Decomposing employment growth by economic sector (Chart 1) reveals that employment gains have mainly been driven by the construction and services sectors.

The contribution of the construction sector was exceptionally strong during 2004 and 2005, accounting for about 35 per cent of overall growth in both years. While the construction sector continued to dominate in terms of employment share in 2006, the reliance on this sector as a source of growth moderated somewhat. Data from the Quarterly National Household Survey (QNHS) for the second quarter of 2007 suggests that the moderation of the contribution from the construction sector has continued. In the year to the second quarter, the construction sector failed to dominate the sectoral distribution of employment gains for the first time in over three years, accounting for approximately 22 per cent of employment growth. While construction has played a key role in terms of sectoral developments, total employment growth excluding this sector was still strong at 3.4 per cent and 3.7 per cent in 2005 and 2006, respectively.

The services sector has been a consistently strong driver of employment growth over the past three years, with approximately three quarters of annual employment gains taking place in the services sector between 2004 and 2006. In terms of the composition of service sector employment growth, employment in the non-market services sector¹ increased quite markedly during 2005 and 2006, accounting for 26 per cent and 36 per cent of overall gains, respectively. The health sector alone accounted for about 18 per cent of total employment growth in 2006. During 2004 and 2005, the market services sector was the main driver of services employment growth. This situation was reversed during 2006, however, as its contribution to total employment growth was almost matched by that of the non-market services sector.

The numbers employed in the manufacturing sector declined sharply in 2003 reflecting the international slowdown in the Information and Communications Technology (ICT) sector with much of the decline in employment occurring in this sub-sector. More recently, employment in the manufacturing sector has begun to stabilise with some tentative signs of a recovery during 2006 and into 2007 also. This reflected a modest improvement in the employment performance of the ICT and chemicals sub-sectors.

The sectoral distribution of employment growth, as detailed above, reflects net changes in employment in the various sectors, and thereby takes account of both employment gains and losses. The next section looks at annual employment gains and losses in the manufacturing and internationally traded sectors using data from the Forfás Employment Survey from 1973 to 2006.

Job Gains and Losses in Ireland

Overall changes in employment are the result of many individual firm-level decisions to add or eliminate jobs in response to a wide variety of changes in the market environment. As a consequence, figures on aggregate changes in employment conceal a significant amount of turnover as jobs are simultaneously created and lost, with many of these additions and subtractions of jobs cancelling one another out in the statistics for total employment growth.

Chart 2 shows the rates of job gains, job losses and net employment growth for the firms covered by the Forfás Employment Survey from 1973 to 2006.² *Job gains* is defined as the sum of all additional jobs created by expanding establishments, which is then divided by total employment to give the rate at which jobs are created. *Job losses* is defined as the sum of all jobs subtracted at contracting units, and again is scaled by total employment to give a rate. Aggregate employment growth is the difference between the rate at which jobs are created and the rate at which jobs are lost.

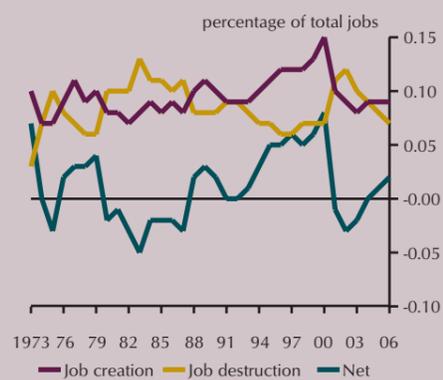
The first noteworthy finding is that jobs are created and lost simultaneously in every year. Averaging over the entire period, we find that one in ten jobs are newly created every year and one in twelve were eliminated annually. The Celtic Tiger era of strong employment growth can be easily identified as beginning in 1993 and peaking in 2000. Even during this period of overall expansion, where job creation reached rates of 12 to 15 per cent of total employment each year, the rate at which jobs were lost never fell below 6 per cent. In contrast, even in the economic stagnation of the early 1980s some firms continued to expand and job creation rates never fell below 7 per cent.

To put these figures in context, they are strikingly similar to the US, where previous research has found that manufacturing job creation averaged 9.2 per cent and job losses 11.3 per cent. In the EU, a cross-country study based on large firms found that Ireland was one of the countries that exhibited large job creation and loss rates, and had the highest net job growth rate.

That jobs are being created and lost at the same time, even in years of very high growth, partly reflects the re-allocation of employment from contracting sectors such as textiles to expanding sectors such as financial services. This is not a complete explanation, however, as even within any individual sector we also observe jobs being created and lost at all points in time. Therefore, a substantial factor underlying job flows is the reallocation that occurs within sectors from contracting firms to expanding firms. Analysis of the data indicates that sectoral re-allocation accounts for a little more than half of job turnover, with the remainder relating to within-sector re-allocation.

¹ Health, education and public administration and defence sectors. These sectors do not exactly correspond to public sector employment as they include some private sector employment.
² The survey of employment levels has been carried out on an annual basis by Forfás since 1972. It covers firms engaged in manufacturing and internationally traded services and is carried out at the establishment level.

Chart 2: Job Creation and Destruction Rates in Manufacturing and Internationally-Traded Services

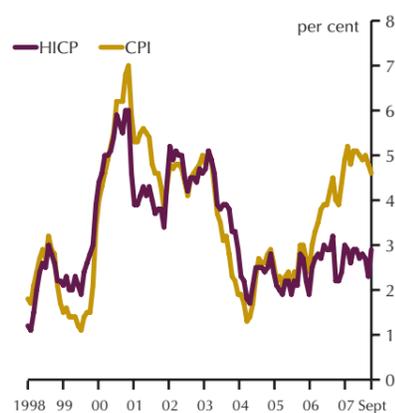


Source: Forfás Employment Survey

average during 2008, due to a number of factors including a moderation in services inflation, lower energy inflation and a weaker contribution from tobacco prices. The average increase in the CPI last year was 4 per cent, with a further increase of 4.9 per cent estimated for this year (Chart 6). CPI inflation is also expected to fall next year, with an average rate of around 3 per cent currently projected. The main difference between the CPI and HICP measures is that average mortgage interest repayments are included in the former but excluded from the latter. These have increased substantially over the past two years due primarily to the impact of higher interest rates.

The public finances had a very strong year in 2006 with an estimated General Government Surplus of 2.9 per cent of GDP. This outturn exceeded expectations, due principally to very robust tax receipts across all revenue categories. In particular, revenues were boosted considerably until recently by the buoyancy of the residential property market. However, a much smaller surplus is likely to be achieved this year, perhaps around 1 per cent of GDP, largely due to a slowdown in property-related tax receipts. Consequently, the public finances will enter 2008 with less momentum than at the start of the year.

Chart 6: Irish Inflation Rate — Selected Measures



Source: Eurostat and CSO

The ongoing slowdown in the domestic construction sector and the uncertainty prevailing in the global economy following recent financial turbulence mean that there are a number of significant risks to the macroeconomic outlook. The high share of the construction sector in economic activity is expected to fall in the coming years due to the significant decline in housing output. With export growth picking up and strong growth expected in public sector and private non-residential construction, the economy appears reasonably well-positioned to absorb the effects of this slowdown in housing activity. However, a sharper-than-expected fall in housing output would have a negative impact on both GDP growth and employment, particularly if accompanied by a shock to external demand.

A second domestic risk relates to recent competitiveness pressures. While the economy was in an extremely strong, and probably unsustainable, competitiveness position at the beginning of the current decade, the situation has subsequently deteriorated. As already noted, this has been due to a number of factors including rising prices and wages relative to our main trading partners, an appreciation of the exchange rate and lower productivity growth. While the overall competitiveness position of the economy does not appear too unfavourable judging from data on inward FDI flows, a continuation of recent trends could lead to a more severe adjustment in the longer run.

There are also risks for the Irish economy related to the uncertainties in global financial and commodity markets. In particular, the significant trade and investment links between Ireland and the US leave the Irish economy vulnerable to any sharp downturn in growth in the US. As yet, it remains difficult to assess what impact the recent financial market turbulence will have on economic activity in the US. In addition, there are continuing issues related to the value of the dollar *vis-à-vis* the euro. The dollar has weakened significantly over the past two years, putting pressure on Irish exporters to the US and raising labour costs for US multinationals based in Ireland, and the possibility of further strengthening of the euro against the US dollar as part of a correction process for international current-account imbalances cannot be ruled out. Finally, the economy remains vulnerable to the possibility of further increases in global oil prices, given strong demand conditions in developing economies and continuing uncertainties over supply.

2.1.2 Private-Sector Credit and Indebtedness

The Bank's Financial Stability Report 2006 highlighted both the level and speed at which private-sector indebtedness was being accumulated. This was seen as a cause for concern because the rapid pace of borrowing was primarily funding house and property purchases whose prices were rising at levels that were not sustainable in the long-run.

During 2007 a welcome easing has taken place in the rate of private borrowing, since Ireland's indebtedness continues to be ranked highly by international comparison. This increasing indebtedness, which has been incurred mainly for asset purchase, carries risks and leaves the banking sector more vulnerable to the risk of default in the event of a negative shock to the economy. Although a high level of indebtedness increases the vulnerability of the private sector to income and interest-rate shocks, there are also important mitigating factors such as the sector's net worth and the positive outlook for

Box B: Scenario Analysis – Mortgage Eligibility in the Residential Housing Market

In last year's Report, scenario analysis was used to track the potential deterioration in mortgage eligibility¹ that could have occurred if the trends in interest rates and house prices at the time persisted. It was suggested then that approximately the top 50 per cent of households, ranked by household income, were eligible for a mortgage on an average new house and that the situation was likely to deteriorate if the interest-rate and house-price trends seen at the time continued. It was noted that such trends were unsustainable in the long run if a reasonably sized pool of purchasers were to maintain their access to the housing market. This Box updates the analysis presented in last year's Report.

Interest rates have increased further since the 2006 Report, with three 25bp increases in the interim taking the ECB main refinancing rate to its current (October) level of 4 per cent. Market participants' expectations for future interest rates have been affected by recent market turbulence, and there is now greater uncertainty regarding the future paths of interest rates. At the time of writing the Financial Stability Report 2006, house prices were increasing at an annual rate in excess of 15 per cent. Since then, however, the momentum in house prices has halted.

If these current trends² were to continue the outlook for mortgage eligibility is much different to that seen in last year's Report, based on a continuation of trends seen at that time. Last year a continuation of double-digit house price inflation coupled with further interest-rate increases would have seen a deterioration in mortgage eligibility over time. Currently, however, house prices are declining marginally, and there is the possibility that interest rates are at or near a peak in the current cycle. If these current trends were to continue mortgage eligibility is seen to improve over time (Table 1).

Table 1: Distribution of Repayment Burdens – Scenarios

Decile	2006 annual average household disposable income €	August 2007	T+1	T+2	T+3	T+4	T+5	T+6
1	8,900	180	165	151	139	127	117	107
2	13,063	123	112	103	95	87	79	73
3	17,995	89	82	75	69	63	58	53
4	22,998	70	64	59	54	49	45	41
5	29,498	54	50	46	42	38	35	32
6	36,827	44	40	37	34	31	28	26
7	44,286	36	33	30	28	26	23	21
8	53,390	30	28	25	23	21	19	18
9	65,994	24	22	20	19	17	16	14
10	110,688	14	13	12	11	10	9	9
Average household		40	36	33	30	28	26	24

Source: CSO and CBFSAI calculations

Notes: Each group accords to a range of disposable income and numbers approximately 10 per cent of all households. Group 1 is the bottom 10 per cent of all households ranked by income, Group 2 is the next 10 per cent of households and Group 10 is the top 10 per cent of households ranked by income.

Shading indicates that households' repayment burdens are above 40 per cent.

The black line shows the deterioration in affordability shown in last year's Report, based on a continuation of the trends seen at that time.

Based on average national house price.

Table 1 shows a distribution of repayment burdens by income. Decile 1 represents approximately the 10 per cent of households with the lowest household disposable income and decile 10 being the top 10 per cent of households based on income. The table suggests that, as of August 2007, only those on higher incomes (above decile 6) had repayment burdens below 40 per cent and so would be eligible for a mortgage on the average house.³ If current trends were to continue, mortgage eligibility is seen to improve to the extent that those in decile 5 and above would be eligible for a mortgage on the average house by T+6.⁴ This is in contrast to last year when a continuation of trends at that time would have meant only those households in deciles 9 and 10 would have been eligible for a mortgage at T+6.

In an alternative scenario (not shown) where house prices decline in year one before growing modestly thereafter and two more (25bp) interest-rate increases occur before rates level off, eligibility is also seen to improve, however, at a slower pace than if current trends were to continue. In this case households in decile 6 and above would be eligible for a mortgage on the average house at T+6.

It should be noted that, in this Box, eligibility for a mortgage is based purely on household income and does not take into account other sources of wealth or savings. As a result the analysis presented here may understate the ability of some households to obtain a mortgage on the average house.

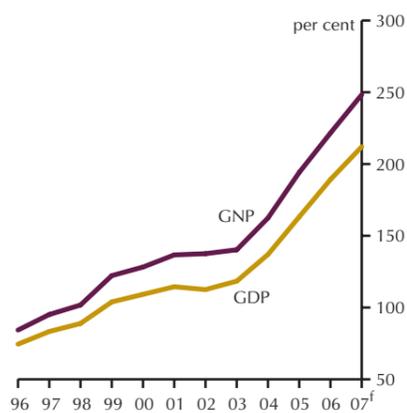
¹In the scenario analysis in this Box eligibility is based solely on the fraction of disposable income that would go on mortgage repayments. 40 per cent of disposable income is chosen as the cut off point for eligibility (i.e. it is assumed that only those households who would have a debt service ratio/mortgage repayment burden of below 40 per cent would be eligible for a mortgage). In practice debt service ratios are only one of a number of possible criteria used by mortgage lenders. Furthermore mortgage eligibility tends to be determined on a case by case basis, therefore different debt service ratios may be applied to different households.

²Trends in this Box are as of August 2007.

³This assumes an eligibility cut-off point of 40 per cent of disposable income. If a lower/higher percentage of disposable income was chosen this would tend to mean a larger/smaller proportion of households would be deemed ineligible for a mortgage.

⁴This improvement occurs under the assumption that present trends will continue for the foreseeable future, namely, the rate of house price growth will persist at approximately -1.9 per cent, household disposable incomes will grow at between 7 and 8 per cent while retail mortgage rates remain at their current level.

Chart 7: Private-Sector Credit as a % of GDP and GNP



Source: CBFSAI and CSO
Note: Includes securitisations.

the economy which, when assessed alongside the slowdown in borrowing, reduce this vulnerability somewhat. Since late-2003, the annual rate of increase in total loans to the private sector followed a general upward trend before peaking in February 2006 at 30.9 per cent¹. As 2006 progressed, however, there was a gradual easing in the pace of private-sector credit (PSC) growth. By December 2006, PSC increased year-on-year by 25.4 per cent, compared with 30.8 per cent in December 2005. This moderating trend has continued into 2007 with annual rates of increase in PSC now at their lowest level since late-2004. In September 2007 PSC increased year-on-year by 20.4 per cent, compared with 27.5 per cent in September 2006. Assuming that current trends persist, the annualised rate of credit growth in 2007 could be approximately 19 per cent.

Notwithstanding a slowing in credit growth by end-2006, Ireland's private-sector indebtedness, as proxied by the ratio of PSC to GNP, reached 222 per cent in 2006, compared with 194 per cent in 2005 (Chart 7). If current trends were to persist, the ratio could reach 248 per cent by end-2007.

Table 1 benchmarks Ireland's private-sector indebtedness against those OECD countries² for which data are available and whose indebtedness ratios are in excess of 100 per cent in 2006. By end-2006, Ireland was the second most indebted country in this sample. To provide an indication of possible ranking by end-2007, it is assumed that recent trends will persist for all countries³. In this context, it is estimated that the Irish ratio of PSC to GDP would surpass all countries within this grouping by end-2007.

¹ To obtain a more complete measure of indebtedness, this measure of private-sector credit includes the value of securitisations which are loans that have been removed from banks' loan books because they have been sold to investors. However, the loans are still held by the Irish private sector and should be included in the definition of indebtedness.

² Countries were chosen on the basis of data availability. The PSC figures do not include securitisations so the ratios for Ireland will differ from those noted earlier.

³ Annual rates of increase up to May 2007 and current forecasts of GDP in 2007 for each country were used in this estimation.

Table 1: Cross-Country Comparison of PSC/GDP

	PSC/GDP	
	End-2006 ^e	End-2007 ^f
Denmark	185	198
Ireland^a	183 (216)	202 (239)
Netherland	176	183
United Kingdom	176	188
Switzerland	176	185
Spain	167	192
Luxembourg	159	148
Portugal	157	166
Sweden	117	125
Austria	115	114
Germany	110	105
France	100	105

^a Ratios in brackets refer to PSC/GNP.

Source: IMF, Eurostat and CBFSAI calculations.

Note: Countries are ranked in descending order according to PSC/GDP ratios in 2006.

The rate of increase in indebtedness, as measured by this ratio of PSC to GNP decreased to 14 per cent in 2006 from 19.5 per cent in 2005. Should present trends persist, the rate of increase would be approximately 12 per cent at end-2007. Although, a high level of indebtedness increases the vulnerability of the private sector to income and interest-rate shocks, there are also important mitigating factors such as the sector's overall net worth and the positive outlook for the economy which, when assessed alongside the slowdown in borrowing, reduce this vulnerability somewhat.

2.2 Property Sector Developments

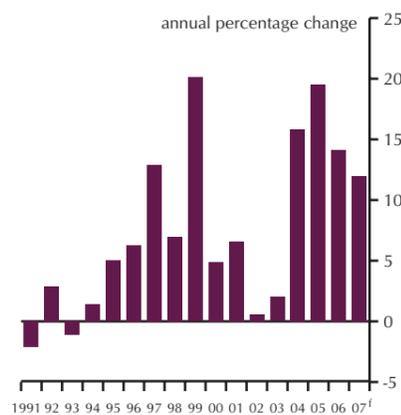
2.2.1 Residential Property

One of the main developments in the financial stability risk profile since the Financial Stability Report 2006, has been in the residential property market where the upward momentum in house prices has abated. The year-to-date changes should be assessed in the context of gains in house prices made in recent years. The moderation is welcome in that it reduces some of the key concerns noted in last year's Report. First, house prices appear to have become more responsive to fundamental factors and the concerns about house prices moving further out of line with fundamentals have lessened. Second, the outlook for macro-affordability is much improved after the substantial earlier house price increases, notwithstanding higher interest rates. (See Box B for a fuller discussion.)

— House Price Developments

Over the course of 2006, there was a significant shift in the rate of house price appreciation according to the permanent tsb/ESRI house price index (ptsb). In the first half of 2006 national house prices increased by almost 8 per cent before slowing to almost 4 per cent over the latter part of the year. In the first nine months of 2007, house prices fell by 3.6 per cent (Chart 9). These developments should be assessed against the gains in house prices in recent years, namely, prices rose by about 12 per cent in 2006 and by over 50 per cent between 2002 and 2006. The average house price is now at mid-2006 levels. (See Box C for analysis of the economic literature on international house-price cycles.)

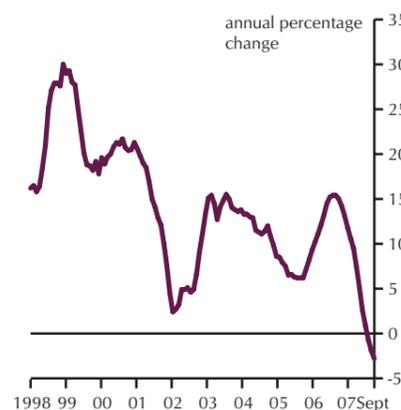
Chart 8: Annual Growth in the Ratio of Private-Sector Credit to GNP



Source: CBFSAI and CSO

Note: From 1995 onwards GNP data include Financial Intermediation Services Indirectly Measured (FISIM) figures, the data for the years prior to this do not include FISIM.

Chart 9: PTSB National House Price Index



Source: Permanent tsb/ESRI

Box C: The Economic Literature on International House-Price Cycles

This Box outlines three important qualifications to the economic literature (IMF 2003, OECD 2006, Kelly 2007) on international house-price cycles:

- these studies tend to focus on real house prices only. This Box argues that it is nominal house prices that are key from a financial stability perspective. Importantly, the results from analysing nominal house prices are very different to the results derived using real prices;
- the models used in these studies tend to be univariate and do not account for the fundamental factors that typically drive housing markets; and
- the distribution of house price declines over time indicates that the majority occurred in the different economic period prior to the 1990s, and hence drawing inferences based on past behaviour might be problematic.

The Approach: Nominal versus Real House Prices

This literature tends to examine real house prices only and this would appear to be consistent with the view that it is real returns that generally matter for investment decisions (in property and other asset markets). However, from a financial stability viewpoint, it is arguable that nominal prices matter more to both households and banks.

A key concern for households and banks is negative equity – where the nominal value of the property falls below the nominal value of the outstanding mortgage. Typically, negative equity occurs when nominal prices fall.¹ Where borrowers hold mortgages that are substantially less than the value of the property, it would require a very significant fall in nominal property prices for negative equity to arise.

To ascertain the results from using nominal prices, the methodology used by the IMF (2003)², Girouard *et al* (2006)³, and Kelly (2007)⁴ on real house price data has been applied to the corresponding nominal house price data for the same time periods. The results on nominal prices are different to those published on real prices, namely, that historically the majority of nominal house-price booms have not been followed by any fall in nominal prices.

The Methodological Approach

This economic literature tends to use a univariate approach to modelling house prices. Typically, the evolution of house prices over time is modelled as a function only of past movements in those prices. These univariate methods do not account for the fundamentals that typically determine house prices. A more encompassing approach would be to model developments in house prices as a function of developments in the factors that drive housing supply and demand such as income, interest rates and demographic factors.

The Reference Period for these Studies

In this literature, the majority of ‘booms’ and ‘busts’ in nominal and real house prices occurred prior to the 1990s. However, the incidences of ‘booms’ ending in absolute declines in real or nominal prices have fallen since the early-1990s. The reasons for the decline in the cyclical nature of both nominal and real house prices are unclear but are likely to be linked to the so called ‘Great Moderation’ where volatility in a broad range of macroeconomic series have declined over a similar time period.⁵ Accordingly, there appears to be the important qualification that past international experience may not be an accurate guide to future developments in house prices because the international macroeconomic environment is now somewhat different.

¹ Assuming a mortgage of 100 per cent or less of the property price, as is typical in Ireland.

² Kelly, M., (2007), “On the likely extent of falls in Irish house prices”, *Quarterly Economic Commentary*, ESRI, Summer, pp. 42-54.

³ Girouard, N., M. Kennedy, P. van den Noord and C. André, (2006), “Recent house price developments: The role of fundamentals”, OECD Working Paper No. 475.

⁴ IMF, (2003), “When bubbles burst”, *World Economic Outlook*, International Monetary Fund, April.

⁵ See Browne, F., D. Cronin and B. Kennedy, (2005), “The Decline in the Volatility of Output Growth: Its Causes and Consequences for Financial Stability”, *Financial Stability Report 2005*, CBFSAI, pp. 111-122.

House price data from the Department of the Environment, Heritage and Local Government also show that annual rates of increase started to decelerate in late-2006. On a national basis, the annual rate of increase for new houses reached 9 per cent in 2006Q4, compared with an annual rate of 12.1 per cent in the previous quarter. The pace of increase in prices for second-hand houses eased by a relatively greater amount, registering an annual rate of increase in the order of 6.8 per cent in 2006Q4, down from 18.9 per cent in 2006Q3. The latest available data from this source indicate that the average price for new houses increased by 3.4 per cent while second-hand house prices decreased by 2.6 per cent in the second quarter of 2007.

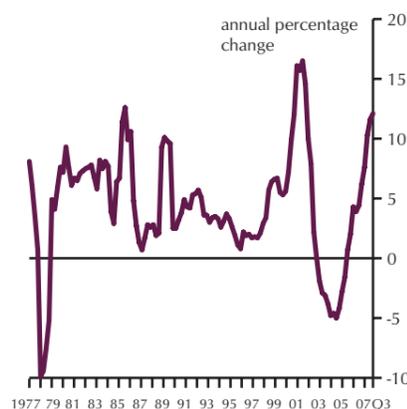
This moderation in house prices indicates that they appear to have become more responsive to fundamental factors. Housing supply remains strong compared with the economy's medium-term requirements, although it is down on last year's record figures. In the first eight months of 2007, total completions have decreased by approximately 7 per cent relative to the same period in 2006⁴. Forward-looking indicators of supply also indicate declines in activity in the near future. New house registrations for the January to July period were down 35 per cent compared with the same period the previous year, while housing commencements, which generally lead completions by between six and nine months, were down approximately 22 per cent for the January to June period, year-on-year. Other 'soft' indicators such as planning permissions (down approximately 8 per cent in the first quarter, year-on-year) also point to the emergence of a weaker, but anticipated, trend in the house-building sector. On this basis, house completions are expected to fall this year to somewhere in the region of 75,000 units. Demand for housing may have been affected by the progressive raising of short-term interest rates in recent years, which has made mortgage finance more expensive. Since the publication of the last Report, however, affordability pressures may have moderated slightly as a result of easing in the upward momentum in house prices and amendments introduced in Budget 2007. At the current juncture, market expectations for future interest rates have been affected by market turbulence. Generally these changes amount to a postponement of the expected date of any future increases or a view that the top of the cycle might be lower than was expected six months ago.

— Risks to the Outlook: the Buy-to-Let Segment

Rents continue to recover and are increasing at a high rate, nevertheless, the risk arising from low rental yields for residential investors appears to have increased since the 2006 Report. Investors in the residential sector have relied heavily on capital appreciation for their returns in recent years. The slight fall in house prices in an environment of higher borrowing costs would appear to have increased the incentive for prospective investors to delay investing or for existing investors to realise their capital gains, thereby slowing capital growth further. Investors have accounted for a significant share of demand in the Irish residential property market in recent years, although there are some indications that the share of purchases by investors will be lower in 2007. Since 2004, the buy-to-let sector has comprised a growing share of outstanding residential mortgages. As at June 2007, 26.1 per cent of outstanding mortgages could be attributed to investors. The corresponding

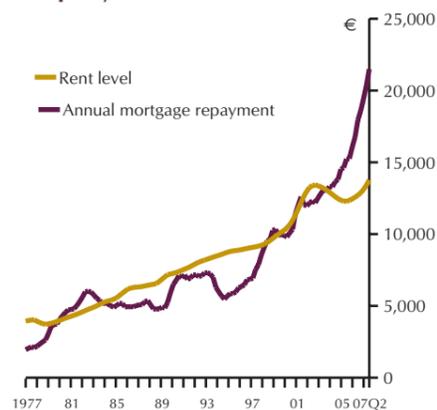
⁴ Completions figures for 2006 are adjusted for a backlog in ESB connections encountered in 2005.

Chart 10: Residential Property Rents



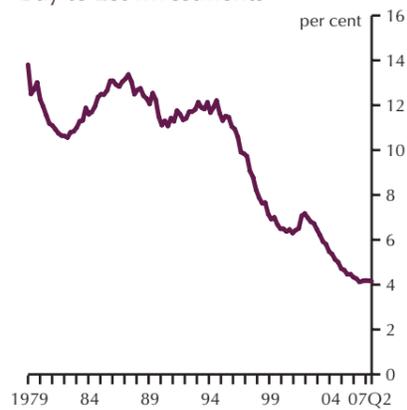
Source: CSO

Chart 11: Rents and Mortgage Repayments for an Average Buy-to-Let Property



Source: CBFSAI

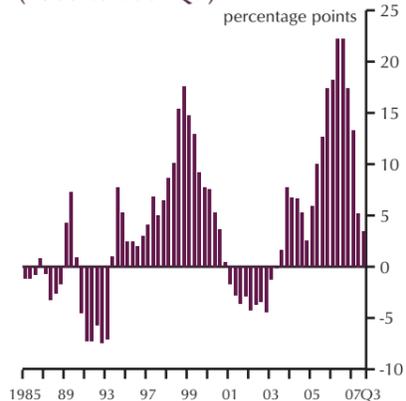
Chart 12: Irish Rental Yields – Buy-to-Let Investments



Source: DoEHLG, CSO and CBFSAI calculations

Note: Rents as a percentage of house prices.

Chart 13: Differential Between Annual Growth in Capital Values and Annual Growth in Rents (1985 to 2007Q2)



Source: Jones Lang LaSalle and CBFSAI calculations

Notes: Data are bi-annual from 1985 through 1996 and quarterly from 1997 to date.

figure for December 2003 was 16.7 per cent. However, there is uncertainty surrounding the reaction of this market segment to the possibility of a marked slowdown or a fall in house prices. The recent pattern of house prices may have particular relevance for new investors who may already be facing a shortfall in terms of covering their mortgage obligations with rental income.

However, more recently, positive developments in regard to rents may alleviate some pressure on new investors. The recovery in rents has gathered momentum with annual increases reaching 12.1 per cent in August 2007 according to the CSO's *Private Rental Index* (Chart 10). Only three years earlier in August 2004, rents had been declining by 4.2 per cent. An alternative source of rental data (Daft.ie) confirms this recovery, indicating national rental increases of 9 per cent in July 2007 relative to July 2006. This annual rate of increase for July, however, represents a slight decline over corresponding figures for May and June (11.3 per cent and 16.8 per cent, respectively).

Although in early-2007 rental increases exceeded house price increases for the first time since April 2002, a shortfall between mortgage repayments and rental income remains for new investors. As at 2007Q2, those investing in new houses face an estimated shortfall between their annual mortgage repayments and annual rental income of approximately 36 per cent (Chart 11). This represents a significant deterioration since 2005Q1, when the estimated shortfall was less than half this amount (16 per cent). The estimated shortfall is more pronounced for those investing in second-hand houses (43 per cent in 2007Q2).

The levelling off and, more recently, falls in house prices, combined with the recent pick-up in rental growth, means that the yield on residential property increased marginally to 4.15 per cent in the second quarter of 2007 (Chart 12). However, this is a recovery from historical lows when yields declined to 4.12 per cent in 2006Q2. To put these figures in perspective, in 1997Q1 the yield on residential property was 9.73 per cent.

There are other arguments made, however, with respect to the relatively high risk-adjusted return on property for potential investors, the recovery in rents and the significance of transaction costs for existing investors that may reduce investors' incentives to exit the current market. Using a longer-term analysis of the risk-adjusted returns to property suggests that, despite facing slower capital growth and low yields, investors may not exit the current market in significant numbers. The Sharpe ratio, which normalises the return on an asset for a given measure of risk, suggests that residential property (including or excluding rental income) offered relatively better risk-adjusted returns relative to equities for the period 1989 to 2007Q2 (Table 2).

Table 2: Asset Portfolio Performance (1989 to 2007Q2)

	Equities	Equities (incl. dividends)	Residential housing	Residential housing (incl. rental income)	Government 10-year bonds
Average annual return (%)	14.48	17.25	9.86	18.60	6.34
Variance	506.37	528.78	46.62	59.59	4.89
Sharpe ratio	0.016	0.021	0.076	0.206	—

– *The Outlook for House Prices*

Regarding future house price developments, factors that will have an influence on the future direction of house prices are investors' participation in the property market, the sustainability of current rates of immigration and the future direction of monetary policy. The underlying fundamentals of the residential market continue to appear strong, as evidenced by rent increases. The central scenario is, therefore, for a soft, rather than a hard, landing.

2.2.2 Commercial Property

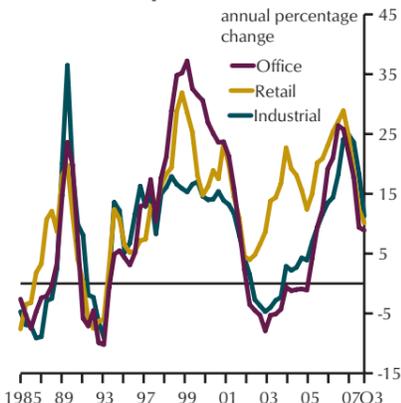
The Irish commercial property market performed strongly across all sectors (i.e., office, retail and industrial) in 2006 in terms of capital appreciation. Based on data from Jones Lang LaSalle, the annual rate of increase in capital values has persistently outpaced the increase in rents since late-2003 (Chart 13). This divergence has resulted in considerable yield compression in recent years. According to the SCS/IPD Ireland Index, the equivalent yield on all commercial property was 4.10 per cent in 2006Q4, compared with 8.41 per cent in 1995Q1. Since the mid-1990s, yields on all types of Irish commercial property have followed a general downward trend. Many international markets have also mirrored this trend of robust appreciation in capital values, indicating that some global factors can explain these trends. Furthermore, other markets have not only experienced robust capital growth but have also experienced relatively static rental growth such that, in general, it appears that yields on European commercial property have declined significantly.

More recently, the pace of capital appreciation has begun to ease, albeit still maintaining a brisk pace across all three commercial property sectors (i.e., office, retail and industrial). Although, the annual rate of capital appreciation continues to outpace rental growth, the extent of this divergence has declined in absolute terms. However, nominal income yields remain at low levels. Capital values on total commercial property increased year-on-year by 9.5 per cent in 2007Q3, compared with 26.7 per cent in 2006Q3. Rental values, by contrast, registered an annual rate of increase of 6.1 per cent in 2007Q3 (the equivalent figure in 2006Q3 was 4.5 per cent).

A disaggregated analysis of the commercial property sector indicates that the industrial sector has replaced the retail sector as the best performing commercial property sector since 2006Q4 (Chart 14). The annual rate of increase in capital values in the industrial sector was 11.3 per cent, while the equivalent rate for the retail sector was 10.1 per cent in 2007Q3 (the corresponding figures in 2006Q3 were 24.1 per cent and 28.9 per cent, respectively). Capital values in the office sector increased year-on-year by 8.9 per cent in 2007Q3 compared with an annual rate of 25.8 per cent in 2006Q3. Relative to 2007Q2, there has been a weakening in the annual rates of increase in capital values across all three sectors in 2007Q3.

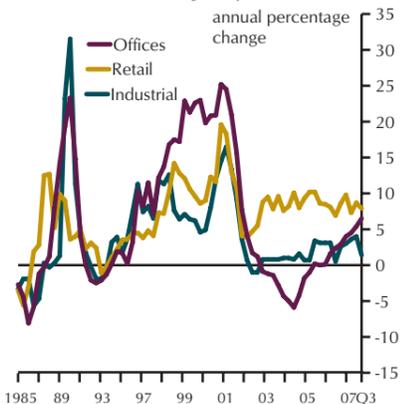
The annual increase in rental values has not kept pace with capital appreciation in any of the three commercial property sectors. Although the modest recovery in rental values in the office sector has continued into the third quarter of 2007, annual increases in rental values on both the industrial and retail property eased relative to 2007Q2. Rental values in the office and industrial sectors increased at an annual rate of 6.5 per cent and 1.4 per cent, respectively (Chart 15). In 2006Q3, the corresponding rates were 2.9 per cent

Chart 14: Capital Values Growth



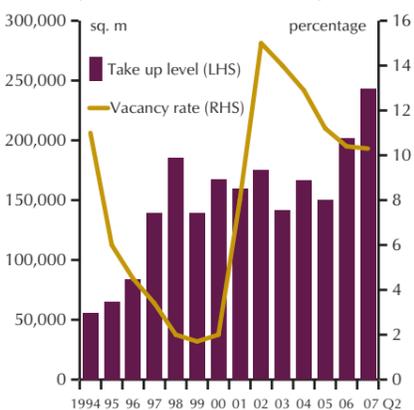
Source: Jones Lang LaSalle
Note: Data from 1985 to 1996 are bi-annual and data from 1997 to date are quarterly.

Chart 15: Growth in Rents on Commercial Property



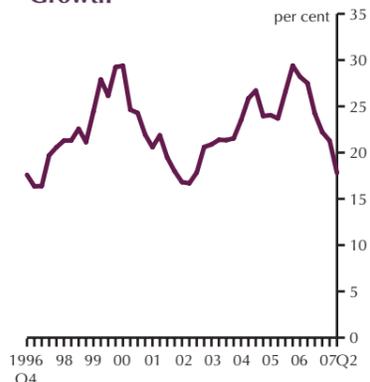
Source: Jones Lang LaSalle
Note: Data from 1985 to 1996 are bi-annual and data from 1997 to date are quarterly.

Chart 16: Vacancy Rates (Dublin Office Market)



Source: CB Richard Ellis Gunne and CBFSAI calculations
Note: Take-up rates are forecast for 2007.

Chart 17: Personal-Sector Credit Growth



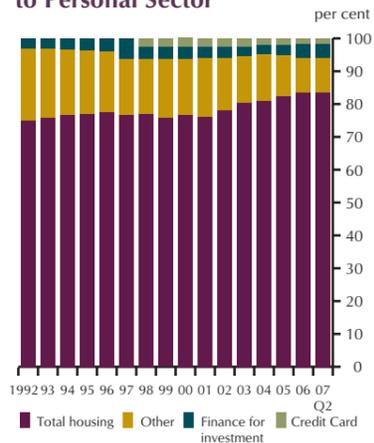
Source: CBFSAI
 Note: Growth rates have been adjusted for securitisation of residential mortgages. Data between July 2004 and June 2005 have been adjusted for a transfer of some €2 billion.

Chart 18: Residential Mortgage Credit Growth



Source: CBFSAI
 Note: The growth rate has been adjusted for securitised mortgages and is the underlying adjusted rate.

Chart 19: Distribution of Advances to Personal Sector



Source: CBFSAI
 Note: Credit card is in 'Other' category prior to 1998.

and 2.6 per cent. Regarding the retail sector, rental values rose year-on-year by 7.9 per cent, compared with 8.6 per cent in 2006Q3.

In the second quarter of 2007, the vacancy rate in the Dublin office market stood at 10.3 per cent, down from 11.1 per cent in 2006Q2 (Chart 16). Despite declining from a peak of 15 per cent in 2002, the current vacancy rate remains above the historical average of 7.9 per cent. Vacancy rates, however, vary greatly across the capital. The vacancy rate on office property in the Dublin 2 and 4 areas was 4.2 per cent in 2007Q2. By comparison with the first half of 2006, take-up levels increased by 55.6 per cent in the first two quarters of 2007, indicating that market sentiment remains positive in the Dublin office sector.

2.3 Household Sector

2.3.1 Household Indebtedness

— Personal-Sector Credit

Personal-sector credit is the largest single component of private-sector credit, accounting for approximately 41 per cent. The annual increase in personal-sector credit has been declining somewhat in recent quarters; as of 2007Q2, this was 17.8 per cent⁵ compared with 27.5 per cent in 2006Q2 (Chart 17). An interpretation of this decline is complicated, however, by the fact that reclassifications and revisions have occurred over this time period which have the effect of lowering the rate of increase.

While it is not possible to strip out the effects of these reclassifications on overall personal-sector credit, it has been possible to calculate an underlying residential mortgage-credit series. This concept of residential mortgage credit increases has been declining consistently over the past year, in line with the slowing housing market. As of September 2007, the increase was 16.1 per cent (Chart 18), having peaked in March of last year at 28.1 per cent. Data from the Irish Banking Federation (IBF) and Pricewaterhouse Coopers (PwC) also show that the mortgage market has been slowing. The total value of mortgages issued in 2007Q2 (€8,733 million) was 13.8 per cent below the value issued in the corresponding quarter of 2006. In terms of loan volumes, all market segments showed a decline in comparison with 2006Q1. The re-mortgage category showed the smallest decline over this time (approximately 9 per cent).

The average annual rate of increase in lending to domestic households in Ireland over the first eight months of 2007 was 13.7 per cent (Table 3). This is the fifth highest average rate of increase among the euro area countries and almost double the rate in the euro area as a whole.

The sectoral distribution of advances⁶ to the Irish personal sector has remained largely unchanged over the last year to 18 months, with the share of housing finance in the region of 83 to 84 per cent (Chart 19). In the earlier years of the current decade, the share of housing finance had increased from 75 per cent in the early-2000s to a peak of 84 per cent in 2006Q1. The other

⁵ Growth rates have been adjusted for securitisation of Irish residential mortgages.

⁶ Sectoral distribution figures have not been adjusted for securitisation of Irish residential mortgages.

components of personal-sector credit – finance for investment, credit-card debt and other advances – account for relatively small shares which have also been fairly stable in recent times, at approximately 4, 2 and 11 per cent of personal-sector credit, respectively.

Table 3: Average Annual Growth Rate in Monetary Financial Institution (MFI) Lending to Domestic Households – First Eight Months of 2007

Country	Growth rate
Slovenia	24.8
Greece	22.5
Luxembourg	20.8
Spain	17.9
Ireland	13.7
Finland	12.9
France	10.9
Portugal	10.6
Italy	8.9
Belgium	8.6
Euro area	7.3
Austria	5.4
Netherlands	3.9
Germany	-1.0

Source: ECB and CBFSAI calculations

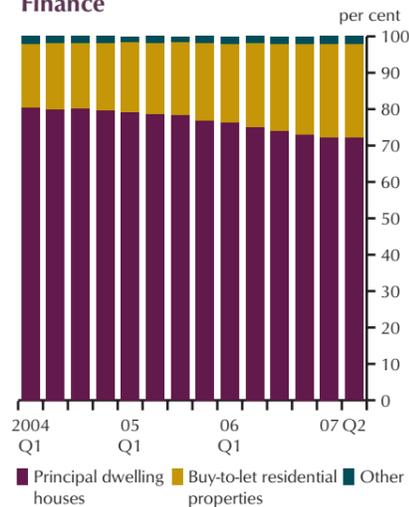
A breakdown of housing finance shows that mortgages on principal dwelling houses account for almost three-quarters of total housing finance (Chart 20). However, this share has been declining since 2003Q4 when it accounted for 81 per cent. Mortgages for buy-to-let properties, on the other hand, have been increasing as a share of housing finance, now accounting for a little over one-quarter of housing finance compared with less than 17 per cent in 2003Q4. The shares accounted for by holiday homes/second houses and other housing finance are small and have been stable over this time.

— *Indebtedness*

At end-2006, personal-sector credit was 164 per cent of disposable income⁷ (Chart 21) and the proportionate increase in the ratio over the year was 14 per cent. The slowdown in personal-sector credit growth suggests that household-sector indebtedness should increase at a slower rate in 2007. If the current trend in personal-sector credit continues, the ratio is expected to increase by approximately 6 per cent in 2007, resulting in a personal-sector credit-to-disposable income ratio in the region of 175 per cent by end-2007. In an international context, Ireland is among a group of four countries – the Netherlands, Spain and Portugal – with the highest household debt ratios in the euro area. As of August 2007, MFI lending to domestic households was 77.8 per cent of GDP in Ireland (Chart 22). This places Ireland as the third most indebted country after the Netherlands (80 per cent) and Spain (78 per cent).

⁷ The level of Irish household indebtedness has been adjusted to take account of mortgage securitisation.

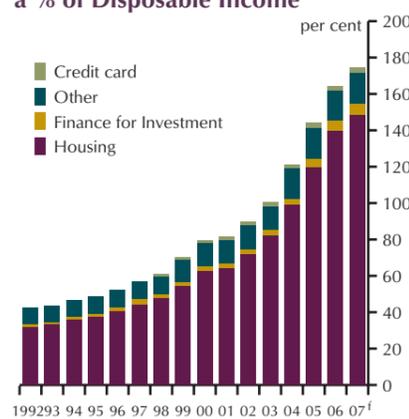
Chart 20: Components of Housing Finance



Source: CBFSAI

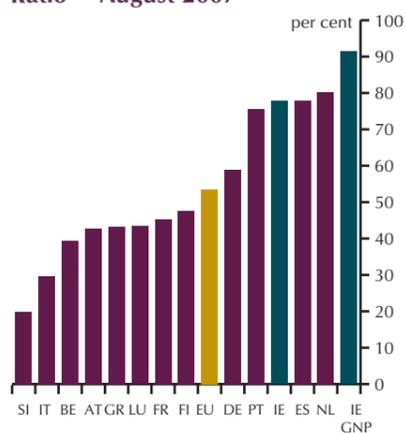
Note: Other includes credit for holiday and second homes.

Chart 21: Personal-Sector Credit as a % of Disposable Income



Source: CBFSAI and CSO

Chart 22: Household Debt-to-GDP Ratio – August 2007

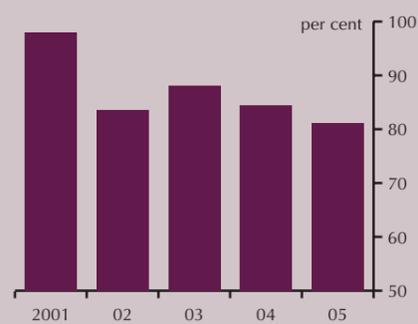


Source: ECB

Note: GDP figures used are forecasts for 2007.

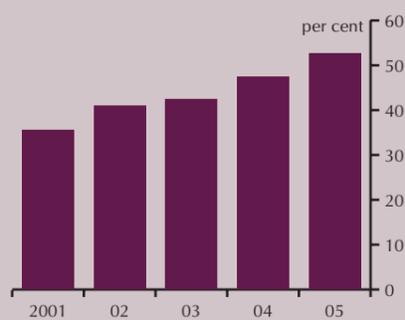
Debt represents MFI lending to domestic households.

Chart 1: Household Sector Net Financial Assets as % of GDP



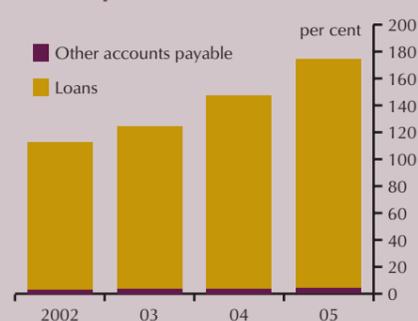
Source: CSO and CBFSAI calculations

Chart 2: Financial Liabilities as a % of Financial Assets – Household Sector



Source: CSO and CBFSAI calculations

Chart 3: Household Sector Debt as % of Disposable Income



Source: CSO and CBFSAI calculations

Note: Debt is total financial liabilities.

Box D: Financial Position of the Household Sector

The analysis of the household sector in previous years' Financial Stability Reports has predominantly focused on the liabilities of the household sector. This has been due to a lack of data on household sector assets and in particular the lack of a household sector balance sheet. This Box attempts to provide a more rounded picture of the financial position of the household sector by using household sector financial balance sheet data recently published by the CSO.

In April 2007 the CSO published Institutional Sector Accounts (Financial and Non-Financial) for Ireland for the first time. The accounts analyse the main macroeconomic variables and provide a financial balance sheet for each economic sector – households, government, financial corporations, non-financial corporations and rest of world. This Box uses the data, contained in these accounts, relevant to the household sector to provide a picture of the financial position of the sector.

The financial balance sheet¹ of the household sector shows that, in aggregate, it is in a strong financial position. First, financial liabilities amount to little over 50 per cent of financial assets, i.e., the household sector has a substantial positive net financial asset position. As of 2005, net financial assets amounted to approximately €130 billion – equivalent to approximately 80 per cent of GDP (Chart 1). Secondly, the household savings rate has averaged almost 7 per cent over the years 2002 to 2006, indicating that the sector has a stock of savings in place if required.

While in aggregate the financial position, as outlined above, shows the household sector to be in a healthy financial situation, an increase in the levels of financial liabilities and debt held is noticeable in recent years. Financial liabilities have increased by 130 per cent since 2001 and in 2005 amounted to €145 billion. This increase in financial liabilities is due to the substantial increase in the value of loans, which account for approximately 98 per cent of the sector's financial liabilities, held by the sector over this time. Loans more than doubled between 2001 and 2005, going from approximately €61 billion to €142 billion. The growth in financial assets over this period – 55 per cent – has failed to keep pace with growth in financial liabilities. The effects of these developments is the decrease in the sector's net financial assets as a percentage of GDP (Chart 1) and the increase in financial liabilities as a percentage of total financial-assets, in recent years (Chart 2).

The increase in the level of debt accumulated by the household sector in recent years is evident in the increase in the household debt-to-disposable income ratio over this period. In 2005, the household debt-to-disposable income ratio had risen to in excess of 170 per cent (Chart 3), compared to approximately 143 per cent in 2004 and 110 per cent in 2001.

The Institutional Sector Accounts only provide a financial balance sheet for the household sector; a non-financial balance sheet is not contained in the accounts. However, the value of dwellings held by households² can be added to the households' net financial asset position to obtain a rough proxy for the sector's net worth. If this is done, it reinforces the picture that the household sector, in aggregate, appears to have a substantial positive net position – in excess of 400 per cent of GDP in 2005 (Chart 4). Furthermore, the increase in the value of housing more than offsets any weakening in the net financial position of the household sector, resulting in an improvement in the overall net worth position of the household sector since 2002 – total net assets as a percentage of GDP increasing from 344 per cent in 2002 to 418 per cent in 2005. It should be noted, however, that the value of dwellings are a relatively illiquid asset that would not usually be available immediately to pay down households' indebtedness.

The data above show that the level of debt held by the household sector has increased in recent years, suggesting that the household sector may be more vulnerable to a negative shock than was previously the case. However, despite the fact that some household sector assets are likely to be illiquid and so may not be available to households immediately, in aggregate, the household sector appears to be in a healthy position, with a positive net position.³

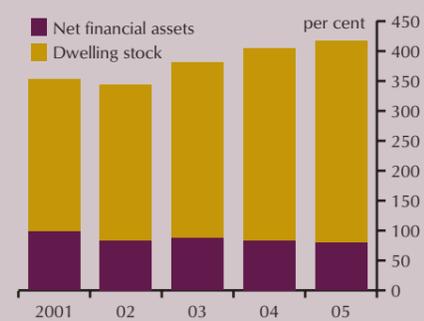
It should be noted that aggregate level data is used in this box and so it does not show that within the household sector the financial position of individual households may vary quite considerably.

¹The financial balance sheet presents the financial assets and liabilities of the household sector. Financial assets and liabilities are made up of currency and deposits, securities other than shares, loans, shares and other equity, insurance technical reserves and other accounts. A non-financial balance sheet is not part of the accounts. This means that the value of housing owned by the household sector, which is the main non-financial asset of the household sector, is not included in the accounts.

²The value of dwellings (housing assets) is sourced from Kelly, J., M. Cussen and G. Phelan, (2007), "The Net Worth of Irish Households – An Update", *Quarterly Bulletin*, CBFSAI, No. 3, pp. 109-122.

³For a more detailed analysis of the financial position of the household sector and the data contained in the Institutional Sector Accounts see Kelly, J., M. Cussen and G. Phelan, (2007), "The Net Worth of Irish Households – An Update", *Quarterly Bulletin*, CBFSAI, No. 3, pp. 109-122.

Chart 4 : Household Sector Total Net Assets as a % of GDP



Source: CSO and CBFSAI
Note: Total net assets are made up of household net financial assets and an estimate of the value of dwellings held by households. It can be thought of as a proxy for household "net worth".

— Asset Side of the Balance Sheet

The gross indebtedness data do not reflect the overall financial position of the household sector because no adjustment has been made for the significant value of households' assets. The data from institutional sector accounts – essentially the household sector's financial balance sheet – indicate that the net financial assets of the household sector amounted to approximately €130 billion in 2005. This excludes the gross value of dwellings which can be added to the households' net financial assets to obtain a proxy for the sector's net worth. When the value of dwellings is included, the data suggest that the household sector enjoys a healthy net worth position (418 per cent of GDP) (Chart 23). However, there are two important caveats to these aggregate figures. First, it is considered unlikely that heavily indebted households are the same households that have significant net worth. Second, the definition of net worth used above is a broad measure and includes possibly illiquid assets such as the value of dwellings. (Box D provides a more in-depth look at the financial position of the household sector.)

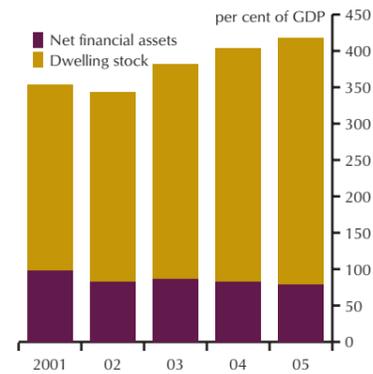
A breakdown of the household sector's financial balance sheet shows that loans make up practically all of its financial liabilities – approximately 98 per cent (Chart 24). On the asset side, 'insurance technical reserves'⁸ are the main component (41 per cent) with currency and deposits (30 per cent) and shares and other equity (27 per cent) also accounting for significant portions.

— Affordability

Since December 2005, the ECB has raised the main refinancing rate from 2 per cent to 4 per cent. This has occurred through eight 25 basis point increases. As the majority of household debt is held at variable rates, most mortgaged households are likely to have experienced increases in their debt repayments over this time. In 2007Q2, 76.4 per cent of outstanding mortgage credit was held at variable rates (Charts 25 and 26). This share peaked in late-2005 (85.8 per cent) and has been declining since. In the intervening period

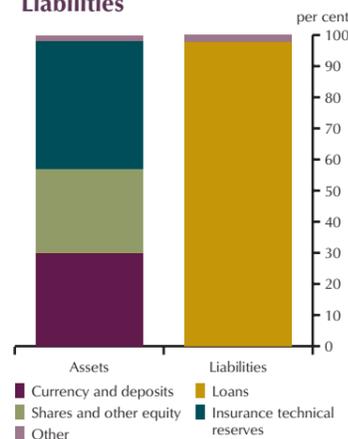
⁸ 'Insurance technical reserves' covers the net equity of households in life insurance and pension fund reserves, together with prepayments of insurance premiums and reserves for outstanding claims.

Chart 23: Household Net Worth



Source: CSO and CBFSAI calculations
Note: The value of the dwelling stock (housing assets) has been sourced from Kelly, Cussen & Phelan, CBFSAI Quarterly Bulletin 3, 2007.

Chart 24: Breakdown of Household Sector Financial Assets and Liabilities



Source: CSO
Note: Data is for the year 2005. Other includes gold and SDRs, securities other than shares and other accounts receivable.

Chart 25: Fixed and Variable Rate Mortgages (Stock)

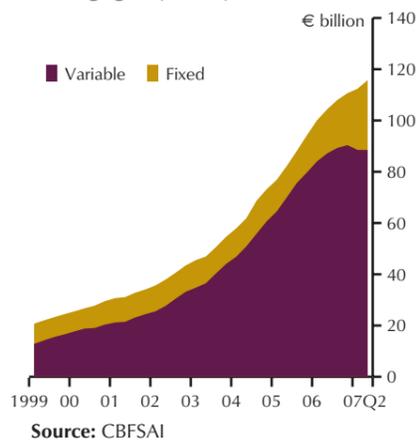


Chart 26: Fixed and Variable Rate Mortgages (New Business)

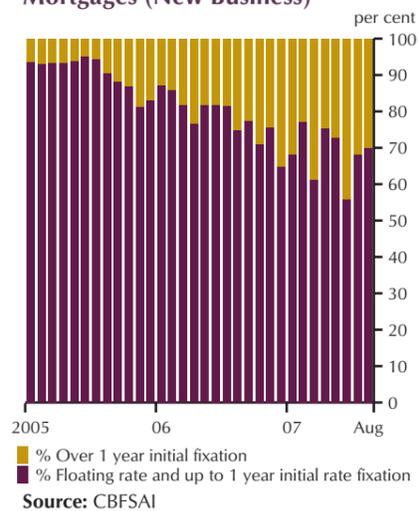
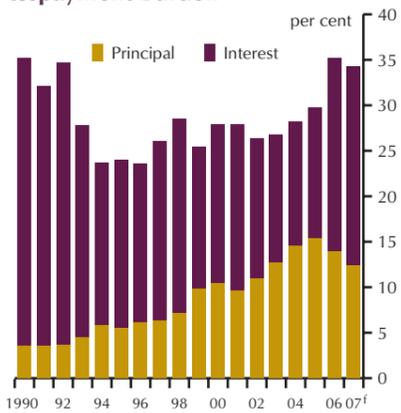


Chart 27: Estimated Mortgage Repayment Burden



Note: Calculated as mortgage repayment as a percentage of average household disposable income.

the slight move away from variable rate mortgages and towards fixed-rate mortgages is likely to have been influenced by the changing interest-rate environment. The greater part of fixed-rate mortgages are held at shorter terms. Over 70 per cent of outstanding fixed-rate mortgage credit is fixed for between 1 and 3 years.

Mortgage repayment burdens have generally increased in recent years (Chart 27); initially, driven by the high rate of houses price inflation, and since late-2005, driven by interest-rate increases. (Box E in this Report reviews in more detail some of the developments in mortgage repayment burdens over the past twelve months.) Robust income growth as well as changes introduced in the last Budget regarding tax bands, tax credits and mortgage interest relief, have worked to reduce repayment burdens somewhat since the last Report. The moderation in house price developments has also eased some of the upward pressure on burdens. Market participants' expectations of future interest rates have been affected by market turbulence and these seem to amount to a postponement of the expected date of any future increases or a view that the top of the cycle might be lower than was expected six months ago (Chart 28).

While interest-rate increases will have impacted on variable-rate mortgages and on the rates offered on new mortgages, the impact on repayments will tend to vary across mortgages. Other things being equal, a rise in interest rates will increase the repayment on a newer mortgage by more than the repayment on an older mortgage. This is illustrated in Table 4 where it can be seen that the effect of the interest-rate increase on the mortgage repayment declines successively each year. Thus it is those households with newer mortgages that are likely to have been affected most by the interest-rate increases since late-2005. Since the majority of mortgage debt held is at variable rates and since over a quarter of households where the dwelling is owner occupied with a loan or mortgage have been built since 2001⁹, there is likely to be a proportion of households who have seen large increases in their mortgage repayments. It should be noted however that not all households hold mortgage debt.

Table 4: Effect of Interest-Rate Increase on Mortgage Repayments

Year ^a	Increase in annual repayment ^b
2007 (June)	€470
2006	€465
2005	€395
2004	€345
2003	€300
2000	€288
1998	€115
1996	€65

^a Refers to the year when mortgage was taken out.

^b Refers to the increase in the annual mortgage repayment due to a 25 basis point increase in mortgage rates.

Note: The increase in mortgage repayments is for illustrative purposes. The repayments are based on the average national house price as of December in each year. A 90 per cent loan-to-value ratio and a mortgage term of 20 years have been assumed.

⁹ CSO Census 2006.

Box E: Households' Mortgage Repayment Burdens

This Box discusses some of the factors that have impacted on mortgage affordability recently and looks at what the various mortgage affordability indicators (repayment burdens) are saying about the trends in affordability. Mortgage repayment burdens are a useful indicator of how households are coping with repayments. The increases in house prices, average mortgage values and household indebtedness that have occurred over a number of years have directed attention to the issue of mortgage affordability. More recently, the pick-up in interest rates over the last 2 years, albeit from a very low level, has further focussed attention on the issue. Several institutions, including Bank of Ireland, EBS/DKM and the Department of the Environment, Heritage and Local Government (DoEHLG) as well as the CBFSAI, now calculate and publish various mortgage repayment burdens.

Mortgage affordability depends on several factors. These include economic factors such as house prices, interest rates and income and contractual factors like the specified mortgage term. Budgetary or governmental factors including tax rates, tax bands, tax credits and mortgage interest relief can also impact on mortgage affordability through their effects on households' disposable income.

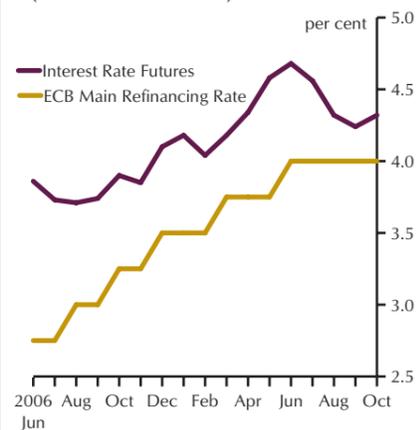
The effect of changes in interest rates and house prices on repayment burdens is relatively straightforward. Other things being unchanged, an **increase/decrease in house prices or interest rates** tends to increase/decrease the repayment burden. **Changes in income** work in the opposite way with an increase in income tending to reduce the burden and *vice versa*. **The mortgage term** impacts on the initial repayment burden as it determines the timeframe over which the mortgage principal is repaid. Increasing the mortgage term, then, has the effect of reducing the initial burden as the principal repayments are spread over a longer time period. **Budget factors** impact on affordability through income. Other things unchanged, an increase in tax bands or credits will increase household disposable income. An increase in mortgage interest relief works in a similar way.

In terms of the developments over the last year or so, interest rates have picked-up further since the Financial Stability Report 2006, continuing the upward trend which began in December 2005. The ECB has increased the main refinancing rate by 200bps – in eight 25bps increases – since December 2005. Each 25bps increase adds approximately €35 to each monthly repayment on a mortgage of €250,000¹. In terms of house prices, there has been a significant shift in the rate of house price appreciation. House prices have been declining slightly since mid-2006; over the year to date the fall is approximately 3½ per cent. The slowing housing market has tended to improve affordability by reducing repayments.

The other factors mentioned – income, mortgage terms and budget changes – have also developed in a way that, other things being unchanged, would have improved affordability. In recent years, incomes have grown as the economy has performed well. Growth in household disposable income averaged in the region of 9 per cent per annum between 2000 and 2005, while the average industrial wage increased by over 5 per cent in 2006. Average mortgage terms today are somewhat longer than in the past as, over recent years, new mortgage holders have attempted to reduce the initial repayment burden by spreading their principal repayments over a longer term. Mortgage terms of 30, 35 or even 40 years are no longer a rarity. Measures introduced in Budget 2007 increased tax credits and bands and doubled mortgage interest relief. These changes benefited mortgage holders as they boosted disposable incomes.

The developments in the factors that effect mortgage affordability are shown in a EBS/DKM affordability index. EBS/DKM put the repayment burden for national first-time buyers² at 21.6 per cent of disposable income as of December 2005 (Table 1), while the repayment burden faced by a Dublin first-time buyer was 25.7 per cent. These repayment burdens increased to 26.4 per cent and 32.5 per cent, respectively, by December 2006, as positive house price growth and interest-rate increases put

Chart 28: Interest Rate Futures (3-month contract)



Source: Bloomberg

Note: Data are for the evolution of market expectations for market interest rates in September 2008, as of end-October 2007.

upward pressure on repayments. The impact of the budget changes is shown by the fall in both the EBS/DKM national and Dublin indices in January 2007, to 24.4 per cent and 29.5 per cent, respectively. Since then, the indices have been relatively stable with the month-on-month declines in house prices helping to offset the interest rate increases of March and June and thereby helping to maintain affordability.

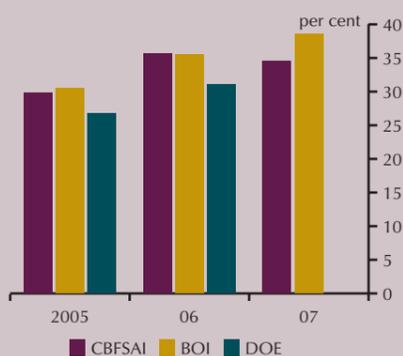
Table 1: EBS/DKM Housing Affordability Trends (September 2007)

	2005		2006		2007	
	December	June	December	January	July	September
	Actual	Actual	Actual	Actual	Estimate	
National Index						
Repayment as % of net income	21.6	23.7	26.4	24.4	24.0	24.2
Dublin Index						
Repayment as % of net income	25.7	28.7	32.5	29.5	29.6	30.0

Source: EBS Building Society and DKM economic consultants

Note: EBS/DKM had factored in an additional interest-rate increase when estimating the repayment burden for September. This rate increase did not in fact occur. Therefore the actual repayment burden for September may be somewhat lower than the estimate shown.

Chart 1: Mortgage Repayment Burdens



Source: CBFSAI, Bank of Ireland and Department of the Environment, Heritage and Local Government

By calculating a monthly index the EBS/DKM repayment burden captures the effects of these changes on an ongoing basis. In contrast, the indices published by Bank of Ireland, the DoEHLG and the CBFSAI are annual and so do not capture the impact of changes on a monthly basis but the overall impact on affordability over the course of the year. In its 'Irish Property Review' (August 2007), Bank of Ireland put the 2006 mortgage repayment burden at 35.5 per cent (30.5 per cent in 2005) (Chart 1). It also forecasts that the burden will increase further during the year, putting the 2007 burden at above 38 per cent. The repayment burden reported in the main text of this Report also puts the 2006 burden at approximately 35 per cent. However, in this case the repayment burden is expected to remain at a similar level, perhaps even decrease marginally, in 2007. The DoEHLG put the burden at 31 per cent in 2006.

While the underlying premise for each of the affordability indices is to calculate the percentage of income that goes towards mortgage repayments, it can be seen that there are differences regarding the level of the burden across series. These differences are due to the specific underlying assumptions and calculations used in each index. For example, the CBFSAI calculate the mortgage repayment burden as the percentage of average household disposable income spent on the mortgage repayment associated with buying a new house. The repayment is based on a 20-year mortgage term and a 90 per cent loan-to-value ratio. Bank of Ireland calculates the annual cost of servicing a new 25-year mortgage relative to average pay per employee. The EBS/DKM affordability index measures the proportion of net income, required by an average working couple, to fund a first-time buyer mortgage on an average house. It calculates both a Dublin and a national index based on the price of a new house, 90 per cent loan-to-value ratio and 25-year mortgage term. The DoEHLG index is based on a two-earner household taking on a 20-year mortgage.

In general, however, repayment burdens have been seen to increase up to 2006. However, with current developments in the housing market and income growth tending to improve affordability and offset the effects of interest-rate increases earlier in 2007, repayment burdens are likely to remain relatively stable, possibly even decrease slightly, in 2007. (See Box B for scenario analysis relating to mortgage repayment burdens.)

¹EBS/DKM Affordability Index, June 2007.

²EBS/DKM calculate their national affordability index based on a two income household, both of whom earn the average industrial wage, taking on a mortgage with a 90 per cent loan-to-value ratio over 25 years. Pay increases under the national pay agreement, Towards 2016, have been taken into account.

Data from Census 2006 put the proportion of private dwellings, which are owner occupied with a loan or mortgage, at 39 per cent. A further 34 per cent of dwellings are owner occupied without a loan or mortgage while 10 per cent of dwellings are privately rented.¹⁰

There are, as of yet, no real signs of widespread repayment problems in terms of arrears, as the rate of non-performing assets on mortgage credit has picked up only slightly over the last year or so. This slight increase in non-performing mortgages has occurred from the historical lows in recent years and the level remains relatively low¹¹. A 2007 ESRI/IIB survey¹² found that the proportion of respondents finding their mortgage debt repayments a heavy burden increased marginally in recent years, reaching 18 per cent in 2007. The proportion of respondents finding their unsecured debt a heavy burden remained unchanged in 2007. Another recent survey published by the IBF¹³ finds a similar proportion of first-time buyers (16 per cent) reporting it either difficult or very difficult to meet their mortgage repayments. Data from the Examiners Office of the High Court relating to personal insolvency in Ireland show bankruptcy to be a very rare occurrence. In 2006, only eight people were adjudicated bankrupt, and there has been no evidence of a general upward trend in the number of bankruptcies in recent years despite the increase in the level of household indebtedness. The fact that there are no firm indications so far of a significantly higher level of mortgage arrears recorded by the banking system does not preclude the possibility that repayment difficulties are increasing for households and could be manifesting themselves in different ways – for instance, in terms of rescheduling repayments or a greater incidence of arrears in other areas such as utility bills. (Box F looks further at the issue of financial stress in Irish households.)

– Savings

The household savings rate declined to 5 per cent in 2006, having remained relatively stable at around 7.5 per cent in previous years (Chart 29). This fall has been attributed to a higher level of taxes and a reduction in subsidies (agricultural) to the household sector. A look at household savings rates in a sample of European countries shows France and Italy to have relatively high savings rates at almost 12 per cent while Finland are at the opposite end of the scale with a negative savings rate (Chart 30).

2.3.2 Risks to the Household Sector

The key risks arising in the household sector relate to the level of indebtedness and repayment burdens. Households' indebtedness continues to increase, but at a slower rate, and average repayment burdens have stabilised since the last Report. The greater part of both the stock of existing, and flow of new, mortgage debt is at variable rates and, accordingly, the household sector bears the interest-rate risk. However, the key mitigating factors for the household sector, in aggregate, are a positive outlook for the labour market as well as the sector's healthy net worth position.

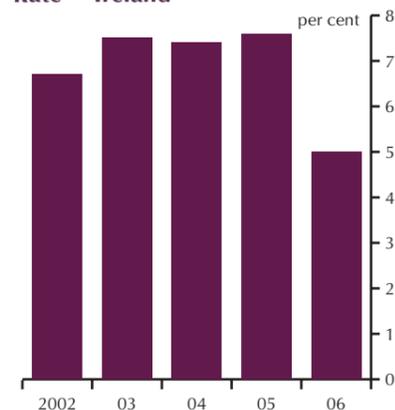
¹⁰ Dwellings being purchased from a local authority, rented from a local authority or voluntary body, owned free of rent or where the nature of occupancy is not stated account for the remaining 17 per cent.

¹¹ Furthermore, the change to IFRS reporting has resulted in some technical changes to the definitions of non-performing assets which might have resulted in non-performing assets increasing.

¹² Irish Household Finances Survey 2007, October 2007.

¹³ IBF/Amárach First-Time Buyer Survey October 2007.

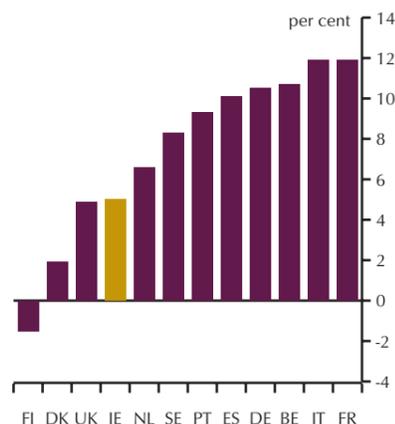
Chart 29: Personal Savings Rate – Ireland



Source: CSO – Institutional Sector Accounts 2006

Note: Savings rate is calculated as household sector net savings as a percentage of household sector's net disposable income.

Chart 30: Personal Savings Rate – European Comparison 2006



Source: OECD & CSO Institutional Sector Accounts 2006

Note: Data for all countries except Ireland from OECD.

Box F: Financial Stress in Irish Households

Household indebtedness in Ireland has increased dramatically over the last decade or so. More recently, interest rates have also begun to increase, with the ECB doubling its main refinancing rate from 2 per cent to 4 per cent since December 2005. This Box looks at whether there is evidence that these developments have led to an increase in the level of financial stress among Irish households. Data from the Irish Survey on Income and Living Conditions (SILC) is used to ascertain if the proportion of households reporting financial stress has increased. For the analysis in this Box, a household is considered to experience financial stress if it reports falling into arrears on its debt repayments in the 12 months prior to the survey.

Given that, from a financial-stability perspective, we are particularly interested in links between households and banks, attention is focused on those households which hold mortgage debt. Mortgages provide the most sizeable links between households and banks and, therefore, could potentially have the most impact on financial stability.

For the sub-sample of households that hold mortgage debt, the data show that 6.5 per cent of households reported some form of financial stress in 2005 – a similar level to 2004 and 2003. Failing to meet scheduled utility payments (4.3 per cent) was the most common form of financial stress experienced in 2005 followed by falling into arrears on mortgage payments (3.8 per cent). Kearns (2003) reported that approximately 5 per cent of mortgaged households experienced arrears on their mortgage repayments for the years 1996, 1997 and 1998. The level was somewhat higher in 1994 and 1995 at a little over 9 per cent and 6 per cent, respectively.¹ This would suggest that the proportion of households experiencing financial stress has not increased significantly from the level seen in the mid- to late-1990s, despite the increase in household sector indebtedness that has occurred over this time.

If one looks at how household composition and income affect the incidence of financial stress across households, single parent households are the most likely to experience financial stress (Table 1), while households with the lowest incomes report the highest level of financial stress (Table 2). As expected, as income increases the proportion of households experiencing financial stress decreases.

Table 1: Proportion of Households Experiencing Financial Stress by Household Composition – 2005

%	Mortgage repayments	Other debt repayments	Utility bills
Household Type			
Adults, no children	4.7	1.8	3.6
Single adult with children	6.1	7.1	21.4
Couple with 1-3 children	2.4	0.9	4.4
Other households with children	4.3	1.0	3.5

Source: SILC and CBFSAI calculations.

Notes: Based on sample of households with mortgage debt. Data are for 2005.

Table 2: Proportion of Households Experiencing Financial Stress by Income Quintile – 2005

%	Mortgage repayments	Other debt repayments	Utility bills
Income Quintile			
Quintile 1	10.3	5.5	9.9
Quintile 2	3.8	1.4	8.0
Quintile 3	1.8	0	1.9
Quintile 4	2.0	0.6	1.3
Quintile 5	1.7	0	0.7

Source: SILC and CBFSAI calculations.

Notes: Based on sample of households with mortgage debt. Data are for 2005.

The SILC has a longitudinal element to it (i.e., some households are surveyed in each year), which allows for the tracking of some households across time. Of those households that were interviewed in both 2004 and 2005, 4.3 per cent reported falling into arrears on mortgage repayments in 2004. This had fallen to 3.6 per cent in 2005. Some level of persistence is seen in the data, with 36 per cent of those households which reported financial stress on their mortgage repayments in 2004 also doing so in 2005. Of those households which reported a failure to meet their mortgage repayments in the 2005 survey, over 60 per cent had already reported some form of financial stress in 2004.

One drawback of the SILC data is that it does not contain information on how much debt households hold. Therefore, although it can be seen that single parent households and/or those households with the lowest income are most likely to fall into arrears, it cannot be determined what proportion of debt they hold.

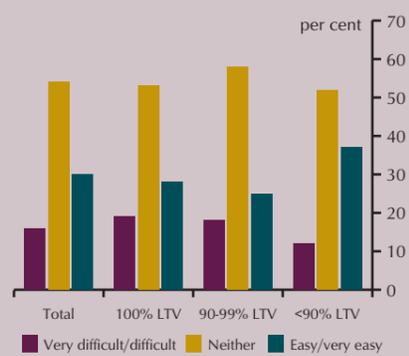
A further drawback to the SILC data is timeliness, with 2005 being the latest available dataset. Other sources of information, however, can be used to bring the analysis more up to date. In a recent survey² of first-time buyers, 16 per cent reported finding it either very difficult or difficult to meet their mortgage repayments (Chart 1). There was some slight variation across loan-to-value (LTV) ratios with almost one-fifth of those with 100 per cent mortgages finding it difficult or very difficult, as opposed to 12 per cent of first-time buyers who had an LTV of less than 90 per cent. A 2007 ESRI/IIB³ survey on household debt in Ireland found a similar proportion of people reporting that their mortgage repayment burdens were a heavy burden, 18 per cent in 2007 and 16 per cent in 2006 (Chart 2). In both surveys a sizeable proportion of people did not feel their mortgage repayments imposed a burden on them.

CBFSAI data show that the level of non-performing assets on residential mortgage credit has picked-up somewhat since mid-2005.⁴ Prior to this, the level of non-performing assets had been declining since 2003. This might suggest that interest-rate increases are having an impact on the ability of some households to meet their mortgage repayments on time. The level of non-performing assets is now at a similar level to early-2003.

Overall data from the SILC do not suggest that, as of 2005, the proportion of households experiencing financial stress had increased from previous years, despite the increase in household sector indebtedness. More recent CBFSAI data, however, suggest that the interest-rate increases since late-2005 may be impacting on households. While the current rate of non-performing assets is not exceptional it may suggest that interest rates are having an affect on some households' ability to meet their debt repayments. This raises the concern that households may come under increasing financial strain if interest rates were to increase further from present levels.

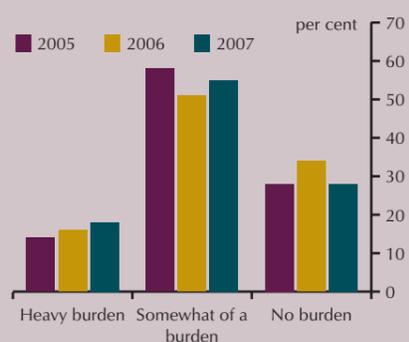
¹Kearns A., (2003), "Mortgage Arrears in the 1990s: Lessons for Today", *Quarterly Bulletin*, CBFSAI, Autumn. Kearns uses data from the European Community Household Panel Survey (ECHP). The SILC was introduced for the first time in 2003 and replaced the ECHP.
²IBF/Amárach First-Time Buyer Survey, October 2007.
³Irish Household Finances Survey 2007, October 2007.
⁴Data are based on a sample of credit institutions.

Chart 1: Ease of Making Mortgage Repayments



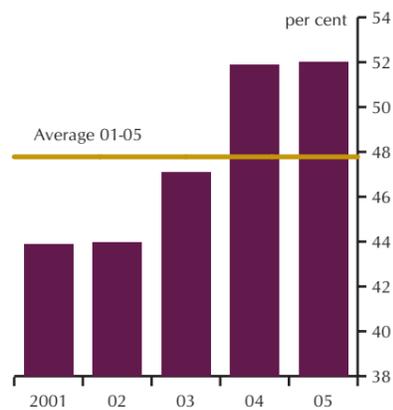
Source: IBF/Amárach First-Time Buyer Survey, October 2007

Chart 2: Mortgage Repayments



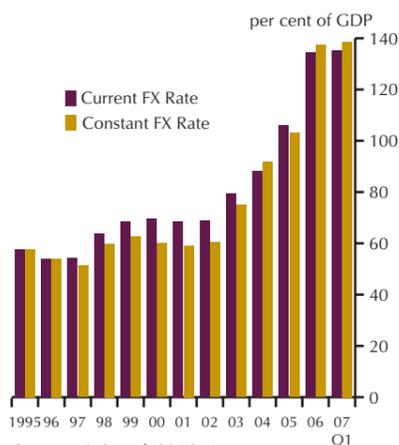
Source: ESRI/IIB

Chart 31: Debt-to-Assets Ratio of Irish NFCs



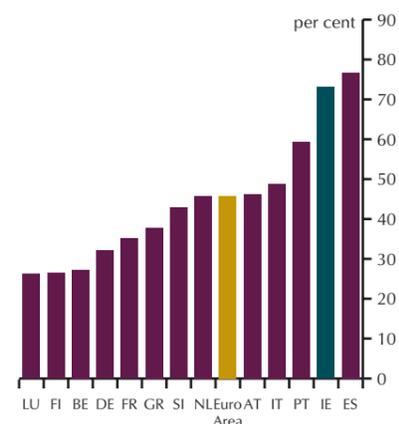
Source: CSO and CBFSAI calculations

Chart 32: Total Corporate Indebtedness



Source: BIS and CBFSAI

Chart 33: Loans to Non-Financial Corporates as a Percentage of GDP – 2006



Source: ECB, Eurostat and CBFSAI calculations

2.4 Non-Financial Corporate Sector

2.4.1 Indebtedness

The indebtedness of the NFC sector has increased in recent years. Aggregate indebtedness, where debt includes bank debt and securities other than shares, increased from 44 per cent of firms' assets in 2001 to 52 per cent in 2005 (Chart 31).

Concentrating on bank loans, corporate-sector indebtedness can be proxied by total corporate sector bank debt as a percentage of GDP. Bank debt increased to 139 per cent of GDP in 2007Q1, from approximately 103 per cent in 2005 (Chart 32). This represents a 32 per cent increase in the ratio and marks a continuation of the trend of strong growth in corporate indebtedness that has been apparent since 2003. In the four-year period from 2003 to 2006, the year-on-year increase in the corporate sector debt-to-GDP ratio averaged 23 per cent.

Total bank debt is a measure of borrowing from both resident and non-resident credit institutions. Focusing on resident institutions only, corporate indebtedness increased to 76 per cent of GDP in 2007Q2 (Chart 33). In 2005, the ratio was 57 per cent. Ireland's NFC sector remains highly indebted by European standards. In 2005, Ireland was the third most indebted European NFC sector when measured by debt to GDP, after Spain and Portugal. By end-2006, it is estimated that Ireland was the second most indebted after Spain (76.7 per cent), having leapfrogged Portugal (59.2 per cent). The average level of corporate indebtedness in the euro area was 45.8 per cent in 2006, just over 60 per cent of the Irish level of indebtedness.

As has been the case in recent years, NFC borrowings grew faster than the sector's holdings of deposits in 2006. Measured as loans less deposits, net corporate indebtedness increased to 55.2 per cent of GDP in 2007Q2 from 35 per cent in 2005. Net indebtedness is now more than two-thirds the level of gross indebtedness. In the late-1990s this figure was one-third. The ratio of borrowings to deposits also illustrates their relative growth (Chart 34). In 2007Q2, borrowings were 3.7 times the level of deposits, compared with 1.4 in the late-1990s.

2.4.2 Credit Growth

Credit growth to NFCs has been increasing strongly in recent years, following a period of falling growth in the early-2000s. Since credit growth began to pick-up in 2003, average year-on-year growth in lending to the corporate sector has been approximately 28 per cent. In 2007Q2, year-on-year credit growth was 30.8 per cent (Chart 35). Though this figure remains high, it marks a slowdown in the rate by comparison with 2006Q2, when growth peaked at almost 40 per cent.

The commercial property sector continues to be the fastest growing sub-sector in terms of credit growth. However, there has been a marked slowdown in growth to this sector. In 2006Q2 lending growth to this sector was 60.5 per cent. At end-2006, growth was 53.1 per cent, and in 2007Q2 growth was 42 per cent. Despite this slowdown in credit growth, commercial property-related lending continues to drive loan growth to NFCs. In 2007Q2,

the commercial property-related sector accounted for approximately 85 per cent of the growth in NFC lending (Chart 36). As a result, commercial property-related lending continues to increase as a share of the banking sector's overall loan book, accounting for over 67 per cent of lending to NFCs in 2007Q2 (Chart 37).

There has been a wide variation in the pattern of credit growth across the other NFC sectors. The wholesale, retail, hotels and restaurants sector, which accounts for almost 16 per cent of loans to NFCs, has experienced a slowdown in growth in recent years. Growth in lending to this sector halved in 2006 to 15 per cent from 30 per cent in 2005. This trend appears to be continuing with an increase of 11.4 per cent in the twelve months to 2007Q2. In contrast, there has been a pick-up in lending growth to manufacturing, which accounts for 5.7 per cent of overall lending to NFCs. Growth in lending to this sector was 28.9 per cent year-on-year in 2007Q2.

Both the short-term finance lending rate (less than 1 year) and the longer-term finance lending rate (over 5 years) increased in the twelve months to August 2007. The long-term rate increased marginally less during this period, increasing the spread. In terms of outstanding loan volumes, the relative importance of long- and short-term finance has remained relatively unchanged. Short-term finance (up to 1 year original maturity) accounted for 29.1 per cent of loans in August 2007, compared with 29.7 per cent in August 2006. In August 2007 and August 2006, longer-term finance (over 5 years to original maturity) accounted for 37.7 per cent and 41.2 per cent of loans, respectively¹⁴.

2.4.3 Realised Credit Risks related to the Corporate Sector

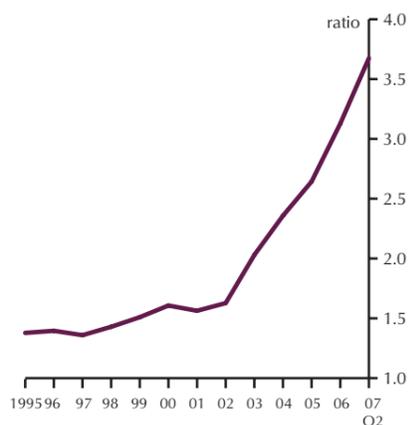
Realised credit risks in the corporate sector continue to be at a historically low level. The annualised rate of liquidations involving potentially insolvent firms was 0.22 per cent of all companies, the same as the 2006 rate, and below the long-run average of 0.37 per cent (Chart 38). The share of liquidations accounted for by potentially insolvent firms is forecast at approximately 26 per cent of all liquidations for 2007, significantly below the long-run average of 55.4 per cent. In 2006, this figure was 27.6 per cent.

The repayment burden, calculated as interest to net-operating income, is a measure of the financial pressure on firms in meeting their interest repayments on debt held. New data, available from 2002 to 2006 in the CSO's Institutional Sector Accounts, enables an estimate of the repayment burden of Irish NFCs to be calculated. The repayment burden has been increasing over time, and in 2006 it was 12.7 per cent.

Data from a sample of firms are used to calculate 'debt at risk', a measure of the proportion of debt held by firms with relatively higher probabilities of default. Three indicators are used to identify firms with a relatively high probability of default: those in the lowest 20 per cent of the sample for profitability and liquidity and the highest 20 per cent for gearing. 'Debt at risk' is calculated as the debt held by those firms that have two or more indicators coinciding (e.g., high gearing and low profitability). In 2005, 14.4 per cent of firms were in this category. These firms accounted for 27.9 per cent of the

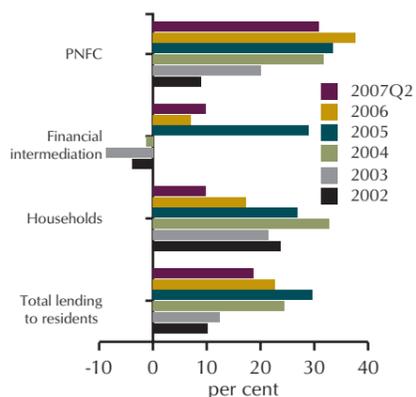
¹⁴ The remainder of outstanding loans are over 1 year and up to 5 years original maturity.

Chart 34: Ratio of Corporate Bank Loans to Corporate Deposits



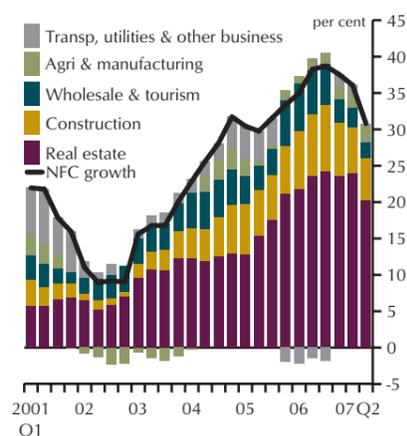
Source: CBFSAI

Chart 35: Sectoral Lending Growth



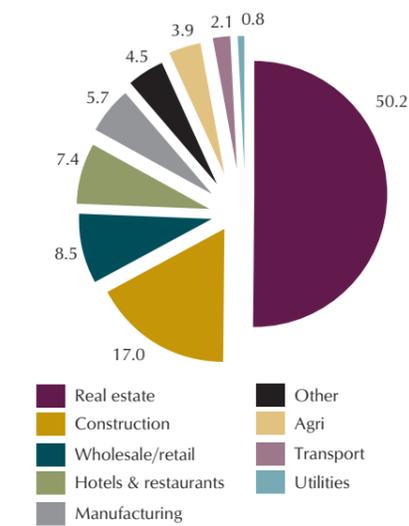
Source: CBFSAI

Chart 36: Sectoral Contribution to NFC Lending Growth



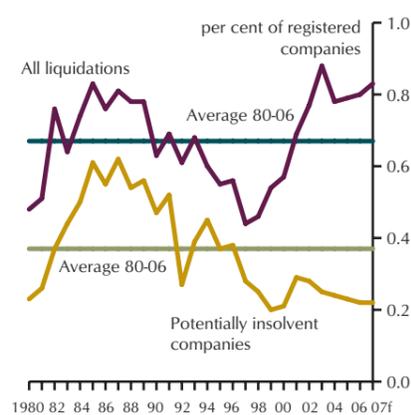
Source: CBFSAI

Chart 37: Sectoral Distribution of Advances to NFCs – 2007 Q2



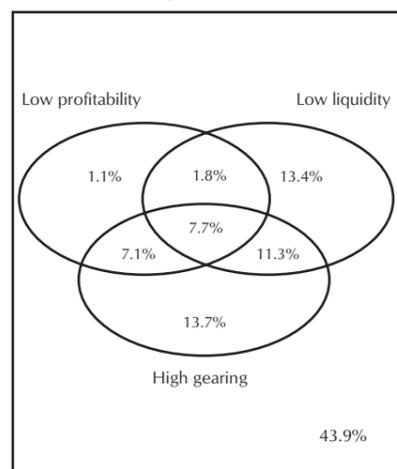
Source: CBFSAI

Chart 38: Liquidations Rate



Source: Department of Enterprise, Trade and Employment and CBFSAI calculations

Chart 39: Corporate Debt at Risk



Source: Bureau van Dijk and CBFSAI calculations

total debt outstanding. The firms with three indicators coinciding (high gearing, low profitability and low liquidity), and therefore which might be considered to be most vulnerable to incur debt problems, accounted for 7.7 per cent of the debt (Chart 39).

2.4.4 Financial Position

Firm-level data provide information on profitability, liquidity and gearing which is used to assess the financial position of Irish NFCs. Preliminary results for 2006 are based on a small sample of NFCs.

The data in Table 5 summarise financial position indicators for the Irish corporate sector. Capital gearing, i.e., the ratio of long-term liabilities and short-term loans and overdrafts to shareholders' funds, is a measure of the indebtedness of companies. Preliminary results suggest that the gearing of the Irish corporate sector decreased slightly in 2006 to 62.3 per cent, from 63.7 per cent in 2005. The gearing level remains below the 5-year average of 69.5 per cent. The ability of firms to meet their debt repayments is indicated by their liquidity levels. Higher liquidity levels insulate firms somewhat from risks associated with higher debt levels. Liquidity levels have been increasing in recent years, and this trend continued in 2006, with the liquidity ratio at 1.43. Profitability increased in 2006 to 12.5 per cent. This marks a continuation of the trend of increasing profitability that has been evident since 2003.

Table 5: Financial Position of Irish NFCs

	Gearing ^a	Liquidity ^b	Profitability ^c
2006	62.3	1.43	12.50
2005	63.7	1.34	11.05
2004	68.2	1.31	10.74
2003	74.2	1.29	9.35
2002	72.0	1.25	9.89
2001	69.2	1.29	10.72
Average 2001-2005	69.5	1.30	10.40

^a Capital gearing = (short-term loans and overdrafts + long-term liabilities)/(shareholders' funds).

^b Liquidity ratio = (current assets/current liabilities). Current assets include trade debtors, stock, work in progress capital, deposits and group loans, and other current assets. Current liabilities include trade creditors, short-term loans and overdrafts, and other current liabilities.

^c Profitability is measured by the return on capital. Return on capital = profit (loss) before tax/(total assets – current liabilities).

Source: Bureau van Dijk and CBFSAI calculations

Other indicators of the corporate sector's financial position are provided by aggregate sales and output data. Provisional figures for the volume of retail sales show an increase of 7.3 per cent year-on-year in July 2007. In July 2006, the volume of sales rose by 6.5 per cent. Provisional figures show overall industrial production decreased by 1.44 per cent year-on-year in 2007Q2. This reduction was apparently driven by a fall in the production of intermediate goods. However, production of both capital and consumer goods increased in 2007Q2, by 3.5 per cent and 11.25 per cent, respectively.

2.4.5 Forward-Looking Indicators

Business confidence has increased in recent months, having decreased somewhat through mid- to late-2006 and into the first half of 2007. Despite this increase in confidence, Irish sentiment has fallen somewhat behind euro

area sentiment since mid-2006. Aggregate sectoral sentiment indicators show that confidence in the construction sector has declined since 2006, with more firms expressing negative rather than positive sentiment¹⁵ (Chart 40). In the retail trade¹⁶ and industrial¹⁷ sectors it appears sentiment remained largely unchanged since mid-2006.

2.4.6 Risks to the Non-Financial Corporate Sector

Recent concerns relating to NFCs have arisen largely from the high rate of growth in lending to the corporate sector. In particular, the strong increases in lending to the commercial property-related sector have been of concern. While remaining high, recent developments suggest that a slowdown is occurring in the growth of lending to both the NFC sector as a whole and the commercial property sub-sector, easing concerns somewhat. Any risks associated with high lending growth are further mitigated by the continued low rate of realised credit risk from the corporate sector and the seemingly robust state of its financial position.

2.5 Banking Sector

2.5.1 Irish Banking System

The Irish banking system consists of a diverse range of credit institutions. In general, these credit institutions can be grouped into two categories. First, there are credit institutions that have significant interaction with the domestic economy through deposit-taking activities and the granting of credit. Second, there are internationally-orientated credit institutions that, while located in Ireland, conduct the majority of their business internationally and have limited direct exposure to the Irish economy.¹⁸ The focus in these sections is on the group of credit institutions with significant links to the Irish economy.

— Developments in the Irish Banking Sector

The domestic banking sector continues to expand robustly; measured by total assets, the sector's size increased by 24.5 per cent in 2006 (Chart 41). This compares with a rate of 30.2 per cent in 2005. Data available for the second quarter of 2007 suggest the rate of increase has continued to moderate (19.4 per cent). However, the current rate of asset growth remains robust when compared with the banking sectors of other Monetary Union members (Chart 42).

The growth rate in banks' total assets can be categorised by counterparty. Assets *vis-à-vis* resident counterparties currently account for 51.4 per cent of the Irish banking sector's total assets. Asset growth *vis-à-vis* these counterparties increased by 15 per cent in the second quarter of 2007. This rate of increase has declined significantly since the end of 2005 (28.1 per cent). Asset growth *vis-à-vis* the non-resident counterparties saw a similar

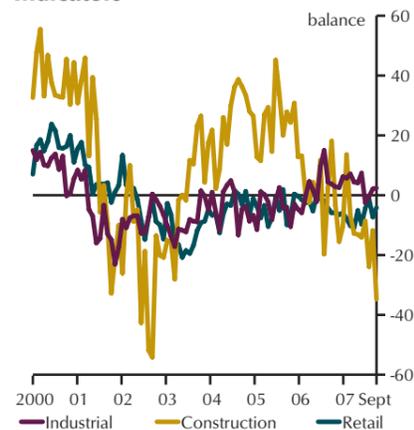
¹⁵ The construction confidence indicator is a composite measure of building firms' assessment of order books and employment expectations for the months ahead.

¹⁶ The retail trade confidence indicator is a composite of retail business assessment of business activity over recent months and of the expected business situation.

¹⁷ The industrial confidence indicator is a composite of industrial business assessment of order-book levels, stocks of finished products and production trends observed in recent months.

¹⁸ For further information on the classifications of banks into the domestic and foreign categories, see Box F: IFSC Banks' Links to the Irish Financial System in the *Financial Stability Report 2006*, CBFSAI.

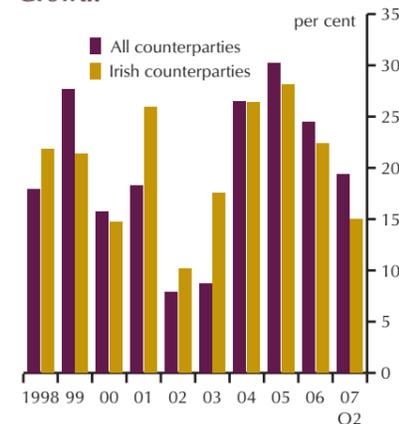
Chart 40: Irish Sectoral Sentiment Indicators



Source: Eurostat

Note: A positive index means more firms have positive than negative sentiment about a sector.

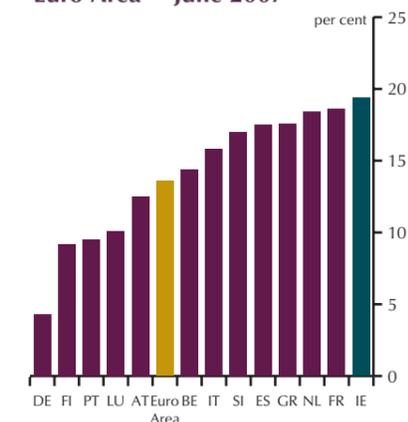
Chart 41: Banking System Asset Growth



Source: CBFSAI

Note: 'All counterparties' is Irish and rest of world counterparties.

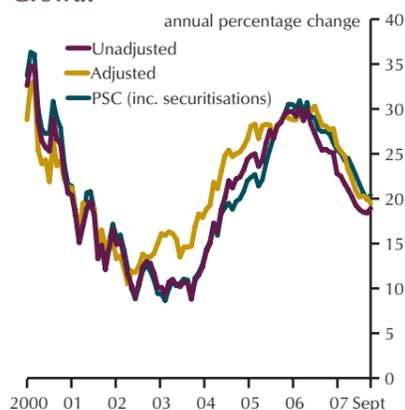
Chart 42: Assets Growth in the Euro Area — June 2007



Source: ECB and CBFSAI

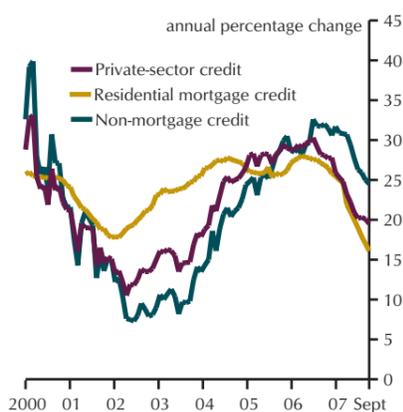
Note: The growth rate for Ireland is based on a sample of domestic institutions.

Chart 43: Private-Sector Credit Growth



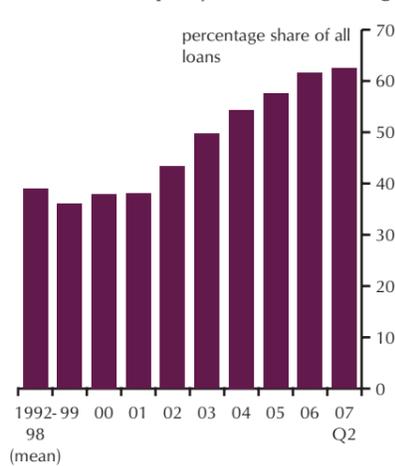
Source: CBFSAI

Chart 44: Underlying Growth Rates of PSC



Source: CBFSAI

Chart 45: Property-Related Lending



Source: CBFSAI

decline – from 33 per cent in 2005 to 24.5 per cent in the second quarter of 2007.

While the growth rate in both categories of assets remain strong, the nature of this business differs by counterparty. An analysis by currency shows that Irish resident assets have expanded, primarily in the form of assets denominated in euro. On the other hand, assets *vis-à-vis* non-domestic counterparties have expanded primarily by way of non-euro currency and with counterparties based outside the euro area. A further decomposition of assets reveals that 85 per cent of assets *vis-à-vis* Irish counterparties consist of loans. This figure is somewhat smaller for non-domestic counterparties (58.3 per cent).

– Lending Growth¹⁹

While lending by the Irish banking system to the domestic economy remained strong in 2006 and into 2007, there has been a downward trend in credit growth. PSC growth has declined from 30.9 per cent in February 2006, the highest rate of credit growth since August 2000, to 25.4 per cent by the end of last year (Chart 43). The moderating trend has continued into 2007 with the annual increases declining to 20.4 per cent in September.

The decline in PSC growth is primarily due to a reduction in the rate of growth of residential mortgage credit (26.9 per cent in September 2006 to 16.1 per cent in September 2007) (Chart 44). Non-mortgage credit growth, which continues to be supported by strong growth from non-financial corporates, also declined in recent months but continues at a high level. The current growth rate is 24.5 per cent (compared with 32 per cent for September 2006).

The rate of increase in credit can be further decomposed into sub-categories of lending. Following a period of increasing credit growth in lending to the NFC sector, data for mid-2007 suggest that the pace of credit growth has declined. The rate of growth in lending to NFCs had increased from just under 30 per cent in the second quarter of 2005 to a peak of 38.7 per cent in September of last year. By the second quarter of 2007, the growth rate had declined to 30.8 per cent. It is difficult to interpret trends in personal-sector credit due to revisions in the underlying data during the course of the year.²⁰ As a result of this reclassification, the increase in personal-sector lending has declined from 26.8 per cent in December 2005 to a current rate of 11 per cent.²¹ While this may be affected by reclassifications, it follows a period of decline in personal-sector credit growth from 29.9 per cent in September 2004 to 26.8 per cent in December 2005. A further breakdown of personal-sector credit shows that housing-related credit growth has also fallen.

The concentration of the Irish banking system's loan book in the broadly defined property sector has increased marginally. Property-related lending, which includes lending for construction and real estate activities as well as

¹⁹ To obtain a more encompassing description of credit growth, this measure of private-sector credit includes securitisations, which traditionally would have been deducted, though it is acknowledged that this may involve some element of double counting. Therefore, historical figures in this section will not correspond to those used in previous Bank publications.

²⁰ The revisions include a transfer of outstanding credit from non-property-related personal lending category to the real estate category.

²¹ These figures are not adjusted for securitisations.

personal housing-related finance, accounted for 74 per cent of the growth in PSC during 2007Q2. As a result of this strong growth, the broad category of property-related lending accounted for over 62 per cent of the banking system's loan book (Chart 45) and this trend looks set to continue, albeit at a slower pace, as the increase in property-related lending continues to exceed the corresponding non-property-related category (Chart 46). Personal housing-related credit accounts for 54 per cent of property-related lending with the remainder accounted for by real estate activities (34 per cent) and construction (11 per cent).

The domestic banking sector has minimal involvement in the Irish subprime residential mortgage market. The Irish market is characterised by limited mainstream banks' involvement in the market, the relatively very small – albeit growing – size of the market and generally modest average loan-to-value ratios.

2.5.2 Financial Conditions²²

– Solvency

The Irish banking sector remains well capitalised; all institutions reported a solvency ratio well in excess of the minimum 8 per cent regulatory requirement – with the majority of banks reporting an increase in both their overall solvency ratios and Tier 1 ratios. The average weighted (the weights used are total assets) solvency ratio was 10.9 per cent for June 2007, an increase from the 2005 figure of 10.6 per cent (Chart 47). The Tier 1 solvency figure has also increased to 8.3 per cent (7.3 per cent in 2005).

– Liquidity

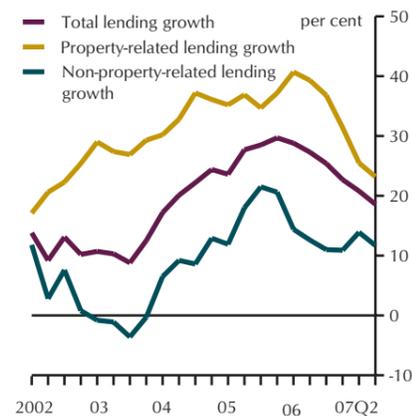
The liquidity position of the Irish banking sector remains above regulatory requirements, with the liquidity ratio remaining broadly unchanged over the last five years. In 2007, the 25 per cent stock requirement was phased out and replaced by a maturity mismatch approach. With effect from 1 July 2007, the new quantitative requirements of the maturity mismatch approach involve credit institutions assigning their cash inflows and outflows to various time bands based on their contractual residual maturity. Limits are assigned to how much outflows can exceed inflows in any one time-band.

– Profitability

The profitability figures reported for 2006 represent the first full year for all banks reporting under the new International Financial Reporting Standards (IFRS) system. While profitability, as measured by the Return on Assets (ROA), has appeared to stabilise, this follows a longer-run downward trend in profitability. The ROA was 1.09 per cent in 2006 compared with 1.08 per cent in 2005 (Chart 48). An examination of the components of the ROA shows that profit margins (operating income before tax and impairment charges over total income) increased between 2005 (52.6 per cent) and 2006 (57.3 per cent) (Chart 49). However, the effect of an increase in profit margins on the ROA was offset by a decline in asset utilisation. Asset utilisation – the ratio of gross income to total income – fell to 1.9 per cent in 2006 from 2.1 per cent in the previous year. The cost-income ratio declined to 46.1 per cent from 46.3 per cent in 2005.

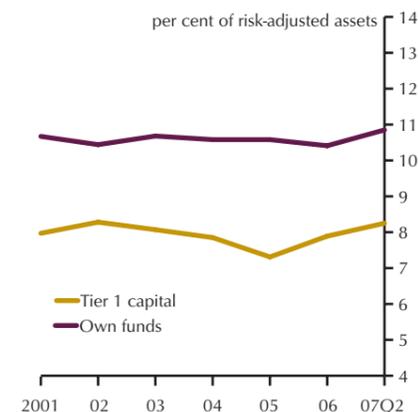
²² See Box G for an overview of financial soundness indicators.

Chart 46: Lending Growth by Sector



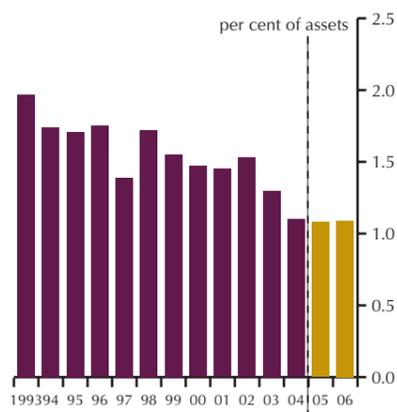
Source: CBFSAI

Chart 47: Solvency



Source: CBFSAI

Chart 48: Return on Assets



Source: Annual financial accounts
Note: 2005 & 2006 figures calculated using IFRS on a weighted average sample of banks.

Box G: Financial Soundness Indicators

Occurrences of financial crises not only have a severe negative impact on the economic activity of the region in which they occur but also on the world's financial markets. The harmful effects of such crises across the globe prompted the International Monetary Fund to develop a set of Financial Soundness Indicators (FSIs) to detect and highlight possible risks to financial stability. The CBFSAI has tailored these measures and outlined a set of FSIs for Ireland, which have been published in Financial Stability Reports since 2004. The aim of this exercise is to monitor the overall health of Ireland's financial system, the strength of its financial institutions and markets and to observe the soundness of the economy's corporate and household sectors, using FSIs.

Table 1 offers a comparison between the FSIs for Ireland for the years ended 2005 and 2006. Included are indicators on the banking system, which seek to measure the sensitivity to market risk of Irish banks, their asset quality, capital adequacy, liquidity, earnings and profitability. Other sections assess the state of non-bank institutions, the corporate sector, households and real estate market. The purpose of monitoring the non-financial sectors is to facilitate early warnings of potential asset quality problems for banks. A selection of macroeconomic variables assessing developments in economic growth, inflation, interest rates and consumption complete the Table. As per IMF guidelines, to assess each indicator we compare its value at the end of the period under investigation to a benchmark, calculated as the variable's mean adjusted by the less favourable standard deviation¹. If the signal registers a 'Yes' value in the Table it has breached its threshold level and is said to signal vulnerability in the financial system. A 'No' value indicates that the signal is operating inside its threshold level and at present is not a cause of concern.² However, these indicators are also assessed subjectively because the benchmark levels depend on historical experience which may not have been ideal from a financial stability perspective.

An analysis of the FSIs for the banking sector reveals that of the six key signals in this area, at present only one is in breach of its benchmark level. The risk based capital ratios, used to assess the solvency of Irish banks and their ability to absorb adverse financial shocks, are above their benchmark levels and are no longer signalling the warnings evident last year. The return on assets indicator (i.e., the ratio of gross income to total assets) continues to signal a warning, with the gap between its current value and trend level decreasing only slightly. This reflects the longer trend decline in profitability also observable in other profitability indicators. As in previous years there is little change in the share of net interest income and the cost/income ratio, as both ratios have remained stable. So too has the proportion of non-performing loans. The value of this indicator of the banking sector's asset quality has remained low. Together these signals indicate the Irish banking system remains well capitalised with ratios well above the regulatory minima.

Corporations and households comprise the non-financial sector. Balance sheet effects mean that financial developments in either of these areas can impact the banking sector. There are two signals of note in the household sector. The first is a fall in the growth rate of household indebtedness, which is a positive development. However, the mortgage repayment burden value is now significantly larger than its threshold value, a reflection of continuing house price growth and increasing interest rates in 2006. Turning to the corporate sector, the high level of credit growth to non-financial corporates since 2005, especially the commercial property-related sector, is highlighted as a possible vulnerability. The rate of liquidations is still at a low level that remains well within its threshold value.

There has been little change in the nature of the signals emanating from the real estate sector in 2006. However, the increasing level of credit to the commercial property sector manifests itself here also. There is an indication that the loan portfolios of Irish banks appear to be heavily concentrated on real estate loans, as was the case 12 months ago. The value of the house price FSI has remained relatively stable and it is still well below the threshold level.

In a small open economy, macroeconomic developments can affect financial stability in both a direct and indirect manner. Overall, the indicators do not give much cause for concern and appear to signal a relatively benign economic environment. The only exception is private-sector indebtedness as its value is still above the threshold level. It should be pointed out, however, that as the figure for 2006 is significantly lower than the 2005 level, the trend is moving in the right direction.

The FSIs are one component in this Report's broader assessment of financial stability. In summary, the FSIs support this broader assessment by indicating the current robust health of the banking sector as well as the favourable macroeconomic outlook. The indicators confirm also some of the key vulnerabilities highlighted elsewhere, notably, the trend decline in banks' rate of profitability, the concentration of the banking sector's loan book in property and households' repayment burdens.

Table 1: Irish Financial Soundness Indicators

Indicator	2005			2006		
	Threshold	Value	Signal	Threshold	Value	Signal
Banking Sector^a						
Tier 1/risk-weighted assets ^b	7.00	6.79	Yes	6.91	7.69	No
Total capital/risk-weighted assets ^b	10.62	10.54	Yes	10.53	10.71	No
Non-performing loans/total loans ^b	2.28	0.77	No	2.21	0.67	No
Return on assets	1.35	1.08	Yes	1.29	1.09	Yes
Net interest income/gross income	64.66	69.47	No	64.88	75.24	No
Non-interest expense/gross income	61.98	49.04	No	61.80	49.01	No
Corporate Sector						
Loans to non-financial corporates/total loans ^c	5.83	2.87	No	5.89	12.09	Yes
Liquidations rate	0.52	0.23	No	0.51	0.22	No
Household Sector						
Personal debt/GDP ^c	13.74	16.61	Yes	14.31	7.42	No
House prices/disposable income ^{c,d}	8.31	1.51	No	8.16	1.71	No
Mortgage repayment burden ^{c,d}	7.38	1.33	No	7.33	14.74	Yes
Real Estate Sector						
House prices ^{c,d}	16.02	9.48	No	15.98	9.04	No
Mortgage loans/total loans ^c	12.30	-0.62	No	11.98	-4.04	No
Real estate loans/total loans ^c	20.34	22.04	Yes	21.38	28.76	Yes
Macroeconomic Variables						
Private-sector credit/GDP ^c	8.74	19.23	Yes	10.19	13.50	Yes
GDP growth	2.07	5.92	No	2.16	5.74	No
GNP growth	0.70	4.87	No	0.80	6.47	No
Inflation	9.71	2.42	No	9.58	4.90	No
Real interest rates ^e	0.73	0.38	No	0.73	-1.32	No
Real consumption growth	0.53	7.31	No	0.67	5.74	No

^aBanking data are available from 1993-2006, except for NPL data, which are from 1995 to 2006. Also, results for individual banks were weighted by their share of total assets, to account for the uneven structure of the Irish banking sector.

^b(2006) Data for these signals taken at Q2 2007 for a sample of Irish Banks.

^cVariables are calculated as the one-year percentage change.

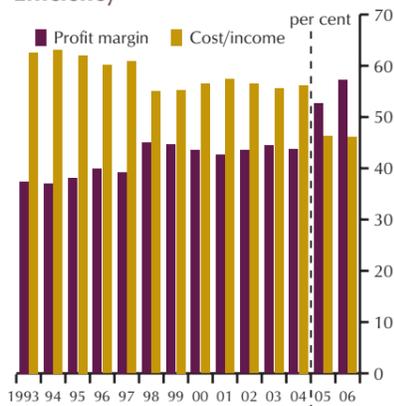
^dBased on Department of Environment, Heritage and Local Government house price data up to end of 2006.

^eData only available up to August 2006.

¹The less favourable standard deviation depends on the indicator. If from a financial stability perspective it is more desirable to have a higher value, e.g., return on assets we subtract our standard deviation figure from the mean in order to obtain a floor, below which signals a concern. Alternatively in the case where a low value is more appropriate e.g., non-performing loans we add the standard deviation figure to the mean to give a ceiling, values above which signal a warning.

²An overview of the methodology used in calculating and assessing the FSIs can be found in Box E of the Financial Stability Report 2004.

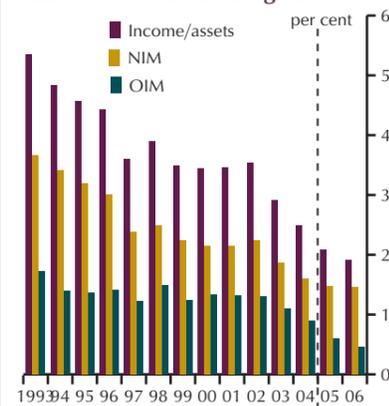
Chart 49: Profit Margins and Efficiency



Source: Annual reports

Note: Cost/income is non-interest expenses as a percentage of total income. Profit margin is operating profit before tax, depreciation and provisions as a percentage of total income. 2005 and 2006 figures calculated using IFRS on a weighted average sample of banks.

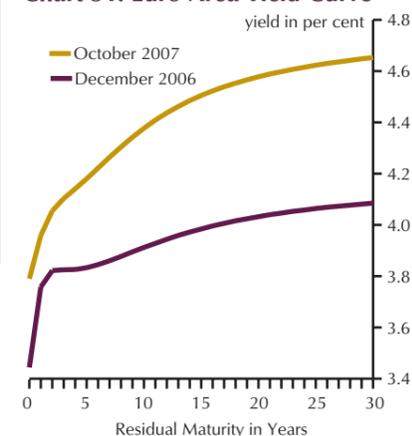
Chart 50: Income Margins



Source: Annual reports

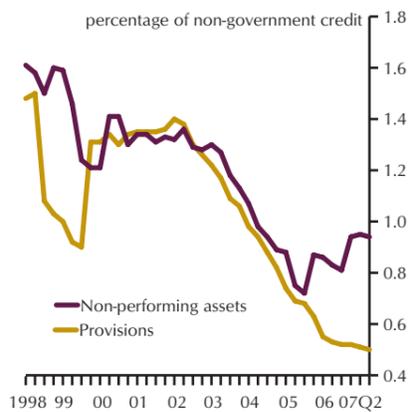
Note: Income/assets is gross income to assets, NIM is net interest income to assets, OIM is non-interest income to assets. 2005 and 2006 figures calculated using IFRS data on a weighted average of sample of banks.

Chart 51: Euro Area Yield Curve



Source: ECB

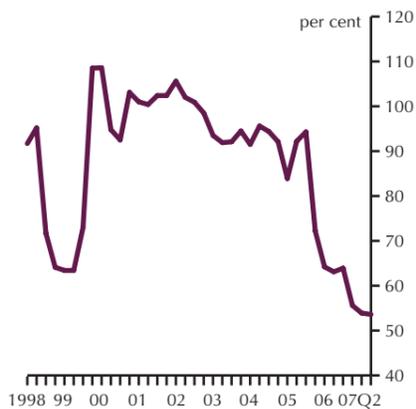
Chart 52: Asset Quality



Source: CBFSAI

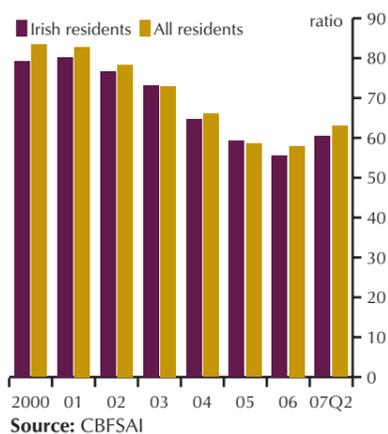
Note: Weighted average of sample of banks.

Chart 53: Cover Ratio of Provisions



Source: CBFSAI

Chart 54: Ratio of Deposits to Loans



Source: CBFSAI

Net interest margins, which have generally fallen over the past decade, have shown signs of stabilising — albeit at historically low levels. Net interest margins declined from 1.47 per cent in 2005 to 1.46 per cent in 2006 (Chart 50). The recent relatively flat slope of the yield curve (Chart 51) limits the margins on banks' traditional business of maturity transformation.

— Asset Quality and Impairment Charges

Asset quality remains high by historical standards with non-performing assets-to-outstanding loans at 0.94 per cent in June 2007, a slight increase from previous figures (0.87 per cent in 2005) (Chart 52). The current ratio is on a par with the rate of non-performing loans in September 2004. Impairment charges, or provisioning, have generally stabilised, declining marginally from 0.63 per cent of outstanding non-Government credit in 2005 to 0.50 per cent by the end of June 2006. The fall in the level of provisions relates to a decline in general provisions over the period (from an average of 0.22 per cent of outstanding loans at end-2005 to an average of 0.16 per cent at end-June 2006). The cover ratio (provisions to non-performing assets) has also fallen. The current ratio is 53.6 per cent down from 72.2 per cent at the end of 2005 (Chart 53).

— Funding

The funding structure of the Irish banking sector has not changed markedly over the last year. Private-sector deposits increased by 18.2 per cent in the year to June 2007, the same rate of growth experienced in the second quarter of last year. The corresponding changes for issuance of debt securities and interbank borrowing were 10.6 per cent and -5.2 per cent, respectively. The Irish banking sector's private-sector funding ratio (i.e., value of private-sector deposits held by Irish credit institutions relative to the value of private-sector credit granted) has remained relatively constant since 2005.²³ At the end of June 2007, the value of private-sector deposits with Irish credit institutions was 60.4 per cent of the value of private-sector loans (Chart 54), an increase over the 2005 figure of 59.2 per cent. The share of non-deposit funding accounted for by debt securities has been increasing in recent years — from 26.7 per cent in 2003 to almost 50 per cent in 2007Q2. According to the ratings agency Standard & Poors, this reflects Irish banks' strategy of broadening their funding base and increasing the maturity profile of their wholesale funding over time (Chart 55). Debt securities account for the largest proportion of non-deposit funding (46.3 per cent) with the proportion of wholesale funding accounted for by interbank deposits declining almost proportionately. Other credit institutions constitute a large proportion of the market for debt securities — more than 60 per cent of debt securities issued by Irish banks are held by other credit institutions. About 55 per cent of these securities have a maturity of more than 2 years, with a further 7 per cent having a maturity of between 1 and 2 years.²⁴ The current level of securitised mortgages is 11.6 per cent of the total stock of outstanding mortgages.

— Market Information

The ratings of Irish credit institutions continue to support the view that the Irish banking system remains healthy. All of the 35 Irish institutions rated by Fitch have a rating of B or higher (Chart 56).

²³ A funding ratio of less than one implies that the value of loans granted by credit institutions is greater than the value of the private-sector deposits they hold.

²⁴ The maturity may be original or residual, depending on the reporting by institution.

The assessment of the Irish equity market was that Irish financial companies were viewed favourably during 2006. In general, the ISEQ outperformed the ISEF (the index of Irish financial companies) during 2006, with the ISEQ exhibiting average annual growth of 24 per cent compared with 21.1 per cent for the ISEF (Chart 57). This contrasts with the trend in 2005 when the ISEF outperformed the ISEQ. Since the beginning of 2007, a significant decline in the year-on-year growth rates of both the ISEQ and ISEF has been observed. The average annual growth rate to September 2007 is 7.95 per cent for the ISEF and 15.9 per cent for the ISEQ. The latest year-on-year rates during September show a decline of 4.1 per cent for the ISEQ and 14.6 per cent for the ISEF. This decline in the ISEF reflects both domestic and international developments.

The Dow Jones Bank STOXX index outperformed the ISEF during 2006. The average annual growth rate in 2006 was 21.1 per cent for the ISEF compared with 23.9 per cent for the Dow Jones Bank STOXX (Chart 58). This represents a reversal of the trend in 2005 when the average annual growth rate was 27.7 per cent for the ISEF and 15.8 per cent for the Dow Jones Bank STOXX. In a similar fashion to the Irish indices the Dow Jones Bank STOXX has also experienced lower growth since the beginning of 2007. The average annual growth rate for Dow Jones Bank STOXX to September 2007 was 9.4 per cent compared with 7.95 per cent for the ISEF. The latest year-on-year rate for the Dow Jones Bank STOXX was a decline of 4.6 per cent.

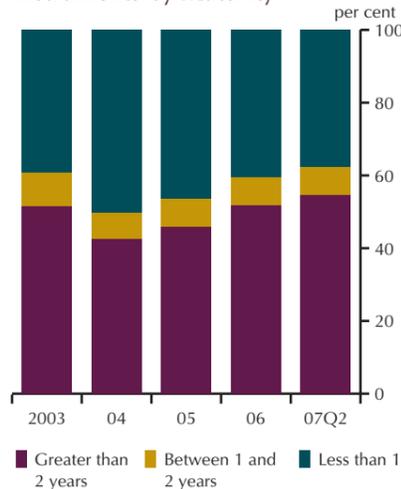
2.5.3 Internal Risks to the Banking Sector

The health of the banking system remains robust when measured by the usual indicators and the results of in-house stress-testing exercises. The international banking system has been affected directly through losses on their US subprime assets and indirectly, through holdings of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity has not been much reduced by these events.

As a result, the central expectation, based on an assessment of the risks facing both the household and non-financial corporate sectors, the health of the banking sector and the results of recent in-house stress testing is that, notwithstanding the international financial market turbulence, the banking system continues to be well placed to withstand adverse economic and sectoral developments in the short to medium term.

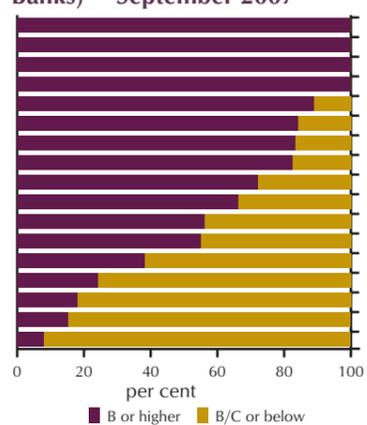
There were a number of internal risks arising in the banking sector which were identified in the 2006 Report, namely, excessive credit growth, concentration on property-related business, a private-sector funding gap, falling net interest margins, and a persistent reduction in provisioning. There has been some improvement in many of these internal risks, where some longer-term trends have stabilised. A key development with respect to the sector is the combined effect on the health of the banking sector of low net interest margins and higher funding costs in an environment where volume growth may be lower in the future.

Chart 55: Non-Equity Financial Instruments by Maturity



Source: CBFSAI

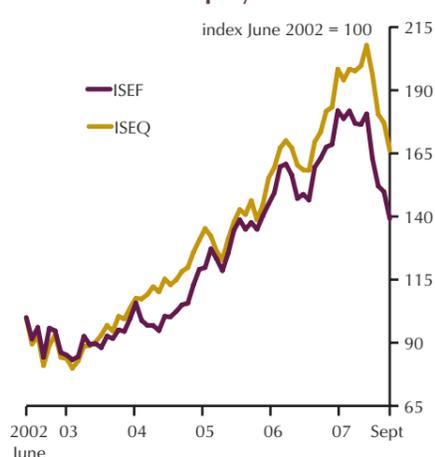
Chart 56: Fitch Ratings (Individual Banks) – September 2007



Source: Bankscope (BVD)

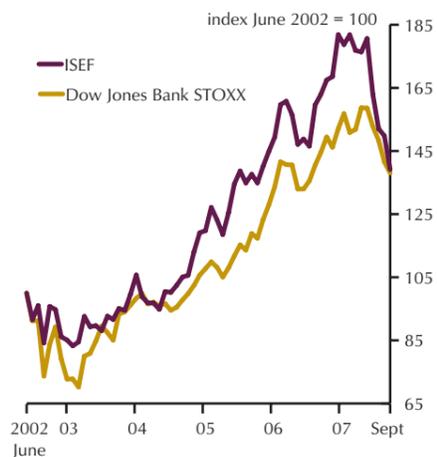
Note: Number of rated banks varies by country and not every bank in a country is rated in the first instance.

Chart 57: Irish Equity Indices



Source: ISE

Chart 58: International Equity Indices



Source: Bloomberg and Irish Stock Exchange

Box H: Results of Top-Down Stress Testing Exercise

The CBFSAI's overall assessment of the banking sector's resilience to adverse shocks relies on an analysis of the current health of the sector using a range of indicators as well as testing the system's response to stress events. This Box outlines the key results from top-down stress tests on the Irish banking sector. The results of this stress-testing exercise, notwithstanding some important caveats, suggest that the banking sector's shock absorption capacity remains strong.

A stress test is generally an investigation of a bank's or group of banks' current financial health when hit by adverse shocks. A "top-down" test is one particular type of stress test¹ which gauges the banking sector's ability to absorb losses generated under a variety of hypothetical shocks. The size of the losses is benchmarked against the value of capital in order to gauge whether the loss is significant enough to reduce average capital below the regulatory minima. This approach is not meant to imply a direct link between losses and capital in every test but allows us to normalise the results of all the tests on a common denominator. Our sample of banks comprises the set of retail credit institutions and the data on individual banks are weighted by each bank's size such that the aggregate results will reflect more accurately the aggregate banking sector. The methodology for the tests is identical to that outlined in Kearns (2006).

Credit Risk

Credit risk is the risk that the cash flows of an asset (e.g., loans and investments) may not be paid in full according to contractual obligations. An analysis of the composition of domestic banks' assets suggests that credit risk might be a significant risk because a major share of assets is held as private-sector loans, as opposed to other assets that carry little or no credit risk. The objective of this stress test on a bank's asset quality is to assess the ability of each institution to absorb a higher level of non-performing assets (NPAs), and to afford the associated provisioning, without causing a significant reduction in capital below regulatory minima. The test was conducted using scenario analysis where various levels of higher NPAs have been assumed. The aggregate results are that the average capital ratio falls below 8 per cent when the rate of loss-given-default is 50 per cent or higher and when the rate of non-performing assets is over 5 per cent (i.e., approximately a six-fold increase on current levels) (Table 1). These results suggest the banking sector is resilient to a significant deterioration in credit risk.

Table 1: Scenario Analysis: Credit Risk

Proportionate increase in NPAs:	× 2	× 3	× 6
NPA Rate (% of outstanding credit)	1.79%	2.68%	5.37%
Loss-given-default rates:	Percentage points		
25%	-0.23 (10.2)	-0.56 (9.9)	-1.42 (9.2)
50%	-0.47 (9.9)	-1.13 (9.5)	-2.9 (8.0)
75%	-0.70 (9.7)	-1.71 (9.0)	-4.4 (6.7)

Note: Data are the weighted average (by total assets) of absolute changes in capital ratios (percentage points). The weighted average capital ratio is in brackets. The weighted average value of NPAs before any proportionate increase is applied is 0.89 per cent of outstanding credit.

Liquidity Risk

Liquidity risk is the risk that liquid assets would not be readily available to meet short-term liabilities. The liquidity ratio can be calculated as the proportion of liquid assets held by banks to their total borrowing. Liquid assets are typically deemed to be notes and coin, lending to other banks (almost $\frac{1}{2}$ of total liquid assets), holdings of debt securities (almost $\frac{1}{3}$ rd), balances with central banks and lending to governments. The value of borrowings includes borrowing from other banks (almost $\frac{1}{3}$ rd of total borrowings), and central banks as well as deposits from the non-government sector (almost $\frac{1}{2}$). The average liquidity ratio (measured using the stock approach) is now approximately 27 per cent.

A simple liquidity stress test involves applying a shock to the value of liquid assets and benchmarking the size of the impact on the liquidity and capital ratios. The first approach focusses on a significant withdrawal of Irish private-sector deposits. This test gives an idea as to whether a substantial withdrawal of deposits could be met out of the existing stock of liquid assets. A 10 per cent fall in immediate access deposits equates on average to 4.7 per cent of the value of liquid assets (Table 2). There is a slight fall in the average liquidity ratio (approximately 1 percentage point). The value of deposits withdrawn is equivalent in value to almost 1.6 percentage points of existing capital. The second approach focuses on a proportionate reduction (i.e., a haircut of 10% and 20%) in the value of certain categories of liquid assets. The liquid assets subject to the haircut include assets without a guaranteed market value such as debt securities or government bonds, and exclude assets such as interbank deposits and deposits with central banks. In essence, these two latter types of assets are assumed to remain redeemable at par value. The value of liquid assets is reduced by the value of the haircut and new liquidity and capital ratios are then calculated. A 10 per cent haircut reduces the liquidity ratio by approximately 1 percentage point. The value of these haircuts equates to approximately 1.4 percentage points off the capital ratio. In summary, the banking sectors' liquidity ratios appear resilient to significant shocks to either deposits or liquid assets.

Table 2: Liquidity Test 1

Test 1:	Proportionate reduction in deposits	
	10%	30%
Ratio of value of withdrawal to value of liquid assets	4.7	14.0
New liquidity ratio	26.5	24.5
Impact on capital ratio	1.6 (8.9)	-5.2 (5.2)

Note: Data are a weighted average (by total assets) of a sample of credit institutions. Original liquidity ratio is 27.4 per cent. The post-shock average capital ratio are reported in brackets.

Table 3: Liquidity Test 2

Test 2:	Proportionate reduction in liquid assets		
	New liquidity ratio	Percentage point change in capital ratios	New capital ratio
10% Haircut	26.2	-1.44	9.0
20% Haircut	25.0	-2.94	7.5

Note: Data are weighted averages of a sample of all institutions. Liquidity ratio is calculated as the value of liquid assets to the value of total borrowings. The proportionate reduction in liquid assets is labelled the 'haircut'.

Exchange-Rate Risk

Exchange-rate (FX) risk is the risk that changes in the exchange rate affects the local currency value of institutions' assets and liabilities and off-balance sheet items. *Direct* exchange-rate risk arises when credit institutions have positions in foreign currency and *indirect* risk arises when the foreign-exchange positions taken by financial institutions' borrowers affect their creditworthiness with knock-on consequences for banks' asset quality. Direct FX risk is measured using a bank's net open position in foreign exchange. Exchange-rate risk arises where there is a mismatch between the value of assets and liabilities within each currency. Indirect FX risk can arise when a bank has a significant proportion of its loan book to local residents in foreign-currency loans. In this scenario, the local borrowers are earning in local currencies but their liabilities are in foreign currencies so that, from the banks' perspective, these borrowers' ability-to-pay can be influenced by exchange-rate developments. A simple analysis of assets suggests that domestic banks have a relatively small share of their assets *vis-à-vis* domestic residents in foreign currencies and the stress tests show little effect on capital from testing this indirect exposure.

The main approach to stress testing direct exchange-rate risk is to test for a balance-sheet effect. This test captures the impact of a change in exchange rates and the knock-on revaluation of assets and liabilities held in foreign currencies, and whether the size of the consolidated balance-sheet increases or falls when revalued in the local currency. A 30 per cent appreciation of the euro *vis-à-vis* foreign currencies reduces balance sheets (i.e., the total value of assets) on average by approximately 10 per cent. Overall, then, the tests on exchange-rate risks show relatively small effects.

Table 4: Exchange-Rate Risk and Balance Sheet Effects

	Ratio of total assets (<i>ex-post</i>) to total assets (<i>ex-ante</i>)
	%
30% appreciation in euro <i>vis-à-vis</i> all foreign currencies	90.4
No change exchange rate	100.0
30% depreciation in euro <i>vis-à-vis</i> all foreign currencies	112.5
Special case:	
30% appreciation in euro <i>vis-à-vis</i> US dollar only	97.4

Note: *Ex-ante* and *ex-post* refer to the time prior to and after the exchange-rate change.

Equity Price Risk

Equity price risk is the risk that changes in stock prices can affect the valuation of banks' balance sheets. The average share of Irish credit institutions' on-balance sheet assets held in the form of shares and other equities is small (1.5 per cent). A significant number of banks report less than 1.0 per cent of their assets in this category. A simple approach to stress-testing equity price risk is to calculate the impact of revaluations of the equity portfolio of each institution caused by fluctuating stock prices. This test assumes a proportionate change in the valuation of the portfolio of equities held by the institution and benchmarks this gain or loss against the value of capital. The analysis suggests that on average every 10 per cent fall in stock prices reduces the value of the equity portfolio (reported on the balance sheet) by a value equivalent to a reduction in the average capital ratio of approximately 20 basis points. The average capital ratios remain comfortably above 8 per cent when larger reductions in the value of the equity portfolio are assumed. The small share of equities held on-balance sheet explains why even severe tests on equity risk have small effects.

Table 5: Impact of Changing Stock Market Prices on Capital Ratios

Scenario	Impact on capital ratio
All stock prices fall by 10%	-0.21pps (10.2)
All stock prices fall by 30%	-0.63pps (9.8)
All stock prices fall by 50%	-1.07pps (9.3)

Note: The impact on capital ratio data is the weighted average (by total assets) of absolute changes in capital ratios [percentage points (pps)] with the new average capital ratio reported in brackets.

Interest-Rate Risk

Interest-rate risk encapsulates the uncertainty faced by banks in assessing the net impact of changes in market interest rates. The level of market interest rates is important for banks in at least three ways. First, interest rates affect a bank's earnings. Second, interest rates may affect the size of the mismatch (also known as the net open position) between a bank's assets and liabilities. Finally, interest rates affect the market value of a bank's bond investments. One approach to measuring interest-rate risk begins with an estimation of the extent to which the maturity of assets and liabilities are mismatched. The value of assets and liabilities are sorted into various time/maturity buckets (by time to repricing for floating-rate assets, or time to maturity for fixed-rate instruments). These data are available for the banking and trading books separately. The cumulative net open position at one-year residual maturity (i.e., the cumulative value of assets minus liabilities with residual maturity up to one year) is multiplied by the value of the change in interest rates. There will be a positive impact on income if the net position was originally positive (also labelled long) and interest

rates had risen. This occurs because the additional value of interest income (proxied by multiplying the value of assets by the increase in rates) will exceed the additional value of interest expense (proxied by multiplying the value of liabilities by the change in interest rates). In contrast, there would be a negative impact on income if the net position was originally short. In general, the results suggest a positive relationship between interest rates and net interest income for the banking book – which is to be expected as banks are engaged in maturity transformation. However, the value of the impact on net interest income is relatively small when benchmarked against capital. The aggregate trading book is in a net short position, so the results suggest a negative relationship between interest rates and net interest income for the trading book; however, the value of the impact on net interest income equates also to relatively small changes in the capital ratio.

Table 6: Earnings and Interest-Rate Risk

Item:	Cumulative net position € billion	Interest-rate change	% change own funds ratio
Banking Book	2.8		
Scenario 1		–200bps	–0.05pps
Scenario 2		+300bps	0.08pps
Scenario 3		+400bps	0.10pps
Trading Book	–0.84		
Scenario 1		–200bps	0.01pps
Scenario 2		+300bps	–0.01pps
Scenario 3		+400bps	–0.01pps

Note: The percentage change on capital is the net position, multiplied by the interest-rate change, with the subsequent value being added to or subtracted from the value of total capital. The cumulative positions are for residual maturities of one year or less. There is a different sample of banks when assessing the banking and trading books.
'bps' is basis points.
'pps' is percentage points.

The impact of interest rates on the value of bond investments is obtained using a simple present value approach to valuing bonds. The outstanding stock of bonds for each institution is categorised into three maturity buckets (<1 year, 1 to 2 years and > 2 years) and an assumption is made that they are zero coupon bonds. Furthermore, we assume that the yield on these bonds is that recorded in the market at that time and for that particular maturity. We then shock this yield and recalculate the market value of the outstanding stock of bonds using a simple present value formula. The value of the capital loss (or gain) is then benchmarked against the value of own funds. The capital loss on the reduced market value of bond assets arising from a substantial increase in interest rates appears to be relatively small. The data show that a 400 basis points increase in interest rates will result in a capital loss in market value equal in value to an approximate 0.45 percentage point reduction in the capital ratio. In similar fashion to other market risks, the tests on interest-rate risk show relatively small effects.

Table 7: Market Value of Bond Assets

Item	1 year yield	2 year yield	> 2 year yield	Market value bonds (% change)	% change capital ratios
Pre-shock interest rates by maturity:	2.153	2.32	2.827		
Shocks:					
+100bps	3.153	3.32	3.827	–0.965pps	–0.12pps (10.4)
+300bps	5.153	5.32	5.827	–2.84pps	–0.34pps (10.2)
+400bps	6.153	6.32	6.827	–3.75pps	–0.45pps (10.0)

Note: The new average capital ratio is reported in brackets.
'bps' is basis points.
'pps' is percentage points.

A key objective of the top-down stress test is to assess the shock-absorption capacity of the banking sector in the face of a variety of extreme but plausible hypothetical shocks. The results suggest that the banking sector has adequate capital buffers to

cover the range of shocks considered in the tests. In particular, the banking sector appears resilient to severe credit and liquidity shocks. The corresponding tests on various market risks such as exchange rate, interest rate and equity risks showed very small effects. Nevertheless, there are some limitations to stress testing and to the analysis in this Box in particular. The key limitations, which should be borne in mind, are:

- all losses are immediately written off against capital with no contribution from profits or other reserves;
- no account is taken of the extent to which any of the exposures are hedged;
- no attempt is made to quantify the likelihood of the various shocks occurring;
- the tests have been completed sequentially and it is plausible that a combination of the shocks occurring simultaneously could have a more significant impact on the sector's capital reserves; and
- the results from applying individual shocks are first-round effects. The analysis does not capture contagion effects between banks or second-round effects where banks assimilate the shock and their subsequent reaction impacts on the wider economy.

¹For a fuller discussion of different approaches to stress testing see: Kearns, A., M. McGuire, A. McKiernan and D. Smyth, (2006), "Bottom-Up Stress Testing: The Key Results", *Financial Stability Report 2006*, CBFSAI, pp. 113-122. Kearns, A., (2006), "Top-Down Stress Testing: The Key Results", *Financial Stability Report 2006*, CBFSAI, pp. 99-112. Kearns, A., (2004), "Loan Losses and the Macroeconomy: A Framework for Stress Testing Irish Credit Institutions' Well-Being", *Financial Stability Report 2004*, CBFSAI, pp. 111-122.

First, the concentration of banks' resident loan portfolios in property-related business has persisted. Secondly, the persistently high growth in private-sector credit has declined. Although the current rate remains high, the trend appears to be moving in the right direction. Thirdly, the funding gap of the Irish banking system, i.e., the difference between private-sector deposits and private-sector loans, has stabilised. While any funding gap represents some risk, a fuller assessment of this risk in an Irish context indicates the significant medium-term maturity element of many of these liabilities as well as the relatively wide range of funding options available to the domestic banking sector. Fourthly, preliminary analysis suggests that net interest margins may have stabilised – albeit at a low level. Margins over the longer-term have fallen significantly. This has increased banks' reliance on volume growth to support income growth and has pointed to their need to find alternative sources of non-interest income. Margins may come under renewed pressure in the short term because of higher market funding costs. Finally, the level of loan impairment charges (provisions) is no longer falling and appears to have stabilised, albeit at a historically low level. This trend has reflected both the benign economic environment and the introduction of new accounting standards in recent years. (See Box I for a fuller discussion of recent trends in provisioning.)

A key development with respect to internal risks in the sector is the combined effect on the health of the banking sector of low net interest margins and somewhat higher funding costs in an environment where volume growth may be lower. A combination of a slower housing market, marginally slower economic growth and the impact of the current turbulence in financial markets on banks' willingness to supply loans, could all contribute to lower volume growth in the future. The effect will be to reduce the profitability of traditional banking activities because volume growth in lending will be less likely to continue to compensate for low margins. To some extent, the exceptionally good performance of the Irish economy over the last 15 years

Box I: Asset Quality and Provisioning for Loan Losses

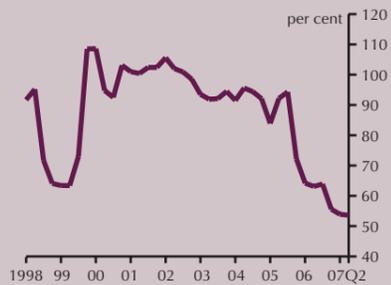
Banks' impairment provisions for loan losses have fallen significantly in recent years and are at historically low levels. This reduction is generally attributed to a combination of lower levels of non-performing assets and the introduction of new accounting standards. In addition, there is now a divergence between banks' stock of impairment provisions and their level of non-performing assets – the cover ratio is falling and low. The concern is that this might indicate an additional explanation for lower impairment provisions, namely, that Irish banks are provisioning less for a given level of non-performing assets, possibly because of higher expectations of the recoverable value of collateral. The disaggregated analysis of the provisioning data in this Box does not seem to support this concern. However, the more general concern about provisions remains, i.e., that the low level has decreased slightly the size of banks' financial buffers against all loan losses.

The level of provisions for loan losses tracked asset quality (i.e., the level of non-performing assets) closely between 1998 and mid-2005 but both series began to diverge thereafter. The level of provisions has fallen lower since that time while the proportion of non-performing assets has increased slightly. Accordingly, the value of provisions set aside to cover the net loss from non-performing assets has fallen sharply (Chart 1).

A significant part of the explanation for lower provisioning has been the introduction of new accounting standards (IFRS) that has reduced the scope for banks to set aside collective (or general) provisions for unidentified losses. The new accounting standards became effective from 2005. The data confirm that these collective provisions are significantly lower now by comparison with 2001 (Chart 2). By contrast, the new accounting standards should not necessarily have reduced banks' individual (or specific) provisions (i.e., those made against identified losses in existing non-performing assets). It appears that individual provisions fell until 2005 but have stabilised in recent years. Crucially, it appears that banks have maintained their levels of specific provisioning because the cover ratio of specific provisions only to non-performing assets (a narrower definition of the aggregate cover ratio in Chart 1) remains close to its average level (approximately 40 per cent) (Chart 3). In summary, the data suggest that banks have not eased their assumptions on the proportion of non-performing assets for which they need to make provision.

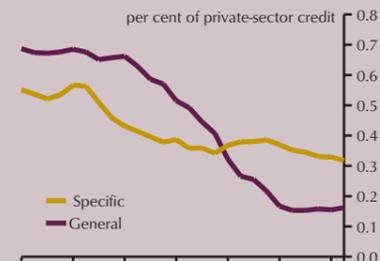
The more general concern about the low level of impairment provisions remains. The reduction in general provisions has decreased slightly the aggregate value of banks' financial buffers (i.e., defined here as the sum of provisions, operating profits and total own funds). The aggregate value of banks' buffers relative to risk-weighted assets has fallen marginally since 2001 and this is due, in large part, to the reduction in general provisions. The aggregate value of the buffers was approximately 14.5 per cent of risk-weighted assets in 2001 but this had fallen to 13.3 per cent by 2006 (Chart 4). However, the shock absorption capacity of the banking sector remains robust and the sector remains well placed to cope with emerging issues.

Chart 1: Cover Ratio



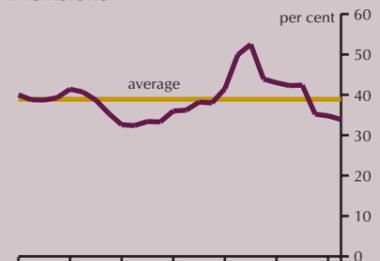
Source: CBFSAI
Note: Ratio of provisions to non-performing loans. Provisions are total provisions.

Chart 2: General and Specific Provisions



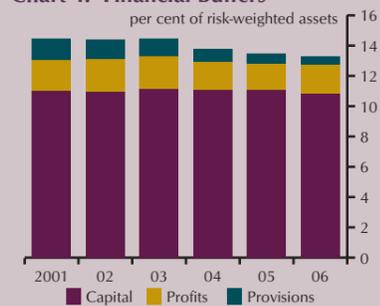
Source: CBFSAI
Note: General provisions are called 'collective' or 'portfolio' provisions and specific provisions are termed 'individual'.

Chart 3: Cover Ratio of Specific Provisions



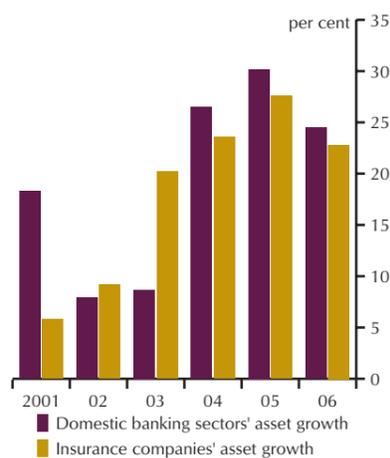
Source: CBFSAI
Note: Data are weighted average ratio of specific provisions to non-performing assets.

Chart 4: Financial Buffers



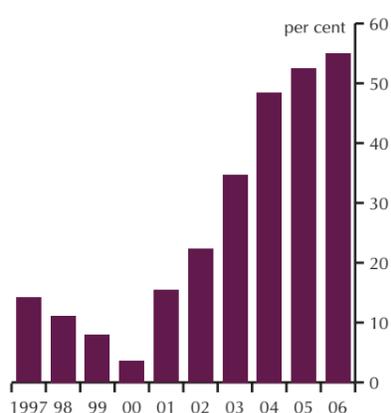
Source: CBFSAI
Note: The aggregate value of financial buffers is the sum of provisions, operating profits (before tax, depreciation and impairment costs) and the value of total own funds.

Chart 59: Domestic Banking and Insurance Companies' Asset Growth



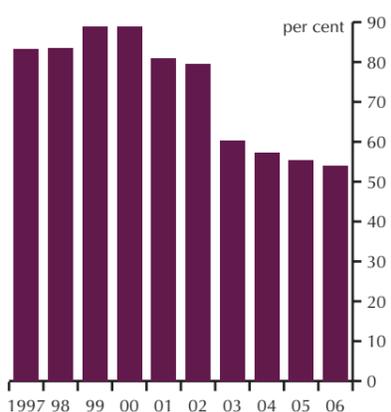
Source: Insurance Statistical Review and CBFSAI calculations

Chart 60: Non-Life Sector – Profit as a % of Premium



Source: Insurance Statistical Review and CBFSAI calculations

Chart 61: Non-Life Sector – Loss Ratio



Source: Insurance Statistical Review and CBFSAI calculations

has placed the Irish banking sector in an unusual position by international standards. Although many Irish banks have significant levels of non-interest income, in general the banking sector has continued to earn the larger part of its earnings from traditional banking activities. Strong economic growth combined with a booming housing market has ensured that traditional banking activities have remained profitable for Irish banks. Although Irish banks share the experience of other countries with respect to the pressures on net interest margins, they have been more than able to compensate for this by rapidly expanding the scale of their on-balance sheet business. However, the current environment may make it more difficult for banks to continue to compensate for low margins with relatively high levels of volume growth.

2.6 Insurance Sector

At the time of publication of the Financial Stability Report 2006, an assessment of the insurance sector suggested that the risks emanating from the sector were quite low and this continues to be the current assessment. Specifically, when assessed by indicators of profitability, claims, cost-income, investment returns and management quality both life and non-life insurance sectors demonstrated a general improvement throughout 2005. The international financial market turbulence has had no material impact on the solvency position of any undertakings because of limited exposures to asset-backed commercial paper and collateralised debt obligations (CDOs) and negligible underwriting of financial guarantees in North American markets.

The insurance sector has continued to grow strongly in 2006. Insurance companies' asset growth declined to 22.8 per cent in 2006 compared with 27.6 per cent in 2005. Despite this decline, the insurance sector continues to demonstrate a healthy rate of growth. The expansion of the insurance sector has been of similar magnitude to that of the banking sector for the last number of years. During the period 2001 to 2006 the insurance sector's asset growth has averaged 18.2 per cent per annum compared with 19.4 per cent per annum in the banking sector (Chart 59).

2.6.1 Non-Life Insurance Sector²⁵

The general improvement of the non-life insurance sector in recent years has continued in 2006 when the sector is assessed by indicators of profitability, claims, cost-income and management quality.

The profitability of the non-life insurance sector has continued to strengthen in 2006. Profitability (measured as a percentage of premium income) rose to 55 per cent in 2006 from 52.5 per cent in 2005 (Chart 60). The improved profitability of the non-life sector was supported by a further improvement in the loss ratio (the ratio of total claims to total premiums) as the ratio declined between 2005 and 2006. The loss ratio was 55.4 per cent in 2005 compared with 54 per cent in 2006 (Chart 61). Real growth in net premiums has been falling since 2002 and actually declined by 3.7 per cent in 2005. In 2006 it declined again, falling by 1 per cent.

²⁵ See Box G: Financial Soundness Indicators for the Insurance Sector in the *Financial Stability Report 2005*, CBFSAI, for a fuller discussion of the indicators used in Sections 2.6.1 and 2.6.2.

The income ratio (the ratio of investment income to net premium) in the non-life sector has remained unchanged since last year, currently standing at 13.2 per cent. This year represents the first year since 2002 (when the ratio stood at 10.3 per cent) that the income ratio has not improved.

In terms of earnings efficiency, a decrease in the ratios marks an improvement. The management expenses ratio (the ratio of management expenses to net premiums) weakened slightly in 2006 having increased to 11.5 per cent from 11 per cent in 2005. The commission ratio (the ratio of commissions to net premiums) improved to 14.5 per cent in 2006, from 17 per cent in 2005.

There are two management soundness indicators – the gross premium to employees ratio and the assets per employee ratio. The average gross premium per employee ratio deteriorated slightly to a value of 0.84 in 2006 from 0.86 in 2005. The assets per employee ratio improved slightly as it increased from 3.4 in 2005 to 3.5 in 2006.

2.6.2 Life Insurance Sector

Following a similar trend to that of the non-life insurance sector, the general improvement in the life sector during the last number of years has continued in 2006 when the sector is assessed by indicators of claims, investment returns and management soundness, notwithstanding a marginal decline in profitability over the last year.

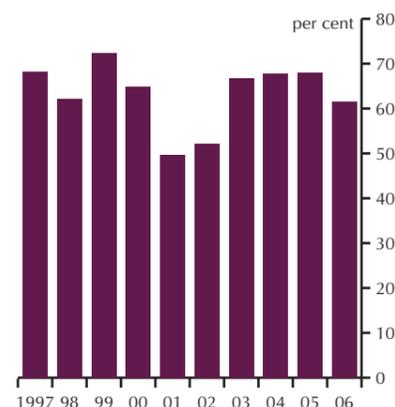
Profitability (measured by profit as a percentage of total income) in the life insurance sector deteriorated to 62 per cent in 2006 from 68 per cent in 2005 (Chart 62). This represents the first year since 2003 that profitability in the life insurance sector has not strengthened. The claims to premiums ratio improved slightly to 52.2 per cent in 2006, a decline from 55.3 per cent in 2005 (Chart 63). This is the first year since 2004 that the claims/premiums ratio has improved. The real growth in net premiums strengthened somewhat in 2006 from 26 per cent in 2005 to 27 per cent in 2006, representing further recovery from the decline in real net premiums seen in 2003.

The return on investment assets (the ratio of investment income to the value of total assets) was 3 per cent during 2006 (Chart 64). Since 2003 the return on investment assets for the life insurance sector has remained broadly unchanged at the current level. The continuing stability of investment returns over the last number of years has contributed to the overall health of the life insurance sector.

In terms of the earnings efficiency ratios, both ratios made gains during 2006. The management expenses ratio continued to improve to 3.5 per cent in 2006 from 4.3 per cent in 2005. The commission ratio also improved slightly from a value of 5.9 per cent in 2005 to 5.6 per cent in 2006.

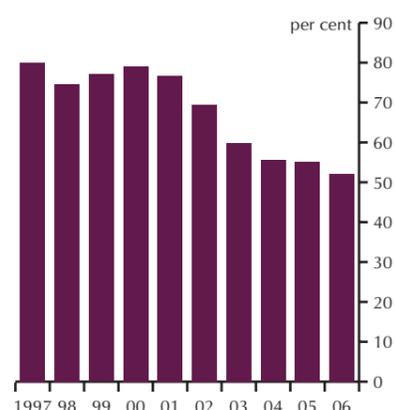
Both management soundness indicators improved during 2006. The average premium per employee ratio (the ratio of gross premiums to the number of employees) rose from 3.8 in 2005 to 5.3 in 2006. The asset per employee ratio improved to a value of 23.4 in 2006 from 17.7 in 2005.

Chart 62: Life Sector – Profit as a % of Income



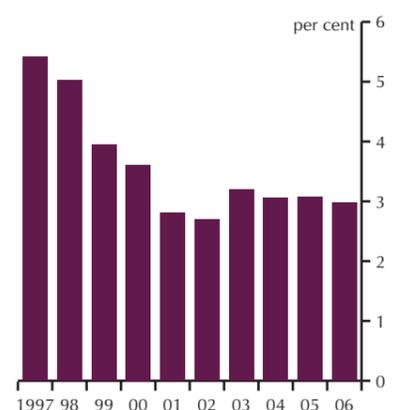
Source: Insurance Statistical Review and CBFSAI calculations

Chart 63: Life Sector – Claims/Premiums Ratio



Source: Insurance Statistical Review and CBFSAI calculations

Chart 64: Life Sector – Returns on Investment Assets



Source: Insurance Statistical Review and CBFSAI calculations

3. International Dimension

3.1 Overview

Given the openness of the Irish economy, its financial system is potentially vulnerable to global shocks and to the current developments in the international financial system. These international risks are important because they are additional to the domestic risks noted earlier. While the global economy continued to expand at a robust pace in the first half of this year, recent developments in financial markets have significantly raised uncertainty about the economic outlook. While it is not yet possible to assess the extent to which the market turmoil may affect activity, the sharp repricing of risk and tightening of financial market conditions, via wider risk spreads and higher term funding, threaten to dampen future global growth. In this regard, a key consideration is that, even if market liquidity improves, risk spreads are likely to remain higher on a long-term basis than they have been in recent years.

Forecasts from the major international economic institutions suggest that the downside risks are most pronounced for the US. This reflects the view that the problems in financial markets are likely to intensify the downturn in the US housing market, where forward-looking indicators of conditions were pointing lower even before the recent turbulence began. In addition to the direct impact of US housing market weakness on GDP, the weakness of US house prices, higher mortgage rates and tighter lending terms also threaten to dampen US consumer spending, which has been the main engine of growth in recent years. While the resilience of the global and euro area economies should be helped by the fact that both were growing solidly before the recent market turbulence, a marked slowdown in US growth would remove considerable impetus to activity in the rest of the world. Quite apart from this dampening influence, however, the generalised repricing of risk and tightening of financing conditions has, of itself, raised the balance of risks to the downside for the rest of the global economy.

3.2 International Macroeconomic Risks and Developments in Global Financial Markets

Global financial markets experienced a number of bouts of volatility over the course of 2007, the most recent of which has seen a sharp and sizeable repricing of risk which has triggered widespread financial market turbulence. The earlier bouts of volatility were less severe, with the first involving a sharp weakening in global equity markets in late-February, while the second involved a sizeable rise in bond yields in June, which has been more than offset since.

In February, although the catalyst for the sharp fall in global equity markets was a sell-off in the Chinese stock market, the key drivers were events within the US which led to a negative re-assessment of the economic outlook. In particular, growing concerns over signs of significant distress in the subprime mortgage sector gave rise to fears that problems in the US housing sector would intensify and damage growth. (See Box J for a discussion of the US subprime mortgage market.) The effect was to prompt a sharp, but short-lived, sell-off in equity markets and a flight to bonds, which pushed down bond yields globally. The decline in US bond yields was greater than that in other major markets, reflecting investors' views of a particularly vulnerable US economy due to persisting worries relating to the weak housing market.

Box J: The US Subprime Mortgage Market

The US mortgage lending business has changed dramatically in the past fifteen years or so with, in particular, the traditional book-and-hold model of mortgage lending, where mortgages were held on bank balance sheets, shifting to an originate-and-distribute model, with mortgage risk now transferred elsewhere. While commercial banks still have a significant role in the mortgage origination and distribution process, securitisation has allowed many financial institutions to use increasingly sophisticated strategies to package and re-sell home mortgages to investors, which has increased the volume of credit available to borrowers, and has been an important factor in the growth of subprime mortgage lending.

The term 'subprime' generally refers to borrowers who do not qualify for prime interest rates because they have a bad credit rating or volatile income streams. At the beginning of this year, the stock of securitised subprime mortgages represented roughly 14 per cent of outstanding mortgage-related securities in the US. The stock of securitized subprime mortgages (14 per cent), however, somewhat understates the amount of activity that has been going on in the subprime sector in the past two years. In 1994, fewer than 5 per cent of mortgage originations were subprime, but in 2006 this figure expanded rapidly to 20 to 25 per cent of all new mortgages. The roots of this increase can be traced back to the low levels of market interest rates and generous bank funding that existed in the early part of this decade, which in turn spurred significant volumes of mortgage refinancing, as well as new originations.

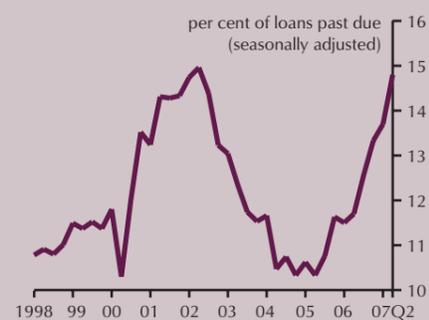
There are a number of factors which have driven the growth in subprime lending. For the household (individual), low interest rates, strong house prices and a positive economic environment increased the demand for subprime loans. At the same time, the ability to securitise, the increase in practices such as simultaneous second liens (piggyback loans)¹, no or low income documentation, adjustable-rate mortgages (ARMs) and 'teaser rates'², as well as the streamlining of the underwriting process, resulted in much more lending activity competing in the mortgage market. Not surprisingly, some of these developments have also contributed to recent problems. With robust investor demand for securities with high yields, lending and underwriting standards appear to have loosened. In short, an incorrect set of incentives, together with a highly competitive lending environment and inadequate risk controls, appear to have led to a weakening of standards.

During the years of exceptionally strong growth in housing prices and low, stable interest rates, most borrowers did not face large payment shocks and many of those that did could take advantage of home-price appreciation to refinance in a favourable interest-rate environment. Subprime borrowers in 2006 had neither of these elements on their side. They had more difficulty funding refinancing options to lower their monthly payments and have little or no equity in their homes. Overall, while subprime delinquencies are roughly the same as the cyclical peaks in 2002, delinquencies for recent mortgage vintages, notably 2006, are on steeper trajectories and this is likely to get even steeper in the coming months.

The recent problems in the subprime mortgage market have occurred in the context of an overall economic slowdown. The rise in subprime delinquencies and foreclosures from the multi-year lows reached in the middle of 2005 was a consequence of broader economic conditions including rising interest rates and slowing house price growth. This left the most recent subprime borrowers vulnerable to payment difficulties, with problems most severe for subprime mortgages with adjustable rates. The proportion of subprime loans with serious delinquencies rose to about 14.8 per cent in the second quarter of this year, significantly above the recent low seen in mid-2005.

The steep rise in the rate of subprime mortgage delinquencies has resulted in a significant number of subprime mortgage lenders, both large and small, either failing or filing for bankruptcy, as repayments have dried up and lenders have cancelled credit lines. The deterioration in the credit quality of subprime mortgages has, in turn, translated into a crisis of confidence in credit markets about valuations and there has been a sizeable re-pricing of risk, with a massive flight from mortgage-related and structured credit products.

Chart 1: Subprime Mortgage Loan Delinquency



Source: Mortgage Bankers Association

Over the next one to two years, existing subprime borrowers, especially those with more recently originated ARMs, are likely to continue to experience elevated delinquency and foreclosure rates as these loans reach their interest-rate reset point. According to an influential study by Cagan in March of this year³, the interest rate for an estimated 1.1 million subprime loans will reset in 2007 and an additional 882,000 will reset in 2008. Taking account of the fact that mortgage rates have risen sharply in the past few months, the number of delinquencies on these reset mortgages is expected to be greater than previously anticipated. For many of these borrowers, the threat of foreclosure looms, as fewer and fewer of them will be able to refinance because of the slowing rate of house price appreciation, higher interest rates and, especially, the problems faced by subprime lenders. More generally, stricter lending standards are expected to be a source of some restraint on home purchases and residential investment in the coming quarters, which is likely to curtail demand for housing, at a time when inventories are at high levels. In a recent speech, Federal Reserve Chairman Bernanke acknowledged that 'with many borrowers facing their first interest rate resets in coming quarters, and with softness in house prices expected to continue to impede refinancing, delinquencies among this class of mortgages are likely to rise further'.

Overall, with lending standards tightening, interest-rates increasing, and a large number of adjustable rate mortgages resetting this year and next, tensions in the subprime market will continue to fuel the continued housing market weakness and add to the uncertainty surrounding the US outlook. Recent data suggest that the US housing situation is worsening, with no quick end to the downturn in sight. Home sales, construction activity and house prices continue to show a pronounced downward trend and there are signs beginning to emerge that the housing downturn is spilling over to the rest of the economy, with the decline in housing wealth and credit availability starting to dampen consumption. On the basis of past experiences, subprime delinquencies tend to peak 18 to 24 months after origination, suggesting that the subprime problem is not going away any time soon and the true economic impact may be only beginning to unfold.

¹ Usually a mortgage package of two loans – the first, usually covering 80 per cent of the value of the property could be securitised and sold, while the second loan would cover the remaining borrowing. The second loan would be subordinate to the first in the event of a default.

² ARMs are loans that begin with relatively low payments, and then, after a short period, reset at a higher rate. There are many variations, but most offer a low 'teaser' interest rate for the first two or three years before resetting.

³ Cagan, Christopher, (2007), "Mortgage Payment Reset: The Issue and the Impact", *First American Corelogis*, March.

Although equity markets recovered from mid-March onwards, US Treasury yields were slow to move above their late-February levels as investors remained uncertain about the economic outlook. Investors' concerns were that weakness in the housing market would prompt a slowdown in spending and a deterioration in the labour market, while also encouraging a tightening in lending standards. Against this background, analysts' forecasts for US GDP growth in 2007 were revised down, following a brief period of upward revisions at the beginning of the year, and markets began to price-in around 50 basis points of Fed easing in 2007.

However, the Fed signalled that it did not share the market's concerns in relation to the economic outlook. While dropping the explicit bias to tighten contained in previous Federal Open Market Committee (FOMC) statements at its 21 March meeting, the Fed signalled that it expected the economy to continue to expand at a moderate pace and stated that inflation remained its 'predominant policy concern'. Initially, data releases supported the market's view, but then labour market data and, subsequently, broader activity data proved more favourable than expected. Against this background, by May, much of the earlier pessimism about the outlook for the US economy receded

and, with inflation concerns edging up, markets revised their expectations, seeing a greater likelihood of a tighter US monetary policy stance than previously expected. As a result, by the beginning of June, expectations of a cut in US interest rates during 2007 had faded almost completely. Reflecting these developments, as well as evidence of a rise in term premia, bond yields rose sharply, and, by mid-June, 10-year yields were almost 60 basis points higher than at end-April. From the second half of June, however, bond yields started to fall again as problems in credit markets began to surface.

What started as a credit market sell-off in the second half of June quickly evolved into a bout of severe market turbulence characterised by rising volatility, declining liquidity and a sharp repricing of risk. The catalyst for these developments was a significant heightening of concern, from late-June onwards, about the exposure of a wide range of mortgage-related securities and structured credit products to mounting losses in the US subprime mortgage market. This caused problems in the market for asset-backed commercial paper (ABCP) where investors were reluctant to rollover financing following increased nervousness about the associated risks. (See Box K for a fuller discussion of the links between the recent financial market events and the associated financial products.) The general repricing of credit risk moved quickly from the first series of ratings downgrades and signs of problems with some hedge funds exposed to mortgage-backed securities in June onto a more widespread and pronounced adjustment across credit markets in July. This was reflected in a sharp widening of credit spreads, as uncertainty about the size and distribution of credit risk exposures and related losses affected market confidence. Accompanying this was a general loss of confidence in the valuation of mortgage-related securities and structured credit products signalled by growing difficulties in pricing these instruments. Against this background, market liquidity for these products dried up.

Risk aversion heightened further in early-August when the problems which, up to then, had been concentrated on hedge funds and US financial institutions involved in mortgage business, began to spread to the more broad-based banking sector internationally especially through banks' financing of ABCP conduits or structured investment vehicles. News of problems for a number of banks, primarily European, as a result of difficulties on the part of ABCP conduits or structured investment vehicles heightened, already elevated, market nervousness. Thus, the generalised ongoing repricing of credit risk caused a drying up of liquidity in the collateralised short-term commercial paper market. With banks providing liquidity back-up lines to ABCP programmes, which typically rolled-over their funding on a very short-term basis, rollover risks quickly translated into concerns about banks' contingent liabilities.

Arising from the uncertainty about banks' exposures to the general repricing of risky assets, concerns about counterparty risk heightened and problems began to spillover to the interbank market. With liquidity demand surging and banks becoming extremely reluctant to lend, even at very short maturities, overnight rates began to rise sharply. Once signs of these difficulties emerged a number of central banks, led by the ECB, reacted promptly to alleviate the liquidity problems in the interbank money market through the provision of substantial short-term liquidity injections. These actions succeeded in

Box K: Subprime, CDOs and the Financial Market Fallout

This summer, the hypothesis that credit derivatives and hedge funds, among others, diversify risk and in so doing increase the resilience of the financial system, was well and truly tested, as they became closely linked to the eruption of financial market turbulence.

Subprime, Collateralised Debt Obligations (CDOs) and the Search for Yield

Securitisation has boomed for over a decade, while CDOs and similar products have experienced exponential growth in the last two years. Outstanding cash and synthetic CDO amounts increased to \$489 billion and \$450 billion, respectively, in 2006, with the latter representing a doubling from 2005. Like securitisation, CDOs began as a means for banks to shift loans off their balance sheets but quickly became a way to satisfy investor demand for higher returns on assets rated as high as AAA, during the 'search for yield' era of recent years.

A CDO is typically issued by a special purpose vehicle (SPV) or holding vehicle that issues notes referenced to a portfolio of underlying debt obligations¹ that are tranching (i.e., grouped) according to degrees of risk, e.g., senior, mezzanine and equity slices. As demand for CDOs boomed, so too did demand for products to be used in their collateral pools. Re-packaged subprime mortgages were one of the products widely used to fill that demand. Moody's estimate that almost half of all CDOs sold in the US in 2006 contained subprime debt, with subprime accounting for as much as 88 per cent of mezzanine CDO collateral. A typical mezzanine asset-backed CDO is predominantly backed by BBB and BB rated subprime asset-backed securities (ABSs) tranches. These are repackaged into a CDO, which is divided into layers. The riskiest and highest yielding piece, the equity tranche, becomes worthless at a 5 per cent default rate on the underlying assets. The BBB rated portion becomes worthless should they reach 10 per cent, and so on until one comes to the AAA piece, which only starts to get hurt when defaults rise to about 23 per cent, thus in theory, providing a significant amount of protection. By comparison, a High Grade ABS CDO is typically backed by AA and A tranches of ABS, but AAA tranches of other CDOs, including mezzanine ABS, can also be used as collateral.²

Origination standards appeared to have become very lax, particularly between late-2005 and early-2007. As early defaults on these subprime mortgages rose to around 15 per cent, mortgages in the process of being repackaged were passed back to the originators of the loans (e.g., regional subprime brokers and mortgage lenders), causing a large number to go bankrupt, while those already in CDO pools became of increasing concern. Such concern was heightened by the fact that a large proportion of subprime loans are due to reset from low initial teaser rates to higher rates, from autumn this year through to 2008, at a time when borrowers can no longer count on house-price appreciation to help pay back the loan via refinancing or capital gains on sale.

Initial Signs of Stress in Financial Markets

One of the first signs of stress came via the ABX index, the main benchmark index for subprime securities, which sold off sharply from the beginning of 2007. The next high profile event was the news in June that two Bear Stearns Asset Management hedge funds were in severe trouble after investing in high-rated CDOs. Bear Stearns was forced to put up some of its capital to the creditors who had supplied leverage to the less risky of the two funds, while the funds themselves were left with practically no value for investors to redeem. This heightened concerns that other funds were also likely to be negatively affected.

Many investors had relied on credit agency ratings on these complex products, but doubts arose over their reliability, particularly as the agencies commenced a process of downgrading mortgage-related products previously rated as high as AAA. With investors uncertain as to the market value of CDOs, Federal Reserve Chairman Bernanke mentioning that losses could lie anywhere between US \$50 billion and \$100 billion, and the investor base for such products having become so wide in recent years, it was not at all clear who was ultimately carrying the risks.

Spillover Effects – Hedge Funds

Hedge funds started to experience more adverse conditions and were forced to deleverage and sell assets, as prime brokers raised margin requirements and toughened lending terms. Funds co-owned by BNP, ABN and Goldman Sachs were among those to announce difficulties, with BNP's announcement coinciding with a sharp deterioration in money market conditions and the first and largest single action by the ECB, with an injection of €94.8 billion liquidity into the money market.

Conduits, Structured Investment Vehicles (SIVs) and Asset-Backed Commercial Paper (ABCP)

At this time, there were also rumours that some mono-line insurers, bank proprietary trading desks, off-balance sheet funding vehicles such as conduits and structured investment vehicles (SIVs), and even normally ultra-safe money market funds, were exposed to losses on CDOs.

Conduits are typically nominally-capitalised, bankruptcy-remote special purpose vehicles (SPVs), established by banks, which are usually financed by issuing short-term commercial paper (CP), which is continuously rolled over to fund a portfolio of longer-dated assets. They usually have back-up credit lines provided by banks.

SIVs are also typically SPVs, which are financed via issuance of both asset-backed commercial paper (ABCP) and by more medium-term financing. SIVs tend to be more highly leveraged than typical ABCP conduits, invest in riskier assets and are marked-to-market. SIVs require only limited committed third-party liquidity (typically 10 per cent to 20 per cent of outstanding liabilities). SIV-lites, also known as SIV-CDOs, are akin to a CDO which funds itself via issuance of CP. Their asset diversification criteria are less stringent again and they may borrow upwards of 70 times equity collateral. SIVs and similar structures are estimated to have grown to an overall portfolio size of about \$395 billion. Some reports suggest SIVs acquired about 90 per cent of total AAA paper in the ABS, residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS) space.

In August 2007, investors became increasingly uneasy about the assets included in such vehicles, resulting in a drying up of demand for CP, particularly ABCP. According to market estimates, the total amount of outstanding ABCPs was circa \$1.5 trillion at end-March 2007. However, Federal Reserve data for the US market show ABCP outstanding fell by \$194.7 billion in August and \$54.6 billion in September as traditional investors feared subprime contagion. The Bank for International Settlements estimates that ABCP exposure to mortgage-related assets recently reached around \$300 billion, with about a third issued by SIVs.

Initially, the problem was brought into sharp focus after it emerged that a number of CP issuers had exercised their options to extend the term of about \$5 billion worth of ABCP. Subsequently, mortgage lenders and hedge funds revealed that they had failed to refinance their CP and had been forced to access emergency bank credit lines and to begin selling assets. Even vehicles backed by larger international banks announced that they were withdrawing from the CP market after failing to find buyers for their paper. Two German banks were rescued – IKB (30 July) and Sachsen LB (17 August) – after having insufficient funds to meet credit lines pledged to their conduits, and suspicions were heightened further after Singapore's biggest bank, DBS Group Holdings Ltd, admitted that it had exposure to S\$2.4 billion worth of CDOs rather than the S\$1.4 billion (\$921 million) stake reported less than a month earlier, after overlooking a commitment to a conduit. According to Moody's, conduits in Europe, the Middle East and Africa owned as much as \$205 billion of CDOs and high-yielding subprime home loans at the end of May. Moody's reports that SIVs have sold about \$75 billion of assets since mid-July.

Fitch estimates that banks worldwide have \$891 billion at risk in ABCP facilities. With traditional investors reluctant to buy ABCP, more credit lines have been called upon, bringing assets back onto banks' balance sheets, at a time when they already have around \$300 billion in committed – but not yet syndicated or sold – leveraged buyout (LBO) loans which are staying on their balance sheets for far longer than originally anticipated and may also be assuming illiquid collateral from margin calls to highly leveraged entities. Fitch estimates that under Basel II, if European banks were to bring all asset-backed conduits back on-balance sheet, they could tie up \$23 billion of their Tier 1 capital. If the assets ended up being rated BBB instead of AAA this would rise to \$71 billion or about a tenth of existing Tier 1 capital.

Impact on Financial Markets so far

As previously mentioned, money markets came under severe pressure after BNP's announcement of hedge fund difficulties on 9 August. The ECB, followed by the US Federal Reserve, were quick to inject funds to stabilise overnight rates although tensions remained in the term money markets. In euros, sterling and dollars, 3-month interbank rates rose by 40-90 basis points from July to early-September, with 3-month euro area deposit rates trading at around 4.75 per cent, 75 basis points over the policy rate, while 3-month LIBOR rates reached 6-year highs in the US and UK.

CP spreads had widened relative to LIBOR from late-June, and by late-August it was particularly difficult to issue ABCP. Traditional CP holders, such as pension and money market funds, fled to "safe havens" such as government bonds, driving yields significantly lower, bringing 3-month US treasury bills yields circa 2 percentage points below the federal funds target rate at one point, the biggest negative gap since 1982. There were reports that money market funds were keeping their assets in cash-like instruments, as many sustained highly unusual mark-to-market losses. The search for liquidity also saw spreads between German and other EMU government bonds widen noticeably. French 10-year government bond yields widened to around 11 basis points over Germany in early-September, from around 4 basis points before the turmoil. Other areas to be impacted included European covered bond markets, where bid-ask spreads more than tripled, and options markets, where it was reported that there had been a pick-up in writing out-of-the-money contracts in an attempt to generate some premium. In addition, credit spreads widened, appetite for equities, emerging markets financial products and the carry trade diminished and volatility increased. The potentially severe implications of the money market malfunctioning was also highlighted after the Bank of England announced on 14 September that it would provide short-term emergency lending to Northern Rock, one of the five largest UK mortgage lenders, which was heavily dependent on wholesale funding.³

On 18 September, the Federal Reserve cut both its target for the Fed Funds rate and its primary credit discount lending rate by a larger-than-expected 50 basis points to 4.75 per cent and 5.25 per cent, respectively, having already reduced the latter by 50 basis points on 17 August. While equity markets temporarily rallied after that first cut, this time risk appetite rebounded more broadly. Equity and emerging markets rallied, high yield issuance resumed, some leveraged loan deals were completed and spreads on benchmark indices of US and European credit default swaps almost returned to pre-crisis levels. In addition, carry trades were reinstated, benefiting high-yielding currencies to the detriment of low-yielding currencies such as the Japanese yen and Swiss franc. Measures of volatility for stocks, bonds and currencies declined in many cases. The US dollar fell to new lows against the euro, as well as on a trade-weighted basis, amid expectations the Federal Reserve would continue to cut official interest rates.

While a number of investment banks reported large structured credit- and LBO-related write-downs in early-October, investors appeared to take the view that the worst had been disclosed, pushing equity markets such as the Dow Jones Industrial Average, to new cycle highs. 3-month interbank rates eased from their highs, particularly in the US and UK and to a lesser degree in the euro area, and some increase in volumes was reported. Moreover, the rate of decline in US ABCP outstanding progressively slowed, while overall CP outstanding increased modestly.

Nonetheless, as of mid-October, tensions persisted in money markets despite ongoing measures from central banks. 3-month interbank rates, for instance, while they eased somewhat, remained higher than normal relative to policy rates. Reports also suggested banks were still trying to offload certain risky assets and that problems faced by off-balance sheet vehicles had not gone away. It was therefore unclear whether there was a short-term bounce in risk appetite or a more fundamental improvement in market conditions. Certainly, significant uncertainties persisted, and some markets remained virtually closed and rating agencies were still downgrading large chunks of securities backed by subprime mortgages, after US home foreclosures doubled in September from a year earlier.

¹ In a cash CDO, underlying debt obligations can include corporate bonds (CBOs), mortgages or mortgage bonds (CMOs), loans (CLOs), ABS (ABS CDOs) or even other CDOs (CDOs of CDOs, or CDO squared). Synthetic CDOs generally package and securitise credit default swaps on a range of companies.

² Analysts now estimate that mezzanine ABS CDOs may suffer losses all the way up to their AAA tranches, while High Grade ABS will probably be only slightly better off.

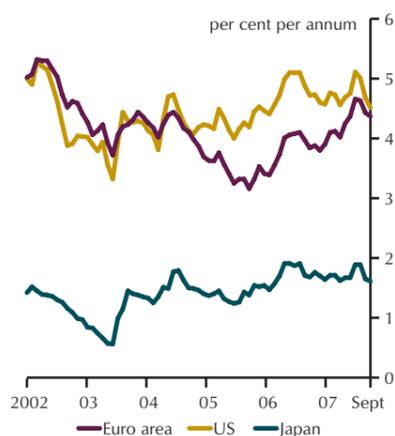
³ On 5 October, the FT reported that Northern Rock had borrowed nearly £11 billion in three weeks from the Bank of England, equivalent to 45 per cent of its end-June deposit base.

alleviating the problems at the very short end of the interbank market, with overnight rates reverting to their earlier levels. Term rates, however, have not yet fully adjusted and spreads between these rates and policy rates remain relatively wide. If this continues, this is likely to place upward pressure on the cost of borrowing, as will the widening of spreads on lower-rated corporate debt. There is also the possibility of some rationing of credit to borrowers. Should the banking sector have to bring significant volumes of ABCP conduits back on its balance sheet, this may incur extra costs for the banks, thereby reducing the funds available for other lending activities and could result in banks adopting a more cautious lending attitude *vis-à-vis* customers and businesses. At this point, the lack of hard economic data complicates a broader economic assessment of the implications of recent events, though clearly downside risks have risen noticeably. Much depends on how market developments and financial conditions evolve in coming months, with the manner in which events unfold in the US, especially in the housing sector, playing a key role.

There is an argument that current market developments could be positive over the medium term for international financial stability by reversing a perceived mispricing of risk in financial markets that has persisted for a number of years. More generally, the possible mispricing of risk may have encouraged excessive risk taking over the last number of years and may have pushed asset prices beyond sustainable values. A pervasive search for yield had characterised financial markets over recent years that had driven risk premia across a very wide range of financial assets to very low levels. Although there is no clear consensus as to the ultimate driving force behind this search for yield, there is little doubt that low interest rates and easy availability of funding had boosted the appetite for risk significantly. There was always the risk that a reversal of the search for yield along with a tightening of credit could have resulted in a widespread correction of a range of asset prices. If a correlated correction across a number of asset classes were to occur simultaneously, this could yet pose a significant threat to financial stability, both globally and to the Irish economy.

Prior to recent events, longer-term market rates had begun responding more than before to the tightening in official rates. In the current market conditions, longer-term rates have oscillated reflecting the offsetting impacts of

Chart 65: 10-Year Bond Yields



Source: ECB

expectations for higher inflation with a flight to quality. The behaviour of yields has been different for sovereign and corporate debt; government bond yields have fallen while yields on corporate bonds have increased (Chart 65).

Oil prices have moved higher in recent months. At the beginning of 2007 oil prices declined sharply, reaching their lowest level since mid-2005, but subsequently increased due to lower supply and prevailing weather and political conditions (Chart 66). Looking ahead, expected robust demand, coupled with continued limited spare capacity, is likely to sustain oil prices at relatively high levels. Futures markets suggest that oil prices will remain at high levels in the medium term.

The risk from global imbalances has not abated and remains significant. The US current-account deficit reached 6.5 per cent of GDP in 2006, close to its level in the previous year (Chart 67). Some commentators expect a decline in the size of the deficit in 2007. However, the risk remains that any shortfall in the scale of capital flows required to finance the large US current-account deficit could pose risks for global financial stability. To date, the US authorities have had little problem in financing this growing external deficit. However, the stability of global foreign exchange and other financial markets is vulnerable to any significant drop in demand for US dollar assets.

Chart 66: International Oil Prices

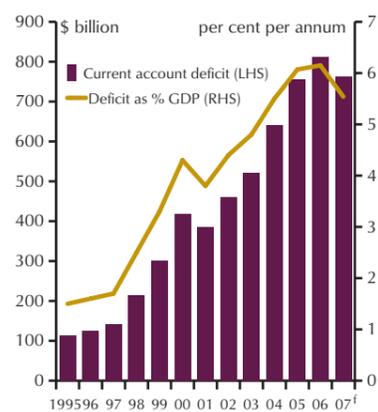


Source: Ecowin

Note: Data collected up to early-October.

Turbulence in financial markets has had a significant impact on the valuation of the euro, which strengthened notably against the US dollar and sterling in September and early-October (Chart 68). In the case of the dollar, this represents the continuance of a clear upward trend; following a modest appreciation of 1 per cent in 2006 (compared with the average of the preceding year), the euro increased steadily against the dollar in the first nine months of this year. In average terms, the currency had increased 7 per cent against the US dollar by early-October (compared with the average of 2006), passing the US\$1.40 mark for the first time since its introduction in 1999. The rapid increase against sterling, on the other hand, followed much more volatile movements between the two currencies earlier in the year. As a result, by the start of October the euro was still marginally weaker against sterling – in average terms – than it was in 2006. Looking ahead, the global imbalance issues noted above, and concerns about the US economic outlook more generally, suggest that there are risks of a further weakening of the dollar against the euro in the coming quarters.

Chart 67: US Current Account Deficit



Source: Bureau of Economic Analysis

Note: 2006 forecast based on data up to 2007Q2.

3.3 International House Price Developments and Household Debt

In recent years, house prices in many industrial countries increased at unprecedented rates providing a boost to economic growth. While housing markets remained dynamic in parts of the euro area during 2006, there was some moderation in average euro area property price inflation to 6.4 per cent in 2006, down from 7.9 per cent in 2005. Most countries within the euro area that witnessed strong increases in house prices in 2005 experienced some moderation in the course of 2006, and evidence suggests that the housing market has weakened further in the first half of 2007. In Belgium, France and Italy, house prices moderated during the year, while in Ireland a gradual moderation has taken place since mid-2006 (Chart 69). Meanwhile, in Spain, 2006 constituted a continuation of the moderation that started in 2005. It appears that the decline in house price growth reflects a cooling of demand,

as the cost of mortgage debt has risen, reflecting the increase in interest rates, while the growth in mortgage lending also slowed down during 2006.

In the euro area, total debt outstanding has increased to unprecedented levels. However, on a cross-country comparison basis, household indebtedness in the euro area (at 58.5 per cent of GDP) remains moderate compared with other industrialised countries. While rising short-term interest rates may have challenged the ability of some households to service their debts, there are a number of factors supporting household sector balance sheets. The outlook for employment and household income has improved, the pace of new household sector borrowing has slowed in the last year, while signs of moderation in a number of euro area housing markets point to a gradual softening. However, on a national basis, vulnerabilities may be growing for households where the debt-to-GDP ratio is already high, and where the majority of debt is financed at variable interest rates, leaving some households vulnerable to adverse shocks. As a result of the rise in house prices in recent years, Irish households have experienced a significant increase in their net worth despite a steady rise in their mortgage debt.

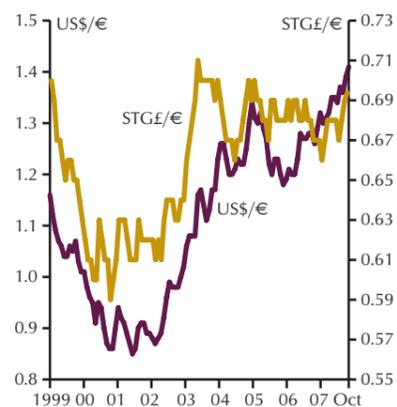
In the US, following an extended boom in housing, the demand for homes began to weaken in mid-2005 and since mid- to end-2006, the US housing market has cooled significantly as sales have fallen and inventories have risen sharply. Alongside this, household sector indebtedness has also risen in recent years (around 80 per cent of GDP). Resulting from rising interest rates and a slowing in house price growth, the recent significant rise in the number of delinquencies and foreclosures in the subprime mortgage market led to a significant amount of subprime mortgage lenders either failing or filing for bankruptcy. With the downturn in the housing market showing no signs of improving, the rate of subprime mortgage delinquencies increasing and household stress rising, a spillover to consumer spending is beginning to emerge, creating uncertainty surrounding the macroeconomy more generally.

3.4 Corporate Sector Developments

While there are no direct links between the subprime sector and the corporate sector, there are some similarities between leveraged buyouts (LBOs) and US subprime lending. Just as subprime mortgages were strongly sought after in 2005 and 2006, leveraged loans in the past year have been in strong demand. In particular, the set of incentives that exist in the subprime sector (strong demand for high yield debt, falling lending standards and weaknesses in underwriting) also emerged in the corporate sector, and in particular the leveraged buyout boom.

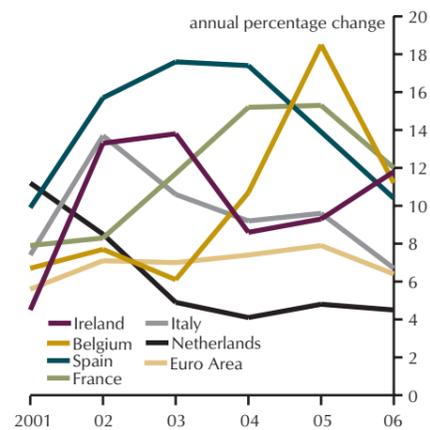
Over the last year or so, there has been a massive increase in private equity buyouts, which has resulted in a sharp rise in leverage, with global LBO issuance increasing by roughly 60 per cent in 2006. The current wave of LBOs differs from prior waves in that the size of the deal is much larger, while the degree of leverage is rising. Few firms are now thought to be too large to be the target of a takeover, with the deal size growing, in part, because a large number of LBOs are being completed by groups of sponsors that pool their resources.

Chart 68: US\$ and STG£ Exchange Rates vis-à-vis €



Source: ECB
Note: Data collected up to early-October.

Chart 69: International House Prices



Sources: National sources and ECB calculations
Note: Weights based on 2005 nominal GDP. Belgian data – new & existing houses; whole country. Spanish & Italian data – all dwellings (new & existing, houses & flats); whole country. French & Netherlands data – existing dwellings (houses & flats); whole country. Irish data – national average house price.

There are a number of factors that have contributed to the rise in LBO activity over the last year or so. Strong corporate balance sheets, combined with the reticence of some publicly-traded companies to undertake new investment, have provided a ripe environment for mergers and acquisitions activity. In addition, firms in certain sectors (such as utilities, consumer goods and retail) with relatively stable earnings and cashflows are making tempting targets for buyouts, while in some cases, public firms have become private to overcome costs associated with regulatory compliance and shareholder scrutiny. Finally, the large influx of capital into private equity funds has contributed to the rise in LBO activity. This wave of LBO activity has introduced some risks, and from a financial stability perspective, the growing leverage can constitute a concern if its financing is likely to prove unsustainable. In recent months, however, LBO activity has dried up somewhat on the back of financial market turbulence.

HOUSES OF THE OIREACHTAS

Volume 1

Number 3

AN COMHCHOISTE FIOSRÚCHÁIN I DTAOBH NA GÉARCHÉIME BAINCÉI- REACHTA

JOINT COMMITTEE OF INQUIRY INTO THE BANKING CRISIS

Déardaoin, 15 Eanáir 2015

Thursday, 15 January 2015

The Committee met at 9.30 a.m.

MEMBERS PRESENT:

Deputy Pearse Doherty,	Senator Sean D. Barrett,
Deputy Joe Higgins,	Senator Michael D'Arcy,
Deputy Michael McGrath,	Senator Marc MacSharry,
Deputy Eoghan Murphy,	Senator Susan O'Keeffe.
Deputy Kieran O'Donnell,	
Deputy John Paul Phelan,	

DEPUTY CIARÁN LYNCH IN THE CHAIR.

spective functions of the Central Bank and Financial Regulator” over that period. Drawing on internal files as well as interviews with key officials, the report was able to provide answers to two questions. First, why was the danger from the emerging imbalances in the financial system that led to the crisis not identified more clearly and earlier and headed off through decisive measures? Second, when the crisis began to break, were the best containment measures adopted? The report noted the relevance of factors other than the performance of the Central Bank and the Financial Regulator, including the performance of directors and senior management at the banks, their auditors and accountants as well as pro-cyclical elements of Government policy. However, in line with the terms of reference, it focused on the design of micro-prudential aspects, the approach to overall financial stability and the failure to undertake decisive and effective remedial measures.

The report runs to 130 pages, as members know, so what follows is very telegraphic. As far as micro-prudential policy is concerned, the supervisors did not accumulate enough relevant information for several reasons, the first being an excessive reliance on a regulatory philosophy that implicitly trusted that well-governed banks could be relied upon to remain safe and sound. This approach emphasised process over outcomes and downplayed the quantification of risk. The second reason was a deficiency in skills and staff resources. There should have been a greater degree of intrusiveness and assertiveness and a less deferential approach to the banking industry. This would have disrupted the pattern of inconclusive engagement with the banks, a pattern which spilled over into the macro-prudential area, reflected in the fact that the belated and relatively modest tightening in 2006 of capital requirements for high loan-to-value mortgages was adopted only after prolonged and agonised debate.

In terms of the analysis of systemic risks, the language of successive published financial stability reports was too reassuring, representing a triumph of hope over reality. Much has been made of the institutional separation of the regulatory authority from the rest of the Central Bank. The 2003 legislation that did that created the risk of ambiguity with regard to which entities were responsible for what. Certainly communication between the macro-economic specialists assessing systemic risks and the micro-prudential supervisors dealing with individual banks was not fully effective. Each side subsequently felt that they would have acted more vigorously had they been more aware of what the other knew. That probably reflected a lack of mutual understanding of the methodology and professional language as between economists and supervisors more than the institutional separation, which was by no means rigid. In the end, senior officials in both institutions or both parts of the institution, as well as many elsewhere, both at home and abroad, were too optimistic about the strength of the economy and the Irish banks. One should recall that several other central banks and financial regulatory authorities suffered similar failures in the run up to the crisis. However, with the exception of Iceland, they had not allowed the scale of their banking systems to get so completely out of control as happened in Ireland.

The report’s section on crisis containment includes an assessment of the 29 September 2008 decision to guarantee substantially all of the liabilities of the banks. While several other countries followed suit in subsequent days with more limited guarantees, the guaranteeing of subordinated debt of the banks was clearly a mistake. The formal guarantee, backed by legislation, of all long-dated debt was also unnecessary and bound to constrain the authorities’ ability to restructure or wind down failed banks before the expiry of the initial guarantee. That is the best summary I can give of that but I am sure that members will want to discuss it in more detail.

With the benefit of hindsight, had the regulatory authorities had any notion that heavy losses

liquidity to Anglo Irish Bank itself.

Professor Patrick Honohan: Yes.

Deputy Kieran O'Donnell: Was it in ways a pyrrhic victory going with the blanket guarantee with the taxpayer on the hook for €40 billion? Will Professor Honohan elaborate on that? Was it a self-fulfilling prophecy that the blanket guarantee would store up major problems for and completely-----

Professor Patrick Honohan: Yes, but they did not know that. They did not realise that. What they should have realised was that if even if the best estimate was that they would not lose anything, there was a risk and the tail of that risk was very large. That was the advice that should have been given to Government at the time and I do not-----

Deputy Kieran O'Donnell: By whom?

Professor Patrick Honohan: By the relevant officials, including the bodies that I am investigating, and I think that is right.

Deputy Kieran O'Donnell: Professor Honohan is, therefore, saying that the Central Bank at the time in his view should have extended the emergency liquidity to Anglo Irish Bank.

Professor Patrick Honohan: Yes, but let us be careful about this. It would be naive to say provide emergency liquidity just for a few days and the problem would have gone away. It would not have gone away by the weekend. It would have bought a bit of time for discussion-----

Deputy Kieran O'Donnell: Does Professor Honohan believe on the basis of his discussions with his ECB partners and the head of the ECB in his role as Governor that they would have positively engaged if they had been contacted by the Government at the time?

Professor Patrick Honohan: Certainly they would have permitted the ELA but would they have said, "Don't worry about that. We will pay for Anglo Irish Bank"? There was no hope but there could have been some possibility of hooking them in by saying "We don't want to pay for this and we're going to let it go. What are you going to do about it?" There could have been a very tough political negotiation, not with the ECB. It would have to have been political with the rest of Europe but Europe would not have been ready for that, as it has not proved to be ready in many cases since.

Deputy Kieran O'Donnell: Does Professor Honohan believe that if the Government and officials had approached the ECB, it would have facilitated an orderly wind-down of Anglo Irish Bank, which clearly was insolvent at the time, as well as INBS?

Professor Patrick Honohan: Our subsequent experience - and we will presumably deal with that in the later part of the inquiry - was that the ECB was not in a frame of mind to permit wind-downs which imposed losses on senior bondholders. This is not a slam dunk, easy decision. The ECB would have said "If you want some assistance on this, please address yourselves to the other governments in Europe" because central banks can only give liquidity assistance. It would have allowed the granting of the ELA for a week or several weeks but-----

Deputy Kieran O'Donnell: Does Professor Honohan believe if that engagement had taken place with the ECB, the cost to the taxpayer would have been less than €40 billion that has been incurred?

Professor Patrick Honohan: It could have been less than the €40 billion. The Cathaoirleach asked me what was the cost of the guarantee but the cost of all the austerity measures is much bigger than the cost of the guarantee. It would, therefore, be a mistake for people listening to our conversation to take from this the idea that money could have been saved and there would not have been any austerity.

Deputy Kieran O'Donnell: Would it be a fair comment to state that the blanket guarantee was a major contributory factor to Ireland having to enter a bailout programme because it stored up problems with banks having to refinance two years later?

Professor Patrick Honohan: Definitely go into the bailout but the bailout is only the protective cover around austerity that needed to happen.

Deputy Kieran O'Donnell: It brought a lot of austerity-----

Professor Patrick Honohan: It did not. I do not think so. The bailout reduced the austerity measures.

Chairman: I will bring the Deputy back to Professor Honohan's report because we will deal with the bailout during a later module.

Deputy Kieran O'Donnell: I refer to financial regulation and so forth. At what point in time prior to the guarantee does Professor Honohan believe the banks were insolvent? Was there a scenario in the context of financial regulation that the tail was wagging the dog in the relationship between the regulators and the banks?

Professor Patrick Honohan: Insolvency is a legal concept so we have to be careful about that. There are two concepts of insolvency known to law. The first is whether you can meet your payments as they fall due. As soon as they were not able to meet their payments as they fell due, they were insolvent in that sense but more important than that for banks is the other concept of insolvency, which is whether your assets are greater than your liabilities. It is very difficult to value assets and there are accounting rules for doing so. Normally they work reasonably well but when a bank gets into a situation which I describe in box 7.2 where the boom might go on but the bust might happen, there are two possibilities - a good possibility and a bad possibility and they are very far from each other. Accountants' valuations are no use in dealing with that so it is not a question of when they were insolvent but when regulatory action should have been taken to prevent them doing what they were doing. The answer is it should have been taken several years before that.

Deputy Kieran O'Donnell: When?

Professor Patrick Honohan: The damage was being done mainly in 2004, 2005 and 2006. If you came up with some great idea at the end of 2006, it would have been too late.

Deputy Kieran O'Donnell: The horse had bolted in 2006 and it was too late to impose the additional capital requirements.

Professor Patrick Honohan: Yes, although in fairness to some people who have been vilified in the media, they put in those measures. People are trying to identify who caused this. Actions were taken but they were too late.

Deputy Kieran O'Donnell: I refer to Professor Honohan's paper, Resolving the Banking Crisis. Was it not astounding that it was not picked up that Anglo Irish Bank's balance sheet

was growing at an average of 37% over a nine year period between 1998 and 2007 and INBS's was growing at more than 20% annually during that period?

Professor Patrick Honohan: I am sure it was noted but it was not seen as much of a problem as it should have been because the risk analysis was shallow. Do they have a good risk committee? Do they have the proper approval mechanisms? Does the board approve these loans? Instead of saying, "Let's stand bank and look at this. Are the collaterals okay? Do they really have those collaterals? What happens if they all fall in value by 30% of 40%, which is what many people were saying all the way through the mid-2000s-----

Deputy Kieran O'Donnell: Does Professor Honohan believe during that period that the tail was wagging the dog?

Chairman: Will the Deputy put the question rather than make a statement?

Deputy Kieran O'Donnell: Was the financial regulation from 2002 onwards fit for purpose?

Professor Patrick Honohan: I am determined to avoid a small slogan but if we get into fit for purpose and regulations that failed, we will get a long list of international regulators whose record during this period was not all that good. The difference with Ireland and maybe Iceland is the scale. The scale is huge. I do not necessarily disagree with the characterisation but I do not want to use it because I resist reducing this matter to a slogan.

Deputy Kieran O'Donnell: Professor Honohan has stated, "While regulation has self-evidently failed...".

Professor Patrick Honohan: Absolutely.

Deputy Kieran O'Donnell: Does Professor Honohan then believe it was not fit for purpose at the time?

Professor Patrick Honohan: It is not the language that I would-----

Deputy Kieran O'Donnell: What language would Professor Honohan use?

Professor Patrick Honohan: That it had self-evidently failed.

Chairman: Professor Honohan said that between 2004 and 2006 things were getting rocky. What happened in 2003?

Professor Patrick Honohan: There was a slowdown in or around 2001 and 2002 and the pick-up in the housing market and the banks piling in with more lending started in 2004.

Chairman: With regard to the banks' balance sheets, their lending and the volume of money in the economy, cash started to circulate in 2003 and 2004 following the dotcom crash and not when Ireland joined the euro in 1999. What was happening in Ireland in particular around 2003?

Professor Patrick Honohan: I think it was a continuation of a trend which had started around 1998 - anticipation of the euro, interest rates coming down, the legacy of the great Celtic tiger period where there was a shortage of housing and people wanted housing. That trend was there, interrupted by the recession and then resumed in a global environment where it was so easy for banks to source cash.



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29 March 2007



Review of Sectoral Concentration Framework

Dear Ms. Burke

Your letter dated 23 February 2007 to John Murphy, Group Regulatory Risk & Compliance refers.

The attached appendix sets out Bank of Ireland's approach to the management of concentration risk and includes, as requested, details of diversification strategies, policies, procedures and limits used to monitor and manage those concentrations.

MS
21/4/07
22/4/07
23/4/07

In relation to the Sectoral Concentration Framework, Bank of Ireland has no issues concerning single name concentrations. Bank of Ireland approaches policy limits on a conservative basis relative to the regulatory maxima, setting limits by reference to Tier One Capital rather than Total Own Funds. Bank of Ireland's calculation of total exposure also includes settlement and other risk limits for non-Bank counter parties.

Bank of Ireland would, however, highlight that the regulatory limits and the reporting of the single name concentrations do not take into account the risk profile of the actual loans (with the exception of an allowance for netting of certain collateral).

The regulations impose an additional concentration limit that a credit institution "shall not have risk assets amounting to more than 200% of own funds concentrated in any one sector or business or economic activity which is subject to a predominant risk factor; where a common risk could be considered to apply to two or more separate sectors ... not more than 250% of own funds shall be employed with such sectors in aggregate." (*"Licensing and Supervision Requirements and Standards for Credit Institutions" (1995)*).

As your letter notes, Bank of Ireland exceeds the 200% limit in Real Estate, Renting and Business category. Bank of Ireland remains comfortable with the exposure in this category because of the diversification of the loan book, in terms of both lending type and geographical spread, and the underlying quality of the individual transactions. Bank of Ireland undertakes an annual review of the commercial real estate portfolio and, where appropriate, sets limits or caps on individual sub-sectors. In the past twelve months,

Legal information

Bank of Ireland - incorporated in Ireland with limited liability
 Bank of Ireland is regulated by the Financial Regulator

Registered information

Registered No. C-1

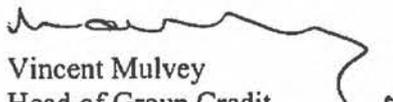
Bank of Ireland has imposed a cap on exposure to landbank transactions, and monitors and reviews the loan book and market developments in this area closely.

Bank of Ireland would highlight that, from a practical perspective, sector, business or economic activity limits can prove more difficult, given the subjective approach required to determine which sectors are subject to a predominant risk factor. The requirement also does not reflect the relative risk profiles of the individual sectors and applies a single limit regardless of those individual sector risk factors.

Bank of Ireland's belief is that internal bank risk management techniques are better placed to determine the appropriate sectoral risk profile of a loan book. Bank of Ireland would suggest that, while reporting of sectoral exposures could continue for information purposes, the imposition of hard limits is inappropriate and should be reconsidered.

Should you have any queries on our response, please do not hesitate to contact the undersigned.

Yours sincerely,



Vincent Mulvey
Head of Group Credit
Bank of Ireland

APPENDIX

Bank of Ireland - Approach to Concentration Risk

1. General

A concentration of credit risk is an exposure to a single entity, or group of entities engaged in similar activities, and having similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions.

For internal purposes, Bank of Ireland adopts an approach to concentration that is closely aligned to the regulatory framework, i.e. both single name and sectoral concentrations. The approach is to adopt a conservative calculation of Total Exposures (such as the inclusion of non-bank counterparty settlement risk in gross exposure calculations). These concentrations (by sector and by name) are measured against the required regulatory maximum limits.

Country risk concentration limits are operated for some countries. Other concentration limits may be applied for individual types of exposure (such as Collateral Debt Obligations (CDOs), investment trusts, Leverage Finance, Project Finance). Single name concentration (bitesize) limits exist in a number of specific policies (such as Leverage Finance, Asset Finance).

In setting concentration limits, Bank of Ireland seeks to avoid large unexpected credit losses, which may or may not pose a threat to compliance with regulatory capital ratios or solvency, but which would be beyond the point at which external perceptions of risk management competencies could lead to unacceptable impacts on funding, capital-raising ability and share price.

When dealing with single name concentrations, Bank of Ireland manages the risk of credit events leading to default that would leave a counterparty unable to meet its obligations. In managing this risk, the probability of default of the counterparty, as measured by reference to statistically based models that consider financial, business and economic factors, is considered.

With regard to country risk, Bank of Ireland seeks to manage large concentrations of exposures to countries where the political or economic risks are significantly higher than in our core markets (Western Europe, specifically Ireland and the UK, and US). This risk is managed by reference to external ratings and internal assessment of default probability.

In setting sectoral limits, Bank of Ireland seeks to manage the risk of industry wide credit events giving rise to simultaneous difficulties across a range of counterparties, e.g. a sectoral limit may be applied to an industry that carries significant regulatory risk or market demand risk.

Regular calculation of Economic Capital (ECap) for the entire loan book takes into account single name and country risk concentrations and associated correlations.

2. Counterparties and relationships between counterparties for single-name concentration risk

Bank of Ireland Group Credit Policy defines a Connected Risk Group (CRG) as two or more natural or legal persons, who unless it is shown otherwise, constitute a single risk because one of them, directly or indirectly has *control* over the others or they are so *interconnected* that if one of them were to experience financial problems, the other or all of the others would be likely to encounter repayment difficulties.

In this context 'control' includes a Parent, Subsidiary or Associated company relationship. The definition/meaning of 'interconnected' is more open to interpretation and requires lenders to apply internal subjective judgement based on available information.

A material inter-dependence exists if the default of one borrower would materially impact the on-going viability of the other borrowers. Material inter-dependence is assumed if any of the following apply:

- There are inter-company or inter-borrower (in the event that the borrowers are individuals rather than legal entities) loans or trading;
- The borrowers are members of a group of companies

In the case of invoice discounting products where there is exposure to entities by way of an assignment or charge on their debts, limits are established for the amount of exposure Bank of Ireland will take and these are aggregated with our direct exposures.

For transactions such as Real Estate Opportunity Funds (REOFs), when lending money to an investment fund secured by its uncalled capital commitments, exposures to investors across different obligors are aggregated. However, no aggregation of exposures to borrowers/entities where the exposure is by way of a participation in a Collateral Debt Obligations (CDO) or other entity that buys debt instruments is undertaken, but limits on aggregate exposures to CDOs/Investment trust etc. are set.

3. Measurement of exposures - Total Group Exposure (TGE) and Potential Future Exposure (PFE)

Bank of Ireland measures amounts at risk as TGE, which is in effect the aggregate of all approved (drawn and undrawn) facilities (committed or uncommitted). Guarantees are typically included under their nominal amounts but may be increased to cover the max amount that could be due under them (such as guarantees that can be called more than once e.g. Custom & Excise). Intra-day transactions are not typically included in TGE. Settlement exposure is typically included (except in interbank exposures).

Derivative exposures with future volatility such as interest rate or currency swaps are added to TGE on a Risk Weighted Basis. The approach to measuring exposure under a derivative contract is to define it as the sum of the current market value of the contract (mark to market) plus an estimate of the Potential Future Exposure (PFE) that could arise over the remaining life. The PFE is estimated by looking at each specific type of derivative and defining a "worst case" outcome to 95% confidence level. Following industry benchmarking, 50% of the "worst case" weighting is used as a reasonable

estimate of the PFE on each deal to reflect portfolio considerations. The Group Market Risk team calculates the “worst case” weightings, using standard statistical techniques.

Single Name, Sectoral and Country concentrations are measured on a Group basis using the TGE method outlined above. The basis of this is a conservative one that applies limited deductions (through risk weightings) to nominal exposures in selective exposure types where loss on default is a function of rewriting risk.

TGE is integral to the decision-making process and forms the basis for determining the appropriate level for approval of lending decisions (along with Probability of Default (PD) / Loss Given Default (LGD)). Deliberate or approved breaches of internal sectoral limits are treated as policy exceptions.

In Securities Lending transactions, Bank of Ireland sets limits on both the direct exposure to Borrowers and to the collateral held. Borrower limits are risk weighted in a manner similar to the PFE method used for derivative exposures. Borrowers in Securities Lending transactions are typically large banking counterparties for whom Bank of Ireland has overall limits in place. The risk weighted lines for Securities Lending must be allocated from these Group Limits.

Collateral limits are in place to limit reliance on security from any one Borrower. These seek to limit exposures to single issuers of security and to single issues of securities (with the latter limit in place to address liquidity risk on a single issue – e.g. 5 year bond)

4. Monitoring and Managing Concentration Risk

Single name concentrations are monitored at Group Level. Country concentrations limits are set at Group level and monitored centrally. Regulatory imposed sector limits are also monitored at Group level. Compliance with product or sub sector policy limits is monitored at divisional level with deliberate or approved breaches of such limits treated as policy exceptions and reported to Group level.

4.1. Single Name Concentration Risk

Single name concentration risk is managed centrally, with all large exposures approved by Group Credit Committee.

Factors considered in determining the level of exposure taken on a counterparty include:

- The sector
- Geographical location (higher concentrations taken on counterparties in our core markets)
- Relationship – whether a corporate borrower has a relationship with the Bank or whether the provision of debt is merely as a participant in a syndicate.
- The role of Bank of Ireland in provision of debt – e.g. Lead Arranger and Underwriter vs syndicate participant
- The Risk profile (PD) of the borrower – Higher concentrations accepted in lower credit risk borrowers.

- The Security held – e.g. larger concentrations taken on debt secured by cash than debt secured by enterprise value.
- The size of the counterparty – e.g. Bank limits are set with reference to rating but also the size of the counterparty bank’s equity base.

Individual requests for large exposures are considered on a case-by-case basis by the appropriate sanctioning authority. Policy limits are in place limiting the single name concentration that can be approved by Group Credit Committee. This is expressed as a percentage of Tier One Capital. Requests for single name concentrations above this amount have to be sent to the Board for approval or ratification. This “internal limit” on the management’s ability to take single concentration risk is significantly lower than the limit imposed by the Financial Regulator.

Certain maximum counterparty exposure policy guidelines are set for sector or product. However these are typically quite low and even at maximum amounts, the single name concentrations would not approach the % of Tier One Capital internal limit or the Financial Regulator limit.

A RAROC analysis is adopted for all large exposures. The approach is relatively standard and uses a combination of PD, LGD and operational risk inputs to determine the capital usage of individual loans/connections.

4.2 Sectoral Concentration Risk

Decisions on whether to increase, reduce or maintain existing levels of exposure are based on sectoral concentration risk analysis. Where appropriate, recommendations in sectoral or product exposures include specific guidepoints on exposures. Factors that determine these guidepoints will include:

- Riskiness of the Sector - including PD, Expected Loss (EL), LGD and ECap.
- Expected loss and Structure of lending within the sector.
- Compatibility with Group risk appetite.
- Existing relationships.
- Risk-adjusted returns available on transactions/portfolio.
- Complexity of the sector (and/or the degree to which lending standards could be eroded by competitive pressures).
- Degree of correlation within sector/ within the rest of the loan book.
- % of Tier One Capital represented by the sector.

4.3. Country Concentration Risk

Bank of Ireland controls exposure to specific country risks in all countries outside the Eurozone, United States and other higher rated countries through a series of maximum maturities and maximum exposure limits (MEL’s) based on country sovereign ratings.

Appropriate MEL’s / maturity limits are approved annually by our senior risk committee, for lending in countries apart from Eurozone countries rated AA- or

above and in other countries rated AAA/AA+, on the recommendation of Global Markets division through the Group Credit Risk function.

Countries are risk-graded on the basis of an assessment of each country's economic, financial and political strength and stability using a risk scoring model and Moodys / Standard & Poors ratings. Maximum Exposure Limits (MEL's) and maximum maturity limits are set for each grade of country within the overall policy for country risk and individual specific country limits are set within our Global Markets division's discretion. Limit usage is reviewed annually by Global Markets and advised to the Group Credit Risk function.

Some regional limits are also set for particular regions where political instability may be more strongly correlated.

4.4. Bank Guarantee Risk (Collateral Risk)

Limits on Bank guarantee risk (collateral risk) are operated, with all bank guarantees taken as collateral allocated from overall Bank counterparty limits.

5. Stress Testing

Bank of Ireland takes account of concentration risk in its stress testing process. This process is part of the Internal Capital Adequacy Assessment Process (ICAAP). Concentration risk is stressed in the context of understanding the macro economic drivers that cause credit losses i.e. stress scenarios are designed that will stretch different segments of the book. Consideration is given to the impact on niche sectors within a suite of stressed scenarios. In addition, sector specific stresses are conducted covering areas such as property, maritime, project finance etc.

The stresses are based on a nested approach. On the top level, the macro economic impact is assessed. In addition, sensitivity analyses for specific sectors and risk profiles are conducted. The ICAAP stresses are conducted at least half yearly, and run more frequently as required. The process is designed to identify threats to capital adequacy and to structure action plans to mitigate these threats. Therefore if the process as a threat identifies an explicit concentration risk, a management response will be triggered. Tests on specific segments are run as needed, to facilitate business decision-making.

Concentration risk is actively measured in ECap quantification and will be evidenced by spikes in ECap usage. This is monitored quarterly. The ICAAP process facilitates a continued systematic focus on this area of concentration and includes formalised governance.

6. Intra-Group Exposures

Intra-group exposures are not treated as credit risk where companies are 100% subsidiaries of Bank of Ireland. Where lending is provided to less than 100% subsidiary companies, standard lending principles and any applicable limits apply on a strictly arm's length basis.

7. Credit Risk Mitigation Techniques and Concentration Risk

Credit Risk Mitigation techniques are predominantly based on the taking of security. Bank of Ireland Group Credit Policy states that repayment capacity is the primary criterion in credit assessment, but it is the norm that security will also be required. Where security is a material consideration, it is Group policy that Bank of Ireland ranks on at least an equal basis with other secured lenders providing similar facilities. The nature and level of security required depends upon the extent of the exposure, type of facility being provided, the term of the facility, the borrower's own cash input and the lender's evaluation of the level of risk involved in the proposal.

Bank of Ireland adopts an approach whereby single name concentrations can be mitigated by the adoption of a clean risk approach where both TGE and Clean Risk are quoted. Clean Risk is a netting approach that nets off the value of cash collateral or bank guarantees held. Netting is provided against bank guarantees to prevent double counting of exposures as bank guarantees are only accepted as collateral mitigation where there are lines in place for the issuing bank.

Where permitted, netting of certain collateral (called "exemptions") against gross commitments is adopted for the purposes of Single Name exposure reporting. Typically, these 'exemptions' would be in line with the netting applied internally to deliver clean risk. Where Bank of Ireland provides a defeased lease, exemption is claimed only where the cash taken in support of the defeased lease is retained in cash or invested in specified investments (typically zone A government securities).

Netting in derivative contracts is typically achieved through the usage of standard ISDA agreements that provide for legally enforceable netting.

Where there is extensive dealing with specific bank counterparties and there are single name concentration issues, it is policy to put in place a collateral agreement ('CSA'). A threshold amount is agreed with each counterparty, and if the net Mark To Market ('MTM') exceeds the threshold, collateral is exchanged

Exposure to a collateralised counterparty is defined as the sum of the net MTM position, plus a one month add-on set by the market risk unit. It is policy to net the collateral balances held or received against the Pre-settlement limit for the counterparty. This is because trades are netted which means line utilisation is lowered if the trades have a negative MTM. However, to the extent that a cash collateral payment is made to the counterparty, the line utilisation will reflect this.

Credit derivatives are primarily used on the credit trading desk for the purpose of taking proprietary risk rather than for mitigating credit risk on counterparties. Exposure to derivative counterparties are included in our inter bank lines.

8. Indirect Concentration Risk

Concentration issues to issuers of collateral and providers of unfunded credit protection can arise in respect of Bank counterparties. Such exposures are recorded under TGE and concentration risk is managed in the same way as direct risk. Where exposure arises as a

result of facilities being 'wrapped' by monoline insurers, the aggregate exposure to individual insurers is tracked and reported.

9. Governance and Reporting

Compliance with internal limits is monitored by Credit Departments with independent audit check by a Group Credit Audit function. Internal limits are soft, in that the appropriate credit authority may approve exceptions. Exceptions are reported centrally. Regulator limits are hard.

Single Name Concentrations are monitored and reviewed through the Group Large Exposures Listing, which is collated and reported to The Financial Regulator on a quarterly basis and includes:

- Top 50 exposures to clients and groups of connected clients (other than Credit Institutions and Specified Investment Institutions) by gross exposure (TGE), Net exposure (clean credit commitments) and as a % of total own funds (Tier 1 and Tier 2 capital).
- Top 20 exposures to Credit Institutions and Specified Investment Institutions by Gross exposure, Net weighted amount and as a % of total own funds.
- Certain exposures to Central Governments, Central Banks and European Communities.

A summarised version of this report including Tier One Capital analysis is sent to the senior Risk Policy Committee on a quarterly basis.

Compliance with regulator sector concentration limits is monitored through Regulator returns. Sectoral and product exposures and concentrations are monitored and analysed by Group Credit Risk and the senior Risk Policy Committee in the course of:

- Sectoral Policy Reviews
- Business Unit Credit Policy Reviews
- Product Policy Reviews
- Monitoring of Market Developments

Frequency of sectoral monitoring is a function of the following:

- The extent of previously identified concentrations
- The complexity of a sector
- The perceived risk factors of a sector
- The Bank's experience of the sector

Bank of Ireland has a Portfolio Review Group of Senior management tasked, inter alia, with the identification of emerging risk concentrations and unused risk appetite growth opportunities.

Senior Management is therefore provided with single name concentration information at least quarterly. Sectoral information is provided at different times but information about the main sectoral concentrations is provided at least annually.

CB01B02	CB00517	IFSRA meeting minutes 1 st Quarter of 2007	r2b	4
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Narrative

The Minutes of a meeting of the Board of Directors of IFSRA in early 2007 record that Alan Gray informed the Board that his firm Indecon had provided consultancy services to Bank of Ireland stated his belief to the Board that this work did not create a conflict of interest.

R2b: Nature and effectiveness of the operational implementation of the macroeconomic and prudential policy

Information Summary (Section 33 AK)

Note: All references are aggregated

Categories of Documents summarised:	An internal Central Bank report : Survey of Mortgage Lending Practices
Time period covered:	Q3 2003
Document Name:	B010-F01-0017.PDF
Bates No.:	CB01088

The survey of mortgage lending confirmed that although banks were well capitalised and diversified they faced risks emanating from the renewed acceleration in residential property prices and credit growth. The regulator encouraged prudent lending using moral suasion but the survey indicated that this had not been successful.

The report outlined that Mortgage lending had grown at very high rates. Between 1999 and 2002 it increased by 77% from €24.7 billion to €43.8 billion, and growth in May 2003 showed an annual increase of 23.6%. The Governor had written to all large banks in the 4th quarter of 2002 advising them that the Bank was "anxious that credit institutions should not relax their lending criteria in order to increase market share".

Against this background, the CBFSAI had conducted a survey of mortgage lending practices in the first half of 2003. A series of focused on-site inspections were conducted in April and May 2003 to examine whether new loans were advanced in accordance with prudent criteria and to confirm that lending practices were compared with the Bank's guidance on prudent lending.

It was found that competition in the mortgage market was intense. Three institutions were found to have granted Mortgages with LTV ratios of above 95% and 100% in certain circumstances. Levels of exceptions to credit policies were high, with over 20% across institutions. Problems were also identified with income verification procedures, stress testing of customers' repayment capacity and the procedures adopted for calculation of repayment capacity, besides others. It was also found that the level of adherence to the guidance issued by the Central Bank on prudent lending practices was unacceptably low.

In the conclusion the report noted:

“A second possible element would be to move beyond moral suasion and take direct action in the form of imposing requirements on institutions. However, the FSR must be mindful that aggressive action taken to force prudent behaviour on mortgage lenders may restrict the growth in mortgage lending and create a shock to the system that could negatively impact on a fragile property market.”

A detailed action plan and follow-up programme for dealing with the individual banks was proposed. This recommended that the inspection findings should be issued to the Chairman of each credit institution and had to be considered by the respective boards. The report recommended that each board review the compliance policy monthly and carry out stress-testing to assess the institution’s resilience in the fact of an economic shock.”

Information Summary (Section 33AK)

Note: All references are aggregated.

Categories of Documents summarised:	<ul style="list-style-type: none">• CBSAI Board Meeting Minutes
Time period covered:	<ul style="list-style-type: none">• Q1 2009

Document name USB2A-0159.PDF

Draft Financial Stability Report

CB06960-004 and 005

Publication of the Financial Stability Report had been deferred from 2008 because of the unsettled and changing financial stability environment both in Ireland and abroad. The board was not confident that publishing the report would materially benefit the work of restoring financial stability. The board made the decision that it would not be possible to publish the report in the current circumstances.

Information Summary (Section 33AK)

Note: All references are aggregated.

Categories of Documents summarised:	<ul style="list-style-type: none">• IFSRA Board meeting minutes
Time period covered:	<ul style="list-style-type: none">• Q3 2008

Document name: USB2A-0535.PDF

Bates number: CB07122

Nationalisation legislation

It was noted by a member of the senior management team that legislation is now ready in the Department of Finance which was prepared as a contingency for nationalisation of a bank or building society.

Financial Stability Issues
Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none"> • Comment for inclusion in Autumn Bulletin 2003 • Revised Comment for inclusion in Autumn Bulletin 2003 	3 Q 2003

Ireland's inflation rate and price levels were noted with reference to domestic overheating and greater trade exposure to countries with stronger currency developments. High wage increase contagion from 'higher productivity industries' to the more sheltered sectors, and high service rate inflation were mentioned.

The report then focused on evaluation of house price levels in Ireland as an area of particular concern, which 'posed macro economical as well as financial stability risks'. Concern was expressed that borrowers 'do not assume excessive debt and that lenders maintained prudent lending standards'.

- The draft Comment was circulated to Directors with the following wording included:

"While it can rarely be ascertained definitively whether [there] is a bubble in house prices, if there are some elements of a bubble in current prices a continued rise in prices could result in a more disruptive adjustment as prices revert to their fundamental values".

- A revised draft and the Bulletin published later in that quarter, included the following comment instead:

"To the extent that there may be overvaluation present, a continued rise in house prices could be followed by quite a disruptive adjustment as prices revert to their fundamental values".

Bates No. CB01105- File name B010-F02-0008.PDF - Batch CB01B02; Bates CB01106 – File name: B010-F02-0009.PDF – Batch CB01B02

Document category	Time period
<ul style="list-style-type: none"> EBS CEO Draft letter to the CEO of IFSRA 	27 August 2003

The letter refers to earlier correspondence regarding the examination of EBS (the Credit Institution) lending policies and practices. EBS shared IFSRA concerns about the level of mortgage credit growth and house prices. EBS was satisfied that their lending standards remained robust and met the 2001 Central Bank prudent loan assessment guidelines. It was mentioned that GE Capital and Ernst & Young also undertook a review of EBS residential lending policies and reported that they were satisfied. EBS does not believe that any further action is required to improve on their standards. Residential credit policies were reviewed and ratified by the board on 28 March 2003. EBS was looking forward to taking part in discussions on forthcoming stress testing believing the collaborative approach increases value of the exercise.

Bates: EBS01619

Document category	Time period
<ul style="list-style-type: none"> EBS Board Report circulated on 20 October 2003 	20 October 2003

The report written for the Board by the Credit Policy & Risk section of EBS describes a meeting of 02 October with the IFSRA Supervisory Team. The meeting had been scheduled to discuss results from a recent credit inspection in August, and the response given by EBS (see above).

- IFSRA's 'key point at the outset of the meeting' was their concern with the continued growth of mortgage credit. The IFSRA team referred thereby to the Central bank's recently published Autumn Quarterly Bulletin in which concerns about the stability of the mortgage market were highlighted. Extracts from the Quarterly Bulletin were attached to the report. Besides that, some specific findings from the inspection were discussed and to be followed up.

Bates: EBS01630

Document category	Time period
<ul style="list-style-type: none"> Report “House Price Levels: An Assessment” Circulated to Board of CBFSAI and discussed in CBFSAI Board meeting in 2 Q 2003 	2 Q 2003

The report focused on evaluation of house price levels in Ireland, and was split into four sections:

1. The recent international analysis of house price bubbles
2. The evidence on whether or not there is a likely bubble in Ireland
3. The likely effects of a 20% fall in house prices
4. The Conclusion

In Section 2, the report summarises:

“... Furthermore as mentioned Ireland’s entry to EMU saw interest rates falling markedly across the economy.

Notwithstanding these points, one would have to be concerned with the continued rise in house prices (although the rate of increase is moderating) given the slowdown in the economy and the fall in rents. The decline in equity markets and interest rates can be expected to have led to a flight from equities to property among investors in anticipation of capital gains. These latter effects certainly give more credence to the possibility of a bubble in the property market.

In summary, while there is a possibility of a bust occurring at any point in time, and while the probability of this has undoubtedly increased in recent times, there is no certainty in this regard. ”

In its Conclusion, the report says:

“In conclusion there is limited evidence of a major property bubble in Ireland at the moment, with the probability of a substantial decline in house prices depending on the outlook for the economy as a whole. If there is a soft landing, the likely scenario for house prices would seem to be broad stability or modest nominal declines as demand and supply come into balance”. ...

“If there is a hard landing, significant declines could not be ruled out, although their magnitude is difficult to predict and is contingent on the scale of any deterioration in the real economy”.

Bates No. CB01078 – File name: B009-F07-0005.PDF – Batch CB01B02

Document category	Time period
<ul style="list-style-type: none"> Minutes of board meeting held in 1Q 2004 	1 Q 2004

- The discussion of the board also

“...focused on the continued high rate of mortgage lending and house price increases...”

- It was noted in that regard that a paper on the housing market would be submitted to the Board towards the beginning of the next quarter.
- A Senior CBSFAI Economic Research staff member gave a presentation to the board on Ireland’s productivity.

“The analysis showed that it is unlikely that productivity growth in Ireland can recover to the very high rates of the late 1990s but confirmed that the prospects for future productivity growth remain reasonably favourable...”

“Compared to other euro area economies Ireland still has a regulatory environment that is reasonably favourable to enterprise...”
...“The importance of the Bank encouraging increased national debate on productivity and competitiveness was endorsed by the Board.”

Bates No. CB06825

Document category	Time period
<ul style="list-style-type: none"> Research Technical Paper House Prices and Mortgage Credit: Empirical Evidence for Ireland (Fitzpatrick/McQuinn) 	4 Q 2004

This looks at the issue of credit growth and its relationship with asset prices (house prices). House price increases occurred alongside the substantial growth in the level of private sector credit.

“The potentially self-reinforcing nature of credit and house prices also raises certain concerns from a financial stability perspective. It is a further stylised fact that sustained credit growth tends to chronologically lead episodes of financial instability.”

While some rises of house prices are explained by low interest rates, ample availability of credit, changed demographics and strong income rises, the report states:

“... On the basis of this work, what are the implications for the stability of the domestic financial sector? A greater level of credit availability means that, ceterus paribus, mortgage-holders have outstanding loans that are greater than what they otherwise would have been if availability had been curtailed. At the moment, banks have a 'haircut' on the market value of the housing assets through the loan to value ratio and the fact that this lending is collateralised. However, if an increasing proportion of their loans are to borrowers with a higher loan to value ratios, then they will have less of a comfort margin in the event of a decline in residential property prices.”

Bates No. CB00112

Document category	Time period
<ul style="list-style-type: none"> Minutes of board meeting held 4 Q 2004 	4 Q 2004

The meeting considered the **first Financial Stability Round Table Discussion** with Irish Retail Credit Institutions. It noted the outcome of the Round Table discussion on financial stability with credit institutions.

The format allowed for the two-way exchange of views between CBFSAI and credit institution personnel. Senior personnel from all the major mortgage lending institutions attended the meeting. CBFSAI staff covered the main points of the Financial Stability Report 2004, the housing market and the methodology of stress testing. The meeting looked at house prices, residential mortgage credit growth, stress testing of the banking system and lending standards.

“While there was a consensus around the Financial Stability Report’s view that the most likely outcome in relation to house prices would be a soft landing, it was recognised that there were significant risks to this benign scenario.”

Developing the methodology for stress testing the banking system was acknowledged and agreement for two-way involvement in constructing scenarios for stress testing. It was acknowledged that the issue of lending standards was a key issue for both the CBFSAI and the credit institutions.

“All of the credit institutions individually considered that they were maintaining prudent standards.”

It was noted in the meeting that the Round Table format would be complemented with ongoing bilateral discussions as necessary.

Bates No. CB00266

Document category	Time period
<ul style="list-style-type: none"> <li>• Draft Comment for inclusion in Winter Bulletin 	1 Q 2005

The Bank had been emphasising for some time the potential risk to the economy from property price developments.

“In its recent assessment of the Irish economy, the IMF drew attention to the risk of a downturn in the domestic housing market.”

“It is expected that housing output levels will remain high in 2005 and this should lead to a further moderation in house price increases.”

“Also, non-mortgage credit has accelerated over the past year with non-financial companies increasing their borrowings significantly. As regards households, with total debt, mortgage and non-mortgage, last year exceeding disposable income for the first time - by an estimated 13 per cent - there is a heightened vulnerability to adverse developments in income or interest rates, should circumstances change.”

Bates No. CB00268

Document category	Time period
<ul style="list-style-type: none"> • Draft Comment for inclusion in Spring Bulletin • 	1 Q 2005

House prices and credit growth is still an issue.

“Regarding mortgage credit, although it appears to have peaked, it is still increasing very rapidly at about 25 per cent a year; this is some three times the increase in nominal disposable income. The easing of house price increases and somewhat reduced housing construction should, with a lag, contribute to a lowering in credit increases to a more sustainable pace. However, until there is some evidence of this, mortgage credit growth continues to be a matter of concern.”

“Non-mortgage credit growth has also picked up in the recent past to rates of increase of close to twice that of a year ago, and similar to those of mortgage credit. A significant part of this lending is being extended to the broad property sector.”

Fiscal policy was also commented upon:

“The stance of fiscal policy is an important factor in ensuring that overheating forces in the economy are contained. Last December's Budget had a moderately expansionary tone. Gross voted spending is planned to increase by nearly 9 per cent, a relatively large amount.”

Bates No. CB00286

Document category	Time period
<ul style="list-style-type: none"> Minutes of board meeting held in 2 Q 2005 	2 Q 2005

Financial Stability Report: first iteration

“The 2004 FSR had identified the risk of an unanticipated and sudden fall in residential property prices as the greatest threat to the health of the banking system. House price increases had moderated significantly since then and were now approaching nominal GNP growth rates¹ on an annualised basis. The Financial Stability Analysis now identified the continued high rate of credit growth and indebtedness levels as the primary risk to financial stability.”

The Financial Stability Report would be reviewed over the summer and would be presented to the board again in the 4th Quarter of 2005.

A Senior IFSRA member of staff

“...advised the meeting that he had met the CEOs of the major banks the previous week and they advised him that they would undertake further examinations of their lending criteria to ensure that they were appropriate. They emphasised, however, that the market was very competitive and the demand for mortgage credit, which was the main driver for credit growth, continued to be very strong.”

It was stated that the Financial Regulator was continuing to assess lending institutions to identify if any were taking an undue risk in their lending policies.

It was decided that the issues raised would be considered when determining the tone of the FER Assessment. Further analysis was needed to assess if there were grounds for serious concerns regarding credit growth.

It was agreed to hold round table meetings with the banks in September prior to finalising the report.

¹ Comment by Banking Investigation team: house price increases moderated in mid 2005 to approximately 6-7% rise annually, before picking up strongly again towards the end of 2005 and reaching over 12 % again in 2006

It was noted that the construction sector in Ireland is unusually large and it is unlikely to continue in the long run.

“The main conclusion was that, on its own, a construction sector correction, though serious, would probably not be sufficient to halt output growth in the economy - assuming an otherwise favourable domestic and international environment.”

Bates No. CB00331

Document category	Time period
<ul style="list-style-type: none"> Financial stability round table meeting with Irish retail credit institutions 	4 Q 2006

The chairman of the round table discussion

“...offered an insight into the organisation of financial stability issues within the CBFSAI and the importance of the banking system to the health of the overall financial system. He also stressed that the Bank and the Financial Regulator worked very closely together on financial stability matters through the Financial Stability Committee.”

The discussions looked at house prices and the buy-to-let market, stress tests of the banking system and provisioning.

Regarding house prices and the buy-to-let market:

“Some of the banks also suggested that excessive competition in the banking market might pose a risk for financial stability as the pressure to gain market share could lead to a deterioration in lending standards.”

“In summary, there was a consensus around the CBFSAI view that the most likely outcome in relation to house prices would be a soft landing, though there were risks to this benign scenario.”

Regarding stress testing:

“There was agreement that while the robustness of the banking system in the face of such severe economic recessions was reassuring it was important to acknowledge the caveats of the stress-testing exercise, such as the linear nature of the models and the inability to model expectations/sentiment.”

Regarding provisioning:

“There was a discussion about the challenges faced by banks in setting aside provisions in the light of the new accounting standards, International Financial Reporting Standards (IFRS).”

“It was noted that the Bank and the Financial Regulator are not in a position to influence accounting standards but that the new capital adequacy requirements will provide a means for banks to build up buffers against future potential losses.”

Bates No. CB05562

Document category	Time period
<ul style="list-style-type: none"> Interim Financial Stability Report- Update on Risks and Vulnerabilities 	1 Q 2007

Three major vulnerabilities for financial stability;

- Strong credit growth and rising indebtedness levels
- The momentum in house prices
- Increasing repayment burdens on the household sector

Concern that credit growth rates remain to the commercial property sector are high. The divergence between growth in capital and rental values is substantial and may be an emerging vulnerability.

“While the overall health of the banking system is robust when measured by the asset quality, solvency and liquidity of the Irish banks, the concerns identified in the Financial Stability Report 2006 remain, namely:

- *the continuing high rate of credit growth...*
- *the concentration of the loan book...*
- *the funding gap of the Irish banking system...*
- *net interest margins...*
- *a further reduction in the level of impairment charges (i.e., provisions) to historically low levels....”*

“The overall assessment is that financial stability risks may be seen to have marginally increased since the 2006 Report. While the central expectation remains that the current shock-absorption capacity of the banking system leaves it well placed to withstand pressures from possible adverse economic and sectoral developments, nonetheless the three vulnerabilities highlighted in last year's Report remain a concern: the persistence of strong credit growth and the greater indebtedness of the economy, the likely increase in repayment burdens, and concerns about the depth of the slowdown in the residential market and the possible reaction of residential property investors and potential purchasers.”

Bates No. CB00515

Document category	Time period
<ul style="list-style-type: none"> <li>Minutes of board meeting held on Thursday, 3 May 2007 	2 Q 2007

A presentation was made noting the increasing evidence of slowdown in the housing market and a decline in the rate of increase in private sector credit.

Discussion also took place on the implications for the economy of a contraction in the construction sector.

The moderation in the rate of credit growth was welcome while noting that it was still substantially higher than the average euro area. Credit growth scenarios would be presented to the Board and the Authority when considering the first iteration of the Financial Stability Report in June.

Bates No. CB00528

Document category	Time period
<ul style="list-style-type: none"> Outline of Articles for Inclusion in 2007 Financial Stability Report 	2007

Titles for the articles are working titles when this document was created.

Articles already in production are numbered 1 to 7 and proposed articles are numbered 8 to 9

“1. A Financial Stability Analysis of the Commercial property sector

The aim of this paper is to investigate empirically the recent performance of the Irish commercial property sector, to better inform the risk assessment relating to the large increase in capital values and decline in yields.”

“3. Irish Banks' exposures to Hedge Funds and Private Equity

The Central Bank and Financial Regulator are about to survey Irish retail credit institutions, to assess the extent of their exposures to the above sectors.”

“4. Trends in Net Interim Margins of Irish Credit Institutions

This paper outlines various trends in net interest margins (NIMs) for a sample of Irish retail credit institutions, with a focus on explaining the incentives that low net interest margins create (an issue that was alluded to in last year's special thematic piece on long term trends in banking). The positive and negative implications for financial stability are presented, as well as implications for banking business.”

“6. The Irish Banking System's Funding Requirement

As the Irish banking sector has grown exceptionally fast in recent decades, it has come to rely increasingly on non-deposit sources of funding and inflows of funds from non-Irish banks. Now, about half of all Irish retail credit institutions' funding requirements are financed from inflows from foreign banks and investors, and from the issuance of debt securities. An analysis of the financial stability risks and benefits of this situation is presented, including the benefits of a diversified funding base versus the disadvantages of a reliance on foreign banks' funds in the event of a deterioration in confidence in the Irish economy or banking sector.”

“7. An Assessment of Bank Loan Portfolio Diversification

Historical experience shows that concentration of credit risk in asset portfolios is a major cause of bank distress.”

“8. Banks' resilience to a drying-up of liquidity

The purpose of this paper would be to document the liquidity holdings of the Irish retail banks and highlight major issues relating to the importance of liquidity, including the reliance by some smaller banks on larger banks to provide their liquidity, the behaviour of international financial markets in a crisis and impact on banks' ability to mobilise funds, etc. Also, in the event of liquid assets being run down in a crisis, replenishing them would be a major issue for banks.”

“9. Macroeconomic factors underlying financial crises - an events study

Many financial crises have their roots in macroeconomic fundamentals and there is a vast literature on leading indicators of financial crises. This study will look at the narrower set of crisis event in smaller open economies, especially those which experienced property market booms and then corrections. The common and other factors behind these crises will then be reviewed, and possible financial stability lessons for Ireland will be assessed.”

Bates No. CB05542

Document category	Time period
<ul style="list-style-type: none"> Memorandum of Understanding on Financial Stability between The Department of Finance, The Central Bank and Financial Services Authority of Ireland and The Irish Financial Services Regulatory Authority 	3 Q 2007

“Roles of the Parties

6. The Department's responsibilities in promoting financial stability

The Department's overall responsibilities relate to the formation of policies for maintaining macroeconomic stability as well as proposing to Ministers the adoption of fiscal strategies that support long term budget sustainability.

The specific role of the Department in relation to the financial services sector involves promoting financial stability and a competitive and efficient market in financial services with a strong focus on the consumer. In this context the Department:

- *develops policy for the financial system to ensure that it facilitates stakeholder confidence and financial stability and promotes competitiveness*
- *is responsible for advising the Minister for Finance on the legislative and policy framework for the regulation of financial services, including in relation to EU requirements*
- *is responsible for advising the Minister for Finance in relation to safeguarding the stability of the financial system, and*
- *is responsible for liaising on a cross-departmental basis in relation to financial stability planning arrangements, in the context of emergency planning overall.*

7. The Bank's responsibilities in relation to financial stability

The Bank is responsible for contributing to the stability of the Irish financial system and, in so far as is relevant, to that of the euro area. This mandate for financial stability is derived from:

(a) the Bank's statutory duty under the Central Bank Act, 1942, as amended. Section 6A(2)(a) specifies that "the Bank has ... the objective of contributing to the stability of the financial system"; and

(b) the mandate of the ESCB, which requires the European Central Bank and national central banks to contribute to financial stability in the euro area. This, therefore, requires that the Bank contributes to financial stability, both in Ireland and, as far as is practicable, elsewhere in the euro area, through its involvement in international fora.

To carry out the Bank's mandates for financial stability, the Governor and the Board's responsibilities therefore involve:

- i) contributing to the stability of the monetary system;*
- ii) promoting the smooth operation of the financial system infrastructure, in particular the payments and securities settlements system;*
- iii) overview of the domestic financial system as a whole;*
- iv) analysis of the micro-prudential (where appropriate) and macroprudential health of the financial sector;*
- v) undertaking official financial operations; and*
- vi) in addition to the above mainly domestic responsibilities, contributing to the promotion of stability in the international financial system, including matters relating to cross-border financial institutions, mainly through involvement in international fora.*

8. The Financial Regulator's responsibilities in contributing to Financial Stability

The Financial Regulator is responsible for contributing to the maintenance of proper and orderly functioning of institutions and exchanges and protecting depositors, insurance policy holders and clients of investment firms. In carrying out these functions, the Financial Regulator will contribute to financial stability.

The Financial Regulator's responsibilities in this area therefore include:

- i) the prudential supervision of banks, building societies, insurance undertakings, reinsurance undertakings, stockbrokers, exchanges, investment firms, insurance intermediaries, credit unions and collective investment schemes;*
- ii) contributing to consumer protection, through promoting confidence in the financial system and the protection of consumers' interests; and*
- iii) providing advice, information and assistance in relation to the Bank's functions to the Bank's Board and the Governor, both on request and at other times as may seem appropriate."*

Bates No. CB05567

Document category	Time period
<ul style="list-style-type: none"> Minutes of board meeting held on Thursday, 2 Q 2008 	2 Q 2008

It was noted that the international system is fragile with reduced credit available. Money market conditions had deteriorated since the last meeting.

“Term funding is difficult and banks are reportedly hoarding cash as nervousness has increased in the light of heightened concern surrounding financial institutions particularly since the collapse of Bear Stearns.”

A detailed presentation providing an interim update on the Bank’s assessment of financial stability was given.

The key developments since the 2007 Financial Stability Report are

*“(i) The environment in international financial markets remains challenging.
(ii) Macroeconomic forecasts had been revised downwards both here and abroad.
(iii) The adjustment in residential housing market is continuing.
(iv) There are early signs of a slowdown in commercial property prices.
(v) Access for banks to term funding remains challenging.
(vi) Investor sentiment is more negative and is a key issue for the future.”*

Bates No. CB06915

Ireland: Staff Report for the 1999 Article IV Consultation

This report was prepared by a staff team of the International Monetary Fund following discussions with the officials of Ireland on economic developments and policies. The report was then considered by the IMF's Executive Board in the context of the IMF's periodic consultation with Ireland, as required under Article IV of the IMF Articles of Agreement. The views expressed in the staff report itself are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF or of the authorities of Ireland; a supplementary statement by IMF staff may also be included. The views of the Executive Board as expressed in the discussion of the Article IV consultation report and as summarized in a Public Information Notice (PIN) are also included. In addition, a statement by the member country authorities may be appended. Further background documentation prepared by IMF staff for the consultation may be published separately at a later date. The policy of publication of Article IV staff reports allows for the deletion of market sensitive information.

This Article IV staff report is published—both in hard copy and on the IMF's website (<http://www.imf.org>)—as part of a pilot project. To assist the IMF in evaluating the pilot project for release of Article IV staff reports, reader comments on the staff report are invited prior to October 5, 2000, and may be sent by e-mail to Pilotproject@imf.org.

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EXECUTIVE SUMMARY

Background: Ireland's remarkable economic performance continues into its sixth consecutive year. Output and employment growth in 1998 were by far the highest in the euro area. Demand growth was led by private consumption, with the external current account surplus narrowing sharply for the first time in recent years. Consumer price inflation rose to levels above the euro area average while asset prices, particularly of houses, surged. Monetary conditions have eased significantly amid intensifying wage and demand pressures with short-term rates converging to euro area levels and the euro depreciating. Private sector credit growth, which has been rapid since early 1997, has picked up sharply in recent months.

Policy Issues: Although the fiscal position continued to improve in 1998 and the first half of 1999 mainly reflecting cyclical factors and lower interest payments, discretionary fiscal policy measures have tended to provide stimulus to economic activity. Incomes policy, under which tax cuts are traded off for wage restraint, has imparted a procyclical bias to fiscal policy in that tax concessions are likely to be largest when wage pressures are strongest. A minimum wage, with a proposed rate that is high by international comparison, is expected to be introduced early next year. The main policy challenge is to ensure that timely action is taken to forestall risks that threaten Ireland's impressive record. Fiscal policy is the principal tool for macroeconomic stabilization, given monetary union, cyclical asynchronization with the rest of the euro area, and the limited effectiveness of incomes policy under tight labor market conditions. It would also be important to further strengthen financial sector supervision, especially by building on recent initiatives to assess vulnerability to macroeconomic shocks.

Report on the discussions: Given possible initial undervaluation in converting to the euro and strong productivity growth in traded goods, wage and price inflation may, to some extent, be higher in Ireland than elsewhere in the euro area without giving rise to competitiveness problems or overheating. Nevertheless the authorities, like staff, were concerned about a prospective overshooting of sustainable wage levels. While appreciating the risks posed by the sharp decline in interest rates, the authorities were on the whole more sanguine about the prospects for a smooth transition to a lower growth path. Buoyant economic conditions and falling interest payments are expected to raise the fiscal surplus in 1999 well beyond initial budget projections, although the cyclically-adjusted primary surplus is projected to remain largely unchanged from last year. In view of the relatively high rates of personal income taxation and the tax-based incomes policy, the authorities are committed to reducing taxes further both in the 2000 budget and over the medium term. Staff noted the need for a more strongly countercyclical fiscal policy, particularly in view of the substantial increase in the public sector wage bill in recent years. Staff also cautioned against tax reduction in view of cyclical considerations and medium-term budget pressures: the need to increase public infrastructure investment; substantial unfunded pension liabilities; and declining corporate tax rates and EU transfers. The authorities support a lower minimum wage rate for youth and trainees. The banking system is well-capitalized, but vulnerability to an adverse shock remains difficult to gauge. The authorities have taken steps to strengthen supervision.

Issues for discussion:

- Given significant monetary easing, to what extent are wage and demand pressures a concern, notwithstanding strong productivity growth and the apparent flexibility of the output response in Ireland?
- If the risks of overheating and a subsequent hard landing to a more sustainable rate of growth is a concern, what policy actions can be taken in the context of monetary union? In this regard, should fiscal policy be more strongly countercyclical?
- What areas offer the greatest scope for action with regard to fiscal policy? Should the growth of wage expenditures be reined in and further tax reductions avoided, particularly in the context of a new wage agreement? Are tax reductions advisable over the medium-term in view of the declining structural revenue ratio and budget pressures?
- Given the rapid increase in private sector credit growth and surging asset prices, can a further strengthening of supervision reduce the vulnerability of the financial system to an adverse shock? In what ways can regulation and supervision be further strengthened?

C. Economic Outlook

19. **The outlook is for output growth to slow in 1999 and over the medium term, albeit to rates significantly above growth rates elsewhere in the euro area.** The staff's 1999 growth projection, in line with private forecasts, is somewhat higher than that of the authorities mainly reflecting different judgements on the contribution from net exports as a result of the slowdown in Europe and increased global competition (see Table 1). Private consumption growth is also somewhat stronger reflecting continued increases in asset prices, lower interest rates, and falling unemployment. Over the medium term, output growth is expected to slow further as capacity constraints become increasingly binding and labor force expansion tapers off. Consumer price inflation would remain above the euro area average due to stronger wage growth reflecting higher productivity growth in Ireland.

20. **There are risks in both directions to the near-term forecast.** The response of domestic demand to monetary easing may turn out to be stronger than anticipated. A stronger recovery in Europe, particularly the U.K., may also boost exports and output further. On the downside, the global slowdown may exert a greater-than-expected drag on exports, particularly if Ireland is unable to sustain the increases in market share it has experienced in the past. Also, a weakening of sterling from its present high level may dampen Irish export growth further. At the same time, a decline in U.S. stock prices and slower U.S. growth could have negative spillovers on local asset prices and spending as well as on foreign direct investment.

III. POLICY DISCUSSIONS

21. Discussions focused on the risks of a hard landing from the present high rates of growth and appropriate policy actions, particularly given the asynchronized cycles of the Irish and other EMU economies. Policy recommendations were based on an assessment of potential output growth in Ireland; excess demand pressures and sustainable inflation rates; and short-term monetary conditions. There are three main sources of risk of a hard landing: (i) an overshooting of sustainable wage levels due to excess demand pressures and realization of long-suppressed wage demands reflecting the expectations of an increasingly prosperous population; (ii) monetary conditions that are not fully consistent with Ireland's business cycle; and (iii) increased vulnerability of the financial system and indebted households to an increase in interest rates or an economic downturn due to inflated real estate prices and high credit growth. Although the authorities were mindful of these risks, they were, on the whole, more sanguine than the staff about the prospects of a smooth transition to a lower growth path.

A. Current Policy Setting

Potential output growth

22. **The authorities and the staff agreed that the extent to which wage and demand pressures are excessive needs to be established since rapid output growth *per se* need not**

signal a concern given Ireland's low inflation rate and a current account surplus.

Although assessments of overheating are usually based on a view that the economy is operating above potential, the particular structural features of the Irish economy render the usual estimates of potential output highly unreliable and difficult to interpret. Not only has Ireland undergone rapid growth and far-reaching structural change, but it also has a highly flexible labor supply due to migration and rising female participation. Standard techniques for estimating potential output based on extrapolating past experience may be unreliable because the factors which have driven past growth are unlikely to continue long into the future.

23. **The authorities agreed that it would be more useful to formulate a view of potential growth from a forward-looking perspective.** The Irish economy is growing temporarily at an unusually rapid pace as it catches up with income levels in the rest of Europe. However, as the demographic effects taper off and income levels converge, growth would be expected to slow to a more sustainable rate based on more normal rates of productivity growth, although the timing of the transition would be difficult to predict. The authorities estimated this potential growth rate at 4-5 percent per annum, still significantly above potential growth in the rest of Europe. Staff studies, based partly on a sectoral analysis of total factor productivity growth, suggest a somewhat higher range of 6-6½ percent.⁹ The implication is that demand and wage growth consistent with these ranges would help lower the risk of a hard landing as growth eventually slows.

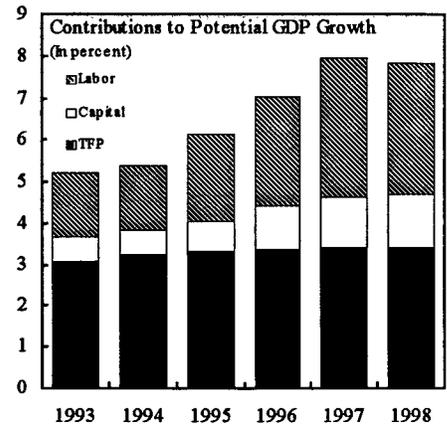
Excess demand and sustainable inflation

24. **The staff noted that demand pressures were intensifying as indicated by surging house prices, the upward trend in wages, and pressures on public infrastructure.** Although some indicators appear to contradict this view, a closer look suggests otherwise.

- While price inflation appears subdued, the CPI does not in an economy as open as Ireland's accurately reflect domestic demand pressures given the high weight of imports in the consumption basket. Inflation of nontradables (both wage and asset prices) which provides a better gauge of risks, has been picking up strongly. The GDP deflator, for instance, rose by 5.6 percent in 1998.
- Although the external current account is in surplus, there was a marked narrowing of the balance in 1998 mainly due to a weakening of the goods and services balance and a further decline in net EU transfers.

⁹ These issues are discussed in greater depth in the *Selected Issues* paper "Potential Output Growth in Ireland."

- While the rapid output growth in recent years would appear to support a pick up in wage growth, in fact, most of the rise in trend growth since 1993 is accounted for by an expansion in labor supply rather than rising productivity. Total factor productivity growth has been high, but stable suggesting that wage growth should be strong, but stable as well.



25. **Authorities and staff agreed that it would be useful to quantify, as a rough benchmark, sustainable wage and price inflation in light of productivity growth in Ireland in relation to that of its trading partners.** Rapid growth in

Ireland relative to the rest of the euro area suggests the need for real appreciation which, in a currency union, implies higher real wage growth and price inflation than elsewhere (the Balassa-Samuelson effect). Given possible initial undervaluation in converting to the euro and strong productivity growth in traded goods, wage growth and price inflation may well continue to be higher than elsewhere in the union without any loss of competitiveness or overheating. Rough estimates by staff based on examination of sectoral data suggest sustainable average wage increases in the order of about 5 percent in nominal terms corresponding to a price inflation differential over the euro area of about 1 percentage point (Box 1).¹⁰ Average earnings growth in 1998 (before much of the recent short-term interest rate decline took place) was within this range, but officials noted it was on an upward trend and likely to pick up further given current wage demands (see Table 1 and see Figure 7).

Monetary conditions

26. **Staff noted that while Ireland's participation in EMU is likely to yield substantial long-term benefits, the sharp decline in interest rates at a time of intensifying demand and wage pressures, poses considerable short-run risks.** Given the asynchronized cyclical conditions with the rest of the euro area, there is a further risk that the ECB would eventually raise interest rates at a time when growth in Ireland was slowing down. Staff argued that the full effects of the rate reduction are not yet likely to have been felt, particularly since short-term interest rates did not decline until October last year and credit growth has been especially rapid since then. Moreover, the existence of fixed rate contracts and the time it takes for consumers

¹⁰ These estimations are discussed in greater detail in the *Selected Issues* paper on "Ireland and the Euro: Productivity Growth, Inflation and the Real Exchange Rate."

R2b: Nature and effectiveness of the operational implementation of the macroeconomic and prudential policy

Information Summary (Section 33 AK)

Note: All references are aggregated

Categories of Documents summarised:	Letter from the Financial Regulator to all covered banks in Q4 2008
Time period covered:	Q4 2008

Document Name: 1432_Letter re use of Government Guarantee for marketing.pdf
Bates No.: 000000

In Q4 2008 the Financial Regulator issued a letter to all the covered banks informing them that the guarantee could not be used as a marketing or advertisement tool to attract funding from customers or potential customers. This also applied to all subsidiaries or affiliates of a covered bank. The covered banks were instructed to confirm this in writing back to the regulator. The FR was concerned about any liquidity distortions between institutions in the banking markets.

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2b - Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Pre-Budget letters from Central Bank of Ireland to Charlie McCreevy	1999-2003

Pre-Budget Letters

In September each year the Governor of the Central Bank issues a letter called the pre-budget letter to the Minister of Finance outlining the views of the Board of the Central Bank and Financial Services Authority of Ireland (CBFSAI), the letter for example in September 2003 is reviewing the Economy in 2003 for the Budget for value in 2004, it is presented in the Dáil in November of 2003.

“The 2004 Budget being framed against a most difficult economic background of low growth, rising unemployment, relatively high if declining inflation and severe pressures on competitiveness.”

“Net exports are expected to be flat and unemployment will, unfortunately, increase”

“the Irish inflation rate remains at over twice the euro area average at a time when we are already at a serious competitive disadvantage”

“Irish competitiveness has been significantly eroded in recent years due to overheating in the economy”

“While the relatively slow pace of economic recovery will tend to automatically put pressure on the public finances, anything more than a modest increase in General Government Deficit relative to this year’s outturn should be guarded against”

CB01B02 CB01103

In 2001 the events of September 11 had to be considered and the Central Bank reviewed its forecast for GNP growth from 4.5% to 3.5%.

“The increase in activity is much weaker through this year, as clearly reflected in the recent Exchequer returns.”

“Our core inflation rate (at over 4 per cent) is still about twice the euro area average”

“If we continue to have excessive domestic inflation we face the prospect of becoming a high cost country by the standards of EU generally”

“Current demand is still running at a high level and the Central Bank continues to advise the lending institutions of the necessity to exercise prudence at all times”

CB01B01 CB00149

In the review of 2000 the Governor was surprised at the constant growth and was therefore cautious in his review for Budget 2001. They mention the possibility of a soft landing but also warn against a hard landing.

“The consistently high economic growth up to now has surpassed all expectations. Past experience had led us to the Conclusion that such an extended period of high, growth would be unsustainable because of the inevitable overheating effects.”

“The Central Bank remains of the opinion that growth must inevitably slow-down in the not too distant future.”

“While a slow-down may be inevitable, there is no law which says that this must have disruptive effects on the economy, if it is managed carefully. It is the view of the Central Bank that there is every prospect of a so-called soft landing, provided there is a disciplined approach in the meantime to dealing with the problems of overheating, including, in particular, the threat of inflation and the erosion of competitiveness.”

“The signs of overheating, however, have now become increasingly evident and this reality must be a decisive factor in determining future policy.”

“Another source of concern to the Central Bank for some considerable time soaring demand for credit. Private sector credit growth is now running above 20per cent and this scale of growth is virtually without precedent in the

industrialised world. The Central Bank has introduced stress testing for the lending institutions and it has cautioned these institutions repeatedly on the necessity to make adequate provision for the impact of an economic downturn.”

“House prices continue to rise excessively, adding to the demand for mortgage financing. It is difficult to see prices stabilising until supply is increased substantially.....Commercial property prices are also a source of concern.”

“despite the strong surplus position, the case against an expansionary budget is convincing as this would heighten the risk of a **hard landing** for the economy. It is imperative to create awareness and appreciation that a loose budget policy would have unacceptable consequences down the road”

CB01B01 CB00146

In 1999 the Central Bank was praising the growth in the economy but was still cautious about continued level of growth and the threat to undermine the current success. Even in 1999 there were concerns of credit demand and the continuing house price increase would have social consequences. The Central Bank was upbeat about the large contributions towards provisioning for future pensions.

“Low interest rates have simply added fuel to the Irish economy, they have pushed up the demand for credit and they have been a contributory factor to the excessive rises in house prices.”

“There are now distinct signs of overheating these are increasing and it would be unwise to downplay them. Wage increases over the past year in a number of sectors - and especially in the public sector give cause for concern.”

“The overall growth in private sector credit was over 30 per cent year on year in June. This reflects demand in the economy generally and consumer confidence. It is too much.”

“House prices continue to rise.....The persistent rise will have unhappy economic and social consequences”

“Given the continuing scale of growth and the increasing threat of overheating, a restrictive approach to the budget is highly desirable”

CB01B01 CB00145

2. Executive Summary

Post-PCAR Required Re-Capitalisation

PCAR 2011 stress tested the capital of the banks under assumed base and stress scenarios and from this calculated the amount necessary to recapitalise the Irish banking system.

For each of the banks the PCAR 2011 stress scenario resulted in the greatest capital deficit. In total the participating banks were required to raise €24bn in capital; €21bn of equity capital (of which €18.7bn was to meet the 6% CT1 threshold and €2.3bn was an additional equity buffer) and €3.0bn of contingent capital to safeguard against loan losses beyond 2013. This €21bn was fully raised by the institutions by end-June 2012 and the €3bn total contingent capital was raised by the banks issuing contingent capital notes to the Minister for Finance in July 2011².

Table: Capital requirement resulting from PCAR 2011 and how it has been met (€bn)

	AIB	EBS	AIB & EBS*	BOI	PTSB	Total
Gross capital required pre buffer	10.5	1.2	11.7	3.7	3.3	18.7
Buffer (equity)	1.4	0.1	1.5	0.5	0.3	2.3
Equity capital requirement	11.9	1.3	13.2	4.2	3.6	21.0
Buffer CoCo	1.4	0.2	1.6	1.0	0.4	3.0
Total capital requirement	13.3	1.5	14.8	5.2	4.0	24.0
Capital raised:						
Private equity raising**			0.0	2.3	0.0	2.3
Liability management exercises			2.1	1.7	1.0	4.8
Other			0.0	0.0	0.3	0.3
Government capital injection			11.1	0.2	2.3	13.6
Equity capital			13.2	4.2	3.6	21.0
CoCo			1.6	1.0	0.4	3.0
Total capital			14.8	5.2	4.0	24.0

Source: Central Bank of Ireland Financial Measures Programme Report (March 2011), Department of Finance, bank financial reports. * AIB & EBS includes EBS on a pro-forma basis up to June 2011 and for PCAR is the sum of AIB and EBS individual submissions. **Includes debt for equity swaps.

² In January 2013, the State sold its holding of BOI's contingent capital notes to private investors at 101% of their par value plus accrued interest.

6. Deleveraging and balance sheet movements

Overview

The PLAR process was used to identify the amounts of assets required to be disposed of by the banks to aid the return to stable funding levels, reduce monetary authority borrowing and help put the banks' balance sheets on a sustainable path to Basel III liquidity metric compliance (namely the proposed Liquidity Coverage and Net Stable Funding Ratios (LCR and NSFR)). Where deleveraging was assumed, the capital gain or loss on disposal of assets, balance run-off, the income foregone, the costs retained, and the reduction in RWAs were all fully integrated at the appropriate time horizon into PCAR in terms of forecasts of income, profit and loss, loan balances and RWAs.

Box 6 – Key points to note about PLAR and Deleveraging

- **PCAR zero balance sheet growth assumption:** Zero balance sheet growth was a central operating assumption behind PCAR, and assumed that the balance sheet only reduced when impairments were forecast and that any exposures that matured were assumed to be replaced with assets of a similar risk. Assets that were designated as non-core or for run-off under deleveraging plans were excluded from this central assumption.
- **Revisions to deleveraging plans:** Deleveraging plans for the banks were revised in June 2011 following the decision not to transfer land and development loans of less than €20m to NAMA (NAMA II). Due to this and other bank specific developments, deleveraging targets have changed over the course of the 18 months. We consider the original deleveraging plan as published in the FMP ("FMP 2011 Plan"), and assess the banks' current position versus the amended deleveraging targets.
- **Removal of LDR targets:** The August 2012 Memorandum of Understanding, under Ireland's EU-IMF Programme of Financial Support, introduced an advanced monitoring framework for banks' funding and liquidity, which also substituted the Loan to Deposit Ratio (LDR) targets with nominal deleveraging requirements and a Basel III/CRD IV NSFR benchmark. Banks' deleveraging would be assessed based on the existing nominal targets for disposal, run-off and loan loss provisions in line with the 2011 Financial Measures Programme and an advanced monitoring framework would be established in relation to funding and liquidity monitoring, covering in detail all factors affecting banks' NSFR.

6.1. Total loan book movements

Overview

The analysis considers movements in total net loans, across the core and non-core (deleverage) books. The zero balance sheet growth assumption means that within the stress test most of this movement is in the non-core book, apart from increased impairment provisions in the core book. The FMP report assumed total deleveraging, including disposals, loan book run-off and increased impairment provisions, of €72.6bn.

Table: Core and Non-core loan books and Deposits as in FMP report (€bn)

	AIB		BOI		PTSB	
	Dec 2010	Dec 2013	Dec 2010	Dec 2013	Dec 2010	Dec 2013
Net loans						
Core	75.9	74.8	76.2	73.6	26.6	21.3
Non-core	27.4	4.2	39.1	9.1	10.4	0.0
Total	103.3	79.0	115.3	82.7	37.0	21.3
<i>Deleveraging 2010-2013</i>		24.3		32.6		15.7
Deposits	61.8	64.6	65.4	69.4	14.9	17.5
Loan to deposit ratio						
Core	123%	116%	117%	106%	179%	122%
Total	167%	122%	176%	119%	248%	122%

Source: Central Bank of Ireland Financial Measures Programme Report (March 2011), bank financial reports, regulatory returns, and Central Bank workings

The banks' progress on deleveraging can be seen in the table below. Note; given the revision of the banks' deleveraging plans, we compare the banks' out-turns to end-June 2012 versus the up-to-date nominal deleveraging targets in the table below¹³.

¹³ The table above is from the FMP report. Figures in the table may differ slightly to previously published figures due to amendments to banks' deleveraging plans, finalisation of bank's annual reports (for 2010) post-FMP 2011 publication, and rounding and timing differences as of December 2010 and June 2012.

7. Evolution of capital requirements¹⁷

Overview

In general, the banks' capital requirements are higher than under the PCAR scenarios at this stage of the deleveraging process. Credit risk capital requirements form the bulk of the PCAR banks' total capital requirements with market and operational risk a much smaller fraction. Changes in capital requirements for each of the banks are thus largely due to changes in credit risk capital requirements. Also, changes in credit risk capital requirements are largely driven by balance sheet size and composition (and in particular will be affected where assets are being disposed or run-off). All of the PCAR banks (AIB, BOI and PTSB) use the Foundation Internal Ratings Based Approach¹⁸ ("FIRB") to calculate regulatory credit risk capital requirements for varying portions of their portfolios. The balance not covered by FIRB is calculated under the standardised approach. Therefore, the mix, geography and approach to the calculation of capital requirements makes comparability across the banks difficult.

Table: PCAR 2011 capital requirements (€bn) - stress compared to actuals

	Stress			Actual	
	2011	2012	2013	2011	H1 2012
AIB & EBS					
Credit risk*	6.5	5.9	5.6	6.2	5.9
Market risk	0.1	0.1	0.1	0.0	0.0
Operational risk	0.5	0.5	0.5	0.5	0.5
	7.1	6.5	6.2	6.7	6.5
BOI					
Credit risk*	4.4	4.3	4.0	4.9	4.5
Market risk	0.2	0.2	0.2	0.1	0.1
Operational risk	0.4	0.3	0.3	0.4	0.4
	4.9	4.8	4.4	5.4	4.9
PTSB					
Credit risk*	1.1	0.8	0.6	1.2	1.2
Market risk	0.0	0.0	0.0	0.0	0.0
Operational risk	0.0	0.0	0.0	0.1	0.0
	1.1	0.9	0.6	1.2	1.2

Source: Central Bank of Ireland Financial Measures Programme Report (March 2011), bank financial reports, regulatory returns, and Central Bank workings

*Includes other capital requirements specific to the stress tests in 2011.

¹⁷ This relates to the amount of capital banks are required to hold to cover credit, market and operational risks identified under the Basel II/CRD III rules and are a key input into solvency ratios. These are often provided as risk weighted assets, which are capital requirements times 12.5.

¹⁸ Under FIRB banks must use own estimates of PD, LGD, CCF and EAD for retail exposures (e.g. mortgages), however for non-retail exposures (e.g. SME) own estimates of LGD are not utilised, rather a floor of 45% LGD is applied.

R1c – Appropriateness of the macro economical and prudential policy

R5c – Analysis of key drivers for budget policy

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
CBFSAI papers and Board discussions relating to <ul style="list-style-type: none">• Macro-economic performance• Financial Stability Reports• Pre-Budget letters• Related economic reports	2004-2007

Financial Stability Report: 2004

- Staff of IFSRA contributed to the preparation of the report under the aegis of the joint Financial Stability Co-ordination Committee. The presentation of the report was noted as a good example of close cooperation between the two sides of the organisation.
- A presentation was made to the CBFSAI Board on the different methodologies used in assessing whether or not there was now a house price bubble in Ireland and the ability of the banking system to withstand a sharp fall in property prices.
- The Committee noted the following points:
 - interest rates were now determined by the ECB on a euro system basis.
 - credit growth was not a problem in the euro area as a whole however the Bank's capacity to restrict the rate of credit growth was very limited.
 - possible options on restricting credit growth were being considered but the Bank was not aware of any actions being taken by other national central banks in the Eurosystem which the Bank was not already taking.
 - the Bank continued to alert the industry and the public to the risks of excessive credit growth.
 - property prices were continuing to increase at an unsustainable level but there was no conclusive indication that a price bubble existed.
 - If prices continue to increase, however, the risk of a price bubble would become more acute.
 - a collapse in property prices would not only affect the quality of security for bank loans, it would also have widespread economic implications as the construction industry was now a very major component in the Irish economy.

CB00222

Pre-budget letters and budget: 2004

- The CBFSAI Board discussed the draft annual pre-budget letter. The draft contained the following statement: "*Fiscal policy could also play a role in smoothing the adjustment of demand for property by limiting its more speculative components. In this regard, it would seem appropriate, for example, to allow no further extensions to the termination date of mid-2006 for the range of tax driven incentive schemes for housing.*"
- The need to limit overheating pressures to protect competitiveness was also mentioned. The letter included the following statement: "*In fact, a case could be made for a mildly restrictive stance in the context of full capacity growth.*"
- Regarding the overall budget balance, a broadly neutral stance was being recommended. In reviewing the draft letter, it was agreed that the Bank should emphasise risks regarding the economic forecasts.
- The Governor advised the Board that he would issue the letter after meeting the Minister. Later in the quarter, the Board noted that the Governor had met the Minister for Finance before issuing the pre-budget letter.
- After the budget was announced, the Board discussed the budget outcome and it was noted that the advice from the Governor was not fully adhered to.
- Private sector credit growth was discussed but no recommendations were made to slow this down.

CB00231 & CB00260

Autumn bulletin: 2004

- Regarding the content for the "Autumn Bulletin", the CBFSAI Board had already addressed the risks to the housing market in some detail in the Financial Stability Report.
- It was agreed that further commentary on the housing market would be unnecessary and that commentary should focus on the broader economic perspective and outlook.

CB00241

Discussion on the content of the bulletin focused on the fiscal imbalances in the US rather than on the domestic problems with credit growth and house price inflation.

CB00249

“Economist” Articles on the Irish economy: 2004

- A series of articles on the Irish economy, published by the ‘Economist’ magazine in October 2004 was discussed at CBFSAI Board Level.
- Emphasis of the discussion was on the positive aspects of the series.
- The minutes do not show discussion on the mention of the ‘property frenzy’ or ‘house price bubble’.
- The articles also highlighted a property crash as the most threatening risk ahead.

CB00247

Draft Financial Stability Report: 2005

- In relation to the comments included in the draft Financial Stability Report 2005, the CBFSAI Board noted that, in the absence of national control of monetary policy, it was particularly important that the Minister be fully informed regarding the Board's concerns when framing fiscal policy and the Governor will bring the issues to the attention of the Minister.

CB00331

Spring Bulletin: 2005

- A draft comment for inclusion in the Spring Bulletin 2005 noted the following on the importance of the construction sector:

"With the strong performance of the construction sector in recent times, this sector now accounts for nearly 12 per cent of total employment; this share is about 50 per cent greater than in most other developed countries. At some point, the share of construction in total employment will inevitably be reduced. It will be important to ensure as far as possible that this labour can be absorbed into other sectors of the economy without disruption."

"Regarding mortgage credit, although it appears to have peaked, it is still increasing very rapidly at about 25 per cent a year; this is some three times the increase in nominal disposable income. The easing of house price increases and somewhat reduced housing construction should, with a lag, contribute to a lowering in credit increases to a more sustainable pace. However, until there is some evidence of this, mortgage credit growth continues to be a matter of concern."

CB00286

Financial Stability Report (FSR): 2005

- There was a CBFSAI Board discussion on the draft Financial Stability Report (FSR) for 2005 of potential actions to be taken by both the Authority and the Board in response to the risks outlined in the Report.
- It was agreed that further analysis would be undertaken of credit growth to assess whether *"there are grounds for serious concern"*.
- The Bank was to further examine the real risks to the system and to reflect its considered view in the published Report.
- In a later discussion of the final draft of the FSR, it was agreed that the tone of the published version of the FSR *"should not be too strident because fundamentals help to explain, to a significant extent, the developments to date but it was important to emphasise the risks going forward"*.
- It was confirmed that the Report would be published with a press conference and the Director General and the CEO of the FR would chair a further round table meeting with the principal lenders to discuss messages from the Report.

CB00331

Central Bank Strategic Plan: 2007-2009

- The Central Bank 3-year Strategic Plan was discussed by the CBFSAI Board in mid-2005.
- Key extracts from the Plan relating to CBFSAI responsibility are below:

"Use our economic, financial and monetary expertise, and our institutional independence, to influence other domestic policymakers; and ensure that other policymakers have the information and tools available, to take decisions on policies that support low inflation, growth and financial stability".

"The financial system has evolved as a more global, integrated and complex system. This has led to greater financial stability and risk management challenges for the Central Bank, including

- *managing and aiming to reduce economic, financial and operational risks;*
- *balancing the financial risks we are willing to bear on our investment assets, against the rate of return we are aiming for;*
- *developing crisis management procedures and business continuity arrangements, to be in a position to deal with major disruptions to financial activity or to the financial system".*

"We must take account of the economic and financial environment facing the Government in carrying out our responsibilities. These issues include:

- *Greater pressure on Government policies to be in a position to support growth and low inflation, now that monetary and exchange rate policy can no longer be used for Irish purposes;*
- *Pressures on the public finances, given Ireland's need for infrastructure development; and*
- *Balancing Ireland's growing responsibilities in the international community with the need to ensure the domestic economy is safeguarded."*

"Enhancing our crisis management procedures despite international best efforts to forecast and try to mitigate financial risks, crises can still occur. On

those rare occasions, it is essential to deal with the damage caused as quickly as possible. We have developed a domestic crisis management framework and are also involved in developing the framework for the EU. We will continue to review and test these procedures, to ensure that they are well geared for dealing with any such events."

CB00309

Household Mortgage Indebtedness: 2005

- A paper on household mortgage indebtedness which was presented to the CBFSAI Board examined whether the personal mortgages-related aspect of growing indebtedness was capable of being explained by developments in the macro economy and banking sector over recent decades.
- It also warned of potential risks from a deterioration of the 'fundamental driving forces'.

CB00364

Steps taken to deal with Financial Stability Risks: 2005

A document outlined steps taken up to Q3/2005 to deal with Financial Stability Risks, as follows:

Macro-level:

- Publications – most importantly FSR,
- Roundtable discussions with banks,
- Stress testing,
- increase Consumer awareness;

Micro level:

- On-off site monitoring,
- specific measures around 100% LTV mortgages,
- meetings with CEOs of banks.

CB00368

Pre-Budget letter and budget: 2005

- The letter commented on the macro-economic situation mentioning the high level and rapid increase in the private sector credit, and an expectation of a gradual decline in housing output, “*however, a more abrupt adjustment cannot be ruled out*”.
- The letter recommended a limitation in any indirect tax changes in the 2006 Budget, and in its summary called for a prudent approach to the fiscal stance next year.
- An assessment paper of the budget measures announced later in the year mentioned in its conclusion that it pointed to relaxation of budgetary policy in 2006.

CB00129

“Euro Area and International Developments”: 2006

- A Table showing Private Sector Credit Growth, Residential Mortgage Growth and Irish Contribution to Euro Area Money Supply (M3) was included in monthly reports “Euro Area and International Developments”, which were distributed before all CBFSAI Board Meetings.
- Private Sector Credit growth is shown as follows:

Year	%
2003	17.9
2004	26.6
2005	28.8
2006 ¹	28.2 – 30.3

- Similar numbers were reported for Residential Mortgage Lending Growth.

CB00469

¹ first 8 months of 2006

Property risks: 2006

- The Regulator briefed the CBFSAI Board meeting:
 - on proposals under consideration to increase the capital weighting for residential mortgages where the loan to value ratio of mortgages exceeds 80 per cent and introduce a more rigorous stress testing;
 - on the intent to introduce higher standards “in agreement with the Industry” without publicity as the Regulator would not wish the measures to unsettle the market;
 - that, from discussions with the chief lending institutions, the proposals did not appear to raise competitiveness concerns;
 - that discussions would also be held with the Department of Finance before the measures were introduced.
- In a later meeting, it was noted that the Financial Regulator would convey the message to the market that the increase in the risk weighting on certain categories of mortgages should be seen as a relatively low key prudent measure targeted at a specific category of loans and not as an attempt to curtail the availability of credit for house purchases.

CB00391

Macro economy: 2006

- The Governor had met with the Minister for Finance on the Board's views on the domestic economy and the international outlook in accordance with the established practice for periodic meetings.
- The CBFSAI Board considered the commentary for the Spring Bulletin, with inclusion of a risk of a sharp correction in house prices and rising ratio of personal debt to disposable income besides others.

CB00405

- The Board discussed tax dependency on the house price boom which included the following considerations:

"the Exchequer is benefiting strongly from the booming construction sector and the large tax take from it. As indicated, the scale of this sector must contract in due course with a likely sizeable adverse effect on tax revenues".

"These developments have served to increase the economy's already high dependence on the health of the broad property sector to an extent that constitutes a significant risk."

CB00395

- The Governor briefed the Board on a "substantive" discussion which he had with the Minister for Finance at which he had elaborated on the Bank's views on the economic outlook.
- The Governor briefed the Board that he would also be meeting the Taoiseach after the summer to discuss the economic outlook in advance of preparatory work on the Budget for 2007.

CB00454

Report entitled "Is there a homogenous Irish Property Market?": 2006

- The CBFSAI Board considered a report entitled "Is there a homogenous Irish Property Market?"
- The question addressed in the report was whether, based on historical experience of the property market, any fall in Irish property prices could be expected to occur across all segments simultaneously.
- Key findings included:
 - a high degree of correlation between all residential property types and residential locations;
 - the retail sector had grown at a relatively stronger pace in recent years by comparison with the office and industrial sectors;
 - while the correlation between retail and commercial property was smaller, statistics showed that significant correlation existed.

- On the question of publication, it was agreed that it was important to get the message conveyed in the Report across to lending institutions.
- Consideration would have to be given as to how this should be done as the Bank would wish to avoid provoking an “over-reaction” to the findings.
- It was agreed therefore that the message should be conveyed in the Financial Stability Report.

CB00445

Interim Financial Stability “Update on Risks and Vulnerabilities” Report: 2006

- This document raised the alert on the financial stability risks from private indebtedness, re-accelerating house price growth and strong loan volume growth of the Irish Banks.
- It also raised concerns on the strong rise of loans to commercial property-related non-financial corporates, which had played a minor part in the commentary of former Financial Stability Reports to date.
- Liquidity issues were also raised:

"the funding gap continues to widen, suggesting that the risk of a country-specific shock could pose liquidity or refinancing risks for banks".

- The CBFSAI Board reviewed the assessment in the Draft Financial Stability Report in detail.
- It was agreed that the main issues identified in the Report were the key concerns and the issue would “increasingly arise” as to whether there was any further action which the Bank or the Financial Regulator can or should take to address the risks.

CB00396 & CB00442

Pre-Budget letter: 2006

- The pre-Budget letter to the Minister for Finance was considered. While pointing out a number of specific risks, the letter ultimately recommended a "*broadly neutral Budget for 2007*".
- Domestic risks were outlined in the text:

"There are also a number of domestic risks, principally surrounding the housing market and the construction sector generally. The re-acceleration in house prices this year is a particular concern, as this upturn does not appear to have been driven by fundamental factors. It seems that a gap may now be opening up between actual prices and prices warranted by fundamentals. International observers such as the IMF and OECD have produced estimates of an overvaluation in the range of 15 to 20 per cent.

Another indicator that house prices are becoming overvalued is that, based on a debt-service threshold of 40 per cent of disposable income, an increasing proportion of potential buyers are being priced out of the market.

The weight of the construction sector in the economy has increased markedly over the last decade, accounting now for 13 per cent of total employment, an exceptionally high ratio by international standards. Allowing for indirect effects, it would seem reasonable to assume that currently about one in every five jobs is reliant on the construction sector".

"This points to the need for fiscal policy to avoid incorporating too optimistic a scenario for the construction sector and to target a sufficiently comfortable budgetary position to absorb any sudden downturn".

"Given that the overall price level in Ireland is 23 per cent higher than the EU average and inflation is once again significantly in excess of the euro area average, there is a strong economic argument that the forthcoming Budget should not be framed so that it will contribute to inflation".

"With the economy operating at around full employment, it would be preferable to avoid a pro-cyclical fiscal stance in 2007 - a message also

conveyed in the recent IMF Article IV report on Ireland. A stimulus to demand can only heighten the risk of exacerbating inflationary and competitiveness pressures to the ultimate detriment of good economic performance."

CB00457

CBFSAI Board meeting: 2006

- It was confirmed that the Minister for Finance was to brief the Cabinet on the Authority's decision to increase risk weightings on mortgage loans and that the consultative panels were to be advised of the decision.
- The Minister's agreement was being sought not to levy the Industry with the Financial Regulator's costs in 2006 associated with the new Market Abuse Directive.

CB00442

Macro-economy: 2007

- Discussion was held in the CBFSAI Board on the first fall in house prices and its potential implications for the economy, the Exchequer and employment.
- The price sensitivity of building land and potential impact on those who had large holdings in building sites was mentioned.

CB00528

Draft Financial Stability Report: 2007

- The Draft of the FSR was discussed in a CBFSAI Board Meeting.
- The first sentence of this draft ended in an option to choose the preferred wording: *"The overall assessment is that financial stability risks have on balance [remained unchanged/very slightly increased] since the 2006 Report."*
- The following key points were raised:

"While this has reduced the vulnerability posed by the previous substantial increase in house prices, it increases the uncertainty regarding the future path of prices."

"Many commentators have cited arguments in favour of a sharp downturn, namely, the international evidence on house-price cycles, uncertainty over investors' participation in the property market as capital returns are eroded, the sustainability of current rates of immigration and the future direction of monetary policy as important issues. However, the evidence is not convincing on the likely negative impact of these factors. Furthermore, the underlying fundamentals of the residential market appear to be strong and the current trend in prices would seem not to imply a significant correction. The central scenario is, therefore, a soft landing. "

CB00545

The 'tone' of the 2007 FSR report was discussed:

"Following the presentations, there was a detailed discussion on the content on the draft Financial Stability Report. The meeting considered that in the continuing turbulence and uncertainty in the financial markets since early August, the tone and comment in the Financial Stability Report will be of particular importance and sensitivity".

"Care should be taken to ensure that risks are set in context of the strengths of Ireland's strong economic performance and prudential environment."

CB00584

- It was agreed that particular care should be taken to ensure that comment on risks are not liable to over-interpretation by the international and

domestic media. In this context it was suggested that a Box entitled 'House Price Booms and Busts: the International Experience', could be over-interpreted.

- The fall in house prices was also considered:

"However, the evidence is ambiguous on the likely negative impact of these factors, the underlying fundamentals of the residential market appear to be strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft, rather than a hard, landing."

- International market turbulences were considered:

"The international banking system has been affected directly through losses on their US subprime assets and indirectly through holding of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. As is the case for banks worldwide, liquidity pressures in the interbank and commercial paper markets are likely to be an issue for the domestic banks. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity does not appear to have been much reduced by these events."

CB00566

Liquidity: 2007

- The liquidity turbulences were discussed on the CBFSAI Board and the low level of interbank lending for longer periods (over one week) was noted.
- The meeting noted that the Bank had confirmed with the Irish banks that they had no shortage of collateral eligible for the ECB tenders. Accordingly, there was no reason to anticipate any requirement for emergency liquidity assistance.

CB00584

Pre-budget letters: 2007

- The draft pre-budget letter to the Minister of Finance included an additional paragraph regarding the recent financial crisis:

"The forecasts for the year ahead are based on the premise that there will be limited effects from possible domestic or external shocks to the economy. In terms of the external environment, international conditions have been favourable reflecting robust growth in Ireland's main trading partners. It is too early to gauge the full impact on the real economy of the current uncertainties in financial markets, nevertheless the risk of a downturn in the international environment must be considered. While the direct impact on the euro area may be limited, there is scope for more of an effect in the US, thereby increasing the downside risks to global growth."

- House price inflation changes are reflected:

"Over the past year, there have been some important favourable developments in the domestic economy - in particular, the large increases in house prices that were apparent up to last Autumn are no longer evident. The levelling off and subsequent moderate decline in prices reflects a softening in demand due to higher interest rates. This development in house prices has been warranted in the light of already high price levels and the need for borrowing levels to fall back to more sustainable rates of increase."

"There is a risk, however, that an unduly large downturn in the housing market

and the construction sector in general could have serious ramifications for the overall General Government position given the importance of property related tax revenues.

"In light of this and your recent statements, it would be appropriate that the rate of increase in current spending next year is kept in line with nominal GDP growth, a point that was also emphasised by the IMF in its recent Article IV report on Ireland."

"Over the past number of years, the growth in the property market has resulted in substantial windfall gains for the Exchequer, most of which appear to have been saved, which was prudent. This permitted a sufficient buffer in the public finances to be in place to cope with a more challenging economic environment. In the current climate, this buffer needs to be maintained, which would imply aiming for a small surplus in the public finances again in 2008. Limiting the growth of current spending would also enable continued development of the country's infrastructure to take place through the National Development Plan."

CB00684

Six-monthly survey of business sentiment: 2007

- The survey showed a clear deterioration of sentiment:

"Of the more important results, businesses were generally much more pessimistic with regard to the outlook for the Irish economy. 63 per cent of respondents felt the outlook for the Irish economy was unfavourable, compared to just 23 per cent in the March Survey".

- Housing output was set to slow more rapidly than previously expected.
- Data from the Department of the Environment, Heritage and Local Government (DEHLG) indicated that there were approximately 56,000 units added to the domestic housing stock in the first three quarters of this year.
- While output looked set to slow towards the end of this year, the Bank was still expecting somewhere in the region of 75,000 completions this year.

- Very few developers, it was suggested by a major Dublin-based construction firm, had actually started any new developments in the last number of months.
- It was suggested that there were at present over 40,000 housing units unsold, with very little movement in the market.
- Some fall in overall house prices next year in the region of 10 per cent was expected. Some regions, however, would possibly experience greater falls than this.

CB00602

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

R2b - Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
CBFSAI Board discussions relating to <ul style="list-style-type: none">• Macro-economic performance• Financial Stability Reports• Pre-Budget letters• Financial roundtable meetings with banks• IFSRA updates• Related economic reports	2004-2007

Financial Stability Report: 2004

- Staff of IFSRA contributed to the preparation of the report under the aegis of the joint Financial Stability Co-ordination Committee. The presentation of the report was noted as a good example of close cooperation between the two sides of the organisation.
- A presentation was made on the different methodologies used in assessing whether or not there was now a house price bubble in Ireland and the ability of the banking system to withstand a sharp fall in property prices.
- The Committee noted the following points:
 - interest rates were now determined by the ECB on a euro system basis.
 - credit growth was not a problem in the euro area as a whole however the Bank's capacity to restrict the rate of credit growth was very limited.
 - possible options on restricting credit growth were being considered but the Bank was not aware of any actions being taken by other national central banks in the Eurosystem which the Bank was not already taking.
 - the Bank continued to alert the industry and the public to the risks of excessive credit growth.
 - property prices were continuing to increase at an unsustainable level but there was no conclusive indication that a price bubble existed.
 - If prices continue to increase, however, the risk of a price bubble would become more acute.
 - a collapse in property prices would not only affect the quality of security for bank loans, it would also have widespread economic implications as the construction industry was now a very major component in the Irish economy.

Report on “Irish House price levels – A further perspective”: 2004

- This report, which was prepared for consideration of the CBFSAI Board by the Economic Analysis Research and Publications Department, compared House prices with 6 other European countries on 2003 level.
- While the report indicated that Ireland ranked as the most- or second-most expensive, and while attention was also put on other studies (Economist and IMF), the Board noted that the high level was in part explained by the strong rise in income.
- It was agreed that the Bank should undertake further work on the identification of data which might serve as an advance indicator of a weakening in demand and/or house price levels.

Pre-budget letters and budget: 2004

- The Board discussed the draft annual pre-budget letter. The draft contained the following statement: *"Fiscal policy could also play a role in smoothing the adjustment of demand for property by limiting its more speculative components. In this regard, it would seem appropriate, for example, to allow no further extensions to the termination date of mid-2006 for the range of tax driven incentive schemes for housing."*
- The need to limit overheating pressures to protect competitiveness was also mentioned. The letter included the following statement: *"In fact, a case could be made for a mildly restrictive stance in the context of full capacity growth."*
- Regarding the overall budget balance, a broadly neutral stance was being recommended. In reviewing the draft letter, it was agreed that the Bank should emphasise risks regarding the economic forecasts.
- The Governor advised the Board that he would issue the letter after meeting the Minister. Later in the quarter, the Board noted that the Governor had met the Minister for Finance before issuing the pre-budget letter.
- After the budget was announced, the Board discussed the budget outcome and it was noted that the advice from the Governor was not fully adhered to.
- Private sector credit growth was discussed but no recommendations were made to slow this down.

Autumn bulletin: 2004

- Regarding the content for the “Autumn Bulletin”, the Board had already addressed the risks to the housing market in some detail in the Financial Stability Report.
- It was agreed that further commentary on the housing market would be unnecessary and that commentary should focus on the broader economic perspective and outlook.
- Discussion on the content of the bulletin focused on the fiscal imbalances in the US rather than on the domestic problems with credit growth and house price inflation.

“Economist” Articles on the Irish economy: 2004

- A series of articles on the Irish economy, published by the ‘Economist’ magazine in October 2004 was discussed at Board Level.
- Emphasis of the discussion was on the positive aspects of the series.
- The minutes do not show discussion on the mention of the ‘property frenzy’ or ‘house price bubble’.
- The articles also highlighted a property crash as the most threatening risk ahead.

Financial Roundtable meeting with banks: 2004

- A Financial Roundtable meeting with banks was discussed and the impact of potential unemployment in the construction industry after a reduction of activity was being considered by the participants.
- Participants had included 11 credit institutions being represented by three senior personnel each, including in most cases Executive Board members. No names or bank names mentioned were specifically mentioned.
- The agenda included 4 presentations on various aspects of financial stability first, followed by a discussion on four broad areas:
 1. house prices,
 2. residential mortgage credit growth,
 3. stress tests and
 4. lending standards.

- The key risk was over-optimism with respect to the macroeconomic situation, by not taking sufficient account of downside risks. There was also the real danger that increased competition for market share would override prudential concerns.
- The DG of the CB stressed that the Bank's side fully shared the concerns expressed by the FR.
- Dangers for the banks were clearly laid out in the presentations. They included:
 - the need for prudent lending practices,
 - potential overvaluation of current house prices,
 - large sector concentration in property lending,
 - over-optimism regarding the macro economic situation,
 - strong growth in household lending and increased indebtedness of households,
 - potential contagion effects between banks in a shock scenario.
- The notes on the following discussion shows that banks were aware of the severe implications of falling house prices, the potential impact of the buy-to-let segment (higher volatility) and the real risk of a sharp downturn if double-digit house price increases continued.
- The banks recommended more realistic stress testing scenarios and offered their help to deliver this. This would include a series of events and measures with second-line effects from these.

IFSRA updates: 2004

- Minutes taken at an IFSRA Authority meeting which were discussed at the Board included the following on the draft FSR:

"The Authority discussed the credit levels and agreed the following course of action: -

- *the matter will be reviewed with Chief Executives of financial institutions at a roundtable meeting in September;*
- *institutions will be required to clarify the credit standards to apply to 100% mortgages;*
- *internal audit departments will be required to conduct an examination of compliance by financial institutions with their own credit quality standards;*

- *the options for the effective use of capital ratios to influence lending practices will be examined;*
- *the public communications strategy in relation to this matter will be reviewed.*

The Authority agreed that the critical issue in any credit institution's lending policy is the quality of its loan book and that this should continue to be the focus of our supervision.

Board discussions: 2005

Draft Financial Stability Report: 2005

- In relation to the comments included in the draft Financial Stability Report 2005, the Board noted that, in the absence of national control of monetary policy, it was particularly important that the Minister be fully informed regarding the Board's concerns when framing fiscal policy and the Governor will bring the issues to the attention of the Minister.

'Private Sector Credit in 2004': Allan Kelly

- At the start of the year, a reduction in house price inflation was expected, as house price inflation had slowed down for some months.
- The discussion focused on the strong rise of private sector debt and the increased external sources of funding of the banks, whereby there was no constraint which could act as a brake in their lending growth.
- The Board decided to continue to monitor, conduct further analysis and communicate with the banks.

Spring Bulletin: 2005

- A draft comment for inclusion in the Spring Bulletin 2005 noted the following on the importance of the construction sector:

"With the strong performance of the construction sector in recent times, this

sector now accounts for nearly 12 per cent of total employment; this share is about 50 per cent greater than in most other developed countries. At some point, the share of construction in total employment will inevitably be reduced. It will be important to ensure as far as possible that this labour can be absorbed into other sectors of the economy without disruption."

"Regarding mortgage credit, although it appears to have peaked, it is still increasing very rapidly at about 25 per cent a year; this is some three times the increase in nominal disposable income. The easing of house price increases and somewhat reduced housing construction should, with a lag, contribute to a lowering in credit increases to a more sustainable pace. However, until there is some evidence of this, mortgage credit growth continues to be a matter of concern."

Financial Stability Report (FSR): 2005

- There was a Board discussion on the draft Financial Stability Report (FSR) for 2005 of potential actions to be taken by both the Authority and the Board in response to the risks outlined in the Report.
- It was agreed that further analysis would be undertaken of credit growth to assess whether *"there are grounds for serious concern"*.
- The Bank was to further examine the real risks to the system and to reflect its considered view in the published Report.
- In a later discussion of the final draft of the FSR, it was agreed that the tone of the published version of the FSR *"should not be too strident because fundamentals help to explain, to a significant extent, the developments to date but it was important to emphasise the risks going forward"*.
- It was confirmed that the Report would be published with a press conference and the Director General and the CEO of the FR would chair a further round table meeting with the principal lenders to discuss messages from the Report.

Crisis management exercise: 2005

- Participation in a crisis management exercise was discussed.

- The Regulator was concerned about fair treatment of banks with regard to some industry levies and regarding a fair and proportionate disclosure of an overcharging incident to the media.

Central Bank Strategic Plan: 2006-2009

- The Central Bank 3-year Strategic Plan was discussed in mid-2005.
- Key extracts from the Plan relating to CBFSAI responsibility are below:

"Use our economic, financial and monetary expertise, and our institutional independence, to influence other domestic policymakers; and ensure that other policymakers have the information and tools available, to take decisions on policies that support low inflation, growth and financial stability".

"The financial system has evolved as a more global, integrated and complex system. This has led to greater financial stability and risk management challenges for the Central Bank, including

- *managing and aiming to reduce economic, financial and operational risks;*
- *balancing the financial risks we are willing to bear on our investment assets, against the rate of return we are aiming for;*
- *developing crisis management procedures and business continuity arrangements, to be in a position to deal with major disruptions to financial activity or to the financial system".*

"We must take account of the economic and financial environment facing the Government in carrying out our responsibilities. These issues include:

- *Greater pressure on Government policies to be in a position to support growth and low inflation, now that monetary and exchange rate policy can no longer be used for Irish purposes;*
- *Pressures on the public finances, given Ireland's need for infrastructure development; and*
- *Balancing Ireland's growing responsibilities in the international community with the need to ensure the domestic economy is safeguarded."*

"Enhancing our crisis management procedures despite international best efforts to forecast and try to mitigate financial risks, crises can still occur. On those rare occasions, it is essential to deal with the damage caused as quickly as possible. We have developed a domestic crisis management framework and are also involved in developing the framework for the EU. We will continue to review and test these procedures, to ensure that they are well geared for dealing with any such events."

Household Mortgage Indebtedness: 2005

- A paper on household mortgage indebtedness examined whether the personal mortgages-related aspect of growing indebtedness was capable of being explained by developments in the macro economy and banking sector over recent decades.
- It also warned of potential risks from a deterioration of the 'fundamental driving forces'.

Steps taken to deal with Financial Stability Risks: 2005

A document outlined steps taken up to Q3/2005 to deal with Financial Stability Risks, as follows:

Macro-level:

- Publications – most importantly FSR,
- Roundtable discussions with banks,
- Stress testing,
- increase Consumer awareness;

Micro level:

- On-off site monitoring,
- specific measures around 100% LTV mortgages,
- meetings with CEOs of banks.

Financial Roundtable Meeting: 2005

- A Round-table discussion on areas of concern to the Bank from a financial stability perspective was held with representatives from eleven credit institutions on 20 September 2005

- An informal approach was adopted to elicit the institutions' views.
- Notes included survey results undertaken by the FR with all large banks.
- Discussion notes show that some banks expected further credit growth and saw the rate of growth underpinned by low interest rates and income levels. Similarly, regarding indebtedness [of households] there were arguments from the banks that this had some way to go, if low interest rates, rising income and favourable demographics continued.
- Overall, there was a "*greater variety of views about risks and the outlook than was the case at the roundtable in December 2004.*"

Pre-Budget letter and budget: 2005

- The letter commented on the macro-economic situation mentioning the high level and rapid increase in the private sector credit, and an expectation of a gradual decline in housing output, "*however, a more abrupt adjustment cannot be ruled out*".
- The letter recommended a limitation in any indirect tax changes in the 2006 Budget, and in its summary called for a prudent approach to the fiscal stance next year.
- An assessment paper of the budget measures announced later in the year mentioned in its conclusion that it pointed to relaxation of budgetary policy in 2006.

Board discussions: 2006

“Euro Area and International Developments”: 2006

- A Table showing Private Sector Credit Growth, Residential Mortgage Growth and Irish Contribution to Euro Area Money Supply (M3) was included in monthly reports “Euro Area and International Developments”, which were distributed before all CBFSAI Board Meetings.
- Private Sector Credit growth is shown as follows:

Year	%
2003	17.9
2004	26.6
2005	28.8
2006 ¹	28.2 – 30.3

- Similar numbers were reported for Residential Mortgage Lending Growth.

Property risks: 2006

- The Regulator briefed the meeting:
 - on proposals under consideration to increase the capital weighting for residential mortgages where the loan to value ratio of mortgages exceeds 80 per cent and introduce a more rigorous stress testing;
 - on the intent to introduce higher standards “in agreement with the Industry” without publicity as the Regulator would not wish the measures to unsettle the market;
 - that, from discussions with the chief lending institutions, the proposals did not appear to raise competitiveness concerns;

¹first 8 months of 2006

- that discussions would also be held with the Department of Finance before the measures were introduced.
- In a later meeting, it was noted that the Financial Regulator would convey the message to the market that the increase in the risk weighting on certain categories of mortgages should be seen as a relatively low key prudent measure targeted at a specific category of loans and not as an attempt to curtail the availability of credit for house purchases.

Macro economy: 2006

- The Governor had met with the Minister for Finance on the Board's views on the domestic economy and the international outlook in accordance with the established practice for periodic meetings.
- The Board considered the commentary for the Spring Bulletin, with inclusion of a risk of a sharp correction in house prices and rising ratio of personal debt to disposable income besides others.
- The Board discussed tax dependency on the house price boom which included the following considerations:

"the Exchequer is benefiting strongly from the booming construction sector and the large tax take from it. As indicated, the scale of this sector must contract in due course with a likely sizeable adverse effect on tax revenues".

"These developments have served to increase the economy's already high dependence on the health of the broad property sector to an extent that constitutes a significant risk."

- The Governor briefed the Board on a "substantive" discussion which he had with the Minister for Finance at which he had elaborated on the Bank's views on the economic outlook.

- The Governor briefed the Board that he would also be meeting the Taoiseach after the summer to discuss the economic outlook in advance of preparatory work on the Budget for 2007.

Report entitled “Is there a homogenous Irish Property Market?”: 2006

- The Board considered a report entitled “Is there a homogenous Irish Property Market?”
- The question addressed in the report was whether, based on historical experience of the property market, any fall in Irish property prices could be expected to occur across all segments simultaneously.
- Key findings included:
 - a high degree of correlation between all residential property types and residential locations;
 - the retail sector had grown at a relatively stronger pace in recent years by comparison with the office and industrial sectors;
 - while the correlation between retail and commercial property was smaller, statistics showed that significant correlation existed.
- On the question of publication, it was agreed that it was important to get the message conveyed in the Report across to lending institutions.
- Consideration would have to be given as to how this should be done as the Bank would wish to avoid provoking an “over-reaction” to the findings.
- It was agreed therefore that the message should be conveyed in the Financial Stability Report.

Interim Financial Stability “Update on Risks and Vulnerabilities” Report: 2006

- This document raised the alert on the financial stability risks from private indebtedness, re-accelerating house price growth and strong loan volume growth of the Irish Banks.
- It also raised concerns on the strong rise of loans to commercial property-related non-financial corporates, which had played a minor part in the commentary of former Financial Stability Reports to date.
- Liquidity issues were also raised:

"the funding gap continues to widen, suggesting that the risk of a country-specific shock could pose liquidity or refinancing risks for banks".

- The Board reviewed the assessment in the Draft Financial Stability Report in detail.
- It was agreed that the main issues identified in the Report were the key concerns and the issue would “increasingly arise” as to whether there was any further action which the Bank or the Financial Regulator can or should take to address the risks.

Pre-Budget letter: 2006

- The pre-Budget letter to the Minister for Finance was considered. While pointing out a number of specific risks, the letter ultimately recommended a "*broadly neutral Budget for 2007*".
- Domestic risks were outlined in the text:

"There are also a number of domestic risks, principally surrounding the housing market and the construction sector generally. The re-acceleration in house prices this year is a particular concern, as this upturn does not appear to have been driven by fundamental factors. It seems that a gap may now be opening up between actual prices and prices warranted by fundamentals. International observers such as the IMF and OECD have produced estimates of an overvaluation in the range of 15 to 20 per cent.

Another indicator that house prices are becoming overvalued is that, based on a debt-service threshold of 40 per cent of disposable income, an increasing proportion of potential buyers are being priced out of the market.

The weight of the construction sector in the economy has increased markedly over the last decade, accounting now for 13 per cent of total employment, an exceptionally high ratio by international standards. Allowing for indirect effects, it would seem reasonable to assume that currently about one in every five jobs is reliant on the construction sector".

"This points to the need for fiscal policy to avoid incorporating too optimistic a

scenario for the construction sector and to target a sufficiently comfortable budgetary position to absorb any sudden downturn".

"Given that the overall price level in Ireland is 23 per cent higher than the EU average and inflation is once again significantly in excess of the euro area average, there is a strong economic argument that the forthcoming Budget should not be framed so that it will contribute to inflation".

"With the economy operating at around full employment, it would be preferable to avoid a pro-cyclical fiscal stance in 2007 - a message also conveyed in the recent IMF Article IV report on Ireland. A stimulus to demand can only heighten the risk of exacerbating inflationary and competitiveness pressures to the ultimate detriment of good economic performance."

IFSRA Authority meeting: 2006

- It was confirmed that the Minister for Finance was to brief the Cabinet on the Authority's decision to increase risk weightings on mortgage loans and that the consultative panels were to be advised of the decision.
- The Minister's agreement was being sought not to levy the Industry with the Financial Regulator's costs in 2006 associated with the new Market Abuse Directive.

Board discussions: 2007

Macro-economy: 2007

- Discussion was held on the first fall in house prices and its potential implications for the economy, the Exchequer and employment.
- The price sensitivity of building land and potential impact on those who had large holdings in building sites was mentioned.

Draft Financial Stability Report: 2007

- The Draft of the FSR was discussed.
- The first sentence of this draft ended in an option to choose the preferred wording: *"The overall assessment is that financial stability risks*

have on balance [remained unchanged/very slightly increased] since the 2006 Report."

- The following key points were raised:

"While this has reduced the vulnerability posed by the previous substantial increase in house prices, it increases the uncertainty regarding the future path of prices."

"Many commentators have cited arguments in favour of a sharp downturn, namely, the international evidence on house-price cycles, uncertainty over investors' participation in the property market as capital returns are eroded, the sustainability of current rates of immigration and the future direction of monetary policy as important issues. However, the evidence is not convincing on the likely negative impact of these factors. Furthermore, the underlying fundamentals of the residential market appear to be strong and the current trend in prices would seem not to imply a significant correction. The central scenario is, therefore, a soft landing. "

The 'tone' of the 2007 FSR report was discussed:

"Following the presentations, there was a detailed discussion on the content on the draft Financial Stability Report. The meeting considered that in the continuing turbulence and uncertainty in the financial markets since early August, the tone and comment in the Financial Stability Report will be of particular importance and sensitivity".

"Care should be taken to ensure that risks are set in context of the strengths of Ireland's strong economic performance and prudential environment."

- It was agreed that particular care should be taken to ensure that comment on risks are not liable to over-interpretation by the international and domestic media. In this context it was suggested that a Box entitled 'House Price Booms and Busts: the International Experience', could be over-interpreted.

- The fall in house prices was also considered:

"However, the evidence is ambiguous on the likely negative impact of these factors, the underlying fundamentals of the residential market appear to be strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft, rather than a hard, landing."

- International market turbulences were considered:

"The international banking system has been affected directly through losses on their US subprime assets and indirectly through holding of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. As is the case for banks worldwide, liquidity pressures in the interbank and commercial paper markets are likely to be an issue for the domestic banks. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity does not appear to have been much reduced by these events."

Liquidity: 2007

- The liquidity turbulences were discussed and the low level of interbank lending for longer periods (over one week) was noted.
- The meeting noted that the Bank had confirmed with the Irish banks that they had no shortage of collateral eligible for the ECB tenders. Accordingly, there was no reason to anticipate any requirement for emergency liquidity assistance.

Pre-budget letters: 2007

- The draft pre-budget letter to the Minister of Finance included an additional paragraph regarding the recent financial crisis:

"The forecasts for the year ahead are based on the premise that there will be limited effects from possible domestic or external shocks to the economy. In terms of the external environment, international conditions have been favourable reflecting robust growth in Ireland's main trading partners. It is too early to gauge the full impact on the real economy of the current uncertainties in financial markets, nevertheless the risk of a downturn in the international environment must be considered. While the direct impact on the euro area may be limited, there is scope for more of an effect in the US, thereby increasing the downside risks to global growth."

- House price inflation changes are reflected:

"Over the past year, there have been some important favourable developments in the domestic economy - in particular, the large increases in house prices that were apparent up to last Autumn are no longer evident. The levelling off and subsequent moderate decline in prices reflects a softening in demand due to higher interest rates. This development in house prices has been warranted in the light of already high price levels and the need for borrowing levels to fall back to more sustainable rates of increase."

"There is a risk, however, that an unduly large downturn in the housing market and the construction sector in general could have serious ramifications for the overall General Government position given the importance of property related tax revenues."

"In light of this and your recent statements, it would be appropriate that the rate of increase in current spending next year is kept in line with nominal GDP growth, a point that was also emphasised by the IMF in its recent Article IV report on Ireland."

"Over the past number of years, the growth in the property market has resulted in substantial windfall gains for the Exchequer, most of which appear to have been saved, which was prudent. This permitted a sufficient buffer in the public finances to be in place to cope with a more challenging economic environment. In the current climate, this buffer needs to be maintained, which would imply aiming for a small surplus in the public finances again in 2008. Limiting the growth of current spending would also enable continued development of the"

country's infrastructure to take place through the National Development Plan."

Six-monthly survey of business sentiment: 2007

- The survey showed a clear deterioration of sentiment:

"Of the more important results, businesses were generally much more pessimistic with regard to the outlook for the Irish economy. 63 per cent of respondents felt the outlook for the Irish economy was unfavourable, compared to just 23 per cent in the March Survey".

- Housing output was set to slow more rapidly than previously expected.
- Data from the Department of the Environment, Heritage and Local Government (DEHLG) indicated that there were approximately 56,000 units added to the domestic housing stock in the first three quarters of this year.
- While output looked set to slow towards the end of this year, the Bank was still expecting somewhere in the region of 75,000 completions this year.
- Very few developers, it was suggested by a major Dublin-based construction firm, had actually started any new developments in the last number of months.
- It was suggested that there were at present over 40,000 housing units unsold, with very little movement in the market.
- Some fall in overall house prices next year in the region of 10 per cent was expected. Some regions, however, would possibly experience greater falls than this.

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2b – Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA)	2003/2004

- Supervision agreed at the November 2003 meeting to put in place an IFSRA Task Force to address issues of corporate governance and commercial lending that had arisen following discussions with former executives of an institution.
- The results of this task Force had been seen.

CB Batch 6 USB2A-0408.PDF Bates No. CB07004-001

CB Batch 6 USB2A-0435.PDF Bates No. CB07031-001

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2b - Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA)	1H 2004

- The Authority noted that an inspection ongoing at bank A focused on the rate of growth of the loan book and large exposures.
- An inspection ongoing at bank B focused on the commercial property exposure.
- The Banking Supervision Team was looking at the question of a standardised definition of non-performing loans.

Document category	Time period
<ul style="list-style-type: none"> • IFSRA Draft Inspection report (29 pages). High-level review of: Stress testing framework, Concentration risk and Measurement framework at Bank C 	May 2008

Stress testing framework:

- An inspection team of 4 spent 13 person-days on-site and comprised a series of interviews with Senior Management of Bank C.
- It was found that external advice from an economic forecasting institute was used in providing the macro-economic outlook for the mild and severe base-case scenarios, and another external advice firm was employed in developing the stress testing framework and undertaking the stress tests. Their work included Risk Management, risk appetite, capital projection, performance measurement, economic modelling and Governance and structure. The other external advice firm was also presenting the stress testing procedures at Board Meetings of Bank C.
- The use of external advice was overall seen as positive however, it was acknowledged that there was no clear evidence about a structured and formal knowledge and handover of the stress testing framework from the external advisor to Bank C. In addition, Senior Management had no views on the macro-economic assumptions used, and which could be challenged at the time of the inspection.

Risk Concentration Framework:

- Concentrations were not measured or managed in the bank's retail portfolio.
- The Inspection team found that Bank C looked at name concentrations in their corporate portfolio only – they did not look at other concentrations such as geographic/industry sector.

- There was no evidence of procedures for management and monitoring of concentration risk including single-name exposures.
- The system used did not automatically link connected parties. Manual adjustment was made to produce their Top 30 large exposures.
- Concentrations were a function of strategy and business profile.

The appendix of the Inspection report consists of the 3 stress test recession scenarios, a Minimum Standards and Good Practice Checklist derived from a CEBS paper on stress-testing and a Minimum Standards and Good Practice Checklist derived from a CEBS (Committee of European Banking Supervisors) paper on Concentration Risk.

Document category	Time period
<ul style="list-style-type: none"> Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	June 2008

- Senior Management of the Financial Regulator reported on the discussions of the DSG on legislative issues and in that regard on the preparation of a pro forma draft bill on nationalisation. The Authority asked for a further report to the next meeting on legal options for shortening the timetable of mergers.
- The Financial Regulator advised the Meeting of concerns around a bank's exposure to a large borrower group as lending of the bank expanded, and a review of legal issues in regard to securities legislation was being initiated by IFSRA to be prepared in order to respond promptly should any action by the respective bank constitute a breach of legislation.
- With regard to discussions on the 'Prudential Pack', the Financial regulator advised that while impairment provisions were rising, this was in line with expectations and was not a cause for particular concern at that time.
- The FR was also considering how best to assess the risk exposure of the banks to major property developers.

Document category	Time period
<ul style="list-style-type: none"> Minutes of Special CBFSAI Board Meeting 	September 2008

This was a special meeting of the CBFSAI Board and included also some members of the Authority.

- The meeting noted the increase of the statutory limit of the Deposit Guarantee Scheme to €100,000 on the previous day. This decision was made by the Minister after consultation with the CB and the Financial Regulator during a meeting at which the NTMA was also present
- The Minister had also been advised that technical arrangements were put in place within the CB to provide for additional liquidity through swap facilities from the Bank's investment portfolio (a Guarantee was required from the Exchequer via the NTMA in this case) and emergency Liquidity Assistance.
- The CB and the FR had met with each of the 6 credit institutions following the meeting to review their situation.

Document category	Time period
<ul style="list-style-type: none"> Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	September 2008

- It was confirmed that legislation prepared as contingency for nationalisation for a bank or building society was now ready in the Department of Finance
- A senior member of the Banking Supervisory team gave an update on the situation with Bank A and advised that the FR will continue to insist on a reduction of the exposure to a certain borrower/borrower group.

Under ‘Recent market Developments’ the following was noted:

- The Banking Supervisor advised that an external advisor report on bank A had been received 2 days earlier, and another external advisor report on a bank B was expected on the following days.
- The report received advised that the capital position of the bank A would probably not fall below the 8% minimum capital requirement.
- The external advisor was concerned about the liquidity of another bank. The meeting was advised on the loss of large amounts of wholesale funding and on limited assets available for further funding purposes. A senior member of the Banking Supervisory team advised that the bank had breached liquidity requirements.

Further points discussed during the meeting:

- A formal assessment of the situation had been requested by the Department of Finance to be made available within 3 days
- Views of the Authority would be contributed in light of a scheduled meeting with the Taoiseach later the same day, the external advice to be received on a second bank, and discussion at the scheduled CBFSAI Board meeting taking place 2 days later.
- Assessment should be provided in conjunction with the Governor, as the matter intrinsically involved stability concerns.

Under the ‘Prudential Pack’ heading the minutes noted:

- In regard to exposures to major property developers, the report to the next meeting should brief the Authority how loans with rolled up interest and rolled up scheduled repayments of principal were reflected in impairment provisions and prudential returns.

Under 'Any Other Business' the following was noted:

- The Prudential Director advised that the Department of Finance had appointed Merrill Lynch, as a contingency, to advise on the possible provision of liquidity or other support to the Irish banking system and related matters.

Document category	Time period
<ul style="list-style-type: none"> <li>Minutes of CBFSAI Board Meeting 	September 2008

This was another special meeting of the CBFSAI Board and included members of the Authority.

- Senior Management of the CB and the FR briefed the meeting on ongoing discussions with the banks and the DF on liquidity positions of the banks and policy options to be considered if the position continued to deteriorate.
- A meeting had been convened by the MF on the previous day, attended by the CB, the FR, the DF and NTMA.
- The CB had also met the MF and the Taoiseach separately.
- The outcome of the meetings was that the Government wanted policy options for the future of the financial sector to be developed and refined as a matter of urgency over the coming weekend for consideration of the Cabinet at the beginning of the following week. Resources of the CB and FR would be committed to complete this work together with DF as urgent priority over the weekend.
- Bank A had submitted a request for very substantial liquidity to be provided to them against collateral that was not ECB eligible. The bank's management had stated in those meetings that the bank was fundamentally solvent and profitable and the only difficulty was liquidity pressure in the unprecedented international credit crunch.
- The meeting noted that the position of other Irish banks was also deteriorating and if the situation did not improve the issue would be how to address the whole Irish financial system.
- It was noted that the CB was keeping in close contact with the ECB and had discussed the difficult situation in Ireland and asked to be kept informed of developments in other countries.

- The meeting further noted that the establishment of a fund from the resources of the CB and NTMA of up to €20bln would not be adequate in the event of further liquidity losses by the domestic banks.
- A key policy issue for the weekend was whether or not the Government should issue a formal Guarantee for the 6 domestically-owned credit institutions.
- If a decision were to be made in this regard, the Government required formal advice from the CB and the FR on the necessity of such a measure and its impact.
- In discussing the option of a Guarantee, the meeting noted that the market would have to be convinced of the credibility of the Guarantee. The issue of an explicit Government Guarantee supported by a willingness to supply additional funding if necessary, warranted detailed consideration.
- A senior management member of the CB advised the meeting that an explicit Guarantee from the State for the over €400bln liabilities of the domestic banks and societies was 'not something that the management member would have favoured up to now', but in the evolving situation, it required serious consideration.
- There would be a need to talk to two banks who to date had been negative on such a proposal.

Further points discussed during the Board Meeting:

- The draft pre-budget letter was discussed and it was agreed that this should be finalised taking account of the Board discussions and forwarded to the Minister
- The comment for the Quarterly Bulletin was reviewed and it was agreed that it should be adjusted in line with the discussions on the pre-budget letter, to take account of latest data from the CSO which showed a substantial weakening of the economy in the 2nd quarter. The comment should be finalised with a view to publication on 3rd October.

EXTRACT FROM FINANCE IRELAND – OCTOBER 2008

The real roots of Ireland's home grown credit crisis

Ireland's over exuberance with housing credit was signalled (in this publication) as long ago as the late 1990s – yet the boom continued, with the worst excesses (and what will be the source of the real long term problems) occurring only in the past four years to end 2006.

Back in February 2000, William Slattery, a former deputy head of Banking Supervision in the Central Bank of Ireland published an article which was headlined: "Property price fall of 30-50 p.c. possible if credit growth not curbed". The article caused a considerable stir at the time, and Slattery (subsequently head of Financial Services Ireland, and today chief executive of State Street, which employs some 2,000 people in financial services in the IFSC) spoke about it in various radio and television interviews.

We re-publish that article again in this month's issue (page X). It speaks for itself.

At the time Slattery warned of warning of an unsustainable credit boom, which threatened to bring the ratio of private sector credit to what he feared might be 140 p.c. of GNP by 2001.

He has now updated the figures in his 2000 article, and the shocking analysis indicates that the explosive growth of credit in 2004, 2006, 2007 and continuing into this year means that in this short 5-6 year period we will have created as much private indebtedness as we have in the previous history of the state, and that private sector credit at the end of this year will rise to as much as 250 per cent of GNP.

Simply put, the Irish economy is currently twice as indebted as it was when he first flagged the issue as a serious problem in 2000, and this indebtedness occurred very recently (during a six year period, which includes the credit crisis period, which began in June-July 2007).

William Slattery writes:

I would like to pick up on the analysis in the original article and place it in a current context.

The article was published in Feb 2000 against the background of very high house price and credit growth realised in 1999 and forecast in 2000. In the event growth in both was very rapid in 2000. With the bursting of the TMT bubble, and latterly, with 9/11 and with ECB rates at 4pc, growth in house prices and credit slowed significantly in 2001. At the end of that year house price growth may have actually been negative and the monetary increase in credit was less in 2001 than 2000, contributing to a significant slowdown in economic growth. The ECB cut interest rates quite rapidly in response to the slowdown post TMT and 9/11, to 2pc.

This reignited house price and credit growth both of which began to grow rapidly.

The following table illustrates the impact of this, focussing on the five years to end 2008.

Minutes of a meeting of the Board of Directors of Irish Nationwide Building Society held on Monday 29 September 2008.

DIRECTORS PRESENT:

Michael P Walsh (Chairman).
Terence J Cooney (Vice-Chairman).
David M J Brophy (Director).
Sean Carey (Director).
Stan Purcell (Secretary).

IN ATTENDANCE:

Michael P Fingleton (Chief Executive).

GENERAL MARKET SITUATION

The Board discussed the general market situation. The Board's view was that any solution has to be for the entire banking system and the only way is to guarantee all deposits. It appears now Bank of Ireland can only obtain money on an overnight basis. AIB and Bank of Ireland are less opposed to a guarantee but remain concerned at the cost.

MEETING WITH THE FINANCIAL REGULATOR ON SATURDAY

20 SEPTEMBER 2008

The Chairman said he had outlined to the Financial Regulator that the Society was contending with a confidence and a liquidity issue caused by the Reuters report. Since 5 September last there had been withdrawals by depositors of €700m. If this level continued the Society would breach its liquidity ratios in the short term. Like all credit institutions INBS had problems in its loan book, however if the loan book was funded in the medium term we would not incur losses that would affect net assets. INBS mentioned it was concerned that it would suffer withdrawals from deposit accounts above the €100k new guarantee limit. It was indicated that the Society should market the section of the Ministers press release where it said that "The Government is committed to the stability of our financial system so that money placed with an Irish credit institution would not be at risk. The government wants to protect the whole financial system, secure its stability and ensure that all deposits in Irish financial institutions are safe".

The Chief Executive had presented the "four options" available to the Society. The Financial Regulator said we would be the best to manage the loan book.



Minutes of a meeting of the Board of Directors of Irish Nationwide Building Society held on Monday 19 September 2008.

DIRECTORS PRESENT:

Michael P Walsh (Chairman).
Terence J Cooney (Vice-Chairman).
David M J Brophy (Director).
Sean Carey (Director).
Stan Purcell (Secretary).

IN ATTENDANCE:

Michael P Fingleton (Chief Executive).

MEETINGS WITH ANGLO IRISH BANK

The Chairman said he had two meetings earlier this month with Anglo Irish. He outlined Anglo's requirements which were State support for all risks, in effect an upside only deal from Anglo's viewpoint.

There had been no meetings or discussions since then.

The unfounded reports in the Press which said that INBS were in discussions with Anglo were regarded as coming from Anglo sources. It was felt that if Anglo achieved an outcome whereby the State was regarded as looking after INBS in the context of an arrangement with Anglo, then in effect the State would be also looking after Anglo Irish.

MEETING WITH MR DAVID DOYLE (SECRETARY GENERAL DEPARTMENT OF FINANCE) ON 18 SEPTEMBER 2008

The Chairman gave the board details of a meeting he and the Chief Executive had with Mr Doyle the previous day. The Board discussed the contents of a letter sent today to Mr Doyle following the meeting.



R2b: Nature and effectiveness of the operational implementation of the macroeconomic and prudential policy

Information Summary (Section 33 AK)

Note: All references are aggregated

Categories of Documents summarised:	Budget 2009: An Assessment for CBFSAI
Time period covered:	Q4 2008

Document Name: B006-F09-0007.PDF
Bates No.: CB00696

Internal report on the Budget 2009 circulated to the Directors of CBFSAI Q4 2008. The Minister for Finance projected the Government Deficit in 2008 would be 5.5 % of GDP. Tax revenue was projected to increase by 1.0 per cent in 2009 as compared with an estimated decline of 13.7 per cent in 2008.

The minister also predicted that the opening deficit would be 7 per cent in 2009 showing the difficult opening position facing him on Budget day. "Budget day measures added € 247 million to current expenditure in 2009, all of which was accounted for by additional social expenditure measures.... in contrast; capital expenditure was projected to decline by 8.4% in 2009 down from almost €9 billion in 2008 to just over € 8.2 billion."

The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008

A Report to the Minister for Finance by the Governor of the Central Bank

31 May 2010

of individual credit institutions, these codes are scrambled. Thus Bank A in one context is not necessarily be the same bank as Bank A referred to in another context. Customer identities are protected in the same way.

Unless otherwise indicated, the source of all statistical material provided is the CBFSAI.

adhering to time-bound deadlines for escalation, the FR allowed some important matters to drift. At the same time the appetite for legal challenge was limited which meant that in practice entities were given the benefit of the doubt; no penalties for breach of prudential regulations were ever imposed on a bank before 2008. If unsuccessful, test legal cases could have helped garner support for additional legislative powers.

- Overall financial stability policy (Chapter 6)

1.15 The major tool of overall financial stability policy was envisaged to be the Financial Stability Report (FSR). The language of successive FSRs was too reassuring throughout, even as late as November 2007, and did little to induce the banks – or the public and policy makers – to adjust their behaviour to avoid the threats that lay ahead. The FSR drafting overemphasised the central forecast whereas it is the downside scenarios and the condition of the weakest institutions that are the most relevant for a financial stability assessment. Admittedly, the views of outside bodies such as the IMF and OECD – especially in later years – were not sharply different and must have provided reassurance to any internal doubters. In particular, the relatively glowing 2006 update of the IMF’s specialised Financial Sector Assessment Program (FSAP) mission – an exercise designed precisely to identify any weaknesses in prudential regulation and financial stability policy – would have been enough to set any doubts that may have existed at rest. The FSAP Report’s misinterpretation – for whatever reasons – of the prevailing Irish situation **must be considered unfortunate**.

1.16 Although the FSRs included significant analytical material analysing the **underpinnings of the property boom**, the relatively sanguine conclusions tended to be reached on a selective reading of the evidence. This was particularly true in the case of the 2007 FSR when, despite internal evidence available to the contrary, the central conclusion regarding a “soft landing” was not based on any quantitative calculations or analysis. This appears to have been a “triumph of hope over reality”. More generally, a rather defensive approach was adopted to external critics or contrarians. For years many observers had raised some concerns publicly or privately, albeit sometimes in coded form, about the sustainability of the property boom, which was indeed dramatic by international standards. For example, even though they appeared after most of the damage had already been done, the two 2007 articles by Morgan Kelly, while not backed up by in-depth quantitative research on the Irish situation, should nevertheless

have raised more warning flags than they did and prompted a rethink of the reassuring message of the FSR published in November of that year.

- 1.17 Such quantification of risks as was attempted was carried out in the context of the stress test exercises reported annually in the FSRs. Although many caveats were noted, **too much confidence was placed in the reliability of the tests** which were overseen by desk-based analysts without sufficient engagement by hands-on regulators. Not being sufficiently close to practical banking, those relying on the stress tests may have had an unrealistic appreciation of what the bankers could and could not know. Thus, for the “bottom up” tests, banks were asked to calculate possible loan losses in the event of a given (unfavourable) macroeconomic scenario. Apart from the fact that the scenario was insufficiently severe, the capacity of the banks to undertake the exercise differed greatly; indeed none of them had reliable models, tested and calibrated on Irish data, which could credibly predict loan losses under varying scenarios. Furthermore, the banks were naturally prone to over-optimism and even (later) denial – the stress tests conducted in the summer of 2008 still provide a reassuring picture. “Top down” tests did not put the banks’ positions under sufficient stress either. In any event, all took too much comfort from both sets of tests’ relatively benign conclusions.
- 1.18 A **closer interaction between the staff involved in financial stability and regulatory staff** could have had the effect of alerting both sides to the limitations of the stress test methodology and reduced the sense of complacency. If regulators had realised how risky the macroeconomic picture was for the banks they might have concluded that forceful action was needed; conversely, if the analysts dealing with financial stability had had a fuller understanding of how dependent banks’ solvency was on the property market holding up, they might have looked at the stress tests with a more sceptical eye. However, the inadequacy of the dialogue between economists and regulators was a long standing concern (and one which is mirrored in other parts of the world) that would have required a greater senior management effort to bridge the methodological divide present.
- 1.19 More generally, it may be that **the institutional separation of the Regulator from the rest of the organisation** (reviewed in Chapter 3) contributed to an insufficient appreciation of the micro-macro interlinkages involved in financial stability analysis. It could also have led to some perceived ambiguity as to which part of the house should

the earlier period when decisive intervention could have made a major difference to the length and extent of the property boom. **Regulatory measures will inevitably have some disturbing effects on markets**; indeed this is their main purpose. The luxury of waiting until more clear-cut evidence becomes available must be set against the costs of inaction, especially when market participants are comforted and implicitly encouraged – or not sufficiently discouraged – to continue with risky borrowing and lending behaviour.

Section 3: Crisis Containment (Chapter 8)

- 1.22 The provision of the State Guarantee on 29 September 2008 greatly diminished the immediate liquidity pressures and represented the overarching context within which further containment actions were taken in subsequent months.⁹ From late summer 2007, the CBFSAI had been in increasingly crisis mode as it sought to prepare for the consequences of a possible looming liquidity squeeze for some or all of the Irish-controlled banks. How well was this phase managed in terms of minimising the damage caused by the crisis which eventually crested with the unprecedented guarantee decision at end-September 2008? Partly with the benefit of hindsight, a number of elements are relevant to consider.
- 1.23 First, almost all of the efforts of the CBFSAI from August 2007 onwards were focussed on the important task of improving the contingent access of the banks to liquidity. However, as stressed earlier, if the authorities during this period had had better information about the underlying condition of the banks and a more alert appreciation of the scale of the macroeconomic imbalances present, a focus on building capital buffers could have **put the banks in a more robust position** entering the last weeks of September 2008.
- 1.24 While the final guarantee decision was taken under pressure of events, the meetings on the night of 29/30 September 2008 **were the culmination of an intensive series of interagency meetings** that had been taking place, and had greatly intensified since early

⁹ These included the nationalisation of Anglo Irish Bank, the replacement of some directors and senior management of financial institutions and the injection of capital resources. Over the course of 2009 and into 2010, the focus shifted from containment to resolution with the enactment of legislation creating NAMA; the regulatory assessment of each bank's recapitalisation needs (PCAR); and further injections of capital funds, including into the two building societies in which the Government took controlling shares. This process provided a good indication of the overall net fiscal cost of the crisis. Much of this cost is attributable to Anglo Irish Bank, whose new management are in the process of completing a restructuring plan.

CHAPTER 2: THE MACROECONOMIC BACKGROUND

Section 1: Introduction

- 2.1 The international financial crisis of the past three years has seen extensive government interventions to stabilise banks and prevent disorderly failures. The far-reaching measures taken by the Irish Government at end-September 2008 reflected the fact that the drain of liquidity which had been affecting all Irish banks had brought one important bank to the point of failure. To forestall the risk that such a failure would drastically affect all the other banks, the Government introduced an extensive guarantee of deposits and other liabilities. The gross amount of liabilities guaranteed came to €365 billion, or almost 2½ times GNP.
- 2.2 The initial expectation of officials at the time of the guarantee was that none of the institutions involved was insolvent, and that their problems stemmed mainly from a freezing of short-term liquidity in the wake of the bankruptcy of Lehman Brothers. However, subsequent developments have revealed a more serious and costly situation.
- 2.3 In sum, after the banks have sold their largest property-related exposures to the State's asset purchase vehicle, NAMA, at a price based on their estimated "long-term economic value", and after they have made provision for all of their other prospective loan-losses the State will have taken sizeable equity stakes in most of the banks, and issued some €40 billion or more in Government-guaranteed NAMA bonds (in exchange for which NAMA will hold loans of a similar value). The State will also have had to write-off in the order of €25 billion in unrecoverable capital injections into two institutions – Anglo Irish Bank and INBS – whose prospective loan losses greatly exceed their initial accounting capital.¹⁴
- 2.4 Apart from the experience of Iceland, this has turned out to have been the poorest performance of any banking system during the current global downturn. Yet Irish banks had not indulged in the financing of US securitised mortgages, nor were they involved in aggressive international acquisitions – flaws that characterised weakened banks elsewhere. Instead, they had been fatally weakened by a deep involvement in a world-beating property bubble which took off on the eve of Euro area membership and

¹⁴ Heavy loan losses were also recorded by several of the foreign-controlled banks operating in Ireland.

swelled, based on huge capital inflows – more than 50 per cent of GDP in the 4 years after 2003.

- 2.5 As Shiller (2005) has argued, boom-and-bust cycles are normally based on the propagation of a misplaced optimism built on a half-truth which seems to foretell an unprecedented stream of prosperity. A plausible explanation of the global financial meltdown is that an exaggerated belief in risk management systems underpinned misplaced confidence in risky investments, triggered the extravagant expansion in capital and liquidity worldwide shrank risk premia and generated unsupportable degrees of leverage (cf. Honohan, 2008).¹⁵
- 2.6 In Ireland's case the scene was set by the seeming effortless of the "Celtic Tiger" boom which started in the late 1980s and brought sustained growth in employment, income and household formation. Subsequently Ireland's becoming a founder member of the eurozone brought a dramatic and sustained fall in nominal and real interest rates (and removed exchange risk from most foreign borrowing) which in turn justified substantially higher equilibrium asset valuations. These elements helped sustain a belief that equilibrium house prices would soar and that housing demand would continue to grow for the foreseeable future.
- 2.7 Domestic policies did not act as a sufficient counterweight to the forces driving this unsustainable property bubble. Bank regulation and financial stability policy clearly failed to achieve their goals. Neither did fiscal policy constrain the boom. Indeed, the increased reliance on taxes that could only generate sufficient revenue in a boom, made public finances highly vulnerable to a downturn. Specific tax incentives also boosted rather than restrained the overheated construction sector. And, with surging labour demand, wage rates in both the public and private sectors moved well ahead of what could protect international competitiveness.
- 2.8 The economic consequences of the crash have been severe. The collapse in construction, the fall in property prices and the severe knock-on effects on the banking system have all undermined employment and the public finances, and left the economy in a weakened condition to face the global recession. It is thus hardly surprising that

¹⁵ As other examples, Shiller points to the belief that internet technology would generate sustained growth and profits as the cause of the dot.com bubble, the role of electric inventions resulting in the stock market bubble in 1901, and the role of the motor car and related technologies driving the 1920s US bubble.

CHAPTER 3: INSTITUTIONAL BACKGROUND

Section 1: Introduction

- 3.1 This Chapter describes the establishment in 2003 of the CBFSAI with its novel institutional arrangement, in which responsibilities were divided between the newly created Irish Financial Services Regulatory Authority (IFSRA, also known as the Financial Regulator, or FR) – operating under the overall umbrella of the CBFSAI – and what was thought of as the Central Bank (CB) proper.
- 3.2 Section 2 contains a brief review of the origin of the existing organisational structure of the CBFSAI.²⁴ Section 3 discusses the formal structure and assignment of responsibilities and powers between the components of the CBFSAI. Section 4 describes the working methods of the CBFSAI Board and the Authority of its constituent but autonomous part, the Irish Financial Services Regulatory Authority. Section 5 concludes.

Section 2: Origin of the CBFSAI

- 3.3 Against the background of public concern over a number of tax evasion and overcharging issues related to banking²⁵ and the then recent creation in the UK of an unitary financial regulator, the Financial Services Authority (FSA),²⁶ the Government decided in principle in October 1998 to consolidate prudential and consumer protection regulation of almost all types of financial firms in a single regulatory authority. The report of an Advisory Group chaired by Michael McDowell, SC, on how to implement this decision, was published in June, 1999. It envisaged, *inter alia*, not only the centralisation of building society, credit union and insurance regulation with that of banking, but also assigned, in addition to prudential regulation, consumer protection to

²⁴ On 19 June 2009 the Minister announced that a restructured Central Bank of Ireland would replace the CBFSAI. On 30 March 2010, the Minister for Finance published the Central Bank Reform Bill 2010 as the first stage in a three-stage legislative process. A second Bill to be published later in 2010 will enhance the Bank's supervisory, financial stability and consumer protection powers and a third Bill, scheduled for the autumn of 2010, will consolidate all central bank and financial services legislation.

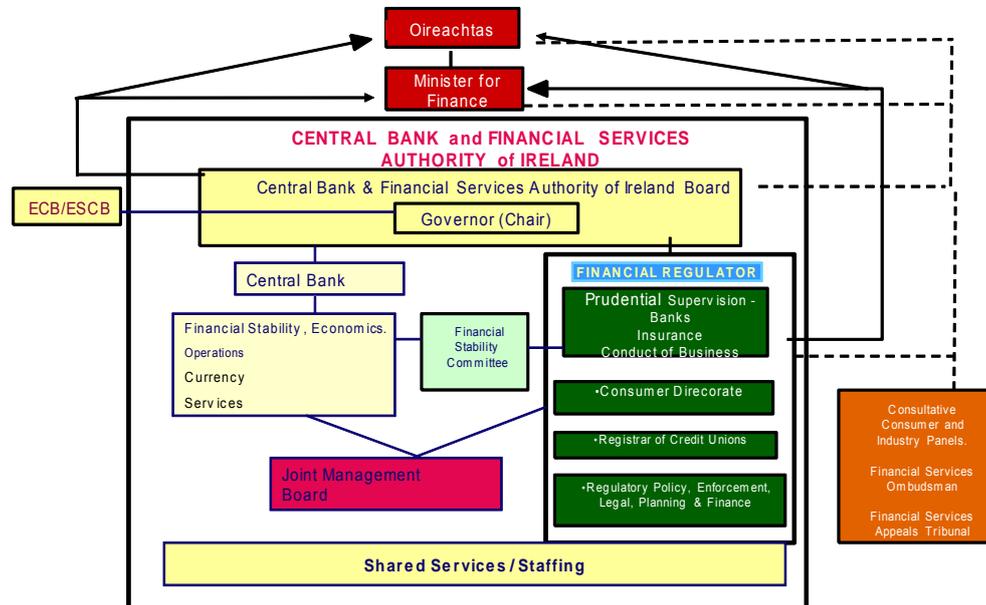
²⁵ The Inquiry into the Operation of Deposit Interest Retention Tax (the DIRT Inquiry), conducted by the Dáil Committee of Public Accounts, found that certain bank customers were allowed, if not encouraged, to deposit funds in accounts held in concealed accounts for the express purpose of avoiding taxes due. There were also concerns in the late 1990s that certain banks had adopted a policy of breaching trust with their customers by increasing or loading rates of interest on overdrafts or loans, without informing customers of the change in terms.

²⁶ The move to a single regulator in the UK reflected the blurring of boundaries between different financial service providers following substantial deregulation of their lines of business.

one agency. The newly-assigned importance of the consumer protection function was underlined by the proposed creation of the statutory position of Consumer Director within the Authority, whereas no corresponding position was proposed for prudential regulation.

- 3.4 While the McDowell Group recommended that the Single Regulatory Authority be a completely new, independent, organisation, the preferred choice of a minority of the Group (an Assistant Secretary in the Department of Finance and the then Deputy Director General of the Central Bank of Ireland) was to locate the Single Regulatory Authority as a new division within a restructured Central Bank, and with specified statutory functions for the head of division, who would report to the Governor only in respect of organisational (e.g., staffing, finance, etc.) issues. The minority argued *inter alia* that their model would provide for better continuity and accountability, while preserving what was already working well.
- 3.5 In the event, the Government adopted a compromise between the majority and minority positions. Under legislation enacted in 2003, the Irish Financial Services Regulatory Authority was established within the overall new structure of what was to be called the Central Bank and Financial Services Authority of Ireland. But IFSRA was not just a division of the CBFSAI. It had its own governing Authority, a majority of whose members would sit on the CBFSAI Board.
- 3.6 According to the 2003 Act the CBFSAI was an entity with one legal personality, but with three decision-making bodies (Box 3.1). IFSRA was a statutory body within the legal personality of the CBFSAI, and had powers vested in it to deal with prudential supervision and consumer protection. Under the legal framework, IFSRA was autonomous but not independent of the CBFSAI – it took all its decisions and actions legally in the name of the CBFSAI. IFSRA did not have a balance sheet or funds of its own which it would have required in order to have had the status of a separate legal identity. The arrangement was that resources and services were provided to the Financial Regulator by the CB and its relevant departments.

Box 3.1: Decision-Making Bodies of CBFSAI



The 2003 legislation produced quite a complex structure, as is conveyed by the above organisation chart from early 2009. However, the CBFSAI had just three main decision-making bodies:

- the Governor would be the decision-making body for European System of Central Banks (ESCB) related tasks – including financial stability issues;
- subject to the above provision, IFSRA, an autonomous but constituent part of the CBFSAI with its own Board (the Authority), Chairperson, Chief Executive and Consumer Director, would be responsible for licensing and prudential regulation of all financial service providers and for consumer protection across the sectors; and,
- the CBFSAI Board (chaired by the Governor) would be the decision-making body for remaining tasks, including the efficient and effective co-ordination of the constituent parts of the organisation as a whole and the exchange of information between them.

Section 3: Formal Structure

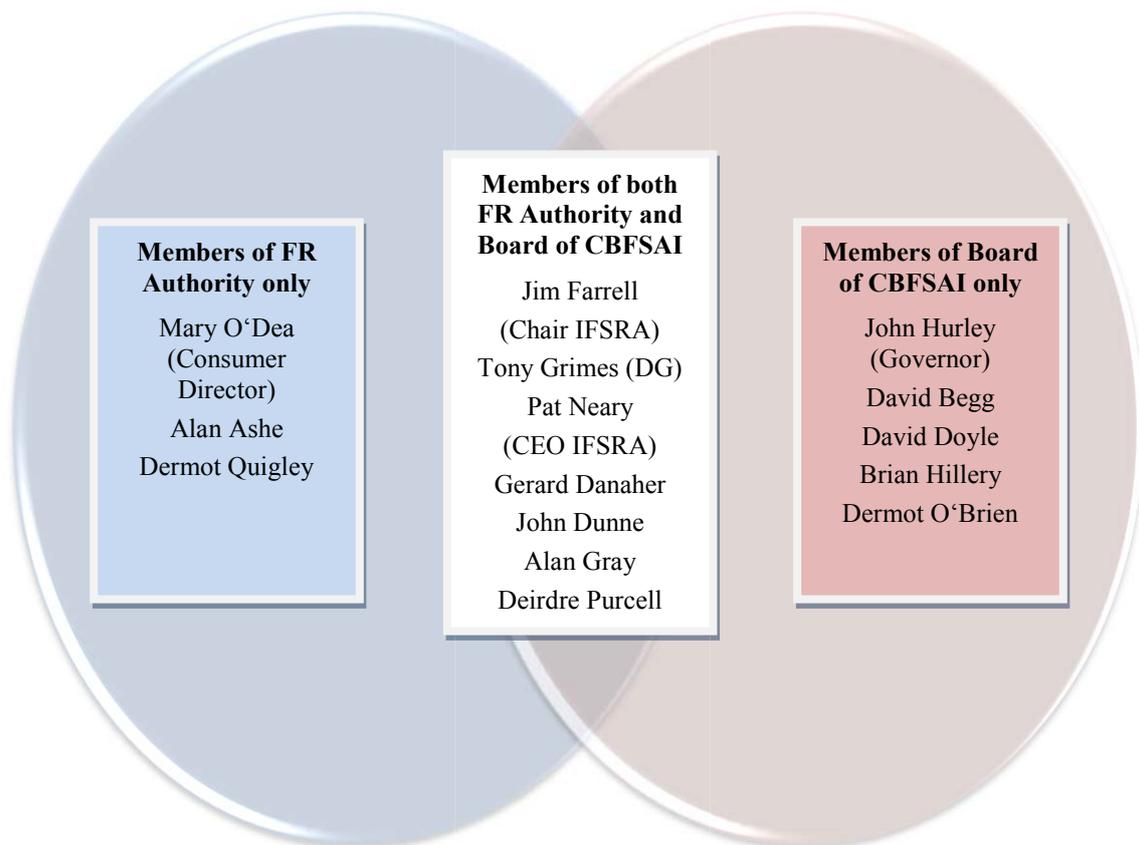
3.7 The division of responsibilities between the Governor, the CBFSAI and IFSRA was novel and contained the hazard of ambiguous lines of responsibility especially in the event of a systemic crisis.²⁷ However, a number of provisions helped guard against any conflict.

²⁷ This observation was made by Honohan (2002) at the time in comments on the legislation when it was introduced (cf. http://tech.groups.yahoo.com/group/financial_stability/message/161)

- 3.8 Licensing and prudential legislation was clearly to be the responsibility of IFSRA. However, in performing its functions, IFSRA had a duty to act in a manner consistent with the performance by the Governor and the Board of their CBFSAI functions (including the Governor's role in contributing to financial stability). If a matter relating to financial stability arose in connection with the performance and exercise by IFSRA of its functions or powers, it was required to consult the Governor on the matter and could only act in relation to the issue with the Governor's agreement. Thus, as outlined in Chapter 7, in December 2006, the Governor's approval for changes in required capital ratios was sought (and given). One of the statutory objectives of the CBFSAI was to promote the development of the financial services industry in Ireland (but in such a way as not to affect its objective of contributing to the stability of the financial system). These two aspects, as described in Chapter 7, did give rise to some conflict.
- 3.9 The Governor was also given powers to authorise a CBFSAI employee to investigate the business, and carry out on-site inspections, of licensed credit institutions, building societies, trustee savings banks, approved stock exchanges, authorised investment businesses and authorised collective investment schemes. In addition, the Governor and the CBFSAI Board, with respect to their respective functions, could issue guidelines to IFSRA – which would have to be published officially – as to the policies and principles that the Financial Regulator (FR) was required to implement in its performance of CBFSAI functions. These powers were not, however, used in the period under consideration.
- 3.10 These provisions for close involvement of the central banking functions in supervision matters – described by the Minister for Finance in his Second Stage speech as intended to ensure that financial stability issues and European System of Central Banks (ESCB) tasks were dealt with in a coordinated fashion – were included at the suggestion of the European Central Bank (ECB) which regarded them as fundamental and encouraged that they –should be made the most of in practice.” (Doherty and Lenihan, 2008).
- 3.11 Overall cooperation between the CBFSAI and the FR in practice was underpinned by a 2003 Memorandum of Understanding (MoU) agreed between the two entities. The MoU (reproduced as Annex 2) delineated the respective roles of the two entities in the area of financial stability, as well as aspects regarding data and information exchange, crisis management, and consultation on policy changes regarding financial stability

matters. The MoU sets out the shared understanding that the CBFSAI's responsibilities included "overview of the domestic financial system as a whole" and "analysis of the micro-prudential – where appropriate – as well as macro-prudential health of the financial sector"; while the responsibilities of IFSRA included the "prudential supervision of banks" and "providing advice, information and assistance in relation to the Bank's functions to the Bank's Board and the Governor" (CBFSAI, 2003).

Chart 3.1: CBFSAI Board and FR Authority, September 2008



Section 4: The Work of the CBFSAI Board and Authority

3.12 This section considers the linkages in practice between the Board of the CBFSAI and the Regulatory Authority. The structure of CBFSAI Board and Authority membership had some noteworthy features (Chart 3.1) which shows the composition at September 2008.²⁸ Thus the Governor was not a member of the Authority, even though he did

²⁸ Note that Tony Grimes' predecessor as Director General, Liam Barron, had not been a member of the FR Authority.

retain certain regulatory functions intended to ensure that financial stability issues and ESCB tasks were dealt with in a coordinated fashion.

- 3.13 Specifically, responsibility for the management of the Central Bank was vested in the Board comprising the Governor, the Director General of the Central Bank, the Chairperson and the Chief Executive of IFSRA, the Secretary General of the Department of Finance *ex-officio*, and seven non-executive Directors appointed by the Minister for Finance. Of these seven Directors, four had to be members of the Authority. The Authority comprised the Chair, the Chief Executive, the Consumer Director and seven non-executive Directors (Chart 3.1). Non-executive Board and Authority members were appointed by the Minister for Finance.
- 3.14 The turnover of non-executive Directors has been relatively low, a feature which helped consolidate expertise and build experience. The independent status of Board members was described by the first Governor, J.J. Brennan, as follows:

~~It~~ should be remembered on this connection that members of the board of the Central Bank however selected should not consider themselves as acting at that Board in any representative capacity but should place their knowledge and qualifications at the disposal of the Board with a view to reaching the best conclusions from a currency standpoint in the public interest without any regard to any particular interests, official or otherwise, with which they may have outside association.”²⁹

- 3.15 With no specific qualifications required by legislation, the background of non-executive CBFSAI Board and Authority members reflected a variety of experiences including, in many cases, prior involvement with financial, economic and related fields³⁰. Although it did therefore include specialists and experts in relevant fields, it would be fair to say that, in practice, the composition of the CBFSAI Board and Authority is closer to the generalist model of a central bank board than to the expert model. (Both models are found across Europe.) It may not be out of place to observe that this type of board, whose members are drawn from a cross-section of professional and public sector groups, may be less likely to detect and head off a macroeconomic bubble which is

²⁹ Cited in Moynihan (1975).

³⁰ The question of criteria relating to Board membership has been dealt with differently in other central banks. For example, in the case of the ECB, Article 11.2 of the Statute specifies that individuals selected for membership of the Executive Board must be “persons of recognised standing and professional experience in monetary or banking matters”. In the Central Bank Reform Bill (Section 24) currently before the Oireachtas, there is also a provision that the Minister for Finance “may appoint a person as a member of the Commission if and only if the Minister is of the opinion that that person has relevant knowledge of accountancy, banking, consumer interests, corporate governance, economics, financial regulation, financial services, law or social policy”.

believed in by peers and which is generating very considerable prosperity throughout society. If an effective challenge against such a consensus were to emerge, it might well have to come from persons with more specialised skills in a better position to identify micro and macro imbalances and urge a contrarian stance that remedial measures were needed.³¹ That, however, is not to prejudge the relative merits in general of the generalist and expert models – a group of experts that are out of touch with the broader society are prone to other types of error.

- 3.16 The practice of the CBFSAI Board has generally been to delegate powers to the Governor to exercise and perform all functions, powers and duties of the Central Bank with the exception of those powers which would either not be possible or appropriate to delegate. As with the CBFSAI Board, the Authority delegated most powers to the Chief Executive and, in her area of competence, to the Consumer Director.
- 3.17 The minutes of both CBFSAI Board and Authority meetings typically record only the broad consensus on the issues discussed and any decisions taken. They do not describe in any detail the frequent debates and often significant differences of opinion that, according to Board and Authority members interviewed for this Report, existed on some issues, especially the possible risks to financial stability.
- 3.18 A reading of the minutes confirms that discussions at CBFSAI Board meetings often covered broad themes such as recent international monetary and financial developments, and macroeconomic developments in Ireland and the euro area. The CBFSAI Board also discussed such matters as the Central Bank's own investment policy as well as general management and budgetary issues. In addition, the CBFSAI Board received regulatory updates from the Authority providing the latest information on the main issues they faced.
- 3.19 The Authority's minutes reveal a wide range of specific issues on its agenda. Initially, issues related to the establishment of IFSRA tended to predominate. Subsequently the agenda assumed a degree of stability with particular prominence given to the regular Chief Executive's Report which included both prudential and consumer protection issues. A prudential pack containing detailed tables on a range of (historical and current) prudential indicators was provided to the Authority on a quarterly basis. This

³¹ However, even an "expert model" board could mis-diagnose events, for example, as occurred with the FSA in the UK.

pack contained data on the aggregate banking system as well as on selected individual institutions. It appears, however, that these data were not discussed extensively, apart from occasional specific questions relating to individual institutions. Several members of the Authority have suggested that discussion of a range of relatively minor issues may have been at the cost of more system-wide issues.

- 3.20 Unsurprisingly, the Authority paid particular attention in the early years to issues relating to consumer matters³² which were considered by many as being of the highest priority. However, it would be wrong to suppose that over the period as a whole the Authority devoted most of its time to consumer protection issues; this is not borne out by an examination of the agendas of the Authority. Furthermore, although the senior staff member in charge of prudential regulation – who had equal rank in the organisation with the Consumer Director – was not a statutory member of the Authority (unlike the Consumer Director), this seemingly anomalous position was addressed by the arrangement (which was formally notified by the Chair to the Minister for Finance) that he attend all Authority meetings as a matter of practice.
- 3.21 Since there was some overlap between Authority and CBFSAI Board membership but in one direction only (Authority to CBFSAI Board), issues within the remit of the Authority that fell to be considered also at CBFSAI Board meetings would normally have been discussed by the overlapping members beforehand; this facilitated these members voting as a block on matters of importance to the Authority. The most contentious of these related to the cost and quality of available resources and, in particular, the provision of information technology.
- 3.22 Documents were shared smoothly between the Authority and CBFSAI Board, and there has been no suggestion of any reluctance to share information. Relevant Authority papers including the Chief Executive's Report and the prudential pack were provided to the CBFSAI Board. Thus, while it was the Authority that took the lead in deciding on issues relating to financial regulation, under these arrangements, any of the issues, especially if they might have implications for financial stability, could have been raised at the CBFSAI Board. However, this did not happen a great deal before 2008, apart

³² With the exception of the 2008 Annual Report, all the previous reports and the strategy documents submitted to the Dáil emphasised the primary role of the Financial Regulator in the consumer protection area.

from the joint meetings of the CBFSAI Board and the Authority that were held to consider the draft Financial Stability Reports (discussed in Chapter 6).

Section 5: Conclusions

3.23 The Act of 2003 created a complex structure for the Central Bank and the Financial Regulator which could have exposed the system to the risk of some ambiguity in the assignment of responsibilities. This risk was mitigated by the requirements for consultation and communication and by assigning clearly overriding powers in the case of a policy conflict between the different constituent decision-making bodies – though no such conflict arose in practice. The newly established Financial Regulator, was by all accounts, determined to make its mark, notably in the consumer protection field. It was also determined to achieve a degree of operational autonomy which did result in friction over the cost and quality of resources provided to the FR. Such friction may have had the knock-on effect of imperceptibly reducing the quality of operational interaction and dialogue between FR staff and the rest of the CBFSAI, although complaints have not been raised about obstacles to the flow of information. Though few would now defend the institutional structure invented for the organisation in 2003, it would be hard to show that its complexity materially contributed to the major failures that occurred.

4.3 Section 2 presents the objectives, rationale and content of the FR's approach to regulation. As understood by the FR, "principles-based" regulation relied very heavily on making sure that appropriate governance structures and systems were in place in banks and building societies³⁴. The presumption was that this was the key to sound prudential decisions.³⁵ To this extent, the underlying philosophy was oriented towards trusting a properly governed firm; it was potentially only a short step from that trust to the emergence of a somewhat diffident attitude on the part of the regulators so far as challenging the decisions of firms was concerned. Given also that, as mentioned above, legislation set as a statutory objective of CBFSAI the promotion of the financial services industry in Ireland, the situation was ripe for the emergence of a rather accommodating stance *vis-a-vis* credit institutions. Indeed, early indications of such an approach can be seen from the experience with respect to efforts to codify principles and establish appropriate enforcement procedures.

4.4 Section 3 reviews the FR's efforts to implement/codify three significant components of governance:

- Directors' Compliance Statements;
- Fit and Proper Requirements; and,
- Corporate Governance Code.

Success was not achieved with respect to Directors' Compliance Statements or the Corporate Governance Code.

4.5 Section 4 reviews the enforcement policy of the FR. A successful regulatory regime needs not only to specify what is and what is not expected from credit institutions in terms of behaviour, structures and procedures but also to create and employ mechanisms to ensure that breaches are dealt with appropriately. A range of mechanisms may be employed from moral suasion to court action to amending the licence of a bank or building society. Section 5 concludes.

³⁴ To that extent, the alternative term "process-based" might be coined to capture the approach more accurately.

³⁵ This presumption parallels the credulous belief (critiqued by Turner, 2009) that financial markets have an effective self-regulating tendency.

Hong Kong – prevents very effectively income shifting through the use of principles-based regulation, which quite simply states that current income and profits must not be converted deliberately into capital gains to avoid the payment of taxes.”⁴⁶ In terms of enforcement a Hong Kong government agency watches over tax returns for violations. There are few violations because –business fully understands the principles and knows it does not pay to violate them.”⁴⁷

- 4.14 To a considerable extent, the rules-versus-principles debate presents a false dichotomy. As the tax examples offered by the FR suggest, relying solely on rules is a recipe for an arms race between any regulated entities determined to find ways through the rule book, and the Regulator’s continual redrafting of the rules. Some aspects of safe and sound banking simply cannot be codified. There must be principles to back up the rule book. Any sensible model has both rules and principles. The more distinctive characteristic of the Irish FR’s regulatory philosophy is rather the degree to which it deferred without much challenge to managerial decision-making in the regulated firms and relied on governance structures, and on verifying the status of formal or informal risk control procedures.

Section 3: Creating the Governance Architecture for Principles-Based Regulation: Directors’ Compliance Statements, Fit and Proper Requirements & a Corporate Governance Code

- 4.15 A key element in principles-based regulation consists of putting in place a governance architecture to ensure that banks and building societies meet specific obligations required of them. This section reviews and assesses efforts by the FR to introduce three elements of this architecture: Directors’ Compliance Statements; Fit and Proper Requirements; and Corporate Governance Code.

- Directors’ Compliance Statements

- 4.16 One of the motivations for Directors’ Compliance Statements was the Parliamentary Inquiry into DIRT (the DIRT Inquiry), which found serious, longstanding – occurring from 1986 to 1998 – misbehaviour by banks in facilitating tax evasion.⁴⁸ A number of recommendations were made by the DIRT Inquiry concerning the governance of

⁴⁶ *Ibid*, p. 5.

⁴⁷ *Ibid*, p. 5.

⁴⁸ All the material in this paragraph is taken from Dáil Eireann, Committee of Public Accounts (1999, Chapter 17).

regulation. The UK Financial Services Authority, for example, in considering enforcement envisaged that breaches of principles would lead to it aggressively pursuing cases.⁶⁷ Two broad approaches to enforcement are considered: a continuation of the strategy inherited by the FR from the CB; and an alternative more hard-headed aggressive approach. The underlying assumptions implicit in each of these models are reviewed before assessing the enforcement model that was actually selected by the FR.

- *The status quo: Walk softly and carry no stick*

- 4.36 The option inherited by the FR saw enforcement largely as a problem solving exercise between the FR and the bank or building society. Concerns would be identified in relation to a credit institution via a variety of channels such as an inspection report, a request by the Financial Regulator that institution commission an external review to examine specific issues, or as a result of an auditor's annual management letter. An action plan would be drawn up to address the breaches of the principles, codes, regulations and/or rules. Typically at some point the credit institution would assure the FR that the action plan had been implemented in full. Given the mutual trust that underpins principles-based regulation these assurances would normally be accepted. If concerns of a similar or identical nature re-emerged, a similar approach would be followed.
- 4.37 The above process would normally involve many meetings, exchange of letters and discussions to resolve issues and arrive at a mutually acceptable outcome. Banks and building societies were seen as important institutions deserving appropriate respect and threats of action by the FR in the absence of compliance were not typically part of the process. It was felt that there was a danger that court cases might be lost, while attaching conditions to licenses and similar measures might attract unseemly adverse publicity and discourage promotion of the Irish financial sector. It was considered much better to resolve regulatory issues through voluntary compliance and discussion.
- 4.38 Underlying this model of enforcement was the view that those running the banks and building societies were honourable persons striving to do their best to comply with the principles set out in Box 4.1 above as well as the various rules, codes and regulations. The latter were extensive and technical in nature and often quite difficult to understand. Thus almost of necessity breaches would occur, perhaps on more than one occasion.

⁶⁷ See FSA (2007, p. 14).

Nevertheless, it was assumed that those in charge of institutions would, after careful consideration, do their best to comply.

- An alternative model: Walk softly but carry a big stick

4.39 In contrast, the second option would have been much more robust, intrusive and hard headed. Specifically, it would have entailed clear procedures for escalation, including a greater willingness to use sanctions available to the Financial Regulator in order to ensure prompt responses leading to compliance. These elements would have been made publicly known to all institutions from the outset. There would be a preparedness to take court cases and test the limitations of the law so as to identify areas where legislative change might have been required.

4.40 This model assumes that rational actors will carefully consider the consequences of their actions in terms of likely regulatory actions and sanctions by the FR as well as the probability of their occurrence. If the perceived probability of sanctions – especially escalating sanctions – is considered low, regulated credit institutions may not pay a great deal of attention to ensuring compliance.

4.41 Supporters of a more aggressive approach can point to considerable evidence to support the view that lax enforcement of financial regulation leads to adverse consequences. Instances of unethical behaviour by banks and building societies prior to 2003 was referred to above, while other examples can be cited.⁶⁸ In addition there was evidence on the files of BSD that suggested instances of persistent breaches of codes, regulations and principles occurred.⁶⁹ Although in some instances the unethical behaviour is concerned with consumer (e.g., overcharging) rather than micro-prudential issues, the behaviour nevertheless reflects a willingness to evade appropriate procedures.

- Which enforcement strategy?

4.42 When a new agency is created it is important that it quickly establishes its credibility and reputation as an enforcer. This creates expectations as to how the rules, codes, regulations and principles will be enforced which will, in turn, influence behaviour. If

⁶⁸ The leading banks in Ireland were investigated by the European Commission over concerns that a cartel existed in relation to cash exchange charges for euro-zone currencies. Proceedings were ended against Ulster Bank after it changed its tariffs for exchanging euro-zone currencies in May 2001. Under Irish competition law such behaviour constitutes a criminal offence. For further details see European commission (2000, 2001).

⁶⁹ See Chapter 5 below.

the regulated firm anticipates prompt regulatory action if it infringes a principle, code, rule or regulation and also that the action will increase in severity if it is repeated, the regulated firms will strive to minimise such infractions.

- 4.43 There are numerous examples of new institutions creating a reputation and thus influencing expectations and behaviour. When the European Central Bank was created it rapidly established its credibility and reputation for fighting inflation in setting interest rates. When the Financial Service Ombudsman office was created in 2004 it took a number of court cases to determine the limits of the legislation. Finally, the Competition Authority, enforcing a consolidated modernised competition legislation passed in 2002, recruited two leading US antitrust experts as board members and introduced innovations such as the Cartel Immunity Programme, under which cartelists were granted immunity from prosecution in return for providing evidence against fellow cartelists.
- 4.44 Although the enforcement strategy of the Authority was inherited from the CB, the FR took some largely unsuccessful steps towards developing a more robust approach and thus change the model of enforcement. After consideration, the FR issued statutory guidelines on Administrative Sanctions, in October 2005.⁷⁰ For legal reasons this power to sanction could only be applied to events that took place subsequent to August 2004 and included: monetary penalties not exceeding €5,000,000 for a corporate and an unincorporated body and €500,000 for an individual; and a direction disqualifying a person from being concerned in the management of a regulated financial service provider.⁷¹
- 4.45 The FR described the significance of the new tool of administrative sanctions as follows:
- It is important to note that ... they [the Administrative Sanctions] are additional and more finely tuned than earlier ‘nuclear’ options which were previously available to us. These ranged from the ability to refuse an application for authorisation from a prospective financial service provider or revoke/suspend its authorisation to the power to direct it to undertake or to refrain from particular tasks.” (FR, 2006b, p. 12).
- 4.46 The frequency of use of administrative sanctions powers, once the powers, guidelines, training and procedures had been put in place in 2004-05 was as follows: 2006: 2;

⁷⁰ For details see FR (2005a; 2005b). The issuance of the Administrative Sanctions Guidelines followed an earlier consultation exercise (FR, 2006g).

⁷¹ The list of sanctions is set out in FR (2005b, p. 15).

2007: 5; 2008: 10; and 2009: 9. This pattern indicates a very slow build-up of administrative sanctions cases.⁷² Furthermore, training programmes which had been run in 2005-06 were not run again or further developed. Also, the kind of cases brought through the administrative sanctions process predominantly involved intermediaries and related to failures of internal controls in small firms and breaches of the Consumer Code. Prior to the financial crisis in 2008, there were no sanctions imposed on credit institutions and none that might be said to have reflected significant prudential concerns. Overall, while the Financial Regulator had the capacity to make use of its administrative sanctions powers, the experience also suggests a reluctance to apply those powers in relation to its key micro-prudential functions.

Box 4.2: Moral Suasion, Principles-Based Regulation of a Persistent Problem

The FR's approach to principles-based regulation relied on the integrity and competence of the Boards and senior management of regulated entities. It also relied on ensuring that these entities have the appropriate compliance systems and controls in place as well as a robust internal audit function.

In the case of one persistently problematic firm – call it Bank A – significant concerns existed within the CB and subsequently the FR about the effectiveness and strength of the Board and governance structures within the organisation. Moreover, serious deficiencies in systems and controls, and failings in the bank's internal audit unit function, were routinely identified from at least the year 2000 onwards.

The model of supervision applied placed considerable reliance on the Board of Bank A's fiduciary duties to its shareholders. The FR relied on the assurances provided by the Board and senior management of Bank A and in a general sense it can be said that these assurances proved to be insufficient to ensure sound governance. Nevertheless, the FR persisted with a principles-based approach to the regulation of this institution and the soft moral suasion means of enforcement (although at one point a condition was imposed on its license relating to a governance issue), when it was clear for a number of years that it did not meet the basic requirements of a firm appropriate to this form of regulation.

It should be noted that attempts were made to move beyond moral suasion in relation to dealing with Bank A. In one instance prosecution of Bank A was given detailed consideration but other less intrusive prudential measures were taken. Ultimately, however, these proved to be ineffective.

Source: FR files

4.47 There is other evidence that the FR was reluctant to use its regulatory powers to address serial governance failures by one credit institution (Box 4.2). Furthermore, in internal communications between the Chair and CEO of the FR in mid-2006 the question of what could be done to address the general problem of an acceleration in the growth of

⁷² There were, in addition two settlements under the separate market abuse administrative sanctions scheme.

mortgage lending and credit growth was raised. There were doubts that the principles-based approach combined with moral suasion would be able to solve these problems. Nevertheless, the FR and the Authority did not appear willing to consider employing more effective forms of intervention to resolve the problem.

4.48 Nevertheless, in a number of instances, action was taken by the FR in relation to some banks. An instructive example, illustrating how such instances tended to follow representations and/or publicity falls just outside the review period. Thus, an agreed sanction of €50,000 was imposed on INBS with effect from 7 October 2008 after the circulation of an inappropriate email (FR, 2008c). The public announcement by the FR was quite opaque as to the facts. However, these were in the public domain, including extracts from the email. The offending email had been sent by a person in INBS shortly after the State Guarantee was announced in late September 2008 canvassing business on the basis of the guarantee. The email was referred to the FR by the Minister for Finance who said such behaviour would not be tolerated. The Taoiseach stated that the behaviour was unacceptable and that he expected the FR to take whatever action would be necessary to prevent a repetition of the behaviour.

Section 5: Conclusions

4.49 The philosophy of regulation employed by the Financial Regulator was inherited from the past practice at the Central Bank. It relied on the deferential view that, as long as there was a good governance structure, decisions of the people actually running the banks could normally be trusted to keep the banks safe and sound, and their decisions did not need to be second-guessed. Voluntary compliance was the preferred enforcement strategy. Several attempts were made by the FR to strengthen this regulatory approach so that it became more robust and intrusive, but these had little impact. Two of what the FR regarded as key elements of the governance architecture of principles-based regulation – Directors' Compliance Statements and the Corporate Governance Code – were not put in place.⁷³ An Administrative Sanctions Procedure was instituted but there was a reluctance to apply these powers in relation to micro-prudential functions. The Principles for Financial Service Providers – presented in Box

⁷³ A Corporate Governance Code consultation paper was released in April 2010. For details see CBFSAI (2010). In the opening paragraph the following is stated: "It is now widely recognised that one of the causes of the international financial crisis was inadequate oversight of credit institutions and insurance companies. ... Enhanced corporate governance requirements will improve the long-term sustainability of financial firms."

4.1 – were never incorporated into a Code which would have facilitated enforcement of these Principles via application of the Administrative Sanctions Procedure. These shortcomings might have been compensated for to a significant extent if the FR's enforcement strategy had not relied mainly on moral suasion, which given some earlier experiences, was in turn based on unduly positive assumptions concerning the behaviour of financial service providers.

4.50 While consistent with the espoused regulatory philosophy, the reluctance to take decisive action can also be characterised as displaying both deference and diffidence to the regulated entities. These characteristics are brought out clearly also when it comes to looking at the way in which individual institutions were dealt with, which is the topic of the next Chapter.

5.16 The stock element consisted of an ~~active~~ monitoring process” of authorised entities aimed at ensuring that they ~~do~~ not create unacceptable risks to the financial system or to the safety of deposits.”⁹¹ The fact that the number of credit institutions remained fairly constant combined with the small number of new entrants, meant that most resources were devoted to ongoing supervision, although this included development work on the CRD and other legislative changes. Management resources within the department were also quite regularly diverted from day-to-day supervisory tasks to deal with policy development work and work related to the Committee of European Bank Supervisors (CEBS).

5.17 Problems – both governance and financial – were identified via several mechanisms:

- Returns from banks and building societies. These could be weekly, monthly, quarterly or annual returns where these refer to audited accounts. The higher the perceived risk the higher the frequency of returns. In 2005, there were 598 monthly returns for banks and building societies, 495 quarterly, 49 annual and 198 weekly.⁹²
- On-site inspections/reviews sought to ~~assess~~ whether financial service providers are in compliance with our ongoing supervisory standards and requirements.”⁹³ These on-site inspections were of four types: general in nature with respect to a bank or building society; specific in nature relating to a particular area in a given credit institution; themed inspections covering a particular issue – e.g., mortgage credit – across a sample of the credit institution sector; and unscheduled inspections of a particular institution. The number of on-site inspections increased from 8 in 2005 to 25 in 2008.
- Review meetings conducted with banks and building societies. These meetings which increased from 39 in 2005 to 113 in 2008, were of ~~a~~ more general nature and cover broad compliance issues and any matters outstanding from the most recent inspection.” (FR, 2007a, p. 71)

5.18 Information also came to BSD via the annual audit report and management letters. The latter, which by law must be sent to the FR, are issued by the external auditors ~~when~~ they identify issues giving rise to concerns about the effectiveness of internal controls or other governance issues” (C&AG, 2007, p. 40). In some instances the FR would ask the institution to commission (and pay for) an external audit on a particular issue.

⁹¹ *Ibid*, p. 57.

⁹² FR (2006g, Table 3.5, p. 66).

⁹³ FR (2005c, p. 64).

CHAPTER 6: MACRO-PRUDENTIAL REGULATION AND THE FINANCIAL STABILITY REPORT PROCESS

Section 1: Introduction

- 6.1 Macro-prudential regulation during 2004-08 was carried out mainly within the framework of Financial Stability Reports (FSRs) published annually by the CBFSAI⁹⁷. These reports derived from the CBFSAI's mandate to contribute to the overall stability of the Irish financial system as required by the CBFSAI Act, 2003 and also from the mandate of the European System of Central Banks which requires the European Central Bank and National Central Banks to contribute to financial stability in the euro area. Their central purpose was "to analyse and assess the overall health of the financial system" (CBFSAI, 2004, p. 5)
- 6.2 Following a summary of the key messages of the reports, various aspects of the FSR process are reviewed below, namely:
- the procedures followed in their preparation;
 - the identification of issues;
 - the analytical content of the reports; and
 - the views of other external observers.

An overall assessment, which also addresses other factors influencing the process, concludes.

Section 2: The Key Messages

- 6.3 The Governor's Foreword to each FSR contained the overall conclusions followed by a Summary which reflected the more comprehensive discussion in the main body of the text. The key messages of each report are indicated below; overall, they provided a consistent signal throughout the period that the Irish banking system was in a good state of health and, despite the presence of various downside risks, was well placed to cope with possible adverse shocks.

⁹⁷ Interim Financial Stability reports were prepared for internal CBFSAI usage on a six monthly basis. The review in this Chapter is based largely on the annual published version. Prior to 2004, financial stability reports had also been prepared and were contained in the Annual Reports of the Central Bank. However, from 2004 onwards, in line with procedures followed in other euro area Member States, this work was published as a separate document.

- 2004

–Our central expectation, based on our assessment of the risks facing both the household and non-financial corporate sectors, as well as the current shock absorption capacity of the banking system, is that it is unlikely that the current good health of the banking system will be compromised over the medium-term horizon. This central expectation does not preclude the possibility of adverse developments which, if they should materialise, would have serious adverse consequences for households, corporates, and banks Nevertheless, the system could absorb a modest fall in house prices even if it were to coincide with a modest increase in defaults.” (CBFSAI, 2004, p. 12).

- 2005

–The central expectation, based on an assessment of the risks facing both the household and corporate sectors, as well as the current shock absorption capacity of the banking system, is that the current health of the banking system leaves it reasonably well placed to withstand pressures from potential adverse developments in the short to medium term. However, there are a number of vulnerabilities, in the medium term, particularly from the very high rate of credit growth.” (CBFSAI, 2005, p. 7).

- 2006

–The overall assessment is that financial stability risks may be seen to have increased since the Financial Stability Report 2005....

The overall picture at present is that strong credit growth, high indebtedness levels, associated repayment burdens and house prices pose continuing issues for the banking system. While the central expectation remains that the current shock-absorption capacity of the banking system leaves it well placed to withstand pressures from possible adverse economic and sectoral developments, nevertheless, these signs of a further build up in vulnerabilities are a cause for concern.” (CBFSAI, 2006, p. 7).

- 2007

–The overall assessment is that financial stability risks have on balance increased since the CBFSAI’s Financial Stability Report 2006....

However, the central expectation, based on an assessment of the risks facing both the household and non-financial corporate sectors, the health of the banking sector and the results of recent in-house stress testing is that, notwithstanding the international financial market turbulence, the Irish banking system continues to be well placed to withstand adverse economic and sectoral developments in the short to medium term.” (CBFSAI, 2007, p. 11).

Section 3: Procedures Followed

6.4 As noted in the Foreword to the 2004 FSR, from the outset, the FSRs were viewed as a joint product of the Central Bank and the Financial Regulator.

–There is the closest cooperation between the Bank and the FSR [i.e., the Financial Regulator] on matters related to financial stability The Financial Stability Report is the fruit of this cooperation.” (CBFSAI 2004, p. 5)

As described in Chapter 3, overall cooperation between the Central Bank and the Financial Regulator was underpinned by a 2003 Memorandum of Understanding (MoU) agreed between the two entities. In particular, the MoU delineated the respective roles of the Central Bank and the Financial Regulator in the area of financial stability, as well as aspects regarding data and information exchange, crisis management, and consultation on policy changes regarding financial stability matters. Of note in the context of the FSR process (and of prudential regulation more generally), the Central Bank’s responsibilities included ~~–~~“overview of the domestic financial system as a whole” and ~~–~~“analysis of the micro-prudential – where appropriate – as well as macro-prudential health of the financial sector.” Those of the Financial Regulator included the ~~–~~“prudential supervision of banks” and ~~–~~“providing advice, information and assistance in relation to the Bank’s functions to the Bank’s Board and the Governor” (CBFSAI, 2003).

6.5 An initial draft of the FSR was first circulated to the joint Financial Stability Committee (FSC – see Chapter 3) chaired by the Director General of the Bank and including senior staff of the Central Bank and the Financial Regulator.⁹⁸ Subsequently the draft was reviewed by a special joint meeting of the CBFSAI Board and the Authority before finalisation and publication.

6.6 In practical terms, prior to mid-2005, the initial preparatory work and drafting of the FSR was undertaken by a working group comprising staff from both the Central Bank and the Financial Regulator. However, at that point, reflecting resource constraints and growing work pressures (principally relating to Basel II implementation, discussed in Chapter 5), Financial Regulator staff hitherto involved were reassigned to other duties. From then on, while the FSC and joint CBFSAI Board/Authority discussions continued

⁹⁸ Most of the agenda of the FSC related to the FSR process, including preparatory and follow up work. The role of the FSC in addressing ~~–~~“crisis management” issues is dealt with in Chapter 8.

to reflect FR input, most of the preparatory work and essentially all of the report drafting were undertaken by Central Bank staff. Regulator-maintained data on individual financial entities continued to be accessible to Central Bank staff; however, the relatively “raw” nature of these data as well as the constrained availability of FR staff to assist in their interpretation, appear to have inhibited the extensive usage of the data in report preparation.

Section 4: Identification of Issues

- 6.7 Successive FSRs sought to present a reasonably comprehensive current assessment of and outlook for, the domestic banking system.⁹⁹ Against the background of the domestic and international situation and short term prospects, the reports discussed key financial indebtedness indicators for the household and non financial corporate sectors, including those relating to property. From the banking side, credit to these sectors was reviewed, together with an assessment of the current financial health of the banking sector, as reflected in indicators such as asset quality, profitability, solvency, liquidity and credit ratings; the funding structure of banks, in particular their growing reliance on sources other than retail deposits was also addressed, especially in later years. Considerable attention was paid to the evolution and prospects for residential house prices (discussed in more detail below) as well as (to a somewhat lesser extent) movements in commercial property prices.¹⁰⁰
- 6.8 Overall, the coverage of issues identified in FSR reports seem broadly appropriate, with, however, two qualifications. First, indicators were presented in aggregate form using simple (or, in the case of stress tests (see below), weighted) averages. While, for confidentiality and/or market sensitivity reasons, it would not have been possible for the reports to refer explicitly to individual institutions, in the case of key indicators such as growth in balance sheets and outstanding credit, consideration could have been given to conveying a fuller sense of the corresponding distribution among entities. Even if, for example, average capital ratios for the banking system appeared satisfactory, merely presenting the average could have masked the presence of one or more firms that were seriously undercapitalised. Greater attention to this issue would have conveyed a heightened awareness of the possibility that emerging problems in potentially more

⁹⁹ The coverage included those banks whose business is primarily domestically oriented and excluded entities who tended to conduct their main business internationally.

¹⁰⁰ Reports also regularly included a set of “Financial Soundness Indicators” developed by the IMF.

some variables (capital and profitability as yet unaffected by potential loan losses yet to come, plentiful liquidity prior to a sudden change in market sentiment due to increased information that may become available only with a lag) would not have been inconsistent with phenomena observed in the middle to late stages of a credit-fuelled asset bubble. While the FSRs were careful not to overemphasise the significance of these current indicators, an explicit disclaimer concerning their inherent shortcomings would have been appropriate.

- Background analytical work

6.12 During this period Central Bank economist staff undertook considerable research into property market and related financial stability issues, the results of which were reported in successive FSRs¹⁰². The main message of these studies was consistent from the 2004 FSR onwards which stated (CBFSAI 2004, p. 10) that

~~the~~ risk of a substantial fall in residential property prices is the risk that poses the greatest potential threat to the health of the financial system...a sizeable correction in prices would be devastating for those households who would be unable to ride out any such fall in house prices.....The most significant losses for the banking system would arise from those borrowers who have only recently taken out mortgages.”

It noted that according to an IMF assessment ~~large~~ house price increases which are sustained over a number of years tend to be followed by fairly steep falls in prices” and that ~~never~~ has an increase in residential property prices occurred of a magnitude similar to that which has already occurred in Irish house prices over the past decade without a subsequent large correction in prices”. However, reassuring qualifications followed – the banks had adequate capacity to absorb a modest fall in house prices and, the seemingly inevitable fall-back in prices related to evidence from 1980s and the 1990s and might no longer be true in the 2000s. Nevertheless, a disaster scenario had already been sketched out.

6.13 The 2004 FSR highlighted the fact that price-rental ratios were already suggesting overvaluation – of between 55 and 63 per cent. Most independent authors were also beginning to find it hard to explain house prices on the basis of the fundamentals of supply and demand. However, the FSR presented an econometric analysis based on McQuinn (2004), which suggested that there was no bubble – at least through end-2002.

¹⁰² These were included in ~~the~~ “annexed” sections of the main body of the reports, as well as in a series of signed papers to which the usual disclaimer applied.

The model is complex and does not readily allow identification of the fundamental equilibrium price of housing. In particular, the inclusion of the average size of mortgage loan as one of the explanatory variables implies that a price boom driven by credit expansion is being treated as a “fundamental” phenomenon and not a bubble. Nevertheless the 2004 FSR reported this model as indicating a “failure to uncover conclusive evidence of overvaluation”. The model was re-estimated for subsequent FSRs with similar conclusions. However, average loan size is not a fundamental factor, and indeed could be the driver of overvaluation.^{103,104}

6.14 The range of **house price overvaluation** indicated by various analytic models is summarised in Table 6.1. As the years progressed, the weight of econometric evidence that house prices were overvalued grew, although the supply and demand model mentioned in the previous paragraph continued to indicate that actual house prices had not diverged significantly from their fundamental values. However, the price-rental ratio (P/e) continued to show increasing indications of overvaluation. Between 2003Q4 and 2006Q2 the extent of possible misalignment varied between 55 per cent (for new houses) and 73 per cent (second hand houses), using the average of the historical price-rental ratios experienced during 1980-1995. Recognising that this fairly crude method did not take into account the sensitivity of the price rental ratio to assumptions as to the rate of interest, a second method (“PV-adjusted”) was employed based on an estimation of the *equilibrium* price-rental ratio and assumptions regarding the equilibrium rate of interest. The results of this approach suggested possible overvaluations in the range of 6 per cent (2003Q4) to 45 per cent (2006Q2). Finally, the results of a staff model (McQuinn and O’Reilly, 2006), which related house prices to income and (nonlinearly) to the real interest rate, pointed to increasing overvaluation emerging from late-2004 onwards, reaching about 15 per cent by end-2005.

¹⁰³ It is not clear to what extent this potential problem may have affected the results presented in subsequent reports; furthermore, in later years, other variables such as income and immigration may have also become endogenous to a significant extent, given that economic growth – and the increase in the immigrant labour force – was increasingly being driven by the construction sector and domestic consumption, the latter fuelled by Government expenditure stemming from property sector-related fiscal receipts.

¹⁰⁴ Actually, simpler models, exploiting the relatively close correlation between house prices and nominal GDP would also have displayed a reasonably good fit to the data to end-2002.

more marked; in the 2004 exercise, prices were assumed to rise cumulatively by only 2 per cent relative to the baseline increase of 24 per cent, while in the 2006 test, the baseline assumed continued cumulative growth of 20 per cent compared to a scenario assumption of a 20 per cent decline.¹¹²

- 6.23 The results of the exercises for both periods were very similar. Despite an expected significant slowdown in asset and loan growth under the shock scenarios and an accompanying increased provisioning requirement due to deteriorating asset quality, profitability remained robust (no institution experienced losses) and solvency and liquidity indicators remained comfortable.
- 6.24 The “**top down**” methodology (Kearns, 2004) estimated the likely level of provisioning required under the same macroeconomic “shock scenario” employed for the “bottom up” test; the financial implications for banks were very similar. Subsequently Kearns (2006) followed the approach of calculating the impact of a worsening of non-performing asset (NPA) and loss-given-default (LGD) rates on banks’ financial positions; the 2007 FSR contained an update. The results for both exercises did not differ significantly. Using aggregate data, the weighted (by total asset size) average capital ratio fell below the regulatory minimum of 8 per cent only when the LGD rate is 50 per cent or higher and when the NPA rate exceeded 5 per cent (i.e., a six fold increase over then current levels). The appropriateness of the rates chosen was not assessed in the report.
- 6.25 Some of the well known limitations of these types of stress tests were explicitly recognised in the FSRs and appropriate “health warnings” provided (especially in the detailed background papers). In particular the “bottom up” tests relied on the banks’ own judgements as regards the impact of shocks on their loan portfolios, including the extent of realisable collateral in a sharp downturn. While there were some discussions between CB and the banks’ analysts, it was not possible for CB staff to assess independently the appropriateness of the models used, which differed significantly in

¹¹² There is the question as to whether the scenarios that were chosen were sufficiently severe. Any given external shock to the economy would lead to knock-on effects through the worsening of overall financial weaknesses, depressed private demand and fiscal difficulties, leading to further downward pressure on the property market. How banks’ behaviour might react in such an environment and the consequent further macroeconomic and financial impact, is not captured. Moreover, macroeconomic models are generally built on the basis of log-linear relationships; for example, doubling the size of a shock will generate a proportionate increase in its effect. In reality, however, in a situation of considerable stress, the effect might well increase more than proportionately.

sophistication and rigor across banks.¹¹³ In fact, none of the banks had reliable models, tested and calibrated on Irish data, which could credibly predict loan losses in different scenarios.

- 6.26 The issue of whether the scenarios represented a sufficient “turning up of the switches” also deserves attention. In the case of the “bottom up” exercises, the domestic shock scenarios were derived from considering “extreme downside risks” in the world economy (CBFSAI 2006, p. 114); in the case of the 2004 exercise, based on historical behaviour, these were chosen to reflect a probability of “between one in a hundred and one in a thousand of actually occurring” (CBFSAI 2006, p. 106)¹¹⁴. A useful complementary approach could have been to apply a significantly more severe macroeconomic scenario to capture, for example, sharper property price falls directly.
- 6.27 Finally, the presentation of aggregate weighted average results, in particular those of the “top down” approach, masked differential impacts across individual institutions. The 2006 FSR did indicate that at least one institution’s capital ratio fell below the regulatory minimum when NPAs more than doubled and the assumed LGD was higher than 25 per cent. However, the more comprehensive data provided to the subsequent Roundtable Discussions with banks in late 2006 (which were not published or referred to in the FSR) revealed a more worrying picture; thus, assuming an NPA ratio of just over 5 per cent, one third of the twelve banks covered fell below the regulatory minimum with a 50 per cent LGD, while this number rose to 9 (representing 88 per cent of total banking sector assets) assuming a 75 per cent LGD. The corresponding exercise described in the 2007 FSR did not contain any references to distributional issues. As already indicated, more coverage of such distributional aspects should and could have been presented in FSRs without compromising the confidentiality of individual institutions’ data.

¹¹³ For example an internal FR report noted in 2008 that one bank did not have a defined stress testing framework supported by either formal processes or documentation. The bank did not employ an economist and their stress tests did not reference economic data such as GDP, interest rates or unemployment; bank representatives argue that the latter may not be as necessary in the bank’s case given that they occupied the most profitable economic sector. While the bank did conduct what was referred to as “ad-hoc stress tests” these appeared to assess the impact of actual events (e.g., the impact of the smoking ban on the pub trade) rather than severe but plausible events.

¹¹⁴ The shocks in question referred to a 20 per cent appreciation of the euro, a 6 per cent decline in world trade and a 20 per cent fall in equity prices. The biases in using Gaussian distributions to infer tail probabilities for asset price developments were not mentioned.

Section 6: The Views of Outside Observers

- 6.28 FSRs were prepared “in house” by the Financial Stability Department (FSD), without structured involvement *vis-a-vis*, for example, the academic economist community.^{115,116} Also, on one occasion, in 2005, prior to drafting the FSR staff met with representatives of financial institutions to elicit their broad views (normally, such an exchange occurred after FSR publication – see Chapter 7). The views of other external observers, principally the IMF and the OECD, while not discussed per se in the FSRs, played a significant role in helping to shape the consensus that emerged. Outside of official organisations, many economists were beginning to raise concerns from the early 2000s. By no later than 2003-04 a majority, but not universal, view was that prices had overshot the equilibrium and would inevitably fall. Most, though not all, studies foresaw a downturn in property prices triggering recessionary pressures.¹¹⁷
- 6.29 The assessments of the **IMF** did point to some of the risks present in the Irish economy, in particular to the financial system, with reference to banks’ exposure to an overheated property sector and increased reliance on wholesale funding. However, without exception, the overall judgements of the IMF staff were reasonably reassuring from 2004 onwards¹¹⁸. Thus the 2005 Article IV report concluded that “while banking system profitability and capitalisation are strong vulnerabilities exist...” (IMF, 2005, p. 24). A year later the overall message given was similar. In reviewing the housing market, the 2006 Article IV Report carries the same message, noting the continued strong capital position of banks and observing that “even a substantial withdrawal of private sector deposits would not exhaust the stock of liquid assets at any major lender, given banks’ ample liquidity” (IMF 2006a, p. 10). In the following year, the conclusion remained generally reassuring, but with continued cautions.
- 6.30 Regarding the property market in particular (a subject discussed extensively from 2005 onwards), it was noted that “staff analysis suggests that not all of the increase in house

¹¹⁵ However, on a number of occasions, outside economists (for example, Alan Ahearne, whose views on the property market were less sanguine than those contained in FSRs) were invited to make presentations within the CBFSAI.

¹¹⁶ Internally, there was significant scope for ensuring more structured coordination between FSD staff and other CB economist staff as regards both (a) the setting of research priorities relating to financial stability issues; and (b) the appropriate presentation of research results within an overall FSR context.

¹¹⁷ “All we can hope to do is identify whether a country is within or outside a ‘zone of vulnerability’, where a crisis equilibrium could arise if confidence were to falter. So is Ireland in such a zone. I think that the answer must be yes. Certainly the rate of credit expansion – the classic indicator which I am just one of many to have employed in the past – is a waving red flag at present.” (Honohan, 2004).

¹¹⁸ The 2003 Article IV Report was somewhat more cautious.

prices over the past several years can be attributed to fundamentals...” (IMF, 2005, p. 5). In 2006, concerns were noted that “house prices are now becoming overvalued...[while] the central expectation is for an orderly slowing in the housing market...a sharp correction cannot be ruled out” (IMF, 2006, p. 6). By the time of the August 2007 Article IV consultation, the risks of a property price fall had become more apparent, and the staff described the kind of downward financial and economic spiral that could develop. It also commented that cross country comparisons “suggests that sharp increases in house prices are followed by sharp declines about 40 per cent of the time” (IMF, 2007, p. 9). Overall, it appears that the IMF assessments were somewhat more cautious in tone than those of the FSRs. Nevertheless, the IMF did not demur from the latter’s conclusions that banks could cope quite satisfactorily with quite substantial property price falls.

- 6.31 In addition to the regular Article IV Reports, the IMF carried out two specific reviews of Ireland’s financial sector stability framework (including financial regulation) in the context of its Financial Sector Assessment Program (FSAP) programme. The first was conducted in 2000 and an update involved a team visiting Dublin for two weeks in March, 2006. Their Report was published in August of that year.

Box 6.1: Main Findings of the 2006 IMF FSAP Team

The Irish financial sector has continued to perform well since its participation in the Financial Sector Agreement Programme in 2000. Financial soundness and market indicators are generally very strong.

The outlook for the financial system is positive. That said, there are several macro-risks and challenges facing the authorities. As the housing market has boomed, household debt to GDP ratios have continued to rise, raising some concerns about credit risks. Further, a significant slowdown in economic growth, while seen as highly unlikely in the near term, would have adverse consequences for banks’ non-performing loans. Stress tests confirm, however, that the major financial institutions have adequate capital buffers to cover a range of shocks.

Good progress has been achieved in strengthening the regulatory and supervisory framework, in line with the recommendations of the 2000 FSAP. The strategy of creating a unified approach to risk with common elements across different sectors where appropriate, but differentiated where necessary, is being put into practice well. Improvements could nonetheless be made to enhance some aspects of supervision, especially as regards supervision of insurance and reinsurance.

Source: IMF (2006b).

- 6.32 Bearing in mind how late in the boom this was carried out, the conclusions of this update were strikingly positive (Box 6.1). Anyone concerned about the health of the banking sector would have been reassured to read the first paragraph: “Financial institution profitability and capitalisation are currently very strong, with Irish banking sector profits amongst the highest in western Europe. Reflecting their good performance, the major Irish banks receive upper medium to high-grade ratings from the international ratings agencies.” (IMF, 2006b p. 5).
- 6.33 The main recommendations of the FSAP team (Box 6.2) focused on upgrading staff numbers and skills, with the stress-testing exercise selected for special mention. However, allaying any possible concerns on this score, the team remarked reassuringly that “reflecting the general robustness of the financial system and the supervisory framework, these recommendations are primarily for further enhancements rather than reflecting a need to address fundamental weaknesses.” (*ibid* p. 6).
- 6.34 As far as risks to the banking system were concerned, in addition to the credit risks mentioned as one of the “main findings”, liquidity risk was noted, but downplayed: “a growing share of banks’ funding has been from other financial institutions, including from off-shore; heavy reliance on wholesale funding potentially increases liquidity risk. As shown ... however, the off-shore funding is diversified.” (*ibid* p. 11).
- 6.35 The purpose of the FSAP mission was not merely to look at current risks, but also to assess the overall quality of the institutional framework for financial sector stability policy including micro-prudential supervision and regulation. The FSAP team’s assessment of the new integrated supervisory framework was positive; it noted that “notwithstanding the higher profile of the IFSRA’s consumer protection activities, there have also been significant achievements in the prudential framework”, and that “it has created an organisational structure and a consistent corporate culture that are likely to enhance financial stability.” (*ibid* p. 24). So far as the Basel Core Principles (BCP) for Effective Bank Supervision were concerned, the assessment found “a high degree of observance of the BCPs. The main challenge was seen as ensuring continuation of existing very high standards.” (*ibid* p. 28).
- 6.36 All in all, the 2006 FSAP Report would have had a significant dissuasive effect on concerns that might otherwise have been raised about prudential supervision and the risks to financial stability. This was especially the case since only a few CBFSAI Board

or Authority members were raising such concerns with any vigour. In hindsight such an unwarrantedly favourable report by an authoritative international body was clearly unhelpful.

<p>Box 6.2: Ireland: FSAP Recommendations</p> <p><i>Financial Stability Framework/Stress Testing</i></p> <p>1. Medium term</p> <ul style="list-style-type: none"> • Continue to upgrade the CBFSAI's stress testing framework. • Conduct coordinated bottom up stress testing exercises at least once every two years and investigate the potential for upgrading the templates used for bottom up stress tests, taking advantage of the richer models that banks are developing in preparation for Basel II. • Consider extending the tests to the banks' foreign exposures, given the sizeable cross-border linkages of domestic credit institutions. <p><i>Regulatory Framework</i></p> <p>1. Ongoing</p> <ul style="list-style-type: none"> • Continue to develop the necessary expertise and ensure adequate staff resources for supervising an increasingly sophisticated financial system, especially taking into account ongoing regulatory developments (Basel II, Solvency II and the regulation of reinsurance). <p>2. Short term</p> <ul style="list-style-type: none"> • Enhance the current scope and intensity of the on-site supervisory program, in particular to strengthen the assessment of the risk management and corporate governance practices of insurers. • Implement enhanced public disclosures by insurers, in line with the best practices established by the IAIS to allow for effective market discipline. • Consider upgrading the position of the Prudential Director as regards IFSRA Board membership, on par with the Consumer Director. • Strengthen monitoring of credit risk transfer activities by financial institutions. <p>3. Medium term</p> <ul style="list-style-type: none"> • Have a full reassessment of the IAIS Core Principles undertaken, once sufficient time has passed so that transposition of the EU Reinsurance Directive can be effectively assessed.
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Source: IMF (2006b).

6.37 Although earlier reports had raised warning flags, by 2006, the views expressed in **OECD Reports** had also become reasonably sanguine, observing that although “house prices have risen faster than in any other OECD country” and “may have overshot fundamentals to some extent...this does not imply that they will fall significantly. A soft landing is the most likely scenario but a hard landing cannot be ruled out”. The report noted two alternative scenarios: first, that the housing boom would not run out of steam of its own accord, leading to serious overvaluation and imbalances throughout the economy; the second would involve a sharp fall in house prices, either because they

were more overvalued than appeared or due to a negative shock, with a large adverse impact on activity and the budget.¹¹⁹ Their 2008 assessment was broadly similar. While ~~the~~ exceptional rise in property values in recent years was largely driven by higher income and demographics [it] did appear to have overshot the sustainable level... [However] Irish banks are well capitalised and profitable and should have considerable shock-absorption capacity. ... [The CBFSAI] has clearly identified the major vulnerabilities and taken action to mitigate them” (OECD, 2008, pp. 41, 8, 51).

Section 7: Conclusions

- 6.38 The CBFSAI’s Financial Stability Reports throughout this period were broadly similar in approach to those undertaken by central banks elsewhere¹²⁰. The reports presented the standard ~~health indicators~~” of the financial system accompanied by analysis of some of the underlying factors at play, as well as the results of various stress tests. Risks were highlighted. However, the key message was that these risks – to the extent it was believed that they might materialise – were manageable and not a major cause for concern.
- 6.39 The coverage of the FSRs was broadly appropriate in terms of the aggregate indicators of the banking system. However, the analysis underlying the published conclusions did not focus sufficiently on the concern that exceptionally fast balance sheet and loan growth in one or more entities would, via competition, lead to a general lowering of lending standards and end up posing a real risk for the system as a whole. More generally, discussion of the ~~qualitative~~” aspects of banks’ loan activities was absent not only from the FSR itself but also from the deliberations of the Financial Stability Committee, the appropriate forum for reviewing micro-prudential aspects with a potential systemic impact.
- 6.40 The FSRs contained considerable analytical work addressing many of the relevant issues. Various models and calculations regarding the outlook for residential house prices were presented; these suggested a wide range of possible overvaluations during 2004-06, ranging from 55 to 73 per cent to zero (the CBFSAI’s ~~fundamental factors~~”

¹¹⁹ (OECD 2006b, pp. 8, 16) The report also recommended the phasing out of the strong bias towards housing that was embedded in the tax system.

¹²⁰ See Wilkinson, Spong and Christensson (2010) for a review of cross-country experiences with FSRs, with a particular focus on those undertaken by the United Kingdom, Sweden, the Netherlands and Spain. It notes that while the FSRs were generally successful in identifying the risks that played important roles in the crisis, they underestimated its severity.

approach). The 2007 FSR, by contrast, did not include these calculations; in particular, an update of an earlier staff model (the results of which had been published in the 2006 FSR) which would have indicated a possible overvaluation of about 35 per cent as of mid 2007 were not considered. The central conclusion of the 2007 FSR regarding a likely “soft landing” for the housing market does not appear to have been based on specific quantitative evidence or analysis.

- 6.41 The 2007 FSR contained, for the first time, an analysis of the commercial property market which suggested the possibility of significant overvaluation. Clearly, priority should have been given to devoting greater efforts at an earlier stage to this topic, especially in view of evidence elsewhere that a bursting of a property bubble in this sector can have a more serious adverse financial effect than in the case of residential housing.
- 6.42 The stress tests that were conducted followed international practice and the standard qualifications as to their interpretation were presented. However, it is clear that the shocks involved, while thought to be “extreme” at the time, did not in fact capture the scale of what could and did happen. This was true of both the adverse international and domestic macro scenarios and the assumed deterioration in the quality of banks’ loan portfolios.
- 6.43 The FSRs from at least 2004 onwards could be interpreted as not dissenting from – at least implicitly – the view of many outside commentators that property prices were more than likely in excess of their equilibrium level. The question is why these commentators nevertheless tended to be either agnostic or vaguely reassuring on the potential implications for financial stability. Implicitly it seems to have been assumed that lenders had protected themselves against loan losses through sufficiently low loan-to-value ratios (sufficiently high co-financing), or assurance of other sources of income to service loans. However, only the CBFSAI could have had access to the information that could confirm the true situation, whether through regulatory inspections or the bottom-up stress test exercises. But the approach used by the Financial Regulator did not yield the information needed and the implementation of the stress tests did not seek to verify or assess such aspects as loan-to-value ratios for development property lending. In the event, the implicit assumption that either the banks, or the Financial

Regulator had ensured sufficient buffers against whatever fall in property prices might occur proved to be misplaced.

- 6.44 The overall optimistic conclusions of successive FSRs thus reflected, in part, an overly sanguine interpretation of the prospects for the property market and an underestimation of the risks faced by the financial system; these weaknesses were also present to a large extent in the assessments of outside observers such as the IMF and the OECD. In particular, the unwarrantedly favourable FSAP Update Report by the IMF in 2006 – offering a financial system stability assessment – was unhelpful.
- 6.45 At the same time, however, many participants – at all levels – in the FSR drafting process have indicated that the highly ~~nuanced~~” messages conveyed reflected an institutional desire at senior levels in the organisation to adopt a very cautious approach. In particular, there was a concern that the results of some of the analytical work might be described by the media as the CBFSAI conveying a ~~bearish~~” view of the property market and/or a less than sanguine view of the state of the financial system. This message was conveyed to staff working on FSR matters and, given the CBFSAI’s hierarchical culture, was clearly a factor inhibiting staff presentation of alternative analyses and assessments. While this underlying feature was present in the preparation of all FSRs, it emerged most prominently in the case of the 2007 FSR, the message of which, arguably, could be characterised as reflecting a ~~triumph of hope over reality~~”¹²¹.
- 6.46 The emphasis on adopting a cautious, conservative tone reflected several interrelated concerns. In earlier years, it was felt, given the diverse analytical findings described above, that the evidence favouring significant house price overvaluation was not sufficiently clear cut. Thus, assigning greater weight to the downside risks could have left the CBFSAI open to the criticism of acting precipitously and, possibly, causing housing market instability. This concern was heightened by the ~~erying wolf~~” problem – the Central Bank had warned in the preceding decade of a possible housing market collapse which had not, in fact, occurred. As one moved through 2006 and 2007, although the likelihood of a ~~non-soft landing~~” was increasing significantly, a reluctance to emphasise the risks predominated, less the CBFSAI be accused of

¹²¹ This aspect is reflected in several references in the Minutes of FSC meetings throughout the period. As one example, it was decided in 2006 to exclude from the main text of the report data and references to a likely 15 per cent house price overvaluation that was contained in a themed research paper.

precipitating a crisis. In a sense, the earlier desire ~~not~~ “not to rock the boat” was overtaken by a fear of ~~frightening~~ “frightening the horses”.

- 6.47 It can be argued that by 2007 the remedial options open to the CBFSAI had become fairly limited – at that point the ~~die~~ “die was largely cast”. Nevertheless, a better balance could have been struck in preparing both the market – and policy makers – for the strong likelihood that a major problem had developed, something that the reassuring message of the 2007 FSR failed to do. In particular, a strong message could have been conveyed to banks that a strengthening of their capital position was essential to help weather the likely storms ahead. With respect to earlier years, however, the argument in favour of a cautious assessment is not convincing. Uncertainty will always be present and reliance on rigorous statistical evidence is a luxury one cannot always afford. Waiting until more clear-cut evidence becomes available runs the clear risk that by then it may be too late to take effective offsetting action. An unduly passive approach may also create ~~moral~~ “moral hazard” by providing comfort to market participants and implicitly encouraging, or not discouraging sufficiently, continued risky borrowing and lending behaviour.
- 6.48 It was also felt that the adoption of a more ~~bearish~~ “bearish” public posture by the CBFSAI in the face of growing risks would have been in the face of most prevailing public opinion which believed – or wanted to believe – that the property market in which so many at all income levels had invested would not suffer a severe crash. This sentiment was in turn reflected in the views expressed by many politicians – across the political spectrum – throughout the period. ~~Swimming~~ “Swimming against the tide” by the CBFSAI thus would have required a particularly strong sense of the independent role of a central bank in being prepared to ~~spoil~~ “spoil the party” and a willingness to withstand possible strong adverse public reaction.
- 6.49 In any event, the FSRs did not end up conveying an appropriately forceful message that could have served as a springboard for strong remedial action. Some have suggested that even if they had done so, this might not have helped greatly, since there were doubts regarding the CBFSAI’s ability to take meaningful and effective action. This question is addressed in the following chapter.

CHAPTER 7: MACRO-PRUDENTIAL POLICY IMPLEMENTATION

Section 1: Introduction

7.1 This Chapter assesses the options available to the CBFSAI to take remedial action with a view to lessening the risks to financial stability described in successive FSRs. Section 2 reviews a number of specific options that were either employed or might have been employed, specifically, moral suasion, increasing capital requirements in respect of property-related lending, sectoral credit limitations, limitations or prohibitions on certain lending instruments such as 100 per cent LTV mortgages and increased provisioning for impaired loans. Section 3 discusses three issues that surfaced frequently during CBFSAI consideration of possible options: the effects such measures might have had on the competitive position of Irish regulated financial institutions; the fear that more robust regulation might make Ireland less attractive for international financial investment; and the view that some forms of intervention might run counter to the FR's "principles-based" philosophy of regulation. Conclusions are provided in Section 4.

Section 2: Instruments – Options and Choices

7.2 The powers of the CBFSAI to impose tougher requirements on credit institutions in order to choke off the boom appear to have been quite extensive. Nevertheless, internal papers show that four categories of measures were recognised by FR staff as available. These included: (i) direct controls on lending (including the prohibition of high LTV, or interest only, or very long maturity mortgages); (ii) increased capital requirements; (iii) sectoral limits – there was already a schedule of these, which had fallen into disuse, reflecting the probably correct perception that they were too easily evaded; and (iv) moral suasion. The latter was the tool most favoured in the Board Paper presented to the Authority in September 2006 (especially as being thought to be consistent with the principles-based approach), even though the Board Paper acknowledged that it might be of limited direct effect. This paper had been prepared at the request of the Chair, who was increasingly concerned about the continued expansion of credit to the property market.¹²² In practice, only (ii) and (iv) were used in the period under review.

¹²² See Section 4 of Chapter 4 above for further details.

- Moral suasion

- 7.3 The concept of moral suasion consists of the central bank/regulatory authority exercising their powers of persuasion – either publicly or privately – to convince financial institutions to modify their behaviour in some desired fashion. Since it does not involve direct interference in an institution’s lending or other activities it is often considered the most desirable form of intervention, at least as a first step. At the same time, it is recognised that in many circumstances, unless accompanied by a credible threat of more forceful action, moral suasion by itself may not have the desired effect.
- 7.4 During the period reviewed, as discussed in Chapter 6, successive FSRs expressed concerns publicly regarding the risks to financial stability posed by evolving trends in institutions’ lending aggregates. Press conferences and public speeches by the Governor echoed these concerns. Nevertheless, these pronouncements stopped short of actually calling on credit institutions to modify their behaviour or indicating that the CBFSAI would consider taking specific steps should they fail to do so.
- 7.5 However, as a follow up to publication of the FSRs, starting in 2004 **“Roundtable Discussions”** were held annually between CBFSAI officials and senior representatives of the major lending institutions to exchange views on the analysis and messages contained in the Financial Stability Reports.¹²³ In parallel, the Governor held **meetings** on a number of occasions with the Chief Executive Officers of credit institutions.
- 7.6 Detailed written records are not available of what transpired during these discussions and meetings.¹²⁴ However, based on participants’ recollections, it appears that the institutions’ representatives generally speaking took a more sanguine view of the situation and outlook and tended to downplay whatever worries were expressed in the FSRs. It has been suggested by some that the CBFSAI, in these private gatherings, expressed stronger concerns than those conveyed in the public messages of the FSRs. This suggestion has been emphatically refuted by representatives of the institutions

¹²³ CBFSAI participation was normally headed by the Director General and included the CEO of the FR as well as staff involved in the preparation of the FSRs. The credit institutions were typically represented by their Head of Lending (or the equivalent) and Chief Economist.

¹²⁴ In the case of some of the Roundtable Discussions a short summary of the **“Conclusions”** is available. However, these tended to echo the main conclusions of the FSRs themselves and did not convey a flavour of any differing points of view that may have been expressed by participants. The CBFSAI Board minutes do not record the meetings of the Governor with the credit institutions.

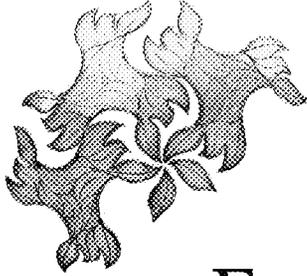
present. In any event, there is no evidence that the CBFSAI's concerns – such as they were – were taken heed of to any major extent subsequently.

7.7 Apart from informal meetings, moral suasion in many instances can take the form of **letters from the Governor** – which may or may not be confidential – to heads of **financial institutions** drawing their attention explicitly to the views of the authorities. In the years prior to 2002 the CB employed this practice frequently;¹²⁵ several of these communications are notable by the unambiguous and direct ~~tone~~ "of the messages conveyed."¹²⁶ In reviewing why this practice ceased after November 2002 one reason that has been suggested is that under the new CBFSAI structure it was the responsibility of the Financial Regulator, rather than the Central Bank, to issue such a letter or letters. On the other hand, as noted in Chapter 3, according to the 2003 MoU, the Central Bank's responsibilities included ~~an~~ "analysis of the micro-prudential – where appropriate – as well as the macro-prudential health of the financial sector." In any event, to the extent that ambiguity might have been present on this score, a simple expedient would have been to send a letter signed jointly by the Governor and the Regulator.

7.8 **Annual pre-budget letters** expressing views on fiscal matters were sent by the CBFSAI Board to the Minister for Finance. These letters regularly highlighted the issue of house price inflation and the size of the construction sector, particularly in the letters of 30 September 2003 – ~~The~~ "level of house prices along with continuing high rates of increase in prices pose macroeconomic as well as financial stability risks," and 12 October 2004 – ~~There~~ "remains a risk, however, in that the current rate of housing output is, on some estimates very much higher – not far off twice – the underlying demand for housing." In the latter letter the Governor states that: ~~Fiscal~~ "policy could also play a role in smoothing the adjustment of demand for property by limiting its more speculative components. In this regard, it would seem appropriate, for example, to

¹²⁵ Such letters were sent by the Governor at least annually and in 1999, 2000, and 2001 twice a year. The letters commenced in June 1997.

¹²⁶ For example, in a letter dated 4 February 1998, ~~The~~ "Central Bank has repeatedly advised all credit institutions of the critical importance of maintaining the traditional standards in lending for house purchase. There is evidence that these traditional standards are being breached and that loans up to 100 per cent of the property value are available. The Central Bank considers this to be inadvisable." On 27 July 1998 the Governor wrote: ~~It~~ "is abundantly clear from previous experience that, if standards are relaxed during a period of prosperity, there will be a price to pay later in terms of excessive bad loans." On 7 March 2000, ~~There~~ "is a distinct possibility that the continuing large-scale surge in credit may fuel the economy to the point where overheating and its damaging consequences might become unavoidable. ... I am writing to request you ensure personally that your organisation is fully conscious of the potentially damaging economic and social consequences and the damage to your own institution and credit institutions in general, if reasonable restraint is not exercised at all times."



FINANCIAL REGULATOR
Rialtóir Airgeadais

Fit and Proper Requirements

May 2006

FOREWORD

Directors and Managers of financial services firms are responsible for the proper running of their firms. To ensure the proper discharge of this responsibility, it is important that Directors and Managers (“approved persons”) have the skills to run the firm. Moreover, it is important that they have the personal qualities, such as honesty, integrity, diligence, independent-mindedness and fairness to ensure that the firm is run ethically, in compliance with relevant legislation and in a manner that treats its customers fairly. Accordingly, the first step in regulating financial services firms is ensuring that Directors and Managers have the necessary skills and qualities.

A sound and effective fit and proper test is therefore a critical component of the regulatory regime. It is equally important for the industry, as much for commercial as for ethical reasons. A reputable and well-run industry will attract customers and maximise benefits for shareholders.

This paper sets out the fit and proper requirements of the Irish Financial Services Regulatory Authority (“the Financial Regulator”), including the framework within which the common fit and proper test will be operated.

This paper describes the framework in a comprehensive manner. However, the nature of the issues that may arise from time to time in testing the fitness and probity of individuals is such that additional areas of enquiry, not set out here, may be pursued by the Financial Regulator in respect of proposed “approved persons” and that issues, not explicitly dealt with in this paper, may be taken into account when making a decision.

Fit and Proper Requirements

Table of Contents

1. Introduction
2. Purpose of the test – The Gatekeeper Role
3. Role of Administrative Sanctions
4. Who is covered?
5. Fit and Proper Standards
6. Operation of the test
7. Continuing Application of fit and proper standards

1. Introduction

EU and Irish law require that the Directors and Managers of financial services firms regulated by the Financial Regulator meet standards of competence and probity. These standards are usually referred to in shorthand as “fit and proper” standards. “Fitness” requires that a person appointed as a Director or Manager has the necessary qualifications, skills and experience to perform the duties of that position. “Probity” requires that a person is honest, fair and ethical. Before being appointed, a new Director or Manager seeks to demonstrate to the satisfaction of the Financial Regulator that he or she meets the fit and proper standards. This is the “fit and proper test” and involves the completion of an Individual Questionnaire (IQ) by the applicant.

The Financial Regulator has operated fit and proper tests in the various financial service sectors subject to its oversight, in conformity with the relevant legislation. What is new is that a common framework has been devised. This common framework applies common standards across all industry sectors. The process by which the test is applied varies somewhat to take account of the diversity of firms in terms of size and complexity.

The common framework has been developed in light of a consultative process that involved two public consultations.

2. Purpose of the test – The Gatekeeper Role

The fitness and probity regime primarily fulfils a gatekeeper role in ensuring that entrants to the key approved positions at board and senior management level are taken up by people of competence and integrity. Once persons have been approved by the Financial Regulator, they, along with the firms they represent, are subject on a continuing basis to the laws, codes and general rules of the regulatory regime. Thus, there will be no requirement for regular formal updates of the information provided in the Individual Questionnaire (IQ). However, if there is any material change at any time to the information provided at the time of entry, such change should be provided to the Financial Regulator immediately. For these purposes, material change may be taken to mean any change that would affect the information provided in sections 2 (qualifications) 3 (probity), 4 (business interests in financial institutions) and 5 (shareholdings in proposing firm) of the Individual Questionnaire.

The purpose of completing the questionnaire is to provide information to the Financial Regulator to assist in reaching a decision as to whether a person is to be approved or not.

If, having considered the information provided in the IQ and any other information, the Financial Regulator is proposing to refuse an application, there will be a full due process. This will include providing details to the applicant of the cause of concern (subject to the Financial Regulator's powers to do so). The applicant will have a right of reply at this stage. If, having considered the applicant's reply, the Financial Regulator still considers that there are grounds to refuse the application, it will convey that decision to the person, including the reasons for it. All representations that the person may wish to make will be taken into consideration before a final decision is taken. If the final decision is to refuse the application, the applicant has rights of recourse to other appeals mechanisms, including, where appropriate, the Irish Financial Services Appeals Tribunal,¹ ("the Appeals Tribunal") and the Courts.

¹An individual may appeal through this mechanism a decision made on foot of a provision of the legislation that has been designated as appealable. Thus, the availability of appeal to the Appeals

The Financial Regulator is conscious that a person that has been “approved” acquires thereby status and reputation. It is therefore important that the person is not only fit and proper, but may be seen to be fit and proper. Where there is information that may come into the public domain and that could be regarded publicly as casting doubt on the fitness or probity of the person, it is important that the Financial Regulator be made aware of that information. The Financial Regulator will evaluate such information. It may be that the Financial Regulator determines that such information is not a barrier to approval. However, it is a matter for the Financial Regulator to make that determination and to have the information to hand, in case of public comment.

Tribunal in fit and proper cases depends on the legal basis of any decision to refuse a proposed approved person.

3. Role of Administrative Sanctions

The Financial Regulator considers that its “gatekeeper role” is primarily fulfilled through the fit and proper test, and that is the primary function of the test. Where circumstances arise that cast doubts on the fitness or probity of a person who is already approved, the fit and proper test is not the only framework in which to enquire into and, where appropriate, sanction a person who has been found to fall short of the requisite standards of fitness or probity.

Accordingly, where there is evidence that an “approved person” has breached a sanctionable provision made under the Central Bank Act 1942, or the designated enactments and statutory instruments referred to therein, the Financial Regulator may decide to pursue the matter through the Administrative Sanctions regime rather than the fit and proper regime.

Where an approved person acts in an improper manner that may not be covered by explicit administrative sanction provisions of the Central Bank Act 1942, that matter will be investigated under the fit and proper test.

Where the Financial Regulator has the power to deal with the impropriety through the fit and proper test and decides to do so, this will involve re-activating the fit and proper test to determine whether the person still meets the conditions of the test. If the Financial Regulator is minded to consider that the person no longer meets the conditions of the test, the person will have the same rights as outlined in 2 above, viz., a right of reply and rights of appeal. If, having gone through due process the Financial Regulator determines that the person is no longer fit and proper, the firm will be directed to remove the person from the position he or she occupies.

Where the Financial Regulator decides to deal with the impropriety through the Administrative Sanctions regime, the procedures of that regime will apply. Briefly, the person will be informed of the Financial Regulator’s concerns and the grounds for its concerns, will have a right of reply, backed up with rights of appeal, including,

ultimately to the Courts. In such cases, a range of sanctions would be applicable, including fines, reprimand or exclusion from the industry for a specified period.

This does not prejudice the right of the firm to deal with suspected impropriety. The issues arising from such circumstances are dealt with in section 7 below.

4. Who is covered?

Directors and Managers

The Financial Regulator intends that the common test will be applied to all Directors, including alternate and shadow Directors, and Chief Executives of those financial services firms that are subject to fit and proper oversight by the Financial Regulator. It is also intended that, in the case of certain institutions, such as credit institutions, insurance and re-insurance undertakings, securities firms, all Managers at Executive Board level (viz., those Managers that report directly to the Board or to the Chief Executive) should be covered. In the case of incorporated intermediaries, the test will apply to all Directors, to the Chief Executive and to those Managers, if any, who report directly to the Board.

In the case of unincorporated intermediaries, the test applies to the Principal(s) of the firm and to the Manager of the firm. If the Principal and Manager is one and the same person, a minimum of one other officer of the company will be required to undergo the test, to ensure that each such company has a minimum of two approved persons.

In the case of partnerships, the test applied to each Partner.

Where the firm is a sole trader, with no officers other than the principal/manager, the test will apply only to the principal/manager. The fit and proper test will not apply to the person nominated to take over such firms in the event of the incapacity of the principal.

These requirements apply in respect of each authorised entity of financial services groups.

Where a Director or Manager of a financial services firm becomes aware that a person who is not a formally appointed Director of the firm is nevertheless exercising influence on the direction or management of the firm they should bring this to the attention of the Board of the financial services firm. The Board should investigate the matter and inform the Financial Regulator of its conclusions. If the Board considers it

appropriate formally to appoint the person in question to the Board, they should proceed with the normal recruitment and selection procedure and the fit and proper application process, taking care to inform the Financial Regulator that the person previously acted as a shadow director.

Other Managers and Postholders

Clearly, it is important that, in the case of institutions such as credit institutions, insurance companies and securities companies, Managers below Executive level as well as particular post holders (for example, compliance officers, money laundering reporting officers (MLRO's) and Heads of Internal Audit) should also be "fit and proper". In keeping with the principles based approach, the Financial Regulator considers that firms appointing such Managers or post holders should vet the fitness and probity of proposed appointees to ensure that they meet the standards set out in this paper. The Financial Regulator reserves the right to subject certain post holders to its formal approval, and will inform the relevant firms accordingly. Otherwise, it is not envisaged that the Financial Regulator would have a role in the tests applied to persons at these levels.

Credit Unions

Not all financial services providers regulated by the Financial Regulator are subject to the fit and proper test set out in this paper. The Directors of Credit Unions are not subject to a test - the issue of fitness and probity of Credit Union Directors will be one of the issues addressed in a forthcoming review of credit union legislation.

Mortgage Intermediaries

Mortgage intermediaries are currently subject to annual fit and proper tests in connection with their annual applications for renewed authorisation. The Financial Regulator has recently reviewed the authorisation process for such firms and with effect from 1 July 2006, a specific fit and proper test (and not the IQ associated with the common test) will be applied to such providers on application for authorisation or for renewed authorisation (generally every 5 or 10 years). These service providers are required, like others, to meet the fit and proper standards on an ongoing basis.

Moneylenders

Moneylenders are also required to apply to have their licences renewed annually and from specific questions in the application form the Financial Regulator determines whether the applicant is fit and proper to carry on the business of moneylending. While they will not be asked to complete the IQ associated with this test as part of that renewal, they are expected to be fit and proper, as described in these requirements. If the Financial Regulator has grounds for doubting either the fitness or probity of a moneylender, it will take appropriate action, whether under the administrative sanctions regime or the fit and proper regime.

Existing Directors and Managers

Existing Approved Persons will not be asked to complete the new IQ. However, should they be proposed for a new position, they should complete the new IQ, including section 3 (probity), to facilitate transferability of approvals (see below).

Foreign Directors

Existing approvals from financial regulatory authorities in other EU/EEA member states will be regarded by the Financial Regulator as information relevant to the probity element of this test. Accordingly, proposed approved persons who are already approved in an EU or EEA member state will not be required to complete section 3 of the IQ. They should instead indicate in the IQ the name of the authority and member state by which they are approved. The Financial Regulator will seek information from the relevant authority and will review the application for approval in light of the information provided in the IQ and in light of information from the relevant authority as to the person's status in that jurisdiction.

Where a person is approved in a third country, the appointing firm should seek guidance from the Financial Regulator as to whether approval by the authorities in this third country will be regarded in a manner similar to that applying in the case of EU/EEA countries. If it is, the process will be the same as for EU/EEA countries. If not, the person will have to complete section 3 of the IQ.

Are approvals transferable?

The Financial Regulator applies the same standards of probity, no matter what position the applicant is proposed for. Accordingly, it is reasonable that once a person has been approved, they can be regarded as meeting the standards of probity, without either the appointing firm or the Financial Regulator having to enquire again into their probity.

If there have been any changes to the information regarding the person's probity, that should already have been brought to the attention of the Financial Regulator and the matter assessed, with the person's approved status either confirmed or withdrawn. If there is very recent new information, the proposed person should amend the existing completed section 3 to reflect the new information and he or she should bring to the attention of the proposing firm the fact of new information. The firm should carry out a full enquiry into the probity of the person and make its own assessment as to whether it wishes to proceed with the appointment. If it decides to proceed, the reasons for its decision, together with the fact of new information should be brought to the attention of the Financial Regulator by the firm. The Financial Regulator will, in these circumstances, carry out a full probity test to enable it to determine the probity of the person.

Notwithstanding the position on probity, the fitness requirements will vary from one position to another, and so the proposed person will complete and provide to the firm the remaining sections of the IQ which are not relevant to probity.

For good order, when an Approved Person is proposed for a new post, that person should also provide a copy of Section 3 and 7 of the IQ, which they will have completed for the previous position, to the proposing firm for onward transmission to the Financial Regulator. This will allow the firm to review in the context of the new position any additional factors, that could be seen as related to probity, such as number of Directorships held, where applicable, and possible conflicts of interest. The firm, in forming its view as to the probity of the person, should take into account the fact that the person is already approved by the Financial Regulator and, in the

absence of any material change, need not carry out any checks as to the probity of the person.

The Financial Regulator will examine the completed IQ and sign-off by the firm as to fitness and probity and form its view. It will normally regard the person as meeting the required probity standards on the basis of their existing approved status. However, the Financial Regulator reserves the right in all cases to pursue any enquiries that it considers warranted.

Managers of cross-border Branches

When a Manager is appointed to the Irish branch of a firm whose head office is in another member state, the fitness and probity tests of the supervisory authority of that member state will apply. When a firm authorised in Ireland proposes to appoint a Manager to a branch in another member state, that appointment is subject to the Financial Regulator's fit and proper test.

When a firm authorised in a third country, not a member of the European Economic Area, proposes to appoint a Manager to a branch based in Ireland, that appointment is subject to the Financial Regulator's fit and proper test.

Departure of a Director

Each firm should ensure that, where a Director resigns other than by rotation, he or she should be made aware of the possibility of completing a form to the Financial Regulator concerning the reasons for his or her departure. Information received from such Directors will be subject to the confidentiality requirements set out in Section 33AK of the Central Bank Act 1942. Where the information received warrants it, the Financial Regulator will pursue enquiries with the firm and with the resigning Director concerned. The firm will have a right of reply, as will the Director.

5. Fit and Proper Standards

The criteria for assessing the fitness and probity of an individual will fall under three categories.

- Competence, and capability;
- Honesty, integrity, fairness, ethical behaviour; and
- Financial soundness.

Competence, and capability

The appointing firm is best placed to judge whether an individual has the competence, experience and ability to understand the technical requirements of the business, the inherent risks and the management processes required to conduct the operations of the firm effectively. Whereas common standards of probity should apply, no matter the size or activity of the firm, the requirements for competence will vary to reflect the nature of the post and the size and activity of the firm.

Where the Financial Regulator's minimum competency requirements (as outlined in the paper Minimum Competency Requirements of June 2006) apply, the firm shall ensure that the proposed appointee fulfils those requirements.

In considering the competence and capability of a person the firm should take into account all relevant considerations including:

- The activities and size of the firm
- The responsibilities of the position
- Whether the person has shown the capacity to successfully undertake the responsibilities of the position, taking into account the nature of those responsibilities, including the establishment of an effective control regime, and
- Whether the person has a sound knowledge of the business and responsibilities he or she will be called upon to shoulder.

In scrutinising the evidence offered by the firm as to the fitness of the person proposed, the Financial Regulator will have regard to these factors and to any other information given by the firm.

It is common for non-executive Directors to hold a number of directorships. This reflects the fact that a non-executive directorship is not normally a full time position. It has the advantage that skills and experience may be transferred from long established firms to new firms within and across industry sectors. However, with increased emphasis on corporate governance both in Ireland and internationally, the responsibilities of Directors, especially of financial services firms, has grown significantly. Appointment as a Director represents perhaps a greater time commitment than in the past. Appointing firms should have regard to the statutory limits applying and should satisfy themselves that a proposed Director would be in a position to fulfill his or her duties to the firm, having regard to their other commitments.

The firm should also ensure that the person's other commitments do not give rise to any conflicts of interest. Possible conflicts to be considered include commercial conflicts or those that might arise where a person is connected to a firm having an oversight role in respect of the financial services firm – for example, as external auditors or actuaries.

The Financial Regulator will examine a proposed Director's other commitments to ensure that he or she is conforming to the statutory limits and can fulfill their duties appropriately. The Financial Regulator will also examine the person's other commitments to identify any conflicts of interest.

Honesty, integrity, fairness, ethical behaviour

The principles based supervisory model depends on Directors and Managers that are honest, diligent and independent-minded, who act ethically and with integrity and fairness. It is therefore necessary for approved persons to comply with these general standards.

These attributes are used to describe “probity”. Probity is thus a matter of character illuminated by a person’s past behaviour. While we rely on a clear record as an indicator of good character, we recognize that it is not an infallible indicator. Furthermore, it is not easy explicitly to define probity in a way that ensures that the fit and proper test captures all possible aspects of the concept. Probity is broader than any attempted definition or list of qualities.

Firms subject to these standards differ widely in size and in the nature of their activities. Nevertheless, the same standards of probity will apply, no matter the size and activity of the firm.

Financial Soundness

There are two sets of issues addressed in the Individual Questionnaire (IQ) under this heading – personal bankruptcy or similar and association with the bankruptcy or similar of a company. Where a person has failed to manage his or her debts or financial affairs satisfactorily, especially where that caused loss to others, the person’s competence, honesty and integrity may be in doubt. The Financial Regulator would enquire further if such an issue were to arise in responses to the questionnaire. It may not necessarily follow that one incident in a person’s past (for instance, where a person did experience difficulty, but subsequently honoured all debts) would rule them out. However, it is important for the Financial Regulator to be aware of such instances in the past so that it can have confidence in the fit and proper test in face of information coming from members of the public or from other sources.

Where a person has been associated with an entity that became insolvent, went into administration, was in the control of a Court appointed liquidator or otherwise failed to meet its financial obligations to creditors or beneficiaries, that person’s competence, honesty and integrity may be brought into question. As above, it may not necessarily follow that an instance in a person’s past (for instance, where their association was at a very junior level) would rule them out. The Financial Regulator would enquire further into the matter to establish whether or not the circumstances did reflect on the person’s probity or competence. As explained in the paragraph above, it

is important for the Financial Regulator to be aware of any such instances, even where they are not likely to cause an adverse decision.

Convictions

Where a proposed Approved Person has been convicted, on indictment, of fraud, money laundering, theft or financial crime within the last 10 years that will be regarded by the Financial Regulator as an indication that a person is not proper and will bar a person from holding a position as an Approved Person. . Where a person has a conviction dating beyond ten years that should be notified to the Financial Regulator. Older convictions on indictment will be reviewed by the Financial Regulator in order to adjudicate on the application.

Summary convictions of fraud, money-laundering, theft or financial crime should be notified to the Financial Regulator. The Financial Regulator will take this information into consideration in its decision. Older summary convictions of a serious nature will be reviewed by the Financial Regulator in order to adjudicate on the application.

Tax Compliance

Conviction on indictment within the last 10 years of a tax offence will be regarded by the Financial Regulator as an indication that a person is not proper and will bar a person from holding a position as an Approved Person. Older convictions on indictment and all summary convictions of a serious nature will be reviewed by the Financial Regulator in order to adjudicate on the application.

The misuse of the systems and processes of financial institutions to facilitate the evasion of tax, whether by customers of the institution or any of its employees, officers or Directors, is a serious lapse that may necessitate a review of the fitness and probity of Directors, Managers or staff of a financial institution. The Financial Regulator expects that any such activity would be in breach of the firm's Code of Ethics and would therefore be a matter for disciplinary action by the firm.

6. Operation of the Test

First step – Recruitment/ Selection

The test begins in the firm proposing the appointment of a Director or Manager. A culture within firms that places a high value on appointing fit and proper people, whether as Directors, Managers or staff will foster values and processes that lead to the recruitment and appointment of fit and proper people. In considering potential candidates, compliant firms are expected to give priority to the need to choose people that are fit and proper. In this way, the interests of the firm and of its customers are best served.

The Financial Regulator expects that most if not all firms already do cater for fit and proper issues in their recruitment or selection procedures, at least implicitly. Firms will seek to ensure, for example, that a person is suitably qualified to do the job for which they are being recruited and that they are honest and trustworthy.

The Financial Regulator recognizes that the realities of recruitment vary from one firm to another. In small family firms, for instance, family members may be appointed as Directors or Managers. On the other hand, large credit institutions, securities firms or insurance undertakings will have formal recruitment procedures, either in house or through the use of recruitment specialists. In all cases, however, the principals of firms will, whether implicitly or explicitly, be anxious to appoint people who will serve the interests of the firm, who are trustworthy and who have the necessary skills and experience. Accordingly, however formal or informal it may be, the Financial Regulator expects that the recruitment process of each firm would normally cover the following:

- Consideration of the duties and responsibilities of the post to be filled
- A selection/appointment process that matches the selected person to the requirements of the post,
- Verification of qualifications, experience, references and membership of professional bodies
- Some probity checks, including relevant websites (Companies Registration Office, Revenue Commissioners, ODCE) and tax clearance certificate (where applicable)

- In relation to Directors of larger institutions, how the institution determined that the individual would be a strategic and effective fit with the other members of the Board and that they had suitable relevant experience.

From 2007, the Financial Regulator may, in the course of on-site reviews, seek evidence that the firm's recruitment process does take account of fit and proper issues. In these circumstances, firms may wish to consider documenting their recruitment processes. This should be carried out in a manner that complies with the firms' obligations under Data Protection legislation.

While the Financial Regulator does not propose to give detailed guidance concerning the principle that firms should take fit and proper considerations into account at the first stage of recruitment, in the spirit of this review, firms other than sole trader firms may consider it advisable to review their own selection procedures to ensure that fitness and probity are now an explicit part of the selection process.

5.2 Second step – completion of IQ by proposed person

Once a person has been selected by the firm, that person should be required to complete the Individual Questionnaire (IQ). The Individual Questionnaire consists of a number of sections. It will be necessary for the firm and the proposed appointee to determine which sections should be completed by the proposed candidate. The Guidance Notes attached to the IQ will assist in this. Broadly speaking, all proposed individuals should complete sections 1 (personal details), 2 (qualifications and experience), 4 (other business interests) and 5 (shareholdings in proposing firm). All applicants other than those approved by EU/EEA financial service regulators must complete sections 3 (good reputation and character) and 7 (references). Approved persons of firms authorized under the Investment Intermediaries Act 1995 ("IIA") that also handle client money must complete section 6 (additional personal details).

All applicants must sign the declarations at Appendix 1 of the IQ.

Where applicants have been approved by financial service regulators in third countries, the proposing firm should contact the relevant Department in the Financial Regulator to ascertain whether these approvals will have the same status as EU/EEA approvals.

Third step - Verification of Information by Firm

The firm should peruse the information contained in the completed IQ and ensure that there are no issues arising from the material that would cause the firm to reconsider its proposal to appoint the person. The firm should then carry out checks on the information to ensure its accuracy. If all is in order, the firm should forward the completed IQ to the Financial Regulator, with a statement confirming that it is prepared to proceed with the appointment, that it has verified to the best of its ability the information in the completed IQ and seeking agreement to the proposed appointment.

The firm itself will wish to be assured that the person being recruited or appointed is as he or she appears to be. Accordingly, it would be expected that a firm would seek some verification. In many cases, the person is well known to the firm, for example, as an employee or former employee. In such cases, the firm is already confident about all of the information provided by the appointee and is in a position to verify the completed IQ to the Financial Regulator, without needing to carry out checks. Where checks are needed, areas such as references from former employers, validity of professional qualifications or membership of professional associations would seem to be the most appropriate checks.

The Individual Questionnaire elicits information from candidates about any instances in their past where the candidate's integrity or honesty was ever in question, whether on the part of a previous employer, a professional body, a civil or criminal court or the tax authorities. Where there are any such instances, the firm will have to consider this information before making a final decision to appoint the person. In considering the information available to it, the firm would take into account the gravity of any incident in the person's past. A minor incident does not necessarily imply that the

person was guilty of dishonesty or lack of probity. If the firm is satisfied to proceed with the appointment, it should explain its decision to the Financial Regulator.

Fourth step - Determination by Financial Regulator

The Financial Regulator will examine the proposal. It may carry out checks to verify the information provided. Once the Financial Regulator has completed its enquiries and is prepared to agree to the appointment it will inform the firm and the firm can then proceed with the appointment.

The Financial Regulator will consider the information provided in the IQ, in the firm's sign-off and any information resulting from enquiries carried out by the Financial Regulator. The Financial Regulator will consider any issues that arise in replies provided by the candidate in light of their bearing on the probity of the individual. A seemingly minor issue may cast doubt on the honesty of the person. In these cases, it will be necessary to consider the issue further. The Financial Regulator will take account of the gravity of the incident, the length of time that has elapsed since it occurred and any evidence which the person provides that demonstrates that the person would not now make the same error. Thus, it will not necessarily follow that a minor incident in a person's past will rule them out of consideration.

The Financial Regulator will also consider any evidence that the person has ever been obstructive, misleading, or untruthful in dealing with a court, tribunal, regulatory agency (including, but not limited to, the Revenue Commissioners and the Director of Corporate Enforcement) or professional or industry body.

Timing of Test

In principle, no appointments should be made until the Financial Regulator has been satisfied that the proposed person is suitable and has indicated as much to the firm. The fit and proper process can be time-consuming, particularly where checks with third parties, such as foreign regulators are involved. The Financial Regulator will endeavour to reach a decision as soon as possible.

7. Continuing application of fit and proper standards

Fitness

Approved persons will be expected to remain competent for the positions they hold. With several professions and associations now requiring their members to maintain standards of excellence through continuous professional development (CPD), this is now an issue for appointees. Firms should ensure that approved persons meet their CPD requirements, where particular qualifications or memberships have been cited as demonstrating their fitness for a particular position. A failure to maintain such qualifications or memberships, where they are relevant, would raise doubts about the person's continuing fitness and would have to be reviewed by the firm and by the Financial Regulator.

Probity

Probity is an issue not just at the moment of appointment, but on an ongoing basis. The Financial Regulator expects that it is normal practice that Boards of financial institutions² of size and complexity requires their own members, together with the Managers and the employees of the institution to be in full compliance with their contract of employment. This would include adherence to the firm's internal code of ethical behaviour. This code may at present be implicit or explicit. (An explicit code will be a requirement in the future for those institutions of size and complexity listed in the footnote below. A consultation paper on corporate governance to be issued by the Financial Regulator later this year will seek views on the issue). The code should cover guidelines on behaviour to be adopted in relation to guarding against the misuse of the systems or processes of the firm for unethical purposes, for example, attempts to facilitate fraud, money laundering or tax evasion, whether for the benefit of individuals within the firm or of the firm's clients. Any serious breaches should be

² including credit institutions, insurance and re-insurance undertakings, securities firms and large intermediary firms, but not sole trader intermediaries, nor mortgage intermediaries nor moneylenders.

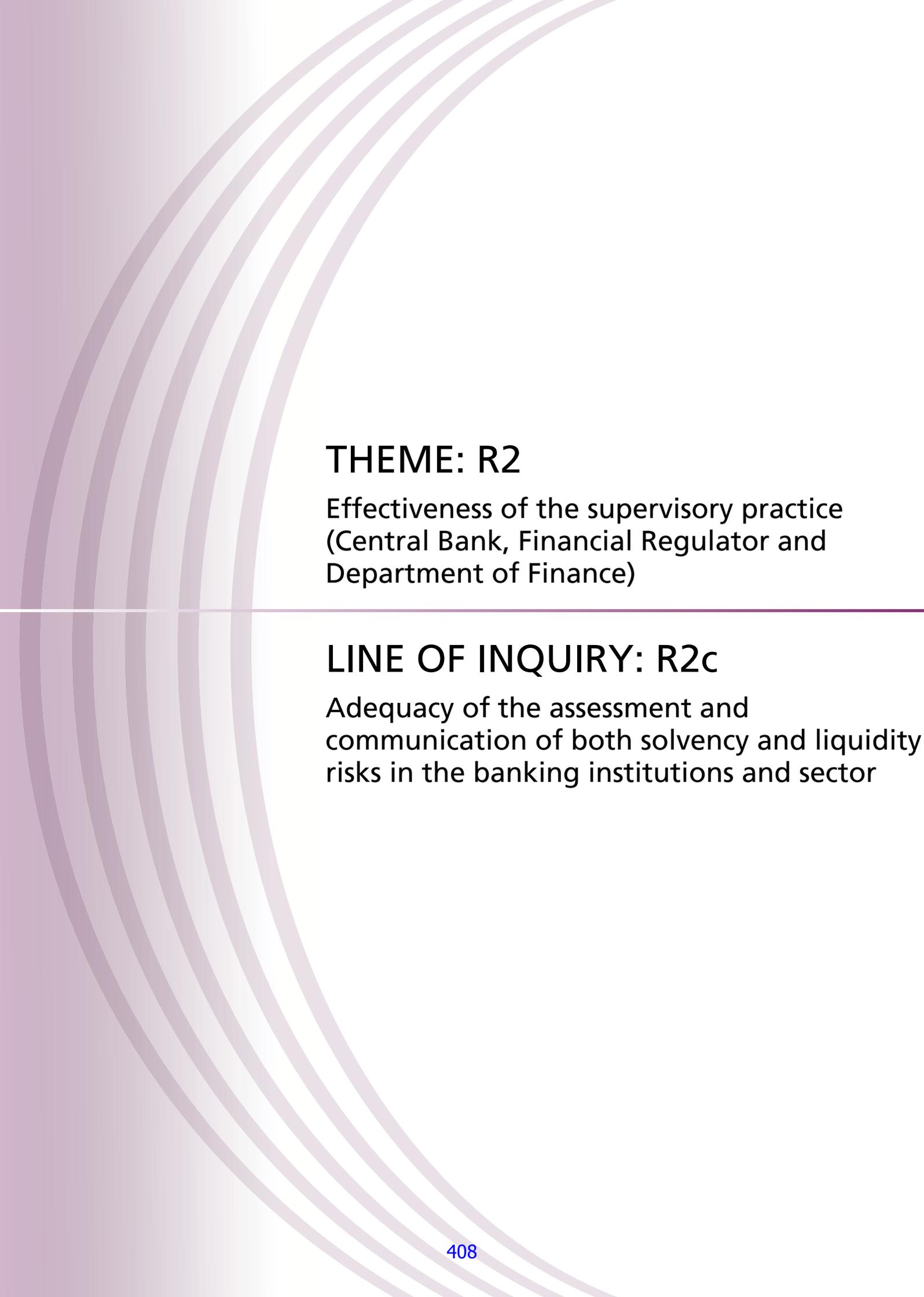
recorded in the firm as a matter of course together with the record of disciplinary action taken. Where an approved person is found to be involved in any such activity that should, of course, be notified immediately to the Financial Regulator.

This makes it incumbent on firms to foster a system that supports continuing adherence to the values underlying probity. Moreover, firms have a responsibility to adopt policies and processes that detect instances where ethical behaviour is under threat. For example, an individual Director or Manager may act with scrupulous honesty. However, if that individual is aware of unethical or dishonest behaviour on the part of a colleague and fails to act to stop it, that reflects on his honesty. There may be many reasons why an otherwise honest person may fail to act in such circumstances. It is the responsibility of the firm to have systems that will detect such instances and that will support those who stand up for ethical behaviour within the firm. A Director or senior Manager who directs a junior colleague to act in an unethical or dishonest manner is failing to act ethically, fairly and with a proper commitment to compliance. Again, the firm should have systems that bring these behaviours to light and support and reward those who resist pressure to act unethically. Where such instances do arise, the firm should consider appropriate disciplinary action of the person or persons who have been responsible for compromising other colleagues. In any case, where such matters come to light, they should be reported immediately to the Financial Regulator.

Where there has been wrongdoing, the firm should make all reasonable efforts to establish grounds for taking disciplinary action and take the action. In any case, arrangements agreed with individuals should not include an agreement to provide a reference that is untrue, inaccurate or misleading and the firm should make every effort consistent with fair procedure to ensure that any prospective employer is not misled by any reference given as a result of a settlement.

If a person is in breach of their contract and/or of their institution's internal code of ethical behaviour and they seek a new position in the industry that is subject to the fit and proper test, the breach will be relevant and will be taken into account when assessing the person's fitness and probity.

While it is difficult to prove probity, equally, it can be difficult to prove dishonesty or failure to act with integrity. This difficulty is felt as much by the Financial Regulator as by individual firms. Firms investigating instances of improper behaviour faced with incomplete evidence may come to an arrangement with an individual involving a severance package. In such circumstances, the firm should give an appropriate reference.



THEME: R2

Effectiveness of the supervisory practice
(Central Bank, Financial Regulator and
Department of Finance)

LINE OF INQUIRY: R2c

Adequacy of the assessment and
communication of both solvency and liquidity
risks in the banking institutions and sector

Chapter 1:

Key Activities and Developments in 2010



Executive Summary



Legislative Background

Following the enactment of the Central Bank Reform Act 2010, the Central Bank of Ireland (the Bank) was reorganised on 1 October 2010 into a single organisation with responsibility for both central banking and financial regulation. As a member of the Eurosystem, the primary objective of the Bank is to maintain price stability. As set out in the Central Bank Reform Act 2010, the Bank's other statutory objectives are defined as:

- » The stability of the financial system overall.
- » The proper and effective regulation of financial service providers and markets, while ensuring that the best interests of consumers of financial services are protected.
- » The efficient and effective operation of payment and settlement systems.
- » The provision of analysis and comment to support national economic policy development.

Main Issues

The major priority of the Bank during 2010 has been the ongoing resolution of the financial crisis. This work included the provision of substantial liquidity support to the banking system, supporting the recapitalisation and restructuring of the main domestic credit institutions, the initiation of significant regulatory reform and the introduction of new consumer protection initiatives.

As part of a wider process to get the economy back on a sustainable track, a comprehensive external financial assistance package was agreed for Ireland with the European Union-International Monetary Fund (EU-IMF), in November 2010, for the period 2010-2013. The initial Memorandum of Understanding (MoU) and the Memorandum of Economic and Financial Policies (MEFP) between Ireland and the EU-IMF were signed by the Minister for Finance and the Governor of the Bank in December 2010, and revised documents were agreed in May 2011.

At a Eurosystem level, against a backdrop of subdued inflationary pressures and moderate euro area economic recovery, the Governing Council of the European Central Bank (ECB) maintained key interest rates at low levels during 2010. The ECB and Eurosystem also continued to implement a number of non-standard monetary policy measures in response to the severe disruption in global financial markets.

Banking Reorganisation

In March 2010, the Bank assessed the capital needs of the individual banks covered by the Government Guarantee with the publication of the Prudential Capital Assessment Review (PCAR 2010). The review assessed the recapitalisation required to satisfy both a base case and a stressed target capital requirement over a three year time horizon. The exercise was repeated in March 2011 and took full account of various adverse developments that emerged in 2010 since the original PCAR. This included larger than anticipated haircuts applied to property related loans that transferred to the National Assets Management Agency (NAMA) and the emergence of a sovereign debt crisis.

Arising from the ongoing concerns in the banking sector relating to low asset quality, persistent funding difficulties and the prolonged resolution of Anglo Irish Bank, the EU-IMF programme included a number of elements to address the restructuring of the banking sector. These included the setting of higher capital standards, the downsizing and reorganisation of the banking system and enhancing the regulatory framework.

Liquidity Support

The Bank, on behalf of the Eurosystem, continued to supply substantial liquidity support to the Irish banking system in 2010. The Bank also provided Exceptional Liquidity Assistance (ELA), which was deemed necessary for financial stability purposes. Total Eurosystem monetary policy lending provided by the Bank to Irish domiciled institutions stood at €132 billion in December 2010. The total amount of ELA at year-end was approximately €49.5 billion.

Regulatory Enhancements

Substantial progress with improving the regulatory framework has been made over the course of 2010. A Banking Supervision strategy was introduced in June 2010. The Bank assisted the Department of Finance with the transposition of the two capital requirement directives which have enhanced the regulatory framework for banks. The Bank also introduced new corporate governance requirements for banks and insurers and rules on related party lending. Progress has also been made in a number of other areas, including preparations for the new EU Solvency II insurance supervision regime, strengthening the fitness and probity framework, unwinding the Prospectus and Market Abuse delegations with the Irish Stock Exchange, starting work on the strategic review of the credit union sector and developing an internal risk model to allocate supervisory resources. The Bank also set a statutory minimum liquidity requirement for all credit unions.

The Bank published its Enforcement Strategy in December 2010. A key component of its new approach is a more vigorous application of enforcement effort backed by sufficient resources to represent a credible threat of action.

The Bank is responsible for the regulation of most financial service providers and funds in Ireland. In 2010, the number of firms supervised decreased from 14,563 to 14,166.

Consumer Protection

Under the Code of Conduct on Mortgage Arrears, the Bank required that a regulated firm must wait at least 12 months from the time arrears first arise before applying to the courts to commence enforcement of any legal action on repossession of a borrower's primary residence. In December 2010, the Bank revised the code in light of the recommendations of the Government's Expert Group on Mortgage Arrears and Personal Debt. In particular, lenders have been directed not to impose arrears charges or surcharge interest on borrowers who are in arrears and who are co-operating with the new Mortgage Arrears Resolution Process with effect from January 2011.

Financial Stability

Significant work was undertaken throughout the year as the Bank continued to contribute and provide analysis and advice to the Government on key financial stability issues. At European level the Bank participated in the ESCB's Macprudential Research Network which is designed to produce policy-directed research. The Bank also continued to contribute to the development of crisis management frameworks at the international and European level, where work continued on areas including early intervention, crisis resolution frameworks and resolution funds.

Economic Policy and Statistics

The Bank continued to play an important role in influencing economic policy through its frequent commentaries, forecasts, research and provision of financial statistics. During 2010, there were significant enhancements to the statistical outputs of the Bank. A new presentation of the monthly money and banking statistics was launched in June. A new quarterly series of credit to Small and Medium Sized Enterprises (SMEs) was published for the first time in December. New data on the consolidated foreign claims of the domestic banks was also published in December. The launch of a new statistical series – Quarterly Financial Accounts for Ireland – also took place in 2010. Statistics on investment funds were further enhanced in 2010 and the first publication of Securities Issues Statistics also took place in 2010.

Payments and Currency

The Bank is responsible for the oversight of payments and securities settlements systems to help ensure their safety, effectiveness and efficiency. TARGET2, the pan-European system used to ensure a uniform wholesale payment infrastructure, functioned smoothly in 2010. While the total number of payments processed by the TARGET2 system decreased by 0.7% in volume, value increased by 6.8%, compared with 2009, with the average daily volume totalling 343,380 transactions, representing an average daily value of €2,299 billion. In July 2010, the Bank published a National Payments Oversight Report, providing a detailed account of payments oversight and of the payments and securities settlement infrastructure in Ireland.

The Bank is responsible for the administration of the Irish Deposit Guarantee Scheme (DGS) which compensates depositors in the event of a credit institution failing. In 2010, the Bank established a project so that a fast payout can be ensured. Good progress has been made defining the processes and developing the necessary systems. The Bank continues to work with the credit institutions to meet the new payout deadline of 20 working days.

The Bank produces and issues banknotes and coin to meet the needs of the public and business. Banks were supplied with their full requirement of banknotes and coin in 2010. During 2010, final preparations to implement the ECB's Banknote Recycling Framework were completed.

Investments

At the end of 2010, the Bank's investment portfolio comprised euro-denominated assets of €17.7 billion and US dollar holdings of €0.5 billion equivalent. The total represents an increase of €0.7 billion on 2009 of which €0.3 billion relates to the Bank's participation in the ECB's Covered Bonds Purchase Programme, which concluded purchases in June, with the balance coming from dividends and income.

Staffing

At the end of 2010, the Bank employed 1,226 from an approved complement of 1,328. This represented an increase of 17.4 per cent on 2009 staffing levels. The increase in staff numbers was in response to the requirement to allocate more resources to frontline supervision, policy and macroeconomic areas.

Profits

The Bank's profit for the year to 31 December 2010 amount to €840.9 million. After retained earnings, surplus income of €671 million will be paid to the Exchequer.

Introduction

Legislative Background

The Central Bank Reform Act 2010 (the Act) which was enacted on 1 October 2010, established the Central Bank of Ireland. This replaced the Central Bank and Financial Services Authority of Ireland (CBFSAI) and Irish Financial Services Regulatory Authority (IFSRA). The Boards of the CBFSAI and IFSRA were also replaced with a unitary Board, the Central Bank Commission. It is chaired by the Governor and comprises 3 ex-officio members (Deputy Governors of Central Banking and Financial Regulation and Secretary General of the Department of Finance). The Minister for Finance has appointed six other members. More detail on the governance of the organisation is included in Chapter 2: Governance.

As a member of the Eurosystem, the primary objective of the Bank is to maintain price stability. As set out in the Act, the Bank's other statutory objectives are defined as:

- » The stability of the financial system overall.
- » The proper and effective regulation of financial service providers and markets, while ensuring that the best interests of consumers of financial services are protected.
- » The efficient and effective operation of payment and settlement systems.
- » The provision of analysis and comment to support national economic policy development.

The Governor remains solely responsible for European System of Central Banks (ESCB) and related functions. The structural changes contained in the Act are intended to deliver better co-operation and co-ordination between prudential supervision of individual institutions, conduct of business regulation and the maintenance of financial stability overall.

Apart from providing for the new fully-integrated structures, the Act enhances accountability and oversight mechanisms of the governance of the Bank and its regulatory performance. Under its provisions, a Committee of the Oireachtas will now receive an Annual Performance Statement

(Financial Regulation). The first such statement is published on 30 May 2011. The Act also transferred responsibility for consumer information and education to the National Consumer Agency.

The Act provides for new powers for the Bank to ensure the fitness and probity of nominees to key positions within financial service providers and of key office-holders within those providers. The Bank has been given power to prescribe functions which are to be 'controlled functions' and to suspend or prohibit persons performing such functions. The Bank also has the power to issue standards of fitness and probity in respect of controlled functions. A public consultation on these matters was initiated in March 2011.

The Bank published its three year Strategic Plan (2010 – 2012) in July 2010. The resolution of the banking crisis was identified as the major challenge for the organisation. Other challenges identified are the development and implementation of a new model of regulation, enhanced assessment of financial stability and careful management of liquidity support.

EU-IMF Financial Assistance Package

Following a request from the Irish Government on 21 November 2010 for financial assistance from the EU and the IMF, a joint agreement was reached between the authorities on 28 November 2010 on a comprehensive financial assistance package for Ireland for the period 2010-2013.

Loan disbursements from the IMF under the financial package are paid to the Bank in its capacity as Ireland's fiscal agent. These payments are, in turn, paid into the accounts of the National Treasury Management Agency (NTMA), which acts as debt agent for the Minister for Finance. The total financial assistance package amounts to €85 billion, with €45 billion coming from the European Union and bilateral European lenders, and €17.5 billion from domestic resources. The IMF's involvement is through a three-year SDR 19.5 billion (about €22.5 billion¹) loan under its Extended Fund Facility (EFF)².

¹ SDR exchange rate, 24 November 2010: SDR 1 = €1.15544. See www.imf.org for more details.

² The Extended Fund Facility was established in 1974 to help countries address longer-term balance of payments problems requiring fundamental economic reforms. Arrangements under the EFF are thus longer than other Fund arrangements.

The initial MoU and Memorandum of Economic and Financial Policies (MEFP) between Ireland and the EU-IMF were signed by the Minister for Finance and the Governor of the Bank in December 2010, and revised documents were agreed in May 2011. The MoU and MEFP contain a large number of data requirements and economic,

fiscal and financial structural targets. Within the EU-IMF Programme, the Bank is committed to a large number of financial sector targets. These relate, in particular, to the restructuring of the banking sector and to the recent stress tests of Irish banks' capital and liquidity requirements. Box 1 describes the main issues for the Bank to address.

Box 1 – Ireland's Banking Sector Commitments under the EU-IMF Programme

Under the terms and conditions of Ireland's EU-IMF financial assistance programme, Ireland agreed to a comprehensive set of measures to achieve downsizing and reorganisation of the banking system over time. Access to funding under the programme will be strictly conditional on the achievement of specific fiscal targets and the implementation of the structural reforms set out in the revised MoU³ and the MEFP. The Bank is responsible for ensuring a number of these targets are reached within set timeframes.

In order to restore domestic and external confidence in the Irish economy, an overhaul of the financial sector with the objective of substantial downsizing, isolating the non-viable parts of the system, and returning the sector to healthy functionality is necessary. This process will be supported through capital injections into viable financial institutions. In addition, structural measures – a special resolution scheme for deposit-taking institutions and a further strengthening of the supervisory system – will impart greater stability to the system.

The Irish State agreed to the following steps to be completed by **Q2 2011** as part of the initial MEFP and MoU signed, in December 2010, with the IMF, ECB and EC:

Recapitalisation Measures

- » Recapitalisation of viable banks as announced in September 2010 to 10.5% core Tier 1 ratio to take into account haircuts on the additional loans transferred to NAMA.
- » Comprehensive Prudential Capital Assessment Review (PCAR) evaluation of the underlying assets of the banks, taking into account expected losses.
 - » Full assessment of PCAR/PLAR results by the EC, ECB and IMF; publishing of results in detail on a bank by bank basis.
 - » Recapitalisation of the banks to ensure minimum capital requirement of 10.5% core Tier 1 and 6% core Tier 1 in a stress scenario.

Deleveraging Measures

- » Prudential Liquidity Assessment Review (PLAR) by the Bank for 2011, outlining targets and measures to steadily deleverage the banking system and reduce reliance on short term funding by the end of the programme period.
- » 2013 target loan to deposit ratio of 122.5% for each bank.

The Financial Measures Programme (FMP) Report⁴, published 31 March 2011, outlines how the Bank has implemented its obligations to date under the EU-IMF programme. The FMP Report is comprised of three key elements: (i) an independent loan loss assessment exercise performed by BlackRock Solutions, (ii) the Prudential Capital Assessment Review (PCAR) 2011, and (iii) the Prudential Liquidity Assessment Review (PLAR) 2011.

Reorganisation of the Banking Sector

- » Strategy for the future structure, functionality and viability of the Irish credit institutions agreed with the EC, the ECB and the IMF – demonstration of implementation strategy in Q2 2011.
- » Legislation on improved procedures for early intervention in distressed banks and special bank resolution regime to be introduced.

3 See <http://www.finance.gov.ie> for more details on the MEFP and MoU.

4 For more details see: <http://www.financialregulator.ie/industry-sectors/credit-institutions/Pages/FinancialMeasuresProgramme.aspx>.

Box 1 – Ireland's Banking Sector Commitments under the EU-IMF Programme**Burden Sharing by Holders of Subordinated Debt**

- » Burden sharing will be achieved with holders of subordinated debt in relevant credit institutions over the period of the programme, consistent with EU State Aid rules.

Credit Union Sector

- » The Bank completed a full assessment of the loan portfolios of the credit union sector by end-April 2011, and, in consultation with the appropriate domestic authorities, prepared a comprehensive strategy to enhance the viability of the sector. which will provide input to the preparation of a comprehensive strategy to enhance the viability of the sector as required under the Joint EU-IMF Programme for Ireland.
- » By end-December 2011 legislation will be submitted to Dáil Éireann by the Minister for Finance to assist the credit unions with a strengthened regulatory framework including effective governance and stabilisation requirements.

Provision of Data

Another condition of the EU-IMF programme requires the Bank to provide the following data and indicators to the European Commission, the ECB and IMF staff on an agreed calendar basis:

- » Assets and liabilities of the Bank
- » Assets and liabilities of the Irish banking system
- » All debt falling due over the next 36 months for domestic banks of systemic importance
- » Weekly individual operational balance sheets of domestic banks of systemic importance
- » Public debt and new guarantees issued by the general government to banks
- » Financial stability indicators for domestic banks of systemic importance
- » Estimates of domestic banks' capital needs in the next 12 months
- » Estimates of funding sources for the banking sector for the next 12 months.

Bank Benchmarks Under the EU-IMF Programme up to Q2 2011

Deadline	Measure/Structural Benchmark (Status)
End-December 2010	Defined, in conjunction with the European Commission, ECB and IMF, the criteria to run stringent stress tests scenarios; (MEFP ¶12 - Observed).
End-December 2010	Agreed the terms of reference for the due diligence of bank assets by internationally recognised consulting firms. This involved finalising the design of the prudential capital and liquidity assessments to plan for the deleveraging, reorganisation and recapitalisation of the banks (i.e. the Prudential Capital Assessment Requirement (PCAR) and Prudential Liquidity Assessment Requirement (PLAR)) (MEFP, ¶12 - Observed).
End-February 2010	The banks submitted their deleveraging plans to the national authorities. The new minimum capital core Tier 1 ratio of 10.5% were implemented (MEFP, ¶12 ⁵).
End-March 2011	The Bank completed the assessment of the banks' restructuring plans. (MEFP, ¶11 - Observed).
End-March 2011	Completed the diagnostic evaluation of banks' assets - (MEFP, ¶12 - Observed).
End-March 2011	Completed stress tests - PCAR and PLAR 2011 were published in the Financial Measures Programme (FMP). Broad funding target ratios, including loan-to-deposit ratio of 122%, for 2013, were established and the strategy for future of the banking system was developed. (PCAR 2011) (MEFP, ¶12 - Observed).
End-April 2011	Completed a full assessment of credit unions' loan portfolios (MEFP, ¶18 - Observed).
End-May 2011	Finalise plans for the remaining operations, including recapitalisation, of Irish Life and Permanent (Updated MEFP, ¶7)

⁵ Central Bank directions were issued within the required timeframe, however, completion of the capital injections required was postponed by the Minister for Finance until after the General Election. These directions were superseded by the Central Bank's PCAR directions of 31 March 2011.

Monetary Policy Stance and Implementation

The Bank is part of the Eurosystem which comprises the European Central Bank (ECB) and the 17 National Central Banks (NCBs) of the euro area. The Governor of the Bank is a member of the Governing Council of the ECB. While the Governing Council of the ECB did not make any changes to interest rates during 2010, it continued to respond to developments in euro area economic and financial conditions through various non-standard monetary policy measures. (Box 2 below describes the non-standard monetary policy measures introduced during 2008 and 2009.) A process of gradually phasing out some of these measures was started in January 2010, although a deterioration in financial market conditions in May 2010 led to a partial reinstatement of some of these measures. The ECB introduced its Securities Markets Programme (SMP) during this period in order to address problems in euro area public and private debt markets.

ECB Monetary Policy Decisions

In arriving at its decisions, the Governing Council assesses the economic situation in the euro area as a whole and whether current key ECB interest rates remain appropriate for achieving the primary objective of maintaining price stability in the euro area.

Against a backdrop of subdued inflationary pressures and a moderate euro area economic recovery, the Governing Council maintained key ECB interest rates at low levels during 2010. The main refinancing rate remained unchanged at 1 per cent, following a total reduction of 325 basis points between October 2008 and May 2009. The rates on the deposit facility and the marginal lending facility also remained unchanged, at 0.25 per cent and 1.75 per cent, respectively. Box 2 refers.

These non-standard monetary policy measures were designed so that they could be phased out when they were no longer deemed necessary. The Governing Council began this process at the end of 2009, with the announcement that the one-year and six-month longer term refinancing operations (LTROs) scheduled for December 2009 and March 2010, respectively, would be the last such operations. In addition, the Governing Council decided that the rate on the December one-year LTRO would be fixed at the average minimum bid rate of the main refinancing operations (MROs) over the life of the operation. Similarly, improved conditions in US funding markets and limited demand in Eurosystem US dollar operations led to the US dollar repurchase operations and US dollar swap operations being discontinued. The Swiss franc liquidity-providing swap operations were also discontinued in January 2010. The Governing Council subsequently decided in March 2010 that it would return to a variable rate tender procedure in the regular three-month LTROs.

Box 2 – Non-Standard Monetary Policy Measures (2008-2009)

The ECB and the Eurosystem adopted a number of non-standard monetary policy measures during 2008 and 2009 in response to the severe disruption in global financial markets during this period. These measures were introduced to improve financing conditions and facilitate the transmission of lower ECB interest rates to money market and bank lending rates.

Overall, five key measures were introduced:

- » The provision of unlimited liquidity to euro area banks at the minimum bid rate in all refinancing operations (fixed-rate full allotment policy).
- » An increase in the frequency of refinancing operations and a lengthening of the maximum maturity of these operations from three months to one year.
- » An extension of the list of assets eligible to be used as collateral in Eurosystem credit operations.
- » The regular provision of liquidity in foreign currencies (US dollars and Swiss francs).
- » The outright purchase of euro-denominated covered bonds issued in the euro area.

The Governing Council reactivated some of the non-standard monetary policy measures in May 2010 in order to address the sudden re-intensification of financial market tensions at that time. These additional measures were introduced amid the risk that renewed financial market tensions would hamper the transmission mechanism of monetary policy. The Governing Council announced that the regular three-month LTROs to be allotted in May and June 2010 would be conducted as fixed rate tender procedures with full allotment. Changes in the eligibility of debt instruments issued or guaranteed by the Greek government were also announced, as well as the reactivation of temporary swap lines with the Federal Reserve.

The SMP was introduced in May 2010 in order to address the malfunctioning that had arisen in certain segments of the markets for euro area public and private debt securities. As at end-December 2010, the Eurosystem had purchased a total of €73.5bn of certain euro area debt securities in market interventions. The Bank participated actively in this programme. The additional liquidity provided through these operations is re-absorbed by the ECB on a weekly basis.

One non-standard policy measure that ended during 2010 was the ECB's covered bond purchase programme (CBPP). This was completed on 30 June 2010, with the targeted nominal amount of €60bn having been purchased on the primary and secondary market over the 12-month life of the programme. The central banks of the Eurosystem intend to keep the purchased covered bonds until maturity.

In September 2010, the Governing Council decided to maintain the fixed-rate full allotment policy for both MROs and LTROs during the final quarter of 2010. However, no further six or twelve-month operations were announced and all outstanding operations of this nature matured before the end of the year. The ECB did announce several fine-tuning operations at the maturity of these operations in order to ensure smooth liquidity conditions. In December, it was announced that the ECB would continue to conduct its MROs with a fixed-rate full allotment tender procedure.

Monetary Operations

The Bank, on behalf of the Eurosystem, continued to provide substantial liquidity support to the Irish banking system throughout the course of 2010. The Bank also provided Exceptional Liquidity Assistance (ELA). This is one of the ways that the Bank has responded to the financial crisis. This is distinct and separate from regular funding operations carried out for monetary policy implementation purposes through the ECB. A loan provided to a credit institution under ELA is granted against suitable collateral, where suitability is in line with criteria defined by the Bank. As with procedures for ECB eligible collateral, appropriate haircuts/ discounts are applied with a view to ensuring that the Bank would not suffer any loss in the event of default on the loan assistance. The Bank has received formal comfort from the Minister for Finance such that any shortfall on the liquidation of the collateral is made good. At end of December 2010 the Bank had extended ELA of approximately €49.5 billion.

The fixed rate full allotment policy, for both MROs and LTROs led to a continued high use of the deposit facility during 2010, as banks were able to take more liquidity from the Eurosystem than needed, with the excess liquidity being placed back on deposit with the Eurosystem. Over the life of the ECB's first one-year operation (held at end-June 2009 with a take up of €442bn) Eurosystem excess liquidity averaged over €175bn. In the second half of 2010, following the maturity of this operation and with subsequent large maturities concentrated at end-September, excess liquidity averaged close to €69bn. This decline in excess liquidity also reflected some improvement in money market conditions, and placed upward pressure on money market rates across the curve. On average over 2010, the Euro Overnight Index Average (EONIA) fixed at 0.44 per cent, 56bps below the policy rate; the intra year pattern varied with EONIA fixing at 0.35 per cent on average over the first half of the year, rising to 0.52 per cent on average in the second half as excess liquidity declined.

The maturity profile of outstanding Eurosystem lending also changed over the course of 2010, with a shift towards shorter-term funding as three large one-year operations matured without being replaced, while the overall number of LTROs conducted fell by half. At the start of 2010, LTROs accounted for 89 per cent of Eurosystem lending, with MROs making up the remaining 11 per cent. At the end of the year the situation was more balanced, with LTROs accounting for 57 per cent of Eurosystem lending, while 43 per cent was provided via MROs. Total outstanding lending in the Eurosystem at the end of 2010 was €547bn, down from €749bn at the start of the year.

The ECB also introduced a new regular operation into the Eurosystem framework, a one-week, liquidity absorbing fine tuning operation with the intention to absorb, on a weekly basis, the excess liquidity created by debt purchases under the SMP, which commenced in May. US dollar liquidity providing operations were also restarted in May due to pressure in US dollar short-term funding markets. The ECB confirmed in December that weekly US dollar operations would continue until August 2011. In addition, the ECB and Bank of England announced a temporary liquidity swap facility, under which the Bank of England could provide, if necessary, up to £10bn to the ECB in exchange for euros. The agreement is due to expire at the end of September 2011, and allows sterling to be made available to the Bank as a precautionary measure, for the purpose of meeting any temporary sterling liquidity needs of the banking system.

Consistent with the ECB's measured phasing out approach and amid some improvements in market conditions, the total number of operations conducted by the Bank, on behalf of the Eurosystem, declined from over 240 in 2009 to 169 in 2010. These included Swiss franc and US dollar operations. However, as part of its response to the sovereign crisis, the ECB held an additional and final six-month operation in May 2010. The operational framework at the start of 2011, in terms of liquidity provision, consisted of weekly MROs and monthly one-month and three-month LTROs. The number of counterparties eligible to participate in operations at the end of 2010 was 42, down

from 45 in 2009. Total monetary policy lending provided by the Bank to Irish domiciled institutions rose to a high for the year of €140bn in December, up from €93bn at the end of 2009, while at the end of 2010 it stood at €132bn.

As the sovereign debt crisis intensified, debt markets virtually closed for the Irish guaranteed banks and have remained so since April 2010. In addition, these banks faced large debt maturities in September 2010, with difficult market conditions dictating that these maturities were replaced largely with Eurosystem borrowings. As such, liquidity remained a key issue for the Irish guaranteed institutions throughout 2010, a situation that persisted in the early parts of 2011.

Bank Lending Survey

The Euro Area Bank Lending Survey (BLS) is conducted on a quarterly basis by the National Central Banks (NCBs) of the euro area and provides qualitative data regarding changes in credit market conditions throughout the euro area as well as expectations of changes in credit standards and loan demand. The Bank is responsible for co-ordinating and processing the results of the five Irish banks that participate in the survey.

Four rounds of the BLS were completed in 2010 documenting developments in credit market conditions between the fourth quarter of 2009 and the fourth quarter of 2010. The survey distinguishes between enterprises and households, with a secondary distinction made between loans to households for house purchases and consumer/other lending. A series of ad-hoc questions capturing the impact of financial market uncertainty on banks' capital and funding positions were also included.

During 2010, credit standards appeared to stabilise on loans to enterprises and households, with standards reported unchanged across all loan categories examined in the third and fourth quarters of 2010. In contrast, the responses concerning changes in loan demand from enterprises were more uncertain. A minor increase in loan demand from enterprises was reported in the third quarter of 2010, after three quarters of declining loan demand, before loan demand was reported as unchanged for the final quarter of 2010.

In the case of household lending, a divergence appeared between mortgage and non-mortgage lending, with the demand for mortgages registering a decrease throughout 2010. This decline was mostly attributed to less favourable housing market prospects and reduced levels of consumer confidence. In contrast, loan demand in the case of consumer credit, and non mortgage borrowings, appeared to stabilise with demand unchanged during the final quarter of 2010.

Five different ad-hoc questions featured in the BLS during 2010, with two of these questions examining the impact of ongoing financial market uncertainty on banks' funding and capital positions. An easing in access to wholesale funding markets was reported in the final quarter of 2009 and the first quarter of 2010. However, a sudden and broadly based deterioration was reported in the second quarter of 2010 which persisted into the final two quarters of 2010. The ongoing financial market uncertainty continued to impact on the costs related to banks' capital positions throughout 2010.

Financial Stability

Throughout 2010, the key focus of financial stability remained the resolution of the crisis situation. Significant work was undertaken throughout the year as the Bank continued to contribute and provide analysis and advice to the Government on key decisions.

The passing of the Central Bank Reform Act 2010 had a significant impact on the organisation of financial stability within the Central Bank. Although much of the change was already being implemented in practice, the passing of the Act normalised this. A key element of the Act, in bringing the central banking function of financial stability assessments together with the financial regulatory microprudential supervision responsibilities, will pave the way for macroprudential policy to be undertaken in the future. In this regard, the internal Financial Stability Committee continued to meet regularly under the Chairmanship of the Governor throughout the year. Box 3 sets out the actions being taken to address the issues raised in "The Irish Banking Crisis Regulatory and Financial Stability Policy 2003 – 2008 (Honohan Report) – A Report to the Minister for Finance by the Governor of the Central Bank 31 May 2010.

Box 3 – Issues raised in “The Irish Banking Crisis Regulatory and Financial Stability Policy 2003 – 2008” (Honohan Report) – A Report to the Minister for Finance by the Governor of the Central Bank 31 May 2010

Summary of financial stability related issues raised	Response planned, as set out in “Banking Supervision: our New Approach” June 2010	Action taken
<p>Although the Financial Stability Reports included significant analytical material analysing the underpinnings of the property boom, the relatively sanguine conclusions tended to be reached on a selective reading of the evidence. More generally, a rather defensive approach was adopted to external critics of constraints.</p>	<p>Benchmarking the quality of work will be a key priority.</p>	<p>The Economics and Financial Stability Directorate is participating and presenting work at the ECB’s Macroeprudential Research Network (MaRs), a network of researchers across European Central Banks analysing various macroprudential topics, the Directorate continues to invite speakers to the Bank to present their work and opinions at internal seminars, the Directorate has developed links in areas of common research with external organisations, and has introduced a new publication in the form of economic letters, which aim to provide a basis for raising debate on topical issues and illicit feedback.</p>
	<p>As part of risk assessment process Financial Stability Department is developing bi-lateral contacts with other major central banks and the academic community.</p>	<p>The Bank is participating fully in the European Systemic Risk Board, through attendance at the ESRB meetings as well as through the Advisory Technical Committee and associated working groups. A number of meetings have taken place with academics, chaired by the Governor. The purpose of this contact is to allow for discussion on the analysis conducted within the Financial Stability Report.</p>
<p>Such quantification of risks as was attempted was carried out in the context of the stress test exercises reported annually in the Financial Stability Reports. Although many caveats were noted, too much confidence was placed in the reliability of the tests which were overseen by desk-based analysts without sufficient engagement by hands-on regulators.</p>	<p>Rigorous stress testing part of Supervisory Review and Evaluation Process. Assumptions, hypothesis, methodologies, granularity and results challenged by specialists.</p>	<p>Phase 1 of stress testing “Prudential Capital Assessment Review” – completed March 2010 Phase 2 of stress testing “Prudential Capital Assessment Review and Prudential Liquidity Assessment Review” – completed March 2011</p>
	<p>Development of a systemic risk assessment framework.</p>	<p>Work is underway. Technical paper published in March 2011: Exploring the Steady-State Relationship between Credit and GDP for a Small Open Economy - The Case of Ireland, by Robert Kelly, Kieran McQuinn and Rebecca Stuart</p>
	<p>Comparative analysis of the performance of the Irish banking sector.</p>	<p>Work is underway.</p>
	<p>Enhancing banks specific risk assessment.</p>	<p>Work is underway.</p>

Box 3 – Issues raised in “The Irish Banking Crisis Regulatory and Financial Stability Policy 2003 – 2008” (Honohan Report) – A Report to the Minister for Finance by the Governor of the Central Bank 31 May 2010

Summary of financial stability related issues raised	Response planned, as set out in “Banking Supervision: our New Approach” June 2010	Action taken
A closer interaction between the staff involved in financial stability and regulatory staff could have had the effect of alerting both sides to the limitations of the stress test methodology and reduced the sense of complacency.	Cross organisational panels, including both supervisory and financial stability staff to review and agree the Supervisory Review and Evaluation Process, challenge examiners on findings and agree supervisory actions. Financial stability staff participate in regular challenge meetings and prudential analytics work.	Financial Stability staff attend some of the Risk Governance Panel, Capital Decision Committee and SREP meetings of particular credit institutions, and some Risk Governance Panel meetings for particular insurance institutions. These meetings are led by the credit and insurance institutions supervision divisions.
	Restructured Financial Stability Committee now chaired by Governor.	This has been in place since before the publication of the Honohan Report. The committee meets fortnightly/frequently with directors with responsibility for Economics and Financial Stability, Financial Operations and the relevant supervisory divisions in attendance. Through the course of 2010 the committee has examined issues such as the implications of NAMA haircuts and the Prudential Capital Assessment Review of Irish credit institutions.
More generally, it may be that the institutional separation of the Regulator from the rest of the organisation contributed to an insufficient appreciation of the micro-macro inter linkages involved in financial stability analysis.	Central Bank Reform Bill 2010 provides for a unitary structure.	Central Bank Reform Act 2010 came into operation in October 2010

The Financial Stability function was re-organised also in 2010. The division was expanded, and a significant research capacity was added. The work programme was set out in the Banking Supervision: Our New Approach⁶, and early work in this regard has been published in the Research Technical Paper series. This mirrors the wider European focus on financial stability related research, and the Bank is also participating fully in the ESCB’s Macroprudential Research Network (MaRs), which is designed to produce policy-directed research. It consists of three workstreams: (a) financial stability and the general economy; (b) early warning and systemic risk indicators; and (c) contagion.

The Bank also continued to contribute to the development of crisis management frameworks at the international and European level, where work continued on areas including early intervention, crisis resolution frameworks and resolution funds. The Bank also contributed to the ESCB’s fulfilment of its financial stability responsibility through contributions via the Governing Council and the ECB’s committee structure.

The ongoing financial crisis has highlighted serious deficiencies in the assessment of systemic risks in the existing European (and indeed global) framework of financial regulation

Box 4 – Banking Supervision: Our New Approach – Actions taken in 2010

The Bank published (June 2010) its strategy for the banking sector: “Banking Supervision: Our New Approach”, along with a range of initiatives to be taken, described below.

Regulatory requirements have been enhanced with the Corporate Governance Code for Credit Institutions and the Code of Practice on Lending to Related Parties, being brought into force. The Bank commenced work on enhanced Fitness and Probity Standards and assisted the Department of Finance with the development of a Special Resolution Regime. A project team has been engaged with key stakeholders on the issue of credit registers to assess the various options for improvement of the credit register system in Ireland.

Day-to-day supervision of institutions has been enhanced significantly. Supervisory staff now attend key board and sub-committee meetings of domestic banks. Cross organisational risk panels for each credit institution have been established. A more robust Supervisory Review and Evaluation Process (SREP) has been set up. Themed inspections were undertaken on a) governance and risk management at the major retail banks, b) mortgage credit standards and funding risks, c) bank strategies (SME lending focus), and d) remuneration practices. A unit responsible for internal control review, including operation of internal governance processes, has been created.

The recruitment of highly skilled individuals into banking supervision has continued. There has been heavy investment in all staff, including a) an assessment of internal processes, b) a mandatory four week induction programme for supervisors and c) the development of more advanced training modules due to be rolled out in 2011.

and supervision. To address these deficiencies, the EU has developed a new financial supervision framework for Europe. Part of this wider reform involves the establishment of the European Systemic Risk Board (ESRB) to address risks and vulnerabilities arising at the level of the system as a whole. The ESRB is responsible for the macroprudential oversight of the financial system in the EU.

Throughout 2010, the Bank continued to contribute to the preparations for the establishment of the ESRB. In early 2011, the first meetings of the General Board of the ESRB took place, attended by the Governor and the Deputy Governor, Financial Regulation.

The establishment of the ESRB will involve a significant increase in the scope and responsibilities of NCBs as they relate to macroprudential policy. NCBs play a central role in the ESRB, with NCB governors forming the majority of the voting members of the General Board. In addition to the Governor's role as a Member of the ESRB's General Board the Bank is also represented on the Advisory Technical Committee (ATC) – the Committee charged with providing assistance and advice relevant to the work of the ESRB – and associated Working Groups of the ATC. Active participation in the ESRB will require that the Bank and the Financial Stability division, in particular, further develop quantitative assessments of risk in the Irish financial system.

Financial Institutions Supervision

Supervision of Retail Credit Institutions

During the first quarter of 2010, work in this area was dominated by the execution of the first Prudential Capital Assessment Review (PCAR). This work commenced in January and was published on 31 March 2010. This stress test, together with the stress test performed in conjunction with the Committee of European Banking Supervisors (CEBS) is described in more detail on next page (see Stress Tests 2010).

The Bank also completed the PCAR engagements for Irish Life and Permanent and Anglo Irish Bank (Anglo) and these were published in September 2010. The PCAR work on Anglo was performed in conjunction with the Bank's input to the Anglo restructuring plan and the development of the joint State Authorities proposal to the European Commission.

In the second half of 2010, the focus was on a number of key developments in the markets, the execution and publication of a number of key supervisory themes and the implementation of revised supervisory structures as outlined in “Banking Supervision: Our New Approach” which was published in June 2010. Box 4 refers.

The decline in the Sovereign credit quality in the latter part of 2010, the inability of domestic credit institutions to raise new term funding and the maturity of €30bn of credit institution debt in September focused significant supervisory attention on the liquidity position of domestic credit institutions. As a result, the Bank developed additional contingency management, cash flow forecasting, collateral organisation and securitisation structures. In addition to enhanced supervisory actions, the conditions required the establishment of enhanced inter-agency frameworks both nationally and internationally. Leading from this work, a new Prudential Liquidity Assessment Process (PLAR) was developed and deployed in 2011.

Supervisory Reviews

A number of special reviews (supervisory themed inspections) were conducted since July 2010 across retail credit institutions and in selected wholesale banks that are involved in supplying credit to the domestic market. These reviews followed the themes set-out in *Banking Supervision: Our New Approach*, namely:

- » Mortgage Standards and Credit Risks (Focus: new mortgage lending).
- » Remuneration Practices.
- » Bank Strategies (Focus: Small Medium Sized firm strategies).
- » Governance and Risk Management.

The results of these reviews have been published in a determination to bring greater clarity to the work of financial supervision and to provide some insight into the performance of the credit institutions. This practice will continue in future years and further themes have been established for 2011.

The Bank has established and enabled cross organisational risk governance panels for each major credit institution and developed functional panels for credit and liquidity reviews on a cross institutional basis. Risk dashboards have been developed to focus reviews on key risks, performance and business models. In addition, the Bank has developed risk mitigation plans and deliverables for each credit institution and has been working closely with the institutions on the execution of agreed risk mitigation actions during 2010. The Bank has had a significantly more intrusive

supervisory process since 2009 that included ongoing, on-site supervision and attendance (in observation capacity) at selected board, audit, risk and credit meetings of the institutions. This has continued, but has become more risk and action focused, following the implementation of the structures outlined above. The number of man-days on site has fallen due to the reassessment of how the Bank should more effectively use its resources (see Table 1). There was more intra-governmental agency interaction and alignment, more analysis of information and data and more focus on specific areas of concern and risk.

Stress Tests 2010

On 30 March 2010, the Bank announced the results of an exercise to determine the forward-looking prudential capital requirements of certain of the Irish credit institutions covered by the Government Guarantee. The Prudential Capital Assessment Review (PCAR) process for Allied Irish Banks plc (AIB), Bank of Ireland (BOI) and EBS Building Society (EBS) was concluded on that date and the results of Anglo Irish Bank (Anglo) and Irish Life and Permanent plc (ILP) were published in September 2010. Table 2 provides summary information for both 2010 and 2011.

In addition, on 23 July 2010, the Bank published the results of a stress testing exercise carried out on AIB and BOI and coordinated by the Committee of European Banking Supervisors (CEBS). The results of the exercise demonstrated that AIB and BOI met the stress requirements having taken account of the capital to be raised as a result of the PCAR. The Bank used the latest available information on NAMA loan losses which at that point were the NAMA tranche 1 haircuts and were the same as those used in the PCAR. These haircuts were extrapolated to the rest of the NAMA eligible portfolio.

National Assets Management Agency (NAMA) Losses Update

Subsequent to the PCAR and CEBS stress test, it became apparent that the losses on loans transferred to NAMA would be greater than originally estimated by NAMA and as evidenced in the Tranche 1 transfers. This necessitated a further review of capital forecasts for the credit institutions in September. The intent of conducting this review in advance of the 2011 PCAR was to address the significance of these

ITEM 13

A document providing a summary or narrative of the general reasons why enforcement actions for breaches of prudential supervision by credit institutions were typically not taken, or powers not utilised, in three different periods (1992 – 2002, 2003 – 2010 and 2010 – 2013), this should include the decision making forums at which these decisions were typically taken and the roles typically involved in these decisions.

Introduction

We consider that the direction under item 13 can properly be interpreted by reference to the Bank's response to the directions under 12 concerning the Bank's approach to enforcement for the periods 1992 to 2003, 2003 to 2010, and 2010 to 2013.

For the period 1992 to 2003, we have undertaken a limited file review of board papers during each of 1992, 1995, and 2000 in an exercise to identify the Bank's general approach to enforcement action for breaches of prudential supervision by banks. Our searches under 12 for this period indicated the general approach of the Bank to this question was interactive engagement with individual institutions without recourse to formal enforcement procedures.

Following the Bank's detailed interaction with the Investigation Team in settling the directions, our focus during the period 2003 to 2010 has been on the application of administrative sanctions as the principal statutory innovation in the Bank's enforcement powers during that period.

Similarly, for the period 2010 to 2013, our principal focus is on the application of administrative sanctions by the Bank.

1992 – 2003

The Report on Banking Supervisory Practices (attached at Item 12; First Indent, Appendix 2) prepared by the Banking Supervisory Department in 1995 sets out the general approach to banking supervision adopted by the Bank.

The report highlights several aspects of the supervisory relationship that may help to explain the Bank's approach to supervision and enforcement during the period 1992 – 2003.

Objectives of Supervision

The Report notes in Section 2 that the overall objective of supervision is to protect stability of the banking system as a whole and to provide a degree of protection to depositors. The Report goes on to stress that the objective of supervision is not to prevent bank failure and any attempt to do so would be ultimately self-defeating. Rather, the purpose of supervision is to set parameters within which risk should be contained but not eliminated.

Current Supervisory Practice

In Section 3 the Report notes that the Bank's approach to supervision is in line with international best practice and is subject to continuous modernisation and adaptation.

The Report notes that the supervisory approach is interactive in nature and entails continual dialogue between the Bank and supervised institutions and highlighted the main components as follows:

- Regular collection and analysis of data
- Regular review meetings with management
- Ad-hoc meetings with institutions
- Approval of proposals on various matters
- On-site inspections

Early Warning Systems

The Report notes in Section 5 that a key part of the supervisory engagement is to carry out the standard supervisory practice discussed in Section 3, which is designed to identify and deal with issues before they become problems from a prudential viewpoint.

Section 5 goes on to note examples of issues which could signal developing difficulties within an institution:

- Excessively rapid growth
- Concentration of lending to borrowers or sectors
- Poor profitability
- Weak share performance
- Evidence of weak internal controls
- Indications of liquidity pressures
- Poor cost/income ratios
- Increase in arrears in bad debts
- Excessive diversification
- Diversification into areas in which the institution has insufficient expertise or understanding
- Evidence of inadequate planning
- Concentration of funding
- Off balance sheet risk taking which is not properly measured or contained.

Section 5 goes on to note that any institution displaying any of the above features is given increased supervisory attention which might include more frequent inspections, discussion at review meetings and ad-hoc meetings with management, as appropriate.

By its terms the Report highlights the process of supervision as being one of interactive engagement with the supervised institutions at a standard level for those institutions that were in compliance with the Bank's non-statutory quantitative and qualitative standards and requirements (first published in 1971); and for a more enhanced degree of interactive engagement for individual institutions showing early warning signs of developing difficulties.

There is no emphasis placed in the Report on the role of enforcement in the model of supervisory engagement by the Bank with supervised institutions.

Examples of Interactive Engagement

Based on a review of a sample of board papers during 1992, 1995, and 2000, we have not identified matters escalated to the Board where it was decided that it was necessary to pursue prudential breaches by credit institutions on a more formal basis other than through interactive engagement based on moral suasion.

The examples of supervisory engagements highlighted in 12, First Indent would appear to bear out this conclusion.

Powers of the Bank during the period

The Bank did not have the power to impose administrative sanction on credit institutions during this period.

The Bank did not have comprehensive powers to remove directors and senior management of credit institutions on the grounds of fitness and probity until 2010.

2003 - 2010

As noted in 12 above, the Bank's use of administrative sanctions in relation to breaches of prudential supervision by credit institutions was considered to be applied as an adjunct to the Bank's principles based approach to regulation. It was considered that administrative sanctions were most likely to be appropriate as an addition to the range of supervisory options for breaches of the Consumer Code, other consumer protection provisions and failures to comply with significant licence related and reporting requirements.

It was recognised by the Authority (see Item 12; Third Indent, Appendix 3 – final bullet point in extract of minutes) that there was a range of issues that could arise with entities subject to prudential regulation where administrative sanctions should not need to be applied to achieve compliance because the on-going prudential regulatory relationship would allow compliance to be achieved more efficiently.

2010-2013

The Enforcement Division of the Bank was established in June 2010.

Since its establishment in June 2010, the core responsibilities of the Enforcement Division are as follows:

- i. to take administrative sanctions procedure cases under Part IIIC of the Central Bank Act 1942;
- ii. advising on cases under the Market Abuse (Directive 2003/6/EC) Regulations 2005, the Prospectus (Directive 2003/71/EC) Regulations 2005 and the Transparency (Directive 2004/109/EC) Regulations 2007;
- iii. advising on and assisting with potential actions on fitness and probity grounds;
- iv. refusals of applications for, and revocations of existing, authorisations; and
- v. summary criminal prosecutions.

In order for the Enforcement Division to advance a case, the usual process is that the relevant supervisory division of the Bank (Banking Supervision in the case of suspected breaches of prudential rules by credit institutions) escalates or refers the case to the Enforcement Division. Following its establishment, the Enforcement Division developed a process to assist the supervisory divisions to make referrals. A designated Enforcement Relationship Manager ("ERM") was assigned to each supervisory division. Discussions are usually held between an ERM and representatives of the supervisory division where a potential referral is discussed. The objective of such early engagement is to make the referral of a matter to the Enforcement Division as efficient and effective as possible and to reduce the risk of supervisors dedicating significant resources to the investigation of matters that are unlikely to result in a successful referral. Cases are formally referred by the completion of

an enforcement referral document following which the relevant ERM presents the proposed enforcement case to the Enforcement Division Management. The Enforcement Division Management can accept a referral, reject a referral or accept a referral in principle pending some further confirmation.

Since June 2010, the Enforcement Division has accepted all referrals by supervisory divisions of suspected breaches of prudential requirements by credit institutions.

The process followed by the Banking Supervision Directorate in considering referral of a matter to enforcement is that an initial assessment would have been undertaken by the supervision team responsible for the institution, the outcome of which would have been discussed with the relevant deputy head or head of division. In the eventuality that it was concluded from this initial assessment that enforcement action was potentially appropriate the matter would be escalated to the Director responsible (i.e. through the weekly Banking Management Team (BMT) meetings) and potentially to the Supervisory Risk Committee (through escalation reports). BMT would then determine whether to seek enforcement action, by way of a referral to the Enforcement Division, or not.

Once a referral is made, the Enforcement Division conducts a rigorous forensic analysis of the suspected breaches. Following such forensic analysis the Enforcement Division may conclude that the suspected breach is not legally supportable and a case may not proceed. Such decisions are made in conjunction with Enforcement Division Management.

Since June 2010, the Enforcement Division has discontinued one accepted enforcement action in respect of suspected breaches of prudential requirements by credit institutions. This related to suspected contravention by a credit institution of the transaction reporting provisions of the European Communities (Markets in Financial Instruments) Regulations 2007. Following a forensic analysis of the submissions received from the credit institution in response to the issuing of a Notice of Examination by the Bank outlining the suspected contraventions, the majority of the suspected contraventions were found not to be factually and/or legally supported. Having considered the very limited number of remaining suspected contraventions it was decided that they were not sufficiently material to warrant enforcement action and would be dealt with by way of supervisory action. This decision was made in conjunction with Enforcement Division Management.

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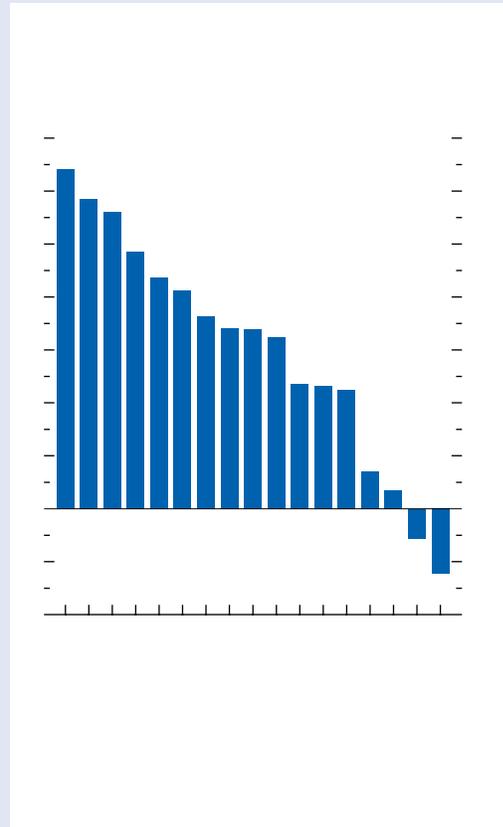
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Following a long and pronounced housing boom, several advanced economies have recently experienced symptoms of a cooling housing market (see Figure 1.6, lower panels). In real terms, house price growth has decelerated in many countries, and in a few of them—including the United States, Ireland, and Denmark—real house prices have fallen over the past year. As a share of GDP, real residential investment also has declined in several countries over the recent past, particularly in Australia, the United States, and especially Ireland, where it has fallen by about 3½ percentage points of GDP since its peak over the above years.

Which countries are most likely to experience a further slowdown in housing prices and residential investment? In this box, the vulnerability to a housing market correction is assessed based on the extent to which the increase in house prices in recent years cannot be explained by fundamentals, and second, the size of the increase in the residential investment-to-GDP ratio experienced during the past 10 years.

For each country, house price growth is modeled as a function of an affordability ratio (the lagged ratio of house prices to disposable incomes), growth in disposable income per capita, short-term interest rates, long-term interest rates, credit growth, and changes in equity prices and working-age population.¹ The residuals of the model—variables omitted from the model—for instance, macroeconomic volatility, household formation, and inward immigration—but could also be interpreted as a measure of overvaluation and, therefore, used to identify which countries may



be particularly prone to a correction in house prices.

The first figure shows the percent increase in house prices during the period 1997 to 2007 that is not accounted for by the fundamental drivers of house prices. The countries that experienced the largest unexplained increases in house prices were Ireland, the Netherlands, and the United Kingdom—by the end of the decade, house prices in these countries were 20 percent above what was predicted by fundamentals. A group of other countries, including France, Australia, and Spain, have house price gaps of about 20 percent. Based on this measure, the United States is among the middle-ranked countries in terms of vulnerability to a housing correction, partly reflecting the fact that U.S. house prices have already declined (as measured by the U.S.

Note: The main author of this box is Roberto Cardarelli. Gavin Asdorian provided research assistance.

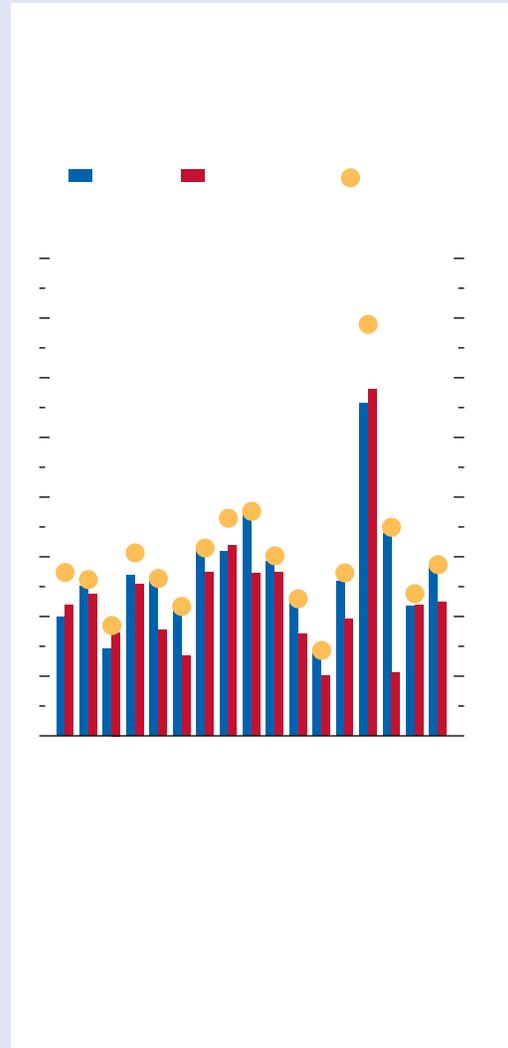
¹This updates a similar exercise presented in the October 2007

According to the Office of Federal Housing Enterprise Oversight, OFHEO, in the third quarter of 2007 real house prices were 2¼ percent lower than their peak at end-2006).

Therefore, the current house price gap might be expected to be corrected over time, a decline in nominal house prices is only one way for this adjustment to occur. Moderate inflation and support from the fundamental variables driving real house prices may also help close the gap over time. At the same time, negative changes in some of these fundamentals could increase the gap and require an even larger adjustment of house prices. In particular, downward revisions to income expectations and tighter credit conditions may put additional downward pressure on house prices.

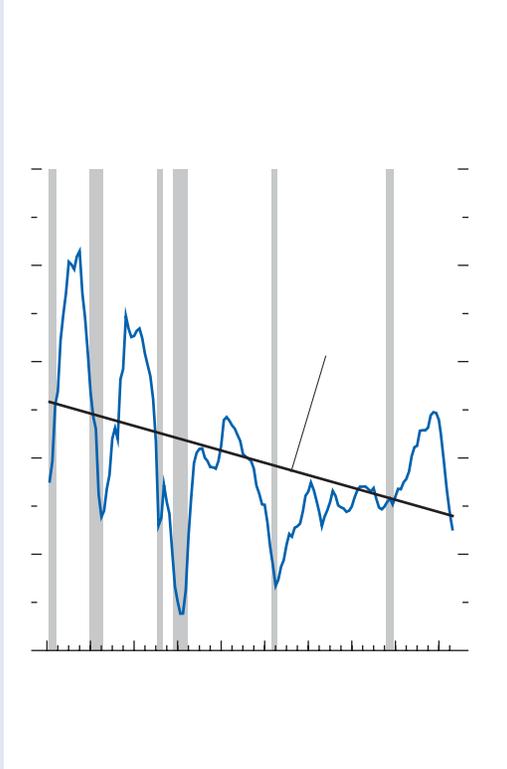
The ratio of residential investment to total output is a measure of the direct exposure of the economy to a weakening housing market. Residential investment, however, does not normally account for a very large share of the economy. Some notable exceptions are Ireland and Spain, where at the end of 2007 residential investment accounted for 12 and 9 percent of GDP, respectively, against an average for advanced economies of about 6½ percent (second figure). The relatively low GDP share of housing construction helps explain why the average contribution of residential investment to economic growth for the advanced economies over the past three decades has been rather low, at about 5 percent.

Still, very large corrections in housing construction may have a nonnegligible impact on economic growth. In the United States, for example, the 1½ percentage points of GDP decline in real residential investment since late 2005 lowered GDP growth by ¾ percent in both 2006 and 2007. Furthermore, as discussed in this chapter, residential investment appears to lead the business cycle in many advanced economies, and a softening of housing construction may be an important factor leading to a cyclical downturn.

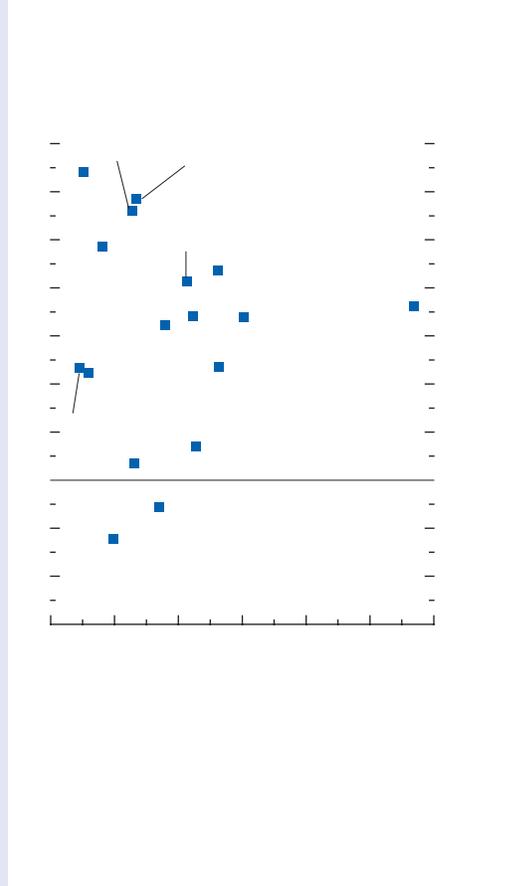


For these reasons, it may be of interest to assess the exposure of advanced economies to a softening in residential investment. Two pieces of evidence can be used to gauge a country's vulnerability to a decline in housing construction.

First, the residential investment-to-GDP ratio has been significantly above the historical trend in several economies at the end of 2007, especially Spain and Denmark, but also France, Italy, Finland, and Belgium (by about ¾ percentage point of GDP for the euro area) (see second



gure). In other economies, the residential investment-to-GDP ratio at mid- or end-2007 seems close to, or even below, the historical trend. In particular, the decline in residential investment since early 2006 seems to have taken the ratio back to trend in Ireland, the United States, and Australia. However, this does not mean that residential investment will not experience a further decline in these countries. As demand for housing cools and inventories build, a below-trend residential investment ratio may be necessary to bring the stock of housing back down to desired levels. Indeed, on average over the past three decades, cyclical downturns in the United States have seen residential investment falling by about 1 percentage point of GDP below trend (with a maximum of 2 percentage points in the recession of the early 1980s) (third gure). Hence, based on historical evidence and the still-high inventories of unsold homes, residential investment in the United States could



decline by another ½ to 1 percentage point of GDP in the coming quarters.

Second, there seems to be a positive association between the increase in residential investment over the past decade and the extent of Y f dV acZIV` gVcRf RZ_ 1Wf cœY gure). This suggests that countries that experienced the greatest exuberance in house prices also saw the largest acceleration in residential investment, as the supply of housing responded to the price signal. Residential investment in these countries thus may be more exposed to a further correction of house prices, consistent with fundamentals. Based on this approach, Denmark, Spain, and France appear to be the most vulnerable economies, whereas the United Kingdom and the Netherlands seem to be less at risk, because

they have not experienced as pronounced an increase in residential investment over the past decade despite the strong increases in house prices.

Many advanced economies have experienced a remarkably large and long-lasting run-up in their national housing markets in recent years. Nonetheless, housing market developments largely reflect the largely local nature of many factors affecting the demand and supply of housing. The importance of local factors means that the U.S. housing market correction need not necessarily presage corrections elsewhere. Neverthe-

less, the evidence suggests that similar pressures also exist in other national housing markets.

Countries that look particularly vulnerable to a further correction in house prices are Ireland, the United Kingdom, the Netherlands, and the United States. It is difficult to account for the magnitude of the run-up in house prices on the basis of those countries' fundamentals. Furthermore, a weakening housing market can also present a direct drag on growth from reductions in residential investment. Countries that witnessed the largest run-up in house prices also appear more vulnerable to this effect—in particular, Denmark, Spain, and France.

2006.¹³ The recently long data series, the sample period is split into two parts, from 1970 to the mid-1980s and from the mid-1980s to 2006, to examine changes over time.

Within the model, a monetary policy shock is introduced through a conventional recursive calibration scheme: short-term interest rates influence all other variables with a one-quarter lag, but they have an immediate effect on the term spread. A housing demand shock is introduced by combining the recursive calibration strategy with sign restrictions: that is, housing demand shocks have no contemporaneous effect on output and prices, and they move residential investment and house prices in the same direction.¹⁴

- On average across the countries considered, housing demand shocks account for a large proportion (one-fourth to about one-half) of

the observed fluctuations in residential investment and house prices (Table 3.4).¹⁵ This suggests that the housing sector tends to have its own distinct dynamics (see also Zhu, 2005). Moreover, these internal dynamics strengthened in the second subperiod, suggesting that the housing sector may have become a more important source of economic volatility over the past two decades than previously.

- The extent to which housing demand shocks explain fluctuations in the aggregate economy varies significantly across countries and over time (Figure 3.5). In the United States and Japan, housing demand shocks account for a share of between 20 and 25 percent of the variance in output (after eight quarters) in the second period, up substantially from the first period. By contrast, housing demand shocks in many European countries account for 5 percent or less of the variation in output. Interestingly, in countries where exogenous housing demand shocks play a more important role in shaping the housing market, these

¹³Equations for output, real house prices, residential investment, the short-term (nominal) interest rate, and the long-term interest rate spread over the short-term rate. See Appendix 3.1 for a description of the data used.

¹⁴This model is broadly similar to that recently estimated for the United States by Jarociński and Smets (2007). See Appendix 3.1 for further details on the methodology and results of the VAR.

¹⁵The combined effect of the other variables in the VAR—equations for output, interest rates, and the terms spread—accounts for the rest.

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
Minute of the Irish Financial Services Regulatory Authority	3 rd Q 2008

Mr x advised that bank Y repaid a significant amount in wholesale funding, which now has to be funded with the ECB. They have a limited amount of eligible assets available for pre-ELA funding and are arranging to make this amount available by the end of the week. Thereafter there appears to be no further available assets on Banks Y's balance sheet. Mr Z advised that they have breached liquidity requirement.

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R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

R2b - Nature and effectiveness of the operational implementation of the macro-economic and prudential policy

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
CBFSAI Board discussions relating to <ul style="list-style-type: none">• Macro-economic performance• Financial Stability Reports• Pre-Budget letters• Financial roundtable meetings with banks• IFSRA updates• Related economic reports	2004-2007

Financial Stability Report: 2004

- Staff of IFSRA contributed to the preparation of the report under the aegis of the joint Financial Stability Co-ordination Committee. The presentation of the report was noted as a good example of close cooperation between the two sides of the organisation.
- A presentation was made on the different methodologies used in assessing whether or not there was now a house price bubble in Ireland and the ability of the banking system to withstand a sharp fall in property prices.
- The Committee noted the following points:
 - interest rates were now determined by the ECB on a euro system basis.
 - credit growth was not a problem in the euro area as a whole however the Bank's capacity to restrict the rate of credit growth was very limited.
 - possible options on restricting credit growth were being considered but the Bank was not aware of any actions being taken by other national central banks in the Eurosystem which the Bank was not already taking.
 - the Bank continued to alert the industry and the public to the risks of excessive credit growth.
 - property prices were continuing to increase at an unsustainable level but there was no conclusive indication that a price bubble existed.
 - If prices continue to increase, however, the risk of a price bubble would become more acute.
 - a collapse in property prices would not only affect the quality of security for bank loans, it would also have widespread economic implications as the construction industry was now a very major component in the Irish economy.

Report on “Irish House price levels – A further perspective”: 2004

- This report, which was prepared for consideration of the CBFSAI Board by the Economic Analysis Research and Publications Department, compared House prices with 6 other European countries on 2003 level.
- While the report indicated that Ireland ranked as the most- or second-most expensive, and while attention was also put on other studies (Economist and IMF), the Board noted that the high level was in part explained by the strong rise in income.
- It was agreed that the Bank should undertake further work on the identification of data which might serve as an advance indicator of a weakening in demand and/or house price levels.

Pre-budget letters and budget: 2004

- The Board discussed the draft annual pre-budget letter. The draft contained the following statement: *"Fiscal policy could also play a role in smoothing the adjustment of demand for property by limiting its more speculative components. In this regard, it would seem appropriate, for example, to allow no further extensions to the termination date of mid-2006 for the range of tax driven incentive schemes for housing."*
- The need to limit overheating pressures to protect competitiveness was also mentioned. The letter included the following statement: *"In fact, a case could be made for a mildly restrictive stance in the context of full capacity growth."*
- Regarding the overall budget balance, a broadly neutral stance was being recommended. In reviewing the draft letter, it was agreed that the Bank should emphasise risks regarding the economic forecasts.
- The Governor advised the Board that he would issue the letter after meeting the Minister. Later in the quarter, the Board noted that the Governor had met the Minister for Finance before issuing the pre-budget letter.
- After the budget was announced, the Board discussed the budget outcome and it was noted that the advice from the Governor was not fully adhered to.
- Private sector credit growth was discussed but no recommendations were made to slow this down.

Autumn bulletin: 2004

- Regarding the content for the “Autumn Bulletin”, the Board had already addressed the risks to the housing market in some detail in the Financial Stability Report.
- It was agreed that further commentary on the housing market would be unnecessary and that commentary should focus on the broader economic perspective and outlook.
- Discussion on the content of the bulletin focused on the fiscal imbalances in the US rather than on the domestic problems with credit growth and house price inflation.

“Economist” Articles on the Irish economy: 2004

- A series of articles on the Irish economy, published by the ‘Economist’ magazine in October 2004 was discussed at Board Level.
- Emphasis of the discussion was on the positive aspects of the series.
- The minutes do not show discussion on the mention of the ‘property frenzy’ or ‘house price bubble’.
- The articles also highlighted a property crash as the most threatening risk ahead.

Financial Roundtable meeting with banks: 2004

- A Financial Roundtable meeting with banks was discussed and the impact of potential unemployment in the construction industry after a reduction of activity was being considered by the participants.
- Participants had included 11 credit institutions being represented by three senior personnel each, including in most cases Executive Board members. No names or bank names mentioned were specifically mentioned.
- The agenda included 4 presentations on various aspects of financial stability first, followed by a discussion on four broad areas:
 1. house prices,
 2. residential mortgage credit growth,
 3. stress tests and
 4. lending standards.

- The key risk was over-optimism with respect to the macroeconomic situation, by not taking sufficient account of downside risks. There was also the real danger that increased competition for market share would override prudential concerns.
- The DG of the CB stressed that the Bank's side fully shared the concerns expressed by the FR.
- Dangers for the banks were clearly laid out in the presentations. They included:
 - the need for prudent lending practices,
 - potential overvaluation of current house prices,
 - large sector concentration in property lending,
 - over-optimism regarding the macro economic situation,
 - strong growth in household lending and increased indebtedness of households,
 - potential contagion effects between banks in a shock scenario.
- The notes on the following discussion shows that banks were aware of the severe implications of falling house prices, the potential impact of the buy-to-let segment (higher volatility) and the real risk of a sharp downturn if double-digit house price increases continued.
- The banks recommended more realistic stress testing scenarios and offered their help to deliver this. This would include a series of events and measures with second-line effects from these.

IFSRA updates: 2004

- This update indicated that Property investment lending (61%) and Development lending (16%) were the main concentrations in the portfolio of Bank A.
- An internal sectoral limit of 20% was mentioned, but also that this was not in the credit policy in written form. It was also mentioned that no minutes were taken by the bank's Credit Committee, and that often advances were paid before all security was in place.
- The minutes for a meeting of the Financial Regulator from the following month showed that an answer was demanded from the bank, but no further action was taken.

- Minutes taken at an IFSRA Authority meeting which were discussed at the Board included the following on the draft FSR:

"The Authority discussed the credit levels and agreed the following course of action: -

- *the matter will be reviewed with Chief Executives of financial institutions at a roundtable meeting in September;*
- *institutions will be required to clarify the credit standards to apply to 100% mortgages;*
- *internal audit departments will be required to conduct an examination of compliance by financial institutions with their own credit quality standards;*
- *the options for the effective use of capital ratios to influence lending practices will be examined;*
- *the public communications strategy in relation to this matter will be reviewed.*

The Authority agreed that the critical issue in any credit institution's lending policy is the quality of its loan book and that this should continue to be the focus of our supervision.

Board discussions: 2005

Draft Financial Stability Report: 2005

- In relation to the comments included in the draft Financial Stability Report 2005, the Board noted that, in the absence of national control of monetary policy, it was particularly important that the Minister be fully informed regarding the Board's concerns when framing fiscal policy and the Governor will bring the issues to the attention of the Minister.

'Private Sector Credit in 2004': Allan Kelly

- At the start of the year, a reduction in house price inflation was expected, as house price inflation had slowed down for some months.
- The discussion focused on the strong rise of private sector debt and the increased external sources of funding of the banks, whereby there was no constraint which could act as a brake in their lending growth.
- The Board decided to continue to monitor, conduct further analysis and communicate with the banks.

Spring Bulletin: 2005

- A draft comment for inclusion in the Spring Bulletin 2005 noted the following on the importance of the construction sector:

"With the strong performance of the construction sector in recent times, this sector now accounts for nearly 12 per cent of total employment; this share is about 50 per cent greater than in most other developed countries. At some point, the share of construction in total employment will inevitably be reduced. It will be important to ensure as far as possible that this labour can be absorbed into other sectors of the economy without disruption."

"Regarding mortgage credit, although it appears to have peaked, it is still increasing very rapidly at about 25 per cent a year; this is some three times the increase in nominal disposable income. The easing of house price increases and somewhat reduced housing construction should, with a lag, contribute to a lowering in credit increases to a more sustainable pace. However, until there is some evidence of this, mortgage credit growth continues to be a matter of concern."

Financial Stability Report (FSR): 2005

- There was a Board discussion on the draft Financial Stability Report (FSR) for 2005 of potential actions to be taken by both the Authority and the Board in response to the risks outlined in the Report.

- It was agreed that further analysis would be undertaken of credit growth to assess whether *“there are grounds for serious concern”*.
- The Bank was to further examine the real risks to the system and to reflect its considered view in the published Report.
- In a later discussion of the final draft of the FSR, it was agreed that the tone of the published version of the FSR *“should not be too strident because fundamentals help to explain, to a significant extent, the developments to date but it was important to emphasise the risks going forward”*.
- It was confirmed that the Report would be published with a press conference and the Director General and the CEO of the FR would chair a further round table meeting with the principal lenders to discuss messages from the Report.

Crisis management exercise: 2005

- Participation in a crisis management exercise was discussed.
- The Regulator was concerned about fair treatment of banks with regard to some industry levies and regarding a fair and proportionate disclosure of an overcharging incident to the media.

Central Bank Strategic Plan: 2006-2009

- The Central Bank 3-year Strategic Plan was discussed in mid-2005.
- Key extracts from the Plan relating to CBFSAI responsibility are below:

"Use our economic, financial and monetary expertise, and our institutional independence, to influence other domestic policymakers; and ensure that other policymakers have the information and tools available, to take decisions on policies that support low inflation, growth and financial stability".

"The financial system has evolved as a more global, integrated and complex system. This has led to greater financial stability and risk management challenges for the Central Bank, including

- *managing and aiming to reduce economic, financial and operational risks;*
- *balancing the financial risks we are willing to bear on our investment assets, against the rate of return we are aiming for;*

- *developing crisis management procedures and business continuity arrangements, to be in a position to deal with major disruptions to financial activity or to the financial system".*

"We must take account of the economic and financial environment facing the Government in carrying out our responsibilities. These issues include:

- *Greater pressure on Government policies to be in a position to support growth and low inflation, now that monetary and exchange rate policy can no longer be used for Irish purposes;*
- *Pressures on the public finances, given Ireland's need for infrastructure development; and*
- *Balancing Ireland's growing responsibilities in the international community with the need to ensure the domestic economy is safeguarded."*

"Enhancing our crisis management procedures despite international best efforts to forecast and try to mitigate financial risks, crises can still occur. On those rare occasions, it is essential to deal with the damage caused as quickly as possible. We have developed a domestic crisis management framework and are also involved in developing the framework for the EU. We will continue to review and test these procedures, to ensure that they are well geared for dealing with any such events."

Household Mortgage Indebtedness: 2005

- A paper on household mortgage indebtedness examined whether the personal mortgages-related aspect of growing indebtedness was capable of being explained by developments in the macro economy and banking sector over recent decades.
- It also warned of potential risks from a deterioration of the 'fundamental driving forces'.

Steps taken to deal with Financial Stability Risks: 2005

A document outlined steps taken up to Q3/2005 to deal with Financial Stability Risks, as follows:

Macro-level:

- Publications – most importantly FSR,
- Roundtable discussions with banks,
- Stress testing,
- increase Consumer awareness;

Micro level:

- On-off site monitoring,
- specific measures around 100% LTV mortgages,
- meetings with CEOs of banks.

Financial Roundtable Meeting: 2005

- A Round-table discussion on areas of concern to the Bank from a financial stability perspective was held with representatives from eleven credit institutions on 20 September 2005
- An informal approach was adopted to elicit the institutions' views.
- Notes included survey results undertaken by the FR with all large banks.
- Discussion notes show that some banks expected further credit growth and saw the rate of growth underpinned by low interest rates and income levels. Similarly, regarding indebtedness [of households] there were arguments from the banks that this had some way to go, if low interest rates, rising income and favourable demographics continued.
- Overall, there was a "*greater variety of views about risks and the outlook than was the case at the roundtable in December 2004.*"

Pre-Budget letter and budget: 2005

- The letter commented on the macro-economic situation mentioning the high level and rapid increase in the private sector credit, and an expectation of a gradual decline in housing output, "*however, a more abrupt adjustment cannot be ruled out*".
- The letter recommended a limitation in any indirect tax changes in the 2006 Budget, and in its summary called for a prudent approach to the fiscal stance next year.

- An assessment paper of the budget measures announced later in the year mentioned in its conclusion that it pointed to relaxation of budgetary policy in 2006.

Board discussions: 2006

“Euro Area and International Developments”: 2006

- A Table showing Private Sector Credit Growth, Residential Mortgage Growth and Irish Contribution to Euro Area Money Supply (M3) was included in monthly reports “Euro Area and International Developments”, which were distributed before all CBFSAI Board Meetings.
- Private Sector Credit growth is shown as follows:

Year	%
2003	17.9
2004	26.6
2005	28.8
2006 ¹	28.2 – 30.3

- Similar numbers were reported for Residential Mortgage Lending Growth.

Property risks: 2006

- The Regulator briefed the meeting:
 - on proposals under consideration to increase the capital weighting for residential mortgages where the loan to value ratio of mortgages exceeds 80 per cent and introduce a more rigorous stress testing;
 - on the intent to introduce higher standards “in agreement with the Industry” without publicity as the Regulator would not wish the measures to unsettle the market;
 - that, from discussions with the chief lending institutions, the proposals did not appear to raise competitiveness concerns;

¹first 8 months of 2006

- that discussions would also be held with the Department of Finance before the measures were introduced.
- In a later meeting, it was noted that the Financial Regulator would convey the message to the market that the increase in the risk weighting on certain categories of mortgages should be seen as a relatively low key prudent measure targeted at a specific category of loans and not as an attempt to curtail the availability of credit for house purchases.

Macro economy: 2006

- The Governor had met with the Minister for Finance on the Board's views on the domestic economy and the international outlook in accordance with the established practice for periodic meetings.
- The Board considered the commentary for the Spring Bulletin, with inclusion of a risk of a sharp correction in house prices and rising ratio of personal debt to disposable income besides others.
- The Board discussed tax dependency on the house price boom which included the following considerations:

"the Exchequer is benefiting strongly from the booming construction sector and the large tax take from it. As indicated, the scale of this sector must contract in due course with a likely sizeable adverse effect on tax revenues".

"These developments have served to increase the economy's already high dependence on the health of the broad property sector to an extent that constitutes a significant risk."

- The Governor briefed the Board on a "substantive" discussion which he had with the Minister for Finance at which he had elaborated on the Bank's views on the economic outlook.

- The Governor briefed the Board that he would also be meeting the Taoiseach after the summer to discuss the economic outlook in advance of preparatory work on the Budget for 2007.

Report entitled “Is there a homogenous Irish Property Market?”: 2006

- The Board considered a report entitled “Is there a homogenous Irish Property Market?”
- The question addressed in the report was whether, based on historical experience of the property market, any fall in Irish property prices could be expected to occur across all segments simultaneously.
- Key findings included:
 - a high degree of correlation between all residential property types and residential locations;
 - the retail sector had grown at a relatively stronger pace in recent years by comparison with the office and industrial sectors;
 - while the correlation between retail and commercial property was smaller, statistics showed that significant correlation existed.
- On the question of publication, it was agreed that it was important to get the message conveyed in the Report across to lending institutions.
- Consideration would have to be given as to how this should be done as the Bank would wish to avoid provoking an “over-reaction” to the findings.
- It was agreed therefore that the message should be conveyed in the Financial Stability Report.

Interim Financial Stability “Update on Risks and Vulnerabilities” Report: 2006

- This document raised the alert on the financial stability risks from private indebtedness, re-accelerating house price growth and strong loan volume growth of the Irish Banks.
- It also raised concerns on the strong rise of loans to commercial property-related non-financial corporates, which had played a minor part in the commentary of former Financial Stability Reports to date.
- Liquidity issues were also raised:

"the funding gap continues to widen, suggesting that the risk of a country-specific shock could pose liquidity or refinancing risks for banks".

- The Board reviewed the assessment in the Draft Financial Stability Report in detail.
- It was agreed that the main issues identified in the Report were the key concerns and the issue would “increasingly arise” as to whether there was any further action which the Bank or the Financial Regulator can or should take to address the risks.

Pre-Budget letter: 2006

- The pre-Budget letter to the Minister for Finance was considered. While pointing out a number of specific risks, the letter ultimately recommended a "*broadly neutral Budget for 2007*".
- Domestic risks were outlined in the text:

"There are also a number of domestic risks, principally surrounding the housing market and the construction sector generally. The re-acceleration in house prices this year is a particular concern, as this upturn does not appear to have been driven by fundamental factors. It seems that a gap may now be opening up between actual prices and prices warranted by fundamentals. International observers such as the IMF and OECD have produced estimates of an overvaluation in the range of 15 to 20 per cent.

Another indicator that house prices are becoming overvalued is that, based on a debt-service threshold of 40 per cent of disposable income, an increasing proportion of potential buyers are being priced out of the market.

The weight of the construction sector in the economy has increased markedly over the last decade, accounting now for 13 per cent of total employment, an exceptionally high ratio by international standards. Allowing for indirect effects, it would seem reasonable to assume that currently about one in every five jobs is reliant on the construction sector".

"This points to the need for fiscal policy to avoid incorporating too optimistic a scenario for the construction sector and to target a sufficiently comfortable budgetary position to absorb any sudden downturn".

"Given that the overall price level in Ireland is 23 per cent higher than the EU average and inflation is once again significantly in excess of the euro area average, there is a strong economic argument that the forthcoming Budget should not be framed so that it will contribute to inflation".

"With the economy operating at around full employment, it would be preferable to avoid a pro-cyclical fiscal stance in 2007 - a message also conveyed in the recent IMF Article IV report on Ireland. A stimulus to demand can only heighten the risk of exacerbating inflationary and competitiveness pressures to the ultimate detriment of good economic performance."

IFSR Authority meeting: 2006

- It was confirmed that the Minister for Finance was to brief the Cabinet on the Authority's decision to increase risk weightings on mortgage loans and that the consultative panels were to be advised of the decision.
- The Minister's agreement was being sought not to levy the Industry with the Financial Regulator's costs in 2006 associated with the new Market Abuse Directive.

Board discussions: 2007

Macro-economy: 2007

- Discussion was held on the first fall in house prices and its potential implications for the economy, the Exchequer and employment.
- The price sensitivity of building land and potential impact on those who had large holdings in building sites was mentioned.

Draft Financial Stability Report: 2007

- The Draft of the FSR was discussed.
- The first sentence of this draft ended in an option to choose the preferred wording: *"The overall assessment is that financial stability risks have on balance [remained unchanged/very slightly increased] since the 2006 Report."*
- The following key points were raised:

"While this has reduced the vulnerability posed by the previous substantial increase in house prices, it increases the uncertainty regarding the future path of prices."

"Many commentators have cited arguments in favour of a sharp downturn, namely, the international evidence on house-price cycles, uncertainty over investors' participation in the property market as capital returns are eroded, the sustainability of current rates of immigration and the future direction of monetary policy as important issues. However, the evidence is not convincing on the likely negative impact of these factors. Furthermore, the underlying fundamentals of the residential market appear to be strong and the current trend in prices would seem not to imply a significant correction. The central scenario is, therefore, a soft landing. "

The 'tone' of the 2007 FSR report was discussed:

"Following the presentations, there was a detailed discussion on the content on the draft Financial Stability Report. The meeting considered that in the continuing turbulence and uncertainty in the financial markets since early August, the tone and comment in the Financial Stability Report will be of particular importance and sensitivity".

"Care should be taken to ensure that risks are set in context of the strengths of Ireland's strong economic performance and prudential environment."

- It was agreed that particular care should be taken to ensure that comment on risks are not liable to over-interpretation by the international and domestic media. In this context it was suggested that a Box entitled 'House Price Booms and Busts: the International Experience', could be over-interpreted.
- The fall in house prices was also considered:

"However, the evidence is ambiguous on the likely negative impact of these factors, the underlying fundamentals of the residential market appear to be strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft, rather than a hard, landing."

- International market turbulences were considered:

"The international banking system has been affected directly through losses on their US subprime assets and indirectly through holding of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. As is the case for banks worldwide, liquidity pressures in the interbank and commercial paper markets are likely to be an issue for the domestic banks. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity does not appear to have been much reduced by these events."

Liquidity: 2007

- The liquidity turbulences were discussed and the low level of interbank lending for longer periods (over one week) was noted.
- The meeting noted that the Bank had confirmed with the Irish banks that they had no shortage of collateral eligible for the ECB tenders. Accordingly, there was no reason to anticipate any requirement for emergency liquidity assistance.

Pre-budget letters: 2007

- The draft pre-budget letter to the Minister of Finance included an additional paragraph regarding the recent financial crisis:

"The forecasts for the year ahead are based on the premise that there will be limited effects from possible domestic or external shocks to the economy. In terms of the external environment, international conditions have been favourable reflecting robust growth in Ireland's main trading partners. It is too early to gauge the full impact on the real economy of the current uncertainties in financial markets, nevertheless the risk of a downturn in the international environment must be considered. While the direct impact on the euro area may be limited, there is scope for more of an effect in the US, thereby increasing the downside risks to global growth."

- House price inflation changes are reflected:

"Over the past year, there have been some important favourable developments in the domestic economy - in particular, the large increases in house prices that were apparent up to last Autumn are no longer evident. The levelling off and subsequent moderate decline in prices reflects a softening in demand due to higher interest rates. This development in house prices has been warranted in the light of already high price levels and the need for borrowing levels to fall back to more sustainable rates of increase."

"There is a risk, however, that an unduly large downturn in the housing market and the construction sector in general could have serious ramifications for the overall General Government position given the importance of property related tax revenues."

"In light of this and your recent statements, it would be appropriate that the rate of increase in current spending next year is kept in line with nominal GDP growth, a point that was also emphasised by the IMF in its recent Article IV report on Ireland."

"Over the past number of years, the growth in the property market has resulted in substantial windfall gains for the Exchequer, most of which appear to have been saved, which was prudent. This permitted a sufficient buffer in the public finances to be in place to cope with a more challenging economic environment. In the current climate, this buffer needs to be maintained, which would imply aiming for a small surplus in the public finances again in 2008. Limiting the growth of current spending would also enable continued development of the country's infrastructure to take place through the National Development Plan."

Six-monthly survey of business sentiment: 2007

- The survey showed a clear deterioration of sentiment:

"Of the more important results, businesses were generally much more pessimistic with regard to the outlook for the Irish economy. 63 per cent of respondents felt the outlook for the Irish economy was unfavourable, compared to just 23 per cent in the March Survey".

- Housing output was set to slow more rapidly than previously expected.
- Data from the Department of the Environment, Heritage and Local Government (DEHLG) indicated that there were approximately 56,000 units added to the domestic housing stock in the first three quarters of this year.
- While output looked set to slow towards the end of this year, the Bank was still expecting somewhere in the region of 75,000 completions this year.
- Very few developers, it was suggested by a major Dublin-based construction firm, had actually started any new developments in the last number of months.
- It was suggested that there were at present over 40,000 housing units unsold, with very little movement in the market.
- Some fall in overall house prices next year in the region of 10 per cent was expected. Some regions, however, would possibly experience greater falls than this.

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA)	2003/2004

- Supervision agreed at the November 2003 meeting to put in place an IFSRA Task Force to address issues of corporate governance and commercial lending that had arisen following discussions with former executives of an institution.
- The Board had not seen the results of this Task Force.
- It was reported to the December 2004 meeting that work had been completed on putting in place appropriate reporting of consolidated large exposures in another large bank.

- An IFSRA Update for the CBFSAI Board in May 2004 indicated that property Lending (61%) and Development Lending (16%) were the main concentrations in the portfolio of Bank A. An internal sectoral limit of 20% was mentioned, but it was also noted that this was not in the Credit Policy in written form. It was also noted that no minutes were taken by the bank’s Credit Committee, and that often advances were paid before all security was in place.
- Minutes of an IFSRA Meeting in the following month indicate that an answer was demanded from the bank but no further action was taken.

Document category	Time period
<ul style="list-style-type: none"> • Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	1H 2005

- Minutes taken at an IFSRA Authority meeting which were discussed at the Board included the following on the draft FSR:

"The Authority discussed the credit levels and agreed the following course of action: -

- *the matter will be reviewed with Chief Executives of financial institutions at a roundtable meeting in September;*
- *institutions will be required to clarify the credit standards to apply to 100% mortgages;*
- *internal audit departments will be required to conduct an examination of compliance by financial institutions with their own credit quality standards;*
- *the options for the effective use of capital ratios to influence lending practices will be examined;*
- *the public communications strategy in relation to this matter will be reviewed.*

The Authority agreed that the critical issue in any credit institution's lending policy is the quality of its loan book and that this should continue to be the focus of our supervision.

Document category	Time period
<ul style="list-style-type: none"> Minutes of a CBFSAI Meeting 	1H 2005

- The Regulator expressed concerns about fair treatment of banks with regard to specific industry levies and the fair and proportionate disclosure of an overcharging incident to the media.

Document category	Time period
<ul style="list-style-type: none"> CBFSAI Board Paper / Background Information - Actions Being Taken to Deal with Financial Stability Risks 	2H 2005

A document outlined steps taken up to Q3/2005 to deal with Financial Stability Risks, as follows:

Macro-level:

- Publications – most importantly FSR,
- Roundtable discussions with banks,
- Stress testing,
- increase Consumer awareness;

Micro level:

- On-off site monitoring,
- specific measures around 100% LTV mortgages,
- meetings with CEOs of banks.

“The CEO and some representatives of the Financial Regulator have a programme of regular meetings with the CEOs of credit institutions, which provides an opportunity to discuss any areas of development of the business which may be of concern, from both a regulatory and a financial stability micro perspective.”

The Director General, the Assistant Director General for Economics and the Head of Financial Stability also meet intermittently with the CEOs of the largest Irish credit

institutions to discuss both financial stability issues (from a more macro perspective) and any other issues of relevance."

Document category	Time period
<ul style="list-style-type: none"> Financial Roundtable Meeting 	2H 2005

- A Round-table discussion on areas of concern to the Bank from a financial stability perspective was held with representatives from eleven credit institutions on 20 September 2005
- An informal approach was adopted to elicit the institutions' views.
- Notes included survey results undertaken by the FR with all large banks.
- Discussion notes indicate that some banks expected further credit growth and saw the rate of growth underpinned by low interest rates and income levels. Similarly, regarding indebtedness [of households] there were arguments from the banks that this had some way to go, if low interest rates, rising income and favourable demographics continued.
- Overall, there was a "*greater variety of views about risks and the outlook than was the case at the roundtable in December 2004.*"

Document category	Time period
<ul style="list-style-type: none"> Minutes of CBFSAI Board Meetings 	1H 2006

- The Regulator briefed the meeting:

- on proposals under consideration to increase the capital weighting for residential mortgages where the loan to value ratio of mortgages exceeds 80 per cent and introduce a more rigorous stress testing;
 - on the intent to introduce higher standards “in agreement with the Industry” without publicity as the Regulator would not wish the measures to unsettle the market;
 - He indicated that, from discussions with the chief lending institutions, the proposals did not appear to raise competitiveness concerns;
 - that discussions would also be held with the Department of Finance before the measures were introduced.
- In a later meeting, it was noted that the Financial Regulator would convey the message to the market that the increase in the risk weighting on certain categories of mortgages should be seen as a relatively low key prudent measure targeted at a specific category of loans and not as an attempt to curtail the availability of credit for house purchases.

Document category	Time period
<ul style="list-style-type: none"> • Interim Financial Stability Report to the Board of CBFSAI 	1H 2006

- This document raised the alert on the financial stability risks from private indebtedness, re-accelerating house price growth and strong loan volume growth of the Irish Banks.
- It also raised concerns on the strong rise of loans to commercial property-related non-financial corporates, which had played a minor part in the commentary of former Financial Stability Reports to date.

- Liquidity issues were also raised:

"the funding gap continues to widen, suggesting that the risk of a country-specific shock could pose liquidity or refinancing risks for banks".

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	2H 2006

- The Board reviewed the assessment in the Draft Financial Stability Report in detail.
- It was agreed that the main issues identified in the Draft Financial Stability Report were the key concerns and the issue would “increasingly arise” as to whether there was any further action which the Bank or the Financial Regulator can or should take to address the risks.

It was confirmed that the Minister for Finance was to brief the Cabinet on the Authority's decision to increase risk weightings on mortgage loans and that the consultative panels were to be advised of the decision.

The Minister's agreement was being sought not to levy the Industry with the Financial Regulator's costs in 2006 associated with the new Market Abuse Directive.

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	1H 2007

- Discussion was held on the first fall in house prices and its potential implications for the economy, the Exchequer and employment.
- The price sensitivity of building land and potential impact on those who had large holdings in building sites was mentioned.
- The Draft of the FSR was discussed in a later Board Meeting.
- The first sentence of this draft ended in an option to choose the preferred wording: *"The overall assessment is that financial stability risks have on balance [remained unchanged/very slightly increased] since the 2006 Report."*

- The following key points were raised:

"While this has reduced the vulnerability posed by the previous substantial increase in house prices, it increases the uncertainty regarding the future path of prices."

"Many commentators have cited arguments in favour of a sharp downturn, namely, the international evidence on house-price cycles, uncertainty over investors' participation in the property market as capital returns are eroded, the sustainability of current rates of immigration and the future direction of monetary policy as important issues. However, the evidence is not convincing on the likely negative impact of these factors. Furthermore, the underlying fundamentals of the residential market appear to be strong and the current trend in prices would seem not to imply a significant correction. The central scenario is, therefore, a soft landing. "

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	2H 2007

The 'tone' of the 2007 FSR report was discussed:

"Following the presentations, there was a detailed discussion on the content on the draft Financial Stability Report. The meeting considered that in the continuing turbulence and uncertainty in the financial markets since early August, the tone and comment in the Financial Stability Report will be of particular importance and sensitivity".

"Care should be taken to ensure that risks are set in context of the strengths of Ireland's strong economic performance and prudential environment."

- It was agreed that particular care should be taken to ensure that comment on risks were not liable to over-interpretation by the international and domestic media. In this context it was suggested that a Box entitled 'House Price Booms and Busts: the International Experience', could be over-interpreted.
- The fall in house prices had been discussed in the 'Draft Executive Summary' of the FSR 2007, which was considered at this Board Meeting:

"However, the evidence is ambiguous on the likely negative impact of these factors, the underlying fundamentals of the residential market appear to be strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft, rather than a hard, landing."

- International market turbulences had been considered in the 'Draft Executive Summary':

"The international banking system has been affected directly through losses on their US subprime assets and indirectly through holding of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. As is the case for banks worldwide, liquidity pressures in the interbank and commercial paper markets are likely to be an issue for the domestic banks. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity does not appear to have been much reduced by these events."

Document category	Time period
<ul style="list-style-type: none"> • Minutes of the meeting of the Irish Financial 	2H 2007

- Members of the Authority discussed the lessons learnt from recent events in the financial sector and agreed further work was required on:
 - Communication of the role of the Financial Regulator
 - The relationship between authorised and other entities in the financial sector
 - Crisis management including relations and communications with other regulators
 - Role and accountability of independent directors

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c – Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Letter to a director of a large financial institution	June 2004

This letter refers to a meeting which took place in September 2003 and a follow up meeting February 2004 – A period of nine months elapsed between the meetings .The initial letter highlighted a number of significant issues including the inadequacy of Internal Audit, the substantial increase in the commercial loan book, the lack of progress in the review of commercial loan files, and the failure to segregate “front” & back office functions in Treasury.

CB Batch 5 USB25-0047.PDF Bates No. CB04023-001

Document category	Time period
<ul style="list-style-type: none">Auditors Management Letter	December 2003

The letter outlines the need to improve the processes for the granting and monitoring of commercial loans. This report and the regulator’s concerns

initiated a series of follow up activities. No action was subsequently taken by the regulator to curb lending activities.

CB Batch 5 USB26-0064.PDF Bates No. CB04166-001

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c – Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Letter to a director of a large financial institution	June 2004

This letter refers to a meeting which took place in September 2003 and a follow up meeting in February 2004 – A period of nine months elapsed between the meetings. the inadequacy of Internal Audit, the substantial increase in the commercial loan book, the lack of progress in the review of commercial loan files, and the failure to segregate “front” & back office functions in Treasury.

CB Batch 5 USB25-0047.PDF Bates No. CB04023-001

Document category	Time period
<ul style="list-style-type: none">Auditors Management Letter	December 2003

The letter outlines the need to improve the processes for the granting and monitoring of commercial loans. This report and the regulator’s concerns

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CB Batch 5 USB26-0064.PDF Bates No. CB04166-001

Document category	Time period
<ul style="list-style-type: none">Documents related to Commercial Property Lending Inspection of 5 banks in late 2007	4Q 2007 to 2Q 2008

- The FR Banking Supervision teams were asked to do an inspection in 5 different banks within a 10 day period. The focus was on ‘the ongoing credit management of a sample of Commercial property exposures’ from the top 20 exposures of the respective banks reported to the FR earlier that year.

Bates No. CB02669-001

- An internal FR report including initial audit findings of all five inspections was produced approximately 2 weeks after the audits took place. It gives a summary of all initial findings and relevant proposals for recommendations to the banks.

Bates No. CB04625

In Q1 2008, five letters were sent out to the banks, with general findings that applied to all of them, and specific findings per bank. In summary:

General findings (applying to all inspected banks):

- Institutions relied on confirmation from legal firms that security for loans was perfected. Given gaps in information on the overall indebtedness of borrowers [i.e. loans with banks or other lenders] institutions were asked if they were satisfied that there could be no other claims on the same security [property/land].
- The FR invited views on the perception of the banks, that

“a slowdown in residential development will not unduly affect large developers, as they have the financial capacity to postpone developments until the markets improved”.

Specific findings Bank A:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- File reviews not signed, reviews not evidenced by Group Risk or reviews not dated
- Valuation updates [of property/security] not on file, or only verbally confirmed or not documented

Bates No. CB02458

Specific findings Bank B:

- Adequacy of controls and risk management called into question
- The operation of the Credit Committee was a matter of concern
- The bank declined to provide copies of certain material when requested
- No reliable or independently verified or not updated information on overall indebtedness of borrowers
- No comprehensive reviews of exposures of connected groups of borrowers conducted on annual basis
- Credit reviews did not involve a review of documentation such as Audited Financial Statements etc

- Credit reviews not provided to Credit Committee
- Valuation updates [of property/security] not on file, or only verbally confirmed or based on management estimates
- Discrepancies on loans on 'watch list
- Problems with Credit Committee minutes and signatures

Bates No. CB04267

Specific findings Bank C:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- While individual exposures and exposures within sub-groups (based on shared security) were performed, there were no comprehensive reviews of exposures of connected groups of borrowers conducted on annual basis
- Specific questions on one case, where than bank had concerns over a number of general issues on a specific commercial property exposure

Bates No. CB04626

Specific findings Bank D:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- No reliable or independently verified or not updated information on overall group indebtedness of borrowers
- Effectiveness of the Credit Review process was criticised by the bank's own Group Credit Committee in 2 cases.
- Frequency of Credit Reviews were less than annual in some cases.
- In one case there was no valuation update [of property/security] performed

- The purpose of a large loan had been unclear to the relationship management team

Bates No. CB02675

Specific findings Bank E:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- No reliable or independently verified or not updated information on overall group indebtedness of borrowers
- While individual exposures and exposures within sub-groups (based on shared security) were performed, there was no comprehensive reviews of exposures of connected groups of borrowers conducted on annual basis
- Calculation of Net Worth was of concern in one case
- Connected exposure calculation was of concern in one case
- One exposure was not classified as 'speculative' although the respective loan financed a development site.

Bates No. CB04772

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2a - The effectiveness of the use of supervisory powers

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA)	2003/2004

- Supervision agreed at the November 2003 meeting to put in place an IFSRA Task Force to address issues of corporate governance and commercial lending that had arisen following discussions with former executives of an institution.
- The Board had not seen the results of this Task Force.
- It was reported to the December 2004 meeting that work had been completed on putting in place appropriate reporting of consolidated large exposures in another large bank.

- An IFSRA Update for the CBFSAI Board in May 2004 indicated that property Lending (61%) and Development Lending (16%) were the main concentrations in the portfolio of Bank A. An internal sectoral limit of 20% was mentioned, but it was also noted that this was not in the Credit Policy in written form. It was also noted that no minutes were taken by the bank’s Credit Committee, and that often advances were paid before all security was in place.
- Minutes of an IFSRA Meeting in the following month indicate that an answer was demanded from the bank but no further action was taken.

Document category	Time period
<ul style="list-style-type: none"> • Minutes of the meeting of the Irish Financial Services Regulatory Authority (IFSRA) 	1H 2005

- Minutes taken at an IFSRA Authority meeting which were discussed at the Board included the following on the draft FSR:

"The Authority discussed the credit levels and agreed the following course of action: -

- *the matter will be reviewed with Chief Executives of financial institutions at a roundtable meeting in September;*
- *institutions will be required to clarify the credit standards to apply to 100% mortgages;*
- *internal audit departments will be required to conduct an examination of compliance by financial institutions with their own credit quality standards;*
- *the options for the effective use of capital ratios to influence lending practices will be examined;*
- *the public communications strategy in relation to this matter will be reviewed.*

The Authority agreed that the critical issue in any credit institution's lending policy is the quality of its loan book and that this should continue to be the focus of our supervision.

Document category	Time period
<ul style="list-style-type: none"> Minutes of a CBFSAI Meeting 	1H 2005

- The Regulator expressed concerns about fair treatment of banks with regard to specific industry levies and the fair and proportionate disclosure of an overcharging incident to the media.

Document category	Time period
<ul style="list-style-type: none"> CBFSAI Board Paper / Background Information - Actions Being Taken to Deal with Financial Stability Risks 	2H 2005

A document outlined steps taken up to Q3/2005 to deal with Financial Stability Risks, as follows:

Macro-level:

- Publications – most importantly FSR,
- Roundtable discussions with banks,
- Stress testing,
- increase Consumer awareness;

Micro level:

- On-off site monitoring,
- specific measures around 100% LTV mortgages,
- meetings with CEOs of banks.

“The CEO and some representatives of the Financial Regulator have a programme of regular meetings with the CEOs of credit institutions, which provides an opportunity to discuss any areas of development of the business which may be of concern, from both a regulatory and a financial stability micro perspective.”

The Director General, the Assistant Director General for Economics and the Head of Financial Stability also meet intermittently with the CEOs of the largest Irish credit

institutions to discuss both financial stability issues (from a more macro perspective) and any other issues of relevance."

Document category	Time period
<ul style="list-style-type: none"> Financial Roundtable Meeting 	2H 2005

- A Round-table discussion on areas of concern to the Bank from a financial stability perspective was held with representatives from eleven credit institutions on 20 September 2005
- An informal approach was adopted to elicit the institutions' views.
- Notes included survey results undertaken by the FR with all large banks.
- Discussion notes indicate that some banks expected further credit growth and saw the rate of growth underpinned by low interest rates and income levels. Similarly, regarding indebtedness [of households] there were arguments from the banks that this had some way to go, if low interest rates, rising income and favourable demographics continued.
- Overall, there was a "*greater variety of views about risks and the outlook than was the case at the roundtable in December 2004.*"

Document category	Time period
<ul style="list-style-type: none"> Minutes of CBFSAI Board Meetings 	1H 2006

- The Regulator briefed the meeting:

- on proposals under consideration to increase the capital weighting for residential mortgages where the loan to value ratio of mortgages exceeds 80 per cent and introduce a more rigorous stress testing;
 - on the intent to introduce higher standards “in agreement with the Industry” without publicity as the Regulator would not wish the measures to unsettle the market;
 - He indicated that, from discussions with the chief lending institutions, the proposals did not appear to raise competitiveness concerns;
 - that discussions would also be held with the Department of Finance before the measures were introduced.
- In a later meeting, it was noted that the Financial Regulator would convey the message to the market that the increase in the risk weighting on certain categories of mortgages should be seen as a relatively low key prudent measure targeted at a specific category of loans and not as an attempt to curtail the availability of credit for house purchases.

Document category	Time period
<ul style="list-style-type: none"> • Interim Financial Stability Report to the Board of CBFSAI 	1H 2006

- This document raised the alert on the financial stability risks from private indebtedness, re-accelerating house price growth and strong loan volume growth of the Irish Banks.
- It also raised concerns on the strong rise of loans to commercial property-related non-financial corporates, which had played a minor part in the commentary of former Financial Stability Reports to date.

- Liquidity issues were also raised:

"the funding gap continues to widen, suggesting that the risk of a country-specific shock could pose liquidity or refinancing risks for banks".

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	2H 2006

- The Board reviewed the assessment in the Draft Financial Stability Report in detail.
- It was agreed that the main issues identified in the Draft Financial Stability Report were the key concerns and the issue would “increasingly arise” as to whether there was any further action which the Bank or the Financial Regulator can or should take to address the risks.

It was confirmed that the Minister for Finance was to brief the Cabinet on the Authority's decision to increase risk weightings on mortgage loans and that the consultative panels were to be advised of the decision.

The Minister's agreement was being sought not to levy the Industry with the Financial Regulator's costs in 2006 associated with the new Market Abuse Directive.

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	1H 2007

- Discussion was held on the first fall in house prices and its potential implications for the economy, the Exchequer and employment.
- The price sensitivity of building land and potential impact on those who had large holdings in building sites was mentioned.
- The Draft of the FSR was discussed in a later Board Meeting.
- The first sentence of this draft ended in an option to choose the preferred wording: *"The overall assessment is that financial stability risks have on balance [remained unchanged/very slightly increased] since the 2006 Report."*

- The following key points were raised:

"While this has reduced the vulnerability posed by the previous substantial increase in house prices, it increases the uncertainty regarding the future path of prices."

"Many commentators have cited arguments in favour of a sharp downturn, namely, the international evidence on house-price cycles, uncertainty over investors' participation in the property market as capital returns are eroded, the sustainability of current rates of immigration and the future direction of monetary policy as important issues. However, the evidence is not convincing on the likely negative impact of these factors. Furthermore, the underlying fundamentals of the residential market appear to be strong and the current trend in prices would seem not to imply a significant correction. The central scenario is, therefore, a soft landing. "

Document category	Time period
<ul style="list-style-type: none"> • CBFSAI Board Meeting 	2H 2007

The 'tone' of the 2007 FSR report was discussed:

"Following the presentations, there was a detailed discussion on the content on the draft Financial Stability Report. The meeting considered that in the continuing turbulence and uncertainty in the financial markets since early August, the tone and comment in the Financial Stability Report will be of particular importance and sensitivity".

"Care should be taken to ensure that risks are set in context of the strengths of Ireland's strong economic performance and prudential environment."

- It was agreed that particular care should be taken to ensure that comment on risks were not liable to over-interpretation by the international and domestic media. In this context it was suggested that a Box entitled 'House Price Booms and Busts: the International Experience', could be over-interpreted.
- The fall in house prices had been discussed in the 'Draft Executive Summary' of the FSR 2007, which was considered at this Board Meeting:

"However, the evidence is ambiguous on the likely negative impact of these factors, the underlying fundamentals of the residential market appear to be strong and the current trend in monthly price developments does not imply a sharp correction. The central scenario is, therefore, for a soft, rather than a hard, landing."

- International market turbulences had been considered in the 'Draft Executive Summary':

"The international banking system has been affected directly through losses on their US subprime assets and indirectly through holding of investments exposed to US subprime losses, from credit commitments to conduits/special purpose vehicles, and from a general disruption to business. As is the case for banks worldwide, liquidity pressures in the interbank and commercial paper markets are likely to be an issue for the domestic banks. However, the domestic banks report no significant direct exposures to US subprime mortgages and very limited exposures through investments and credit lines extended to other financial companies or special purpose vehicles. The domestic banks' shock absorption capacity does not appear to have been much reduced by these events."

Document category	Time period
<ul style="list-style-type: none"> • Minutes of the meeting of the Irish Financial 	2H 2007

- Members of the Authority discussed the lessons learnt from recent events in the financial sector and agreed further work was required on:
 - Communication of the role of the Financial Regulator
 - The relationship between authorised and other entities in the financial sector
 - Crisis management including relations and communications with other regulators
 - Role and accountability of independent directors

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
<ul style="list-style-type: none">• CBFSAI Secretariat Notes on all FR Update s discussed in CBFSAI Board Meetings in 2008	2008

The Board was updated by the Financial Regulator regularly in 2008. The minutes of a relevant meeting in the first half of 2008 include the following statement:

“The meeting stressed the importance of the boards of regulated institutions having contingency arrangements in place to address any adverse developments in in the current unsettled financial market conditions with particular regard to the implications of any downgradings by the rating agencies.

The potential systemic impact of substantial write-downs of asset values in loan books in coming years if economic conditions were to continue to deteriorate would be assessed.”

46



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Uimhir Thagartha: S180/20/10/0919

CRUINIÚ RIALTAIS

Dáta: 13/11/2007

Ábhar: Financial Markets Development

An tAire a thionscain: Oifig an Aire Airgeadais

Dáta an Mheabhráin: 13/11/2007

Cinneadh an Rialtais:

Noted the contents of the memorandum for information concerning Financial Markets Developments.



Ard-Rúnaí an Rialtais

Cóip curtha chuig: Oifig an Taoisigh, Oifig an Aire Fiontar, Trádála agus Fostaíochta, Oifig an Aire Comhshaoil, Oidhreachta agus Rialtais Áitiúil, Oifig an Aire Sláinte agus Leanáí

Oifig an Aire Airgeadis
Aide Memoire for the Government
Financial Markets Developments

1. Matter-Issue for Information

The Tánaiste is submitting this Aide Memoire, in accordance with his commitment to keep the Government informed of ongoing developments in the financial markets and their possible impact on Ireland. The Aide Memoire is based on the attached report of the Central Bank and Financial Services Authority of Ireland (CBFSAI) made to the recent meeting of the Domestic Standing Group on Financial stability, composed of the Department of Finance, the Central Bank and the Financial Regulator.

2. Background-Reason for Aide Memoire

There have been some improvements in credit market conditions. The actions of international central banks over recent months in providing liquidity to the marketplace and in cutting interest rates (Federal Reserve) or holding back on interest rates increases (ECB) have supported confidence. Disclosures by major financial institutions of their losses have reduced uncertainty. However, confidence remains fragile, financial market conditions remain volatile and the expected normalisation of wholesale lending market conditions has not taken place to date.

At an international level, there are continuing concerns regarding such issues as:

- undisclosed losses and incomplete information (exacerbated by the write-down of almost \$8bn by Merrill Lynch in its Q3 results, the CEO having previously announced a write down of \$5.5bn and an additional write down of up to \$11bn by Citigroup on top of a previous \$6.5bn write down)
- the state of the US property market and the lack of a policy response to its deterioration, and
- the slow progress achieved by initiatives to restore confidence (e.g. Superfund proposal by some major investment banks to buy up CDO assets and repackage them for sale to investors).

3. Interbank market

The level of activity on the wholesale interbank lending market remains low and wholesale interest rates that banks rely on significantly to fund their activities remain high. Accessing funding through this market is difficult and the approach of year end will introduce a premium for cash as banks look to close their positions, increasing the cost of liquidity above its already high level.

4. Irish Impacts

To date, these developments have not had any serious affects on the Irish domestic financial system over and above their international impact but a number of areas remain a focus of attention.

Domestic Irish institutions are financially sound with good quality assets and are well regulated. However, the general tightening of access to credit has required careful

attention to liquidity management and work on contingency planning is being undertaken by financial institutions (e.g. seeking to restructure asset holdings to ensure these can be used as collateral for credit). At various times of the year, banks 'roll over' their credit positions, leading to a certain 'lumpiness' (i.e. periods when relatively significant portions of debt have to be rolled over). Irish banks face such a period early in the New Year, which may coincide with what some expected to be a 'second-round' of serious funding difficulties in international markets.

Irish banks have a good name internationally and have an asset base that that can be used as collateral to access liquidity within the Eurosystem. However, more generalised concerns about the Irish economy and the exposure of banks to the property sector has resulted in Irish banks having to pay a premium in accessing liquidity, and share prices have been depressed (making them increasingly attractive for takeover). In this context and the current heightened sensitivity of the international financial system, recent reports of wrongdoing by lawyers in relation to borrowing, though the amounts are small in the overall context, have been unhelpful but are of a scale that there is no potential for any significant prudential concerns.

The domestic financial institutions do not have significant direct exposure to sup-prime lending, though a number of Special Purpose Vehicles (SPVs) are registered in Ireland. While the resolution of any difficulties these encounter is a matter for their parent organisations and the supervisory authorities, reputational risks for Ireland remain.

On the longer term economic situation, there has been recognition that global credit difficulties will have an effect beyond the purely financial realm, though it is too early yet to determine the full extent. Increasingly international commentators are factoring in that the increased cost and reduced availability of finance will spillover into lower economic growth internationally in 2008.

5. The Central Bank's Financial Stability Report

The Central Bank's annual Financial Stability Report will be published on Wednesday 14 November 2007. This report is a comprehensive and authoritative assessment of the state of financial stability in Ireland and is likely to give rise to significant public and media attention. The overall assessment of the Report is that financial stability risks have on balance increased since publication of last year's report.

On the positive side, the Report will welcome improvements with respect to some domestic risks. First, the upward momentum in residential property prices has abated, thus reducing the vulnerability posed by the previous substantial increase in house prices. House prices are now about 3.5 per cent lower on a year-to-date basis but this should be assessed against the gains in house prices in recent years. The underlying fundamentals of the residential market continue to appear strong. The central scenario is, therefore, for a soft, rather than a hard, landing. Second, the rate of credit growth has eased and the rate of accumulation of private-sector indebtedness has moderated accordingly. Although the current rate remains high by international comparison and increases the vulnerability of the private sector to income and interest-rate shocks, there are also important mitigating factors such as the sector's overall net worth and

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c – Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

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Document category	Time period
<ul style="list-style-type: none">Letter to a director of a large financial institution	June 2004

This letter refers to a meeting which took place in September 2003 and a follow up meeting in February 2004 – A period of nine months elapsed between the meetings The initial letter highlighted a number of significant issues including the inadequacy of Internal Audit, the substantial increase in the commercial loan book, the lack of progress in the review of commercial loan files, and the failure to segregate “front” & back office functions in Treasury.

CB Batch 5 USB25-0047.PDF Bates No. CB04023-001

Document category	Time period
<ul style="list-style-type: none">Auditors Management Letter	December 2003

The letter outlines the need to improve the processes for the granting and monitoring of commercial loans. This report and the regulator’s concerns

initiated a series of follow up activities. No action was subsequently taken by the regulator to curb lending activities.

CB Batch 5 USB26-0064.PDF Bates No. CB04166-001

Document category	Time period
<ul style="list-style-type: none">Documents related to Commercial Property Lending Inspection of 5 banks in late 2007	4Q 2007 to 2Q 2008

- The FR Banking Supervision teams were asked to do an inspection in 5 different banks within a 10 day period. The focus was on ‘the ongoing credit management of a sample of Commercial property exposures’ from the top 20 exposures of the respective banks reported to the FR earlier that year.

Bates No. CB02669-001

- An internal FR report including initial audit findings of all five inspections was produced approximately 2 weeks after the audits took place. It gives a summary of all initial findings and relevant proposals for recommendations to the banks.

Bates No. CB04625

In Q1 2008, five letters were sent out to the banks, with general findings that applied to all of them, and specific findings per bank. In summary:

General findings (applying to all inspected banks):

- Institutions relied on confirmation from legal firms that security for loans was perfected. Given gaps in information on the overall indebtedness of borrowers [i.e. loans with banks or other lenders] institutions were asked if they were satisfied that there could be no other claims on the same security [property/land].
- The FR invited views on the perception of the banks, that

“a slowdown in residential development will not unduly affect large developers, as they have the financial capacity to postpone developments until the markets improved”.

Specific findings Bank A:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
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Bates No. CB02458

Specific findings Bank B:

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- Credit reviews did not involve a review of documentation such as Audited Financial Statements etc

- Credit reviews not provided to Credit Committee
- Valuation updates [of property/security] not on file, or only verbally confirmed or based on management estimates
- Discrepancies on loans on 'watch list
- Problems with Credit Committee minutes and signatures

Bates No. CB04267

Specific findings Bank C:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- While individual exposures and exposures within sub-groups (based on shared security) were performed, there were no comprehensive reviews of exposures of connected groups of borrowers conducted on annual basis
- Specific questions on one case, where than bank had concerns over a number of general issues on a specific commercial property exposure

Bates No. CB04626

Specific findings Bank D:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- No reliable or independently verified or not updated information on overall group indebtedness of borrowers
- Effectiveness of the Credit Review process was criticised by the bank's own Group Credit Committee in 2 cases.
- Frequency of Credit Reviews were less than annual in some cases.
- In one case there was no valuation update [of property/security] performed

- The purpose of a large loan had been unclear to the relationship management team

Bates No. CB02675

Specific findings Bank E:

- Some Net Worth Statements missing or not independently verified or not updated with the consequence that overall indebtedness could not be relied upon
- No reliable or independently verified or not updated information on overall group indebtedness of borrowers
- While individual exposures and exposures within sub-groups (based on shared security) were performed, there was no comprehensive reviews of exposures of connected groups of borrowers conducted on annual basis
- Calculation of Net Worth was of concern in one case
- Connected exposure calculation was of concern in one case
- One exposure was not classified as 'speculative' although the respective loan financed a development site.

Bates No. CB04772



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

The Financial Measures Programme: 31 March 2011

Chapter

1. Foreword

2. Executive Summary

3. Detailed Results

3.1 *Loan loss assessment*

3.2 *Prudential Capital Assessment Review (PCAR)*

3.3 *Prudential Liquidity Assessment Review (PLAR)*

3.4 *Deleveraging Review*

Appendices

Glossary

1. Foreword

Loan losses, actual and prospective, associated with the collapse of the property market and the severe economic downturn, have weakened large parts of the Irish banking system and left the Irish-owned banks dependent on the State for injections of capital, and on the Eurosystem and the Central Bank of Ireland for liquidity.

The debt crisis of the peripheral euro area countries from mid-2010 was associated with reduced market confidence in Government securities and bank debt. Increasingly, wholesale deposits and bank bonds in domestic institutions began to be withdrawn on maturity, despite being protected by the Government guarantee.

Placing the finances of the banks and of the Government on a much more secure basis, and thereby reducing uncertainty, has become essential, as is recognised in the package of measures agreed as part of the EC-ECB-IMF agreement. The Financial Measures Programme, of which the first details are announced today, represents the banking element of this package.

The strategy implemented in the Financial Measures Programme intensifies existing policy by requiring asset sales, and a much larger increase in capital, sufficient to cover losses going well beyond what has been catered for before. These losses could only occur in an even more stressed macroeconomic environment than already prevails, and on aggressively conservative assumptions about the possible performance of the banks' loans under those conditions.

The Financial Measures Programme also defines a reduction in the size of the banks' overall portfolios sufficient to reach a more viable Loan to Deposit Ratio by 2013. In the first instance the banks have been required to identify segments of their business that are to be treated as 'non-core'. These portfolios will subsequently be disposed of – though avoiding fire-sale losses. This deleveraging will mean a lower need for bank borrowing. It will also help create a clean, appropriately-sized banking system that is in a position to provide new lending to support activities that are essential for economic growth.

In order to arrive at a stressed loan-loss estimate that is fully credible to the international markets, the Central Bank has engaged BlackRock Solutions, a leading specialist in analysing potential loan losses under stressed conditions. It has applied its international experience to the portfolios of the four main Irish-owned deposit banks. Its approach, which is regarded by the Central Bank as conservative, is explained in this paper. It must be emphasised that the lifetime, stress loan-loss estimates are not considered likely to materialise: they are merely an input designed to ensure that the associated capital requirements are fully convincing to the market as being sufficient to cover even extreme and improbable losses.

The Central Bank has made its decision on required recapitalisation based on the loan-loss projections of BlackRock, along with further calculations concerning the prospective income, expenditure, and deleveraging plans of the banks. The Central Bank is publishing extensive details of the information used in building the loan-loss and other estimates that have been used (except where prevented by law).

2. Executive Summary

2. Executive Summary

Background

The Financial Measures Programme (“FMP”) implements the Central Bank of Ireland’s obligations under the agreement between Ireland and the European Commission (“EC”), European Central Bank (“ECB”) and International Monetary Fund (“IMF”) (together referred to as the “External Partners”).

The Programme aims to place the Irish banking system in a position where it can fund itself and generate capital without undue further reliance on the Irish or European public sectors. The FMP comprises:

- **An independent loan loss assessment exercise** performed by BlackRock Solutions (“BlackRock”), the results of which have informed the calculation of capital requirements under the PCAR.
- **The Prudential Capital Assessment Review (“PCAR”) 2011**, an annual stress test of the capital resources of the domestic banks under a given stress scenario, undertaken in order to calculate the cost of recapitalisation required to meet Central Bank-imposed requirements.
- **The Prudential Liquidity Assessment Review (“PLAR”) 2011**, which establishes funding targets for banks participating in the PCAR in order to reduce the leverage of the banking system, reduce banks’ reliance on short-term, largely central bank funding, and ensure convergence to Basel III liquidity standards over time.

This report describes in detail how the FMP has been executed, and the results of this part of the Programme. The report refers to actions carried out in respect to Allied Irish Banks (“AIB”), Bank of Ireland (“BOI”), EBS Building Society (“EBS”) and Irish Life & Permanent (“ILP”). The FMP is a conservative, transparent, and validated approach to assessing the capital needs of the banks while developing effective deleveraging plans.

The basis for assessing capital requirements

The PCAR capital requirements are derived from three exercises:

- The results of BlackRock’s independent loan loss assessment exercise;
- The results of the PCAR 2011 stress test; and
- The outputs of the PLAR, in particular banks’ plans for deleveraging.

The three are complementary but separate.

The loan loss exercise measures the nominal losses banks might experience under the base and adverse scenarios, over both a three-year and a loan-lifetime horizon, stretching out to 2040. The base scenario is in line with EU forecasts for the Irish economy and the adverse (inter-changeably referred to as the ‘stress’) scenario represents an unlikely further economic contraction.

These losses are estimated from a bottom-up analysis of loan data. By definition the results of this exercise are severe as they do not take account of banks’ existing or future provisions, or future operating profit, and should therefore not be considered in isolation. The BlackRock-derived figures in this report should be read in this context.

The PCAR stress test is a top-down exercise which requires banks to model the impact of certain assumptions on their balance sheets and profit and loss accounts. While distinct from the EBA stress test, the PCAR incorporates much of the methodology and parameters used by the EBA. It is designed to be closely in line with the EBA stress test ensuring that required capital amounts under PCAR will satisfy EBA standards. Results of the separate EBA stress test of Irish banks will be published in June along with results from other European banks.

The PCAR stress test relies heavily on BlackRock’s assessment of forecast losses through to the end of 2013. For elements of the income and expenditure accounts, it relies, in part, on the banks’ own forecasts

based on Central Bank-specified parameters. Additional buffers to ensure sufficient capital to cover post-2013 events and other contingencies have also been included.

The PLAR is also a top-down exercise and requires banks to meet a range of target funding ratios. The central target is the Loan to Deposit Ratio ("LDR"), which has the explicit purpose of shrinking the balance sheets of the domestic banks. To achieve this target banks will be required to sell assets in a controlled manner between 2011 and the end of 2013. In doing so, they are likely to incur losses relative to book value. An estimate of these losses has been included in the overall assessment of the capital needs of each bank.

A conservative approach to bank capitalisation

Completing these exercises in combination has allowed the Central Bank to model both balance sheet and profit and loss dynamics in a transparent and conservative manner, offering robust reassurance to the market that the resulting capital requirements are based on credible stress modelling. Notably, the incorporation of incremental three-year provisions based on BlackRock-identified lifetime stress loan losses has resulted in a total recapitalisation requirement materially in excess of the stand-alone application of EBA minimum parameters.

The selection of capital targets further adds to the conservatism of the exercise, with the banks participating in PCAR 2011 collectively required to raise €24.0bn in capital in order to remain above a minimum capital target of 10.5% Core Tier 1 in the base scenario and 6% Core Tier 1 in the stress scenario, plus an additional protective buffer. This compares favourably with many banking systems in developed jurisdictions.

This Executive Summary describes: the process used to calculate the final capital requirements; how this requirement was impacted by three-year loan loss projections based on BlackRock forecast loan-life losses; how the exercise was conducted using conservative assumptions and parameters; the inclusion of an additional capital buffer; and, as a result, the final capital requirements calculated under the FMP. In addition, this section details plans agreed with the four institutions to deleverage their balance sheets, thereby beginning to 'right-size' the domestic banking sector.

The calculation method for the capital requirements

The final capital requirements are derived from a series of calculations which, at a high level, have required the following steps:

- The estimation of loan-life and three-year losses under the base and adverse scenarios – the BlackRock exercise;
- The modelling of the impact of these losses on balance sheets and profit and loss accounts; and
- The combination of these two steps to produce a capital requirement for each of the four banks.

The relationship between the first and second steps is essential to understanding why the 'raw' BlackRock loan loss estimates do not automatically translate into a capital number – in other words, there is not, nor could there be, a euro for euro translation of BlackRock's estimates into capital. This is because:

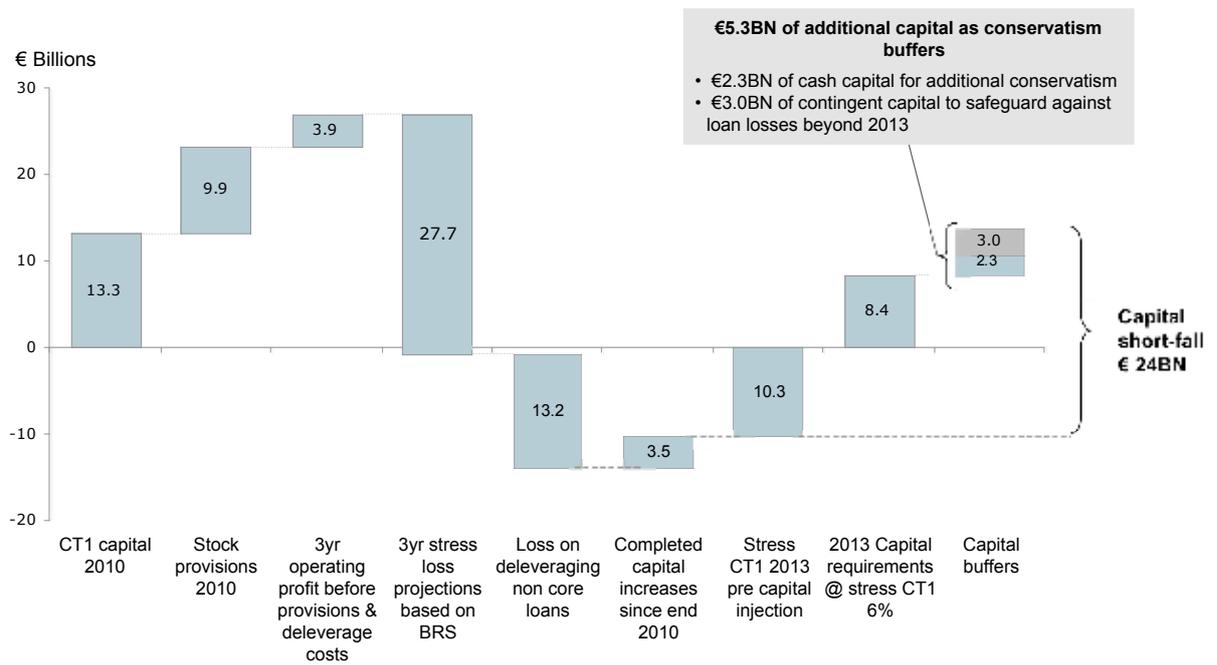
- Losses take no account of existing or future provisions or future bank earnings;
- Losses are calculated over both a three-year and a loan-lifetime basis and have not been discounted back to a present value; and
- The model reports losses in the period in which they are realised.

The link between the BlackRock loan loss assessments and the final capital requirement is made through a calculation of three-year projected losses, inter-changeably referred to as three-year forecast provisions. Provisions are the liabilities banks hold to meet losses. The translation of provisions into capital is a complex process, and although there are long established accounting standards to govern this process, it ultimately turns on judgements about the likelihood and size of losses. In interpreting the BlackRock loan loss estimates, the Central Bank has been careful to apply such judgements in a conservative manner, and have drawn on expert accountants to inform and validate these judgements.

The principal driver of these three-year projected loss calculations in the PCAR is the output of BlackRock's work. These three-year projected losses comprise:

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Chart 1: Process for calculating capital requirements



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Provisioning for potential future loan losses

The Central Bank's calculation of projected losses under the stress case ensures that banks will hold capital to meet potential future losses (even if they are to occur only in a severely stressed macroeconomic context) at an early stage. This goes well beyond provisions required under existing accounting standards.

The summary of the Central Bank three-year projected losses derived from BlackRock, equalling €27.7bn across the four banks, is detailed in Table 1, below:

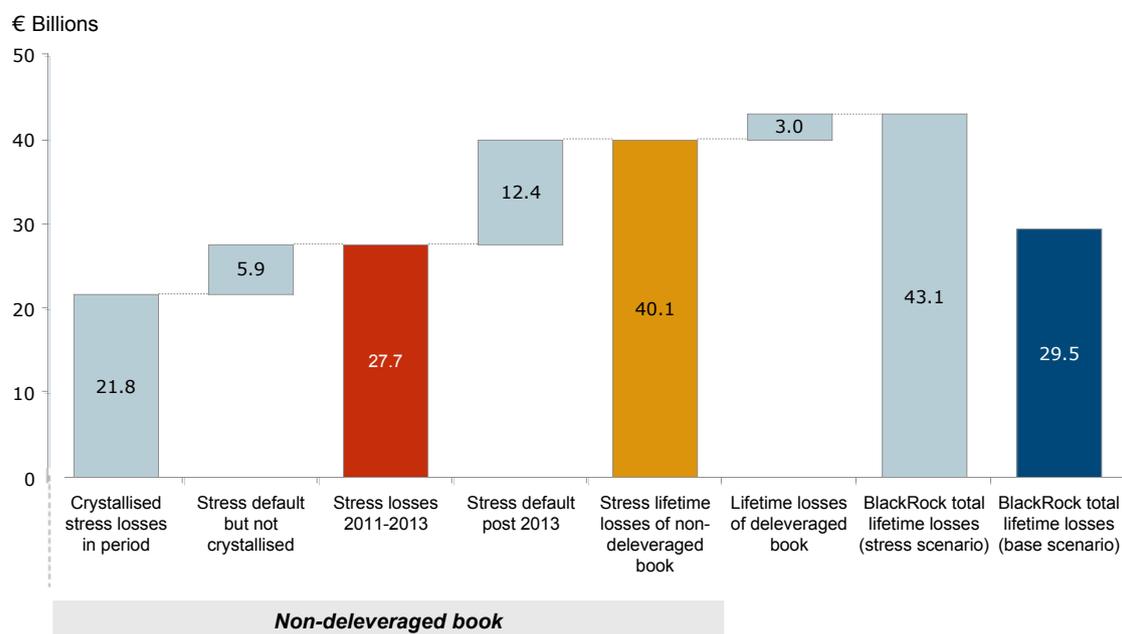
Table 1: Central Bank 2011-2013 projected losses derived from BlackRock and used for capital purposes (€m) - % of nominal portfolio loan balance

Product	AIB		BOI		ILP		EBS		Total	
	Base	Stress	Base	Stress	Base	Stress	Base	Stress	Base	Stress
Residential Mortgages	2,005 (6.5%)	3,066 (9.9%)	1,361 (2.3%)	2,366 (3.9%)	1,624 (4.8%)	2,679 (7.9%)	848 (5.3%)	1,380 (8.7%)	5,838 (4.1%)	9,491 (6.7%)
Corporate	564 (2.7%)	972 (4.7%)	799 (3.5%)	1,179 (5.2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1,362 (3.1%)	2,151 (4.9%)
SME	2,157 (11.2%)	2,674 (13.9%)	1,445 (8.4%)	1,837 (10.6%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3,603 (9.9%)	4,511 (12.3%)
CRE	3,653 (21.3%)	4,490 (26.2%)	3,148 (15.4%)	3,847 (18.8%)	231 (11.3%)	400 (19.5%)	127 (15.1%)	197 (23.4%)	7,159 (17.7%)	8,934 (22.1%)
Non-mortgage Consumer and Other	1,167 (20.8%)	1,403 (25%)	627 (11.5%)	891 (16.4%)	259 (15.6%)	342 (20.7%)	0 (0%)	0 (0%)	2,052 (16.1%)	2,635 (20.7%)
Total	9,545 (10.2%)	12,604 (13.4%)	7,380 (5.9%)	10,119 (8%)	2,114 (5.6%)	3,421 (9.1%)	975 (5.8%)	1,577 (9.4%)	20,014 (7.3%)	27,722 (10.1%)

The diagram below explains how the Central Bank used the adverse (stress) macroeconomic loan loss assessments from BlackRock to build appropriately conservative projected provisions for the banks. The Central Bank has, in total, taken 69% of BlackRock lifetime stress losses (after the impact of deleveraging) into the three-year period for the purpose of capital calculation.

There is no expectation that capital requirements should be set to cover remote lifetime stress losses (which may have offsetting income). However the capital buffers that are in place have been designed to provide comfort concerning post 2013 losses in the years immediately following the assessment period, as an additional layer of conservatism.

Chart 2: Process for calculating three-year projected losses derived from BlackRock projections used for capital purposes; and differences between three-year provisions and crystallised lifetime loan losses¹



Macroeconomic assumptions in the adverse scenario

The macroeconomic assumptions for the stress case are chosen in agreement with the External Partners.

Table 2: Summary of stress scenario macroeconomic parameters – Ireland (year-on-year figures)

	2010 ^e	2011	2012	2013
GDP	-0.2	-1.6	0.3	1.4
GNP	-3.0	-2.6	-0.2	1.2
Consumption	-1.4	-3.9	-1.3	0.1
Investment	-21.1	-11.3	-1.7	-0.3
Government consumption	-2.2	-5.5	-4.3	-2.4
Exports	5.7	2	2.1	2.5
Imports	2.3	-1.1	0.5	1.7
Balance of payments (% of GDP)	-0.9	1.6	3.1	4.3
Employment	-4.0	-2.5	-1.1	0.1
Unemployment rate	13.6	14.9	15.8	15.6
Inflation				
HICP	-1.5	0.1	0.6	1
CPI	-1.0	0.7	0.9	1
House prices	-15.5	-17.4	-18.8	0.5
Commercial property	-13	-22	1.5	1.5
Personal disposable income	-3.2	-3.9	-1.2	0.2

The adverse macroeconomic scenario applied in the Financial Measures Programme and summarised above is not a forecast. The actual macroeconomic outcome is expected to be more favourable than the

¹ The projected losses for loans defaulting post 2013 are, in part, included within the additional buffer detailed below. It should also be noted that the lifetime economic losses of the disposed books are accounted for as part of projected book losses on asset disposal.

stress case. In fact, given uncertainties in the current climate, it is improbable that either the base or the stress scenario will prove to be accurate across the macroeconomic indicators, but using the unlikely adverse scenario ensures that the capital basis of the institutions is appropriately stringent.

To ensure both clarity and consistency, the PCAR scenarios are to a large degree in line with the 2011 EBA stress tests on European banks.

The capital requirements

The consequence of applying conservative assumptions, and of setting demanding capital targets, is to require Irish banks to raise a significant amount of additional capital.

The table below presents the minimum amount of capital the banks will be required to raise, a total of **€18.7bn**, in order to meet the new ongoing target of 10.5% Core Tier 1 ("CT1") in the base and 6% CT1 in the adverse scenario, on the basis of the combined results of the three-year projected stress losses derived from BlackRock and the PCAR analysis, before the addition of a conservative capital 'buffer'. The detailed results of the PCAR are set out later in this report.

Table 3: Gross total capital requirements resulting from PCAR 2011 pre-buffer (€bn)

	AIB	BOI	EBS	ILP	Total
Total capital required 2011-2013 (gross) before 'buffer'	10.5	3.7	1.2	3.3	18.7

An additional capital buffer

In addition to these capital requirements, themselves based on cumulative stress three-year projected losses derived from BlackRock, the Central Bank has added a further capital 'buffer' of €5.3bn across the four banks. This introduces an extra layer of resilience, and recognises the possible, albeit unlikely, emergence of large losses after 2013. The buffer represents a further protective capital layer over and above already conservative provisions, which are themselves based on an even more stressed macroeconomic environment than currently prevails.

Box 1 – Capital Buffer

While the stress test is intended to cover net losses arising up to the end of 2013, it is also reasonable (due to a large legacy of problem loans) to plan that the banks have sufficient capital at end-2013 to meet further losses which, though not evident even then, could be embryonic in the legacy loan portfolio. The BlackRock calculations covering the full lifetime of loans can throw some light on what additional buffer, if any, would be appropriate for this consideration.

In this context, the lifetime loan losses calculated by the BlackRock model on the base case macroeconomic scenario come out close to the same number as the three-year loan losses used in the stress PCAR calculations. A first approximation could be to assume that it is the weakest loans that go into loss status first in the stress scenario, and that these are the same loans as create losses in the base case.

If so, it would be reasonable not to include any additional buffer for remaining embryonic losses in the legacy portfolio after three years of stress. A contrasting extreme case – clearly greatly overstating the situation – would be to assume that all of the losses calculated for post-2013 in the base case need to be added to the 3-year stress losses; a total of €7.5bn.

Besides, any such losses are spread over a quarter century, allowing a lot of time for provisions to be set aside out of normal profits in what would then be a recovered and downsized banking system operating in a non-stressed situation. The proposed cash buffer together with the deferred contingent buffer amounts are therefore ample to deal with this prospect. The capital injection for the buffer will be met partly through equity and partly through contingent capital instruments.

Table 4: Impact of additional buffer on bank capital requirements (€bn)

	AIB	BOI	EBS	ILP	Total
Capital required 2011-2013 pre-buffer	10.5	3.7	1.2	3.3	18.7
Additional capital buffer (equity) imposed by the Central Bank	1.4	0.5	0.1	0.3	2.3
Additional capital buffer (contingent capital) imposed by the Central Bank	1.4	1.0	0.2	0.4	3.0
Total capital required 2011-2013	13.3	5.2	1.5	4.0	24.0

Table 5: Central Bank estimate of impact of proposed capitalisation on current capital ratios

	AIB	BOI	EBS	ILP
CT1 Ratio (Dec 2010)	3.7%	9.0%	8.0%	10.6%
Pro forma CT1 ratio (assuming immediate capital injection) ²	21.9%	16.1%	22.6%	32.4%

A transparent approach to 'right-sizing' the Irish banks

A key component of the Financial Measures Programme is the establishment of transparent plans to reduce the Irish banking system to a manageable size and to stabilise its funding base. As of 31 Dec 2010, there were €255.6bn loans in AIB, BOI, EBS and ILP, and €142.1bn deposits – meaning an unsustainable Loan to Deposit Ratio (“LDR”)³ of 180%.

In the past, the gap between loans and deposits was met with wholesale funding. The loss of confidence in the Irish banks by wholesale lenders and corporate depositors resulted in a shortage of liquidity to re-finance maturing obligations and corporate deposit outflows. This precipitated the Irish banking crisis.

The Central Bank has agreed with the External Partners that a sustainable Loan to Deposit Ratio for the aggregate domestic banking system is 122.5%, meaning a surplus of some €70bn of loans. Deleveraging these loans will reduce dependence on wholesale funding and set the foundation for a sustainable banking sector. It will help to create smaller, cleaner banks that are capable of providing the new lending necessary to support economic activity in Ireland.

Consequently, the Central Bank has established target LDRs for each institution to achieve over time. The target ratios for 2013, and the amount of assets consequently designated for deleveraging (the run-off and disposal of non-core loans), is detailed in the following table.

² Capital injection includes equity buffer but does not include the contingency capital buffer. These figures include the impact of capital increases to date in 2011

³ The ratio of a bank's loans to customers, net of provisions, to its customer deposits.

Table 6: Total net loans; and deleveraging plans Dec 2010 – Dec 2013 (€bn)

Bank	Dec 2010	Dec 2013 target	Deleveraging 2010 - 2013 ⁴
AIB	86.9	67.5	19.4
BOI	115.3	82.7	32.6
EBS	16.4	11.5	4.9
ILP	37.0	21.3	15.7
Total	255.6	185.2	72.6

Banks will implement deleveraging plans agreed with the Central Bank in order to transition to smaller balance sheets and a more stable funding base. They will do this through the separation of assets into 'core' and 'non-core' divisions, and the gradual run-off and disposal, avoiding a fire-sale, of their non-core assets. There is no requirement on the State or the banks to aggressively achieve deleveraging to the point of creating fire-sale situations, as this would result in a significant unnecessary transfer of value to third parties, funded via State capital injections.

The deleveraging of the banking system will give rise to losses which will create a need for further capital. These amounts are included in the overall capital requirement figures (see Chart 1).

The Irish public authorities will collectively oversee the banks' implementation of these plans.

Providing transparency around costs and underlying assumptions

The total additional capital requirement (gross) for the four banks is €24.0bn. This is well within the €35bn provided for this purpose in the Programme agreement. There are measures to reduce the cost to the Government including planned asset sales and Liability Management Exercises ("LME"). These are dealt with separately in the Minister's statement today.

The Central Bank's policy of transparency and the detailed results of the Programme contained within this report seek to begin to re-establish confidence in the Irish banks and set out an appropriate path towards future sustainability.

A validated programme of reform

The validation of the Financial Measures Programme is important in this process of re-establishing confidence in the Irish banks. This work by the Central Bank was a key element of the Ireland's agreement with the EC, ECB and IMF. The stress test criteria and the terms of reference for the diagnostic evaluation of bank assets were developed in consultation with the EC, ECB and IMF at the end of 2010, and these institutions have since monitored progress in the implementation of the Programme.

The Central Bank also contracted international expertise to ensure that the stress testing, loan loss assessment and deleveraging plans set out within this report were subject to expert scrutiny and direction from independent specialists. In addition to this validation, the stress testing exercises have also been subject to a peer review from central bank regulatory colleagues in France and Italy.

In accordance with the FMP, Anglo Irish Bank and Irish Nationwide Building Society were not included in the PCAR and PLAR exercise because their loan books are being wound down. Appendix I provides a comment on these institutions in light of recent developments and the insights gained from the BlackRock assessment process for the four other banks.

The remainder of this report is organised as follows and includes details for:

- The loan loss assessment exercise performed by BlackRock, and the translation of these figures into three-year Central Bank loss forecast used for capital purposes;

⁴ Total asset disposals plus net change in loan assets (across core and non-core)

- The PCAR stress testing exercise, which was used to calculate capital requirements;
- The PLAR liquidity review performed by the Central Bank; and
- The deleveraging plans agreed with the domestic institutions in order to reduce their assets and 'right-size' the aggregate balance sheet.



BANK OF ENGLAND

Speech

The future of financial reform

Speech given by

Mark Carney, Governor of the Bank of England

Chair of the Financial Stability Board

2014 Monetary Authority of Singapore Lecture

17 November 2014

All speeches are available online at www.bankofengland.co.uk/publications/Pages/speeches/default.aspx

INTRODUCTION

It is now more than seven years since the first tremors of the earthquake that was to rock the financial system in 2008.

After the blood of the crisis, years of sweat and toil from authorities across the globe, and not a few tears from the financial sector, the job of agreeing measures to fix the fault lines on which the financial system had been built is now substantially completed.

The financial system today is vastly different from its pre-crisis self. That change didn't 'just happen': it is the intended, positive result of the G20/FSB reform agenda.

The Brisbane G20 Leaders' summit just completed was a landmark. The prudential requirements and supervisory framework for banks are largely settled. There will be adjustments, if necessary, but from a prudential perspective, banks now know what they need to do. It is now a question of implementation.

The result of the agreed reforms will be that:

The system is **safer**. Banks were woefully undercapitalised – many of the largest banks were levered 40 to 50 times. They are now much more resilient. As banking systems around the globe implement fully the new framework, a system that was built precariously on sand will stand more firmly on rock.

The system is **simpler**. Before the crisis, risks were hidden and financing chains were fiendishly complex. Banks were complacent, building business models on the belief that "this time is different" and assuming markets would be continuous and deep.

They were enthralled by models to the extent that every bank that failed or was rescued by the state reported on the eve of their collapse that it substantially exceeded the Basel risk-weighted capital requirements. Now, disclosure standards have been significantly improved, contingent exposures are on the balance sheet, essential wholesale markets are more reliable, and capital standards are more robust.

The system is **fairer**. Banks were in receipt of large public subsidies. In Brisbane we reached a watershed in ending too big to fail, with agreements to take forward proposals on total loss absorbing capacity for globally systemic banks. Globally systemic banks that fail will in future be resolved without recourse to the taxpayer and without jeopardising financial stability.

Does that mean the job of financial reform is complete?

No. Implementation must follow agreement. Our perspective cannot be only to look back. Just avoiding the repeat of past failures is not a recipe for success. Agreeing to measures to fix the fault lines is necessary and important, but not sufficient.

We must now consolidate our progress to build a financial system that can deliver strong, sustainable and balanced growth for all economies: large or small; advanced or emerging; home to large financial institutions or host to them.

Success would be a global financial system that maximises its full potential to ensure that:

- The payments infrastructure is efficient and reliable;
- Companies can access the working capital they need to operate;
- Liquid savings are transformed into long-term loans;
- Core markets function continuously to allow risks to be diversified and managed; and
- Capital is allocated efficiently across the globe.

Achieving these ends requires a financial system supported by three pillars: diversity, trust and openness. Building these pillars should be the focus of the future reform agenda.

A **diverse** system, with market-based as well as bank-based finance, can best support a wide variety of investment from infrastructure to SMEs that is necessary to create the jobs our citizens deserve.

A **trusted system** can retain its social licence to support the real economy in innovative and efficient ways.

An **open system** can avoid the risk of Balkanised finance, which would reduce the efficiency with which savings are matched to investment and lead to a global misallocation of scarce capital.

This is a daunting agenda and some might feel that, having apparently reached the finish line, the race has been extended. Indeed there will be inevitable calls by some vested interests to turn back.

To give in, to drop out, would be a tragedy.

The prize for running the longer race is great. By fixing the fault lines that caused the last crisis we have created strong foundations for a truly global financial system that can benefit us all. Now we must have the courage to seize that opportunity and build on those foundations.

Today I will refresh the case for financial reform and set out what I believe should be the drivers of the future reform agenda. But before turning to that next stage, allow me to take stock of the immense amount that has been accomplished since the crisis.¹

¹ A detailed progress report is contained in the FSB Chair's letter to G20 Leaders ahead of the Brisbane Summit. See FSB (2014b).

R2 - Effectiveness of the Supervisory Practice (Central Bank, Regulator and Department of Finance)

R2c - Adequacy of the assessment and communication of both solvency and liquidity risks in the banking institutions and sector

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
CBFSAI Board discussions relating to: <ul style="list-style-type: none">• Property Market• Financial Regulator update 25 Jan 2008• Corporate Governance• The Markets• Deposits	2007-2011

Document category	Time period
Supervisory inspections report	2007-2008

Property Market

Discussion on the property market and associated risks - the Meeting noted:

“the issue will increasingly arise as to whether there is any further action which the Bank or the Financial Regulator can or should take to address the risks. The risks to the property market and the very high component of economic growth accounted for by the construction sector together with the rapid rate of credit growth are increasingly problematic.

The meeting noted that the tone of the Report indicated an increased level of concern but that the system was still seen to be fundamentally sound and the central expectation is that there will be a gradual easing in the rate of increase in house prices.

The Financial Regulator is asking the banks to focus on the ability of borrowers to repay rather than relying on the security of highly priced property. There was also a focus on alerting consumers to the risk of accumulating debt taking full account of the risk of higher interest rates.”

Property Market

- The meeting noted Tony Grimes appointment as Director General Designate, to take job of DG after Liam Barron's retirement.

"The meeting recalled that, in the event of a property price downturn, the greatest exposure related to the price of building land. The response of significant holders of building land banks would be influenced by the extent of which they had outstanding borrowings."

Financial Regulator update

- A report was presented on the inspection of the Supervisory teams of large commercial property exposure in five banks - it was noted that there were some common problems:

- *" The difficulties in obtaining a full understanding of each Group's indebtedness. Certain developers are unwilling either to provide a net worth statement or to have such statements certified by a third party*
- *The frequency, manner, depth and documentation of the credit review process varies.*
- *All institutions are satisfied with the exposures and no provisions were considered necessary."*

Board discussion 2008

Corporate Governance, Risk Management and Internal Controls

- Comment from the FR with regard to long standing issues with Bank C:

"A letter was issued to the Chief Executive and copied to the Chairman of Bank C on 23 December 2008 setting out our requirements in relation to improving corporate governance, risk management and internal controls. The purpose of this letter was to summarise matters which have been of serious concern to the Financial Regulator and the subject of various supervisory action since 2004 and which have not been fully addressed."

The main requirements relate to:

- *The strengthening of the board and senior management team.*
- *The performance of the board and its sub-committees.*
- *The appointment of a non-executive director to the board of its deposit taking subsidiary "*

Board discussion 2009

The markets

- Comments on a transaction by Bank D
- Deposit movements between a number of Irish banks in relation to coverage under the Bank Guarantee:

"Notwithstanding the recapitalisation of Irish Credit Institutions, we do not propose to review our short selling rules at this time. We have advised the Department of Finance of our position and our approach in this regard is consistent with its perspective on the current environment."

Deposits

- A liquidity reporting error by Bank D to a significant value.
 - Further explanations and audit to be undertaken
 - Experienced treasurer to be hired.
 - The liquidity situation of the bank had deteriorated significantly
- Notes on substantial ELA funds drawn by Bank B, following confirmation of solvency by its Board due to perceived weaknesses in credit control process and security review.
- Discussion on issues regarding Bank F recapitalisation or take over through another bank.
- Director loan issues with Bank G (subsidiary of another large bank)

Supervisory Report on Inspections

- A report prepared on the review of the Implementation of Inspection recommendations during 2007 and 2008 that identified a number of problems with the quality of lending (and other) controls.