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 11

January 2016

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THEME: R3

Clarity and effectiveness of the nexus of institutional roles and relationships

LINE OF INQUIRY: R3a

Awareness and clarity of roles and accountability amongst the regulatory and supervisory institutions of the state

(47)

ADVISORY FORUM ON FINANCIAL LEGISLATION
Report of meeting 12 December 2007 and Action Points

Attendance
Attendance list attached as Appendix I.

Introduction
The Forum approved the minutes of the previous meeting.

Terms of Reference
The terms of reference were adopted. The Chair confirmed that the composition of the Forum reflects the community of stakeholders involved in the consolidation and modernisation project including employees.

Themes Paper
A detailed discussion of the "Themes" paper followed. The main strands that emerged from the discussion are summarised at Appendix II. The Chair indicated that the themes paper was intended to initiate a structured discussion on the macro issues facing the Forum in reforming the legal framework and to help define the overall direction it would take. This discussion, by its nature, will be constantly evolving and will be developed and informed in the context of the specific issues as they arise.

Working Methods
The Chair updated the Forum on his proposed approach to the establishment and composition of drafting groups in the main sectoral areas and the need for membership with deep specialist knowledge and expertise in each of the sectoral areas (see Appendix III and IV for further detail).

He highlighted the primary role of the Forum in relation to policy issues that emerge from the work of the drafting groups as well as the centrality of the consumer interest in all of the drafting work. It was agreed that the Funds Group and Securities Group ('securities' currently including all legislation in relation to intermediaries) would as their first task review and report to the Forum on the practicality of including funds legislation and market supervision legislation (i.e. Prospectus, Market Abuse and Transparency Directives) respectively as part of a single cross-sectoral bill. A different skill set may be required in the funds group if it is decided that funds are to be included in the consolidation. The Securities Group would also consolidate the legislation on MiFID and intermediaries.

It was noted that the Department of Finance was undertaking in Q1 2008 a review of the Consumer Credit Act (CCA) 1987 in consultation with the Financial Regulator taking into account the expected outcome of EU Consumer Credit Directive. This work would provide the Forum with an opportunity to examine the scope for the inclusion of the CCA as part of its work.

EU Proposals
The presentation highlighted key legislative developments at EU level that the Forum needs to be aware of in the context of the drafting process.

07/09

Dates of future meetings
16 January 2008 (Government Buildings). Tánaiste is expected to attend.
23 January 2008 (Arthur Cox, Earlsfort Centre, Earlsfort Terrace).

The project team will issue further dates for meetings to end March (possibly Wednesdays at fortnightly intervals).

Action Points

- Project Manager to send out schedule of meetings up to March.
- Members to remit to the project manager any changes to the Forum members' booklet.
- Chair to select co-coordinators and agree composition of drafting groups in advance of the next meeting with membership to be advised to the forum.

Appendix I - Attendance at Meeting

Forum

Pádraig Ó Ríordáin	Chair of Forum
John Cradden	Consumers Association of Ireland
Kieran Crowley	Small Firms Association
Muireann O'Neill	Nominee of the Minister for Enterprise, Trade and Employment
Larry Broderick	Irish Bank Officials Association
Gwen Harris	Society of St Vincent de Paul
William Beausang	Department of Finance
Vincent Madigan	Department of Enterprise, Trade and Employment
Joe Doherty	Central Bank and Financial Services Authority of Ireland
George Treacy	Financial Regulator
Damien Moloney	Office of the Attorney General
Bernard Sheridan	Financial Regulator
John O'Halloran	Irish League of Credit Unions
Paul Kierans	Dublin International Insurance & Management Association (DIMA)
Deirdre Somers	Irish Stock Exchange
Brian McNelis	Irish Brokers Association
Frank O'Dwyer	Irish Association of Investment Managers
Gary Palmer	Irish Funds Industry Association
Pat Farrell	Irish Banking Federation

Apologies and Alternate attendees

Alex Schuster	National Consumer Agency	John Maher (alternate)
Mike Kemp	Irish Insurance Federation	Paul McDonnell (alternate)
Aileen O'Donoghue	Financial Services Ireland	Brendan Kelly (alternate)
Diarmuid Kelly	Professional Insurance Brokers Association	Liam Carberry (alternate)

Project Team

Michael Manley	Project Manager
Karen Cullen	Project Team Member
Kevin Nolan	Project Team Member
Ciara Lonergan	Project Team Member
Jean Carberry	Project Team Member

Appendix II - Summary of main strands of the discussion on the Themes Paper

Themes Paper

- Proportionality is key to effective and efficient regulation

- The Forum should be mindful of scale/materiality when framing the legislation – i.e. one size does not fit all in regulation.

- Better Regulation principles will underpin the drafting of the legislation. However, the case for 'hardwiring' these principles into legislation requires careful consideration.

- Clarity regarding the definition and interpretation of each Better Regulation Principles would assist the Forum in its work.

- The Forum should adopt a principles-lead approach to the task. There are important differences and distinctions to be drawn between:
    - 'principles' to guide the drafting of legislation
    - 'principles' that might be considered as statutory objectives in legislation to guide the performance Regulator's statutory functions
    - 'principles' that are required as part of 'policies and principles' in legislation to provide a sufficient legal basis in primary legislation for the exercise of delegated powers; and
    - a 'principles based' approach to financial regulation as followed by the Financial Regulator

- Principles-based regulation focuses on outcomes not processes

- Simplification and improved accessibility of the legislative framework should be one of the major benefits of the project.

- Consideration should be given to the use of preambles to the proposed legislation similar to how such preambles are used in EU Directives. It may be helpful to include principles or other interpretative aids in this form.

- A risk-based approach should be integral. The Regulator at present has discretion to apply a risk-based approach to how legislation is implemented and this is an important flexibility and enables a responsive approach to new and unexpected developments. Accountability mechanisms overseeing this approach are important. The flexibility which a risk-based approach offers could be adversely affected by a legislative approach that strives for a high-degree of specificity in relation to regulatory principles.

- The group addressed the proposed 3 tier structure and drew the following conclusions:

– cross-sectoral harmonisation is desirable as far as possible

- the output must be a pragmatic and flexible system which both works now and provides the infrastructure for evolving regulatory and market needs

- the legislation must be legally robust should try to minimise opportunity for legal disputation and challenge

- secondary legislation cannot be made without the proper enabling powers in the primary legislation (i.e. 'policies and principles')

- it will be difficult at the outset of the project to draw a clear line between the level one (primary) and level two (secondary) provisions in the new framework

* It would be desirable for the proposed legislation to provide a robust structure for the implementation of further EU financial services legislation to the extent possible without the need for amending primary legislation

* A deliverable of this project could be an ongoing process for consultation underpinning development of further legislation at all levels.

* It is essential that a process supporting ongoing review and reform of financial services legislation is put in place so that the value from the consolidation and modernisation project is maximised.

* A practical benefit of the project could be a regular financial services bill.

Appendix III - Summary of main strands of the discussion on the Working Methods

Role of the drafting groups:

- The mandate of the groups is to draft the consolidated legislation. This needs to be done by specialists in the various areas.
- The cross-sectoral drafting group will pull together all the cross-sectoral issues for the Bill.
- The sectoral drafting groups – banking, insurance and securities subgroups will extract from the legislation what can be consolidated in each sectoral area
- The steering drafting group will co-ordinate the work of the sub-groups. It will be chaired by the Forum Chair, and will be made up of the coordinators of each sectoral group.
- Consumers will be represented on each subgroup by the Department and the Regulator.
- The appropriate group for non-deposit taking lenders legislation will require further consideration.

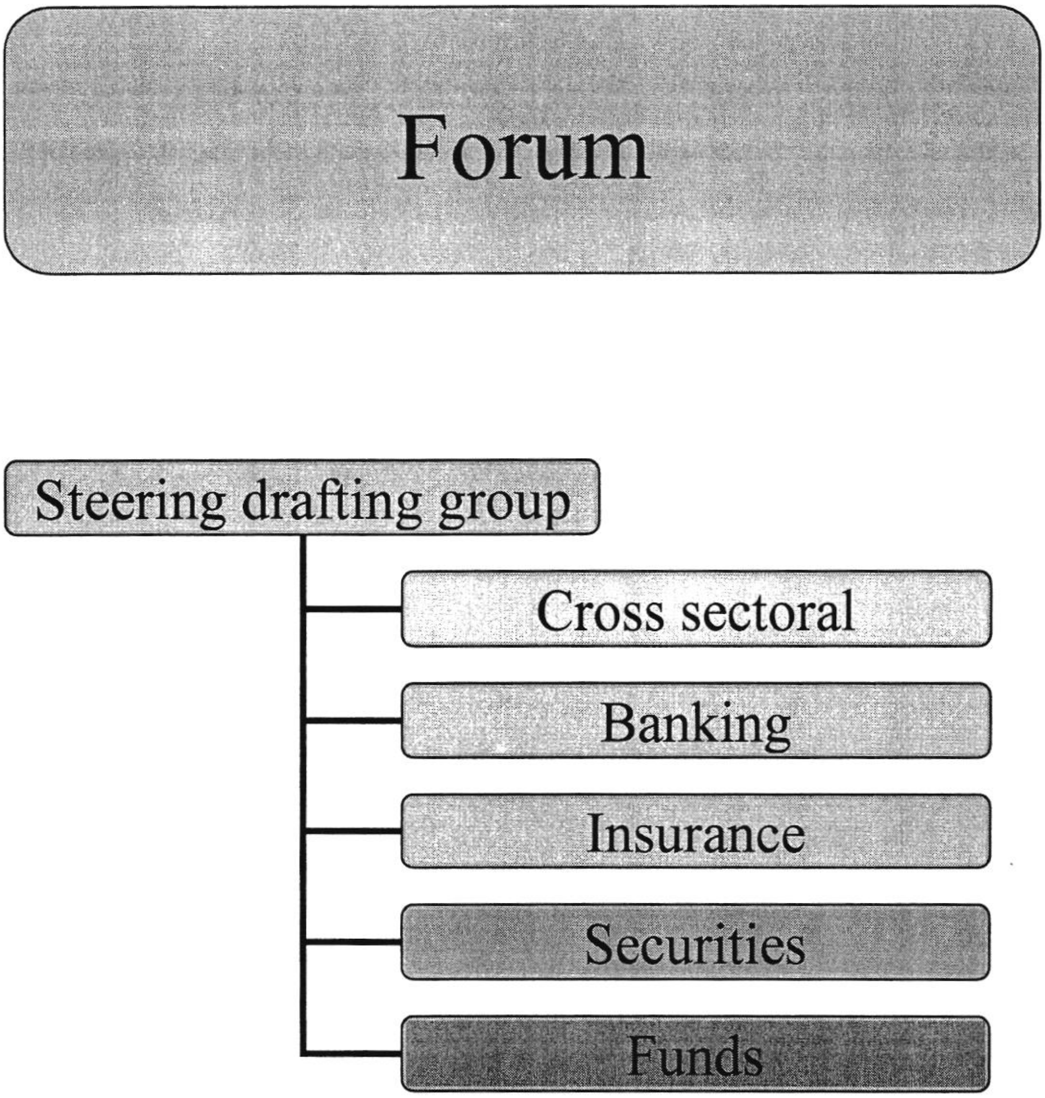
Composition of the drafting groups:
See Appendix IV below for proposed Group structure.

- 6-7 people on each group including in addition to the co-ordinator (senior, capable figure): Groups may differ depending on the extent of the work and skills they require but, in outline, may include a representative of the department and of the regulator, an in-house lawyer and an independent lawyer.
- Chair to approach potential co-ordinators before the next meeting. The participants in the subgroups should be technical experts in their area. The drafting work is completely voluntary and is expected to be very onerous.

At a later stage sub-groups of the Forum or of any of the drafting groups can be formed if the work requires. .

Appendix IV

Drafting Group Structure



R3a – Awareness and clarity of roles and accountability amongst the Regulatory/Supervisory Institutions of the State

Information Summary (Section33AK)

Note: All references are aggregated

Document Category	Time Period
Minutes of meetings of Financial Stability Committee and associated papers	2007 –2008

In Early/mid 2007 the minutes of the meetings identified the key risks to the banking sector identified as:

- High rate of credit growth
- Concentration in loan book
- Increase in funding gap
- Reduction in provisions
- Pressure on interest margins

In Mid-year the minutes indicate there was still a belief that the financial system was strong and resilient, albeit concerns were expressed over the residential property sector due the slowdown in house prices.

The minutes refer to ongoing work on a draft MOU on financial stability with DOF. Concerns were expressed over the confidentiality requirements of CBFSAI when sharing information with DOF as the latter is subject to FOI Act.

CB05546-001 CB05545-001 CB05542-001

In Late Summer 2007: the minutes recorded the first indications of potential liquidity stresses in Irish banking system after the disturbances in the US sub-prime markets.

However a DSG minute notes that;

"The domestic economy and banking system remain sound and there is no cause for alarm"

CB05567-001

By September 2007, the minutes indicate the FR has instituted weekly liquidity reporting requirements for banks.

CB05592-001 CB05538-001

In Late 2007 the minutes indicate that the emphasis in the FSC minutes had begun to turn to reviewing preparedness to deal with a possible financial crisis.

Liquidity and Crisis Management sub-groups begin active reviews of a range of issues including:

- Review of ELA procedures and processes for the 6 indigenous banks
- Potential for extending ELA to Credit Unions, local subsidiaries of foreign banks and Money Market Funds.
- Structure and effectiveness of Deposit Guarantee Scheme – reduction or elimination of co-insurance factor and increase in nominal ceiling.
- Detailed paper on legal considerations in a financial crisis.
- FSC input to a DOF scoping paper on significant issues relating to the options available to the Irish authorities in case of systemic threat to financial stability.
- A Desk Top Crisis Management Exercise performed to assess the preparedness of the existing crisis management procedures.
- The results of this exercise indicated the need for better communications between the DOF, the FR and the CB.

The minutes of the FSC indicate a growing belief that the liquidity crisis could persist through 2008.

CB05548-001 CB05539-001 CB05537-001

By May/June 2008 the minutes indicate concerns were being raised over asset price reductions in the Commercial Property markets. The minutes noted that Ireland had been identified by international experts as being one of several countries most at risk due to the highly leveraged nature of the investor base. (Others include Spain and Netherlands).

CB05650-001

In Early Sep 2008 the minutes of the FSC note that;

> *"The commercial property loan book (of the Irish banks) was found to be well diversified on a geographical and sectoral basis……(However) this diversification benefit may be offset somewhat by the potential increased co-movement between international property prices during a global adverse shock."*

In Late 2008 the minutes of the FSC summed up a number of conclusions and lessons from the liquidity crisis :

CB05629-001
CB05640-001

> *"Actions taken during the crisis had not adhered to crisis management principles as set out for example in the Crisis Management Manual (or black book). Rather actions taken had been primarily decided upon in small ad hoc meetings, usually between representatives of the Department of Finance, Central Bank and Financial Regulator. This reflected the fact that decisions usually needed to be taken at very short notice and previous plans had not necessarily appreciated the speed at which events would unfold"*

R3 – Clarity and effectiveness of the nexus of institutional roles and relationships

R3a - Awareness and clarity of roles and accountability amongst the Regulatory / Supervisory Institutions of the State

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
Financial Stability Co-ordination Committee minutes	2004 to September 2007
Financial Stability Review	2004
Follow-up points from first Crisis Simulation Exercise	2006

Financial Stability Co-ordination Committee (FSCC): 2004

- The Financial Regulator stated his concerns in relation to banks being blind to risks building in the banking sector and "euphoria" existing in property lending markets.

- He indicated his view the banks were not convinced that there was incipient risk building up in the banking sector.

- He proposed roadshows so that CBFSAI's concerns could be communicated to senior management and boards of banks.

- The Committee agreed that a co-ordinated work programme should develop the arguments underpinning the CBFSAI's concerns about stability. The Committee also agreed to follow up:

  - the stress testing exercise,
  - detailed analysis of the housing demand, and
  - a study of previous crises versus current conditions in Ireland.

Financial Stability Report 2004

- A number of risks to financial stability were highlighted in the report:
  - Irish banks growth rate 4 times that of European average
  - Irish banks accessing substantial funding from non-Irish sources
  - continued increase in house prices
  - tax policies in favour of home ownership

New Structure to Financial Stability Committee Meetings from 2005

- A new format was proposed for Financial Stability Committee Meetings from 2005 onwards.
- 4 broad content areas were to be covered at every meeting, namely:
    1. operational issues;
    2. briefings on the progress of the Financial Stability Report for the period in question and a review of any current emerging issues with a potential impact on Financial Stability;
    3. atypical projects including growing interbank lending exposures, development of early warning systems and long-term trends in banking and financial markets;
    4. miscellaneous items including discussions with banks.

First Crisis Simulation Exercise: 2005

- The first Black Book on crisis management was dated 2002. This was intended to outline the approach and methodology for crisis management in the event of a threat to financial stability.
- The first crisis simulation exercise took place in December 2005.
- Observations identified from the exercise:
    - There is a limit to what a principles-based regulator can deliver in a short timeframe detailing market knowledge and an informed current position on an affected bank's financial position.
    - A lack of clarity about the supervisory regime and the nature of information that would be available in a real crisis.
- This highlighted the need to take the following action:
    - Draw up a condensed action-orientated set of procedures to be followed in any crisis
    - Draw up a list with indicative information to be sourced in a crisis situation
    - Revise contact lists and logistical details
    - Update the Black Book, which was in reality not referred to in the exercise. This should be a reference manual which would contain

detailed background information and rationales for certain courses of action.

Response to 2005 ECB on survey of national financial crisis management procedures

- Response to survey sets out responsibilities of CBFSAI and IFSRA including a review of the instruments that these bodies can utilise in carrying out these responsibilities.

Financial Stability Co-ordination Committee (FSCC): 2006

- It was noted that the ratings agency Fitch had placed Irish banks on a lower-rated category for macro-prudential risks.
- This downgrade would discussed at the next Financial Roundtable.
- Potential content for the next FSR would include a review of the relationship between property and credit.
- In a consideration for possible dates on which to hold the next session of roundtable discussions with the banks, property related issues coming to the attention of the Central Bank were highlighted as being subjects to be included in those discussions. These issues included the current level of indebtedness of the property sector both in terms of commercial and residential property.

Financial Stability Committee (FSC): 2007

- In respect of bilateral meetings between the Prudential Director and the banks:
  - It was noted that increasing volume in trades from shortening in maturities could create strains in the financial system.
  - It was also noted that money brokers were more reluctant to lend to Dublin based institutions.

- A response to the Department of Finance in respect of a "scoping paper" on how the Irish authorities could deal with a systemic threat to financial stability was also discussed.
- Consumer issues in relation to the Deposit Guarantee Scheme were discussed.

- A sub-group of the FSC considered liquidity positions of the banks. This met weekly and towards the end of 2007 it was noted that all banks were actively seeking new liquidity sources. In discussions regarding the preparedness of the CBFSAI for the provision of Emergency Liquidity Assistance (ELA), it was noted that "it had been clarified that the Governor could authorise ELA."

R3a - Awareness and clarity of roles and accountability amongst the Regulatory / Supervisory Institutions of the State

Information Summary (Section 33AK)

Note: All references are aggregated.

Document category	Time period
ECB internal document on ELA including definition of ELA and allocation of responsibilities	1999
Financial Stability Co-ordination Committee minutes	February 2003 to September 2006
Financial Stability Review	2004
Follow-up points from first Crisis Simulation Exercise	2006

ECB policy on ELA: 1999

- Emphasis on Eurosystem speaking with one voice on financial crisis management procedures within the Eurozone.

Financial Stability Co-ordination Committee (FSCC): 2003

- The minutes of the FSCC indicated the Prudential Director proposed that the Head of the Banking Supervision Department should attend FSCC meetings in future. This proposal was agreed by the Board.

- At the same meeting it was also agreed that the Financial Stability Report should become a stand-alone publication, which would be published between the Spring Bulletin and Annual report (e.g. mid-April).

- The minutes state that the FSCC Working Group had met and would draw up a benchmark and alternative scenarios for the development of stress testing of the banks.

Financial Stability Co-ordination Committee (FSCC): 2004

- The Financial Regulator stated his concerns in relation to banks being blind to risks building in the banking sector and "euphoria" existing in property lending markets.

- He indicated his view the banks were not convinced that there was incipient risk building up in the banking sector.

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Financial Stability Co-ordination Committee (FSCC): 2006

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- This downgrade would discussed at the next Financial Roundtable.
- Potential content for the next FSR would include a review of the relationship between property and credit.

THEME: R3

Clarity and effectiveness of the nexus of institutional roles and relationships

LINE OF INQUIRY: R3b

Nature and appropriateness of the relationship between the Central Bank (including the Financial Regulator), Department of Finance and the Banking Institutions

File

Target

AIB/Bank of Ireland Meeting with CBI/FR re Irish Nationwide September7th 2008

Attendees:

AIB:	Colm Doherty, Eamonn Hackett, Donal Murphy, Finbarr Dowling
BoI:	Dan Donovan, Richie Boucher, Austin Jennings
CBI/FR:	Tony Grimes, Pat Neary, Con Horan, Bob O'Hara, Mary Burke
IN:	Stan Purcell, David Murray, Richard McMurtrey

Meeting 1: AIB and CBI/FR

The CBI/FR did not have any information regarding IN. They indicated that that wanted AIB to interrogate the IN liquidity position and ask any questions that we felt were relevant. This approach somewhat surprised AIB attendees. Message from the CBI was that there was negative news in the media and this entity must not be allowed to fail.

Meeting 2: AIB, BoI, CBI/FR and IN

We were asked to go into a meeting with IN management (SP, DM & RMcM) to ask questions as to their liquidity positions. Mary Burke of CBI/FR emphasised that she was there solely to facilitate this meeting. Again, AIB attendees were surprised at the stance taken by the Regulator.

Overall impression of IN management information was of poor quality with material data gaps and errors. Management did not have the answers to relatively basic questions regarding the legal status and repayment obligations on share deposit accounts and deposits accounts held in the Isle of Man and the ability of the depositor to call back these deposits..

The CBI/FR (MB) expressed surprise and requested further information from IN. It was a surprise to AIB that given that IN had been engaged in the normal liquidity reporting regime to the Regulator and had been in active dialogue with the Regulator for the previous day, these questions had not been asked and answered. The information was presented to AIB/BOI as a liquidity stress test; however, it became quickly apparent that this was not even a central case given the severity of events facing IN. The information provided also contained material omissions that impacted the analysis. This was particularly evident regarding Sterling deposits held in the IoM where there were no provisions made for any outflows in September and October 2008. They were requested to provide information on their liquid asset base maturity profile. They detailed their liquid asset base as primarily interbank loans and CD's of which €2bn was maturing over the next 5 days, however, the information was incomplete and did not reconcile to the overall total provided. They did not demonstrate a convincing grasp of either their liquidity position or the potential impact of recent and prospective events nor was their stress scenarios materially realistic. We requested much more detail over both the tenor and amount concentrations of their customer accounts. This information was not forthcoming at this time, nor indeed was it given at any stage during the day.

The numbers presented and the manner in which they were commented on by IN management did not give any confidence as to their credibility. It was clearly obvious that IN did not have proper stress test capabilities in a manner and to a level of detail expected of a well run financial institution.

Meeting 3: AIB/BoI initially, subsequently joined by CBI/FR (TG, PN, BO'H, and CH)

AIB & Bank or Ireland moved to a separate room to discuss this information. We concluded that IN had a potential funding gap of between €2 to €4bn if there was further negative news leading to a run. We could not be sure as to whether there would in fact be a run on the institution, however, it was clear (and agreed) that were it to develop it would be have a significantly negative effect on the Irish financial system.

It was also clear that there were two dimensions to the IN difficulties:

1) the immediate new driven issue with the potential to cause run and;
2) the longer term issue of an institution with a failed business model.

We would concentrate on the first impact. It was mentioned that based on a previous review of IN there was a potential loss on the total asset book of IN of between 30%-50% in the event of sale/liquidation. The Regulator questioned this and suggested that in their opinion the write-down would be 13% and would be covered by the current equity/reserve levels. There was a suggestion that the Regulator should consider putting the IN assets into a CMBS structure and providing liquidity against it. There was no response from the CBI/FR to this suggestion. It was at this time that AIB/BoI agreed that there were 2 potential solutions 1) nationalise IN or 2) AIB/BoI would provide funding to IN with a government guarantee (either direct or indirect) on the credit and that the authorities would provide AIB/BoI with the liquidity support. There was some discussion around an ownership transfer to a conduit type model. However, this presented specific additional difficulties and complications with regard to the IN EMTN programme and was not considered further. Furthermore, the banks had concerns around their debt issuers' attitude to AIB/BoI taking on credit risk on these assets in the current market environment. There were potentially also Rating Agency concerns (negative watch) were asset ownership to transfer.

IN (SP) interrupted the meeting to state that previous assumptions regarding the option to demand repayment of the IoM deposits was not in fact the case. Although this was a positive, it clearly demonstrated a fundamental lack of awareness of the liquidity dynamics of their position.

Meeting 4: AIB, BoI, CBI/FR (MB) and IN
There was no substantive improvement in the customer deposits or stress testing information and the meeting was inconclusive and only lasted a short time. This information remains outstanding.

Meeting 5: AIB, BoI, CBI/FR (TG, PN, CH, BO'H)
Discussion took place regarding information gained during previous meetings. CBI/FR asked us to go and consider whether this institution was worth saving from a depositors and a financial system point of view. He also asked us to explore what the lack of a government bail-out would mean. The banks reiterated that it was not a realistic proposition for either institution to provide unsecured funding for an entity that had a hole in its balance sheet which would exceed its reserves. Both institutions stated that if the Regulator insisted on an unsecured facility, we would be willing to bring the proposal to our respective Boards but the Executives involved could not recommend its approval. The meeting broke to allow each side reflect on the issues. Both AIB and BoI independently took the view that the CBI/FR was seriously ruling in the possibility of letting IN go as a realistic option. The CBI/FR mentioned that they would be contacting Finance to ascertain their position.

Meeting 6: AIB, BoI, CBI/FR (TG, PN, CH, BO'H)
Post lunch, CBI asked had the banks further developed our thinking. AIB/BoI in turn asked what progress the CBI/FR had made over lunch particularly in relation to their discussion with the Dept. of Finance. TG was unequivocal that there was no question of a guarantee from the state

forthcoming and he even questioned the power of the Minister to give such a commitment. The banks reiterated our position that we did not feel in a position to offer an unsecured facility. We again agreed to outline the CBI/FR's proposal to our respective Boards but emphasised that we would not be recommending such a proposal. PN responded by stating that if AIB/BoI provided this unsecured facility, then in the event of either of these banks getting into trouble as a result of providing that facility or from future liquidity market conditions, the Minister might possibly consider providing support. The Banks felt that at this stage the position of the authorities was quite explicit from TG and that there was little point in continuing the meeting. PN then stated that before breaking up, we should give serious consideration to "potential draconian consequences" that could arise if there was no unsecured facility provided. Both banks were shocked at the inappropriateness of this veiled threat given the circumstances of the discussion. BoI pointed out that the banks had rights under EU law that needed to be considered. Both banks stated that their individual priority now was to work on their own contingency plans and that they would be concentrating on explaining events to our International Debt Investors. BoI (DD) stated in the event IN was permitted to fail that they would characterise this to their debt investors as a rogue institution that was really a property development fund that got away with accessing retail deposits and that therefore it was appropriate that it be let fail. TG outlined that there would be potential follow up with the CEO and Chairmen of the respective banks.

File Note

Phone Conversation with Con Horan, IFSRA

Date: 9th September 2008 at 10.02am

Re: Irish Nationwide

Con indicated that the Financial Regulator (FR) wished to have a formal response on the decision of the AIB Board with regard to the FR request for AIB to advance committed unsecured loans of €2 billion to IN to "close out their file on the matter". I advised him that the Board of AIB had agreed to provide a committed loan of €2 billion to IN subject to two conditions namely:-

1) Direct / Indirect Government Guarantee; and
2) Provision of equivalent liquidity from Central Bank and/or NTMA.

I advised him that the Board concurred with Executive Management that we could not advance an unsecured facility given the absence of adequate collateral. The only visibility the Banks had on the value of the IN Loan Book was based on the Bank of Ireland due diligence. BOI opined the view that in the current economic climate they assessed the value of the write-down to the €10 billion of property development loans at between c. 30%-50%.

Con said that while the FR understood the AIB/BOI position they were disappointed with our response. He stated that the FR had understood from previous meetings with the Banks that they (AIB/BOI) would be willing to rescue a smaller institution e.g. IN/EBS.

I told him that I disagreed with the FR's take on the support which was discussed with AIB at the meetings I attended. I told him that both Eugene and I had indicated that in the event an Irish Financial Institution ran into difficulty that we would only have the liquidity/resources to support a small institution and could not engage with any support operation for Anglo.

Furthermore, I recounted the numerous times that we had impressed upon the FR (to no avail) the need to put the structure and terms of a support operation in place in the event of a worse case scenario occurring. Despite this, at no time, were the terms of a support operation discussed with AIB until Sunday September 7th.

We agreed amicably to hold our respective and differing views.

I gave Con my mobile number and in closing reminded him that that the structural funding problem in IN remained with us. He acknowledged this. The phone call terminated.

Central Bank & Financial Services Authority of Ireland

Financial Stability Report 2007

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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.

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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

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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 $4\frac{3}{4}$ per cent this year with a further decline to around $3\frac{1}{4}$ per cent in 2008. The corresponding projections for GDP growth in 2007 and 2008 are $4\frac{3}{4}$ per cent and $3\frac{1}{2}$ 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 $^1/_4$ 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.

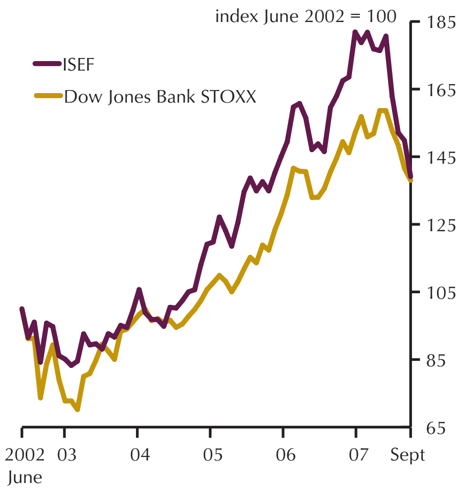
The domestic banking sector has minimal direct involvement in the Irish subprime residential mortgage market. The Irish market is characterised by limited mainstream banks involvement in the market, the relatively very small — albeit growing — size of the market and generally modest average loan-to-value 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.

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 test[1] 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 ½ of total liquid assets), holdings of debt securities (almost 1/3rd), balances with central banks and lending to governments. The value of borrowings includes borrowing from other banks (almost 1/3rd of total borrowings), and central banks as well as deposits from the non-government sector (almost ½). 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 (*ex-post*) to total assets (*ex-ante*)
	%
30% appreciation in euro *vis-à-vis* all foreign currencies	90.4
No change exchange rate	100.0
30% depreciation in euro *vis-à-vis* all foreign currencies	112.5
Special case:	
30% appreciation in euro *vis-à-vis* 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.

[1]For 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

PWC reported on the Anglo loan book – 13 billion land/development under way of which 700m unzoned; 4.5 billion zoned no planning; over 3 billion zoned with planning; balance incomplete development

Of the other 55 bn there was a broad mix of income generating assets.

It would be difficult for them to convert their loans to useful collateral, with the exception of an amount of around 2.2bn.

There was a discussion of various forms of state interventions. The FR (Pat Neary) said that there is no evidence to suggest Anglo is insolvent on a going concern basis – it is simply unable to continue on the current basis from a liquidity point of view. He felt INBS was in a similar situation.

D Doyle noted that Government would need a good idea of the potential loss exposures within Anglo and INBS – on some assumptions INBS could be 2bn after capital and Anglo could be 8½ .

Various intervention possibilities were discussed: 'Ordinary' liquidity support, SLS-type scheme, guarantees, nationalisation, bad bank approach.

A subsequent meeting took place to present conclusions and possible approaches.

Attendance:

Baldock & Prasath, Merrill Lynch
Pat Neary, Jim Farrell FR
Governor, Tony Grimes CB
Dan O'Connor PWC
Eugene McCague Arthur Cox
Attorney General
Taoiseach
SG to the Government
Minister for Finance, D Doyle, K Cardiff Department of Finance
CEO NTMA
J Corrigan NTMA
Basil Geoghegan (for a short part)

The issue and options outlined at the previous meeting were presented by KC who underlined the urgency of the situation. It was agreed that work would continue on the intervention possibilities outlined, and on preparing the relevant legislation.

PwC reported on the Anglo Loan book - 13 billion land/development exposures of which 700 m unzoned, 4.5 billion zoned no planning, over 2 bn zoned with planning, balance incomplete development

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D Doyle noted that Govt would need a good idea of the potential loss exposures within Anglo and INBS - on some assumptions INBS could be 2 billion after capital and Anglo could be 8½

Various intervention possibilities were discussed:

'Ordinary' liquidity support	SCG-type scheme	Guarantees	Nationalisation	Bad bank approach

A subsequent meeting took place to present conclusions and possible approaches

Attendance: Baldwin + Prosser, Merrill Lynch

Pat Neary, FR	Attorney General
Jim Farrell, FR	Min/Fin
Tony Grimes, CB	Taoiseach
D. O'Connor, PwC	Tanaiste
Cyril McGuire, A+L Goodbody	Sec Gen to Govt
	D Doyle, D/Finance
	CEO, NTMA
	J Corrigan NTMA
	K Cardiff
	Basil Geoghegan (for some period)

DOF01B01

DOF00906-002

DOF01B01

The issue and options outlined at the previous meeting were presented by KC who underlined the urgency of the situation. It was agreed that work would continue on the intervention possibilities outlined, and on preparing the relevant legislation.

Meeting of 26/9/08
→ different meeting

Merrill Lynch presented a menu of options – see document of 26/9/08

Attending: { BoI x3 = Prasuk, Baldock, Andrew Ortolli
Bob O'Brien
Con Horan
K Cardiff
D. Doyle
Minister

KC spoke – worst credit crisis ever
- need to keep a short cycle
- Fed Reserve has indicated it will guarantee deposits
- however, no. of situations where blanket guarantee may not add up having regard to numbers
- liquidity is moving very very quickly
- Ireland is not an isolated case – other Govts also seeking ML advice, for example

- Management teams tend to try to play out to the end, because Govt. intervention tends to change the team, the advisors etc.
- their indication therefore is to be over-optimistic
- But it can create difficulties to go in without being asked in

Presented a central scenario as follows
a) provide liquidity on 'good' terms – must not be easy money
b) intervention

difficulties – scale of intervention required
dangers with blanket guarantee – credibility and privileging of weaker institutions

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DOF00906-003

(45)

ADVISORY FORUM ON FINANCIAL LEGISLATION
Report of meeting 6 November 2007 & Action Points

Attendance
Attendance list attached as Appendix I.

Introduction to the Forum
The Chair welcomed the members to the first meeting, outlined the steps that had led to the establishment of the Forum by the Government and the importance of its work. He underlined the challenge of the task to be undertaken, the demanding timeframe and the commitment required of members. The Chair emphasised the importance of using the opportunity afforded by Government through the Forum for the wider community of stakeholders to contribute to the consolidation and modernisation of financial sector legislation on a voluntary basis.

Forum's working methods
The presentation attached (Appendix II) on this item was made by Michael Manley, the Project Manager for the Consolidation and Modernisation exercise.

Proposed Structure
The Chair briefed the Forum on his thinking on how the work can best be undertaken as follows:

- The Forum would have overall responsibility for the project as a whole including overseeing the cross-sectoral consolidation exercise and identifying, reviewing and making recommendations on key modernisation and simplification issues.
- A drafting steering group and sectoral specialised groups would be established to co-ordinate the technical assessment and drafting work involved in the preparation of the draft cross-sectoral legislation Bill and associated secondary legislation.

In a discussion of working methods the Chair confirmed that the Forum should remain primarily focussed on a thematic approach to the task and that a high degree of co-ordination will be required between the direction defined by the Forum and the underlying work of the technical working groups. He indicated that he believed technical working groups organised by reference to their sectoral expertise were necessary in order to unravel the extensive legislation currently in place and to help rebuild it on the basis directed by the Forum.

The Chair said that the end result is intended to be a cross-sectoral Bill supported by secondary legislation designed to address sectoral-specific issues.

Terms of reference of the Forum
The terms of reference were presented to the meeting for formal adoption at the Forum's next meeting.

Chairman's 'Themes paper'
The paper was circulated for discussion at the Forum's next meeting. The role of the paper is to help identify and stimulate discussion on the key elements of a cross-sectoral Bill.

07/11

Date of next meetings
12 December 2007 Government Buildings)
16 January 2008 (Government Buildings) - please note change of date

Action Points

- Terms of reference to be finalised at the Forum's next meeting
- Members to consider the different specialised sectoral groups that may be required and suitable nominees with appropriate technical expertise
- Members to review themes paper in advance of its (big-picture) discussion by the Forum at its meeting on 12 December.
- Project Manager to prepare an AFFL membership booklet.

Appendix I - Attendance at Meeting

Forum

Pádraig Ó Ríordáin	Chair of Forum
Alex Schuster	National Consumer Agency
John Cradden	Consumers Association of Ireland
Kieran Crowley	Small Firms Association
Muireann O'Neill	Nominee of the Minister for Enterprise, Trade and Employment
Larry Broderick	Irish Bank Officials Association
Gwen Harris	Society of St Vincent de Paul
William Beausang	Department of Finance
Vincent Madigan	Department of Enterprise, Trade and Employment
Joe Doherty	Central Bank and Financial Services Authority of Ireland
George Treacy	Financial Regulator
Damien Moloney	Office of the Attorney General
Bernard Sheridan	Financial Regulator
John O'Halloran	Irish League of Credit Unions
Mike Kemp	Irish Insurance Federation
Paul Kierans	Dublin International Insurance & Management Association, (DIMA).
Deirdre Somers	Irish Stock Exchange
Diarmuid Kelly	Professional Insurance Brokers Association
Brian McNelis	Irish Brokers Association

Project Team

Michael Manley	Project Manager
Karen Cullen	Project Team Member
Kevin Nolan	Project Team Member
Ciara Lonergan	Project Team Member

Apologies

Frank O'Dwyer	Irish Association of Investment Managers	
Gary Palmer	Irish Funds Industry Association	
Aileen O'Donohue	Financial Services Ireland	Brendan Kelly (alternate)
Pat Farrell	Irish Bankers Federation	Eimear O'Rourke (alternate)

PRICEWATERHOUSECOOPERS

Memo

To: / Location:	Bank of Ireland -File
From:	Chand Kohli
Date:	26 November 2009
Re:	Telephone Call with Tony Grimes – Director General of the Central Bank of Ireland

In the context of PwC's involvement in the shareholders circular to be sent to Bank of Ireland shareholders in respect of seeking approval for transferring loans to NAMA, PwC has been doing extensive work in relation to a review of Bank of Ireland's working capital projections. A key element in managements contingency planning relates to the availability of emergency liquidity assistance by the Central Bank of Ireland. As a result of the difficulties that led to the nationalisation of Anglo Irish Bank and the very difficult funding and liquidity position around that time, discussions have been opened up between the Central Bank and the major Irish banks relating to the provision of emergency liquidity assistance in the event that this was required at short notice. To this end Bank of Ireland would have gone through a series of discussions and work in relation to legal documents to put an appropriate frame work in place that could be drawn down in the event this was required. It was made clear at the time that the Central Bank would not give any guarantee in writing and was not in a position to do so that such ELA funding would be made available.

As part of the going concern assessment by management for the March 09 yearend audit, management would have represented that the Central Bank had made an oral commitment that in the event that ELA was required by Bank of Ireland that it would be made available to them as a systemically important institution. This oral commitment was reconfirmed as part of the banks going concern assessment and represented by Denis Donavan at the time of the half year review for the period to 30 September 2009. In the context of the bank making an explicit working capital statement, it was clearly relevant to consider this matter. Both management and ourselves are clear that from a technical assessment with regard to looking at available sources of funding in the context of a working capital review, one is not allowed to take account of facilities that are not committed. However from a commercial risk management perspective, it would be clearly very helpful for ourselves to have confidence in the availability and

PRICEWATERHOUSECOOPERS

circumstances in which ELA would be made to Bank of Ireland. To this end Denis Donovan, director of Capital Markets of Bank of Ireland had arranged with Tony Grimes, the director general of the CBI, to have a one to one conversation with myself as group audit partner. In line with this arrangement, I managed to speak with Tony Grimes by telephone on the afternoon of 26 November 2009. In terms of the ability to speak for the Central Bank of Ireland ("CBI"), the director general is charged with managing the day to day operations of the bank reporting to the governor of the bank. The director general also sits on the board of the CBI. Key points that I discussed with Tony Grimes in my telephone call are noted below.

I explained that I was ringing Tony in my capacity as group audit partner on Bank of Ireland. Bank of Ireland were in the course of finalising the shareholder circular to be sent to shareholders in connection with the approval of entering into NAMA and the transfer of loans. A key stock exchange requirement relating to such circular is a requirement to make an explicit statement in relation to working capital. Where directors make an explicit statement in relation to working capital, reporting accountants who are ourselves in this instance are required to give an opinion the working capital statement. I noted that although Bank of Irelands funding and liquidity position is satisfactory at present, there is a requirement to consider reasonable down side scenarios that could occur for a period of up to 18 months beyond the date of the transaction. Consideration is being given by management to scenarios both in the situation where transaction goes ahead and also where transaction does not go ahead. I noted that whilst the directors are not able to explicitly rely on a facility like emergency liquidity assistance in connection with their formal assessment of making a working capital statement, it is clearly very important in commercial risk assessment terms to have confidence in the availability and terms and conditions that might attach to the provision of ELA. I explained that the directors had shared the summary of their discussions with the Central Bank of Ireland regarding ELA as part of the March 09 audit and subsequently with us in order to facilitate our work in this regard. The purpose of my call was to confirm the key elements of those discussions orally with Tony Grimes in so far as he was able to do so. We then went on to discuss the key elements.

(2)

PRICEWATERHOUSECOOPERS

Firstly I indicated that management had represent that Tony Grimes had said the ELA would be made available to Bank of Ireland if required on an oral basis, but that the could not commit to this in any legally binding way. Tony confirmed that this was the case. He said they never pre commit in relation to ELA and this was simply the nature of ELA. He said that the criteria for making ELA available or essentially that a) the institution receiving ELA is solvent but illiquid and b) the institution is systemically important. As far as the CBI is concerned, it is very clear that Bank of Ireland is systemically important and therefore the second condition is passed. In relation to the first condition, this would need to be assessed at the time. I asked Tony on what basis he would make an assessment of solvency. He said that they would look at the institution and see if it was meeting its other requirements and that they would talk to the Financial Regulator and also probably to the Auditors. He noted that they would charge an interest rate which would be penal. I asked him in making the assessment what definition of solvency they would be looking at, e.g. would it be regulatory type definition or a wider definition of solvency such that the net assets are positive for example. In this respect I noted that with the normal current capital ratios and also emerging market views such as a requirement for equity Tier 1 capital replacing core tier 1 capital. Tony confirmed very clearly that they would not be looking at a regulatory definition of solvency and that they would take a very wide view of what solvency means. In this respect they will be looking at more of a concept of financial soundness which generally comprises one of two tests. The first being that assets exceed liabilities and the second the ability to pay your debts as they fall due.

I then asked him to comment on the mechanism for requesting ELA. He said that this would be done on the basis of a written request by the CEO of the amount required and a commitment to complete due diligence on the proposed asset collateral. He confirmed that ELA would be made available in advance of the actual due diligence on the proposed asset collateral. He said this was reasonably standard. It would of course be subject to the approval of the Governing Council of the ECB depending on the amount. However the amount for which approval is not required from the Governing Council the ECB would be very small in relation to Bank of Ireland and therefore one would assume that approval was required. I asked him about the likelihood of getting approval and what this required from the Governing Council of the ECB. Tony said he did not see that this would be an

(3)

issue. The CBI would apply to the ECB for such approval and he said that this can be done very quickly. The two tests that he referred to earlier in terms of being a solvent but temporary illiquid institution and being systemically important were the tests that the Governing Council of the ECB used. However in practice once the CBI had concluded on this matter, the real purpose of needing the approval of the Governing Council of the ECB was much more to do with their own internal liquidity management of the euro money system rather than them attempting to second guess the CBI's assessment of these two key tests. He really emphasised that he did not see gaining such approval to be an issue.

I then indicated that management had represented and we had seen evidence of the fact that discussions were at a reasonably advanced stage regarding putting in place the framework of required legal documents to be in a position to draw down on ELA should this ever be required. Tony confirmed this was the case and the documentation was in place and had been shared informally between the Central Bank of Ireland and Bank of Ireland in order to draw down monies at short notice. He referred to the need to have this documentation drawn up as clearly the collateral that would be used to back the ELA did not meet the normal criteria for ECB funding by definition.

I then said to Tony that I had one final key question which he may or may not be prepared to comment on. This was whether Tony could give an indication the minimum amount or likely amount based upon the Central Bank of Ireland's engagement with Bank of Ireland to date of the amount that would be made available to them under ELA. Understanding of course that they have not done formal legal due diligence on it. Tony said that as I suspected he could not give an indication of any amounts. However he was able to say that in principle there was no upper threshold to amounts that could be drawn down subject to collateral being available. It was really all about the collateral less a haircut against which ELA could be drawn.

I thanked Tony for being willing to take the call and for providing the level of oral assurance that he had given us. This ended our telephone call.

My key conclusions based on the above telephone call are as follows:

- Managements representations of their discussions and understanding of the basis in which ELA would be made available to Bank of Ireland to us are absolutely consistent with my telephone call with Tony Grimes.
- CBI clearly regards Bank of Ireland as systemically important and therefore automatically passing one of the two key tests for the availability of ELA.
- Bank of Ireland should pass the second test of being solvent but temporarily illiquid in relation to the type of scenarios that we have been examining which are related to remaining in a position where it has positive net assets but potentially falling below either required or emerging regulatory capital ratios.
- There was a clear oral commitment from the CBI to make ELA available and make it work in an emergency situation.

Direction Number 4

Department of Finance reporting structures and communications channels for the period

2001 to 2010

a. Central Bank of Ireland

Following the passing of the Central Bank and Financial Services Authority of Ireland Act 2003, the Central Bank of Ireland was re-structured and re-named as the Central Bank and Financial Services Authority of Ireland. Under this Act the supervision of all financial institutions operating in Ireland was consolidated under an autonomous body - the Irish Financial Services Regulatory Authority (IFSRA) - which was established within the Central Bank.

Since the financial crisis a whole series of reforms have been introduced to underpin a more effective and efficient financial regulatory regime. The Central Bank Reform Act 2010 created a single fully-integrated Central Bank of Ireland with a unitary board – the Central Bank Commission – chaired by the Governor of the Central Bank. The unitary Central Bank structure gives the Commission members a more complete remit over prudential regulation and financial stability issues. The Central Bank Reform Act 2010 also gave effect to significant structural changes in the operation of financial regulation in Ireland which, inter alia, provided for the dissolution of the IFSRA.

The Central Bank is now a single fully-integrated structure with the unitary Board responsible for the stability of the financial system overall, for prudential regulation of financial institutions and for the protection of consumer interests. The Governor of the Central Bank remains solely responsible for European System of Central Banks (ESCB) related functions.

The Central Bank operates independently of the Department of Finance and the Minister has no role in day-to-day operations of the Central Bank. Nevertheless, the Department of Finance enjoys a close working relationship with the Central Bank. Officials at all levels are in regular contact at domestic and European level across a wide range of financial services and regulatory issues.

Formal Reporting structures post 2010 Central Bank Reform Act

The Central Bank Reform Act 2010 enhanced accountability, oversight and reporting mechanisms through a number of measures including the following.

- Annual Performance Statements on regulatory performance are prepared by the Central Bank, presented to the Minister for Finance and laid before the Houses of the Oireachtas. The performance statement is to be in the form, and is to relate to matters, that the Minister directs, with the exception of the exercise by the Governor of his functions under the ESCB Statute. A committee of the Oireachtas may call the Governor and/or the Deputy Governors to be examined on the Performance Statement.

- Annual Report (accounts) is prepared by the Central Bank each year. The statement of accounts is to be in such form as approved by the Minister for Finance, and on approval by the Comptroller and Auditor General, is laid before the Houses of the Oireachtas.

- A Strategic Plan is prepared by the Central Bank at least every three years. The Minister for Finance may request the form in which the Strategic Plan is prepared. The Strategic Plan is laid before the Houses of the Oireachtas by the Minister for Finance.

- A Statement of Income and Expenditure (Budget) is prepared by the Central Bank and submitted to the Minister for Finance. Any subvention by the Central Bank to cover an estimated shortfall in income from levies and fees is approved by the Minister for Finance.

- At least every four years, the Central Bank is to arrange for either another Central Bank or another person or body certified by the Governor, after consultation with the Minister for Finance, to carry out an international peer review of the Central Bank on the performance of its regulatory functions.

- The 2010 Act confers on the Central Bank the power, with the approval of the Minister for Finance, to make regulations prescribing an annual Industry Funding Levy to be paid by regulated financial service providers to the Central Bank. The purpose of this levy is to fund or partly fund the cost of the annual budget for financial regulation.

- The Central Bank (Supervision and Enforcement) Act 2013 enables the Central Bank to make regulations across a number of areas including consumer protection, client assets, account switching and related party lending. Before making regulations under section 48 of the 2013 Act, the Central Bank is required to consult with the Minister for Finance and for that purpose shall provide to the Minister a draft of the proposed Regulations

- The Secretary General of the Department of Finance is an ex-officio member of the Central Bank Commission.

<u>Formal Reporting Structures Pre 2010 Central Bank Reform Act</u>

Prior to 2010 and the passing of the Central Bank Reform Act, reporting structures and mechanisms between the Central Bank and the Minister/Department were on a less formal footing apart from formal legislative requirements around the Annual Report, Statement of Income and Expenditure and Industry Levies.

In addition, prior to the 2010 Act, the Secretary General of the Department of Finance was a member of the Board of Directors of the Central Bank, and the Minister for Finance, after consulting the Minister for Enterprise, Trade and Employment, appointed between 6 and 8 members to the Irish Financial Services Regulatory Authority.

Please also refer to Direction Number 23-28 inclusive in relation to the Domestic Standing Group and Principals Group.

b. Committees of the Oireachtas including but not limited to the Finance Committee

The Department of Finance would have attended various Dáil Committees principally the Public Account Committee and the Finance Committee. These are discussed as follows;

Public Account Committee

The Committee Secretariat issued the draft upcoming monthly programme to the Government Accounting section. This was issued to internal votes/sections who had responsibility for any of the items listed and informed Government Accounting Section of same. Government Accounting then notified the Secretariat of the Public Accounts Committee. Where attendance was required, briefing remained the responsibility for the section/vote in question. Where business items related to other Government Departments, D/Finance officials attended.

Committee on Finance (at that time)

Requests came from the Secretariat for the Committee on Finance to the Central Votes Section. Central Vote Section coordinated attendance and requested briefings. Where attendance was required, briefing remained the responsibility for the relevant section who also nominate those officials attending.

c. Cabinet

Each Government Department wrote to the Minister for Finance in relation to Government memoranda requiring input by the Department. The Minister's Office circulated draft memoranda to relevant sections. Once observation issued from the sections were cleared by the Ministers, the individual sections contacted the relevant Government Departments to communicate observations.

With the introduction of eCabinet contact between the Department of Finance and the Government Secretariat through eCabinet resided with the Estimates Office – Central Section. The Estimates Office distributed, coordinated and returned responses through eCabinet/Government Secretariat.

d. Oireachtas

Questions raised by Deputies relating to Public Affairs connected with this Department were received by the Estimates Office – Central Section for distribution, coordination and return of replies via the Minister's Office.

Department of Finance

January 2015.

3

Ryan, Phil

From:	Lonergan, Ciara
Sent:	09 July 2007 18:39
To:	Ryan, Phil
Cc:	Nolan, Kevin
Subject:	Brief note of Liquidity Workshop in IBF 9 July 2007
Attachments:	meeting Liquidity Working Group 9 July 2007.doc

Please find attached a summary note of the Liquidity Workshop which took place in advance of the meeting of the Systemic Risk forum meeting due to take place on Wed. if you have any queries or want further information on a point raised in the meeting please let me know. A note of the meeting will be drawn up by the IBF and circulated to attendees.

Ciara

meeting Liquidity Working Grou...

Summary note of Liquidity/Funding Workshop of the Systemic Risk Forum

Attendance:
IBF: Paul O'Connor, Hugh Friel
CBFSAI: Pat Traynor (representing the ECB)
Representatives from: AIB, Anglo Irish Bank, BNP Paribs, Depfa Bank, EBS, IIB, Irish Life and Permanent, Unicredit, Ulster Bank.

Background to Systemic Risk Forum:

- The IBF brought together Chief Risk Officers (CRO) of banks in Ireland to discuss systemic risk at an industry level, recognising that there is large amount of continuity preparation in place at an institutional level. At the industry level, the Forum hopes to identify risks, impacts and actions. This group lead to two working groups established to examine two issues relating to industry level BCM – the payments system and liquidity/funding.
- The Payments working group has examined the four key methods of payments (cards, electronic, paper and cash) and the interdependencies between them. Three risks were considered by the group – loss of staff, loss of critical infrastructure and loss of fuel, power and telecoms, but the work concentrated mainly on the loss of staff. The group produced observations and recommendation to be further examined. [The work of this group will be reported on at the Systemic Risk Forum meeting on Wednesday]

Liquidity/Funding – Risk Scenarios – General discussion

- The ECB are looking for questions/issues from banks in all 13 jurisdictions arising in the context of business continuity planning on an industry level
- Four risk scenarios were presented:
  - The Central Bank is not available to provide liquidity
  - No collateral is available to post
  - Another jurisdiction does not repay
  - Foreign currency liquidity dries up (this occurred following 9/11 when the eurosystem was not able to access dollars. The ECB arranged a currency swap with the Fed for this first time)
- Other issues raised by the banks present included:
  - Would banks in Ireland be able to move their collateral to other Central Banks? Could CBs have a "shadow account" in another CB so banks could access their collateral if the CB where the collateral is kept is unavailable? (legal differences between jurisdictions could hinder this)
  - How did the Fed and the US banks functions following 9/11
  - Would the UK have any planning material which would be useful to Ireland in examining these issues?
  - The Clearstream, Euroclear and Crest settlement system and the CLS Bank are areas which could have a systemic effect on liquidity and bear further examination.
  - Any issues with the SWIFT system for bank to bank payments could have a systemic effect on Irish banks

- Systemic crisis in foreign currency markets could have a big impact in Ireland. Would it be possible for the CB to have figures on the foreign currency requirements of the banks in Ireland?
- Offshore bilateral agreements with other banks do not appear to be a viable solution to a systemic liquidity crisis, as it is likely that the other party to the arrangement will not pay if there appears to be a systemic crisis in Ireland rather than a liquidity issue fir an individual bank.
- The banks would like some guidelines from the CB/FR on the scenarios they should test their institutional liquidity levels against.
- Netting agreement s between banks could reduce the level of liquidity required in a crisis situation.

Next Steps:

- IBF to prepare note of issues raised and circulate to attendees.

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Lonergan, Ciara

From: Cassidy Mark [mark.cassidy@centralbank.ie]
Sent: 09 July 2008 18:13
To: Lonergan, Ciara
Subject: RE: special resolution regime

Ciara

Many thanks. This should address the issue comprehensively.

Mark

-----Original Message-----
From: Lonergan, Ciara [mailto:Ciara.Lonergan@finance.gov.ie]
Sent: 09 July 2008 18:04
To: Cassidy Mark
Cc: Beausang, William; Nolan, Kevin
Subject: RE: special resolution regime

Mark

Please see suggested amended speaking points

1) There are a number of considerations relevant to that issue, which as I understand it remains a proposal subject to ongoing consultation in the UK.

2) First of all there are a range of institutional and legislative arrangements in place in Ireland to ensure that we have an effective and robust supervisory framework and a sound and resilient financial system [...This includes the detailed and comprehensive template of EU financial services law and our integrated Central Bank and Financial Regulator within the single unitary organisation which has received high marks from authoritative international assessments...]

(2) In terms of dealing with the current uncertain financial environment, Irish banks also have full access to the funding facilities of the ECB, which accepts a much broader range of collateral than many other CBs [...the Euroystem's operational framework has worked very successfully over the last year in ensuring that liquidity was available to market participants...]

(3) In accordance with EU requirement, a Domestic Standing Group on Financial Stability (DSG) operates in Ireland comprised of high level officials of the Department of Finance, the Central Bank and the Financial Regulator. [...This has of course been active in sharing information and assessments since the onset of the current market dislocation. One of its main purposes is to facilitate full and timely information exchange, co-operation and co-ordination, contributing to the maintenance of financial stability and a solid and sound financial system in Ireland as well as ensuring that we continue to play our part in terms of our responsibilities at EU level...]

(4) At EU level a very significant initiative arising from the October 2007 Ecofin Roadmap is the signing by all Member States of a Memorandum of Understanding (MoU) on co-operation between the Financial Supervisory Authorities, Central Banks and Finance Ministries of the European Union on cross-border financial stability. [...The MoU sets out practical arrangements aimed at strengthening co-operation between authorities throughout Europe for the maintenance of financial stability, prevent, and if necessary, manage potential systemic problems...]

(5) I am satisfied that on the basis of these type of arrangements that we are in a position in Ireland to properly assess and evaluate all relevant issues and considerations that might be expected to arise, and to respond appropriately.

I have nothing more to say on that subject.

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

Lonergan, Ciara

From: Cassidy Mark [mark.cassidy@centralbank.ie]
Sent: 09 July 2008 13:30
To: Lonergan, Ciara
Subject: special resolution regime

Hi Ciara

Following our telephone conversation, the following are the points (in very rough form) the Governor would like to make if asked about a Special Resolution Regime.

(1) There are a range of institutional arrangements in place to ensure an adequate supervisory framework

(2) Irish banks also have full access to the funding facilities of the ECB, which accepts a much broader range of collateral than many other CBs

(3) Domestically, there is also a Domestic Standing Group, involving the Department of Fin, CB and Fin Reg which considers issues related to crisis management

(4)All relevant issues are considered within that group

(5) Other than that I have nothing more to say on that subject.

Sorry for the short notice.

Kind regards

Mark

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"**"
Tagann an ríomhphost seo ó Bhanc Ceannais agus Údarás Seirbhísí Airgeadais na hÉireann. Tá an ríomhphost, agus aon iatán a ghabhann leis, faoi rún agus faoi phribhléid agus ceaptha d'aontoisc le haghaidh úsáide an té nó na heagraíochta chun a ndíreofar iad.
Tá dianchosc ar chraobhscaoileadh, ar dháileadh nó ar chóipeáil neamhúdaraithe ar bith, díreach nó indíreach, an ríomhphoist seo nó aon iatán a ghabhann leis. Má tá an ríomhphost seo faighte agat trí dhearmad, cuir an seoltóir ar an eolas agus scrios an t-ábhar ó do chóras le do thoil.
"**"

Lonergan, Ciara

From: Ryan, Phil
Sent: 18 April 2007 09:58
To: O'Connell Tom; tony.grimes@centralbank.ie; con.horan@centralbank.ie; Beausang, William; Lonergan, Ciara
Subject: Draft agenda today's meeting

Attachments: draftagenda.doc

draftagenda.doc
(20 KB)

Suggested draft agenda for this pm meeting attached.

Meeting of group to establish DSG on financial stability, Central Bank , 2.30pm, 18 April 2007

Draft Agenda

1 MoU
- content
- legal standing
- signing procedure

2 Work programme, next steps, next meeting.

0 3

(19)

Banking, Finance and Pensions Division

Divisional Management Group

19 April 2007

Minutes

Attendance: Mr Kevin Cardiff, Mr Stephen O'Sullivan, Mr Eamonn Kearns, Mr William Beausang, Mr Ian Devlin (Secretary)

1. **The minutes of the last meeting of the Group were agreed without amendment.**

2. **Draft Memorandum of Understanding – Financial Stability Planning**

Mr Beausang introduced a draft Memorandum of Understanding (MoU) on financial stability planning and sought the views of the group on the draft, which was to be agreed with the Bank and the Financial Regulator.

Several issues were discussed/agreed:

- The MoU should be signed at Secretary-General / CEO level rather than by the Minister and Governor of the Bank, although the Minister would need to be kept informed.

- The Freedom of Information Acts would be applicable to the Memorandum of Understanding and to related records held by the Department. This was a significant concern to the Bank and the Regulator and the Department will need to advise them on the impact of the Acts.

- The most significant action point for the Department was to identify the powers of the Minister to respond to a financial crisis. For example, would it be necessary to legislate to support a commercial bank? There was a need to systematically engage with company law and competition law and the relevant policy areas at national and EU level.

- The MoU necessitates a significant work programme in relation to business continuity planning and supports for the infrastructure of the financial system, in particular the payments system. The objectives of the SEPA initiative would need to be considered, along with communication and burden sharing between the different regulators in an integrated EU financial system.

3. Report of World Bank Spring Meetings

Mr. Kearns briefly reported on the Spring meetings of the World Bank institutions. Issues requiring the development of a national position were:

- The prospect of a re-weighting of Ireland's vote at the institutions in accordance with changes in relative GDP per capita.
- The development of criteria to allow countries that had benefited from debt forgiveness to borrow on the open market.

4. Pensions

Mr O'Sullivan updated the group on the latest developments in preparing the Green Paper on pensions for publication.

The group discussed the FRS17 standard and demands for the guarantee of pension schemes that had arisen in the university sector. The issue had implications for some other non-commercial semi-state bodies. In addressing the issue, which would require legislation, pensions side would rely on SPD's knowledge of the education sector. Any guarantees would need to be clearly articulated and specific.

5. Any Other Business

Mr Cardiff sought to communicate to staff his appreciation of the work done and the achievements of the Division over the past few months by circulating a note to staff. [This was done on 25 April.]

The group briefly discussed plans for a visit by the Head of the European Commission to Belfast on 1 May and communications with the Commission in relation to Operational Programmes.

The group agreed to aim to meet every three weeks in future and Mr Cardiff sought a progress report on Business Plans, PMDS and Risk Management for the group's next meeting.

An Roinn Airgeadais
Department of Finance

Issued

Sráid Mhuirfean Uacht,
Baile Átha Cliath 2,
Éire.

Upper Merrion Street,
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Ireland

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LoCall: 1890 66 10 10
VPN: 8109
http://www.irlgov.ie/finance

Mr Tony Grimes
Director General
Central Bank and Financial Services Authority of Ireland
PO Box 559
Dame Street
Dublin 2

1 April 2010

Central Bank Reform Bill 2010

Dear Tony

Following the publication of the above Bill earlier this week, we will seek to organise an Implementation Group meeting to take place after the Easter break to take stock of progress in implementing the terms of the Government decision of 16 June 2009.

In the meantime, however, arrangements have been firmed up for the Second Stage debate on the Bill in Dáil Éireann. This will take place in the period 20-22 April 2010. In addition, the Committee Stage is tentatively scheduled for the period 4-6 May 2010. While the Committee Stage dates have yet to be confirmed, the current tentative schedule implies that Committee Stage amendments on the Government side would need to be approved by Government at their meeting in the week beginning Monday 26 April 2010.

With the above timeframe in mind, I would be grateful if you could let me have as soon as possible any proposals which the CBFSAI may wish to make for amendments to the Bill at Committee Stage.

Yours sincerely

EK

Eamonn Kearns
Director

gor 7/26

Working Group on IFSRA/CBIFSA
13 March 2001
Minutes

Present: David Doyle, John Corcoran, Liam O'Reilly, Jimmy Doyle, Martin Moloney

1. Terms of Reference agreed.

2. Working Group Administrative Arrangements:-

Attendance to be DD, LO'R and JC with others as each member decides.
Secretary: Martin Moloney
Schedule of Meetings: 10am every second Monday beginning 26th March in D/Finance.
Outline Timetable:

- Establish IFSRA Board (immediate)
- Appoint legal advisers (end March)
- IFSRA Board appoint CEO and then Dir. Cust Protection (provisional: April-June)
- IFSRA CEO joins Working Group (provisional: May)
- Heads to Minister for circulation (first week in June)
- Heads to Government (end June)
- Heads to Parliamentary Counsel and ECB (beginning of July)
- IFSRA Board plan for establishment date (July-Dec)
- Draft Legislation to Government (end September)
- Publication of Legislation (Beginning of October)
- Legislation through Oireachtas (Autumn Session)
- Establishment of IFSRA (beginning of 2002)

3. Workprogramme

- CB to revert on whether they wish to attend interviews for appointment of legal advisers.
- CB and D/ET&E to do papers setting out functions to be transferred and main issues arising. Papers to be circulated by end of business Thursday, 22 March [Fax DD: 6045869, LO'R: 6716528, JC: 6312553] Follow up papers for next meeting setting out other issues.

4. IFSRA Board

- CB to revert on expenses.

5. D/Finance to brief ECB.

6. D/Finance to meet CB or D/ET&E staff reps if required.

CBIFSA/IFSRA WG: Doc 3

Gor 7/28

Working Group on the Establishment of the Irish Financial Services Regulatory Authority within the new structure of the Central Bank of Ireland and Financial Services Authority

Terms of Reference

The Working Group shall agree, arrange resources to implement and keep under review a plan of work for the implementation of all those aspects of Government decision SI 180/20/10/0167D which require liaison and cooperation between the Department of Finance, the Department of Enterprise Trade and Employment (including the offices of the Director of Consumer Affairs and the Registrar of Friendly Societies) and the Central Bank.

This may include:-

examining policy issues which are brought to it concerning matters arising from the Government decision, including appropriate matters arising from consultations,

reviewing draft heads of legislation to ensure comprehensive and appropriate coverage of matters relevant to the functions heretofore of the Department of Finance, Central Bank and the Department of Enterprise, Trade and Employment (including the Office of the Director of Consumer Affairs and the Registrar of Friendly Societies),

reviewing draft legislation prior to publication

agreeing a plan of work for the transfer of functions between the bodies concerned without loss of continuity,

providing initial administrative and other support as required for the board of IFSRA

Consultation with the Board, Chief Executive and other officers of IFSRA in relation to the assignment of functions and the provision of resources to IFSRA, including human resources.

R3 – Clarity and effectiveness of the nexus of institutional roles and relationships

R3b - Nature and appropriateness of the relationship between the Central Bank (including the Financial Regulator), Department of Finance and the Banking Institutions

Information Summary (Section 33AK)

Document category	Time period	Summary
Financial Stability Coordination Committee minutes	**2003**	• It was noted that future meetings should be held with economists and senior loan officers/lending managers of the banks, with a view to communicating Central Bank's opinion on financial stability issues to them.

R3b - Nature and appropriateness of the relationship between the Central Bank (including the Financial Regulator), Department of Finance and the Banking Institutions

Information Summary (Section 33AK)

Document category	Time period	Summary
Financial Stability Coordination Committee minutes	2003	It was noted that future meetings should be held with economists and senior loan officers/lending managers of the banks, with a view to communicating CB's opinion on financial stability issues to them.
Diary of the Minister for Finance	2001-2007	From review of diaries it is noted that the Governor was scheduled to meet the Minister for Finance on average once a month during Hurley's tenure. However, the number of annual meetings confirmed, was lower, usually between 7 and 8 annually.

THEME: R3

Clarity and effectiveness of the nexus of institutional roles and relationships

LINE OF INQUIRY: R3c

Effectiveness of the communication between the Central Bank and the Department of Finance

Minister,
from John McCarthy

Central Bank Annual Report

The Central Bank Annual Report for 2004 will be published this morning. Against the background of reasonably strong growth in the global economy, GDP **growth in Ireland** is projected to be 5½ per cent (GNP growth of 5¼ per cent) this year. These growth rates are slightly higher than our own forecasts published on Budget day, and reflect more up-to-date data available to the Bank. Employment is forecast to increase by 42,000 (2¼ per cent), resulting in an unemployment rate of 4¼ per cent this year.

Notwithstanding this broadly favourable outlook, the Bank identifies a number of **risks** to the short- and medium-term outlook to the economy. These include:

- the current high level of oil prices and uncertainty regarding the future path;
- developments in the euro-dollar bilateral exchange rate, given the large current account deficit in the US and the fact that some Asian currencies are pegged to the dollar (which places greater pressure on the euro-dollar rate);
- weak growth in domestic demand in the euro area;
- the unsustainably high level of output in the construction sector which must revert to more "normal" levels at some stage in the future.

The Bank highlights the improvement in Ireland's **inflation performance** last year and in the first half of this year. However, after a number of years of high inflation, the price level in Ireland is now the highest in the euro area (exceeding the euro area average by 15 per cent). Moreover, the current tight labour market and reasonably strong growth are identified as risks to the inflation outlook. The Bank argues that pay increases must recognise the new low inflation environment.

The Bank makes a number of observations on **fiscal policy**. In particular, the current stance of fiscal policy is judged to be somewhat expansionary. In policy terms, the Bank argues that fiscal policy should be framed in a manner which provides a capacity to cope in the event of downside risks to the economy materialising. We would support this latter analysis.

In terms of **house price inflation**, the Bank is encouraged by the recent moderation in the rate of house price inflation, which it argues, stems from the large increase in supply coming on stream in recent years. Nevertheless, the Bank expresses concern about the current high rate of credit growth, including mortgage credit, which has been increasing by around 25 per cent. As a result of this, the ratio of **household debt** to disposable income in Ireland is now in excess of 120 per cent. While servicing this debt is not generally a problem at present (at least at the aggregate level), the Bank highlights the fact that nominal interest rates are currently cyclically low, and increases (whenever they occur) could present difficulties for some borrowers, especially for new more indebted borrowers.

Speaking Points

- The Central Bank views the prospects for the Irish economy as broadly favourable this year. In overall terms, the Bank is forecasting GDP growth of 5½ per cent; GNP is forecast to increase by 5¼ per cent.
- The Bank's forecasts for this year are slightly higher than my own Department's projections, published with the Budget day documentation.
- My Department will publish revised forecasts for this year in the Economic Review and Outlook in August.
- I share the Bank's concern regarding the importance of maintaining and indeed improving the competitiveness of the economy. In this context, I note that inflation declined to 2.2 per cent last year, the lowest rate of increase since 1999. Moreover, I made no increases to indirect taxes in the Budget and this will help to maintain low inflation this year.
- The Bank identifies the uncertainty regarding oil price developments and the potential for further exchange rate appreciation as risks to the Irish economy this year. I agree with these risks and highlighted them on Budget day.
- We have no control over many of the external risks facing the economy. We can, however, seek to ensure that our domestic cost base does not exacerbate competitiveness difficulties. This is why we need sensible income policies and a greater role for competition in the economy. This is the best way we can protect jobs.
- The Bank expresses concern regarding the current level of household debt. In the current environment of historically low interest rates the level of private sector credit has been increasing strongly in a number of countries, including Ireland, and also other eurozone countries. In our case this is occurring in a context of strong economic growth and increasing employment. Of course, it is important that borrowers act sensibly taking into account the prospect that interest rates will be higher in the medium term. I would encourage the Central Bank and the Financial Regulator to remain vigilant on the issue of personal credit and mortgage debt, and to remind the lending institutions of the need for prudence on their part.

Minister,
from John McCarthy

Central Bank Annual Report

The Central Bank Annual Report for 2005 will be published this morning. The Bank does not traditionally change its economic forecasts in the Annual report; rather the Annual report highlights some of the key issues facing the economy. Thus, the Bank is still forecasting a growth rate of 5 per cent this year, unchanged from the Spring quarterly bulletin.

The Bank will make a stronger statement than usual regarding recent house price developments. This stems from the recent pick-up in house price inflation (house price inflation had eased to around 6 per cent this time last year but re-accelerated to double-digit growth rates in the second half of last year and into this year). The Bank will signal that this re-acceleration in price inflation is not fully explained by fundamental factors, implying that there is some overvaluation in the market. However, it will also be stressed that even if there is an overvaluation, this does not imply that prices must fall sharply (for instance, if prices stabilised, then the fundamentals could 'catch up').

The Bank will argue that residential mortgage lending is currently running at 30 per cent per annum, and that the ratio of household debt to income is amongst the highest in the advanced economies. This increased indebtedness is likely to bear heavily on the more leveraged segment of borrowers.

The Bank will also highlight other domestic concerns, including:

- the loss in cost competitiveness in recent years, which has been associated with a slowdown in export growth and hence an over-reliance on domestic demand as a source of growth;
- the fact that new housing output will eventually have to revert to lower, more sustainable levels;
- the large tax-take from the property sector;
- the decline in productivity growth over the last number of years.

In relation to fiscal policy, the Bank will argue that no slack in the economy, there is little need for fiscal policy to impart a stimulus to demand.

Speaking Points

- The Central Bank views the prospects for the Irish economy as broadly favourable this year. In overall terms, the Bank is forecasting growth of 5 per cent this year (for both GDP and GNP).

<u>Housing risks</u>

- I note the Central Bank's concern regarding the re-acceleration of house price inflation since the Autumn of last year.
- On balance, they say that a soft landing remains the most likely outcome for the housing market. The large increase in housing supply in recent years can reasonably be expected to restore balance between housing demand and supply and have a moderating impact on house price inflation.
- Nevertheless, there are risks and we must be cognisant of these. However, while these risks may have increased, they are still containable.
- As I have highlighted before, it is important that both borrowers and lenders take into account the likelihood of higher mortgage interest rates.

<u>Other risks</u>

- I share the Bank's concern regarding the importance of maintaining and indeed improving the competitiveness of the economy.
- We are seeking to address this by:
  - Specific productivity gains in the public sector;
  - Keeping down taxes on labour;
  - Re-focussing our industrial policy on higher value-added jobs;
  - Removing barriers to competition in the domestic economy;
  - We are also investing strongly in supply-side infrastructure to ensure competitiveness in the future.
- As for exports, growth has been slow and industrial employment (which is strongly export-led) has fallen in the last few years. However, in the year to

March 2006 employment in industry has grown noticeably and the June Purchasing Managers Index showed the highest growth in industrial output, employment and new orders for some time. So, perhaps, our fall in competitiveness is not as bad as we thought and we will see exports pick up again.

Central Bank & Financial Services Authority of Ireland

Financial Stability Report 2004

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Contents

Given the importance, generally, of the property market to the loan portfolios of credit institutions, this paper examines the recent increase in Irish house prices and specifically addresses whether the substantial growth in prices is accounted for by movements in fundamental economic variables. Increases in house prices unaccounted for by market fundamentals may give rise to the presence of a speculative 'bubble'. Such a bubble can result in considerable uncertainty, not just within the property market itself, but also within the relevant debt-servicing financial system.

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Property has unique characteristics; it represents both a financial asset, providing the holder with a potential dividend stream in the form of rents, and a durable good, providing shelter for its residents. Governments have typically favoured home ownership and over time public policy has come to reflect this position *via* a number of different fiscal incentives aimed at promoting the affordability of housing. The discussion on the housing market has tended to focus on the initial cost, i.e., the purchase price. There has been little or no consideration paid to the benefits and costs associated with housing after the initial purchase. This article addresses to what extent changes in taxes and subsidies might explain the recent increase in house prices. In order to examine the combined costs associated with owner-occupancy we calculate an *ex-post* user cost of housing. The combination of beneficial fiscal incentives and declining costs, in terms of falling interest rates, have driven down the costs associated with owner-occupancy. The most significant factor has been the untaxed capital gain afforded to homeowners, which for a majority of the period 1976-2003, has meant the user cost of housing has been negative. This may in part help to explain the reason for the growth in house prices.

In 1999, the Central Bank of Ireland instituted a series of stress-testing exercises on Irish credit institutions. These were designed to encourage credit institutions to take account of the potential impact of macroeconomic developments on their business, to ensure that institutions are capable of carrying out sensitivity analyses on their financial positions and to assess whether the financial system could withstand a serious economic downturn. This paper gives an overview of the stress-testing process, including a discussion of its limitations, and presents the results of the most recent exercise, which was carried out jointly by the Central Bank and the Irish Financial Services Regulatory Authority (IFSRA) in the final quarter of 2003. The broad finding of this exercise is that it seems likely that individual banks and the system as a whole could weather the hypothetical scenarios presented in the exercise without getting into difficulties. The result depends, however, on institutions placing considerable weight on the realisability of collateral in a downturn and the value buffers that are present in their books, which, in turn, relies on property values not being significantly above fundamental values.

Both regulators and central banks in many countries have recently begun to stress-test their respective banks' financial well-being in a severe economic downturn. This paper documents the application of this approach to Irish retail credit institutions. Loan losses are expected to deteriorate in recessions because borrowers' ability to repay their debts, and the value of collateral which may be recovered in the event of default, often deteriorates in recessions and improves during up-swings. In general, we find some evidence for Ireland that the level of loan losses, proxied by loan-loss provisions, rises when GDP growth declines but more significantly when unemployment rises. This result differs between institutions that are primarily mortgage lenders and other lenders who are involved in several types of lending. The overall conclusion of this round of 'top-down' stress testing is positive in two respects; first, the results are in broad agreement with the credit institutions' 'bottom-up' stress-test results and second, the results suggest that providing the extra reserves required to fund the expected increase in loan-losses would not pose a threat to the financial health of any of the institutions included in the test.

Credit institutions have expanded their off-balance sheet business, such as their use of interest-rate-related derivatives, in response to financial innovation, increased risk management and as a non-interest source of income. In light of these developments, this paper examines the growth in interest-rate-related derivatives across the three main categories of credit institutions in Ireland between 1999 and 2003. This coincides with a period of strong lending growth at credit institutions in Ireland. The paper examines the relationship between lending growth and interest-rate-related derivatives growth to ascertain whether the categories of credit institution which expand their loans book the most also experience greater derivatives growth. Analysis shows that credit institutions' usage of interest-rate-related derivatives has grown strongly, in particular interest-rate swaps, which is symptomatic of euro area trends in response to the single currency and also in response to strong loan growth. It is also shown that the categories of credit institution with a domestic business focus, and largely dependant on traditional banking business such as loan issuance, have grown their interest-rate-related derivatives by similar proportions to their loans book, suggesting adequate hedging. The category of credit institution with a non-domestic business focus has expanded its derivatives usage at a far greater level than its lending growth. This is due to its non-traditional intermediation type business and as part of its overseas business focus. Analysis also shows that a significant amount of the counterparties to these derivatives contracts are resident outside of Ireland, with the result that little interdependencies between credit institutions in Ireland are generated as a result of derivatives contracts.

In light of the continuing high rate of growth experienced in the credit risk transfer (CRT) market, the Banking Supervision Committee of the European System of Central Banks undertook an extensive survey of the activities of EU banks in CRT markets and the risks they face there. The Financial Services Regulator used its participation in this exercise as the basis for an industry-wide survey on CRT activity taking in credit institutions, insurance companies, securities and investment firms and the funds industry. This paper presents an overview of CRT instruments and some summary results in relation to the involvement of Irish financial firms in CRT.

While credit derivatives played a significant role in an Irish context, structured products were also found to feature greatly in Irish financial institutions' overall CRT activities. Credit default swaps and asset-backed securities were the most popular CRT instruments for protection buying, selling and intermediation. It would appear that banks tend to transact this business with other banks, particularly those in other jurisdictions, with a similar pattern emerging in relation to insurance firms. In terms of the reference assets and motivations for engaging in CRT, Irish financial institutions do not display patterns different to international experience.

The oversight of payment systems is an essential function of central banks, aiming to ensure the smooth functioning of payment systems and seeking to contribute to financial stability. The efficient and effective operation of payment systems is also a requirement for meeting both the business needs of the economy generally and the personal banking requirements of the public at large. This paper provides an overview of the workings of the payment system in Ireland and details the operation of the system in 2003, which is viewed to have continued to operate satisfactorily.

Foreword

I am pleased to present to you the first stand-alone Financial Stability Report of the Central Bank and Financial Services Authority of Ireland (CBFSAI), which analyses the systemic health of the financial system in Ireland. Previously, this topic was addressed in the Bank's Annual Report. The central aim of the report is to analyse and assess the overall health of the financial system. Rather than dealing exclusively with the conjunctural situation, the approach developed in the report is to examine various possible scenarios and the associated levels of risk.

The report is divided into two complementary sections: the main commentary which provides an analysis of domestic and international financial developments, highlighting potential areas of concern relevant to the Irish financial system; and a number of research articles which provide more in-depth analyses which support the conclusions reached in the main commentary. The diversity of topics addressed in the research articles highlights the wide-ranging aspects of financial stability.

The publication of this report derives from the Central Bank'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. While the Central Bank has overall responsibility for financial stability, the Financial Services Regulator (FSR) is responsible for overseeing the prudential health of individual financial institutions. There is the closest cooperation between the Central Bank and the FSR on matters relating to financial stability. A joint committee, the Financial Stability Committee (FSC), is an important element in this cooperation. The FSC is chaired by the Director General and it includes senior personnel from the Central Bank and the FSR. The FSC is serviced by an interdepartmental Financial Stability Working Group, comprising experts from both organisations. The cooperation between the Central Bank and the FSR is underpinned by a Memorandum of Understanding. The Financial Stability Report is the fruit of this cooperation.

I am pleased with the overall conclusion of the report, namely, that the Irish banking system is currently in a good state of health despite the sharp slowdown in the growth rate of the economy that occurred in recent years. 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 its current good state of health will not be compromised over the medium-term horizon. This report analyses the Irish residential property market in some detail including an exploration of the factors that may explain the sustained levels of growth in prices, an examination of the methods of valuation, and consideration of the impact of potential future interest rate movements. The health of the banking system is also examined in some detail, including a full overview of the CBFSAI's recent stress tests, and an analysis of the potential impact of a fall in house prices on the banking system.

As well as the analysis of domestic and international financial developments, other financial stability considerations examined in the report include the operation of the payment and settlements system and recent developments in credit derivatives markets.

I hope that this comprehensive analysis, which is the first in a regular series, conveys to lenders and borrowers the importance of a stable financial system and may serve as a timely reminder of the importance of prudence where financial decisions are concerned.

John Hurley,
Governor

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Summary

The stability of the Irish banking system has not been adversely affected by the sharp slowdown in the growth rate of the economy that occurred in the early years of the new century. 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 robust health of the Irish banking system will be compromised over the medium-term horizon. However, this central expectation does not preclude the possibility of adverse developments which, should they materialise, would have serious financial consequences for households, corporates and banks. The risk of an unanticipated and sudden fall in residential property prices, accompanied by an increase in the default rate among mortgage holders, who may have been too willing to take on ever higher levels of indebtedness at the bottom of an interest rate cycle, is the risk that poses the greatest threat to the health of the banking system.

Following relatively weak economic growth in recent years, the prospects for the Irish economy are currently quite favourable. National Accounts data indicate that the improvement in the international environment over the past year, particularly in the US and East Asia, has already begun to provide some stimulus to Irish exports and business investment, which is expected to lead eventually to a pick-up in domestic consumption. Survey indicators of business and consumer confidence also showed signs of improved economic sentiment towards the end of 2003 and this has continued into the first half of 2004. The economy also appears to be emerging from the recent slowdown in relatively good shape. The labour market has functioned well over the past three years and unemployment appears to have stabilised at a rate slightly below 4.5 per cent, which probably represents a position close to full employment for the Irish economy. Inflationary pressures have subsided considerably as a result of weaker domestic demand and broadly favourable external inflationary influences while the state of the public finances remains sound. The main risks for the economy at the current juncture relate to uncertainties surrounding the global recovery and the ability of the Irish economy to benefit from this recovery in the light of the economy's weaker competitive position.

Household Sector

Private-sector indebtedness, measured as the value of debt to gross domestic product (GDP), has increased substantially since the mid-1990s and is now at historically high levels. Aggregate indebtedness has increased steadily from 71 per cent of GDP in 1995 to 123 per cent in the first half of 2004. The Irish private-sector debt-to-income ratio is now relatively high by international comparison. It is significantly higher than that of the euro area, which was 112 per cent in 2003. In addition to a concern on the overall level of indebtedness, a particularly worrying aspect is the speed at which this debt continues to accumulate.

Personal-sector indebtedness, a component of private-sector indebtedness, also continues to increase strongly (approximately 24 per cent) and has doubled in the past decade to almost 95 per cent of personal disposable income in early 2004. The growth of personal-sector credit reflects the growth in residential mortgages, which account for approximately 80 per cent of personal-sector credit compared with 68 per cent in the euro area.

First-time house buyers are now more heavily indebted by comparison with their peers in the early and mid-1990s. Consequently, the repayment burdens of first-time buyers have not fallen with the decline in variable mortgage interest rates, which are now at historically low levels, as households are opting for higher mortgage debt to income ratios, higher loan-to-value ratios and/or longer maturity loans. The average household mortgage repayment burden for first-time buyers has increased from 23.7 per cent in 1995 to 27.1 per cent in 2004. This 2004 repayment burden is still below the levels recorded in the early 1990s (approximately 32 per cent) but would return to these historically high levels if mortgage interest rates were to rise to the equilibrium mortgage interest rate (estimated to be approximately 6 per cent).

Non-Financial Corporate Sector

The indebtedness of the non-financial corporate sector, measured in terms of bank debt, rose in 2003 after several years during which there was little change. The sector's debt-to-GDP ratio rose to its highest level since our records began in the mid-1990s. The annual rate of credit growth to non-financial corporates was approximately 20 per cent during 2003 and was almost 23 per cent in March 2004. However, this was a complete reversal of the trend since 2000 when the growth rate fell from 27 per cent to 9 per cent in 2002.

The real estate and construction sectors accounted for a significant share of this new lending with annual growth rates of 39.8 and 37.3 per cent, respectively. The rate of growth in non-property related corporate lending was approximately 11 per cent in the first quarter of 2004. Commercial property vacancy rates are still high between 12 and 14 per cent (albeit falling) and capital values and rental growth are weak. However, a reassuring aspect of developments in relation to the corporate sector's involvement in commercial property is that capital values have tracked the movement in rental incomes quite closely, unlike developments in the residential property sector.

Nominal interest rates for corporates' bank debt continued to fall during 2004. The decline in rates was greatest for long-term finance (i.e., greater than five years). Corporates have taken advantage of cheaper rates on longer-term debt to lengthen the maturity of their obligations. This may make these firms less vulnerable to hikes in short-term interest rates.

The credit risk to banks arising from these trends in indebtedness and credit growth can be very sensitive to the financial health of a handful of large corporates because of the skewed distribution of indebtedness among Irish firms. The corporate sector is different to the household sector in that a small number of large Irish based corporations account for a very large proportion of the sector's outstanding debt. However, this pattern is similar to that in other countries. This debt has been sourced from both resident and non-resident credit institutions.

While there has been an increase in corporates' indebtedness, corporate failures, and especially failures with outstanding debts, are at low levels by historical comparison. The annual liquidations rate is the share of all registered companies liquidated during each year. Approximately 0.3 per cent of registered companies were liquidated with outstanding debts in 2003. This rate is below its long-run average. In summary, there appear to be no immediate substantial risks to financial stability arising from the non-financial corporate sector.

Banking Sector

The Irish retail banking system has proved remarkably resilient to the sharp slowdown in the growth rate of the economy over the last few years. Indeed, the size of the retail banking system has grown rapidly in recent years and this trend is continuing in 2004. The current annual nominal growth rate of Irish banks' assets is 31.8 per cent with even stronger growth in assets to non-Irish residents (48.3 per cent). Furthermore, this growth in the Irish banking system is approximately four times the growth rate of the euro area banking system (7.1 per cent). It is difficult to determine whether this relatively higher rate of growth is excessive as it has occurred at a time when the Irish economy is also growing significantly faster than the euro area economy.

Private-sector credit growth slowed from an average annual rate of 30 per cent in 1999 to an average annual growth rate of 13 per cent in 2002. However, its growth rate is accelerating once again with an average annual rate of growth of 24.8 per cent in June 2004. Property is the dominant theme in the lending story. Property-related lending now accounts for half of outstanding loans to Irish residents, up from an average of 36 to 40 per cent since the early to mid-1990s. In summary, the asset quality, profitability, solvency, liquidity and credit ratings of the banks have remained robust during this expansionary period for the banking system.

Notwithstanding the significant slowdown in economic growth that occurred during 2003, aggregate data on asset quality suggest that non-performing assets declined further since this time. The aggregate figures suggest that non-performing assets were approximately 1.3 per cent of the value of outstanding loans during 2002 but that this figure fell to 1.12 per cent at end-2003 and is currently 0.98 per cent. A direct corollary to improving asset quality has been a decline in the level of provisioning. The net result is that the level of cover of provisions to non-performing assets, where non-performing assets are measured as the gross value of the outstanding loans with no account being taken of the recoverable value of any collateral, has fallen to 94 per cent (from approximately 98 per cent in 2002).

Irish banks remain adequately profitable. The return on assets for most institutions fell in 2003. Return on assets comprises two components, the profit margin and the ratio of gross income to total assets. Profit margins increased marginally in 2003 (at approximately 44 per cent) and this is partly explained by a marginal improvement in cost-income ratios (i.e., the ratio of non-interest expenses to gross income). This continued its downward trend from 63 per cent in the early 1990s to 56 per cent in 2003. In contrast, the ratio of gross income to assets fell further and this ratio is now well below levels recorded in early 1990s. This decline in the ratio of income to assets is largely explained by declining net interest margins. Net interest margins have been declining persistently since the early 1990s (an average of 3.5 per cent) to approximately 2 per cent in 2002/2003. This has been driven by a combination of historically low retail interest rates and greater recourse to non-deposit sources of funding to maintain strong lending growth.

Irish banks remain well capitalised with solvency ratios significantly in excess of the regulatory minimum. There has been very little change in the solvency ratios during the last year and both ratios are only slightly below their recent average levels. The average ratio of total own funds to risk-weighted assets fell slightly from 10.61 per cent in 2002 to 10.25 per cent in 2004 and the current ratio is slightly below the 11.15 per cent average between 1997 and 2003. The ratio of Tier One capital to risk-weighted assets decreased marginally from 8.17 per cent (2002) to 7.71 per cent in 2004 but the current level is close to its average value of 8.42 per cent since 1997. The credit rating of Irish banks remained unchanged during the last year. The level of liquidity remained unchanged during the past year and is well above the regulatory minimum.

A stress-test of the banking system was completed last year. This involved the banks simulating the impact on their financial positions of being hit by a severe recession. The results of the exercise were positive. The financial position of the banking system, and each individual credit institution included in the test, proved very resilient to the simulated recession. The result depends, however, on institutions placing considerable weight on the realisability of collateral value in a downturn. More generally, these results have to be qualified because the stress-testing techniques used are still being developed and may be subject to a number of shortcomings. In addition to the stress-testing exercise, a specific inspection of lenders' mortgage-loan files was undertaken during the last year. This inspection did not raise questions of financial soundness for any institution. In all of this, it should be noted that at the moment banks' continuing health depends on the shock absorption capacity of their various prudential ratios remaining adequate relative both to the extent of any house price correction and to the extent of any default rate among mortgaged households. According to our general assessment and the results of the stress-testing exercise carried out on the banking system recently, it would appear to have an adequate capacity to absorb the first-round effects of a modest fall in house prices. It should be noted that there could still be some second-round effects on the financial situation of individual borrowers and corporates, most notably the construction sector, which could, in turn, have adverse implications for the health of the wider economy and consequently for banks' balance sheets. These second-round effects cannot be quantified in the current stress-testing methodologies.

The proportion of banks' funding coming from non-domestic sources has increased markedly in recent years. The ratio of banks' retail deposits to loans extended to Irish residents has fallen persistently. For instance, this ratio fell from 93 per cent in 1997 to below 70 per cent in 2004. This is forcing domestic credit institutions into funding their loan book through capital market issues or through borrowing on the interbank market both of which are more expensive than retail deposits. This may be increasing the banks' vulnerability in two ways. It is having an adverse effect on net interest margins because both of these funding sources are typically more expensive relative to short-term retail deposits. In addition, it is increasing the banking system's dependence on cross-border inflows of funds and may thereby be introducing risks around both the continued availability and cost of these cross-border funds in the future.

House Prices

The rate of increase in house prices remains very strong with new and second hand house prices increasing by an annual rate of 14.7 and 10.8 per cent respectively in the year to June 2004. The annual rate of growth of new house prices has been trending upwards from 8 per cent at the beginning of last year (despite historically high levels of supply) while second hand house prices, which have been running at rates well above those for new houses in the past two years, have experienced declining rates of growth, gradually falling from 18.6 per cent in January 2003. The average house price to rental income ratio (p/e) continued to increase in 2003.

Investors appear to have remained heavily involved in the housing market, even as private rental values have continued to fall in 2004. Yields to property investors, measured as rental incomes as a percentage of the purchase price of the property, have consequently fallen. Nevertheless, rental values in general still appear to be adequate to service current mortgage debt repayments for those investors who have been servicing these mortgages for a number of years already, thereby allowing them to stay in the market and reap their return through capital appreciation. However, the current level of rents would appear to be inadequate to cover debt-service costs for new or very recent investors (assuming a loan-to-value ratio of at least 80 per cent). Nonetheless, these current low rental values may still be unlikely to convince investors to leave the market in significant numbers. This is because the risk-adjusted returns on property investment over the 1980s and 1990s, vis-à-vis those on bonds and equities, suggest that property outperforms these other assets. Investors with medium- to long-term investment horizons are therefore unlikely to be unduly fazed by current rental values.

The risk of a substantial fall in residential property prices is the risk that poses the greatest potential threat to the health of the banking system. A significant fall in the level of house prices would have a negative impact on the banking system's profitability, provisioning and capital reserves. The magnitude of the impact would vary with the size of the fall in prices as well as the level of default among mortgage-holders. The most significant losses for the banking system would arise from those borrowers who have only recently taken out mortgages and have not yet built up significant equity in their properties. A sizeable correction in prices would be devastating for those households who would be unable to ride out any such fall in house prices. However, according to our general assessment and the results of the stress-testing exercise carried out for the banking system recently, it would appear that the banking system has adequate capacity to absorb a modest fall in house prices. Again this analysis is subject to the qualification that the stress-testing methodologies employed are still being developed and may be subject to a number of shortcomings.

According to an IMF international assessment of the housing market, large house price increases which are sustained over a number of years, tend to be followed by fairly steep falls in prices. It also notes 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 last decade without a subsequent large correction in prices. However, it notes that these international patterns related mostly to the 1980s and, in its assessment, it draws a distinction between the experience of the 1980s and the 1990s. It notes that the macroeconomic setting of the 1990s is much more stable and benign than that which prevailed in the 1980s and that this may have played a role in the negative fallout from the 1980s housing market boom. As with all asset prices, assessments of the sustainability of a given level of property prices are surrounded by a large degree of uncertainty. Such assessments are also sensitive to the chosen valuation approach.

The CBFSAI's analysis confirms that different methods of valuation give quite mixed estimates of the degree to which current prices are sustainable. Valuations based on the past relationship between prices and earnings (rents), i.e., the price-earnings ratio, would suggest that property prices are currently significantly overvalued. However, an alternative approach to valuation which incorporates both the demand for housing for the services it supplies as well as the demand for housing as an investment does not provide evidence of overvaluation.

A combination of the high growth rate, high inflation and low interest rates has resulted in a somewhat unique setting for the Irish economy since the middle of the 1990s. In these circumstances, it is reasonable to expect that rental income would be driven by the high expected growth rate of overall incomes while the real interest rate would be driven by the combination of low nominal interest rates and high inflation. The present value model (which takes account of expected future rental income and interest rates and is an alternative valuation approach to using historical averages of price-earnings ratios) would naturally therefore tend to yield accelerating house price inflation over the rather special circumstances that prevailed in the Irish economy since about the time when house prices and rents began to diverge (i.e., 1995). However, whether any such acceleration would have been sufficient to justify the extent of the actual acceleration since the mid-1990s is still an open issue.

Implicit in the price-earnings and present value approaches to valuing property is the idea that housing is only demanded for investment purposes and can be treated in the same way as, say, a demand for corporate stock. However, it is notable that a majority of housing is demanded by owner-occupiers for the services it supplies (i.e., shelter etc). A third approach to valuing property prices is required to account simultaneously for the demand for housing for the services it supplies as well as the demand for housing as an investment. The results of this approach do not provide evidence of overvaluation.

There is also a long list of other developments, which were having a significant impact on the Irish economy as well as on the Irish housing market in the 1990s. Six broad categories of influence are identified (i.e., fiscal, structural, institutional, financial market deregulation, financial market innovation and ''other'' demographic factors). Although we are not in a position to assess the quantitative effects of these longer-term changes impacting on the Irish economy, these developments are reviewed in this report and the conclusion is reached that their separate and combined impact was invariably to boost the demand side of the housing market. They have come together at more or less the same time and have tended to reinforce each other. Their influence should have waned by now and they should cease adding to demand pressures in the market.

Here are some examples of these effects. The improved fiscal situation in recent times has ultimately had the effect of increasing households' disposable income and reducing their expectations of significant tax increases in the future, thereby encouraging consumers to borrow more, especially for property investment. There were also a number of micro tax measures taken in respect of the housing market (e.g., the reduction of stamp duty, the abolition of the residential property tax and the reduction in capital gains tax for investors), which were all favourable to the demand side of the market. Indeed, the balance of tax and subsidy decisions taken in the 1990s were undoubtedly in favour of homeownership. Financial market deregulation and innovation have also had a significant effect on the availability of funding for potential house purchasers. Financial market liberalisation can have the effect of releasing pent-up demand and facilitating a large sudden influx of new participants into the property market over a short space of time. Moreover, the supply of funding for the mortgage market has become much more elastic since the start of monetary union, with the result that increases in mortgage demand in Ireland don't automatically choke off further demand as they almost certainly would have before financial market liberalisation and the start of monetary union. There was also an increase in the number of double income households in the 1990s as a result of greater female participation in the labour market. This, by increasing affordability, undoubtedly also boosted demand for housing. Our analysis also leads us to the conclusion that the disinflationary environment of the 1990s has tilted the real burden of mortgage repayments to later stages in the life of the mortgage thereby making it more affordable in real terms to service the debt in its early stages.

The failure to uncover conclusive evidence of overvaluation does not mean that there is no cause for concern for financial stability. If, for whatever reason, fundamental variables identified here were themselves to be subject to severe negative shocks, coming from sources either external or internal to the Irish economy, then house prices could still fall substantially. House prices can fall without being overvalued and this is also a concern for financial stability. Apart from the occurrence of the type of shocks that would cause significant deterioration in fundamental variables, our key concern is with a continuation of the current strong rate of price increase which is less strongly underpinned by fundamentals. If this continues, the risk of a sharp correction in prices in the future will increase. The overriding concern from a financial stability perspective is that any sharp correction, regardless of its magnitude, does not occur unexpectedly or suddenly and, in addition, is not accompanied by a large rise in interest rates or unemployment, both factors that would increase the default rate among mortgage holders, and could force mortgage lenders to repossess properties in which there could be negative equity.

It is apparent that households, and recent newly mortgaged households in particular, are heavily exposed to the potential for short-term market interest rates to rise rapidly, and unexpectedly, for reasons that are unrelated to the state of the Irish economy. Any such rise in interest rates would have adverse consequences for households if it occurred alongside, or shortly after, a significant fall in house prices. In the event of a significant rise in interest rates, it is to be expected that some homeowners would be unable to continue to service their mortgage loans and ride out any fall in prices. These households would in essence be defaulting in a situation of negative equity. It is a natural part of any financial stability assessment therefore to try and make an attempt at estimating where interest rates might be headed from now. An estimate of the equilibrium mortgage interest rate for the euro area at about 6 per cent would suggest that the magnitude of any increase in the current variable mortgage interest rate (which stands at about 3.5 per cent in Ireland) could be substantial. Although we do not think that such a substantial increase in interest rates is likely in the immediate future, it has to be borne in mind that the actual mortgage rate will eventually converge over time to this equilibrium rate. There is a danger that participants on the demand side of the housing and loan market are not paying sufficient heed to this possibility.

A scenario where house prices were falling and interest rates were rising would reduce the attractiveness of property investment. It is apparent that rental incomes, which have been declining in recent times, are inadequate to service the mortgage debt on new property investment (assuming the mortgage has a loan-to-value ratio of at least 80 per cent). It is most likely that a fall in prices combined with an increase in interest rates would encourage some investors to sell their properties and realise their capital gains. However, these investors would be selling into a falling market and would most likely further depress house prices.

The cause for concern is all the greater now in the context of Ireland's membership of monetary union. This is because any rescue operation might be more difficult than it would have been in the past because of Ireland's membership of monetary union. This limits the scope for policy to deal with such a situation because there is no longer any discretion over short-term interest rates.

Insurance Sector

Internationally, insurance companies have benefited from some recovery in equity markets, which have ameliorated somewhat the reduced profitability and solvency pressures in recent years following the stock market correction in 2000 and the drop in long-term interest rates. However, a persistent concern for some time has been that insurance companies were sellers of protection for credit risk while the banking sector was the net buyer of this protection. A survey conducted by the Financial Services Regulator suggests that the insurance sector in Ireland has not become exposed to the banking sector through the transfer of credit risk.

Payment and Settlement System

The payment and settlement system infrastructure in Ireland continues to operate reliably. TARGET is the *Trans-European Automated Real-time Gross settlement Express Transfer* system, which is a central bank payments system for domestic and cross-border payments in euro in interbank funds on a real-time gross settlement basis. The Irish component of TARGET, which is operated by the CBFSAI, functioned smoothly in 2003 and provided a reliable and safe mechanism for the efficient settlement of large-value payments in euro in real time. A total of over 800,000 payments were processed with the value of those payments amounting to approximately €5.5 trillion. Domestic and cross-border payments represented 58 per cent and 42 per cent respectively of these processed payments. The average monthly availability of the Irish component of TARGET in 2003 was 99.94 per cent, exceeding the ECB minimum availability requirement of 99.44 per cent. While the systemically important large-value interbank and commercial payments are settled on a real time basis in TARGET, most personal and smaller value payments are settled through the retail clearing system operated by the commercial banks. That system processed 152.6 million payments with a value of €265 billion during 2003.

International Dimension

By any standard, Ireland is one of the most open economies in the world. Although there are many economic advantages that derive from this, the downside is that the economy is highly exposed to contagion from a large range of shocks arising in the rest of the world economy. There is a fairly wide consensus on the main risks currently affecting the world economy. There are four risks in particular that should be flagged. There is the risk of a rapid unwinding of the imbalances affecting the US economy, which, if it were to materialise, would probably be accompanied by a sharp fall in the dollar. There are also geopolitical uncertainties affecting the oil market. In addition there is the risk of a correction in bond markets which currently seem to be overbought as reflected by the divergence between the nominal bond yields and nominal growth rates in output. Given the large contribution of China to the recent growth in world trade, there is now the risk that the monetary policy tightening measures introduced in China might lead to a hard landing with adverse effects on world trade. If the worst of these prospects were to materialise, especially if some combination of them were to occur at once, it could present a significant shock to the Irish economy which would interact with the domestic vulnerabilities and could cause real financial fragility.

Conclusions

In summary, the stability of the Irish banking system has proved resilient to the sharp slowdown in the growth rate of the economy that occurred in the first two years of the new century. 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 Irish banking system will be compromised over the medium-term horizon. This central expectation does not preclude the possibility of adverse developments which, should they materialise, would have serious financial consequences for households, corporates and banks. The risk of an unanticipated and sudden fall in residential property prices, accompanied by an increase in the default rate among mortgage holders, is the risk that poses the greatest threat to the health of the banking system. Nevertheless, the shock absorption capacity of the banking system is currently adequate and the system could absorb a modest fall in house prices even if it were to coincide with a modest increase in defaults. The key to the continued resilience of the banking system is a mixture of prudent lending standards, and conservative loan-to-value ratios. It also requires prudent borrowing by households that takes account of the abnormally low interest rate environment that exists today but which cannot be expected to last indefinitely.

Financial Stability Report 2006

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Notes

1. The commentary in this report is based on data available up to end-September 2006.

2. The following symbols are used:

e	estimated
f	forecast
Q	quarter

3. The following abbreviations are used:

AU	Australia
AT	Austria
BE	Belgium
DK	Denmark
FI	Finland
FR	France
DE	Germany
GR	Greece
IE	Ireland
IT	Italy
JP	Japan
NL	Netherlands
NO	Norway
PT	Portugal
SP	Spain
SE	Sweden
CH	Switzerland
UK	United Kingdom
US	United States

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Foreword

I am pleased to present to you the Financial Stability Report 2006. The objective of the Report is to provide the information and analysis so that people, in particular borrowers and lenders, are well informed about the economic and financial environment, with particular attention to the associated risks and vulnerabilities.

There are three complementary sections to the Report. The main commentary provides an analysis of relevant domestic and international economic and financial issues and highlights potential areas of concern to the Irish financial system. This is followed by a special thematic piece on the systemic consequences of long-term trends in banking. The third part of the Report contains a number of research articles which provide more detailed analysis of key issues raised in the Report's main commentary.

This publication follows from the Central Bank & Financial Services Authority's (CBFSAI's) mandates under both domestic and European law. The *CBFSAI Act, 2003*, requires the 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 has a mandate to promote a sound financial system and to protect consumers. Consequently, the Bank works in close co-operation with the Financial Regulator to ensure that financial stability is maintained in Ireland. This Report reflects the joint views of the Bank and the Financial Regulator.

The overall assessment of this Report is that financial stability risks may be seen to have increased since the Financial Stability Report 2005 was published about a year ago. However, the overall conclusion is that the Irish financial system continues to be in a good state of health to cope with emerging issues. Last year the key vulnerabilities of the financial system were identified as those arising from strong credit growth and rising indebtedness levels. This year these vulnerabilities remain, and are now combined with developments arising from higher repayment burdens and increased uncertainty with respect to the outlook for house prices. These vulnerabilities in the Irish financial system are important because there are risks to the macroeconomy, arising from both domestic and international developments, which are also apparently increasing. Nonetheless, our 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. However, these vulnerabilities as well as risks to the economic outlook pose continuing issues for the banking system. Accordingly the recent indications that the momentum in the rate of increase in house prices may be easing is a welcome development which we would like to see continue.

This year's thematic article highlights the fairly radical change in international and Irish banking over the past three decades. The aim is to identify the underlying forces that have shaped banks' balance sheets internationally, to examine to what extent the balance sheets of Irish banks conform to this general pattern, and to assess whether the evolution of the banking system has deepened its resilience and shock-absorption capacity.

There are several other financial stability issues examined in this Report. These include the results of two recent stress-testing exercises; an examination of the role of disposable income and interest rates in determining house prices; the importance of property-related lending to the banking sector; and stylised facts on Irish corporates' balance sheets.

I hope that the comprehensive analysis in our Financial Stability Report conveys to our readers the importance of a stable financial system and that it may stimulate discussion of the current financial stability climate in Ireland among financial market participants and the wider public.

John Hurley,
Governor

Summary

Overall Assessment

The overall assessment of this Report is that financial stability risks may be seen to have increased since the Financial Stability Report 2005. At the time of publication of the previous Report in November 2005, the major systemic vulnerabilities identified for financial stability were those arising from strong credit growth and rising indebtedness levels. At that time also, there was tentative evidence that house price increases were beginning to reaccelerate after a period of moderation. Shortly thereafter, it became clear that the acceleration in house prices was more than a temporary phenomenon. More recently, there are some signs that the momentum in house price increases may be easing somewhat. If these signs were to be confirmed and to continue into 2007, the vulnerability posed by house prices would be reduced somewhat. These house price developments occurred against the background of a significant increase in interest rates in the euro area. The overall picture at present is that strong credit growth, high indebtedness levels, increased 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, nonetheless, these signs of a further build-up in vulnerabilities are a cause for concern.

Since the last Report, credit continues to grow at a very high rate, such that the private-sector debt-to-income ratio is set to reach approximately 192 per cent by end-2006 given current growth rates. The speed at which this indebtedness is being accumulated is an additional concern. This increasing indebtedness, incurred mostly for asset purchase, carries inherent dangers and makes the banking sector more vulnerable to the risk of default if the economy is subject to adverse shocks.

The main change in the financial stability risk profile since 2005 has been in relation to the growth in residential house prices, which had moderated somewhat prior to the publication of last year's Report, but had reaccelerated in the intervening period. The moderation in the pace of house price growth last year was welcomed as reducing somewhat the risk of a sudden fall in house prices. At the current juncture there have been tentative signs of a re-emergence, from both housing indicators and anecdotal evidence, of some easing of price pressures in recent months. While a soft landing in the residential property market is the most likely outcome, the earlier step-up in house price growth was pointing to an increased risk of a correction in future house prices. The reacceleration was also somewhat surprising as it continued for some time against a background of increasing interest rates. However, market expectations that interest rates may continue to increase for some time may now be starting to have an impact on house price increases. Notwithstanding the strength of the banking system, a correction in house prices, if it were to be combined with a significant increase in arrears among mortgage holders, could pose significant difficulties for the health of the banking system.

The vulnerabilities posed by strong credit growth, high indebtedness levels, increased repayment burdens and house prices have heightened at a time when risks to the macroeconomy arising from both domestic and international developments are also apparently increasing. The main downside risks from the domestic environment continue to be, first, the disproportionately large dependence of the economy on the construction sector and, secondly, the downward pressure on Ireland's competitiveness. In addition, the risks to domestic growth from the international environment come from a number of sources. These comprise high and volatile energy prices which continue to be subject to influence from geopolitical issues, robust demand and potential disruptions to supply; increasing global imbalances; potential adverse financial market and exchange-rate developments and the heightened risk of an abrupt slowing in the US housing market. There is also the risk of an increase in inflationary pressures, with implications for the pace of monetary tightening. At a more general level, there may be a risk of heightened protectionist sentiments in various regions of the world economy which would not be conducive to global growth prospects.

The continuing stability of the financial system, in the context of increasing indebtedness and strongly increasing residential property prices, as well as the growing domestic and international risks to the economy, must be underpinned by a healthy banking system with good shock-absorption capacity. Currently, the stability and health of the Irish banking system remains robust when assessed by the usual 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 borrowers, the financial position of the banking sector as well as recent stress testing of the system, is that the banking system is reasonably well placed to withstand the impact of any likely adverse developments in the short to medium term. However, this central expectation does not preclude the possibility of adverse developments, which should they materialise would have serious financial consequences for banks.

CBFSAI's Mandate

The CBFSAI's mandate is to contribute to financial stability. There are three elements in the discharge of this mandate:

i) to raise awareness of financial stability matters and to develop the knowledge base and analysis in this area. The CBFSAI's approach is to encourage behaviour on the part of lenders and borrowers that takes account of future risks. This is being done through initiatives like the publication of the annual Financial Stability Report. The assessment of the financial system is based on an analysis of indicators that aim to measure the level of stress in the financial system, as well as a general review of economic and financial pressures. Stress-testing exercises are also conducted periodically with domestic banks to inform the risk assessment;

ii) to maintain a dialogue with the domestic credit institutions in order to highlight issues for the financial system. This is done in close concert with the Financial Regulator. As part of its work in promoting a sound financial system, the Financial Regulator conducts regular on-site inspections of banks as well as themed studies such as the recent study on mortgage lending. Banks' exposures are also monitored on a regular basis. Against the backdrop of the growth in mortgage lending, the Financial Regulator has recently introduced changes to the risk weighting applied by credit institutions to Irish residential mortgages which will result in credit institutions setting aside additional capital in respect of these loans. Further changes to the risk weighting may be introduced in the area of both residential and commercial property lending as part of the national discretions available under the forthcoming Capital Requirements Directive; and

iii) to continue to develop procedures to deal with a potential crisis and to facilitate an orderly resolution.

Economic and Sectoral Summary

Domestic and International Macroeconomic Outlook

The Irish economy and the labour market in particular have shown a very strong performance in recent years. The domestic economy continues to perform strongly and economic growth is expected to remain at about $5\frac{1}{2}$ per cent both this year and next. Labour market conditions have been very favourable over the last number of years, with the economy operating at effectively full-employment, and the prospects for the immediate future seem favourable. There are, however, a number of financial stability risks arising from the macroeconomy. As highlighted in last year's Financial Stability Report, the main downside risks from the domestic environment continue to be, first, the disproportionately large dependence of the economy on the construction sector, which has not yet shown any signs of output returning to more medium-term sustainable levels, and secondly, the downward pressure on Ireland's competitiveness.

While the construction sector continued to grow strongly throughout 2005, the outlook is for a gradual deceleration of construction investment in 2006 and 2007 as housing output growth is thought to be close to a peak. Although, the construction sector now accounts for around one in every eight jobs in the economy, modest increases in construction sector employment are nonetheless expected in 2006 and 2007. While a gradual slowdown in the construction sector's contribution to the economy is expected over the next couple of years, the possibility of a sharp reduction in housing output cannot be dismissed. Such an event could have serious adverse effects on economic growth and employment.

Ireland's competitiveness position has deteriorated over the last four to five years. The re-emergence of domestic inflationary pressures may serve to further worsen the competitiveness position of the Irish economy. On the external front, the recent appreciation of the euro exchange rate will also contribute to competitiveness difficulties, and the possibility of a further appreciation relative to the dollar constitutes a significant downside risk to medium-term trade projections.

The risks to the macroeconomic outlook arising from the global economy are perceived to have increased since the 2005 Financial Stability Report, notwithstanding the fact that global growth prospects are now somewhat more favourable. The relevant risks, as indicated earlier, are oil price movements, global imbalances, potential adverse financial market and exchange-rate developments, the risk of inflationary pressures re-emerging and an abrupt slowdown in the US housing market.

Despite the recent reduction, oil prices have remained at elevated levels since last year's Report and according to oil futures markets are expected to remain high for the foreseeable future. The Irish economy is very dependent upon imported oil – by international standards – and oil price fluctuations impact on the economy through terms-of-trade effects as higher import costs reduce purchasing power and demand for domestically produced goods. This negative effect is greater for Ireland than elsewhere, with consequent adverse competitiveness effects.

The large and growing global imbalances and the high US current-account deficit, in particular, continue to pose risks to financial stability over the medium term. If the unwinding of these imbalances were to involve a sharp depreciation of the US dollar, this would negatively affect the competitiveness of Irish exports to the US and, over the longer term, might also have a negative effect on the ability of the economy to attract inward foreign direct investment from the US. The problems for the Irish economy would be accentuated if sterling were also to depreciate simultaneously against the euro.

Against the background of expectations of higher inflation and monetary tightening, rising uncertainty about asset valuations across a wide range of markets emerged during May, with many markets reversing direction and market volatility rising to its highest level since mid-2004. While equity and debt markets have rebounded since June with both risk premia and market volatility remaining very low, the concern expressed when markets were previously at these levels before May of this year remains. There is a danger that excessive risk taking may be leading to a mispricing of risk and pushing asset prices in some markets beyond sustainable levels. In such circumstances, risks of a less benign adjustment remain. A specific financial market risk is that long-term interest rates could rise sharply, even after their recent move upwards from historically low levels. This could have a significant impact on households, particularly in countries where house prices and the level of indebtedness have increased significantly.

Since last year's Report concern has increased about the risk of an abrupt slowing in the US housing market. Recent data point to a strong downturn in housing starts and home sales. The main risk, apart from the potentially sizeable direct effects on residential investment and employment, is that moderating house price increases and higher mortgage interest rates will significantly reduce the volume of home equity withdrawal and, through this channel, dampen consumer spending and economic growth.

Private-Sector Credit and Indebtedness

Growth in private-sector credit (PSC) accelerated to record levels in mid-2006, peaking at 30.3 per cent in June before slowing marginally to 28.1 per cent in September. Private-sector indebtedness, as proxied by the ratio of PSC to GDP, increased to 160.6 per cent in 2005, up from 135.3 per cent in 2004. As a percentage of GNP, it reached 190.4 per cent at end-2005, thereby re-confirming Ireland's status as a highly indebted economy by international standards. Notwithstanding any possible adverse shocks, and assuming that the current speed of credit growth continues unabated, the ratio of PSC to GDP could reach 192 per cent approximately, by end-2006.

An additional concern is the pace at which private-sector indebtedness is increasing. The level of indebtedness (or the debt-to-income ratio) increased by 18.7 per cent in 2005, compared to 17.1 per cent in 2004. Should present trends persist, the rate of increase in the debt-to-income ratio could be approximately 20 per cent at end-2006. This would be almost four times the average growth rate experienced in the 1990s (approximately 5.5 per cent). In the current environment, where market participants expect further interest-rate increases, and when the bulk of mortgages as well as new lending to non-financial corporates are at variable rates, the rapid accumulation of credit poses a concern for financial stability. Higher repayment burdens increase the vulnerability of the private sector to adverse economic shocks.

The record levels of growth in private-sector credit are driven by strong growth across all categories (i.e., by residential mortgage credit growth and a resurgence in non-mortgage credit). The adjusted mortgage credit growth was 26.9 per cent in September 2006 compared to 25.6 per cent twelve months previously. Non-mortgage credit, which comprises non-mortgage related lending to the household sector and lending to non-financial corporates, has accelerated from a relatively low rate of growth in 2002 to a current rate in line with mortgage credit growth.

Last year's Report published the results of a study into whether fundamental factors (i.e., macroeconomic or institutional) could explain a significant portion of the rapid growth in mortgage credit. The analysis suggested that a number of fundamental factors (e.g., interest rates, inflation and unemployment) could indeed explain the rapid growth in mortgage credit until recently, but that it would be unlikely that these factors could continue to improve significantly in the future. This would make it more difficult to rationalise continued high rates of credit growth as being fundamentally based. It is important, therefore, that mortgage credit trends should reflect the fact that fundamentals cannot continue to support the kind of growth rates in mortgage credit experienced in recent years. Indeed, interest rates are increasing, the unemployment rate is unlikely to fall much lower and incomes, although still growing robustly, will not return to the kind of growth rates experienced in earlier years. The continuation of the current high rate of mortgage credit growth is of concern, therefore, because it may signal a departure from the rate justified by fundamentals.

Property Prices

Following the publication of last year's Report a reacceleration emerged in annual house price increases. According to the permanent tsb/ESRI (ptsb) house price index, national house price inflation was 15 per cent in the twelve months to September 2006, compared to 7.2 per cent in October 2005. In more recent months, however, there have been tentative signs of a re-emergence, from both housing indicators and anecdotal evidence, of some easing of price pressures. If these signs were to be confirmed and to continue into 2007, the vulnerability posed by house prices outlined in this Report would be reduced somewhat. But, notwithstanding any adverse shocks in the interim, year-to-date increases in national house prices (10.9 per cent) still suggest that 2006 will be another robust year for the Irish property market. A continuation of the high increases in residential property prices would be unwelcome for two reasons.

First, it is not obvious that the earlier reacceleration was driven by fundamental factors. There are many fundamental factors that typically drive residential property prices, namely, conjunctural developments (e.g., income growth or the level of interest rates), fiscal measures, structural issues (e.g., number of houses per '000 population), institutional change (e.g., monetary union), financial market deregulation, financial market innovation and demographics. Many of these factors remained largely unchanged during 2005. House prices would have enjoyed some support from continuing strong demographics and higher income growth but increasing interest rates and continuing high levels of housing supply would have counteracted this to some extent. The concern is that a higher level of house prices that is not supported by fundamental factors may be more prone to a sudden correction. Deviations of actual house prices from that which is justified by the underlying fundamentals can have serious consequences for households' and hence for banks' balance sheets, leading to uncertainty and instability in the financial system. There are several approaches, differing in complexity, to estimate the fundamental price.

Secondly, a continuation of high increases in house prices, along with increasing interest rates, is contributing to a deterioration in affordability in the residential market. This is of concern for two reasons. First, a stable housing market relies on the availability of a pool of purchasers, whether the pool is composed of first time buyers, investors or those trading up or down, to provide support for the market. If market expectations for interest rates were to be realised, and house prices continue to grow in double digits, affordability could deteriorate relatively quickly thus increasing the risk of an abrupt correction in house prices. Second, a deterioration in affordability may create an environment where pressures may emerge for some liberalisation of lending standards.

Although rental growth has been improving over the course of the past year, the robust pace of house price appreciation implies that rental yields remain historically low. Despite this low yield on property, the apparently high expected level of capital growth makes property a popular asset for investors. Investors, unlike owner-occupiers, pose a risk to the stability of the market insofar as they may attempt to exit the market and at short notice. This may be an unlikely event at a time when capital growth is so strong and the return on investing in property is correspondingly high. However, any slowdown in capital growth, against a backdrop where interest rates and mortgage repayments have increased, may encourage investors to realise their capital gains thus slowing capital growth further.

The growth in capital values in the commercial property market increased significantly across all sectors (i.e., retail, industrial and office) in 2005. The data suggest this trend has persisted in 2006. Overall, capital values rose year-on-year by 26.7 per cent in 2006Q3 (compared to 15.3 per cent in 2005Q3). Capital values continued to outperform rental values, compressing yields further. Despite improved performances by the office and industrial sectors since 2005, the retail sector remains the dominant commercial property sector in 2006. Capital growth in the retail sector rose to 28.9 per cent in 2006Q3 compared to 20.9 per cent, recorded a year earlier. Capital values in the office and industrial sectors grew at an annual rate of 25.8 per cent and 24.1 per cent, respectively, in 2006Q3.

Household Sector

The overall assessment of financial stability risks arising from the household sector is that they appear to have increased slightly. On the one hand, the outlook for employment and disposable income growth continue to be positive. On the other hand, the vulnerability of heavily indebted households to interest-rate increases has increased. This is due to their increasingly indebted profile and the predominance (83.5 per cent) of variable rate mortgages. Moreover, the possibility of a fall in employment in the construction sector remains an important concern. A downsizing in the construction sector is still predicted and even if its timing is uncertain, it may impact on employment and therefore the debt servicing ability of those households affected.

Since the Financial Stability Report 2005, the growth rate in personal-sector credit has remained very strong despite recent signs of moderation. The annual growth rate of personal-sector credit as of 2006Q2 (23 per cent) was the lowest annual rate since 2004Q1. There have been some revisions to the personal lending statistics that complicate a time series comparison of growth rates of its constituent parts over recent months. In general, these revisions have largely boosted lending in the categories Real Estate Activities and Residential Mortgages and depressed annual growth in the category Other Personal. Residential mortgage lending, which accounts for the majority of personal-sector credit, continues to grow strongly (26.9 per cent in September 2006).

Household indebtedness in Ireland, measured by debt as a percentage of disposable income, continues to increase rapidly. It is estimated to have reached 131.5 per cent in 2005. If current rates of credit growth continue, this ratio could be in the region of 150 per cent by end-2006. These are record levels of indebtedness by historical comparison. Its level and rate of increase is high by comparison with other euro area countries with the result that the Irish household sector is now one of the most indebted among these countries. This level of indebtedness increases the vulnerability of both individual households and the health of the financial system to adverse shocks.

In the current environment of increasing interest rates, the level of household indebtedness is also of concern because the overwhelming majority of household debt is mortgage loans at variable rates. The aggregate figures may hide the fact that a proportion of households, in particular, those newly mortgaged, face significant mortgage repayments relative to income. As of 2006Q2, 83.5 per cent of the value of outstanding mortgage credit was at variable rates – a similar level to that seen a year previously – while the remaining 16.5 per cent was at fixed rates. In addition, a majority of fixed rate mortgages are fixed for short periods only (1-3 years). The results of scenario analysis suggest that repayment burdens for existing and prospective house buyers will increase significantly if market expectations for interest rates are realised and house prices continue to grow strongly. The new burdens will be particularly onerous for recently mortgaged households.

The data do not suggest that the recent increase in repayment burdens has increased the rate of arrears among mortgaged households. However, it may be the case that mortgaged households would, if encountering difficulties, default on unsecured debts in the first instance. In this way, mortgaged households with outstanding personal loans and/or credit card debts may still pose an indirect risk for the banking sector.

Corporate Sector

The situation in the corporate sector seems largely unchanged since the Financial Stability Report 2005. While there appear to be limited substantial short- to medium-term risks to financial stability arising from the private non-financial corporate sector (PNFC), resident credit institutions' exposure to this sector continues to increase.

Credit growth to corporates remained strong through early-2006. Annual growth in lending to PNFCs was 38.3 per cent in 2006Q2. Loan growth to PNFCs has now increased in each of the past three years. This is a marked reversal of the trend in falling credit growth in the early-2000s that saw growth reach a trough of 9 per cent in 2002. The pick-up in credit growth to PNFCs has been stronger in some sectors than in others. Growth in lending was strongest to the commercial property-related sector. Annual growth to this sector was 60.5 per cent in 2006Q2 (45.8 per cent in 2005Q2). By comparison the second highest growth rate, recorded in the retail, wholesale and tourism sector, was 30.2 per cent.

Commercial property-related lending accounted for approximately 84 per cent of the growth in lending to PNFCs in the twelve months to 2006Q2. As a result, commercial property-related loans have grown as a share of total outstanding loans to PNFCs, from 53 per cent at 2005Q2 to 61.5 per cent at 2006Q2.

Credit risk from the corporate sector remains low by historical comparison. The annualised rate of liquidations involving potentially insolvent firms (the narrow rate of liquidations) is 0.26 per cent of all companies, slightly above the 2005 level of 0.23 per cent but below the long-run average (1980 to 2004) of 0.38 per cent.

Banking Sector

The overall health of the banking system remains robust when measured by profitability, asset quality, solvency, liquidity and credit ratings. Nonetheless, the signs of a further build up in vulnerabilities from credit growth and rising indebtedness, increasing repayment burdens and house prices are a cause for concern. The continuing stability of the financial system, in the context of these vulnerabilities, as well as the domestic and international risks to the economy, requires a healthy banking system with good shock-absorption capacity. The recent round of stress testing, notwithstanding some important caveats, suggests the shock absorption capacity of the system remains strong. However, developments since last year's assessment suggest that the concerns identified in the 2005 Report persist:

- *excessive credit growth* – the current rate of growth in private-sector credit is 28.1 per cent. The concern about the current pace of credit growth is further compounded by (i) the fact that credit is being extended to an already highly indebted private sector, (ii) the risks to the economic outlook and (iii) the change in the interest-rate cycle which is now trending upwards;

- *over-concentration of income and loan books to property-related business* – property-related lending (broadly defined) accounted for almost 79 per cent of the growth in private-sector credit during 2006Q2 and accounts for 60.1 per cent of the aggregate loan book. As a result of this concentration, Irish credit institutions are increasingly at risk from over-exposure to a single, albeit broadly defined, asset class. While such lending has the positive attribute of being collateralised, the risk remains that all credit institutions would be exposed to any widespread shock that hits the property market. This concentration must also be assessed in the context of (i) the disproportionately large dependence of the economy on the construction sector with the possibility of a sharp correction or at best a gradual correction and (ii) the apparent positive correlation of property prices both within and across the various market segments (i.e., by type of property and geographical location). A contraction in the construction sector would not only reduce the market for property-related lending but would also affect banks' credit risks through slower economic growth and higher unemployment. In addition, it appears that the rate of increases in prices across different segments of the Irish property market have tended to trend upwards and downwards in a broadly similar fashion over the last thirty years, particularly during those periods of relatively slower economic growth. Based on this experience, it appears possible that any slowdown in the rate of growth of prices in one segment would most likely be accompanied by a slowdown in growth rates across several other segments simultaneously.

- *a widening funding gap* – the Irish banking sector's funding gap, calculated as the ratio of private-sector deposits to private-sector loans, has widened further to 54 per cent and is the highest in the euro area. The size of the euro area financial system presents Irish banks with a readily available source of funds. To date, the ease with which Irish credit institutions have accessed this market is a reflection of the international confidence in the health of the Irish system. However, continued reliance on wholesale funding is of concern because, firstly, wholesale funding is generally more expensive than retail deposit-based funding and this places further pressure on net interest margins; and secondly, in the event of a specific shock to Ireland, a withdrawal of international funds could constrain the ability of Irish banks to advance further credit;

- *falling net interest margins* – net interest margins continue to fall, increasing further the reliance on high rates of credit growth to maintain income growth. It is not obvious that the upward trend in short-term interest rates following ECB tightening will lead to a recovery in net interest margins as other factors such as the persistently low levels of long-term market rates, the increasing need to have recourse to non-retail sources of funding, the nature of banks' assets and the banking sector's market structure, are also important determinants of the level of margins; and

- *a reduction in the forward-looking element in provisioning* – the decline in provisions (from 0.68 per cent to 0.51 per cent of non-government credit in the twelve months to June 2006) is in part a reflection of the downward trend in non-performing assets which has been evident over the last five years. More recently, it is also a result of the phasing out of general provisions under the new International Financial Reporting Standards. Against the backdrop of the persistently high growth rate of mortgage lending, and the effect on provisioning coming from the new accounting standards, the Financial Regulator recently increased the risk weighting on high LTV mortgages to increase the capital cushion in the system. This will result in credit institutions setting aside additional capital in respect of these loans.

Stress Testing

Stress-testing exercises are conducted periodically with domestic credit institutions to inform the risk assessment. A round of stress testing was launched in early-March by the Bank with the 11 domestic retail credit institutions, whereby each institution assesses its vulnerability to hypothetical shock scenarios. These include a major fall in FDI inflows, a negative world trade shock, exchange-rate appreciation of differing magnitudes, interest-rate increases, and house price falls. At the same time, an in-house assessment of the institutions' vulnerability to five specific risks (credit, liquidity, foreign exchange, equity price and interest rate) are assessed and results aggregated to compare the relative significance of each in the Irish context.

The results of the institutions' assessment of their vulnerability to a serious economic downturn suggest the system's shock-absorption capacity is strong. No institution projected losses and each institution's solvency would remain above regulatory minima in the case of a serious contraction in the economy.

Furthermore, the results of the 'in-house' assessment of the institutions' vulnerability to specific risks also suggests that banks' shock absorption capacity is strong with respect to the key risks, namely, credit, liquidity, foreign-exchange, equity price and interest-rate. The data suggest that the banking system could cope with a realisation (in a significant way) of each of these risks individually.

It must be stressed that there are limitations to both approaches to stress testing. Both tests measure the initial impact only of the shock on banks' financial positions and cannot account for second-round effects. In addition, there are assumptions underlying both institutions' own assessments (i.e., the realisability of collateral in a downturn) and the in-house analysis (i.e., assumptions on loss-given-default rates and assessing the vulnerability to each risk sequentially). It is important that the boards of credit institutions are satisfied in relation to the assumptions made in their replies to the stress tests and also consider, from their risk management perspective, the limitations of these exercises. In summary, it is likely that the results understate the adverse effects of shocks. This is mostly due to the fact that they are mechanical in nature and do not capture behaviour in circumstances where uncertainty increases significantly and rapidly.

Long-Term Trends in Banking

Banks' balance sheets exhibit well-established trends some of which go back a few decades in time. Most of these trends point to a declining role, in relative terms, for the traditional banking business of taking deposits and granting loans. The underlying driver of these trends has been the wave of financial liberalisation which started in the 1970s and which has led to a gradual step up in the intensity of competitive pressures in banking. The effect of the IT revolution has also been profound. In many ways, banking and finance present the almost ideal context for the successful application of the new information and communication technologies. Stemming from these factors, almost all of the functions that banks perform that were supposed to make them special are now subject to significant competition. Banks have been responding to the inevitable changes in the financial landscape, and especially to the very rapid developments in financial markets, with the result that, in many countries, bank revenues now come increasingly from non-traditional sources and, in some countries, these account for more than half of all revenue. The paper concludes that the repercussions of these developments for financial stability are largely benign, but there is a danger that this transition could generate its own systemic vulnerabilities.

Financial Stability Report 2006

Part 1

1. Introduction

This is the sixth Report to be published by the Bank on the stability and health of the Irish financial system.

This part of the Report is the main commentary, which provides an analysis of domestic and international financial developments, highlighting potential areas of concern relevant to the Irish financial system. The analysis documents the risks to the health of the Irish financial system with regard to developments in the household, corporate and financial (banking and insurance) sectors. Finally, this part of the Report considers the risks emanating from the international economic environment, which could impact on the stability of the Irish financial system.

Part 2 of the Report investigates the long-term trends in international and Irish banking and considers the implications for financial stability. Most of these trends point to a declining role, in relative terms, for the traditional banking business of taking deposits and granting loans. The paper concludes that the repercussions of these developments for financial stability are largely benign, but there is a danger that this transition could generate its own systemic vulnerabilities.

The first two articles in Part 3 of the Report outline the results of the CBFSAI's recent stress-testing exercise of the Irish banking system. Stress tests are designed to gauge the ability of the banking system to withstand a variety of shocks and the results of the current round of stress testing, notwithstanding some important limitations of these types of exercises, suggest the system's shock-absorption capacity is strong. There are two broad approaches to stress testing, namely, in-house analysis by the CBFSAI and a survey of individual credit institutions. Both types of test were undertaken in early-2006. Allan Kearns outlines the results of the in-house analysis in *Top-Down Stress Testing: The Key Results*. The results of the survey of credit institutions are outlined in *Bottom-up Stress Testing: The Key Results* by Allan Kearns, Maurice McGuire, Anne Marie McKiernan and Diarmaid Smyth.

In *Assessing the Role of Income and Interest Rates in Determining Irish House Prices*, Kieran McQuinn and Gerard O'Reilly present an intuitive model of the Irish housing market where house prices are ultimately determined by disposable income and interest rates. In the model house prices depend on how much individuals can borrow from financial institutions with the amount borrowed ultimately a function of their disposable income and the current mortgage rate. This model tracks actual house prices very well over the sample period 1980 to 2005. The model is particularly useful for examining the effect of alternative scenarios regarding the future path of income and interest rates and it resolves a number of difficulties associated with other models of the housing market.

In recent times, property-related loans are accounting for the majority of the Irish banking system's loan book. On the face of it, there is possibly excessive concentration of the loan book in property, broadly defined. By way of mitigation, it is often argued that the property market is highly segmented and any correction in property prices would not necessarily occur in each segment simultaneously or to the same extent. In *The Concentration in Property-Related Lending – A Financial Stability Perspective*, Allan Kearns and Maria Woods explore issues with respect to the concentration of Irish credit institutions' loan books in property-related lending.

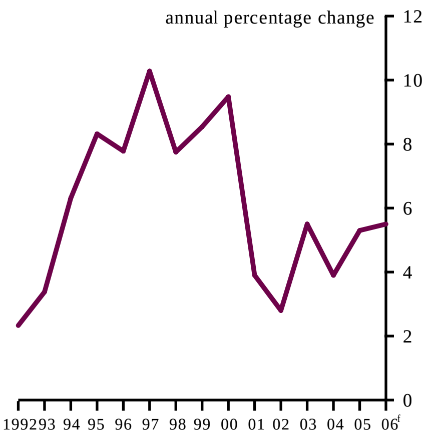
Firm-level data is used by Rebecca Stuart in *Stylised Facts on Irish Corporate Balance Sheets* to develop a set of indicators to measure the health and financial stability risks arising from the Irish corporate sector.

2. Assessment of the Irish Financial Sector

2.1 Macroeconomic Review

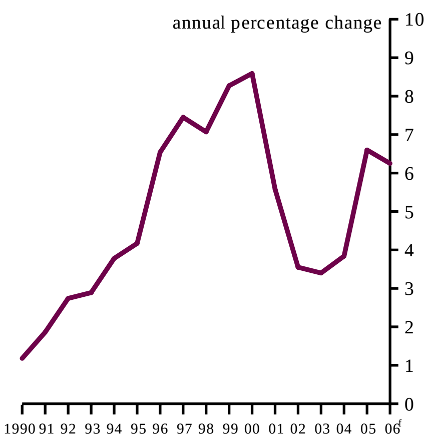
2.1.1 Economic Outlook

Chart 1: Real GNP Growth



Source: CSO and CBFSAI calculations

Chart 2: Real Personal Consumption Growth



Source: CSO and CBFSAI calculations

The Irish economy and the labour market have shown a very strong performance in recent years. Available indicators point to solid economic growth this year and, against the background of a generally favourable international environment and in the absence of any negative shocks, this relatively robust growth scenario looks likely to persist into next year. Following on from increases of about 5½ per cent last year, the volume of GNP growth is projected to mirror this increase both this year and next (Chart 1). This rather buoyant growth is broadly in line with the economy's estimated potential growth rate. As has been the trend of late and given the expected composition of growth, economic growth is likely to be accompanied by strong employment growth, driven in large part by continued significant net inward migration and, to a lesser extent, further increases in the participation rate. As a result, unemployment is projected to remain at around its current level of 4 to 4½ per cent. Of significant concern, however, has been the rise in inflation throughout the course of 2006, resulting in the re-emergence of a significant gap between Irish inflation and that of the euro area. Of particular concern is the apparent pick-up in underlying or domestically generated inflation. Following a relatively weak export and competitive performance last year, wage and price pressures need to be kept in check if the economy is to avoid further competitive losses in the near term.

As has been the case in recent years, domestic demand provided the main impetus to growth last year and this pattern looks set to continue throughout this year and into next. Consumption, following growth of 6.6 per cent in 2005, is expected to grow by a similar amount this year and next on the back of positive developments in employment and per-capita earnings, but also due to a stimulus relating to the release of funds from SSIAs (Chart 2). (See Box A for an overview of SSIAs.) The latest Bank forecasts are for an increase in private consumption of 6¼ per cent this year, before accelerating slightly to 6½ per cent in 2007. The prospects for investment remain reasonably positive. Investment growth, although set to moderate on last year's increase of 12.8 per cent, will still contribute significantly to growth this year. There are tentative signs that investment in the domestic housing stock may be starting to level off, with housing starts and planning permissions pointing to some possible weakness in completions in the future. However, at this stage, it still

Box A: Special Savings Incentive Accounts (SSIAs)

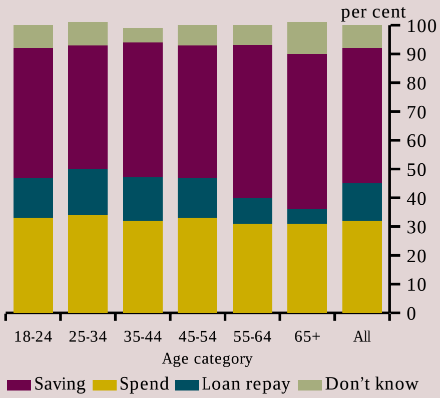
The Special Savings Incentive Accounts (SSIAs) scheme was introduced following the 2001 Finance Bill. Entrants to the scheme could open accounts between 1 May 2001 and 30 April 2002 for a term of five years. Thus, the accounts will mature between May 2006 and April 2007, depending on their start dates. Generous incentives were provided to encourage uptake: the Government tops up saving into the accounts by 25 per cent of the value of monthly subscriptions[1]. In order to avail of the Government's top-up, the account must be held for five years from the date of the first subscription. There are currently 1.1 million accounts and the total value of maturing funds is estimated to be close to €16 billion, equivalent to about 20 per cent of annual household disposable income.

Due to the fact that the majority of account holders were late entrants to the scheme, only one-third of accounts will mature in 2006. Fifty per cent of the total number of accounts opened will mature in April 2007. Consequently, the main impact on the economy is likely to be in 2007.

How will the Money be Allocated?

The available survey information can only provide an estimate of the fraction of the €16 billion in SSIA funds that will be spent. However, one useful data source obtained is a survey of 4,650 investors provided by the Irish League of Credit Unions (ILCU), carried out in late-2005. The ILCU survey contained a question that asked respondents to give an estimate of the share of their SSIA lump sum which would be used for spending, the repayment of loans, or be reinvested. Chart 1 shows the average share of funds projected to be used for spending, saving, repaying loans and the 'don't know' category, broken down by age group.

Chart 1: Share of SSIA Funds by Intended Use



Source: ILCU and CBFSAI calculations

The projected breakdown is as follows:

- 33 per cent (or €5.1 billion) to go on consumer spending and housing investment;
- 47 per cent (or €7.5 billion) to be reinvested or remaining in savings;
- 13 per cent (or €2 billion) to be used to repay loans; and
- 8 per cent (or €1.3 billion) is held by those who are uncertain of their plans. No assumption has been made about the likely spending-saving pattern of this share of the total SSIA funds.

Younger SSIA holders are more likely than their older counterparts to spend, with those of pre-family formation age marginally more likely to save than the 25 to 34 age category. Those of pension age have the highest projected savings rate of all age groups.

If one-third of the entire stock of SSIA funds was added to current spending, this would represent €4.1 billion of additional consumer spending on goods and services and about €1 billion in additional investment by households in the form of home improvements. It should be kept in mind that this additional spending is likely to be spread out over this year, next year, and perhaps 2008. Furthermore, any events or exogenous shocks which affect consumer confidence over this time period may potentially alter spending plans.

Effect of the SSIAs on the Financial System

There are a number of financial market effects that could follow the release of SSIA funds. The first relates to future demand for pensions and related financial products. It is hard to say to what extent a permanent shift in the savings and investment culture has occurred as a result of the SSIA scheme. While people may have become more favourably disposed to saving (but unlikely to maintain the level of SSIA saving) (ILCU, 2005 and Irish Mortgage Corporation (IMC), 2005[2]), the overall SSIA effect on the savings culture will depend on the take-up of follow-on savings and investments products offered by the financial sector.

The second effect that can be identified is the demand for supplementary funds to support post-SSIA 'extra' consumption. Table 1 below shows how spending intentions are likely to be financed. While half of the SSIA-induced spending will be funded by the SSIA lump sum alone, another 17 per cent of SSIA holders may approach financial institutions requesting loans to fund their purchases. At the same time, there may be a draw-down on non-SSIA savings; 19 per cent of SSIA holders may withdraw non-SSIA savings to supplement their SSIA spending.

Table 1: Financing Post SSIA Spending of those who have Decided to Spend some or all of their SSIA Lump Sum

	%
SSIA only	57
SSIA + Loan	17
SSIA + Saving	19
Loan backed by SSIA	7
	100

Source: ILCU 2005

Further analysis shows that new loans are most likely to be taken out for house purchases. The potential housing investment stimulus that will follow from the SSIA funds release can be considered the third financial market effect. One in five SSIA holders is considering an investment in the housing market (IMC, 2005). This consideration is ranked highest among younger cohorts with SSIAs[3]. Expectations based on SSIA maturity could have already raised housing demand. Indeed it is quite possible that substantial sums could be borrowed for property purchase using SSIA funds as leverage[4].

Table 2 shows that 13 per cent of non-SSIA holders intend to buy a house in the next two years compared with 18 per cent of SSIA holders. Thus, it can be concluded that those intending to purchase a house were not dissuaded from taking out a SSIA and were more likely to think that having an SSIA would help them get on the property ladder than not.

Table 2: SSIA Status by House Purchase Intention Status

	Will buy property in next 2 years	Won't buy	Total
Have SSIA	18	82	100.0
Haven't SSIA	13	87	100.0
Total	14.5	85.5	100.0

Source: IIB/ESRI Consumer Sentiment Survey April 2006.

Having highlighted the financial market impact, the total macroeconomic impact will depend on the flow of spending observed. There is a high degree of consistency in intended spending patterns across the various surveys already conducted. In terms of the amount of money that will be spent, home improvements – technically investment spending not consumption – tops the list with holiday/leisure and car upgrade placed in either second or third position. Because overseas holidays and motor vehicles constitute imports, the spending associated with the maturing of the accounts may have less impact on the domestic economy compared with more domestically-focused demand. However, the surveys do point to the likelihood of further increased demand on the domestic construction sector through spending on home improvements. Increased construction activity could result in further immigration of construction workers which would limit the inflationary impact of the increase in demand.

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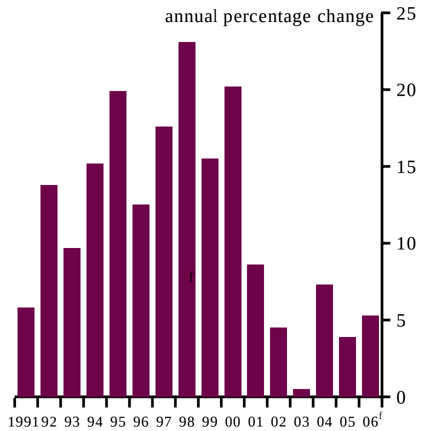
[1]The maximum monthly subscription is €254.
[2]The Irish Mortgage Corporation (IMC) carried out a survey among its customers in 2005 with questions included on SSIA holdings, among other topics.
[3]Of those aged less than 30 who say they intend to buy a house, 30 per cent have an SSIA, which is likely to be used for that purpose (ESRI/IIB, 2006).
[4]The ESRI/IIB Consumer Sentiment Survey estimates that future borrowing plans could potentially leverage €10 to €12 billion, based on the €1.7 billion SSIA funds respondents signalled for property purchase. The corresponding leveraged impact flowing out to the foreign property market is estimated to be €3 billion in total (ESRI/IIB, April 2006).

looks likely that house completions this year will exceed that of last year. The latest Bank projections forecast a gradual deceleration in both construction and machinery and equipment investment, and anticipate that overall investment in the economy will grow by 7 per cent this year and by $5\frac{1}{4}$ per cent in 2007. Given the relatively strong supply response of recent years and the somewhat higher level of interest rates, a gradual easing in the output of the housing sector can be expected. This is likely to be partly compensated by an acceleration in infrastructure investment.

On the external side, as has been the trend for the last few years, Ireland experienced further market share losses as exports of goods and services increased by a relatively modest 3.9 per cent, compared to growth in world trade volumes of 7.4 per cent in 2005 (Chart 3). While some of this poor performance may have been related to some sector specific difficulties, the remainder can most likely be attributed to a deterioration in competitiveness, due to a combination of a high average value of the exchange rate and significant increases in the domestic cost base (Chart 4). The prospects for this year and next are difficult to assess but, assuming a favourable external environment and no significant currency appreciation relative to the dollar and sterling, exports should pick up modestly, as recent industrial production data point to favourable developments in the output of foreign-owned firms, although the loss in market share is expected to continue. (Box B describes the exchange-rate exposures of the Irish economy in more detail.) One area of concern, however, remains the increase in inflation throughout the course of 2006, which will impact negatively on competitiveness. Exports of goods and services are currently forecast to increase by $5\frac{1}{4}$ per cent this year and by $5\frac{1}{2}$ per cent in 2007. The possibility of a significant dollar depreciation, however, constitutes a downside risk to medium-term trade projections. The strength of domestic demand should see imports increasing by about $6\frac{1}{2}$ this year and by about $5\frac{3}{4}$ per cent next year, resulting in a further widening of the external current account deficit to almost 5 per cent of GNP in 2007.

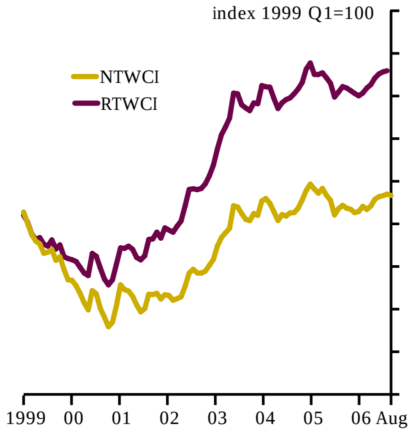
Labour market conditions have been very favourable over the last number of years, with the economy operating at effectively full-employment. The robust performance has been driven, for the most part, by substantial growth in the more labour intensive sectors, mainly in the construction and services sectors. Labour force and employment growth have grown broadly in line, leaving the unemployment rate almost unchanged at approximately its estimated full-employment or natural rate. Last year, employment increased by around 4.7 per cent, with an increase in the labour force of 4.7 per cent, leaving unemployment at approximately $4\frac{1}{2}$ per cent (Chart 5). The increase in employment in the construction sector has been associated with substantial investment in the domestic housing stock, while the strength of service-sector employment can be partly attributed to buoyant consumer spending (Chart 6). The substantial increase in the labour force has been facilitated by significant increases in net inward migration, supplemented by increases in participation rates – chiefly among women. Whether this employment and labour force expansion can be maintained in the medium term is uncertain, but the prospects for the immediate future seem favourable. The expectation for this year is for a gradual easing in employment growth in the construction sector as housing output growth slows, while employment in the services sectors is expected to pick up slightly. Overall, employment growth is likely to be similar

Chart 3: Real Export Growth



Source: CSO and CBFSAI calculations

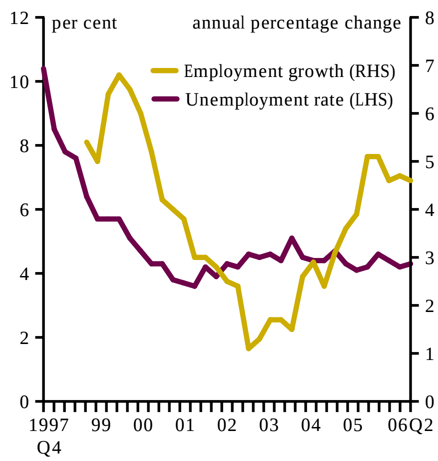
Chart 4: Trade Weighted Competitiveness Indices



Source: CBFSAI

Note: NTWCI is the nominal trade weighted competitiveness index and RTWCI is the real trade weighted competitiveness index. A rise in an indicator implies a disimprovement in competitiveness while a fall represents an improvement.

Chart 5: Employment Growth and Unemployment Rate

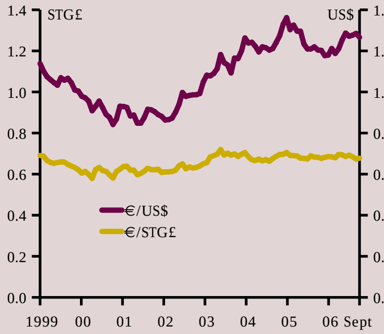


Source: CSO

Box B: Exchange-Rate Exposures of the Irish Economy

Over the past four years, the euro has steadily appreciated relative to the dollar, rising from an average value of €1 = $0.90 during the first half of 2002 to €1 = $1.23 during the first half of 2006. Contrary to this trend, some increase in the relative value of the US currency was observed during 2005, due to cyclical support for the dollar (Chart 1). However, this has been reversed during 2006, with cyclical forces becoming more aligned with longer-term structural forces in acting to weaken the dollar. There is a widely held view that the adjustment needed to reduce the US current-account deficit, which is currently over 6 per cent of US GDP, to a sustainable level will require further broad dollar depreciation in the coming years. By contrast, the euro has traded in a fairly narrow range against sterling over the past three years. A key question for the Irish economy is whether this trend will continue or whether there are factors which could cause sterling to move back towards the dollar's orbit. There are, for example, some imbalances in the UK economy, including concerns about the debt and savings position of UK households as well as persistent trade and current-account deficits — albeit not of the same magnitude as those observed in the US — which might translate into risks for sterling in the future.

Chart 1: Euro/Dollar and Euro/ Sterling Exchange Rates



Source: CBFSAI

A sharp appreciation of the euro exchange rate could have significant repercussions for the Irish economy. An appreciation of the euro against the dollar and/or sterling implies a deterioration of the Irish economy's export competitiveness position. Irish goods and services become more expensive to produce relative to US or UK produced goods for sale in both foreign and domestic markets. Over the longer term, exchange-rate fluctuations also influence location decisions for foreign direct investment (FDI) since a stronger domestic currency makes production costs in Ireland relatively more expensive when expressed in foreign-currency terms. At a macroeconomic level, an appreciation of the euro, by reducing net exports, will have a negative effect on growth and employment.

The size and nature of Ireland's trade and investment links with the US and UK determine the extent to which an appreciation of the euro will affect the economy. Over the past 30 years, Ireland has become increasingly less dependent upon the UK as a trading partner and more integrated into the wider European and global economy (Table 1). Trade links with the UK, however, remain very significant while the US is now our largest individual export market. Indeed, Ireland conducts more of its trade with the US and UK than any other euro area country and is, therefore, disproportionately affected by fluctuations in the euro/dollar and euro/sterling exchange rates.

Table 1: Destination Shares of Ireland's Exports

%	US	UK	Other EU	Rest of World
1973	11.2	54.7	21.3	12.8
1990	9.0	33.7	41.0	16.3
2000	17.4	22.5	39.8	20.2
2005	18.7	17.1	46.2	18.0

Source: CSO Trade Statistics

Ireland's exports to the US are mainly produced by subsidiaries of large US multinationals in a small number of high-technology sectors, most particularly pharmaceuticals and ICT sectors. Transactions between subsidiaries of US multinationals are largely conducted in dollars and, as a result, the main impact of a depreciation of the dollar is that local costs of production of US multinationals, mainly labour costs, will rise. This implies that a sustained weakness of the dollar against the euro could have a negative effect on inward FDI flows from the US. Of the two main sectors, pharmaceuticals and ICT, the latter has higher domestic economy expenditures mostly consisting of labour costs and Irish produced raw materials. As a result, local prices and the exchange rate are more important in the location decisions of foreign multinationals in this sector. Already countries in the Asia Pacific region attract a sizeable proportion of US direct investment in the ICT sector, particularly countries like Singapore, China, Malaysia, South Korea, Taiwan and Hong Kong. These countries might expect to benefit further from a strengthening of the euro relative to the dollar, since many of these countries' currencies are linked to some degree, either directly or in relatively narrow bands, to the US dollar. In addition, pay levels in Ireland have increased quite significantly in recent years. Central and Eastern European economies have the benefit of low labour costs, in addition to the benefits that have come from accession to the EU, which may make them more attractive locations for US FDI.

While the value of manufacturing exports of Irish-owned firms to the US is still relatively small, it has been growing in recent years and a sharp and substantial depreciation of the dollar would significantly impinge upon the ability of these firms to compete in US markets. Other sectors, including tourism and financial services, are also dependent upon the US market to differing degrees and would be adversely affected by a depreciation of the dollar. The UK and the rest of Europe remain much more important destinations for Irish-owned firms than the US (Table 2). In recent years, Ireland's exports to the UK have become more concentrated in high-technology sectors. However, more traditional sectors such as food and drink and engineering sectors remain important components of Ireland's export trade with the UK while the tourism sector relies heavily on both the US and UK market. These sectors are often quite labour intensive with less scope for productivity increases and diversification of export markets than more modern sectors and are, therefore, more vulnerable to a stronger exchange rate. In addition, certain regions of the Irish economy would be more affected than others since indigenous manufacturing and tourism account for a greater proportion of total employment there than elsewhere. Overall, therefore, while the Irish economy is currently less vulnerable to fluctuations in the exchange rate *vis-à-vis* sterling than it was in the past, due to the fall in the share of Irish exports destined for the UK and the changing composition of these exports, the UK remains an extremely important market for much of Irish industry and a large fall in the value of sterling could result in significant output and employment losses.

Table 2: Destination Markets for Manufacturing Exports of Irish-Owned Firms

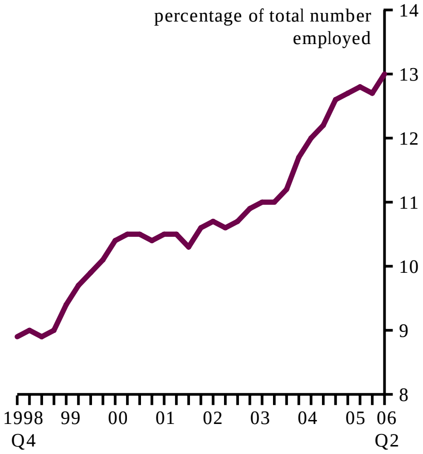
%	UK	Other EU	US	Rest of World
2002	49.2	28.2	10.6	12.0

Source: CSO Census of Industrial Production

In summary, a sharp fall in the value of the dollar against the euro would reduce the competitiveness of Irish exports to the US and raise production costs in dollar terms for US multinational firms based in Ireland. The implications for the Irish economy and inward FDI in particular would be exacerbated if the fall in the dollar were to be accompanied by a sharp decline in US economic growth or if sterling also weakens relative to the euro. A number of quite labour-intensive sectors, including food and drink, traditional engineering and tourism remain vulnerable to fluctuations in the euro/sterling exchange rate. Moreover, regional differences also mean that the impact of a depreciation of sterling would affect some areas that might find it hard to develop replacement industries. Ireland's competitiveness problems would also be compounded if the shock triggers greater downstream consequences than would normally be the case, related to pre-existing vulnerabilities in the economy (e.g., high levels of asset prices and the enlarged construction sector).

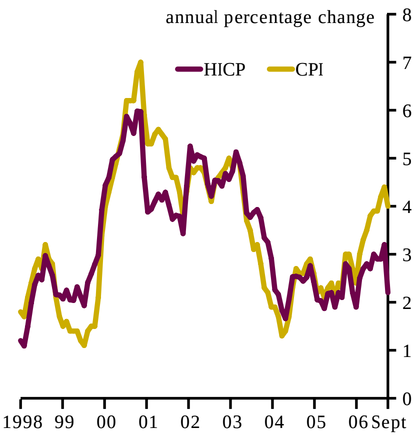
From an Irish perspective, the evolution of the exchange rate is beyond our control. The requirement for domestic policy is to ensure that wage and price developments do not contribute to competitiveness difficulties. Broadly speaking, nominal wage increases should not exceed core inflation plus productivity growth. There is also perhaps more scope for contingent pay increases, which can enhance labour market flexibility at firm level. Over the longer term, further structural reforms would also enhance the functioning of labour and product markets thereby increasing the ability of the economy to withstand sharp fluctuations in the exchange rate. Increased competition in parts of the services sector, in particular, could have a beneficial impact in terms of reducing inflationary pressures. Finally, continued prudent management of the public finances will be required in order to prevent excessive growth in aggregate demand, which could contribute to wage and price pressures in the economy, and also provide a buffer to protect against the macroeconomic impact of an appreciation of the euro against sterling and/or the dollar.

Chart 6: Employment in the Construction Sector



Source: CSO

Chart 7: Irish Inflation Rate — Selected Measures



Source: CSO

to last year, with a forecast of $4\frac{1}{4}$ per cent growth for 2006, slightly stronger than previously anticipated. The labour force is expected to continue to expand rapidly, mainly on the back of continued significant inward migration. This should leave the unemployment rate in the 4 to $4\frac{1}{2}$ per cent region. Next year, some easing in employment growth is forecast – to about $3\frac{3}{4}$ per cent, as construction employment growth slows further, with some probable knock-on effect for inward migration. This is expected to leave the unemployment rate broadly unchanged.

Of particular concern has been the pick-up in inflation this year. HICP and CPI inflation averaged 2.2 and 2.4 per cent in 2005, respectively (Chart 7). For this year, the latest Bank projection is for HICP inflation to average 3 per cent, with a modest decline to about 2.8 per cent in 2007. In terms of the CPI, the Bank is forecasting an average increase of 4 per cent for 2006, before declining to around 3.7 per cent in 2007. The higher CPI measure is capturing the effects of interest rate increases on mortgage repayments, which are excluded from the HICP. While external factors such as higher interest rates and oil prices are contributing to higher headline rates, there is evidence of an escalation of domestic inflationary pressures, with a strong upward trend in a range of domestically produced services, due, for the most part, to strong consumption growth and rising labour and other business costs. The higher overall rate of inflation has resulted in the re-emergence of a significant gap between Irish and euro area inflation.

There are, however, a number of financial stability risks arising from the macroeconomy. In terms of risk to growth projections, the re-emergence of a significant inflation differential, coupled with an already high price level, threatens to further damage competitiveness. In conjunction with a strengthening of the euro exchange rate, rising unit labour costs and other non-labour production costs have also lessened the attraction of Ireland in terms of FDI. Accompanied by a persistent inflation differential with the euro area is the risk that higher inflation expectations will become engrained in the economy, with potential knock-on effects for wages, further eroding competitiveness. The disproportionately high dependence on the construction sector also represents a vulnerability if the economy were to be hit by a shock, such as a sudden loss of competitiveness. The risks to the macroeconomic outlook arising from the global economy are perceived to have increased since the Financial Stability Report 2005, notwithstanding the fact that global growth prospects are now somewhat more favourable. On the external side, the usual risks apply in the form of the danger of a disorderly correction of the current global trade imbalances, particularly in the form of a significant sudden drop in the dollar given Ireland's dependence and exposure to dollar denominated trade. Uncertainty in global oil and commodity markets also pose a potential risk. There is a risk of inflationary pressures re-emerging with implications for the pace of monetary tightening. Finally, evidence of a cooling of the US housing market points to the possibility of a slowdown in US growth.

2.1.2 Private-Sector Credit and Indebtedness

Strong credit growth and high levels of indebtedness remain vulnerabilities for the financial system. Growth in private-sector credit (PSC) continued to

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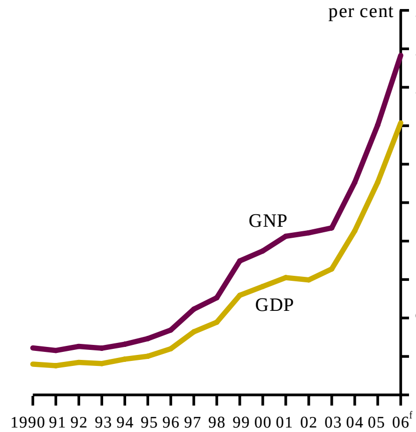
accelerate in late-2005 and reached record levels in mid-2006. The adjusted[1] annual rate of increase in private-sector credit averaged 29.1 per cent in the final three months of 2005. In June 2006 the adjusted annual rate of increase peaked at 30.3 per cent before slowing marginally to 28.1 per cent in September. As the rate of increase in private-sector credit was in excess of growth in both GDP and GNP, private-sector indebtedness, proxied by the ratio of PSC to GDP, increased to 160.6 per cent in 2005, up from 135.3 per cent in 2004 (Chart 8). As a percentage of GNP, the Irish debt-to-income ratio reached 190.4 per cent at end-2005. Both measures identify Ireland as a highly indebted economy by international standards. If current trends persist, PSC/GDP could reach approximately 192 per cent by end-2006 while PSC/GNP could reach 227 per cent.[2]

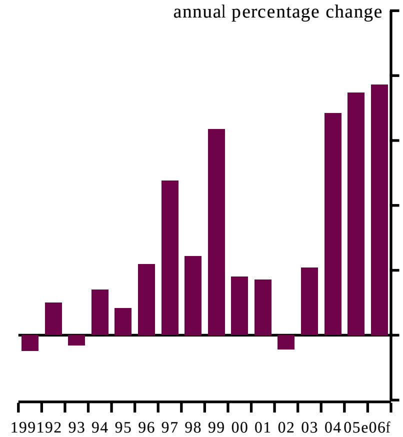
Chart 8: Private-sector Credit as a % of GDP and GNP



Source: CBFSAI and CSO

As highlighted in last year's Report, an additional concern is the pace at which private-sector indebtedness is increasing. The level of indebtedness, measured by the ratio of PSC to GDP, increased by 18.7 per cent in 2005, compared to 17.1 per cent in 2004 (Chart 9). Should present trends persist, the rate of increase in the debt-to-income ratio could reach approximately 20 per cent by end-2006. This would be almost four times the average growth rate experienced in the late-1990s (approximately 5.5 per cent), a decade when interest rates were following a downward trend and economic growth was higher than current forecasts. In the current environment in which market participants are expecting further increases in interest rates, the rapid accumulation of credit poses a concern for financial stability. Higher repayment burdens increase the vulnerability of the private sector to adverse economic shocks.

Chart 9: Annual Growth in the Ratio of Private-sector Credit to GDP



Source: CBFSAI and CSO

In Table 1, Ireland's private-sector indebtedness has been benchmarked against a selection of OECD countries whose indebtedness ratios are in excess of 100 per cent. As at end-2005, Ireland is ranked in sixth position with respect to this group and in second position if only euro area countries are considered. In addition to having a high level of indebtedness, the speed at which the Irish ratio is growing, relative to other highly indebted countries, is high. Only four countries in the sample have recorded double-digit growth in 2005, namely, Iceland, Ireland, Luxembourg and Spain. If GNP is used instead as a measure of income Ireland moves up to second position amongst its OECD counterparts.

Private-sector indebtedness by end-2006 is also estimated, subject to data availability, for this sample of countries. This estimate assumes the persistence of the annual growth in private-sector credit as at June 2006, and the current forecasts for economic growth in each country. In June 2006, Ireland had the second highest annual growth in private-sector credit behind Luxembourg (49 per cent). Therefore, if the rate of credit growth does not slow soon, Ireland's level of indebtedness will be high not only by European standards but also by global standards.

[1] The adjusted growth rate excludes lending to non-Monetary Financial Institution IFSC entities and valuation effects caused by exchange-rate movements.

[2] These estimates are based on the current forecasts for GDP and GNP and an average of annual growth rates of private-sector credit for the nine months to September 2006.

Table 1: Cross-Country Comparison of PSC/GDP

	Annual percentage change (2004-2005) %	PSC/GDP 2005	PSC/GDP End-2006e
Iceland[a]	48.5	257	–
Netherlands	9.1	173	183
Denmark	8.3	171	182
Switzerland	3.8	167	175
United Kingdom	6.3	166	179
Ireland[b]	**20.4**	**162 (190)**	**192 (227)**
Portugal	3.7	147	160
Spain	16.5	146	166
Luxembourg	23.7	133	185
Austria	7.2	113	118
Sweden	6.6	112	–
Germany	–0.4	111	113
Australia	5.8	109	–

Source: IMF, Eurostat and CBFSAI calculations

Notes: Countries are ranked in descending order according to PSC/GDP ratios in 2005.
[a] Data for Iceland in 2005 are a forecast.
[b] Ratios in brackets refer to PSC/GNP.

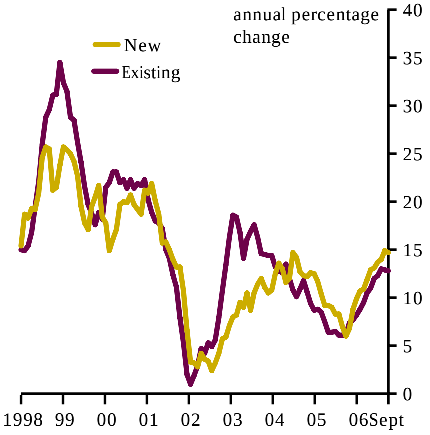
2.1.3 Property Sector Developments

2.1.3.1 Residential Property

— House Price Developments

The Bank's Financial Stability Report 2005 noted that the risk of a sudden correction in house prices had receded somewhat compared to a year earlier. At that time, there was also tentative evidence that house price increases were beginning to reaccelerate after a period of moderation. Shortly thereafter, it became clear that house price acceleration was more than a temporary phenomenon. More recently, there are some signs that the momentum in house price increases may be easing somewhat. If these signs were to be confirmed and to continue into 2007, the vulnerability posed by house prices would be reduced somewhat. The earlier reacceleration in house price growth was increasing the risk of a correction in house prices in the future and was somewhat surprising as it continued for some time against a background of increasing interest rates.

Chart 10: PTSB House Price Index



Source: Permanent TSB/ESRI

House price increases began to reaccelerate in October 2006. According to the permanent tsb/ESRI (ptsb) house price index, national house price inflation was 15 per cent in the twelve months to September 2006, compared to 7.2 per cent in October 2005. Tentative signs of a gradual easing in house price pressures may, however, be emerging from anecdotal evidence and some housing indicators. This fact notwithstanding, the level of growth in house prices remains high. The ptsb index of national house prices exhibited growth of 10.9 per cent in the first nine months of 2006. This is twice the rate of growth in the nine months to September 2005 (5.4 per cent). Furthermore, rates of such magnitude have not been seen since 2000. The September figure yields an annualised rate of 14.8 per cent for national house prices. The various sub-categories show a similar trend; both new and second hand house prices increased in September, recording year-on-year growth rates of 14.7 per cent and 12.8 per cent, respectively (Chart 10).

Data from the Department of the Environment, Heritage and Local Government (DoEHLG) exhibit a similar pattern of robust annual growth in the residential property market for the first half of 2006. The annual rate of increase in new house prices, while remaining strong, had been moderating gradually in late-2005, reaching 9.5 per cent in 2005Q4. This pattern was not sustained with new house prices reaccelerating in early-2006 and increasing by 11.9 per cent in 2006Q2. Prices in the market for second-hand houses grew by 14.1 per cent in the four quarters to 2006Q2. The corresponding rates for new and second-hand house prices increases were 11.6 per cent and 10.1 per cent, respectively, in 2005Q2.

In general, house prices continue to grow strongly across many different segments of the property market. There are many ways to segment the market; by geographic location, by type of dwelling or classified by type of purchaser (first time buyer or trading up/down). The disaggregated ptsb data suggest the same pattern in growth rates was evident across all of these segments. The various rates of growth all began to slow in late-2004 and subsequently rates across all segments fell to single digits. This trend reversed in October 2005 and house prices subsequently returned to double-digit growth rates. This pattern of similar behaviour across different segments of the market may not be unusual, as an analysis of growth rates over the last three decades suggests that the growth rates of prices across broad segments of the property market have tended to trend upwards and downwards in a broadly similar fashion, particularly during those periods of relatively slower economic growth. See *''The Concentration in Property-Related Lending — A Financial Stability Perspective''* by Allan Kearns and Maria Woods in Part 3 of this Report.

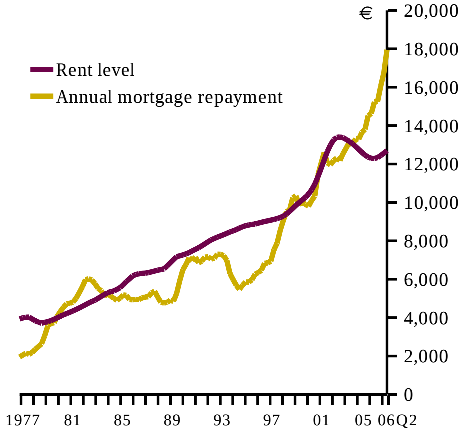
— Risks to the Outlook for the Housing Market

Notwithstanding any adverse shocks in the interim, year-to-date growth still suggests that 2006 has been another robust year for the Irish property market. In more recent months, however, there have been tentative signs of a re-emergence of some easing of house pressures. If these signs were to be confirmed and to continue into 2007, the vulnerability posed by house prices would be reduced somewhat. A continuation of the re-acceleration in residential property prices would be unwelcome for two reasons. First, the re-acceleration in house prices, along with increasing interest rates, is contributing to a deterioration in affordability in the residential market. Second, it is not obvious that the earlier step-up in house prices can be explained by fundamental factors with the concern that a higher level of house prices that is not supported by fundamental factors may be more prone to a sudden correction.

— Risks to the Outlook — Affordability for Investors and Households

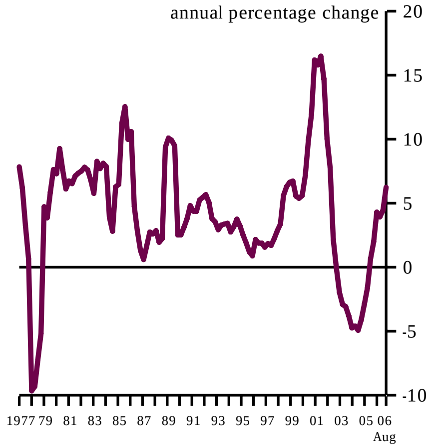
First, it is not obvious that the earlier reacceleration was driven by fundamental factors. There are many fundamental factors that typically drive residential property prices, namely, conjunctural developments (e.g., income growth or the level of interest rates), fiscal measures, structural issues (e.g., number of houses per '000 population), institutional change (e.g., monetary union), financial market deregulation, financial market innovation and demographics. Many of these factors remained largely unchanged during 2005. House prices would have enjoyed some support from continuing strong demographics and

Chart 11: Rents and Mortgage Repayments for an Average Buy-to-Let Property



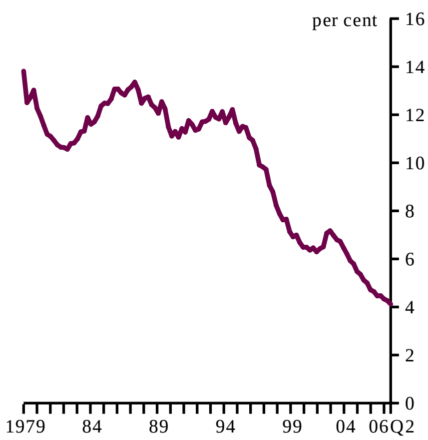
Source: CBFSAI

Chart 12: Residential Property Rental Values



Source: CSO

Chart 13: Irish Rental Yields



Source: DoEHLG, CSO and CBFSAI calculations
Note: Rents as a percentage of house prices.

higher income growth but increasing interest rates and continuing high levels of housing supply would have counteracted this to some extent. The concern is that a higher level of house prices that is not supported by fundamental factors may be more prone to a sudden correction. Deviations of actual house prices from that which is justified by the underlying fundamentals can have serious consequences for households' and hence for banks' balance sheets, leading to uncertainty and instability in the financial system. There are several approaches, differing in complexity, to estimate the fundamental price.

Previous Financial Stability Reports highlighted the possibility that new investors with annuity mortgages may be unable to cover mortgage repayments with rental income due to the increases in house prices, modest rental income growth and more recently higher mortgage costs due to interest-rate increases. The pace of house price inflation and the growth in private-sector rental values continue to diverge placing additional strain on new investors' affordability. The estimated shortfall between rental income and mortgage repayments for investors purchasing new houses has increased significantly to 29.3 per cent in 2006Q2 (Chart 11). This is a significant deterioration on 2004Q2, which recorded a shortfall of 7.6 per cent. With respect to those investors purchasing second-hand houses, the shortfall is more pronounced (42.5 per cent in 2006Q2). However, this may not induce investors to leave the market in significant numbers, as longer-established investors will not be facing such pronounced shortfalls and current robust rates of capital growth will provide an added incentive for remaining in the market. (See Box C on *The Importance of Capital Appreciation to Irish Buy-to-Let Investors*.)

The yield on residential investment property remains low despite the continued recovery in rents in 2006, as house price appreciation has remained particularly robust. Rents increased by an annual rate of 6.2 per cent in August 2006 following a period of continuous decline from mid-2002 until May 2005 (Chart 12). In the second quarter of 2006, it is estimated that the rental yield for the residential property market was 4.1 per cent, down from 4.5 per cent in 2005Q2 (Chart 13).

However, property remains a popular asset for investors despite its low yield as it continues to outperform other asset classes in the short to medium term. This is evident when returns are compared on a risk-adjusted basis using the Sharpe Ratio[3] as opposed to relying solely on capital gains as a measure of performance (Table 2).

Table 2: Asset Portfolio Performance (1988 to 2006e)[a]

	Equities	Equities (incl. dividends)	Residential housing	Residential housing (incl. rental income)	Government 10-year bonds
Average annual return (%)	13.27	16.34	10.64	19.85	6.43
Variance	513.98	545.73	44.08	41.04	5.05
Sharpe ratio	0.01	0.02	0.10	0.33	–

[a]The estimates for 2006 are calculated using data up to August 2006.

[3] The Sharpe Ratio, or market price of risk, normalises the return on an asset, for a given measure of risk. The higher the ratio, the greater the expected return on an asset, for a given level of risk.

Box C: The Importance of Capital Appreciation to Irish Buy-to-Let Investors

Investors, unlike owner-occupiers, pose a risk to the stability of the housing market insofar as they may attempt to exit the market completely and at short notice. This may be an unlikely event at a time when the return to investing in property appears relatively high. Despite a recovery in rents, the rental yield on property investment remains historically low. It appears to be investors' expectations of high levels of capital growth that makes property a relatively profitable asset for investment. However, any slowdown in capital growth, against a backdrop where interest rates and mortgage repayments have increased, may encourage investors to realise their capital gains. A reduction in the attractiveness of property investment could have knock-on effects on capital growth. This box documents the importance of capital appreciation to investors' returns.

Residential property investors represent a sizable share of both the property market and of Irish credit institutions' new loan business. Data from Sherry Fitzgerald show that purchases by investors accounted for 31 per cent of new property traded and 17 per cent of existing property. Over the same period investors accounted for 30 per cent of sales. From the point of view of credit institutions, mortgage loans drawn down by investors accounted for approximately 19 per cent of Irish credit institutions' mortgage business carried out during last year.[1]

Investors earn a return on their investment from two sources; rental income and capital appreciation, but the main element driving the profitability of residential housing investment is the high rate of capital appreciation. The strong rate of capital appreciation is offsetting low rental yields. This can be illustrated with a simple example. The data in Table 1 outline the typical financial costs and incomes associated with property investment. The analysis assumes house prices are appreciating at a rate of 15.4 per cent and is based on an investor purchasing an average priced property costing €306,173. The purchase is financed through a 30-year mortgage, at an interest rate of 4.26 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. It is clear from Table 1 that capital gains would represent the largest proportion of the investor's income, accounting for over 80 per cent of total income. The current share of total income accounted for by capital appreciation (80 per cent) is high by historical standards. Over the period 1996 to 2004, the share of gross income in property investment accounted for by capital gains has averaged 64.1 per cent (Chart 1).

Chart 1: Capital Appreciation as a Percentage of New Investors' Gross Income

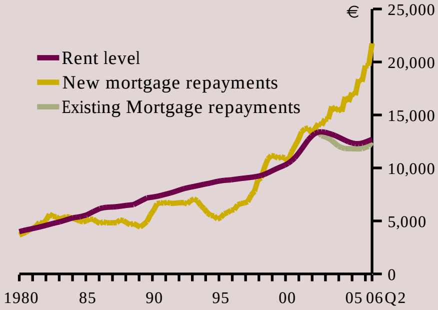
Source: CBFSAI calculations
Note: Gross income excludes both income tax on rental income and capital gains tax of disposal of property. Investors are assumed to hold property for one year only.

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

Expenditure	€	Income	€
Interest repayment and mortgage amortisation[a]	14,615	Net rental income[b]	11,219
Opportunity cost of owner funds[a]	1,391	Capital gains	47,151
Stamp duty[a]	15,309		
Legal costs[a]	4,593		
Estate agent's fees[c]	5,300		
Legal costs[c]	5,300		
Capital gains tax[c]	3,076		
Total	**49,583**	**Total**	**58,370**

[a]Cost associated with purchase.
[b]Net rental income is based on average rental figures, allowing for one month's vacancy, adjusted for investor mortgage interest relief and subsequent taxation.
[c]Cost associated with sale.

Chart 2: New and Existing Residential Property Investors' Mortgage Repayment



Source: CBFSAI calculations
Note: Existing mortgage repayments relate to an investor who entered the market at the beginning of 2002.

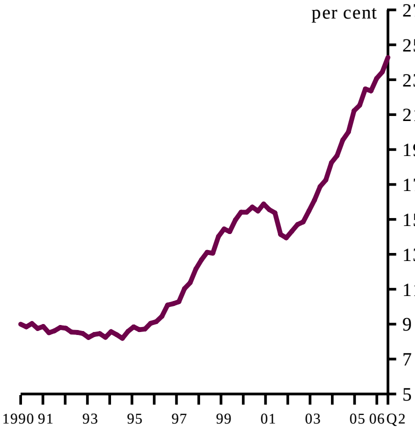
The estimates of mortgage repayments for new and existing investors suggest that a reduction in house price inflation could significantly affect the profitability of property investment, particularly for new investors. The current level of rental income from an investment property is insufficient to cover the mortgage repayments of a new investor (Chart 2). However, this shortfall is offset by the strong rate of capital appreciation such that, based on current rates of growth of house prices, investors could expect to realise a profit from the disposal of the property after one year.[2] A number of scenarios of house price appreciation and rental growth are outlined in Table 2. In all cases a decline in house price growth from the current rate would result in an increase in the number of years investors would have to retain a property in order to generate a profit. As capital growth rates decline the inclusion of rental growth has a greater bearing on the required holding period. However, this effect is not sufficient to offset the fall in capital growth as the overall holding period increases.

Table 2: Effect of House Price Growth on Investor Profits

	Number of years required to generate profit	
Scenarios	No rental growth	6.2% rental growth
0% house price growth	>50	23
2% house price growth	33	11
4% house price growth	5	4
6% house price growth	3	3
Current rate	<1	<1

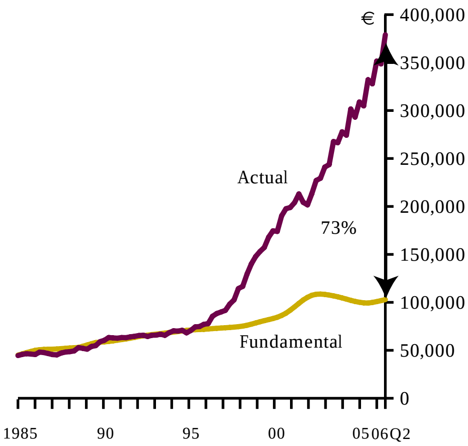
[1]Calculations based on the Irish Bankers Federation statistics show that investors account for 18.4 per cent of new mortgage business carried out in 2005 while similar data from the DoEHLG show that investors account for 19 per cent of loans approved.
[2]The required breakeven rate of house price appreciation after one year would be 11.7 per cent.

Chart 14: Residential Property P/E Ratio



Source: DoEHLG and CBFSAI calculations

Chart 15: Actual and Fundamental House Prices (2nd Hand Houses)



Note: Fundamental price is calculated as rental value in each year multiplied by average price to rental ratio 1980-1985 (8.1)

The shortfall in affordability for owner-occupiers is occurring because of the persistently high rates of double-digit house price inflation combined with higher levels of retail mortgage interest rates. It appears that even some households with relatively high incomes will, should present trends persist, not qualify for mortgages large enough to purchase the average property in the future. The scenario analysis in Box D, *Scenario Analysis — Affordability in the Residential Housing Market*, suggests that if market expectations for interest rates were to be realised, and house prices continue to grow at double digits, affordability could deteriorate relatively quickly.

— Measures of Overvaluation in the Residential Housing Market

It is not obvious that the earlier re-acceleration in residential house prices was driven by fundamental factors and it may be that non-fundamental factors were driving those developments. The concern is that a higher level of house prices built on non-fundamental rather than fundamental factors may be more prone to a sudden correction. There are many fundamental factors that typically drive residential property prices, namely, conjunctural developments (e.g., income growth or the level of interest rates), fiscal measures, structural issues (e.g., number of houses per '000 population), institutional change (e.g., monetary union), financial market deregulation, financial market innovation and demographics. Although, many of these factors remained largely unchanged during late-2005 and early-2006, house prices would have enjoyed some support from continuing strong demographics (i.e., a high rate of immigration) and higher growth in disposable income, but increasing interest rates and continuing high levels of supply could be expected to have counteracted this support to some extent. Box E documents the full list of fundamental factors that have been found to have supported higher house prices in the past and questions whether those factors changed in late-2005 and early-2006 such that they could explain the earlier re-acceleration.

Deviations of actual house prices from that which is justified by the underlying fundamentals (i.e., the fundamental price) can have serious consequences for households' and hence banks' balance sheets, leading to uncertainty and instability in the financial system. In summary, there are several approaches,

Box D: Scenario Analysis — Affordability in the Residential Housing Market

This box documents the deterioration in affordability that could occur if present trends in house prices and mortgage interest rates were to persist. Such a deterioration would be of concern for two reasons. First, a stable housing market relies on the availability of a pool of purchasers, whether composed of first-time buyers, investors or those trading up or down, to provide support for the market. If market expectations for interest rates were to be realised, and house prices continue to grow in double digits, affordability could deteriorate relatively quickly thereby increasing the risk of a correction in the rate of growth of house prices. Second, a deterioration in affordability may create an environment where a liberalisation of lending standards could be both demanded by would-be purchasers and supplied by the domestic banking system.

It now appears that lower income households cannot afford the repayments associated with a mortgage on an average property. In contrast, the repayments on the same average property for top-earning households would appear to be affordable. There is publicly available information on the ranking of the population according to household disposable income.[1] The repayments associated with an annuity mortgage (92 per cent loan-to-value ratio, 40 year term) on an average house price (as at August 2006) are calculated and compared with each group's income. This calculation gives the repayment burden or the share of income that would be required to make the repayment. The data in Table 1 are the estimated repayment burdens for each group of households and the repayment burden is lower for relatively higher income households. A mortgage is assumed to be unaffordable when the repayment burden exceeds 40 per cent of disposable income, as this appears to be a commonly applied yardstick for the maximum mortgage available to households. Currently, only the top 50 per cent of households ranked by income would have repayment burdens less than 40 per cent on an average house. This 50 per cent share is similar to the corresponding estimates for the mid-1990s and early-2000s.

Table 1: Scenario Analysis: The Distribution of Repayment Burdens on an Average House Price

Group	Average annual household disposable income €	Current estimate	+1 year	+2 years	+3 years	+4 years	+5 years	+6 years
1	10,121	146	162	180	200	222	245	269
2	14,651	101	112	125	138	153	169	186
3	20,584	72	80	89	98	109	121	132
4	27,439	54	60	67	74	82	90	99
5	35,834	41	46	51	56	63	69	76
6	44,254	33	37	41	46	51	56	62
7	53,573	28	31	34	38	42	46	51
8	65,402	23	25	28	31	34	38	42
9	79,418	19	21	23	25	28	31	34
10	130,896	11	13	14	15	17	19	21
Average household		31	34	38	42	47	52	57

Source: CBFSAI calculations

Notes:
1. Each group corresponds to a range of disposable income and is 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 earning households.
2. The current estimate relates to 2006 as the repayment burdens are calculated using an estimate of the distribution of household incomes in 2006 as well as the average house price in August 2006.
3. Shading indicates that households' repayment burdens are above 40 per cent.
4. By year 6, it is assumed that retail mortgage interest rates have reached the equilibrium level of 6 per cent.
5. Assumed house price growth corresponds to the annual rate of increase in national house prices in August 2006 as reported in the permanent TSB/ESRI house price index.

If the distribution of income is held constant and assuming current trends in house prices, incomes and mortgage interest rates were to persist[2], it can be shown using scenario analysis that the level of affordability could begin to deteriorate quite rapidly. The data in Table 1 show that those households in income groups 6, 7 and 8 may be priced out of the market over the coming years as their repayment burdens would be higher than 40 per cent of their household disposable income. In particular, within 6 years, only the top 20 per cent of earning households could afford the average house price in these economic circumstances (i.e., a significant reduction on the top 50 per cent of households which appear to be able to afford an average house at this time).

Table 2: Adjustments in the Factors that Determine Affordability

	Annual rate of house price growth[a]	Annual rate of income growth[b]	Level of mortgage interest rate[c]
Group 6	7.4	16.5	2.9
Group 7	10.9	12.8	4.2
Group 8	14.6	9.1	5.7

[a] The annual rate of house price growth necessary if the repayment burden is to equal 40 per cent in year 6, assuming income continues to grow at its present rate and interest rates increase as in Table 1.
[b] The annual rate of income growth necessary if the repayment burden is to equal 40 per cent in year 6, assuming house prices continue to grow at their present rate and interest rates increase as in Table 1.
[c] The interest rate necessary in year 6 if the repayment burden is to equal 40 per cent, assuming current annual rates of house price and income growth were to continue.

There would have to be a significant change in current trends if the middle- to top-earning households (i.e., groups 6 to 8 in Table 1), who can afford a mortgage on an average house now, but which the scenario analysis suggests could not afford something similar in 6 years time, are to maintain their affordability. Several possibilities exist in this regard:

1. house price growth will have to adjust downwards;
2. income growth will to have to adjust upwards;
3. interest rates will need to return to historically low levels; or,
4. there could be some liberalisation of lending standards.

The scenario analysis in Table 2 documents the adjustments necessary, in house prices, income growth and interest rates, if these particular households are to afford the average house in 6 years (i.e., their repayment burden would be approximately 40 per cent in 6 years). This analysis suggests that house price growth might have to fall significantly to maintain affordability. For instance, the households in group 6 could only maintain their affordability if annual house price growth fell to 7.4 per cent in the following 6 years. Alternatively, there could be an upward adjustment in the annual rate of income growth (16.5 per cent) or a reversal in interest rates (to 2.5 per cent). The adjustments required for higher earning groups to maintain their affordability are relatively smaller.

The scenario analysis suggests that in the absence of some combination of a slowdown in house price inflation, or above average income growth, or a reversal of the upward trend in interest rates, there could then be significant pressure for a liberalisation of lending standards to maintain affordability in the housing market. The on-going deterioration in affordability may create an environment where more liberal lending standards (i.e., higher loan-to-value ratios, longer maturities, relaxed repayment criteria, interest-only mortgages, intergenerational loans, etc.), are both demanded by would-be purchasers and supplied by the domestic banking system.

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[1] These data are sourced from the ‘‘SILC’’ survey, the results of which have been published by the Central Statistics Office (CSO). The CSO has ranked households into 10 groups (deciles) according to household disposable income (e.g., the bottom 10 per cent of households had a disposable income of less than €189.48 per week in 2004). This distribution is used and the value of income for each group of households is increased by the estimated growth in disposable income in 2005 and the rate of growth forecast for 2006.
[2] This deterioration occurs under the assumption that the present trends will continue for the foreseeable future, namely, the rate of growth of house prices will persist at approximately 15 per cent, household disposable incomes will grow at about 8 per cent and the retail mortgage rate climbs gradually to its equilibrium rate (6 per cent).

differing in complexity, to estimate the fundamental price and the size of any deviation. Correspondingly, these approaches often yield different estimates with the broadest approach suggesting no conclusive evidence of overvaluation in the residential market.

Price-earnings (p/e) ratios are frequently used in equity markets as a fair value estimate of corporate stock. These ratios can also be applied to the housing market to determine a fundamentally justifiable house price. In Ireland, house price inflation has greatly outpaced growth in rental values since 1995. As a result, there has been a sustained upward trend in the aggregate price-earnings series. In the final quarter of 2005, the p/e ratio reached 23.1 compared to 21.2 in 2004Q4 (Chart 14) and has increased further in 2006 (24.3 in 2006Q2). These ratios are well in excess of those that prevailed during the 1980s and early-1990s which averaged 8.1. If this p/e ratio were to apply today, the fundamental house price would be significantly lower. The potential misalignment, relative to current prices, is approximately 72.9 per cent for second-hand houses and 66.6 per cent for new houses (Chart 15).[4] These figures are an increase on 2005Q2 (70 per cent and 63.9 per cent, respectively). This measure should be considered as the upper bound on overvaluation, as it focuses only on rental income and ignores many other fundamental factors which determine house prices.

An alternative valuation approach to using historical averages of p/e ratios is the discounted present value model. This forward-looking model calculates the fundamental house price as the present value of the discounted stream of expected future rental income accruing to any individual property. An important qualification is the extreme sensitivity of the model to assumptions about the rate of interest. If the current ECB repo rate of 3.25 per cent is used as the discount rate, this approach suggests a misalignment of approximately 68 per cent[5]. However, current interest rates are historically low and market expectations are for higher rates. Therefore, a more reasonable discount rate to reflect long-term expectations about the future evolution of interest rates could be applied (e.g., the yield on long-dated government bonds). Discounting by the current rate of 3.75 per cent[6] suggests a level of overvaluation in the range of approximately 75 per cent.

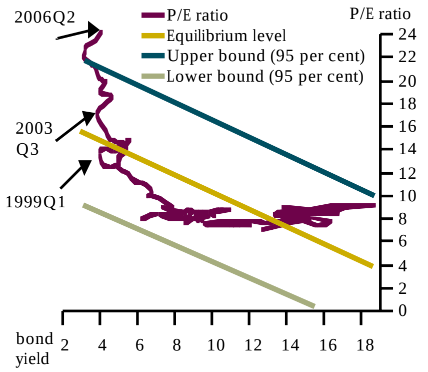
One of the shortcomings of the present value model is its sensitivity to the choice of discount rate. Therefore, to gain a better estimate of the extent of under- or overvaluation in the Irish property market, the relationship between the p/e ratio and the actual rate of interest can be estimated. Chart 16 shows a scatter plot of the p/e ratio and the interest rate, with the gold line representing the estimated equilibrium relationship between these two variables. The upper and lower 95 per cent confidence intervals for this equilibrium relationship are the boundaries beyond which the misalignment of the actual p/e ratio relative to its estimated equilibrium rate is statistically significant. Using a bond yield of 4.08 per cent, this model suggests a

[4] The fundamental price is calculated as the rental value in each year multiplied by the average price-to-rental ratio (8.1) in 1980 to 1995. This specific average is chosen so as to extract any temporary cyclical influences that may be operating in the series, since rents and house prices began to diverge in 1995.

[5] This is based on the assumption of a constant annual rental income from a standard house (3 bed semi-detached) of €12,810.

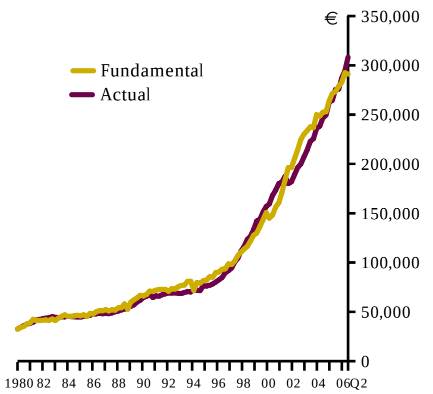
[6] 10-year Irish Government bond rate as at August 2006.

Chart 16: P/E Ratio and 10-Year Government Bond Yields



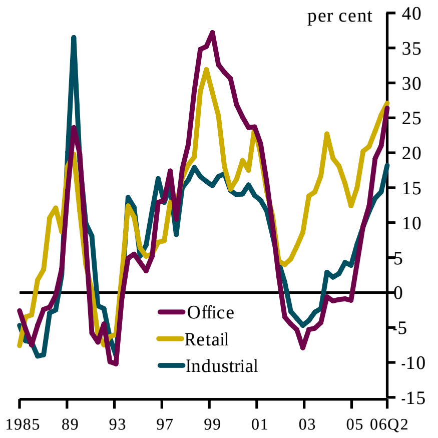
Source: CBFSAI calculations

Chart 17: Actual House Price and Fundamental House Price



Source: CBFSAI calculations

Chart 18: Capital Values Growth in Commercial Property

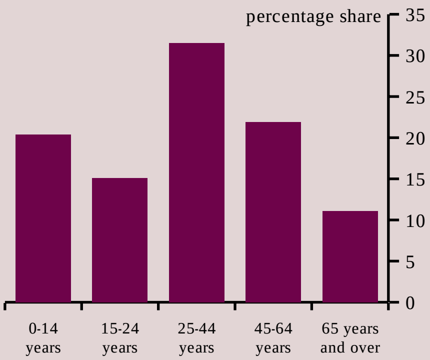


Source: Jones Lang LaSalle
Note: Data from 1985 to 1996 are bi-annual and data from 1997 to date are quarterly.

Box E: Can an Improvement in Fundamental Factors Explain the Rise in the Rate of Growth of Irish House Prices between September 2005 and August 2006?

Over the period 2003 to late-2005, there was a gradual easing in the annual rate of increase of house prices. However, this moderating trend did not persist, with growth reaccelerating from 6.2 per cent in September 2005 to 15.4 per cent in August 2006. Although tentative signs are emerging from anecdotal evidence and some housing indicators of a slight easing in price growth at the current juncture, the rate of growth in the first eight months of 2006 (10.2 per cent) surpassed equivalent figures recorded in the previous five years. In the Financial Stability Report 2004, a selection of conjunctural and fundamental influences that were integral in driving the growth in house prices from the mid-1990s through to 2003, were identified.[1] This box serves to review the recent evolution in each of these driving forces in an attempt to discover a possible explanation for the increase in the rate of growth in house prices that occurred from late-2005 to August 2006. This review suggests that, on balance, it appears there have been few significant changes in the driving forces since late-2005 that could explain fully the reacceleration in house price inflation over this period.

Chart 1: Population Shares (2006)



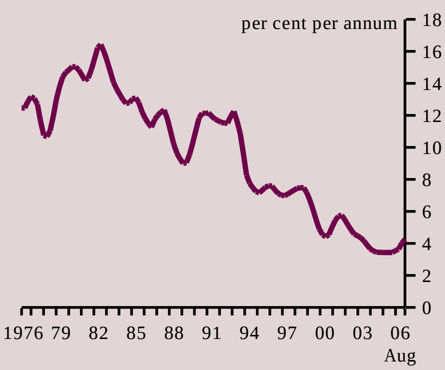
Source: CSO
Note: Census data are preliminary.

Table 1 outlines the key fundamental factors that had previously been identified as supporting house price growth since the mid-1990s. A review of this table suggests that few of these factors have changed significantly in recent times.

- Demographics are often cited as one of the main factors in explaining the robust property market conditions currently prevailing in Ireland. The Irish population has boomed in recent years, reaching approximately 4.23 million in April 2006. The large share of the population which occupies the household formation cohort of 25 to 44 years is of particular relevance to housing (Chart 1). This has boosted housing demand greatly in recent years. In addition, approximately 54 per cent of new immigrants belong to this age category. This strong growth in immigrants at household formation age may boost housing demand directly, and may also influence housing demand indirectly by increasing demand for rental properties.

- During the period 1991 through to 2004, personal disposable income grew by an annual average of 8.6 per cent. Although no data have, as yet, been released for 2005 and early-2006, it is estimated that disposable income continued to grow strongly, reflecting increases in real earnings and strong employment growth. According to the CSO's Quarterly National Household Survey employment grew by 4.7 per cent in 2005, the fastest growth since 2000. Robust growth in personal disposable income may boost demand for housing, all other things being equal.

Chart 2: Irish Mortgage Interest Rates



Source: CBFSAI
Note: Median of standard variable mortgage rates for Mortgage Lenders.

- One of the main changes in 2005/2006 has been the increase in retail mortgage interest rates. In response to inflationary pressures, the ECB raised interest rates by 25 basis points on five separate occasions and market participants are predicting further increases in the coming year. Consequently, mortgage holders with variable-rate mortgages have been experiencing increased repayments. However, rates are increasing from historically low levels and remain low by historical comparison. This change in the interest-rate cycle could have had an ambiguous effect on demand; some buyers may have been prompted to enter the property market before further rate hikes take place while other buyers may have been discouraged from entering the market in light of the relatively higher repayment burdens.

- Tax and subsidy measures on housing are on balance in favour of homeowners. However, there has been little significant change in these incentives since late-2005. The combination of these tax incentives continues to contribute to the negative user cost of capital for housing.

Table 1: Taxonomy of Driving Forces

Type of driving force:	Featuring:	Likely quantitative change since late-2005	Likely qualitative change since late-2005
1. Conjunctural	• Household disposable income	+	
	• Demographic change	+	
	• Interest rates	–	
	• Supply bottlenecks	–	
2. Fiscal	• Fiscal consolidation:	=	
	— Income tax reductions	=	
	— Ricardian effects	=	
	• Effects on the UCC in housing:	=	
	— Stamp duty	=	
	— Residential property tax	=	
	— Capital gains tax	=	
	— Mortgage interest relief	=	
	— Mortgage interest deductible	=	
3. Structural	• No. of dwellings per 1,000 population	=	
4. Institutional	• EMU:		=
	— EMU-related disinflation and the tilt effect		=
	— Availability of funding		=
	— Integration of the EA money-market		=
	— Growing role of repos		=
	— Alleviation of financial stress from exchange-rate misalignment		=
5. Financial market deregulation	• Reduction in banks' reserve ratios		=
	• Ending of credit guidelines		=
	• Ending of the interest-rate matrix		=
	• Full liberalisation of foreign-exchange and capital controls		=
6. Financial market innovation	• Growing use of derivatives to manage risk		=
	• Mortgage securitisation		=
	• Equity withdrawal and loan consolidation		=
7. Other demographic influences	• No. of two income households		=
	• DIY pension		=

Note: "=" implies no significant change in the driving forces since late-2005. "+" ("-") implies that developments in the factor may have supported (worked against) reaccelerating house prices.

- Driving forces relating to European Monetary Union (EMU) and financial market deregulation, which were prevalent in the 1980s and 1990s, have also not changed over the last year. Reduced inflationary expectations, arising from membership of EMU, increased the attractiveness of entering the mortgage loan market. This arises from the fact that lower inflation reduces real repayments in the early years of the mortgage. Also, EMU facilitated increased credit supply, as banks were able to avail more easily of new international sources of funding.

- It has been argued in the past that constraints on housing supply, operating in an environment of robust demand, resulted in accelerating house prices. However, after a slow start to 2005, approximately 81,000 units in total were completed, up 5 per cent from 2004. Evidence from DoEHLG also suggests that housing supply in 2006 will at least equal and possibly surpass the level recorded in 2005. As at September 2006, completions totalled 66,470, which is approximately 22 per cent higher than in September 2005. It could be expected that the continued high levels of supply should, on balance, be helping to ease the upward pressure on the rate of growth of house prices.

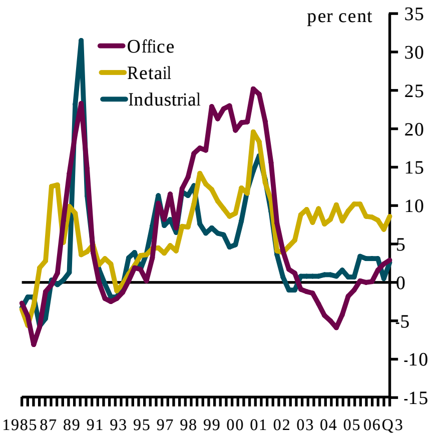
In conclusion, this box has reviewed briefly the various conjunctural and fundamental factors thought to have explained the evolution of house prices in the late-1990s and early-2000s. Could a significant change in one or many of these factors have explained the reacceleration in house prices between late-2005 and mid-2006? It appears that only a relatively small number of factors have changed since late-2005. It is possible that strong growth in personal disposable income and demographic factors may have served to increase housing demand. Some changes, however, namely, higher interest rates and robust supply, could be expected to have offset these effects. Therefore, on balance, it appears there have been few significant changes in the driving forces that could explain fully such reacceleration in house price inflation up to August 2006.

[1] ''The Irish Housing Market: Fundamental and Non-Fundamental Influences'' in Financial Stability Report 2004, CBFSAI.

[2] See *Construction Sector Indicators* prepared by DKM Economic Consultants on Department of the Environment website, www.environ.ie for further details.

statistically significant overvaluation of 14.2 per cent as at June 2006 (i.e., where the overvaluation is measured from the current level of the p/e ratio to the level of the p/e ratio corresponding to the highest confidence interval). Alternatively, the overall misalignment of the actual p/e ratio from its equilibrium rate is 39.4 per cent when the current p/e ratio is compared to an estimate of the equilibrium level. These rates compare to 11 per cent and 35 per cent, respectively, which were recorded in last year's Report and based on 2005Q2 data. The equilibrium retail mortgage rate for Ireland has been estimated to lie in the region of 6 per cent.[7] As this rate is an estimate, an area of uncertainty between 5 and 7 per cent is assumed. Assuming the equilibrium rate, the extent of significant misalignment increases to 20.1 per cent and the distance from the estimated equilibrium p/e ratio widens to approximately 45.3 per cent.

Chart 19: Rental Values



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

The earlier approaches treat housing purely as an investment product and depending upon the measure used obtain an overvaluation in the range of 14 to 75 per cent. A broader approach models house prices by including a wider array of fundamental driving forces.[8] The key fundamentals identified are the cost of mortgage loans relative to the cost of renting, household disposable income, lagged adjustment in house prices and demographics. Supply factors

[7] See ''The Irish Housing Market: Fundamental and Non-fundamental Influences'' in *Financial Stability Report 2004*, CBFSAI.

[8] This is based on McQuinn, K. (2004) ''The Irish Housing Sector: A Financial Stability Assessment'', Financial Stability Report, CBFSAI.

are also taken into account. As can be seen from Chart 17, this model shows that in general, actual house prices have tracked the estimated fundamental price over the period 1980Q1 to 2006Q2. This approach continues to suggest that house prices are not currently out of line with fundamental factors. Although this model does not reveal overvaluation, it should be noted that the underlying fundamentals may themselves be subject to shocks, and the fundamental price could be expected to fall in those circumstances.

A more recent study of the Irish housing market by McQuinn and O'Reilly is in Part 3 of the Report. This looks at the extent to which developments in interest rates and income can explain house prices using a model based on monthly mortgage repayments. These variables can broadly explain developments in house prices over the period 1980 to 2005.

2.1.3.2 *Commercial Property*

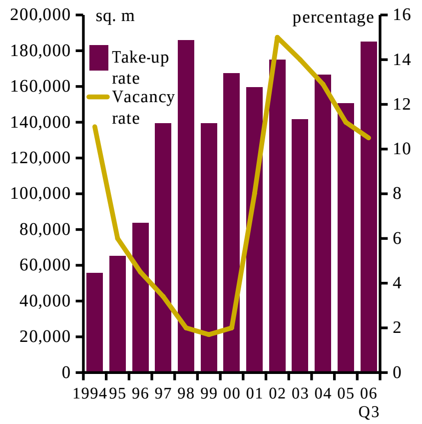
The commercial property market performed strongly across all sectors (i.e., retail, industrial and office) from mid-2005 to the end of the year. Recent data suggest that this trend has persisted to the third quarter of 2006. Capital values continued to outperform rental values, compressing yields further. In 2006Q3, overall capital values rose year-on-year by 26.7 per cent, while rental values grew by 4.5 per cent. Both figures are an increase on 2005Q3, when annual growth rates were 15.3 per cent and 2.6 per cent, respectively.

Despite improved performances by the office and industrial sectors from the beginning of 2005, the retail sector remains the fastest growing commercial property sector at the current juncture. The annual rate of increase in this sector's capital values rose to 28.9 per cent in 2006Q3 compared to 20.9 per cent, recorded a year earlier. Capital values in the office and industrial sectors grew by an annual rate of 25.6 per cent and 24.1 per cent, respectively, in 2006Q3 (Chart 18). Both figures are a marked increase on 2005Q3, with corresponding figures of 12.4 per cent and 11.6 per cent, respectively. Rental values for the office sector strengthened further in the third quarter of 2006, increasing year-on-year by 2.9 per cent (Chart 19). In 2005Q3, by contrast, the growth in rental values for this sector was stagnant. Regarding the industrial sector, rental values grew by an annual rate of 2.6 per cent in 2006Q3, while the retail sector registered 8.6 per cent annual growth (compared with 3.1 per cent and 8.6 per cent, respectively, in 2005Q3).

While vacancy rates in the Dublin office sector continued to decline to 10.5 per cent in 2006Q3 from a peak of 15 per cent in 2002, they remain high by historical comparison (Chart 20). One possible explanation offered by market commentators[9] for the high vacancy rates is the surfeit of office space currently available. As a result of the economic slowdown in 2001, demand for office space contracted, leading to an increased flow of units onto the market. A low-income elasticity of supply implied that construction activity continued at a brisk pace, despite the slowdown and thereby increasing the supply of new units. However, take-up rates are forecast to return to 1998 levels in the coming year, reflecting positive sentiment in the Dublin office market. Underpinning this confidence is expected future rental appreciation, especially in prime city centre areas.

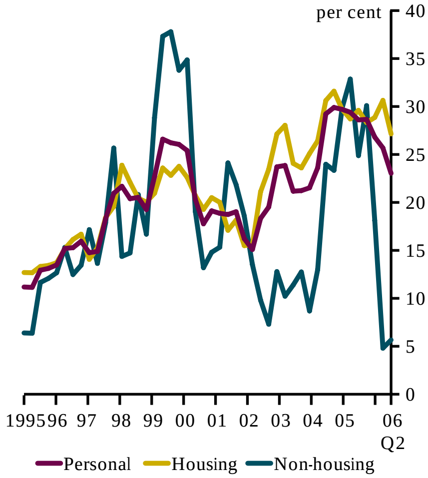
[9] For instance, see DTZ Sherry Fitzgerald Outlook 2006 and CB Richard Ellis Market View 2006Q3.

Chart 20: Vacancy Rates



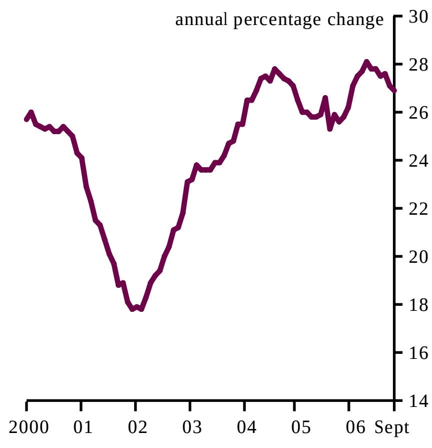
Source: CB Richard Ellis and CBFSAI calculations
Note: Take-up rates are estimated for 2006.

Chart 21: Personal-sector Credit Growth



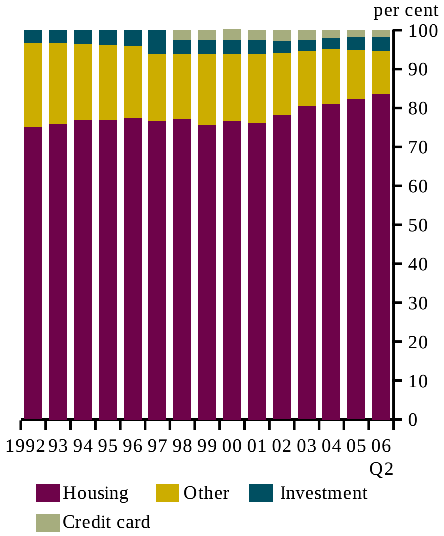
Source: CBFSAI

Chart 22: Adjusted Underlying Rates of Residential Mortgage Credit Growth



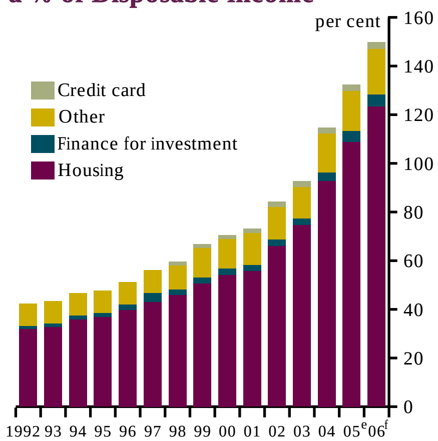
Source: CBFSAI
Note: The adjusted growth rate includes securitised mortgages.

Chart 23: Distribution of Advances to Personal Sector



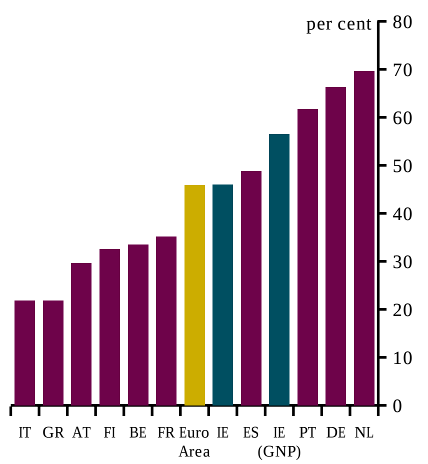
Source: CBFSAI
Note: Credit card is in "other" prior to 1998.

Chart 24: Personal-sector Credit as a % of Disposable Income



Source: CBFSAI and CSO

Chart 25: Bank Lending to Euro Area Households as a % of GDP — 2002



Source: ECB, Eurostat and CSO
Note: Sample excludes Luxembourg

2.2 Household Sector

2.2.1 Household Indebtedness

— Personal-Sector Credit

Personal-sector credit is the largest single component of private-sector credit. Currently personal-sector credit accounts for approximately 44 per cent of private-sector credit — a broadly similar share to that reported last year (45 per cent).

Since the Financial Stability Report 2005, the growth rate in personal-sector credit has remained strong despite recent signs of moderation. The annual growth rate of personal-sector credit as of 2006Q2 (23 per cent) was the lowest annual rate since 2004Q1. There have been some revisions to the personal lending statistics that complicate a time series comparison of growth rates of its constituent parts over recent months. In general, these revisions have largely boosted lending in the categories Real Estate Activities and Residential Mortgages and depressed annual growth in the category Other Personal. Residential mortgage lending, which accounts for the majority of personal-sector credit, continues to grow strongly (26.9 per cent in September 2006). Non-housing credit[10] growth fell dramatically, generally due to reclassifications in the data, in 2006Q1 to 4.8 per cent. As of 2006Q2 the annual growth rate was 5.7 per cent (Chart 21).

Around the time of last year's Report there were tentative signs of a moderation in the high rate of increase of residential mortgage credit. This trend did not persist however, and the adjusted underlying growth rate in residential mortgage credit began to re-accelerate and reached a peak of 28.1 per cent in March 2006 (Chart 22). As of September 2006, the annual growth rate remains strong at 26.9 per cent.

Personal-sector credit is made up of debt for housing, credit cards, finance for investment and other personal lending. Housing credit makes up the majority of personal-sector credit, 83.5 per cent as of 2006Q2. This is a relatively high share by comparison with the euro area (70.3 per cent). Finance for investment and credit cards only account for small proportions of personal-sector credit. As of 2006Q2 the shares were 3.6 and 1.8 per cent, respectively. The remaining 11.1 per cent was classified under other personal credit (Chart 23).

— Indebtedness

Household indebtedness, measured by debt as a percentage of disposable income, continues to increase rapidly and is estimated to have reached 131.5 per cent in 2005 — a 9.8 per cent proportionate increase on its 2004 level of 119.8 per cent. If current rates of credit growth continue the ratio could be close to 150 per cent by end-2006. These are record levels of indebtedness by historical comparison (Chart 24).

The level of household indebtedness and its rate of increase is high by comparison with other euro area countries with the result that the Irish household sector is now one of the most indebted among these countries. As of August 2006 the Irish household sector's indebtedness, measured by debt

[10] The category non-housing credit is made up of the relatively small sub-categories, credit card debt, finance for investment and 'other'.

as a percentage of GDP, ranked Ireland as the second most indebted country after the Netherlands and well above the aggregate euro area position.[11] This compares to 2002 when Ireland was the fifth most indebted country in the sample and in line with the euro area as a whole (Chart 25). Using GNP as the denominator in the Irish case shows Ireland to be relatively more indebted. For instance, Ireland was ranked fourth in 2002 and is the most indebted nation in the sample, as of August 2006 with a ratio of 90.3 per cent (Chart 26).

— Affordability

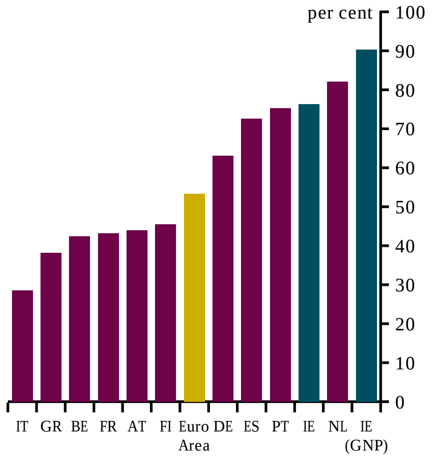
In the current environment of increasing interest rates, the level of household indebtedness is also of concern because the overwhelming majority of household debt is mortgage loans at variable rates. The aggregate figures may hide the fact that a proportion of households, in particular, those newly mortgaged, face significant mortgage repayments relative to income. As of 2006Q2, 83.5 per cent of the value of outstanding mortgage credit was at variable rates — a similar level to that seen a year previously — while the remaining 16.5 per cent was at fixed rates. In addition, a majority of fixed rate mortgages are fixed for short periods only (1-3 years).

The mortgage repayment burden associated with buying a new house is estimated to have remained broadly unchanged in 2005 at 29.6 per cent (Chart 27).[12] Continuing strong house price growth in 2006, coupled with rising interest rates have seen the mortgage repayment burden increase to 34.1 per cent by 2006Q2. The estimated mortgage repayment burden is now at levels last seen in the early-1990s which was a period of substantially higher interest rates. The results of scenario analysis suggests that repayment burdens for existing and prospective house buyers will increase significantly if market expectations for interest rates are realised and house prices continue to grow strongly. The new burdens will be particularly onerous for recently mortgaged households.

The aggregate figures include a proportion of households, in particular, those which are newly mortgaged, that may face significantly higher mortgage repayments relative to income. These households appear to be more exposed to the effects of higher interest rates, and income and employment shocks than households whose mortgage was drawn down a number of years previously. Households which took out a mortgage prior to 2005 have seen their repayment burdens decline somewhat over time, although they are also being adversely affected by interest-rate increases in 2006 (Chart 28).

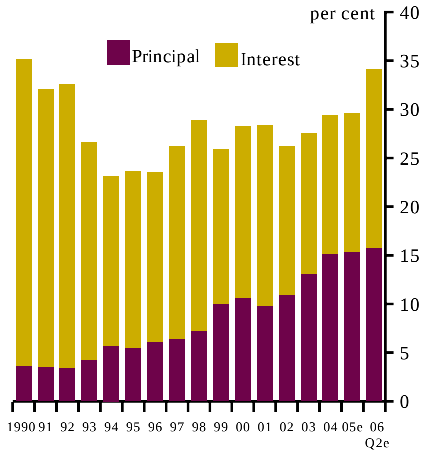
The majority of mortgaged households are exposed to the risk of interest rate increases as the share of mortgages at variable rates[13] accounted for 83.5 per cent of the value of outstanding mortgage credit in 2006Q2. The remaining

Chart 26: Bank Lending to Euro Area Households as a % of GDP — August 2006



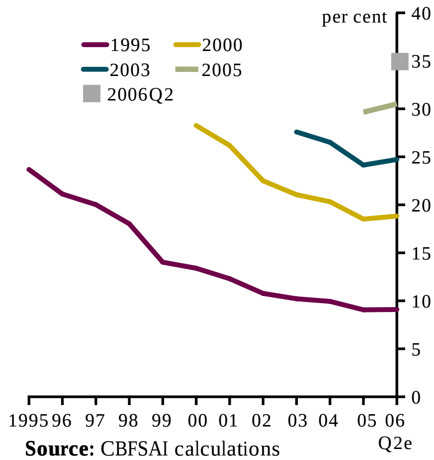
Source: ECB, Eurostat & CBFSAI
Note: Sample excludes Luxembourg. GDP data for 2006 are estimates.

Chart 27: Estimated Mortgage Repayment Burden



Source: CBFSAI calculations

Chart 28: Mortgage Repayment as a % of Average Household Disposable Income



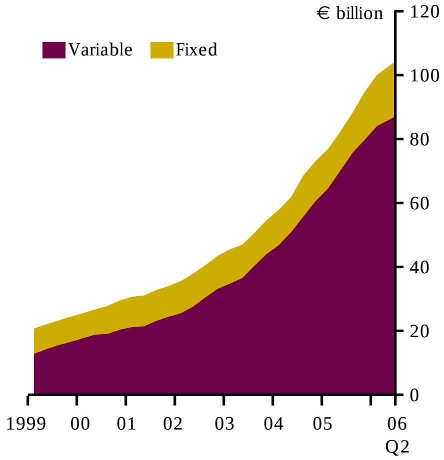
Source: CBFSAI calculations
Note: Years refer to when mortgage was issued.

[11] These data represent lending by euro area monetary financial institutions (MFIs) to all euro area households (that is residents and non-residents). However, since most MFI lending to households is domestically oriented (perhaps due to a home-country bias on the part of borrowers), lending to all euro area households is not significantly different from lending to domestic households (with the exception of Luxembourg).

[12] The repayment burden is expressed as the annual mortgage repayment as a percentage of average household disposable income. 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.

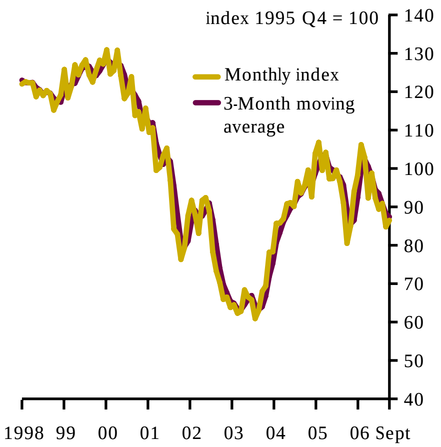
[13] Variable rate mortgages include fixed rate mortgages of up to and including 1 year.

Chart 29: Fixed and Variable Rate Mortgages



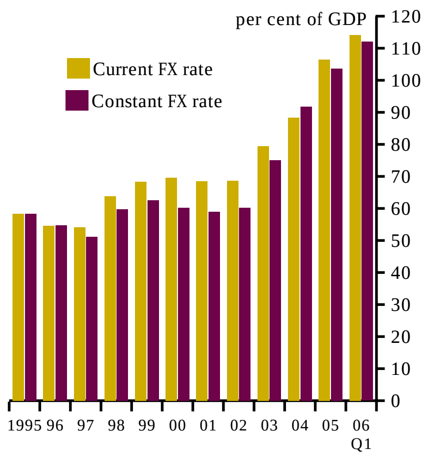
Source: CBFSAI

Chart 30: Irish Consumer Sentiment



Source: ESRI/IIB

Chart 31: Total Corporate Indebtedness



Source: BIS and CBFSAI

16.5 per cent was at fixed rates[14] (Chart 29). The majority of fixed rate mortgages are fixed for between 1 and 3 years (70 per cent) with smaller shares fixed at longer terms of between 3 and 5 years (19 per cent) and over 5 years (11 per cent). Recent months have seen the proportion of the volume of new business in loans to households for house purchase, at over 1-year initial fixation rate, increase to 2003 levels. This recent shift towards fixed rate mortgages is possibly a reaction to the ECB's recent decisions to increase interest rates as well as market expectations of further rate increases in the coming year.

2.2.2 Financial Position of the Household Sector

The general macroeconomic outlook is broadly favourable with output and income expected to continue to increase strongly. The volume of GDP and GNP grew by 5.25 and 5.5 per cent in 2005, respectively, with similar rates of growth being forecast for 2006. The economy is currently running close to its full employment level and this is likely to remain the case in the near term with the unemployment rate forecast to remain at between 4 and $4\frac{1}{2}$ per cent for 2006 and 2007. These forecasts of healthy economic growth and high employment would suggest that households' income position is likely to remain healthy in the short to medium term.

Consumer sentiment as measured by the IIB/ESRI consumer sentiment index, which summarises consumer sentiment about current economic conditions and conditions over the next 12 months, has been quite volatile over the last 12 months. The index had been on an upward trend in the later part of 2005 and peaked in January 2006. Since then, it has fallen in five of the eight months to September 2006. It did, however, pick up in September and is above the level seen this time last year. The 3-month moving average, which strips out some of the volatility seen in the monthly index, has been declining since February 2006 and as of September was at a level of 87.4, compared to 89.3 in September 2005 (Chart 30).

2.2.3 Risks to the Household Sector

The overall assessment of the financial stability risks arising from the household sector is that they appear to have increased slightly. On the one hand, the outlook for employment and disposable income continues to be positive. On the other hand, the vulnerability of heavily indebted households to interest-rate increases has increased. This is due to their increasingly indebted profile and the predominance of variable-rate mortgages. Moreover, the possibility of a fall in employment in the construction sector remains an important concern. A downsizing in the construction sector is still predicted and even if its timing is uncertain, it may impact on employment and therefore the debt servicing ability of those households affected.

2.3 Non-Financial Corporate Sector

2.3.1 Indebtedness

Private non-financial corporate (PNFC) sector indebtedness has grown strongly in recent years. Total corporate-sector bank debt as a percentage of GDP increased to approximately 104 per cent in 2005, from approximately

[14] Fixed rate mortgages are classified according to the term over which the interest rate is fixed and not the term of the mortgage.

92 per cent in 2004 (Chart 31). In 2006Q1 the ratio was over 110 per cent. In 2005, corporate indebtedness was more than 50 per cent higher than in 2000 when indebtedness was just over 60 per cent of GDP.

PNFCs borrow from both resident and non-resident credit institutions. As a percentage of GDP, gross borrowing from resident institutions was over 62 per cent in 2006Q1, compared to 49.5 per cent in 2005Q1. The net indebtedness of Irish corporates, *vis-à-vis* resident credit institutions, measured as loans less deposits, has picked up, indicating that corporates' borrowings have grown faster than their deposits in recent years. Net indebtedness is now above half the level of gross indebtedness at 41 per cent of GDP in 2006Q1 (Chart 32). In contrast, corresponding figures for the late-1990s show the level of net indebtedness at approximately a third of gross indebtedness.

Irish corporates are becoming increasingly indebted by European comparison. A cross-country comparison of gross loans to GDP shows that in 2005 the Irish corporate sector (58 per cent) was the third most indebted in the euro area after Portugal (59 per cent) and Spain (63 per cent) (Chart 33). If current trends in credit growth persist to end-2006, Irish corporates could overtake their Portuguese counterparts to become the second most indebted corporate sector in the euro area, behind Spain. By comparison, the Irish corporate sector was the fourth least indebted in 2002 with loans equalling a third of GDP.

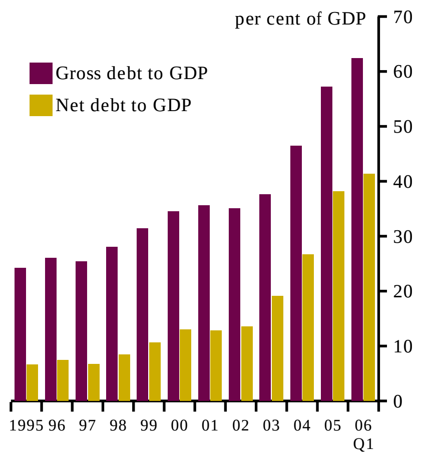
2.3.2 Credit Growth

Credit growth to corporates remained strong through early-2006. Annual growth in lending to PNFCs was 38.3[15] per cent in 2006Q2 compared to 29.8 per cent in 2005Q2 (Chart 34). Loan growth to PNFCs has now increased in each of the past three years. This is a marked reversal of the trend of falling credit growth in the early-2000s when growth reached a trough of 9 per cent in 2002.

The pick-up in credit growth to PNFCs has been stronger in some sectors than in others. Growth in lending was strongest to the commercial property-related sectors. Annual growth to this sector was 60.5 per cent in 2006Q2 (45.8 per cent in 2005Q2) (Chart 35). By comparison the second highest growth rate, recorded in the retail, wholesale and tourism sector, was 30.2 per cent. Manufacturing and transport, two sectors with somewhat lower growth at 13.7 per cent and 23.0 per cent, respectively, in 2006Q2, have experienced a significant turnaround since 2003 when credit contracted by 10.1 per cent and 7.7 per cent, respectively.

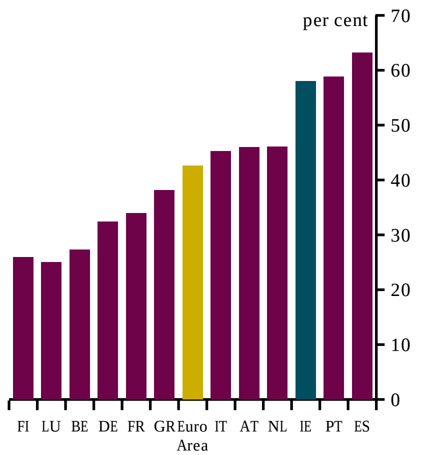
Commercial property-related lending accounted for approximately 84 per cent of the growth in lending to PNFCs in the twelve months to 2006Q2. As a result, commercial property-related loans have grown as a share of total loans outstanding to PNFCs, from 53 per cent at 2005Q2 to 61.5 per cent at 2006Q2 (Chart 36). An examination of property-related lending shows that in early-2006 at least 65 per cent of all lending to firms in the construction sector was for the construction of property or other projects which were not pre-let or pre-sold while the remaining lending to the construction sector was for

Chart 32: Corporate Debt Held with Resident Credit Institutions (Gross and Net)



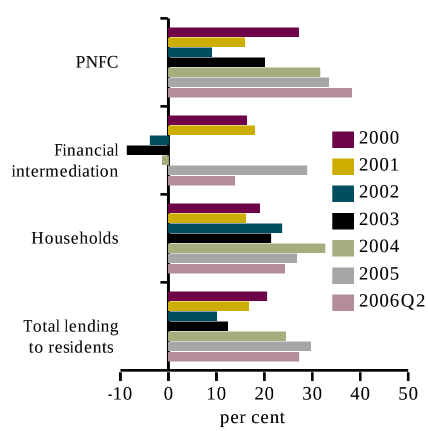
Source: CBFSAI

CHART 33: Loans to Non-Financial Corporates as a % of GDP, 2005



Source: ECB, Eurostat

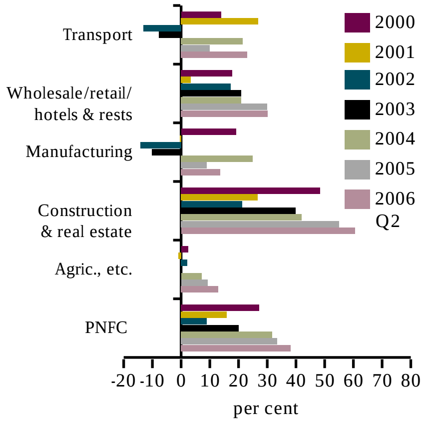
Chart 34: Sectoral Distribution of Private-sector Loan Growth



Source: CBFSAI

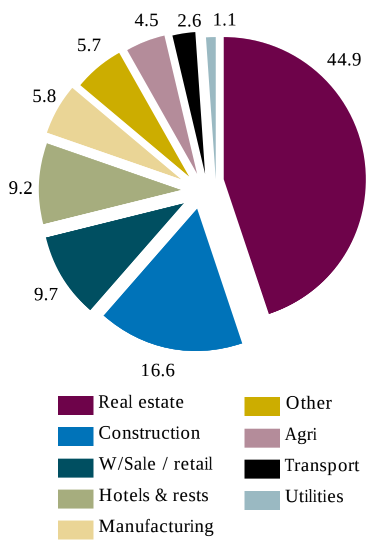
[15] This is the underlying growth rate, adjusted to take account of reclassifications recently undertaken by the CBFSAI.

Chart 35: Breakdown of PNFC Lending Growth



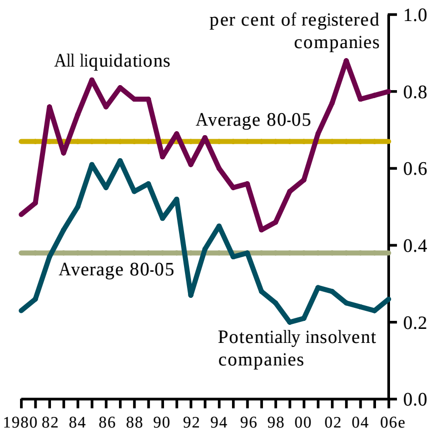
Source: CBFSAI

Chart 36: Sectoral Distribution of Advances to PNFCs



Source: CBFSAI

Chart 37: Liquidations Rate



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

construction activities undertaken to order. In the real estate sector the opposite is the case. The majority of lending – at least 60 per cent – was for projects with existing rental income, with the remainder of lending for projects with no existing rental income.

Nominal interest rates for corporate borrowers increased marginally in 2005, but remain low by historical comparison. Real interest rates remain above zero for the second year in a row, having become positive in 2004 for the first time since 1999. Over the twelve months to August 2006, both the short-term finance lending rate (less than one year) and the longer-term finance lending rate increased. The increase in the short-term rate was slightly bigger, widening the spread somewhat. The relative importance of long- and short-term lending remained largely unchanged over the period. Shorter-term and longer-term lending accounted for 29.7 per cent and 41.2 per cent of outstanding loans to PNFCs, respectively, in August 2006[16], compared with 27.1 per cent and 44.7 per cent, respectively, in August 2005.

2.3.3 Credit Risks from the Corporate Sector

Credit risk from the corporate sector remains low by historical comparison. The annualised rate of liquidations involving potentially insolvent firms (the narrow rate of liquidations) is 0.26 per cent of all companies, slightly above the 2005 level of 0.23 per cent. The current rate remains below the long-run average (1980-2004) of 0.38 per cent (Chart 37).

Debt at risk of default is the proportion of PNFCs' debt outstanding in firms with a relatively high probability of default. It is calculated as the value of a firm's debt multiplied by its probability of default and can be estimated using a sample of firm-level data. Defining 'firms most at risk of failure' as 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' may be calculated to include firms that have two or more of these indicators coinciding (e.g., high gearing and low profitability). Almost 16 per cent of firms met this criterion in 2004, accounting for 31.4 per cent of the total outstanding debt. However, the firms most at risk (those with low profitability, low liquidity and high gearing) hold just 1.4 per cent of total debt (Chart 38). This analysis is developed further in *Stylised Facts on Irish Corporate Balance Sheets* by Rebecca Stuart in Part 3 of this Report.

2.3.4 Financial Position

In an assessment of the financial position of Irish corporates, firm-level data can provide specific information on the profitability, gearing and liquidity of corporates. Preliminary results for 2005 are based on a small sample of corporates.

The indebtedness of the corporate sector is measured by the level of capital gearing which is an estimate of the value of debt to the value of net worth. Preliminary results suggest the recent trend towards lower gearing[17] continued into 2005. The median gearing level is estimated to be 62 per cent in 2005 compared with 68 per cent in 2004 (Chart 39). The level of liquidity is an indicator of the ability of firms to repay debt. High levels of liquidity insulate

[16] The remainder of outstanding loans are for periods of 1 to 5 years.

[17] Capital gearing = (short-term loans and overdrafts + long-term liabilities)/shareholders' funds.

firms to some extent from the dangers of high indebtedness. The median level of liquidity (current assets/current liabilities)[18] of this sample of Irish corporates rose slightly in 2005 to 1.36 from 1.31 in 2004. This is above the average level of liquidity in the period since 2001 (Chart 40). Preliminary results suggest that profitability, as measured by the return on capital[19], increased for Irish corporates in 2005. The median profitability of Irish corporates was 12.34 per cent in 2005, compared with 10.74 per cent in 2004 (Chart 41).

Alternatively, profitability and income may be measured using aggregate sales and output data. These data suggest a pick-up in the retail and industrial-production sectors. Year-on-year growth in the volume of retail sales was 6.6 per cent in July 2006 compared with 6.3 per cent in July 2005, and 4.9 per cent for 2005 as a whole. Volume of production, which decreased in 2002, rose 5.5 per cent in the twelve months to August 2006. The disaggregated production data show increases in intermediate goods largely drove this increase in overall production, while there was a decrease in the volume of production of capital goods.

2.3.5 Forward-Looking Confidence Indicators

The increase in business confidence evident through most of 2005 has generally continued into 2006. Despite this, business sentiment remains below levels recorded in the late-1990s. By European comparison, however, Irish business sentiment is somewhat below, but not dissimilar to, that of the euro area as a whole.

Aggregate sectoral confidence indicators show that confidence in the retail trade[20]and industrial[21] sectors remained largely unchanged through 2005. This remains the case for the retail sector in 2006. In contrast, however, the industrial sector has experienced an increase in confidence in 2006 (Chart 42).

2.3.6 Risks to the Non-Financial Corporate Sector

The historically low levels of realised credit risk and the apparently robust financial position of the corporate sector suggest that at present Irish corporates appear to pose limited risk to financial stability. However, the continuing strong growth in lending to the corporate sector, and to the commercial property-related sectors in particular, requires continued monitoring.

2.4 Banking Sector

2.4.1 Financial Condition of the Irish Banking System

Two broad groups of banks make up the Irish banking sector, namely, those banks that operate in the Irish market and those that operate internationally. When measured by the value of total assets, both groups are approximately the same size. From a financial stability perspective, the behaviour and health

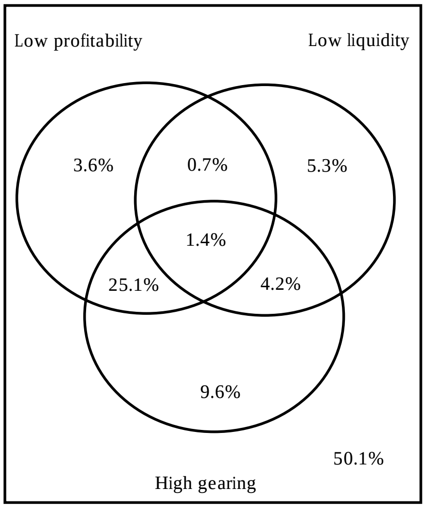
[18] Current assets include trade debtors, stock, work in progress capital, deposits and group loans and other current assets. Current liabilities include trade creditors, short-term loans and overdrafts, dividends and other current liabilities.

[19] Return on capital = profit (loss) before tax/(total assets – current liabilities).

[20] The retail trade confidence indicator is a composite of retail business' assessment of business activity over recent months and of the expected business situation.

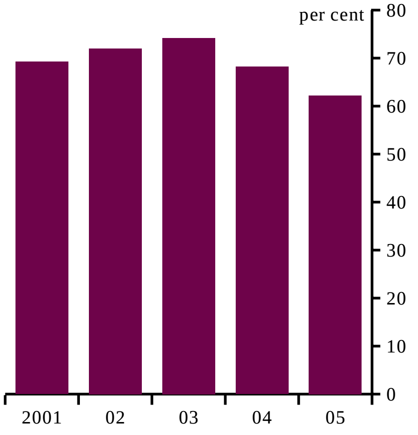
[21] The industrial confidence indicator is a composite of industrial business' assessment of order-book levels, stocks of finished products and production trends observed in recent months.

Chart 38: Corporate Debt at Risk



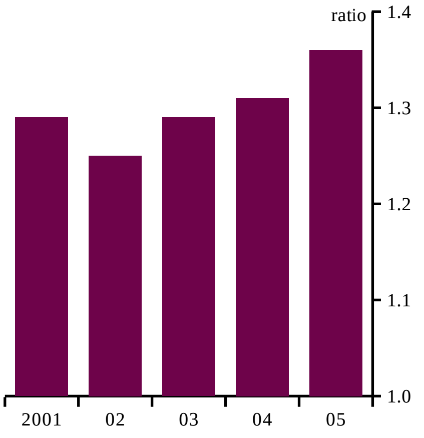
Source: Bureau van Dijk and CBFSAI calculations

Chart 39: Gearing of Irish Corporates



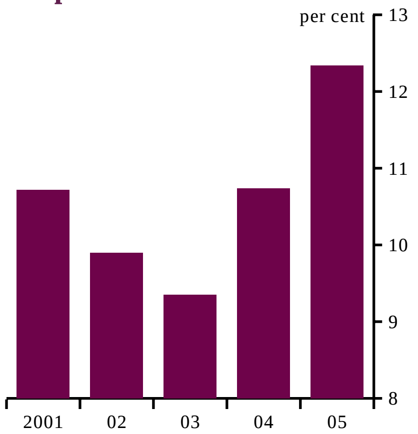
Source: Bureau Van Dijk and CBFSAI calculations
Note: Capital gearing is: (short-term loans and overdrafts + long-term liabilities)/shareholders' funds.

Chart 40: Liquidity of Irish Corporates



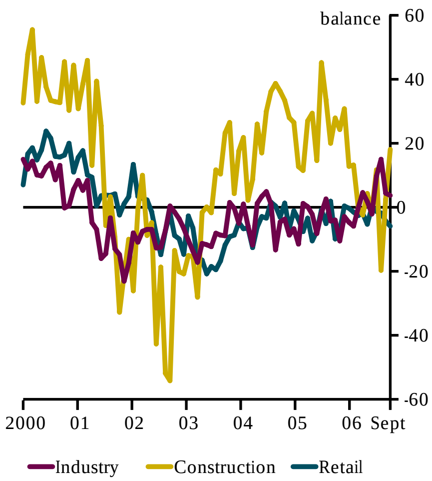
Source: Bureau Van Dijk and CBFSAI calculations
Note: Liquidity is: current assets/current liabilities.

Chart 41: Profitability of Irish Corporates



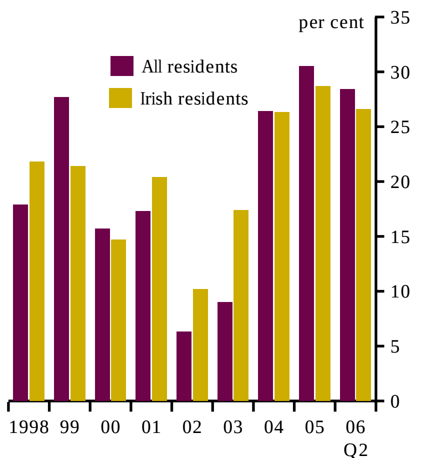
Source: Bureau Van Dijk and CBFSAI calculations
Note: Return on capital is: profit (loss) before tax/(total assets – current liabilities).

Chart 42: Irish Sectoral Sentiment Indicators



Source: Eurostat

Chart 43: Banking System Asset Growth



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

of the domestically orientated banks has been of more concern because their links to the domestic financial system have traditionally been much greater. In contrast, the channels through which internationally orientated banks, many of which are based in the International Financial Services Centre, are much more indirect. See Box F for a fuller discussion of the links between "IFSC" credit institutions and the domestic financial system.

Growth of the Banking System

The rate of growth of the domestic banking system, measured by total assets, accelerated in 2005 for the third successive year (Chart 43). The current rate of asset growth (28.4 per cent) is high by international comparison, and more than double the aggregate rate of the euro area banking sector (Chart 44).

The robust growth in banks' total assets continues for both resident and non-resident assets. There has been relatively higher growth in non-resident assets such that the share of total assets accounted for by Irish residents has declined marginally to 55.1 per cent. The annual rate of growth in non-resident assets declined from 28.7 per cent at the end of 2005 to 26.6 per cent in 2006Q2. Over the same period the increase in banks' assets *vis-à-vis* domestic residents fell marginally to 28.4 per cent (30.5 per cent in 2005). Loans to the private sector accounted for approximately 81 per cent of claims against Irish residents (Chart 45). Other types of assets (monetary financial institutions (MFIs) loans, government securities, etc.) make up a relatively larger proportion of non-residents' claims.

Lending Growth

The rate of growth in lending across all categories remains relatively high. The strong growth in private-sector credit (PSC) is continuing into 2006. The annual underlying adjusted rate of growth in private-sector credit accelerated marginally from 26.6 per cent in 2004 to 28.8 per cent at end-2005 (Chart 46). So far this year PSC growth peaked at 30.3 per cent in June, the highest rate of growth experienced since March 2000. The latest available data for July show PSC growing at 28.1 per cent per annum.

The robust growth in private-sector credit is explained by high rates of growth for both mortgage credit (26.9 per cent[22]) and non-mortgage credit (32.0 per cent) (i.e., non-mortgage related lending to the household sector and lending to non-financial corporates) (Chart 47). The corresponding growth rates in 2005 were 27.1 per cent and 28.7 per cent, respectively.

A sectoral breakdown of the lending data shows that credit growth to PNFCs accelerated in 2005 while household lending slowed slightly (Chart 48). The rate of growth in credit advanced to the non-financial corporate sector accelerated in 2005. The annual rate of growth increased from 31.7 per cent in 2004 to 38.3 per cent in the second quarter of 2006. In contrast, credit growth to the household sector was 23 per cent at 2006Q2 compared to 29.7 per cent in the final quarter of 2004. This decline in growth was due in part to revisions, which saw a transfer of credit from the non-property related personal lending category to real estate activities. As a result, personal non-housing related credit growth declined from an annual rate of increase of 30.1

[22] The adjusted growth rate includes securitised mortgages.

Box F: IFSC Banks' Links to the Irish Financial System

Two broad groups of banks make up the Irish banking sector, namely, those banks that operate in the Irish market and those that operate internationally. When measured by the value of total assets, both groups are approximately the same size. From a financial stability perspective, the behaviour and health of the domestically-orientated banks has been of more concern because their links to the domestic financial system have traditionally been much greater. This box documents quantitatively the limited direct links between IFSC[1] institutions and the domestic financial system. Although the direct links appear limited, this does not mean that IFSC institutions are not important from a financial stability perspective, as there would undoubtedly be some reputational risk for the domestic financial system in the event of an adverse shock to these institutions. For instance, IFSC banks could be important counterparties for domestic banks' credit-risk-transfer activities, and domestic banks could hold securities issued by IFSC banks. IFSC institutions' direct involvement in the domestic financial system is limited insofar as these institutions, despite their relatively large size, provide a relatively small share of assets, private-sector credit and interbank credit to Irish residents. In similar fashion, these institutions hold relatively small shares of Irish residents' deposits.

IFSC banks have only a limited involvement with the Irish private sector, as they provide a relatively small share of the total credit outstanding to the private sector and hold also a small share of private-sector deposits. The data in Table 1 show that these banks in 2006 provided 3 per cent of outstanding private-sector credit. Those banks that operate primarily in the domestic market supplied the remaining 97 per cent. The share provided by IFSC banks has fallen over time. An assessment of Irish resident deposits demonstrates that IFSC banks hold 5 per cent of the non-government deposits by Irish residents and this share has fallen over time also.

Although IFSC institutions have some involvement in the resident interbank market, some of this activity is with other IFSC credit institutions and the remainder is with domestic institutions. IFSC banks provided on average 13 per cent of domestic banks' interbank borrowings and hold on average 23 per cent of domestic banks' interbank deposits.

In summary, twelve per cent of the value of the banking sector's total assets outstanding *vis-à-vis* Irish residents belong to IFSC banks. The remaining 88 per cent of assets belongs to the group of domestic banks that operate primarily in the Irish market and which appear to be the significant institutions when considering the major risks to financial stability in Ireland.

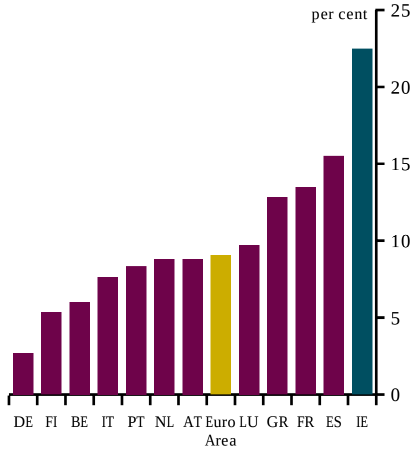
Table 1: IFSC Banks' links to the Irish Financial System

	June 2006	2005	2002	2000
	% Shares			
Total assets *vis-à-vis* Irish residents				
IFSC	12	9	12	18
Domestic	88	91	88	82
Total	100	100	100	100
Private-sector credit to Irish residents				
IFSC	3	4	7	17
Domestic	97	96	93	83
Total	100	100	100	100
Private-sector deposits from Irish residents				
IFSC	5	7	5	16
Domestic	95	93	95	84
Total	100	100	100	100
Interbank borrowing by domestic banks				
Sourced by domestic banks from IFSC Banks		13		
Interbank deposits from domestic banks				
Sourced by IFSC Banks from domestic banks		22		

Note: Total assets, private-sector credit/deposits and interbank borrowing/lending are all *vis-à-vis* Irish residents only. An interbank borrowing/lending matrix is only available during 2005.

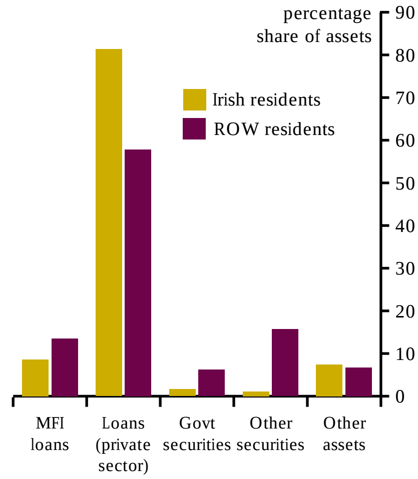
[1]Labels are applied to refer to both groups of banks. Those banks that operate internationally but are based in Ireland are referred to as IFSC. This label is for referencing purposes only as not all these banks may technically be located in the international financial services centre. The other group of resident banks that operate primarily in the Irish market are labelled domestic in this box.

Chart 44: Asset Growth in the Euro Area — August 2006



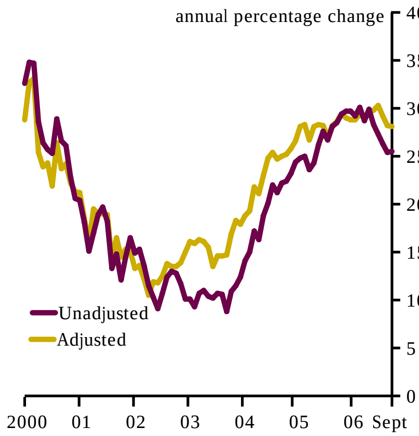
Source: ECB and CBFSAI

Chart 45: Composition of Assets — 2006 Q2



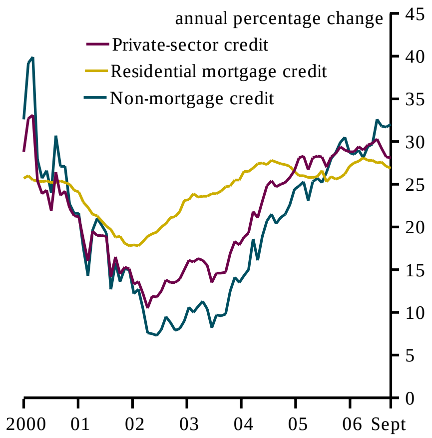
Source: CBFSAI
Note: ROW is rest of world residents.

Chart 46: Private-sector Credit Growth



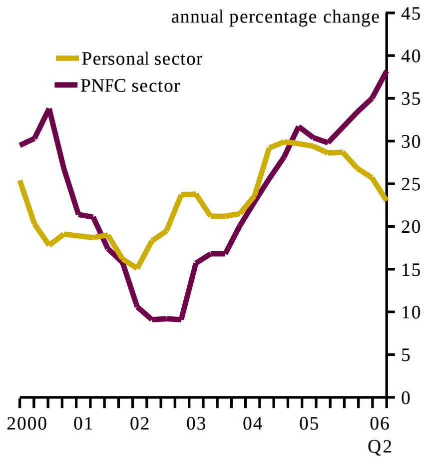
Source: CBFSAI

Chart 47: Underlying Growth Rates of PSC



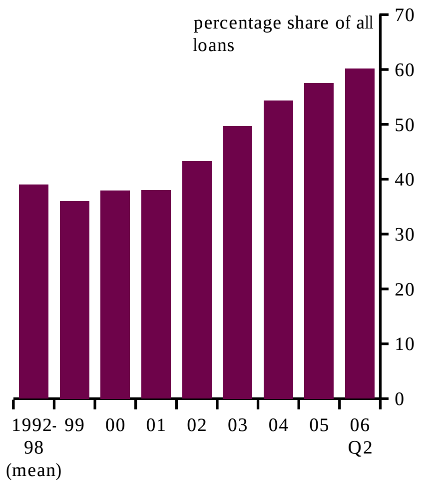
Source: CBFSAI

Chart 48: Lending Growth to Non-Financial Sectors



Source: CBFSAI

Chart 49: Property-Related Lending



Source: CBFSAI

per cent in September 2005 to 5.7 per cent in 2006Q2. The underlying growth rate in housing-related credit increased steadily in the three quarters to March 2006 but declined in the quarter to June 2006 – the current annual rate of growth is now 27.1 per cent. Despite declining rates of growth since early-2004, the current growth rates for lending to the household sector remains high by historical comparison.

There has been a further concentration of the banking system's loan book to the property sector, broadly defined (Chart 49). Property-related lending, which includes lending for construction and real estate activities as well as personal housing-related finance, accounted for almost 79 per cent of the growth in private-sector credit during the second quarter of 2006. The strong growth in the three components (real estate, construction and housing-related finance) has seen the share of total lending for property-related activities increase to 60.1 per cent in 2006Q2 (54.4 per cent in 2004), with over 85 per cent of this amount made up of housing mortgage finance and real estate activities. The current share of the loan book accounted for by property-related lending is high by historical standards; the average over the period 1992 to 2004 was 41 per cent. The share is also high when compared internationally. For example, property-related lending in the UK is approximately 42.6 per cent of UK banks' loan book (i.e., the sum of the following shares: construction sector 1.2 per cent; real estate sector 8.8 per cent and lending secured on residential dwellings 32.7 per cent).

Credit Conditions

The quarterly Bank Lending Survey[23] provides limited information on the credit standards of Irish banks. While it is not possible to have an absolute measure of credit standards, it can provide a broad signal as to whether conditions are loosening or tightening over a long period. The latest Bank Lending Survey suggests that credit standards for non-financial corporates have tightened periodically in recent quarters. With respect to households, credit standards in relation to house purchases have eased over the last year. More generally, since the introduction of the Bank Lending Survey in 2003, residential mortgage-related credit standards have eased. Credit standards for non-mortgage household credit have remained unchanged.

Financial Conditions[24]

— *Solvency*

Irish credit institutions remain well capitalized. The weighted-average[25] solvency ratio has increased marginally and continues to be well above the regulatory minimum at 10.7 per cent in 2006Q2 (Chart 50). In summary, all banks' solvency ratios remain above regulatory minima. The average weighted Tier 1 solvency ratio[26] has remained relatively constant over the last year at 7.9 per cent.

[23] The quarterly Bank Lending Survey is designed to provide qualitative data on the Irish bank loan market. The survey includes information on the change in the demand for bank credit and changes in the willingness of banks to supply credit. The results of the Irish Bank Lending Survey form part of the wider euro area Bank Lending Survey. For a more detailed discussion, see "A Bank Lending Survey for the Euro Area" in the ECB Monthly Bulletin, April 2003.

[24] Box G provides a checklist of financial soundness indicators for Ireland.

[25] In calculating the weighted average, the weights applied are total assets.

[26] Tier 1 capital is required to constitute at least half of the minimum capital held.

Box G: Financial Soundness Indicators

The International Monetary Fund's core financial soundness indicators (FSIs) are a set of fifteen indicators that reflect the soundness of financial institutions and markets, and their corporate and household counterparts. FSIs provide a broader picture of economic and financial circumstances and are used to identify the strengths and vulnerabilities of the financial system. In essence, an indicator flags a warning signal when its current value is unusual by historical comparison. The development of a set of FSIs for Ireland has been outlined in previous Financial Stability Reports and this box provides an update of these indicators and their assessment of the health of the Irish financial system.[1]

The CBFSAI's 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. This assessment is supported by an analysis of the FSIs for the banking sector where there is no change in the key signals from those reported in last year's Report. The Irish banking system remains well capitalised with ratios well above the regulatory minima. The level of non-performing loans remains low by historical comparison. The return on assets indicator continues to signal a warning. This FSI has indicated a warning signal for some time and can be explained by the gradual decline in margins and asset utilisation (i.e., the ratio of gross income to total assets) in recent years. The remaining indicators measuring the sector's reliance on interest income and the level of efficiency remain benign.

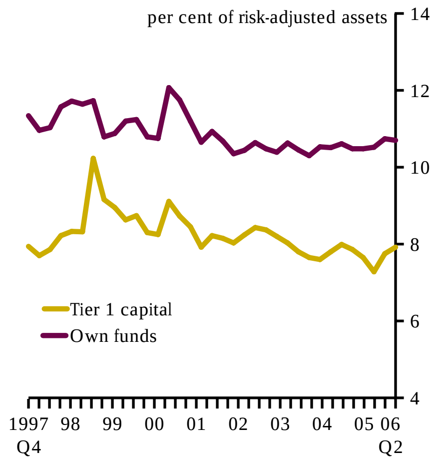
Table 1: Irish Financial Soundness Indicators

Indicator	2004			2005		
	Threshold[e]	Value	Signal	Threshold	Value	Signal
Banking Sector[a]						
Tier One/risk-weighted assets[b]	6.98	7.36	No	7.02	7.16	No
Total capital/risk-weighted assets[b]	10.87	10.45	Yes	10.76	10.87	No
Non-performing loans/total loans	2.22	0.74	No	2.24	0.77	No
Return on assets[d]	1.30	1.10	Yes	1.20	1.09	Yes
Net interest income/gross income	64.53	67.40	No	63.72	69.94	No
Non-interest expense/gross income	61.78	52.40	No	60.31	51.22	No
Corporate Sector						
Loans to non-financial corporates/total loans[c]	5.51	5.87	Yes	5.83	2.87	No
Liquidations rate	0.52	0.24	No	0.52	0.23	No
Household Sector						
Personal debt/GDP[c]	11.90	24.48	Yes	13.69	16.89	Yes
House prices/disposable income[c d]	7.77	10.89	Yes	8.31	1.51	No
Mortgage repayment burden[c d]	7.00	6.85	No	7.38	1.33	No
Real Estate Sector						
House prices[c]	16.07	11.28	No	16.02	9.48	No
Mortgage loans/total loans[c]	12.29	7.23	No	12.30	–0.62	No
Real estate loans/total loans[c]	20.83	10.11	No	20.83	22.04	Yes
Macroeconomic Variables						
Private-sector credit/GDP[c]	7.29	16.49	Yes	7.29	20.15	Yes
GDP growth	2.00	4.50	No	2.07	5.50	No
GNP growth	0.44	4.00	No	0.71	5.40	No
Inflation	9.90	2.61	No	9.72	2.47	No
Real interest rates	0.74	0.17	No	0.73	0.38	No
Real consumption growth	0.40	2.75	No	0.58	6.60	No

[a]Banking data are available from 1993 to 2004, except for NPL data, which are from 1995 to 2004. Results for individual banks are weighted by their share of total assets, to account for the uneven structure of the Irish banking sector. The introduction of IFRS accounting standards in 2005 has complicated the comparison of 2005 estimates with the long-run data.
[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 2005.
[e]The threshold value is calculated as the mean of the variable adjusted by the less favourable standard deviation. Hence, for those indicators for which increasing values may point to stresses in the financial system, the threshold is simply the mean plus the standard deviation, for example, non-performing loans as a ratio of total loans.

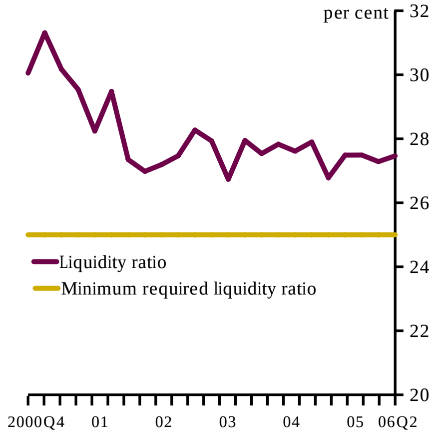
Developments in the financial position of the corporate and household sectors can impact on the health of the banking sector. The FSIs for the corporate sector do not signal any new vulnerabilities in 2005. This is consistent with the overall assessment of

Chart 50: Solvency



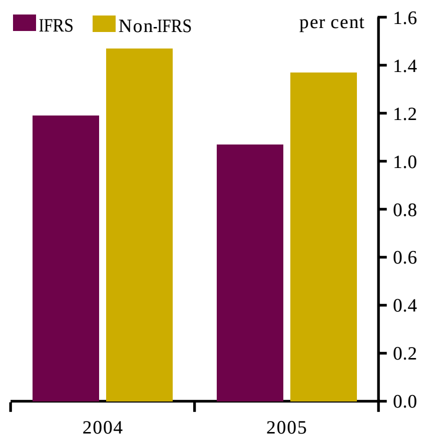
Source: CBFSAI

Chart 51: Liquidity ratio



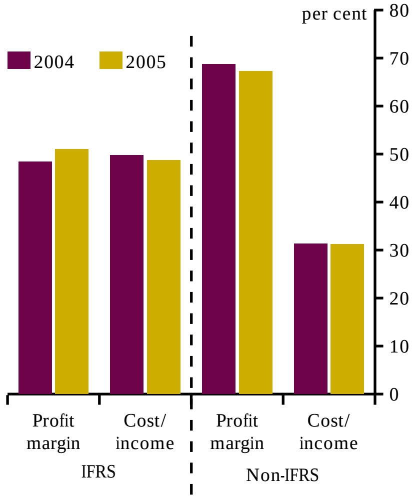
Source: CBFSAI
Note: The liquidity ratio is the ratio of liquid assets to total borrowing and all data are weighted average of sample of banks.

Chart 52: Return on Assets



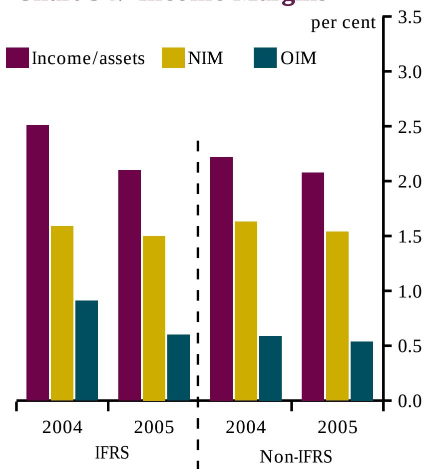
Source: Annual accounts
Note: ROA is profit before tax and provisions to total assets and all data are weighted average of sample of banks. IFRS relates to banks which have prepared accounts in accordance with IFRS standards.

Chart 53: Profit Margins and Efficiency



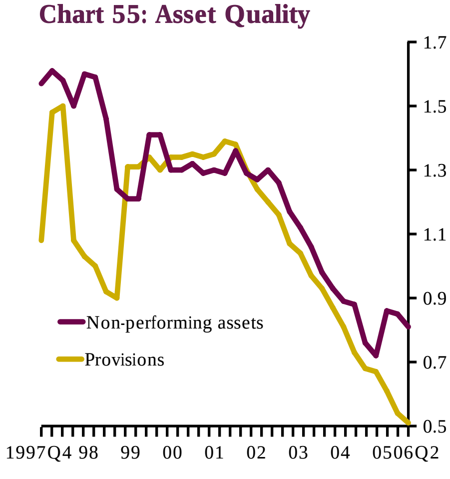
Source: Annual reports
Note: Cost-income is non-interest expenses to income and all data are weighted average of sample of banks.

Chart 54: 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 55: Asset Quality



Source: CBFSAI

the Report that there appears to be no major risks to financial stability stemming from the corporate sector. The Bank's concern about excessive credit growth and household indebtedness is borne out by the rate of change in the level of household indebtedness. This rate of change remains high by historical comparison.

The indicators of developments in real estate markets are issuing mixed signals. The over-concentration of banks' loan books to property-related business as highlighted in the Report is flagged by the FSIs as a vulnerability because the rate of increase in the share of real estate loans in the total loan portfolio is now relatively high. House prices fail to issue a warning signal but this may be due to the moderation in house price increases in the first part of 2005. This indicator uses end-2005 data[2] and would not have taken account of the reacceleration in the rates of growth of house prices that occurred subsequently in the first half of 2006.

[1]An overview of the methodology used in calculating and assessing FSIs can be found in Box E of the Financial Stability Report 2004.
[2]This indicator is reported at end-2005 to be consistent with the other indicators reported in the table.

— ***Liquidity***The liquidity position of Irish banks improved marginally over the last year (Chart 51). The 2006 liquidity ratio (measured as the ratio of liquid assets to total borrowings) was 27.5 per cent in 2006Q2. The corresponding figure for 2005 was 26.8 per cent. More detailed analysis of banks' holdings of liquid assets reveals that Irish credit institutions' liquid assets are mostly interbank deposits.

— ***Profitability***[27]

The slowly declining trend in profitability, evident for recent years, has continued in 2005.[28] Profitability as measured by return on assets (ROA) fell further (Chart 52). The ROA declined from 1.2 per cent in 2004 to 1.1 per cent in 2005. The ROA is composed of two components: profit margins (profit before tax and provisions over total income) and asset utilisation (the ratio of gross income to total assets). Asset utilisation decreased from 2.5 per cent in 2004 to 2.1 per cent in 2005. Over the same period profit margins increased from 48.4 per cent to 51 per cent (Chart 53). Cost-income ratios, which generally move in the opposite direction to profit margins, declined marginally because increased personnel-related costs have been offset by an increase in income. Net interest margins declined also in 2005 (Chart 54), increasing further the reliance on high rates of credit growth to maintain income growth. Some credit institutions rely almost exclusively on net interest income and do not have significant other sources of non-interest income. It is not obvious that the upward trend in interest rates will lead to a recovery in net interest

[27] The following section draws upon information reported in the published financial accounts of Irish credit institutions. Following the implementation of EU regulation concerning the preparation of company accounts all listed companies in the EU, including credit institutions, are required to compile their accounts in accordance with International Financial Reporting Standards (IFRS). These standards are to be applied from the financial year starting January 2005. The majority of Irish credit institutions have adopted IFRS while the remaining institutions have continued to prepare their financial accounts under Irish generally accepted accounting practices (GAAP). Due to inconsistencies between IFRS and Irish GAAP it is necessary to examine each sample of banks separately. Irish credit institutions that adopted IFRS in 2005 also provide restated 2004 accounts data which allow for some comparison.

[28] The statistics in this paragraph relate to IFRS compliant banks only. In general, profitability in non-IFRS banks followed similar trends with the return on assets, asset utilisation and cost-income ratios decreasing marginally in 2005.

margins as other factors such as the increasing need to have recourse to non-retail sources of funding, the nature of banks' assets and the banking sector's market structure, are also important determinants of the level of margins.

— *Asset Quality and Provisioning*

Asset quality remains high both in absolute terms and by historical comparison. Non-performing assets (NPA) were 0.81 per cent of non-government credit in June 2006 compared to 0.76 a year earlier (Chart 55). Despite some volatility in the series the level of NPAs remain low.

The level of provisioning continues to decline, reflecting both the low level of non-performing assets as well as new accounting standards. Provisions as a percentage of non-government credit had fallen from 0.68 per cent in 2005Q2 to 0.51 per cent in 2006Q2. The cover ratio (provisions to non-performing assets) has also fallen (Chart 56). The current ratio is 63.2 per cent and remains well below its 5-year average (2000-2005) of 95.5 per cent. 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 2005 and is currently at a historically low level (Chart 57). This category of provisions is being phased out under new accounting standards. 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, increased from 2004, this corresponds to the slight increase in non-performing assets that occurred during 2005.

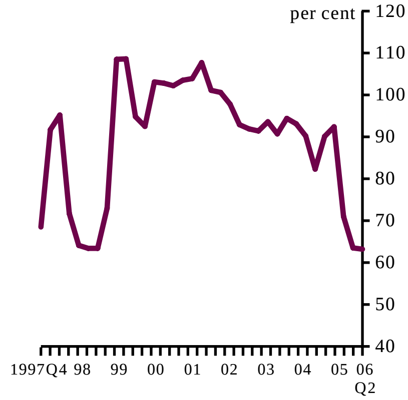
— *Funding*

The Irish banking sector's funding gap — the ratio of private-sector deposits to private-sector loans — has widened further and is the highest in the euro area (Chart 58). The funding of banks' activities is typically made up of retail deposits, interbank borrowing and issuances of debt securities. The funding of domestic lending by Irish credit institutions via domestic retail deposits has declined from 76.9 per cent in 2000 to 54 per cent in the second quarter of 2006. The aggregated euro area ratio of private-sector deposits to loans is approximately 85 per cent (Chart 59). The largest proportion of Irish credit institutions non-retail funds is sourced from other credit institutions via the interbank market (48.9 per cent). The issuance of debt securities continues to increase such that it accounts for a larger share of external funding (32.1 per cent in 2006Q2 compared to 26.2 per cent in 2003). Central bank/government deposits (11 per cent) and other liabilities (8 per cent) make up the remainder. The majority of both interbank borrowing (54 per cent) and debt securities issued (75.2 per cent) are *vis-à-vis* non-euro area residents.

— *Off-Balance-Sheet Activities*

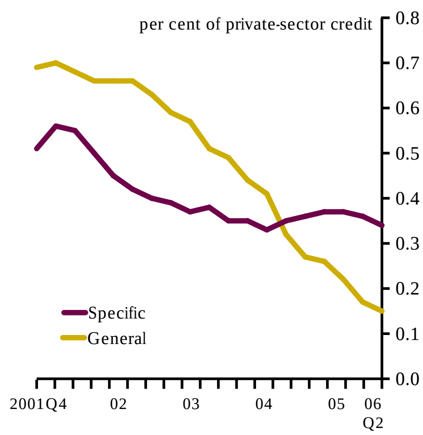
Irish credit institutions are active within the derivatives market. The nominal value of all off-balance sheet derivatives contracts grew by an annual rate of 17.2 per cent in the second quarter of 2006 — a marginal decline over the 2005 growth rate (24.9 per cent). Interest-rate related derivative contracts continue to account for the bulk of off-balance sheet activity. Specifically, single currency interest-rate related contracts accounted for 79.1 per cent in 2006Q2. Within this category the two largest components are pay floating/receive fixed (39.8 per cent) and pay fixed/receive floating (34.2 per

Chart 56: Cover Ratio of Provisions



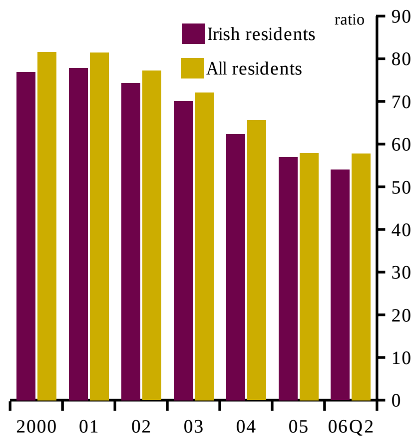
Source: CBFSAI

Chart 57: Provisions by Type



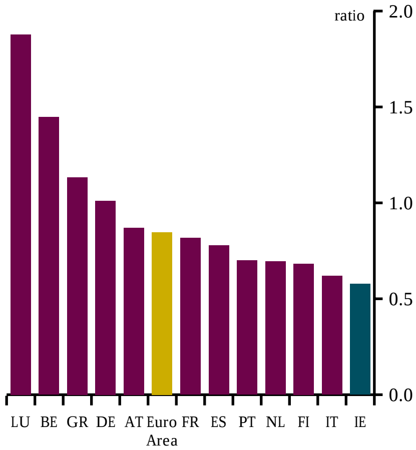
Source: CBFSAI
Note: Weighted average of sample of banks.

Chart 58: Ratio of Deposits to Loans



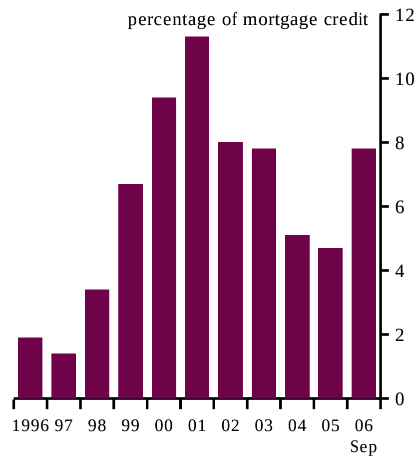
Source: CBFSAI

Chart 59: Euro Area Ratio of Deposits to Loans — August 2006



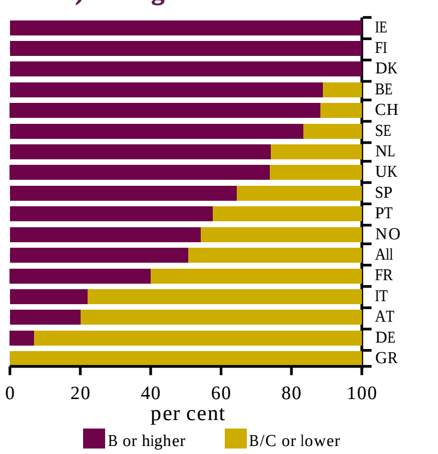
Source: CBFSAI and ECB
Note: The figures relate to all institutions per country except Ireland which is based on a smaller sample as oultined at the start of the section.

Chart 60: Securitisation Rate



Source: CBFSAI

Chart 61: Fitch Ratings (Individual Banks) — August 2006



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

cent). An additional class of off-balance-sheet activity is securitisation. Due to new securitisation activity taking place between November and August, the rate of securitisation has increased for the first time in 5 years. The current level of securitised mortgages is 7.8 per cent of the total stock of outstanding mortgages (Chart 60).

— *Market Information*

The available market information demonstrates that the large domestic credit institutions continue to be highly rated (Chart 61). The Irish equity market's assessment appears to be that Irish financial companies have exhibited strong growth performance throughout 2005 and into 2006. In general, the ISEF — the index of Irish financial companies — outperformed the ISEQ during 2005 with the ISEF exhibiting average annual growth of 27.7 per cent compared to 19.6 per cent for the ISEQ (Chart 62). This trend had continued into early-2006. However, a significant decline in the year-on-year growth rate of both indices was observed during May 2006, possibly reflecting recent trends in the global equity markets. The year-on-year growth rates during May fell to 22.4 per cent for the ISEQ and 17.2 per cent for the ISEF. In the period following the market unrest during May the ISEQ has outperformed the ISEF, contrasting with the trend seen in 2005. The latest year-on-year growth rate during September was 18.4 per cent for the ISEF and 18.5 per cent for the ISEQ.

The ISEF outperformed the Dow Jones Bank STOXX index in 2005. The average annual growth rate in 2005 was 15.8 per cent for the Dow Jones Bank STOXX compared to 27.7 per cent for the ISEF (Chart 63). For the three months to April 2006, the two indices exhibited strong growth whilst tracking each other closely. During the market turbulence in May the year-on-year growth rate of the Dow Jones Bank STOXX fell to 23.1 per cent. Since the turmoil in May the Dow Jones Bank STOXX index has exhibited higher year-on-year growth rates than the ISEF, the year-on-year growth rates in September were 21.7 per cent for the Dow Jones Bank STOXX and 18.4 per cent for the ISEF.

2.4.2 Internal Risks to the Irish Banking System

The overall health of the banking system remains robust when measured by profitability, asset quality, solvency, liquidity and credit ratings. Nonetheless, the overall picture at present is that strong credit growth, high indebtedness levels, increased repayment burdens and house prices pose continuing issues for the banking system. (See Box H for a summary of a survey of banks' main risks for the year ahead.) The continuing stability of the financial system, in the context of these vulnerabilities, as well as the domestic and international risks to the economy, requires a healthy banking system with good shock-absorption capacity. The recent round of stress testing, notwithstanding some important caveats, suggests the shock absorption capacity of the system remains strong.[29] However, developments since last year's assessment suggest that the concerns identified in the 2005 report persist. First, the rate of credit

[29] There are two broad approaches to stress testing, namely, in-house analysis by the CBFSAI and a survey of individual credit institutions. Both types of test were undertaken in early-2006 and the results are reported in Part 3 of this Report. Allan Kearns outlines the results of the in-house analysis in *Top-Down Stress Testing: The Key Results.* The results of the survey of credit institutions are outlined in *Bottom-up Stress Testing: The Key Results* by Allan Kearns, Maurice McGuire, Anne Marie McKiernan and Diarmaid Smyth.

Box H: Survey of Banks' Main Risks

Irish banks participate in an annual survey of EU countries asking banks in each country what they perceive to be the main risks for the coming year. Specifically, the survey respondents[1] ranked five risk categories: the macroeconomy; financial markets; the banking industry; strategic firm-specific developments; and the regulatory environment, according to the threat posed for banks' profitability over the period 2006Q1 to 2007Q1. This box documents the banks' responses on the macroeconomic risks. In similar fashion to the Financial Stability Report's overall assessment, the banks' responses highlight the property market and credit growth as key risks, although the realisation of these risks would have a low impact on the health of the banking sector.

The results of the survey pointed to both the macroeconomy and the regulatory environment as the two main sources of risk to banks' profitability in the year ahead (Chart 1). However, this ranking was not unanimous with some banks ranking the macroeconomic environment as the least important (Chart 2).

Macroeconomic Risks

All of the respondents were asked to identify specific macroeconomic risks which they deemed may impact on earnings. The majority of banks identified risks relating to the property market and the credit cycle as risks that might impinge on profitability (column a in Table 1). The assessment suggested that these risks had increased since last year (column b). All of the respondents indicated that rapid and abrupt price changes in the housing market could damage banks' profitability. However, if these risks were to materialise, a majority of respondents replied that the impact on profitability was considered to be quite low — defined as where a realisation of the impact might amount to up to one month's profits (column g). The next most selected macroeconomic risk to earnings was domestic credit risk but again the impact was considered to be low. Global imbalances, sustained high or rising oil prices and a deterioration of the fiscal position were of less concern to banks.

Table 1: Macro Risk Responses

Macro Risks (Categories)	Agree	Risk is:			Impact:		
		Higher	Same	Lower	Major	Medium	Low
	%						
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Rapid and abrupt house price change	100	71	29	0	1	0	6
Domestic credit risk, turn in credit cycle	57	50	50	0	0	0	4
Commercial property price bubble	43	67	33	0	0	1	2
Low growth or weak economy	29	50	50	0	0	0	2
Credit risk — overheating of economy	29	100	0	0	1	0	1
Country risk and political shocks	14	0	100	0	0	0	1
Global imbalances	14	100	0	0	0	0	1
Other	14	0	100	0	0	0	1
Sustained high or rising oil prices	0	0	0	0	0	0	0
Domestic fiscal deficit	0	0	0	0	0	0	0
EU enlargement	0	0	0	0	0	0	0

Note: % response agreeing denotes the percentage of all responding institutions signalling a specific issue. Risk is higher, same, lower by comparison with last year. Major, medium and low groups the number of banks in these particular categories, in correspondence with the indicated scores. Low corresponds with an impact of up to one month of profits, medium score corresponds with quarterly and a high score corresponds with a half year or more profit impact.

[1]In total seven Irish banks responded to the survey.

Chart 1: Risk Categorised as Most Important and Least Important

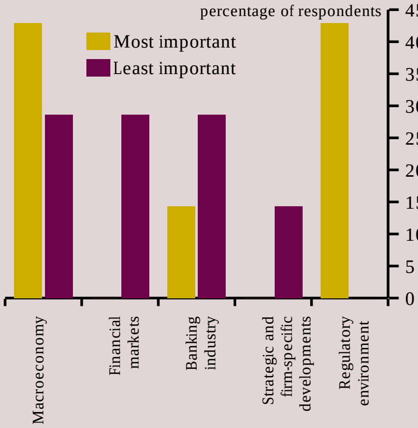
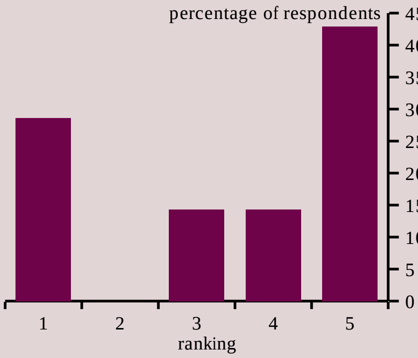
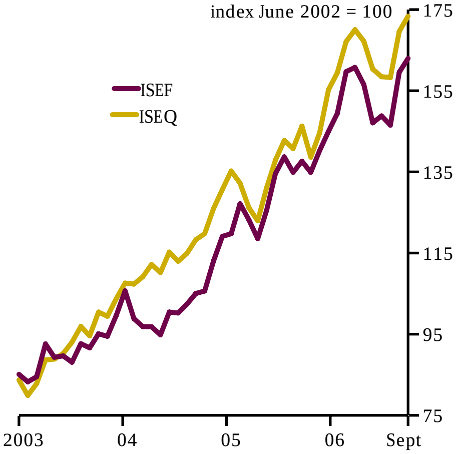


Chart 2: Distribution of Macro-economic Risks Among Respondents



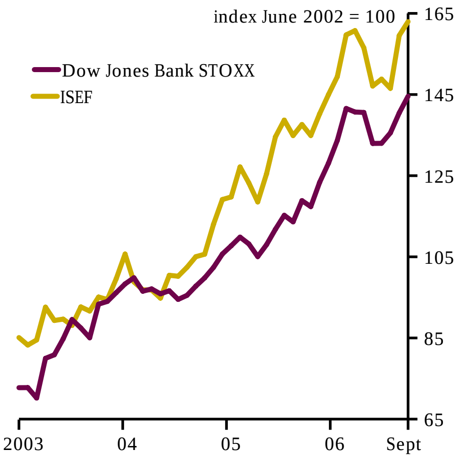
Note: 1 = least important, 5 = most important.

Chart 62: Irish Equity Indices



Source: Bloomberg and Irish Stock Exchange

Chart 63: International Equity Indices



Source: Bloomberg and Irish Stock Exchange

growth remains relatively strong, and particularly in an environment where interest rates have begun to increase, the high rate of growth is considered to have remained excessively high. Second, the share of the loan book in property-related sectors has continued to grow, further accumulating credit risk and creating an increasing reliance of income and profitability on property-related lending. Third, the funding gap continues to widen, increasing the risk of a country-specific shock posing liquidity or refinancing risks for banks. Fourth, net interest margins continue to fall, increasing further the reliance on high rates of credit growth to maintain income growth. Finally, the significant reduction in general provisions is continuing as the forward-looking element in the level of provisioning against loan losses continues to decline.

The rate of credit growth accelerated further in 2005 and this trend has continued in 2006. Previous Reports highlighted the possibility that such high rates of growth could be excessive. The concern about the current pace of credit growth is further compounded by:

i) credit being extended to an already highly indebted private sector;

ii) risks to the economic outlook; and

iii) the change in the interest rate cycle which is now trending upwards.

In particular, this latter development with respect to interest rates since publication of the 2005 Report will increase the repayment burdens for most borrowers with a corresponding increase in the probability of arrears and defaults for the banking system.

The concentration of Irish credit institutions' loan books in property increased further in 2005.[30] Property-related lending (broadly defined) accounted for almost 79 per cent of the growth in private-sector credit during 2006Q2 and accounts for 60.1 per cent of the aggregate loan book. As a result of this concentration Irish credit institutions are increasingly at risk from over-exposure to a single, albeit broadly defined, asset class. While such lending has the positive attribute of being collateralised, the risk remains that all credit institutions would be exposed to any widespread shock that hits the property market. This concentration must also be assessed in the context of:

i) the disproportionately large dependence of the economy on the construction sector; and

ii) the apparent positive correlation of property prices both within and across the various market segments (i.e., by type of property and geographical location).

A contraction in the construction sector would not only reduce the market for property-related lending but would also affect banks' credit risks through slower economic growth and higher unemployment. Furthermore, it appears that the rates of increase in prices across different segments of the Irish property market have tended to trend upwards and downwards in a broadly similar fashion over the last 30 years, particularly during those periods of relatively slower economic growth. Based on this experience, it appears

[30] See part 3 of this Report where In *The Concentration in Property-Related Lending – A Financial Stability Perspective*, Allan Kearns and Maria Woods explore issues with respect to the concentration of Irish credit institutions' loan books in property-related lending.

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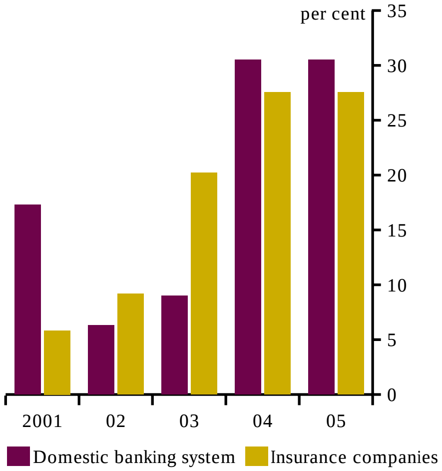
possible that any slowdown in the rate of growth of prices in one segment could be accompanied by a slowdown in prices across several other segments simultaneously.

Net interest margins, calculated as the ratio of net-interest income to total assets, continue to fall, increasing further the reliance on high rates of credit growth to maintain income growth. Banks are cushioned somewhat from these declining margins by the current strong rate of lending growth, mostly 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. It is not obvious that the upward trend in interest rates will lead to a recovery in net interest margins as other factors such as the increasing need to have recourse to non-retail sources of funding, the nature of banks' assets and the banking sector's market structure, are also important determinants of the level of margins.

The Irish banking sector's funding gap, calculated as the ratio of private-sector deposits to private-sector loans, has widened further to 54 per cent and is the highest in the euro area. As the funding gap continues to widen Irish banks need to find alternative sources of funding to retail deposits. Increasingly these alternative funding sources are sourced from non-domestic sources with a recent expansion into non-euro area resident funding. Both securities and interbank borrowing are the prominent funding sources. The size of the euro area financial system relative to the domestic system presents Irish banks with a readily available source of funds. To date, the ease with which Irish credit institutions have accessed this market is a reflection of the international confidence in the health of the system. However, continued reliance on wholesale funding is of concern for two reasons. First, wholesale funding is generally more expensive then retail deposit-based funding. Increased recourse to more expensive wholesale funding coupled with increased competition domestically could place further pressure on net-interest margins and profitability in general. Secondly, the nature of wholesale funding, which is generally more volatile than deposit-based funding, could exacerbate any potential shock to the Irish economy. In the event of such a shock to the Irish economy, a withdrawal of international funds could constrain the ability of Irish banks to advance further credit with possible adverse implications for economic growth.

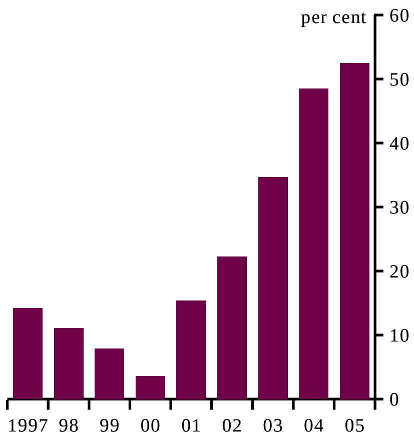
Finally, provisions for loan losses (or impairment costs) have continued to decline to record lows. Provisions are an important component of the shock absorption capacity of financial institutions. The decline in provisions (from 0.68 per cent to 0.51 per cent of non-government credit in the twelve months to June 2006) is, in part, a reflection of the downward trend in non-performing assets which has been evident over the last five years. More recently, it is also a result of the phasing out of general provisions under the new International Financial Reporting Standards. General provisions are loan loss reserves made in anticipation of difficulties arising in the loan book but which have not been identified yet. As such, the ability of banks to cope with unexpected loan losses in the future will be reduced. Against the backdrop of the persistently high growth rate of mortgage lending, and the effect on provisioning coming from the new accounting standards, the Financial Regulator recently increased the risk weighting on high LTV mortgages to increase the capital cushion in

Chart 64: Domestic Banking and Insurance Companies' Asset Growth



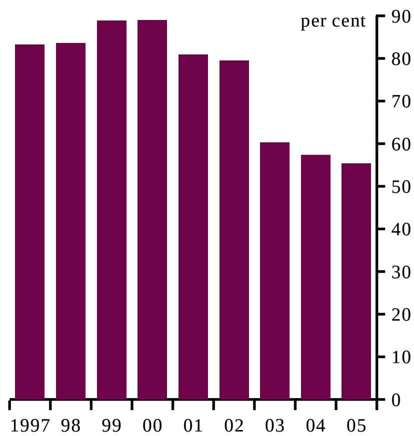
Source: Insurance Statistical Review and CBFSAI calculations

Chart 65: Non-Life Sector — Profit as a % of Premium



Source: Insurance Statistical Review and CBFSAI calculations

Chart 66: Non-Life Sector — Loss Ratio



Source: Insurance Statistical Review and CBFSAI calculations

the system. This will result in credit institutions setting aside additional capital in respect of these loans.

2.5 Insurance Sector

At the time of publication of the Financial Stability Report 2005, the structure of the insurance industry in Ireland suggested that risks arising from the insurance sector were very low and this continues to be the assessment. Specifically, the lack of a large number of significant bancassurance groups and the predominance of unit-linked policies issued by life insurance companies (where the risk is transferred from the companies to policyholders) remain two mitigating characteristics of the industry.

The insurance sector continued to grow strongly in 2005. Insurance companies' asset growth rose to 27.6 per cent in 2005 compared with 23.6 per cent in 2004. Growth in the insurance sector has been of a similar magnitude to the banking sector for some time with average growth of 17.3 per cent per annum over the period 2001 to 2005 compared to average growth of 17.9 per cent per annum in the banking sector (Chart 64).

2.5.1 Non-Life Insurance Sector[31]

In general, the general improvement in the non-life sector in recent times appears to have continued in 2005 when assessed by indicators of profitability, claims, cost-income and management quality.

The profitability of the non-life insurance sector continued to strengthen in 2005 despite a decline in net premium income. Profitability (measured as a percentage of premium) rose to 52.5 per cent in 2005 from 48.5 per cent in 2004 (Chart 65). The improved profitability of the non-life sector was supported by a further improvement in the loss ratio (total claims/net premiums) during 2005, as the ratio fell between 2004 and 2005. The loss ratio was 55.4 per cent in 2005, compared with 57.4 per cent in 2004 (Chart 66). Real net premium growth has been declining gradually from a high of 15.5 per cent in 2002 and actually declined 3.7 per cent in 2005. The decline in real net premiums seen in 2005 represented the first year since records began in 1998 that positive real net premium growth was not recorded.

The income ratio (investment income/net premium) in the non-life sector has been steadily improving since 2002, when it stood at 10.3 per cent, to reach 13.2 per cent in 2005. In terms of earnings efficiency, the management expenses ratio (management expenses/net premiums) which did not exceed 10 per cent in the previous three years, weakened in 2005 as it increased to 11 per cent. The commission ratio (commissions/net premiums) also deteriorated as it increased from 12.5 per cent in 2004 to 17 per cent in 2005.

There are two management soundness indicators — the gross premium/number of employees ratio and the assets per employee ratio. The average gross premium per employee ratio deteriorated slightly as it fell to a value of 0.86 in 2005 from 0.90 in 2004. The asset per employee ratio improved as it increased from 3.1 in 2004 to 3.7 in 2005.

[31] See Box G entitled ''Financial Soundness Indicators'' for the Insurance sector published in the CBFSAI's Financial Stability Report 2005 for a fuller discussion of the indicators used in Sections 2.5.1 and 2.5.2.

2.5.2 Life Insurance Sector

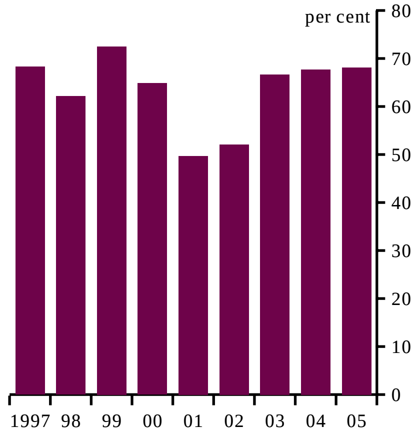
In similar fashion to the non-life sector the general improvement in the life sector in recent times has continued in 2005 when assessed by indicators of profitability, claims, investment returns and management soundness.

Profitability (measured by profit as a percentage of total income) in the Life insurance sector has remained quite stable since 2003, measuring 68 per cent in 2005 (Chart 67). Similarly the claims/premiums ratio did not experience any significant change since 2003, remaining at approximately 55 per cent in 2005 (Chart 68). The real growth in net premiums slowed in 2005, falling to 28 per cent from 37 per cent in 2004. Nevertheless the growth during 2004 and 2005 represents a recovery from the decline in real net premiums seen in 2003.

There was a slight increase in the returns on investment assets (investment income/value of total assets) during 2005 (Chart 69). Considering the period from 2003 to 2005, the return on investment income within the life sector has remained virtually unchanged. These broadly stable returns have contributed somewhat to the life sector's stable level of profitability over the last three years.

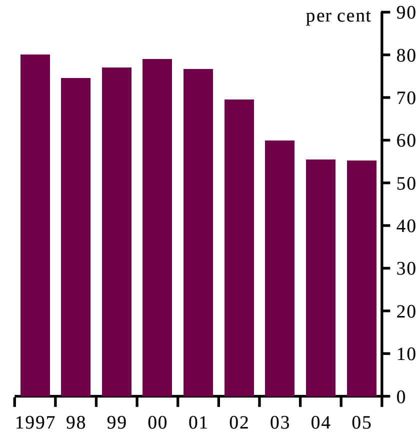
The earnings efficiency ratios revealed mixed results for the sector. Gains were made as the management expenses ratio continued to improve during 2005. The ratio fell to 4.3 per cent in 2005 from 5 per cent in 2004. The commission ratio however deteriorated as it increased to 5.9 per cent during 2005, compared to 3.9 per cent in 2004. Both management soundness indicators (i.e., gross premium/number of employees and the assets per employee ratio) improved in 2005. Assets per employee rose from 14.5 in 2004 to 17.7 in 2005. The average premium per employee ratio increased from 3.2 in 2004 to 3.8 in 2005.

Chart 67: Life Sector — Profit as a % of Income



Source: Insurance Statistical Review and CBFSAI calculations

Chart 68: Life Sector — Claims/ Premiums Ratio



Source: Insurance Statistical Review and CBFSAI calculations

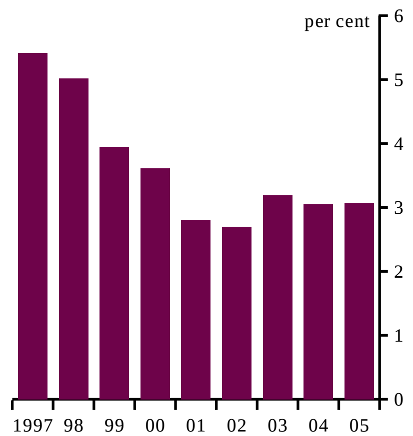
3. International Dimension

3.1 Overview

The risks to the macroeconomic outlook arising from the global economy are perceived to have increased since the 2005 Financial Stability Report, notwithstanding the fact that global growth prospects are now somewhat more favourable. The relevant risks, as indicated earlier, are oil price movements, global imbalances, potential adverse financial market and exchange-rate developments, the risk of inflationary pressures re-emerging and an abrupt slowdown in the US housing market.

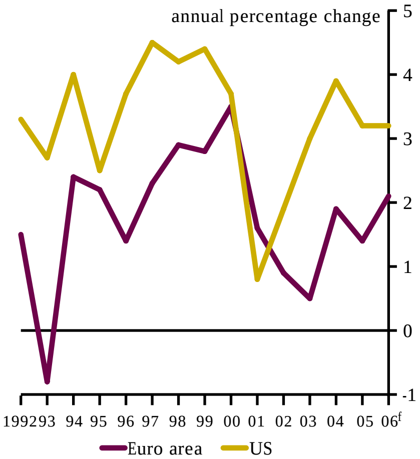
Since last year's Financial Stability Report, the world economy has continued to withstand shocks and maintain momentum. Despite the pressures stemming from higher energy prices, inflation has remained contained, although some upward pressures are beginning to emerge. The pace of global economic activity remained robust in the second half of 2005 and in the first half of 2006, with the expansion becoming more broadly based. Asia has experienced extremely strong growth, led by China and India, while in Japan, the economic recovery continues to strengthen. In the United States, the hurricanes of last summer had a damaging but only transient impact on activity, and growth bounced back in early 2006, before slowing in the second quarter, reflecting a cooling housing market and high energy costs. In the euro

Chart 69: Life Sector — Returns on Investment Assets



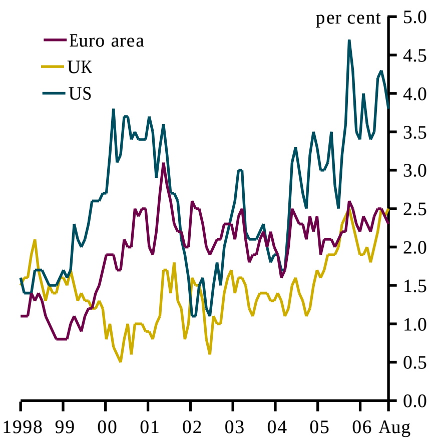
Source: Insurance Statistical Review and CBFSAI calculations

Chart 70: Real GDP Growth Rates



Source: Eurostat

Chart 71: International Inflation Rates



Source: Eurostat and Federal Reserve Economic Database (FRED)
Note: Inflation figures for the UK and Euro area are based on EU HICP, while US are CPI.

area, activity weakened again late last year, partly reacting to rising oil prices, before accelerating in the first half of 2006.

There are a number of downside risks and tensions that persist despite the continuing global expansion. Current account imbalances have reached unprecedented heights, and the concern remains that these imbalances cannot continue indefinitely without eventually prompting market-driven adjustments. Energy prices remain at high levels, despite recent declines, reflecting strong demand, limited spare capacity, geopolitical risks and concerns about the potential for further supply disruption, which remains an ongoing risk. The risk that long-term interest rates could rise sharply, even after their recent move upwards, could have a significant impact on households, particularly in countries where housing markets have boomed. While the balance of risks appear on the downside, on the upside, high levels of corporate profitability could spill over into higher investment, improving capital formation, employment and growth.

Following very strong growth in early 2006, the pace of the expansion in the US has subsequently moderated. Real GDP increased an annualised 5.6 per cent in the first three months of 2006, before falling to 2.9 per cent in the second quarter, reflecting weakening private consumption. Looking forward, economic growth in the US is projected to slow after several years of above trend outcomes (Chart 70). The slowdown is expected to be driven by lower growth in household spending, but will be partly offset by continued strength in business spending and some small reduction in the drag from external trade. House price growth has played a key role in supporting consumer spending via positive wealth effects and mortgage equity withdrawal; the latter is already beginning to moderate, and it remains to be seen how households will respond to more modest future house price growth.

In the euro area, following a spell of weakness in the latter part of 2005, activity has gathered strength in 2006. Real GDP increased in the first quarter of 2006 by 0.8 per cent, after a temporary slowdown recorded in the final quarter of 2005, of 0.3 per cent, and continued to gain traction in the second quarter, expanding 0.9 per cent. Growth in the second quarter was primarily driven by domestic activity, most notably a strong increase in fixed capital formation and a rebound in inventory accumulation. Notwithstanding the significant role that domestic demand played in supporting the expansion in the second quarter, the external sector will continue to play a key role in driving the recovery. Despite some moderation in US activity, world growth is expected to continue to support the euro area expansion. Overall, for 2006, growth is projected to be 2.4 per cent, up from 1.3 per cent in 2005.

Turning to price developments, there have been signs that inflationary pressures have increased a little (Chart 71). The elevated level of energy prices has resulted in accelerating headline rate pressures, while core rates of inflation have generally remained low. This may reflect in part the improvements in central bank credibility in recent years but also, to some extent, a benefit of globalisation. While there is little evidence, so far, of second-round effects emerging from the strength of oil prices, the strength of liquidity growth does point to some risks to price stability in the medium term. In the US, headline inflation continues to be driven by oil prices. Core inflation has also increased somewhat and price pressures have begun to accelerate in recent months, with signs also that inflation expectations are starting to drift upwards. Finally, in Japan, the headline CPI inflation rate has turned positive following a prolonged period of deflation.

3.2 Risks to the Outlook

Risks to the outlook for the global economy are generally perceived to be on the downside, and continue to be related to concerns over oil price movements, global imbalances and potential financial market developments. In addition, were the US housing market to cool more rapidly than currently expected, this could trigger a more abrupt slowdown of the US economy.

— *Oil Prices*

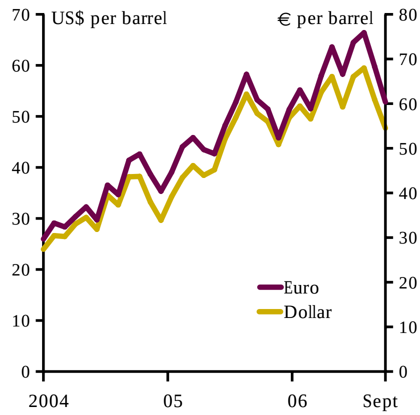
Oil prices have remained high and volatile in the past year (Chart 72). After easing from Katrina related highs, crude oil prices have fluctuated in the high range of $60-$75 in the past three months, with prices increasingly driven by concerns about future supply. Geopolitical concerns have increased uncertainty about the security of supply and consequently impacted on prices. Furthermore, there are also some concerns that oil-producers have not been investing enough in exploration, extraction and refining activities. Demand pressures have also been high in the past year, albeit slightly weaker than expected, stemming from strong growth in the US and the emerging Asian countries, in particular China.

Futures markets suggest that oil prices will remain close to their current levels for the foreseeable future. So far, the elevated level of prices appears to have had only a modest influence on growth. Positive wealth effects from the strength of the housing market in the US has somewhat compensated for higher energy costs. However, to the extent that high oil prices originate from disruptions in supply, the market is more vulnerable to shocks, which may well trigger a slowdown in economic activity. The existing high level of oil prices, and the potential of future increases, poses a significant risk to the spending power of both the household and corporate sectors. In particular, further increases in oil prices would dampen profit growth and could test the resilience of corporate balance sheets.

— *Global Imbalances*

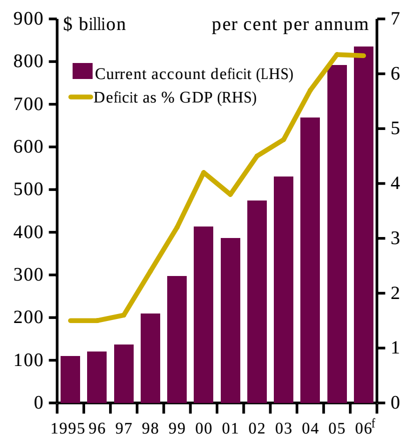
Global imbalances continue to be a concern. The US current account deficit attained 6.6 per cent of GDP in the second quarter of 2006, with household borrowing and fiscal imbalances the main factors driving the further widening (Chart 73). While, so far, there has been no evidence of any financial challenges, the large and growing global imbalances continue to pose risks for financial stability over the medium term – these risks include the potential to generate severe downward pressure on the US dollar, and possibly unruly asset price adjustments. To date, the US authorities have had little problem in financing this growing external deficit, with Asian central banks and oil-producing countries recycling their sizeable and growing foreign reserves by purchasing US fixed income assets. However, the stability of global foreign exchange and other financial markets would be vulnerable to any significant drop in demand for US dollar assets. (Box I provides a further overview of developments in global imbalances and possible policy responses.)

Chart 72: Oil Price (Brent Crude Oil)



Source: Ecowin

Chart 73: US Current Account Deficit



Source: Bureau of Economic Analysis
Note: 2006 forecast based on data up to 2006Q2.

Box I: Global Imbalances

The US current-account position continued to deteriorate over the course of 2005, reaching a new record high; from a deficit of $665 billion in the preceding year (or 5.7 per cent of GDP), the US external balance recorded a deficit of $792 billion (or 6.2 per cent of GDP) in 2005, surpassing expectations. This continued a longer-term trend, which has seen the US current-account deficit increase by over 470 per cent since 1997, against the backdrop of a rapid increase in imports to the region. The 2005 figure was substantially larger than the last time the US external position was a major global concern in the mid- to late-1980s. Then, the deterioration in the US current account reached a peak of 3.3 per cent of GDP in 1987, and triggered an international policy response that included a concerted effort by the US administration to reduce their large fiscal deficit, and a coordinated G7 effort to stabilise the US dollar. Meanwhile, the latest data show that the external balance is on target to reach a new record this year. The current-account deficit was $432 billion in the first six months of 2006, up 12 per cent from the same period in the preceding year.

However, despite this sharp deterioration, the US has continued to find financing its current-account position relatively straightforward. This reflects the other side of global imbalances — a growing and diverse group of countries that run sizeable current-account surpluses, and effectively recycle the resulting revenues back into US assets, financing the US position. Until recently, inflows of capital from Asia — China and Japan in particular — had dominated total inflows to the US, reflecting, amongst other things, the use of export-led growth strategies, supported by tightly managed, undervalued exchange rates. The impact of these inflows was particularly evident from the sharp increase in official capital inflows in the US balance-of-payments data over this period. More recently, however, inflows of capital from oil-exporting countries have started to play a more significant role. Current-account surpluses in these economies have grown rapidly in the past couple of years, against the backdrop of the rapid increase in energy prices that has taken place and were only modestly weaker than those from Asia in 2005. This partly explains the renewed importance of net private capital flows in financing the US current-account deficit last year — despite the low yields offered by treasury bonds — given that a large proportion of oil exporters' revenues are invested through private firms, rather than directly by authorities. The significant role that energy prices have played in driving imbalances is particularly evident when one focuses on the petroleum and non-petroleum goods trade deficits. The former increased 65 per cent between January 2005 and July of this year, compared with an increase of 4 per cent in the latter, and as a result now accounts for around a third of the total goods trade deficit.

The number of countries involved represents another significant difference between current developments and those in the 1980s. At that time, global imbalances were primarily a tri-polar affair, involving deficits in the US and surpluses in Japan and Germany. Now, however, as has already been mentioned, a sizeable number of diverse countries are involved in supplying capital to the US. While at first glance this may appear to be a benign development — as more countries being involved would suggest that a smaller adjustment is required in each one to bring it back closer to balance — in reality it is likely to complicate the issue of trying to orchestrate a multilateral policy response.

Looking forward, how important is it that such a policy response takes place? In their latest outlooks both the OECD and the IMF forecast the US current-account position to continue to deteriorate in 2007, to 7.6 and 6.9 per cent of GDP, respectively[1]. Both organisations also believe that global imbalances have reached an unsustainable level, and as a result an adjustment must take place over the medium term. Such an adjustment could be left entirely to the market, primarily via a weaker dollar exchange rate. However doing so would appear to significantly increase the risk of a disorderly adjustment taking place; a gradual reduction of imbalances under this scenario would require foreign investors to continue to acquire substantial holdings of US assets, even while the value of these assets is being eroded by a weaker US currency. As a result, relying solely on market-based adjustment would involve significant risk. A more abrupt adjustment could see a rapid decline in the value of the US dollar and a sharp increase in US bond yields. The latter would likely lead to a sharp contraction of household spending, and economic activity more generally in the US, while weaker US spending combined with a sharply stronger domestic currency would lead, in turn, to a decline in economic activity in the rest of the world. Equity markets also, would almost certainly suffer under such a scenario.

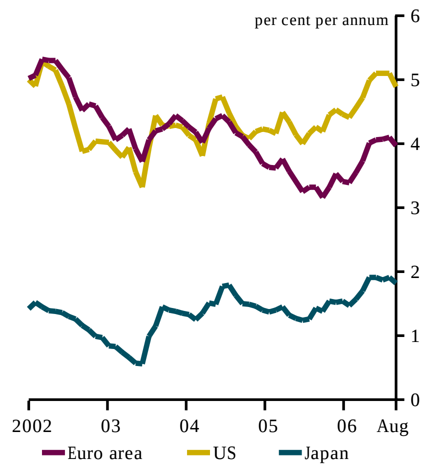
This emphasises the importance of adopting a policy-based response, which would significantly reduce the risks associated with an abrupt adjustment. Furthermore, given that global imbalances truly are now a global phenomenon – involving a wide range of economies – a multilateral policy-based response is now required. At their recent meetings, the G7 have continued to stress the need for vigorous action to address imbalances, and have announced suggested policies that were broadly in line with those proposed by the IMF in the past. These include boosting national saving rates in the US, structural reforms in the euro area and Japan, greater flexibility in exchange rates in emerging Asian economies, and increased diversification in oil-producing countries. The adoption of such policies would not only bring global imbalances back to a more sustainable level, but would have the added benefit of fostering long-term economic growth.

[1]The OECD forecast is taken from May's Economic Outlook, while the IMF forecast is taken from the more recent World Economic Outlook, published in September.

– Financial Markets

Since the early part of this year, the impact of considerable global monetary tightening was largely confined to a gradual increase in 10-year government bond yields, in both the US and the euro area (Chart 74). Against this background of increasing inflation expectations and monetary tightening, rising uncertainty about valuations across a wide range of markets emerged during May, with many markets reversing direction and market volatility rising to its highest level since mid-2004. While higher-rated government bond prices rose, the prices of riskier assets fell across the board. Equity markets were hardest hit, with almost all markets witnessing a sell-off. While corporate debt and commodity markets were also affected, re-pricing in these markets was less substantial. Emerging markets, however, were particularly hard hit. These developments suggested some repricing of risk on the part of markets, though this appears to have been short-lived, with equity and debt markets rebounding since June and emerging markets recovering particularly strongly. Reflecting this rebound and recovery, both risk premiums and market volatility currently remain very low. Against this background, concerns remain about the possible mispricing of risk in financial markets, which may be encouraging excessive risk taking and pushing asset prices in some markets beyond sustainable values. In such circumstances, risks of a less benign adjustment remain.

Chart 74: 10-year Bond Yields



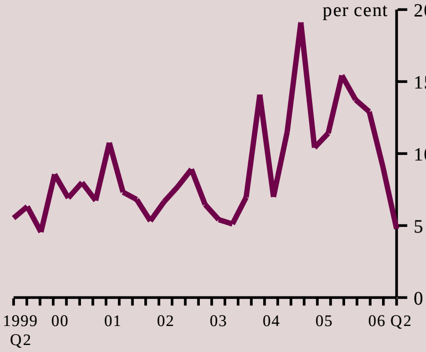
Source: ECB

– US Housing Market

An area, which continues to be the subject of much attention, is the evolution of house prices and household debt. House prices in many industrial countries have been increasing at unprecedented rates in recent years. Since the mid-1990s, house prices have risen at an accelerated rate in most EU countries, and some countries (i.e., Spain, France and Ireland) have had very strong, close to or above double digit, average house price increases over the past few years. Recent data indicate that euro area residential property prices are estimated to have recorded their sixth consecutive year of growth in 2005, increasing by approximately 7.6 per cent. While house prices have reached

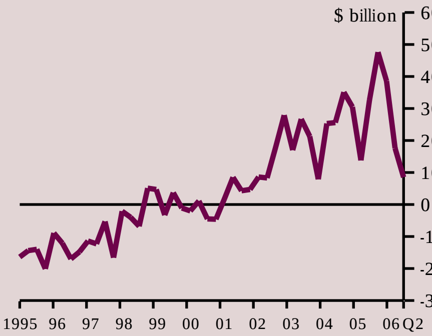
Box J: The US Housing Market — Risks and Uncertainties

Chart 1: US House Price Growth



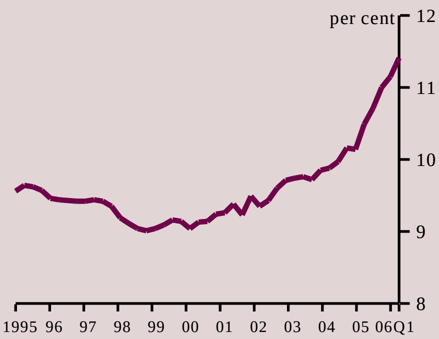
Source: Ecowin
Note: Growth rates are annualised quarter-on-quarter growth rates.

Chart 2: US Mortgage Equity Withdrawal



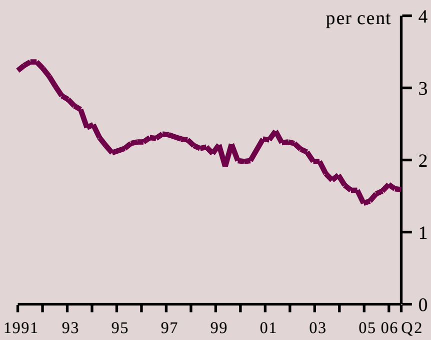
Source: Ecowin

Chart 3: US Household Debt-Service Burden — Mortgages



Source: Ecowin

Chart 4: US Delinquency Rates — Residential Real Estate



Source: Ecowin

House prices in the US have grown at unprecedented rates in recent years; however, after the strongest ever recorded boom, the US housing market is slowing. Data on the housing market signal that activity has weakened significantly. The building and buying of homes has slowed sharply, with housing starts and home sales data both showing a strong downturn. Inventories of unsold homes are rising sharply and key leading indicators of activity in the sector have registered record falls over the past year. Price data also suggest that housing market activity has slowed markedly, with average house price growth moderating to a 5 per cent annualised gain in the second quarter of 2006 compared with an average of over 13 per cent in 2005 (Chart 1). In the case of new homes, the slowdown in the year-on-year rate of increase in prices, from 11 per cent in September 2005 to 2 per cent in June 2006, has been more marked.

While the US housing boom boosted activity directly, through its impact on employment and residential investment (which reached a 50-year high as a share of GDP in 2005), there is much evidence to suggest that it also had strong positive indirect effects. These operated in a number of ways. First, rising house prices which increase households' wealth may encourage consumers to spend more of their disposable income and, secondly, the rising value of housing allows households to avail of mortgage equity withdrawal via mortgage refinancing and home equity borrowing which in turn may increase consumer spending. With US housing market activity now weakening, housing wealth accumulation is set to slow, while the combination of higher mortgage rates and slower house price rises has led to a moderation in refinancing activity over the past year. Going forward, the concern is that these developments will weaken economic activity and also surface some problems for the increasingly indebted US household sector and, in turn, for some mortgage lenders.

With regard to likely macroeconomic impacts, apart from the potentially sizeable direct effects on residential investment and employment, the main risk is that moderating house price growth and higher mortgage rates will significantly reduce the volume of home equity withdrawal and, through this channel, dampen consumer spending and economic growth. There is some evidence that the pace of mortgage equity withdrawal is slowing although it still remains high (Chart 2). The experience of the UK, Australia and the Netherlands in recent years all suggest that a sharp slowdown in the pace of house price growth can significantly dampen consumption, residential investment and GDP growth, respectively. In the case of the US, the risk is that the macroeconomic impact of a house price slowdown might be even greater, as equity withdrawal is of a greater scale in the US and was equivalent to almost 8 per cent of household disposable income in 2005. In short, a sharp slowdown in house price growth in the US is likely to mean that the housing sector switches from being a strong contributor to GDP growth to becoming a significant drag on GDP growth.

The second concern relates to the potential financial stability implications of any downturn in the US housing market. As can be seen from Chart 3, the ratio of mortgage debt payments to disposable income is currently relatively high for the US household sector. Delinquency rates are still relatively low and trending downwards (Chart 4). The extent to which problems could arise, therefore, will probably be determined by the evolution of household incomes and, in this regard, labour market developments will be crucially important. On the lending side, the nature of US financial markets, both in terms of depth and range of instruments available, has resulted in mortgage-related risks being spread well beyond traditional mortgage lenders. In practice, the bulk of this risk is now carried by investors in the mortgage-backed securities market rather than traditional financial intermediaries. To the extent that problems do surface, these are more likely to arise in the sub-prime segment of the market[1], where interest only and/or no amortisation mortgages are much more common. While this market segment has grown strongly in recent years, however, it still represents a small part of the overall US mortgage market. Notwithstanding these considerations, the banking system's exposure to the mortgage market remains substantial.

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[1] IMF (2006): *Global Financial Stability Report*, April

historically high levels, it appears attributable to a combination of strong housing demand – partly reflecting the very favourable financing conditions enjoyed by households when taking out a mortgage – and a gradual response on the supply side. However, with house price valuation measures well above historical averages, there are some risks that exist.

In the US, house prices have also grown strongly in recent years. While prices followed a broadly upward trend since the mid-1990s, growth since 2003 has been particularly sharp, and has provided a boost to economic activity through the effect on consumption, residential investment and employment. More recently, however, there have been signs that activity in the US housing market is slowing – the number of mortgage applications and building permits has fallen, new and existing home sales, having reached a peak in mid-2005, have weakened and hence the supply of homes on the market is rising – confidence in the sector has fallen. The US housing market is anticipated to slow, albeit gradually, over the course of 2006, and the risks and uncertainties arising as a result of this are considered in Box J.

A counterpart of rising house prices has been a steady accumulation of household debt, which has been facilitated by favourable financing conditions. 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 roughly 60 per cent of GDP) still appears rather moderate when compared with debt-to-GDP ratios of around 100 per cent in the UK and 80 per cent in the US. Furthermore, the sector's ability to meet its debt servicing burden obligations out of income, as measured by the total debt-servicing burden, represented a broadly stable share of the sector's disposable income over the past five years, thanks to persistently low interest rates. US household sector indebtedness has also risen in recent years. The demand for US household sector credit, and in particular for mortgage loans has outpaced disposable income, and overall, record levels of US household sector indebtedness has left the sector vulnerable to adverse disturbances.

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Domestic Standing Group on Financial Stability (DSG)

Meeting of 31 August 2007 at 9:30 am

Agenda

1. Update on developments in financial markets
   - Domestic position
   - International situation
   - Regulatory/supervisory issues

2. Initiation of regular reports from CBFSAI for Minister on developments in the financial markets

3. Financial Stability Report 2007

4. Communications strategy

(2) 11

Domestic Standing Group meeting 31August 2007

Central Bank /Financial Regulator views on financial market development as conveyed to Department of Finance at meeting of 31 August (summary report)

Financial Markets Developments – general background
Following on worries about defaults by US sub-prime lenders, many banks with investment vehicles in Europe and globally have had difficulties in obtaining finances for their operations.

Many banks and financial institutions borrow money on short term financial markets against the security of mortgage backed assets and usually this presents no difficulty.

But at present the market is unsure about where credit risk lies, banks have a greater than normal reluctance to lend and are hoarding cash to meet their own needs. The result is that while ECB and other Central Bank actions have eased the liquidity position – especially in relation to very short term debt – an overall shortage of cash persists.

It is understood that banks in a number of European countries have significant exposures to the current difficulties. A number of these banks would have a presence in the State either through branch or subsidiary operations.

However the Bank and the Regulator are not aware of liquidity difficulties with the banks that are headquartered in Ireland (ie domestic banks), though obviously there continues to be a generalised sense of anxiety around financial markets. Assuming this eases out over the next few weeks, there should not be lasting damage to the Irish economy, though institutions will be reassessing their liquidity positions and their lending mix.

If liquidity difficulties persist into the medium term, a difficulty in accessing funds may lead to more expensive or harder to find credit in the Irish system, with potential knock on effect on interest rates and economic growth. Already there are indications of pressure on margins on mortgage lending.

At this stage markets expect the ECB to leave interest rates unchanged for the time being, and if this turns out to be the case, it may help market sentiment.

Regulatory Issues Arising
The principal regulatory issues in Ireland relate to special investment vehicles (conduits) operating here with links to German or other banks. These are generally exempt from regulation as banks – in line with the treatment in other jurisdictions. Ormond Quay managed by SachsenEurope, an Irish subsidiary of SachsenLB Bank in Germany, is the principal example. In this case inability to find funds, usually easily obtained on the Asset Backed Commercial Paper market (a market in short term funding collateralised by, for example, mortgage backed securities), in the face of global uncertainly in relation to credit risk, was the difficulty so far as we are aware, rather than any underlying difficulty with assets in which it had invested.

Vehicles such as these obtain high credit ratings because of the way they structure their debt and because of the guarantees they obtain from their sponsoring banks in relation to credit and liquidity. In this case the overall positions of the German parent were such that it was in danger of being unable to meet its obligations without assistance from elsewhere. SachsenLB has now been bought out by another German State-sponsored bank.

There are other conduit vehicles in Dublin associated with German and other banks reliant on short term credit. However most are not in difficulties so far, but it cannot be ruled out that such difficulties could arise[1].

Another category of similar vehicles are Irish registered, and perhaps listed on the Irish Stock Exchange, but are not managed in Ireland: for example Rhinebridge, an offshoot of troubled German IKB bank is UK managed. While the difficulties of such firms will not have any significant impact on the Irish regulatory system, their connection with Ireland may have reputational impacts.

The difficulties of conduits with Irish links should be seen in the context of a global problem – as a growing financial centre we can expect to be exposed to the same pressures as other financial centres. For example, of 56 conduits of German banks listed by Moody's, the credit rating agency, only 7 are in Ireland. Ireland's position should be seen in the context of similar (or much worse) difficulties arising for firms in the UK, France, German, US and elsewhere.

The Irish Financial Regulator is in regular contact with his German counterpart in relation to any relevant issues.

There is no indication of any over-exposure to the sub prime market among domestic banks and where there is exposure it is marginal in respect of the institution's overall business.

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[1] Twenty-five issuers of asset-backed commercial paper (ABCP) have claimed the exemption available under Section 8(2)(a) of the Central Bank Act 1971 (as amended). Thirteen of these issuers have been identified as related to European banking groups (DZ, West LB, Heleba, HVB, Sachsen, IKB, Deutsche, BNP Paribas Banco Santander and KBC). In general, the Irish licensed banks have no exposure to and do not manage the underlying assets of the group ABCPs. A number of the German banking subsidiaries provide administration (e.g. accounting and settlement processing) and investment advice to the ABCPs. Sachsen LB Europe was the asset manager to the Sachsen Group SIVs - Ormond Quay Funding and Sachsen Funding 1 - which have been the subject of recent media comment.

The remaining twelve issuers are primarily linked to financial services firms operating in other jurisdictions, including a UK hedge fund and US venture capital group. Aside from the fact that the issuers of ABCP are Irish registered companies, Ireland may be associated with them for other reasons. For example, while the ABCP is generally not listed, the issuers of ABCP may have other securities listed on the ISE, may have Irish listing agents or have engaged Irish services providers to provide administration or back-office services.

The unprecedented problems in commercial paper, which exist in global financial services markets, may impact on more of these vehicles in Ireland. This risk will exist until liquidity conditions return to normal levels.

Other Areas
It is also possible that some companies in other sectors such as reinsurance or the funds industry could be exposed to sub-prime related issues. The relevant staff of the Financial Regulator are watching closely any firms where they feel there may be any cause for concern, but the number of firms seems to be very limited.

Obviously, all of this dislocation has had a negative effect on the stock market with losses among private investors, stockbrokers managing their own positions, and pension funds. But this is offset for many by gains earlier in the year.

Overall Conclusion
The domestic economy and banking system remain sound and there is no cause for alarm. However if there is a long term credit crunch globally this could impact on economic development but it is as yet too soon to say. Upward pressure on funding costs on inter-bank markets may sooner or later feed into credit institutions' decisions on their mortgage and other lending rates.

On regulatory issues, a small number of firms are being watched closely by the Regulator and already there are one or two where liquidity problems have caused difficulties for associated sponsoring banks.

Action by the European Central Bank and other central banks has helped considerably in the management of the liquidity issues arising, but the underlying uncertainty remains.

On foot of recent events, it is certain that the regulatory system internationally will require to be reviewed – for example in relation to the role of credit rating agencies – and it is to be expected that this will be driven at European level

This is not an Irish problem but a global one. The Regulator has put a lot of effort into minimising any reputational damage for Ireland but there are risks there also.

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Domestic Standing Group meeting 31August 2007

Central Bank /Financial Regulator views on financial market development as conveyed to Department of Finance at meeting of 31 August (summary report)

Financial Markets Developments – general background

Following on worries about defaults by US sub-prime lenders, many banks with investment vehicles in Europe and globally have had difficulties in obtaining finances for their operations.

Many banks and financial institutions borrow money on short term financial markets against the security of mortgage backed assets and usually this presents no difficulty.

But at present the market is unsure about where credit risk lies, banks have a greater than normal reluctance to lend and are hoarding cash to meet their own needs. The result is that while ECB and other Central Bank actions have eased the liquidity position – especially in relation to very short term debt – an overall shortage of cash persists.

It is understood that banks in a number of European countries have significant exposures to the current difficulties. A number of these banks would have a presence in the State either through branch or subsidiary operations.

However the Bank and the Regulator are not aware of liquidity difficulties with the banks that are headquartered in Ireland (ie domestic banks), though obviously there continues to be a generalised sense of anxiety around financial markets. Assuming this eases out over the next few weeks, there should not be lasting damage to the Irish economy, though institutions will be reassessing their liquidity positions and their lending mix.

If liquidity difficulties persist into the medium term, a difficulty in accessing funds may lead to more expensive or harder to find credit in the Irish system, with potential knock on effect on interest rates and economic growth. Already there are indications of pressure on margins on mortgage lending.

At this stage markets expect the ECB to leave interest rates unchanged for the time being, and if this turns out to be the case, it may help market sentiment.

Regulatory Issues Arising

The principal regulatory issues in Ireland relate to special investment vehicles (conduits) operating here with links to German or other banks. These are generally exempt from regulation as banks – in line with the treatment in other jurisdictions. Ormond Quay managed by SachsenEurope, an Irish subsidiary of SachsenLB Bank in Germany, is the principal example. In this case inability to find funds, usually easily obtained on the Asset Backed Commercial Paper market (a market in short term funding collateralised by, for example, mortgage backed securities), in the face of global uncertainly in relation to credit risk, was the difficulty so far as we are aware, rather than any underlying difficulty with assets in which it had invested.

Vehicles such as these obtain high credit ratings because of the way they structure their debt and because of the guarantees they obtain from their sponsoring banks in relation to credit and liquidity. In this case the overall positions of the German parent were such that it was in danger of being unable to meet its obligations without assistance from elsewhere. SachsenLB has now been bought out by another German State-sponsored bank.

There are other conduit vehicles in Dublin associated with German and other banks reliant on short term credit. However most are not in difficulties so far, but it cannot be ruled out that such difficulties could arise[1].

Another category of similar vehicles are Irish registered, and perhaps listed on the Irish Stock Exchange, but are not managed in Ireland: for example Rhinebridge, an offshoot of troubled German IKB bank is UK managed. While the difficulties of such firms will not have any significant impact on the Irish regulatory system, their connection with Ireland may have reputational impacts.

The difficulties of conduits with Irish links should be seen in the context of a global problem – as a growing financial centre we can expect to be exposed to the same pressures as other financial centres. For example, of 56 conduits of German banks listed by Moody's, the credit rating agency, only 7 are in Ireland. Ireland's position should be seen in the context of similar (or much worse) difficulties arising for firms in the UK, France, German, US and elsewhere.

The Irish Financial Regulator is in regular contact with his German counterpart in relation to any relevant issues.

There is no indication of any over-exposure to the sub prime market among domestic banks and where there is exposure it is marginal in respect of the institution's overall business.

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CBFSAI Report on financial market conditions – 21 September 2007

No improvement in credit market conditions

There were some tentative signs of an easing in market conditions and greater availability of liquidity encouraged by the US Federal Reserve's interest rate cut. However the crisis in Northern Rock had a significant negative effect on market confidence and investor sentiment. The CBFSAI's current assessment is, therefore, that credit market conditions are broadly unchanged: credit institutions continue to be reluctant to lend on interbank markets beyond the very short-term, and the system therefore remains reliant on Central Bank liquidity support.

Significant uncertainty remains in the market place

While some major international investment banks have recently issued quarter three earnings and updated profit information, there is still major uncertainty regarding the scale of non-performing loans, in the US in particular – one estimate is in the range €70-100bn. It is also proving very difficult to ascertain which institutions are exposed to these losses. Until this situation is resolved it is believed that normalisation of credit market conditions will be difficult to achieve.

It is important to note that in the current circumstances where the spread between short-term (i.e. overnight) and longer-term (i.e. 3-month) interest rates are high there is a strong incentive for financial institutions holding liquidity to come back into the credit market. In this context it is believed that some banks are researching potential borrowing counterparties directly prior to considering lending to them.

No indication that Irish banks are vulnerable to Northern Rock-type scenario at this time

In contrast to Northern Rock (NR) Irish banks are not reliant on wholesale funding to the same extent. In addition, the wholesale funding of Irish banks is more diversified and more longer-term than was the case for NR. This has been highlighted in recent rating reports released on the Irish banking sector, by the credit rating agencies, Moody's and Standards and Poor's, and recently reported in the media.

Risks will increase if credit market problems persist, but ECB facility is a very important bulwark

However, the longer the current liquidity crunch continues the greater the prospect that it will give rise to pressures for the Irish financial system. It is understood that by early-2008 some significant Irish financial institutions will need to renew some substantial funding requirements. Access to and the terms of ECB funding is, however, a very important safeguard for Irish banks, in contrast to the restrictive approach originally taken by the Bank of England for the UK financial system.

Continuation of spike in inter-bank lending rates likely to impact on retail lending rates and the wider economy

Analysts now expect that ECB rates will remain on hold until financial market conditions have stabilized and some forward looking markets are tentatively pricing in a cut in rates in early 2008. However, if wholesale inter-bank rates remain at current levels it will be difficult for financial institutions to hold retail lending rates unchanged. Commercial considerations will guide the timing of any retail lending rate increases. While competition between lenders is such that no individual financial institution will wish to be the first to raise rates, pressures on profitability may make this development inevitable. This would be a strong signal of how the liquidity crunch is evolving into more restrictive conditions with the potential to impact adversely on economic performance overall.

The demonstration through Northern Rock that banks' deposit base is more volatile than might have been expected is a further reason for banks to behave more conservatively. It is already the case that financial institutions are reviewing and tightening their credit standards which may lead to a reduction in credit availability in the economy.

Review of Deposit Protection Arrangements

The failure of deposit protection arrangements in the UK to prevent the bank run in Northern Rock has highlighted the need for a review of national arrangements. The UK Chancellor has already announced such a review. In examining this issue it is obviously essential to strike an appropriate balance between such factors as the need to protect depositors, maintain financial stability and discourage inappropriate risk-taking by banks.

Domestic Financial Stability Planning arrangements are being strengthened

As far as domestic contingency planning arrangements generally are concerned, the Domestic Standing Group (DSG) on financial stability planning composed of the Department, together with the Central Bank and Financial Regulator is currently engaged on an urgent basis in identifying legal or other issues requiring priority attention.

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(3)

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51

Lonergan, Ciara

From:	Lonergan, Ciara
Sent:	02 October 2007 17:49
To:	'con.horan@financialregulator.ie'; 'tom.oconnell@centralbank.ie'; 'tony.grimes@centralbank.ie'; McKiernan AnneMarie; Beausang, William; Cardiff, Kevin; Nolan, Kevin; Manley, Michael
Subject:	Meeting of DSG Wednesday 3 October 2.30 pm
Attachments:	List of Issues for DSG meeting - 3 October 2007 v2.doc

Please find attached a list of issues that need further examination / clarification in order to facilitate actions the Dept or the CBFSAI may need to take should a financial institution in Ireland find itself in difficulties, or systemic problems arise in the financial system. This list has been prepared for discussion at DSG meeting on Wednesday.

List of Issues for DSG meeting...

Regards
Ciara Lonergan

Taxation and Financial Services Division
Department of Finance
Government Buildings
Upper Merrion Street
Dublin 2
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List of Issues/Questions for DSG meeting 3 October 2007

Domestic Financial Stability Arrangements

- Further clarification of the roles and responsibilities of the Department, the Central Bank and the Financial Regulator as outlined in the Memorandum of Understanding may be required.
- Principles for dealing with cross-border financial crises were set out by the EFC Ad Hoc Working Group on Financial Stability and are due to be formally agreed at the Ecofin meeting of 9 October. Should these principles be incorporated into the domestic financial stability arrangements? (see Annex I for a list of these principles)

Ministerial and CBFSAI powers:

Further clarification and certainty regarding the legal powers of the CBFSAI and the Minister for Finance in relation to the resolution of financial crises may be required. In particular a number of issues require examination:

- A Department assessment suggests that the CBFSAI would appear to have significant powers for assisting a financial institution in trouble. Are there any impediments to the CBFSAI taking actions to maintain financial stability? (eg, cost of providing liquidity, etc; restrictions on types of collateral accepted by the CB; the role of the ECB; and potential conflicts of interest between the CB and the FR if the CB were to invest in a financial institution which is regulated by the FR.)
- At what point must the Government and the Oireachtas be informed of any actions by the CBFSAI and/or the Minister to assist a financial institution in difficulties?
- A Department assessment from 2002 indicates that the Minister has no specific power to intervene or any implicit powers relevant to potential financial crises. Is there a requirement for specific Ministerial powers for dealing with financial crises? Or would such powers reduce the Minister's discretion in the method chosen for dealing with a crisis?
- The legal position regarding a number of potential policy options for the State to provide support to financial institution in difficulty requires further examination. These include:
    - the legal scope for a "letter of comfort" to be given to the Central Bank in an emergency situation confirming the Minister's intention to approach Dáil Eireann for legislative authority to enable the issuance of a financial guarantee to the Central Bank
    - the legal scope for resort to the Contingency Fund
    - provision of liquidity to the Central Bank by increasing the sum held in the Exchequer Account as collateral and to appropriate the increased deposit to the extent necessary to cover any default
    - the scope for NTMA to place a deposit with a bank
- What impact would EU rules on State Aid have for any actions undertaken by the CBFSAI or the Minister?

Deposit Protection Scheme

To what extend does the Deposit Guarantee Scheme (DGS) require amendment – examination of the following issues is required:

- The appropriate level of compensation for depositors,
- the operations of the DGS, and
- the funding of the DGS.

Company Law
A number of issues arise regarding the interaction between the authorities' ability to act to maintain financial stability actions and the company law framework for insolvent companies. These include:

- What restrictions do the receivership, liquidation and examinership procedures, as laid down in company law, place on the activities of the CBFSAI and the Department in dealing with difficulties at a financial institution?
- How do these procedures affect the return of deposits to financial institutions' customers?
- How could a financial institution trade itself out of difficulties? If it relies on emergency provision of liquidity by the CB and all its assets are used as collateral what happened to the institution?

Other relevant legislation
The potential impact of other legislation on the three authorities' ability to maintain financial stability and to act in a crisis situation has been highlighted by the recent difficulties faced by Northern Rock in the UK. Some issues in this context which bear further examination include:

- The legislation that governs takeovers – takeovers in Ireland are regulated by the Takeover Panel as provided for in the Takeover Panel Act 1997. Does this legislation or the rules made under the Act prevent the takeover of an illiquid or insolvent bank quickly and efficiently?
- Does the concept of a Scheme of Arrangement[1] rather than a takeover have any relevance for dealing with a credit institution in trouble?
- What impact does Market Abuse legislation have on the ability of the CBFSAI to provide covert liquidity support to a credit institution in difficulty, particularly given the requirement of any company listed on a Stock Exchange to report any thing that could affect its share price to the Stock Exchange within 24 hours?

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[1] A scheme of arrangement is a reorganising of a company's capital structure or its debts which is binding on creditors and shareholders. There are two types: a creditors' scheme and a members' or shareholders' scheme. A creditors' scheme is generally used by companies in financial difficulties. creditors may agree to defer payments in the hope of a better eventual return than they would receive if the company were liquidated. A members' scheme is used to effect corporate reorganisations, including mergers. A scheme of arrangement is carried out in three steps:
1.The court is approached to order a meeting of creditors or shareholders directly affected;
2.The scheme must be approved by a vote of more than 50 per cent of the creditors or members present and voting who represent 75 per cent of the total debts or nominal value of the shares of those present and voting at the meeting; and
3. The scheme is referred back to the court for confirmation. (Definition taken from www.anz.com Financial Dictionary)

Annex I: Common Principles for cross-border financial crisis management

Member States agree on a set of common principles to be followed in the management of any cross-border financial crisis, which involves at least one banking group which (i) has substantial cross-border activities and (ii) is facing severe problems which are expected to trigger systemic effects in at least one Member State; and (iii) is assessed to be at risk of becoming insolvent. The common principles are the following:

1. The objective of crisis management is to protect the stability of the financial system in all countries involved and in the EU as a whole and to minimise potential harmful economic impacts at the lowest overall collective cost. The objective is not to prevent bank failures.

2. In a crisis situation, primacy will always be given to private sector solutions which as far as possible will build on the financial situation of a banking group as a whole. The management of an ailing institution will be held accountable, shareholders will not be bailed out and creditors and uninsured depositors should expect to face losses.

3. The use of public money to resolve a crisis can never be taken for granted and will only be considered to remedy a serious disturbance in the economy and when overall social benefits are assessed to exceed the cost of recapitalisation at public expense. The circumstances and the timing of a possible public intervention can not be set in advance. Strict and uniform conditions shall be applied to any use of public money.

4. Managing a cross-border crisis is a matter of common interest for all Member States affected. Where a bank group has significant cross-border activities in different Member States, authorities in these countries will carefully cooperate and prepare in normal times as much as possible for sharing a potential fiscal burden. If public resources are involved, direct budgetary net costs are shared among affected Member States on the basis of equitable and balanced criteria, which take into account the economic impact of the crisis in the countries affected and the framework of home and host countries' supervisory powers.

5. Arrangements and tools for cross-border crisis management will be designed flexibly to allow for adapting to the specific features of a crisis, individual institutions, balance sheet items and markets. Cross-border arrangements will build on effective national arrangements and cooperation between authorities of different countries. Competent authorities in the Member States affected by a crisis should be in a position to promptly assess the systemic nature of the crisis and its cross-border implications based on common terminology and a common analytical framework.

6. Arrangements for crisis management and crisis resolution will be consistent with the arrangements for supervision and crisis prevention. This consistency particularly refers to the division of responsibilities between authorities and the coordinating role of home country supervisory authorities.

7. Full participation in management and resolution of a crisis will be ensured at an early stage for those Member States that may be affected through individual institutions or infrastructures, taking into account that quick actions may be needed to solve the crisis.

8. Policy actions in the context of crisis management will preserve a level playing field. Especially, any public intervention must comply with EU competition and state-aid rules.

9. The global dimension will be taken into account in financial stability arrangements whenever necessary. Authorities from third countries will be involved where appropriate.

Three scenarios for institutions having difficulties

1. Illiquid but solvent
    - Liquidity can be provided by the Central Bank using eligible collateral. Irish banks in general can use a lots of their assets as collateral as for example Mortgage backed promissory notes.
    - If the institution does not have eligible collateral Emergency Liquidity Assistance (ELA) is provided by the Central Bank, with any ineligible collateral given appropriate haircuts. The ELA may be provided at a penal rate but this is not required. The decision to provide ELA is made by the Central Bank, and the permission of the Department of Finance is not required. In practice the Central Bank would liaise with the Department and the Financial Regulator before providing ELA.
    - When ELA provision becomes necessary, it would be attempted to
    - Following the provision of ELA if the institution fails the assets taken as collateral by the CB are not available to depositors or other creditors of the bank.
2. Nearing insolvency:
    - The CB and the FR have a Crisis Steering Group which would meet in this circumstance.
    - Decision to be made when insolvency is nearing – type of collateral provide for ELA, percentage of assets used as collateral…
    - Examinership may be a possible solution. (see below for further discussion of examinership issue)
    - Nationalising the bank at this point may also be an option. There may be Constitutional issues with nationalising a bank. Also losses by shareholders and cost to the taxpayer may be an issue.
3. Insolvent
    - Once an institution is insolvent the Central Bank cannot provide ELA to the institution. In order for the institution to be assisted the CB would required some form of guarantee from the Government eg a letter of comfort. This would allow the CB to treat the institution as illiquid but solvent. What legal issues arise from such a guarantee –
        - does this need Oireachtas approval?
        - Would this be ex post or ex ante?
        - What are the State Aid rules implications? etc…

Issues that require further examination:

- If the CB provides ELA and makes a loss does the loss appear on the CB's balance sheet or is it recouped from the Government?
- How would examinership affect an institution - would it assist in facilitating the institution in remaining a "going concern". If all assets, etc must be frozen for 90 days what effect will this have on deposits?
- Can the Deposit Protection Scheme be used to pay depositors during an examinership?
- Can the Deposit Protection Scheme be used to bail out institutions?

- Has the UK's provision of a temporary 100% guarantee of deposits with Northern Rock set a floor where by any guarantee less than 100% is not enough to prevent a run?
- Communications will be extremely important should any institutions have difficulties. Whoever speaks to the public first needs to be able to retain customer confidence in the institution if it remains solvent. In the UK, despite the assurances that NR was solvent, once the story , and the queues were publicised, the assurances did not prevent a bank run (the "Sky News effect")
- When would the provision of ELA have to be revealed - what impact does the Market Abuse Directive have – a section in directive states that it shall not apply to transactions concerned with the monetary, exchange rate or public debt policy. When would an institution receiving ELA be required to inform the Stock Exchange – ELA likely to affect share prices.
- The failure of a small institution could have systemic consequences if its problems are likely to effect confidence in other larger institutions eg it has a lot of depositors.
- If there was a shock relating to property this could apply to all banks – this would have implications for any rescue operation.

(439)

Lonergan, Ciara

From:	Lonergan, Ciara
Sent:	08 October 2007 14:40
To:	'con.horan@financialregulator.ie'; 'tom.oconnell@centralbank.ie'; McKiernan AnneMarie
Cc:	Manley, Michael; Beausang, William
Subject:	Summary of CBFSAI assessment of financial market developments from DSG meeting 3 October
Attachments:	DSG 3 October - CBFSAI assesment of financial market developments.doc

Dear all

The attached summary of the current market situation, as discussed at the DSG meeting 3 October is intended to be submitted to the Tánaiste for this weeks' Government meeting - we'd be glad of clearance at your earliest convenience.

DSG 3 October - CBFSAI assesme...

Thanks very much

Ciara Lonergan

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Department of Finance
Government Buildings
Upper Merrion Street
Dublin 2
Telephone: (01) 6045677

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(4)

1. Mr Beausang - to see please
2. Tánaiste – from Michael Manley

Confidential

Subject: Update on Financial Issues - Government Meeting 9 October 2007

CBFSAI report on the Financial Sector

Please find attached most recent CBFSAI report on the financial situation. In summary:

- There are continuing signs of a return to more normal financial market conditions but wholesale lending rates remain high particularly in the eurozone
- The recent disclosures by major investment bank on sub-prime write-downs have improved market sentiment
- Lenders are differentiating between financial institutions on the basis of their potential sub-prime exposure.
- Irish banks currently have a "good-name" in the market on account of their low sub-prime exposure and low dependence on short-term funding
- Retail lending rates in Ireland will remain under upward pressure for as long as disturbed credit market conditions persist
- Even with recent improvements in liquidity conditions, there is a general tightening of lending behaviour which is likely to persist.
- There have been significant losses incurred by high net worth individuals in relation to Contracts for Differences (CFD)

Deposit Protection Issues

On 1 October last an increase in UK deposition protection scheme to a guaranteed 100% of deposits up from £31,700 to £35,000 (euro equivalent €50,500) was announced along with a review of the need for further changes. In your speech for the 2nd Stage of the MiFID Bill on 2 October you signalled the need to review deposit guarantees arrangements in light of developments in the UK. It is now expected that the Commission and the EU Financial Services Committee (FSC) are to be given a mandate by Ecofin on 9 October to review possible enhancements of Deposit Guarantee Schemes in the EU and report by mid – 2008. This will provide the context for a review of the Irish scheme, including the maximum guarantee level and the operation and funding of the scheme.

Department and CBFSAI interaction regarding financial issues

The Department, together with the Central Bank and Financial Regulator is working through the Standing Group on Financial stability (DSG) to continue to monitor the developments in financial markets, any regulatory issues arising for Ireland and domestic financial stability arrangements.

8 October 2007

cc Secretary-General, Mr Cardiff, Mr Steadman

10/WB/16
(4)

1. Mr Beausang - to see please
2. Tánaiste – from Michael Manley

Confidential

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- There have been significant losses incurred by high net worth individuals in relation to Contracts for Differences (CFD)

Deposit Protection Issues

On 1 October last an increase in UK deposition protection scheme to a guaranteed 100% of deposits up from £31,700 to £35,000 (euro equivalent €50,500) was announced along with a review of the need for further changes. In your speech for the 2nd Stage of the MiFID Bill on 2 October you signalled the need to review deposit guarantees arrangements in light of developments in the UK. It is now expected that the Commission and the EU Financial Services Committee (FSC) are to be given a mandate by Ecofin on 9 October to review possible enhancements of Deposit Guarantee Schemes in the EU and report by mid – 2008. This will provide the context for a review of the Irish scheme, including the maximum guarantee level and the operation and funding of the scheme.

Department and CBFSAI interaction regarding financial issues

The Department, together with the Central Bank and Financial Regulator is working through the Standing Group on Financial stability (DSG) to continue to monitor the developments in financial markets, any regulatory issues arising for Ireland and domestic financial stability arrangements.

8 October 2007

cc Secretary-General, Mr Cardiff, Mr Steadman

CBFSAI assessment of financial market developments – 2 November 2007

The level of activity in the interbank lending market remains low

In the eurozone area, the level of lending activity in the interbank market remains low by normal standards although there are signs of some improvement. The 1 month market has improved significantly but the 3 month market is still very inactive.

The interbank interest rate remains high

The interbank lending interest rate remains higher than the base interest rate of 4%, particularly in the 3 month market. The spread has narrowed from a peak of 4.795% on 2nd October to 4.589% [Tuesday 6 November rate] at the present time. However the market is quite volatile as demonstrated by the response of 3 month money on 1 November to the larges losses disclosed by Merrill Lynch as well as the perception in the markets that there are institutions that have a significant, as yet undisclosed, subprime exposure. The 3 month rate is an important determinant of retail lending rates for the Irish banks - its continuing high level maintains upward pressure on lending rates charged to individuals and business.

"End-of year premium" will increase costs of accessing liquidity in the interbank market but ECB can inject liquidity into the market if required.

At the end of the year there is usually a premium for cash as credit institutions close off their positions. In the current market conditions this "end-of-year premium" will be adding to the risk premium already present, which is causing the high interest rates in the interbank market. This could cause further problems for credit institutions who want to access liquidity during Quarter 4. The ECB is very conscious of the prospect of an upward spike in wholesale interest rates and is likely to intervene as required to provide liquidity to the market. An increased level of adverse disclosures by financial institutions in the end-year reporting season could exacerbate market conditions.

Irish banks are generally able to access their funding requirements with undue difficulty though the funding available is quite short.

They are reporting to the CBFSAI that they are not having any significant difficulties in meeting any funding requirements through the interbank market but the funding available is increasingly shorter term. This is compressing the maturity profile of the banks' funding which in circumstances that there were a resurgence in credit market difficulties would increase funding pressures in Irish banks. Given the general nervousness of international financial markets, Irish banks are also concerned about the potential impact any negative domestic event could have on their access to funding.

A number of Irish banks will be looking to rollover their longer term funding arrangements in early 2008. Banks are currently developing contingency arrangements for this rollover in case the wholesale liquidity market difficulties continue.

A number of Irish financial institutions have significant funding requirements in the course of Q1 of 2008. In advance of this they are taking a number of steps to prepare for an eventuality that this funding rollover takes place against the backdrop of a resurgence of difficulties in international credit markets. These include steps to build up collateral requirements through, for example, securitisation transactions that will facilitate borrowing from the ECB if they are not able to access liquidity from the usual channels in those circumstances.

The share price of Irish banks has continued to fall.
Irish bank share prices have continued to fall and have lost between 30% and 40% of their value since the start of 2007. The decrease in value of Irish banks shares has been greater than in other countries. (There is a general discount in the value of Irish banks as there is a perception internationally that they are exposed to the property market). It is also understood that some international hedge funds may be targeting the share price of at least one Irish bank. There is continuing speculation that major Irish banks may become very attractive for takeover bids if their share price continues to fall.

The recent press coverage of the problems of two Irish solicitors has been noted internationally
The Irish banks report that there was an international reaction to the media coverage of the exposure of Irish banks to potential losses due to the property market speculation of two Irish solicitors. This sensitivity in the markets underlines the possibility for reputational damage for Ireland which could have a far greater effect than any losses suffered by individual institutions due to the solicitors' actions. The weaknesses in some banks' lending practices disclosed by the abuse of solicitors' undertakings are being addressed. However, the scale of the potential losses do not give rise to any significant prudential concerns.

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CBFSAI assessment of financial market developments – 2 November 2007

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Fin 9/105/pm/003

(6)

Confidential

1. Beausang (To see)
2. Tánaiste

CBFSAI Assessment of Financial Market Developments 16 November 2007

The attached report sets out the most recent assessment of the Central Bank and Financial Services Authority of the current situation presented at the Domestic Standing Group meeting on 16th November. The main points arising were as follows:

- Funding availability for Irish banks is tight. This situation is likely to be exacerbated by:
  - End-of –year pressures as banks seek to close off positions.
  - A number of Irish financial institutions have significant 'roll-over' funding requirements arising from the beginning of next year. **If the present market conditions persist, as expected, into 2008 there is an increased risk of liquidity issues arising for Irish banks.** The Irish banks are therefore engaged in contingency planning (incl. restructuring assets to provide collateral, restricting lending growth) to meet future funding needs.

- While Irish banks have, to date, absorbed the increased cost of funding there are already indications they are tightening credit standards, potentially impacting on economic performance.

- There is anecdotal evidence that the change in the financing environment and restriction of lending is impacting on the property development sector.

- Irish banks share prices have continued to fall and have lost between 30% and 50% of their value since the start of 2007 because of negative investor sentiment regarding Irish banks and their exposure to the Irish property market.

- Speculation against Irish financial institutions is an important element of the overall financial landscape, underlining the importance of **highlighting the inherent strengths of the Irish financial system and economy.**

The Department will continue to liaise with the CBFSAI, which in turn maintains high level links to the Irish banks and are monitoring the position very closely.

Michael Manley
28 November 2007

banks have good quality assets as lending collateral, they are using it to access market funding at more competitive rates. This suggests that any increased access to ECB liquidity is evidence of increased financial stress.

Irish banks are managing their funding requirements with increasing difficulty

Banks are reporting to the CBFSAI that they are managing their liquidity, but that this is increasingly difficult given the tightness of liquidity in the money markets and the price of funds. As available funding is increasingly shorter term, this is compressing the maturity profile of the banks' funding. In circumstance of continuing credit market difficulties, this increases funding pressures in Irish banks. There are some indications that Irish banks are being subject to more refusals in the unsecured interbank market on account of negative international sentiment regarding the Irish banking sector and the Irish property market generally and events such as the high-profile solicitor cases and the recent difficulties in ISTC. As a small economy with a peripheral presence in international financial markets, large institutional investors may be inclined to by-pass the Irish market in a situation where market sentiment regarding the financial sector and the property market has been negative.

2008 will present particular challenges. Banks are currently executing contingency funding arrangements

A number of Irish financial institutions have significant funding requirements arising from the beginning of next year. In advance of this they are taking a number of steps to prepare for an eventuality that this funding rollover takes place against the backdrop of a resurgence of difficulties in international credit markets. These include steps to build up collateral requirements through, for example, securitisation transactions that will facilitate borrowing from the ECB if they are not able to access liquidity from the usual channels in those circumstances. Other measures that are available to Irish banks to prepare for this eventuality is to restrict lending growth. According to the FR there is anecdotal evidence that the change in the financing environment is impacting on the property development sector as projects are postponed (which for major projects alleviates somewhat funding pressures on the banks). The quality of assets secured on speculative development land is a particular focus of attention for financial institutions at this time.

Internationally, on a day-to-day basis longer term (i.e. 6 month and 12 month) funding is being rolled over into shorter-term (i.e. 3 month) debt. This process gives rise to a heightened risk of a major demand-supply balance on an ongoing basis. **Therefore, notwithstanding contingency measures adopted by banks to enhance their access to liquidity if the present market conditions persist, as expected, into 2008 there is an increased risk of liquidity issues arising for Irish banks.**

International investor views and the share price of Irish banks have continued to fall

Irish bank share prices have continued to fall and have lost between 30% and 50% of their value since the start of 2007. Notwithstanding the posting of good results by Bank of Ireland on Wed. 14 November, its share price fell a further 6% that day, at one point falling by 8%, perilously close to the 9% figure at which trading in a share is temporarily suspended. The decrease in value of Irish banks shares has been greater than in other countries. There is a general discount in the value of Irish banks as there is a perception internationally that they are exposed to the property market – reinforced in a 7 November report from Merrill Lynch setting out a negative perspective on the Irish banking sector because of property exposures. Possible hedging Intense speculation against Irish financial institution is an important element of the overall financial landscape including the activities of hedge funds and the possible hedging of exposures of commercial property bonds issued by Irish property developers through short-selling of Irish bank stocks. In the present uncertain climate, any negative event/comment is subject to amplification in international markets impacting on the share price of banks and the availability of funding. **Taking-up appropriate opportunities to highlight the inherent strengths of the Irish financial system and economy are therefore considered to be very important.**

Timeframe for normalisation of market situation

The view is increasingly being expressed by commentators, analysts and individual financial institutions that the current market disruption will take an extended period (i.e. up to 2 years) to resolve. At the same time there is continued uncertainty regarding the scale of losses on investments associated with US subprime mortgages with some estimates now a multiple of initial forecasts of €100bn. Developments in the US property market are expected to influence strongly the future direction of these estimates

The major risks for financial markets are a US recession impacting in particular in the US property market which leads to a degrading of assets backed by non-subprime mortgages or large losses by a major hedge fund leading to a forced sales sub-prime backed assets.

Contingency Planning Arrangements

The Central Bank and Financial Regulator continue to liaise with the Irish banks closely at CEO level and are monitoring the position very closely. The banks in turn are working intensively to implement contingency arrangements to meet their liquidity requirements.

Note of Meeting between Department of Finance, Central Bank and Financial Services Authority of Ireland (CBFSAI) and Financial Regulator re initiating Domestic Standing Group for crisis management/financial stability
6 March 2007

Attendance:	CBFSAI:	Tom O'Connell
		Tony Grimes
		Anne Marie McKiernan
	Financial Regulator:	Con Horan
	Department of Finance:	William Beausang
		Phil Ryan
		Ciara Lonergan

This note records the main points arising

1. **Role of DSG**
It was agreed that the role of the DSG is to co-ordinate information sharing between the CBFSAI, the Financial Regulator and the Department of Finance within the framework of the current legal powers of each authority. The existing roles and responsibilities of all three authorities will remain unchanged. The DSG will gather together information and will be briefed on work on financial stability issues being undertaken in the three authorities. The DSG will operate at a macro level overseeing the financial stability environment generally and appropriate planning arrangements. The DSG will also plan and manage crisis simulation exercises. It may be appropriate for the DSG to set up working groups examining for example in more detail relevant BCP/critical infrastructure issues (see point 3 below)

2. **Interaction of DSG with the existing financial stability framework**
The DSG should dovetail with the existing stability framework, without overlapping with current arrangements. The Financial Stability Committee of the CBFSAI and the Financial Regulator examines financial stability at a macro level. There may be "added value" by the inclusion of the Department of Finance perspective, for example the economic and tax side may have useful information to input into the assessment of the DSG. The meetings of the DSG could align with some FSC meetings to facilitate the information sharing role of the DSG.

3. **Business Continuity Planning (BCP)/Critical infrastructure Protection (CIP)**
The CBFSAI's current work on BCP has two strands. The first strand is internal BCP for the CBFSAI's operations. This is currently being developed with the aim of having all essential systems backed up and replicated in the Sandyford Currency Centre. The second strand involves dialogue with industry in relation to BCP in the financial sector. The CBFSAI is currently liaising with the IBF, which has been working on BCP issues independently. The CBFSAI does not intend to become engaged at a detailed level with this type of BCP but needs to be assured that appropriate BCP is in place in the industry. Discussions with the IBF to date have looked at the main issues: liquidity, payments system and broader "cash" issues.

The EU proposals for CI protection relate to European Critical Infrastructure (ECI) which is "those infrastructures, the destruction or disruption of which would ***affect two or more member states*** or a single Member State if the critical infrastructure is located in another Member State." In relation to the financial infrastructure in Ireland the key ECI is the Target wholesale payments system

With respect to the DSG, the DSG's role in BCP/CIP needs to be explored in detail. The extent to which a problem with the financial infrastructure is an issue for the DSG will need to be scoped out – the key issue is whether an infrastructural problem will lead to systemic problems. It will be important in examining this issue to also look at the probabilities of the occurrence of different scenarios and their impact on the financial system overall.

4. **Crisis Vs Non-Crisis role of DSG**

It is important to distinguish between the appropriate role of the DSG during a time of crisis and during non-crisis times. Generally its role will be as described in point 1 above. In a crisis situation the DSG's role will be to advise the principals in each authority. As in a non-crisis situation, the roles and responsibilities of each authority are without prejudice to the exercise of statutory responsibilities by the constituent authorities. The majority of work required for any support operation would take place within each authority with the DSG facilitating information sharing and co-operation between the organisations.

The benefit of the DSG in a crisis situation is that its members will have developed their familiarity with the procedures and issues arising in such a situation, through briefing, discussion and simulation exercises. These simulation exercises will help clarify the role of the DSG in a crisis situation. Some further examination of the DSG's specific role in a crisis may be required.

5. **Membership of DSG**

The general business of DSG will be undertaken at the level currently attending these preliminary meetings, with representatives from the CBFSAI, the Financial Regulator and the Department of Finance.

In addition to the three organisations that make up the DSG, in times of crisis the DSG may need the assistance of other public authorities (e.g. the Office of the Attorney General, the Department of Enterprise, Trade and Employment and the NTMA). The DSG may have to ensure that there is a contact point in each organisation available as required. This may be included as part of the three authorities' operational manuals rather than outlined in the MoU governing the DSG.

6. **Public disclosure/confidentiality**

The European Central Bank has tended to say very little about financial stability planning/financial crisis management arrangements. The MoU on crisis management and the tripartite cross border MoU between Ministries of Finance, Central Banks and Authorities are not published. The CBFSAI has tended to follow the ECB's example and has not published material on financial crisis management.

Practice on whether DSG and financial crisis arrangements are publicised varies from country to country in the EU. Those that have published information (e.g. UK, Sweden) have tended not to be in the Euro system although the Benelux countries, particularly Belgium, have a significant amount of information in the public domain.

7. **Future EU Developments**

The work of the EFC Ad hoc Working Group on financial crisis management may lead to further requirements for Member States in this area. The Group's interim report is to be presented at the EFC meeting in March.

Financial stability/financial crisis management requirements may be raised at the EFC Financial Stability Table in April and September.

8. **Next Steps: Memorandum of Understanding**

A key priority for the DSG is the preparation of a draft MoU outlining the composition of and role of the DSG and the member's roles and responsibilities, highlighting the fact that the establishment of the DSG does not affect the existing legal framework. The Department of Finance will draft a preliminary MoU to be circulated to all parties and arrange bilateral meetings as required. The agreed draft would then be discussed at a meeting after Easter and the preliminary agreed draft could then be submitted for approval in the Department of Finance, the CBFSAI and the Financial Regulator.

Ciara Lonergan

06/WB/20

<u>Secret – for preparation for Government meeting</u>

Report of Domestic Standing Group Meeting – 8 July 2008

<u>Attendees</u>
Tony Grimes, Central Bank
Brian Halpin, Central Bank
Con Horan, Financial Regulator
Kevin Cardiff, Department of Finance
William Beausang, Department of Finance

Recent share price declines
The CBFSAI was staying in close touch with the Irish banks; the sharp decline in Irish bank shares had not had any significant effect on their deposit base to date.

International developments
The CBFSAI believed that the decline in bank share prices internationally was helping to highlight the international market situation ahead of the domestic environment.

Liquidity
[redacted] have both recently topped-up with liquidity in order to ensure that it remained strong against all eventualities.

Corporate Deposits
It was considered inevitable that weaker share prices would in time be reflected in some withdrawals of, in particular, corporate deposits.

Bank of Ireland trading statement
Bank of Ireland's interim management statement (8 July) was considered 'downbeat' but reflected concerns regarding the impact on profitability of the bank's exposure to the UK commercial property market

Long-term investors
There were some indications that recent falls in share prices reflected share sales by long-term investor indicating that if the current unfavourable market environment persisted there was an increased risk of a general loss of confidence in the Irish banks. International investors believed that the sharp slow-down in the Irish economy and property market would give rise to significant loan losses for the Irish banks, a collapse in profitability and the need to raise significant capital and that they would be disadvantaged in doing so on account of the delay in going to the market for additional capital, in contrast to the steps taken by some UK banks. This type of assessment does not correspond with that of the Irish banks. The FR reported a detailed line-by-line examination of its loan book by one of the major Irish banks which highlighted that even allowing for 'worst-case' loan losses, profitability would remain strong measured against objective market benchmarks.

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14 July 2008