



Tithe an
Oireachtais
Houses of the
Oireachtas

Joint Committee of Inquiry into the Banking Crisis

Witness Statement of

Alan Gray

Session 62 (a)

09 September 2015 (p.m.)

Strictly Private & Confidential

As indicated on its cover page, the document(s) contained within are confidential unless and until the Joint Committee decides otherwise including where the Joint Committee publishes such document(s). For the avoidance of doubt, “documents” include witness statements in this context. Further to section 37 of the Houses of the Oireachtas (Inquiries, Privileges and Procedures) Act 2013 (“the Act”), while the documents remain confidential, you must not disclose the document(s) or divulge in any way that you have been given the document(s), other than:

- “(a) with the prior consent in writing of the committee,
- (b) to the extent necessary for the purposes of an application to the Court, or in any proceedings of the Part 2 inquiry, or
- (c) to his or her legal practitioner.”¹

Serious sanctions apply for breach of this section. In particular, your attention is drawn to section 41(4) of the Act, which makes breach of section 37(1) a criminal offence.

¹ See s.37 of the Houses of the Oireachtas (Inquiries, Privileges and Procedures) Act 2013

ALAN GRAY'S STATEMENT OF EVIDENCE TO BANKING INQUIRY

1. INTRODUCTION

Chairman and Members of the Inquiry, as an independent economist, I believe major mistakes were made resulting in the economic, fiscal and banking collapse. To help understand what happened and why, I present over 150 pages of new evidence which I hope will help the Inquiry.⁽¹⁾

Unlike many publicly known figures, my views and values are not known outside of the world of economists and policymakers. I have worked as a professional economist for 30 years and have provided impartial advice to consecutive governments in Ireland.

I am Chairman of London Economics and Head of Economic Research with an independent Irish economic practice. I was appointed a Director of the Central Bank in 2007 and I serve on the Government's Labour Market Council and I am a Director of the IDA.

My statement and supporting documentation includes extracts from Central Bank Board minutes and other documentation including my correspondence with the Central Bank and Department of Finance. I have attempted to

balance my legal restrictions on releasing information under the Central Bank 1942 Act and (Amendment) Act 2015 and my legal and moral obligation to give all relevant evidence to the Inquiry. I am also conscious of not prejudicing future legal cases.

In examining this evidence I ask the Inquiry to excuse a number of references to publications that I have written and those of my academic collaborators.⁽²⁾ The references are included not to give particular academic significance to these publications but to confirm my views at the time and I hope will be interpreted in that context.⁽³⁾

As well as factors underpinning the banking crisis, I have provided evidence on a number of matters of public interest. These include the meeting and subsequent dinner on unemployment (Druids Glen discussion) which I had with An Taoiseach on 28 July 2008. While the Inquiry has not asked me to cover this, I felt it appropriate to include this and other issues in supporting evidence.

Causes of Economic Fiscal and Banking Crises

Unless the causes of the economic, fiscal and banking crises are identified, we are in danger of making the same mistakes and learning nothing. While the

causes of these separate crises are related, they are distinct. The rise in unemployment has been as much or more due to the fiscal and economic crisis than to the banking crisis.

In considering why there was a crisis in Europe, the Noble Prize winning economist Professor Paul Krugman's conclusion is that "the truth in the story is mostly monetary. By introducing a single currency without the institutions needed to make that currency work, Europe effectively reinvented the defects of the gold standard – defects that played a major role in causing and perpetuating the Great Depression."⁽⁴⁾

I have a concern that the required European institutions and policy instruments may not yet be in place and there appears to be complacency on this.

The ideologically driven US decision on 15th September 2008 to let Lehman Brothers go bankrupt resulted in an international crisis of a scale not seen since the 1930s. Because this has sometimes been used as an excuse for Irish mistakes it is not fully recognised in Ireland that this was one of the worst decisions in recent US economic history.

The combined impact of the Lehmans collapse and design faults in the single currency had horrendous implications for Europe. The larger lending countries and international organisations may have an interest in downplaying these two factors and would like to shift most of the blame onto peripheral countries.

This is not to deny the scale of the Irish mistakes. An unpredictable and once-in-a-century external crisis was made much worse by a gross overdependence on the construction sector and by a failure of bankers, policymakers and regulators to respond adequately to the risks.

Central Bank Directors⁽⁵⁾ are understandably reluctant to criticise the international institutions. However, I believe their decision to subsequently force Ireland to avoid imposing losses on bond holders⁽⁶⁾ and requiring Irish taxpayers to then bear the cost was morally indefensible.⁽⁷⁾ It was one of the worst examples of a small state being forced to socialise losses (i.e. for the taxpayers to pay the costs) while the private sector gains were protected. Ireland, Portugal, Spain and Greece and other countries have been paying the high costs ever since.

Key causes of the crisis are:

- 1. Mistakes in Lending Decisions by Individual Banks**
- 2. Closure of International Inter-Bank Liquidity Markets in 2008**
- 3. Design Flaws in the Single Currency**
- 4. Failure in the Regulatory, Supervisory and Governmental Regime Structure and in Effectiveness of Supervisory Practice⁽⁸⁾**
- 5. Impact of Irish Macroeconomic Policy⁽⁹⁾**
- 6. Intervention in the Property Sector**

I also discuss later the crisis management responses.⁽¹⁰⁾

1. THE LENDING DECISIONS MADE BY INDIVIDUAL BANKS provided loans to developers and others which subsequently turned into bad debts. This was the fundamental driver of what happened in individual Irish banks.⁽¹¹⁾ In supporting evidence I give some illustrative insights of breaches of regulations and issues with credit assessments.⁽¹²⁾

2. THERE WAS A CLOSURE OF INTER-BANK LIQUIDITY MARKETS by end of September 2008. This was directly related to the Lehmans bankruptcy as discussed previously. This decision meant that the bankruptcy was

associated with a worldwide depression and a collapse of banking systems in many countries.

3. **THE DESIGN FLAW IN THE SINGLE EURO CURRENCY WAS A MAJOR ERROR, PARTICULARLY FOR IRELAND WHERE THERE HAD BEEN A DECLINE IN COMPETITIVENESS.** In a publication I edited, one of my academic collaborators on the research, Professor Jeffrey Sachs from Harvard, pointed out the risks for an economy such as Ireland if a single currency was combined with a loss in competitiveness. Professor Sachs referred to this as a key risk to Ireland's export-led growth model. With foresight Professor Sachs concluded that:

“This is surely a big risk for a small country that is dependent on export-led growth - perhaps even too big a risk.”⁽¹³⁾

4. **IT IS CLEAR THAT THERE WAS A FAILURE OF BANK REGULATION AND DEFICIENCIES IN THE STRESS TESTING AND MACRO-PRUDENTIAL POLICY.⁽¹⁴⁾**

I attended my first Central Bank Board meeting at the end of January 2007. By that date the Irish banking system had expanded dramatically over the period since 2000, and this was correlated with the very rapid growth which had occurred in the property sector. Between then and the crisis, detailed stress testing was undertaken and in the supporting evidence I outline my

assessment of why this did not predict the collapse of the sector or identify the scale of capital shortages in the banks.

In the aftermath of the Guarantee, I felt that the banks were still in denial of the necessary capital requirement, as they were suggesting to the Central Bank/Regulator that they had adequate capital to meet regulatory requirements and to deal with bad debts. Financial advisers appointed by the Regulator also prepared highly stressed scenarios which gave some support to the view that the banks had adequate capital. I expressed my assessment that I did not accept this conclusion, as is evident from my letter to the Department of Finance (Annex 5).

By mid-2007 onwards there were heightened concerns on international financial markets and the Central Bank Governor and the Regulator correctly indicated that these had implications for financial supervisory policies and for financial stability.

The Central Bank realised the importance of a unified response to the emerging financial stability issues including the Department of Finance. In early to mid-2007, the non-executive directors were informed that a

Memorandum of Understanding (MOU) had been agreed with the Department of Finance and this led to the establishment of the Domestic Standing Group.

My understanding was that the Domestic Standing Group was focused on assessing financial stability issues and was tasked to conduct detailed simulation exercises on potential scenarios and the implications for supervisory policies or other actions. I do not know whether a scenario outlining the scale of crisis which led to the guarantee was considered, as the work of this group was understandably secret. I also accept that few, if anyone, predicted or could have predicted the Lehmans bankruptcy and its impact on world markets.

In addition to the deficiencies in the interpretation of stress testing, there were regulatory failures which included insufficient regulation of banks and inadequate capital requirements, particularly in the period 2000 – 2007. Accurate information was also not obtained from the banks or elsewhere on the position of major borrowers dependent on property and I raised this at board meetings.⁽¹⁵⁾ More intensive involvement in the approval of directors of banks would also have been appropriate.⁽¹⁶⁾ Too much comfort was taken from the fact that the approach to regulation appeared to be in line with international practice and positive comments from authoritative international organisations on the Irish Regulatory system.⁽¹⁷⁾

At my first IFSRA board meeting in 2007, there were diverse discussions on individual regulatory approvals, consumer reports, and on individual institutions.⁽¹⁸⁾ One aspect at the meeting related to the capital requirements for the banking sector. I noted the awareness of the need for supervisory policy to ensure adequate capital and to use policy to try and dampen the growth in the property sector. The new policy outlined at my first meeting required the banks to increase to 150% the capital requirements for lending to speculative property. My recollection is that the board was informed that this was the highest level of capital requirements in the EU. It was suggested that speculative lending could only happen after 50% of the property value had been pre-sold. Not surprisingly, as an economist, I was very supportive of this revised action, as I felt it was beginning to respond to the risks. However, I fully accept with regret that this proved to be far too little and far too late to address the scale of the crisis which emerged.

Regulatory systems did not cause the crisis, but did not prevent the practices which led to the crisis. This was not primarily⁽¹⁹⁾ due to the absence of supervisory powers or to the statutory objective of promoting the sector, and these cannot be used as an excuse for the failure to discover practices and the misjudgement on risks.

Once developments in individual banks became clearer and more information was available to the Board, I concluded that radical changes were essential to the system of financial regulation.

I felt so strongly on this that I wrote to the Central Bank Governor/Financial Regulator and to Department of Finance (Annex 6) and suggested radical reform of financial regulation including:

- ☐ **“Increases in the minimum requirements for capital for most Financial Institutions.**
- ☐ **New controls of lending policies and practices in Banks.**
- ☐ **Implementation of changes to incentive structures within Financial Institutions.**
- ☐ **Greater levels of inspections of Financial Institutions.**
- ☐ **New requirements for approval process for Directors and Senior Management of Financial Institutions.**
- ☐ **Greater levels of public disclosure and transparency.**
- ☐ **Requirement that risk models used by Financial Institutions are approved by the Central Bank Commission.**
- ☐ **Changes in relationships between external auditors and Central Bank Commission.**
- ☐ **Measures to facilitate and protect internal whistle blowers”.**⁽²⁰⁾

My assessment of the skills and experience at the Central Bank, the Financial Regulator and the Department of Finance is in Annex 21. In the case of IFSRA there were gaps in the skills and international experience and this was identified by the IFSRA Board and management from before I joined in 2007. There was also a reduction over time in specialist economic skills in the Department of Finance.⁽²¹⁾

On the relationship between the Central Bank, the Department of Finance and the Banking Institutions, a too “hands-off” approach to the banks was taken and too much reliance was placed on the boards and management of the banking institutions.

Communications between the Central Bank and the Department of Finance at the Central Bank Board was very open. As I supported the sharing of information between the Central Bank and the Department of Finance, when I decided to provide any written external advice to the Governor of the Central Bank, where appropriate, I also sent this to the Department. This was to ensure all views were tested and silo thinking avoided.

On the institutional roles there was reasonable clarity but a reintegration of the Central Bank/IFSRA would have been appropriate earlier. I also felt it would

be appropriate for greater interaction between the Central Bank/IFSRA, the Gardaí and the ODCE in cases of potential irregularities. There was an inevitable lack of knowledge of the detailed work of the Domestic Standing Group.

5. **IRISH MACRO ECONOMIC AND FISCAL POLICY⁽²²⁾** in the period post-2000 proved to be inappropriate. There was an overdependence on stamp duty and VAT from property and too rapid a growth in public expenditure and little flexibility to handle the economic downturn. The rapid growth in public expenditure reflected a belief that the long period of economic growth would continue. A misplaced weight was given to international and Irish economic forecasts, which failed to predict ‘unanticipated events’.⁽²³⁾ There also appeared to be a national consensus on the need for more public expenditure in many areas, although this was not shared by many independent economists.

Concerns on macroeconomic policies were a recurring theme for myself and other economists in Ireland. In 1997 in a publication to honour Dr. T.K. Whitaker’s 80 years, I outlined my concerns and indicated that **“while the lessons of previous policy errors are well known, there are potential dangers in this area, particularly if public expenditure programmes are planned on an assumption of continued rapid growth.”** I emphasised **“the difficulty of adjusting public expenditure programmes, which could result**

in the re-emergence of large deficits and an expansion of public debt if there was an economic downturn.”⁽²⁴⁾

I suggested that it would be prudent to **“use this period of economic upsurge to build up reserves and to enhance flexibility of response to less favourable circumstances.”** I recommended **“ongoing reviews to ensure the effective targeting of public expenditure programmes”** (and I noted) **“some of which may not be either justified in terms of increasing the productive capacity of the economy or efficient in redistribution.”⁽²⁵⁾**

6. **INTERVENTION IN THE PROPERTY MARKET FUELLED THE FIRE OF PROPERTY PRICES.** In 1997 I argued that policies **“should..... by appropriate planning and zoning decisions, ease the shortage of land for residential housing.”⁽²⁶⁾** This reflected my concern that restrictive zoning meant windfall gains to property speculators, increased housing costs, and opened up opportunities for corruption.

The escalation in property prices was further fuelled by the build-up of tax incentives. My views were informed by an investigation of property-based tax incentives, which I completed for the Department of Finance with some of my economist colleagues in October 2005.⁽²⁷⁾ While these property incentives

were supported by a range of vested interests, including investors, property developers and banks dependent on property, I strongly recommended the abolition of a vast range of property-based tax incentives.

My 2005 report also concluded: **“There is absolutely no case for further government incentives. Continuing to approve new projects would contribute to oversupply and represent a clear waste of scarce public resources.”**⁽²⁸⁾ This was at a time when many of the cheerleaders for the property sector were still at their peak in promoting the sector.

CRISIS MANAGEMENT AND APPROPRIATENESS OF RESPONSES

On crisis management, there was detailed assessment on the liquidity position and risks in the banking institutions by the Central Bank in the period since I joined the Board in 2007.⁽²⁹⁾

The analysis of liquidity risks intensified over time and just before the peak of the crisis on 16 September 2008, a note⁽³⁰⁾ was circulated to directors of IFSRA which stressed the scale of the liquidity difficulties for credit institutions. It was pointed out that **“term funding market was effectively closed to these institutions”** and **“the increased reliance of the banks on ECB as a source of funding.”** It indicated that detailed monitoring of and engagement with

institutions on liquidity positions and strategy was taking place. It stated that **“post Lehmans/Merrills public concern was increasing and that the tone of media comment was systemic rather than institution specific.”** Investors were cutting lines to Irish banks and requesting breaks in the terms of deposits. In addition to two institutions which were being very closely monitored by the Regulator, one of the other institutions advised that **“if markets do not improve they risked breaking liquidity ratios in a matter of weeks.”**⁽³¹⁾ This signalled to me the danger of a full-scale run on the Irish banking sector.

While assessment of liquidity risks were monitored, there was less understanding of solvency.⁽³²⁾ This may have in part been due to the mistaken belief that solvency and liquidity were separate. In a context of a world-wide liquidity crisis, even banks who met what was previously seen as an appropriate regulatory solvency requirement could soon be in a solvency crisis. This is because solvency is determined by the valuation of assets. A bank which would be insolvent given asset values in 2009/2010 could be deemed to be solvent if asset values of 2015 were applied.

The impacts of bank borrowers being forced or voluntarily wanting to sell off property or other assets to repay debt at the same time, inevitably result in a downward spiralling collapse in asset prices. These deflated values must then

be reflected in the valuation of loans and this translates directly as a hit on solvency. Recognition of this should guide future policy. A simplified illustrative economic model of why liquidity constraints can lead to insolvency is presented in Annex 14.

In attempting to respond to the crisis, extensive use of external advisers was made by the Department of Finance. This included both international financial and legal advisors. Their advisory reports were not shared with the Central Bank non-executive directors and I have only briefly seen some of these subsequently when they have been publicly released.

Week of Bank Guarantee

The Bank Guarantee decision resulted in Irish citizens having to pay a very high and unjust cost for the banking crisis. Providing a linkage between the sovereign and the liabilities of the financial institutions proved to be a very costly decision.

The Guarantee was not thought up on the night of 29th September but arose from extensive analysis by the Department of Finance/Central Bank Governor/Regulator and with the involvement of teams of external advisers.

I first heard of this as the main option being considered at an Emergency Joint Central Bank Board Meeting on 25 September but it must have been worked on much earlier. The Governor of the Central Bank and Department of Finance briefed the Board and indicated that a guarantee of the liabilities of banks was being considered. What is evident from the Emergency Central Bank Board minutes, is that the proposal was to cover the six financial institutions (Annex 2). There was no suggestion at that time of any option to guarantee some banks but to nationalise others⁽³³⁾. I do not know where or when this revised option emerged but it may have come late in the day and possibly sometime after the 25th September 2008. The Central Bank Board was never asked for a view on this revised option. The minutes of the Emergency Central Board Meeting of 25th September show that:

“The Governor and the Chairman of the Authority briefed the meeting on the ongoing discussions with the banks and the Department of Finance regarding the liquidity position of the Irish banks and policy options to be considered if the position continued to deteriorate. The Minister for Finance had convened a meeting on Wednesday 24 September attended by the Central Bank, the Financial Regulator, the NTMA and the Department of Finance. The Governor had also met with the Minister for Finance and the Taoiseach. The outcome of these meetings was that the Government wanted policy options for the future of the financial

sector to be developed and refined as a matter of urgency over the weekend for consideration by the Cabinet at the beginning of the following week.”⁽³⁴⁾

Following a detailed discussion of the liquidity pressure on all of the banks in what was referred to as “the unprecedented international credit crunch” it was suggested that:

“If the liquidity situation did not improve, the issue for the Authorities would be how to address the whole financial system.”⁽³⁵⁾

The minutes highlight what was seen as the key policy response. The minutes explicitly noted that:

“A key policy issue for the weekend was whether or not the Government should issue a formal guarantee for the liabilities of the six domestically-owned credit institutions. If a decision was to be made in this regard, the Government would require the formal advice of the Central Bank and the Financial Regulator on the necessity of such a measure and its impact.”⁽³⁶⁾

On first hearing this I indicated to the Board my view that a number of issues were relevant to any assessment including:

- Would it be illegal under EU State Aid rules? (I suggested that I expected this would be challenged.)
- Would financial markets and the public view this as a credible Guarantee? In short, would it work in preventing a run of the bank system?
- How could one minimise any exposure to the State?
- How would it interact with the necessary restructuring action on individual institutions in order to ensure viability?
- Had all alternative options been fully exhausted and was there any hope of ECB-wide action before consideration was given to such a radical decision?

I made suggestions to attempt to protect the taxpayer and reduce the risk to the State if such a policy was subsequently decided: Firstly, by ensuring any guarantee was only for as short a time period as necessary and I argued against any long-term guarantee. Whether it would have been better to only give this for one year, as I had originally thought, rather than the two provided is open to debate. However, I don't think this would have made any difference to the long-term damage to Irish taxpayers. I also indicated that if the State felt

obliged to give a guarantee we should get out of these obligations as quickly as possible.

I suggested that if in the event of any such guarantee, the banks should be forced to pay in full for this and the payments levels should reflect the value to the banks and the risk to the State.⁽³⁷⁾

Some of these points which I and other Directors made, were reflected in the formal minutes of the meeting as below:

“In discussing the option of a Government Guarantee, the meeting noted that the market would have to be convinced of the credibility of the Guarantee. There was also a likelihood of a legal challenge on competition grounds if it was confined to the domestic credit institutions. The meeting agreed that the issue of an explicit Government Guarantee supported by a willingness to supply additional funding, if necessary, warranted detailed consideration. In this context, however, it would be necessary to identify a viable long-term strategy for the industry and pursue this objective vigorously.”⁽³⁸⁾

I had the distinct impression at the meeting that a guarantee of all banks was being seen as the favoured option, and probably the only option in serious contention. The only other option mentioned was one of giving Government Bonds which was seen as having negative direct implications for Ireland's credit rating and my impression was this was not a serious runner in the thinking.

The Department of Finance and the Governor of the Central Bank at the emergency board meeting indicated that the Government wished to obtain the views of the Central Bank on the option of providing the Guarantee. I took this to be an invitation to urgently consider this emerging response but in any case I would have felt an obligation as an economist on the Board to give my views. I am not sure if any other Directors made any contact with the Department or the Governor but I felt strongly at that stage that all available options should be examined rather than simply going with the guarantee option. I decided to write to the Department of Finance and the Governor of the Central Bank.

As is evident from my correspondence of 25 September 2008⁽³⁹⁾ (Annex 3) I outlined my view on the principles which should be followed:

- (i) State exposure to be minimised where possible.**

- (ii) **The knock-on impacts of any decisions should be taken into account and the minimisation of contagion.**
- (iii) **The cost of any assistance to be paid for fully by the sector even if this means over time (and I believe this issue is still relevant).**
- (iv) **Wider economic implications should be factored in.**

The best option was in my view a European ECB-wide initiative. My opinion was that there was a reluctance of ECB to recognise the scale of the problem or to take responsibility for their role, but I felt that pursuing European action merited urgent investigation and I purposely put ECB-wide response as the first option to deal with the liquidity crisis.

In considering the option of a Guarantee on all six institutions, as proposed by the Department of Finance/the Central Bank, I felt there was a need to consider different formulations, if this was the chosen option. I also raised explicitly my concerns over “**whether it would postpone necessary restructuring**”⁽⁴⁰⁾ of the Irish banks, which I had discussed in the Board Meeting. I felt this could be handled subsequently if it was a very time-limited guarantee. I had concerns of whether a guarantee would or would not be effective in preventing a bank run and whether it would be credible or what would be the market reaction. This was still a major concern to me in the days and weeks after the Guarantee was announced.

I also suggested that the payment terms could be structured in a way which would neutralise the competitive impacts, i.e., some banks should pay proportionally more. My suggestion implied much higher costs for institutions such as Irish Nationwide and Anglo as I felt this was appropriate.

I indicated that it was important to take action to reduce risk and potential Exchequer exposure in specific individual banks and that a restructuring of the sector was needed. This point is reflected in the Central Bank Board Minutes. In my written advice on 25 September 2008 to the Governor of the Central Bank and to the Department of Finance, I indicated that there were four issues which needed to be addressed and not just the issue of liquidity. The four areas⁽⁴¹⁾ which I outlined were as follows:

- (A) Improve Liquidity in the Banking Sector.**
- (B) Response to Individual Banks with Liquidity Issues.**
- (C) Actions to Reduce Risk and Potential Exchequer Exposure in Specific Banks.**
- (D) Plan to Restructure the Sector.**

I indicated⁽⁴²⁾ that the options for actions in relation to specific individual banks which should be pursued included:

— **Management Changes.**

— **Restrictions on Loans.**

— **Restructuring Plan including Managing Down of Loans.**

Over the next few days, it was very clear that the crisis was getting much worse and I had difficulty sleeping as I felt that a bank run was now a real possibility. There was a sense of panic in world financial markets and we were evidently in uncharted waters. The Central Bank/Regulator were monitoring positions in international banks on a daily or more frequently basis. I had come to the view that Ireland could face the total collapse of the banking system and that ECB was taking the attitude that we were on our own. By the time we had reached 29th September I knew from the Board Meeting of 25th September that the Governor had indicated that he had previously been against a guarantee but by then felt things had changed. The decision of the US Congress to reject the TARP Bailout Plan meant that while there was a chance up to then that liquidity pressures would ease, I thought when I heard the decision on the television, things had fundamentally changed. My view is that the Guarantee was the least-worst option available. However, I always understood that a response to the liquidity crisis would only buy time to address the underlying problems and to deal with issues in individual banks and to plan for a radical restructuring of the sector.

As soon as the Guarantee was introduced my focus was on how to minimise the exposure to taxpayers and I wrote almost immediately to the Governor of the Central Bank and also the Department of Finance (Annex 4). I stressed that **“the day we give a time limited guarantee is the day we need to plan for exiting”**.⁽⁴³⁾

AVOIDING ANOTHER CRISIS

In conclusion, I would like to suggest a number of issues for consideration in order to avoid another crisis, as follows:

- We need to tackle supply issues in the housing market or we are at risk of even greater levels of homelessness and the re-emergence of rapid property price gains.
- Governments should use any unexpected windfall gains in Exchequer revenues to repay national debt rather than to fund tax reductions or increased expenditures.
- The Central Bank should base its policy on an assumption that any regulated institution could fail and, if it is of systematic importance, will be bailed out.
- Much greater integrated EU banking supervision is needed.
- Governments should ensure that there are no new distortionary property-based tax incentives for speculative passive investors.

- Renewal in bank governance and personnel should be the norm and should be a regulatory requirement.
- Policy should ensure that bank governance incentivises long-term gains rather than spurious short termism.
- Changes in the nature of auditing of banks and the reporting of such assessments to the Central Bank are required.

Thank you for giving me the opportunity to present my evidence.

Notes and References

1. While I have not obtained independent legal advice I have carefully read the guidelines from the Committee and also from the Central Bank. I have also attempted to present information in a format whereby individual institutions cannot be identified except where I believe the issues are already in the public domain. I therefore believe all of this Statement should be included as public evidence as I think the level of public disclosure has not been adequate to date. I understand this is decision for the Committee. There is however one Annex I believed would be useful for the Inquiry but it contains information within the meaning of 3.33AK(1A) of the Central Bank Act. I have therefore decided to send this in a separate document which I have submitted under Section 3.33AK(1A) provisions. I note this includes confidential information and I believe may constitute restricted material.
2. In preparing my Statement I am aware that research has shown that there can be gaps in the best recollections of even those with good memories of events of recent months never mind five to six years ago. I have therefore attempted to validate my recollections based on extensive notes I prepared at the time and my contemporaneous written correspondences. I have also examined a number of official Central Bank minutes and other relevant documentation. As an individual I have, however, only had an opportunity to work on this over the past few weeks and to fit this in with my existing work commitments. In addition, I have tried to ensure that I have not fallen into the foolish and arrogant trap of suggesting that I have never made mistakes. I have also attempted to avoid confirmation bias (the latter whereby people interpret subsequent events as supporting their views).
3. For example, there is a body of very important research into the causes of the banking crisis by other economists, for example by Professors Antoin Murphy TCD, Paul Krugman MIT, and many others.
4. Professor Paul Krugman, False Stories about EUs Woes are Warping the Truth, Irish Times article (included in Annex 24).
5. This applies to both existing and previous Central Bank Directors.
6. This refers to what was more widely termed as ‘burning the bondholders’.
7. I accept that there may have been a legitimate reason for the ECB and other institutions to be concerned about contagion impacts for the Eurozone or international financial stability. However, morally and on equity grounds forcing taxpayers to fund the costs of the speculative lending to banks cannot be justified. What I also strongly believe is that if international organisations came to a judgement that in the interest of international financial stability such a policy was legitimate, it was morally indefensible to impose all the costs of this on citizens in member states such as Ireland or other peripheral countries.
8. This covers items R1, R2, R3 and R4 as requested by the Inquiry.
9. This covers items R1 and R2 as requested by the Inquiry.
10. This relates to items C2 and C4 as requested by the Inquiry.
11. The poor inter-bank lending decisions which provided Irish Banks with cheap access to funds was also relevant.
12. I am, however, mindful of potential legal issues and my legal constraints under the Central Bank Act as well as future potential legal cases. I therefore do not refer to any named company.
13. Sachs, D. Jeffrey, ‘Ireland’s Growth Strategy: Lessons for Economic Development’, Chapter 6 in Gray, A. W. (1977) Extracts presented in Annex 8

14. See text of my Letter to Department of Finance/Governor of Central Bank in Annex 6.
15. I would be happy to give further insights on this important issue if this would be helpful.
16. One aspect of legal powers which acted as a constraint was the interpretation of the legislation on restrictions on deciding not to approve any director of a regulated institution if they had already been previously approved or approved by another Eurozone regulatory authority. I am not aware of whether this restriction is still in place or what legal interpretation is available. This is an issue which I raised at one of my first IFSRA Board meetings and I would be willing to provide further details to the Inquiry.
17. IMF Assessment as of September 2007 is noteworthy.
18. At an early stage I was conscious of how much time was given to presentations and the need for time to discuss key risks and to follow up on matters which were not progressing. I raised this issue and from April 2007 on a decision was taken to take papers as read and focus on analysis and a strong line on items not progressing. (See IFSRA Board Minutes)
19. The Central Bank/IFSRA had powers of inspection and my interpretation is they had legal powers to impose restrictions on lending and higher levels of capital requirements.
20. See Annex 6 for my assessment of the regulatory system as sent to the Governor of the Central Bank and to the Department of Finance.
21. The general failure of the economics profession at the time of the crisis is discussed by Professor Paul Krugman in article in Annex 27. Unfortunately I agree with this and this should give pause to all of us in the profession and confirms my belief that there are limitations to the areas where economists can add value and humility is needed.
22. This refers to items R1, R2 and R3 as requested by the Inquiry.
23. This included positive assessment of most leading economic forecasts including IMF and Irish National forecasts. While forecasts can be useful their limitations should also be highlighted.
24. Gray, A. W. (1997), Challenges for Ireland in the Integrated European Union, Ireland in the Coming Times: Essays to celebrate T.K. Whitaker's 80 years, IPA, ISBN 1 872002 935 hbk
25. Gray, A. W. (1997), Challenges for Ireland in Integrated European Union, op cited.
26. Gray, A. W. (1997), Challenges for Ireland in the Integrated European Union, op cited.
27. Indecon Review of Property-Based Tax Incentives Schemes, Department of Finance Budget 2006 – Review of Tax Schemes. Report prepared for Department of Finance on 17th October 2005.
28. Indecon Review of Property-Based Tax Incentives Schemes (op cited).
29. While liquidity issues were examined in detail after 2007, in the four years to 2007, Irish banks increased their net borrowing from abroad by around half of the national GNP. By around 2004/2005 the inherent risk in these decisions caused a fundamental structural weakness in the Irish banking system.
30. IFSRA Board Paper Note dated 16 September 2008 (This reflected the melt down in inter-banking leading following the Lehmans bankruptcy the previous day).
31. IFSRA Board Paper Note dated 16 September 2008.
32. As is clear from some of the Central Board minutes and from financial stability presentations there was an understanding of this potential linkage by economists

in the Bank but the impacts of a worldwide inter-bank liquidity on solvency was not generally recognised and so discussion tended to be placed more in the context of whether problems were liquidity or solvency.

33. Prior to the Guarantee, there were previous proposals being considered on whether or not it might be necessary to nationalise a specific building society and the competition/state aid and other implications.
34. Extracts from Minutes of Emergency Joint Central Bank/IFSRA Board Meeting of 25 September 2008 (See Annex 2).
35. Extracts from Minutes of Emergency Central Bank/IFSRA Emergency Joint Board Meeting of 25 September 2008 op cited (See Annex 2).
36. Extracts from Minutes of Emergency Central Bank/IFSRA Emergency Joint Board Meeting of 25 September 2008 op cited (See Annex 2).
37. My recollection of the Central Bank meeting was there had not been a discussion until I raised it of the banks paying, but this may well have always been in planning by the Department of Finance/Central Bank officials and I do not wish to suggest otherwise. I have not had a chance because of time constraints to examine all available Department of Finance information on their advisers' reports on this issue prior to 25 September or if all reports have been published.
38. Extracts from Minutes of Central Bank/IFSRA Emergency Joint Board Meeting of 25 September 2008 op cited (See Annex 2).
39. Letter by A. W. Gray dated 25 September 2007 included in Annex 3 as evidence.
40. Letter by A. W. Gray dated 25 September 2007 included in Annex 3 as evidence.
41. Letter by A. W. Gray dated 25 September 2007 included in Annex 3 as evidence.
42. Letter by A. W. Gray dated 25 September 2007 included in Annex 3 as evidence.
43. Letter of 20 October included in Annex 4 as evidence.

List of Annexes to Alan Gray's Evidence

- Annex 1:** Details of Economist Alan Gray's Research and Advice (of Relevance to Inquiry) provided to respective Governments over the past 30 years.
- Annex 2:** Extracts from Formal Minutes of Critical Emergency Joint Central Bank/IFSRA Board Meeting held in Central Bank Head Office on 25 September 2008.
- Annex 3:** Documentary Evidence of Economist Alan Gray's Assessment of the Proposed Guarantee sent on 25 September 2008 (following Emergency Central Bank Board Meeting which requested views) to Governor of the Central Bank/Department of Finance suggesting consideration of other options including Action by ECB and Highlighting the need to Protect Taxpayers and Requirement for Banks to Pay Full Costs. The note also indicated that there were 4 Tasks required and not just how to respond to Liquidity Crisis. Other Critical Tasks which Alan Gray advised need to be tackled were:
- Respond to Individual Banks with Specific Liquidity Issues
 - Actions to Reduce Risk and Potential Exchequer Exposure in Individual Banks including Management Changes and Restrictions on Loans
- Annex 4:** Documentary Evidence Comprising Copy of Original Letter sent on 20 October 2008 to the Governor of the Central Bank and Department of Finance Highlighting Alan Gray's Assessment that the day the Government gives "a time limited guarantee is the day we need to plan for exiting". Alan Gray also sent this letter at the time to the Secretary General and the Second Secretary at the Department of Finance.
- Annex 5:** Documentary Evidence Comprising of Letter Sent to Governor of the Central Bank and Department of Finance by Alan Gray on 22 January 2009 stressing his independent assessment that he disagreed with the views of the Banks and of PWC scenarios which suggested that Banks would have sufficient capital to meet regulatory requirements and deal with bad debts.
- Annex 6:** Documentary Evidence comprising of Copy of Original Letter sent to Governor of Central Bank and Department of Finance indicating Mr. Gray's assessment that radical changes were needed in the system of financial regulation and specified key actions needed namely:
- **Increases in the minimum requirements for capital for most Financial Institutions**
 - **New controls of lending policies and practices in Banks.**
 - **Implementation of changes to incentivise structures within Financial Institutions**
 - **Greater levels of inspections of Financial Institutions**
 - **New requirements for approval process for Directors and Senior Management of Financial Institutions**
 - **Greater levels of public disclosures and transparency**
 - **Requirement that risk models used by Financial Institutions are approved by the Central Bank Commission**
 - **Changes in relationships between external auditors and Central Bank Commission**
 - **Measures to facilitate and protect internal whistle blowers**
 - **Other changes**
- Annex 7:** Independent Assessment of the Economy and Implications for Unemployment presented by Alan Gray to An Taoiseach Mr. Cowen and others at meeting and subsequent dinner on 28 July 2008 (Druids Glen Discussion) including Alan Gray's original detailed notes prepared at that time and highlighting concerns on the economy and suggesting that urgent action was needed if the decline in economy was not to accelerate.
- Annex 8:** Summary of extracts of relevance to Inquiry from Book on International Perspectives on the Irish Economy edited by Alan Gray. This highlighted the need for macroeconomic stability and warned of the dangers/risks for a small open economy in joining a Single Currency.
- Annex 9:** Details of Interactions with Anglo Irish Bank in 2008.

- Annex 10:** Summary of extracts from Investigation into Property Tax Incentives undertaken by Alan Gray and other economists and which recommended the immediate abolition of a vast range of these incentives and highlighted their role in fuelling property price inflation and represented a clear waste of scarce public resources. This was back in 2005 when the cheerleaders for the sector were still at their peak in promoting the sector.
- Annex 11:** Extracts from publication by Alan Gray to Honour Dr. T. K. Whitaker's 80 years and which outlined the vulnerabilities in public finances and the dangers if public expenditure programmes are planned on an assumption of continued rapid growth.
- Annex 12:** Extracts from other Independent Economists Assessment of Bank Guarantee.
- Annex 13:** Extracts from Book on Unemployment by Alan Gray where he highlighted inappropriate interaction in property sector which fuelled property prices by inappropriate planning and zoning and which increased housing costs and opened up abuses for corruption.
- Annex 14:** Simplified Model demonstrating the economic linkage between Liquidity and Solvency.
- Annex 15:** Extract from Book by Alan Gray and other Economists presenting evidence on Competitiveness and Trends in the Irish Economy since 2000.
- Annex 16:** Letter sent to Kevin Cardiff by Alan Gray on 19th November 2008 on Potential Options to deal with Alan Gray Assessment that Banks Required Additional Capital. Letter was also sent to Governor of Central Bank and to Secretary General of Department of Finance. While this note is not judged to be significant, it was included for completeness as it was available on my personal files. It reflected my view on the undercapitalisation of the Banks and ways to deal with this should be explored.
- Annex 17:** Central Bank and & Financial Services Authority of Ireland, Terms of Reference of Board Committees, June 2003.
- Annex 18:** Alan Gray's Recollection on His Expectations in 2007/2008 on Future Property Prices.
- Annex 19:** Alan Gray' Recollection on Discussions on Contrarian Views at Central Bank/IFSRA.
- Annex 20:** Details of Telephone Call with An Taoiseach and Economist Alan Gray on Night of the Guarantee Decision.
- Annex 21:** Composition, Skills and Experience at the Central Bank, Regulator and Department of Finance
- Annex 22:** Role of Advisers in Investigating Capital Adequacy of Irish Banks.
- Annex 23:** Insights into Operation of Joint Board of Central Bank/IFSRA in Immediate Period to Crisis (i.e. 2007-2008).
- Annex 24:** Article by Paul Krugman, highlighting how False Stories about Causes of European Crisis were Warping the Truth, Irish Times Article.
- Annex 25:** Alan Gray's Comments on Stress Testing and Macro-Prudential Policy.
- Annex 26:** European Commission's State Aid Approval for the Irish Guarantee Scheme.
- Annex 27:** Professor Paul Krugman's view on the Disappointing role of Economists during the Crisis.
- Annex 28:** Financial Stability Report Boxes 2007.pdf
- Annex 29:** Financial Stability Analysis - Commercial Property Market - Maria Woods.pdf
- Annex 30:** Financial Stability Report Charts 2007.pdf
- Annex 31:** Financial Stability Report Circulated to Directors 20.6.2007 Doc no 80.pdf
- Annex 32:** Monetary Policy Document no 79 Circulated to Directors 20.6.2007.pdf
- Annex 33:** Interim Stability Report issued to CB Directors No. 29 - 2007.pdf
- Annex 34:** Presentation to Board of Central Bank on Draft Financial Stability Reports.pdf

Annex 1: Details of Economist Alan Gray's Research and Advice of Relevance to Inquiry provided to respective Governments over the past 30 years.

Unlike many public figures, I am not known outside of the narrow world of economists and policymakers. I have worked as a professional economist for 30 years and have provided impartial advice to consecutive governments in Ireland. I am Chairman of London Economics and Head of Economic Research with an independent Irish economic practice. I was appointed a Director of the Central Bank in 2007 and I serve on the Government's Labour Market Council and I am Director of the IDA.

Further details of my work as an economist are presented below. While I would normally never consider presenting this personal information it may be useful for the Inquiry in understanding my views and values.

My main research, advisory and lecturing work interests have included:

- Reduction in Unemployment;
- Protecting the Interest of the State and Taxpayers; and
- Narrowing of Income Inequality.

While the first two of these areas are directly related to the Banking Crisis, inequality is also relevant. While it was not a key determinant of the crisis¹ it was related to a culture of greed and speculation which preceded the crisis.

My first research as a young economist on unemployment was a joint article which dealt with seasonal components in unemployment statistics and was published by the ESRI. I subsequently wrote a book on Employment Potential in Manufacturing. I later co-authored with Professor Dermot McAleese of TCD, Professor Brendan Walsh of UCD and Professor Kieran Kennedy of the ESRI, the book on Responses to Irish Unemployment: the Views of Four Economists, back in the late 1980s. This warned of the necessity to maintain a favourable macro-economic framework. I also cautioned in that book against the extension of tax incentives for areas such as property and explicitly indicated that **“whenever a date is set for the cessation of investment related tax incentives, strong vested interests will emerge to seek an extension of such deadlines.”** At the time of writing that book I hoped we would never see such levels of unemployment again but unfortunately the combined economic, fiscal and financial collapse heralded a period of high unemployment and emigration.

The issue of inequality is also relevant to the work of this Inquiry. Inequality has been a research interest and is the subject of a forthcoming book I am writing. I am currently working on an economic research project for a leading charity on the economic consequences of child poverty in Ireland, which was made even worse due to the economic and banking crisis. When I edited the book on International Perspectives on the Irish Economy I was particularly pleased that the Oxford economist, Professor Tony Atkinson who has pioneered research on inequality, agreed to my invitation to contribute a chapter on Poverty and

¹ This was one of my conclusions after I reviewed the evidence for a recent lecture debate I gave on Inequality to Annual Weidenfeld Lecture at Merton College, University Oxford on Friday 29 May 2015. I was influenced by the important recent research by Salvatore Morelli and the great Anthony B. Atkinson. In that lecture I outlined that inequality was not inevitable and resulted from poorly designed policies and had scandalous social and economic consequences and resulted in a divided and unequal society.

Inequality in Ireland. However, I did not at that time envisage poverty becoming worse as the Irish State approached the last decade in its 100-year history.

A key question which guided my views before and after the crisis was how to protect the interests of the State and taxpayers in a period of crisis. Focusing on how to protect the interests of taxpayers was the subject of the book I authorised on the Methods to Evaluate Public Expenditure, which was published by Gill and Macmillan and which stressed the importance of independent examination of the economic evidence on the costs and benefits of decisions against the appropriate counterfactuals or other options. Too restrictive a view on options often leads to policy mistakes. Protecting the interests of taxpayers has been a central theme of many of the research advisory investigations I have completed over three decades. This included research which highlighted waste in areas of public expenditure as diverse as tourism marketing, property-based tax incentives, film incentives for investors and state support for the greyhound sector. These prevented necessary expenditure on areas desperately in need of funds. My recent study on how to improve the impact and equity of agricultural taxation incentives also led to changes in the last Budget. The property tax incentives which were built up since the early 1990s are also part of the story of the Irish crisis. The research which I and my economist colleagues completed on the property-based tax incentives back in 2005 fundamentally rejected the interests of the property sector and the banks which were heavily dependent on the sector, and recommended the widespread abolition of these incentives. This was because our analysis indicated they were fuelling the property sector at a high cost to the Exchequer and were also regressive in terms of income distribution.

My advice at the Central Bank Board and to policymakers is a continuation of the impartial economic advice which I have given without fear or favour to governments in Ireland and Europe.

When I started my career as an economist in a government department I provided economic advice to the Minister who was the then Tánaiste and Leader of the Labour Party and on occasion to An Taoiseach Dr. Fitzgerald. I have since provided advice if asked, to Ministers of subsequent governments. I have considered this both an obligation as an economist and a privilege. Sometimes this advice has been unwelcome and on occasions has led to a reassessment of policies based on the evidence. When Mr. Cowen was Taoiseach I provided independent views to him. I and a number of other economists serve on the Government's Labour Market Council and I am a non-executive Director of the IDA.

While most of my professional work is for Governments in other countries I have accepted appointments by Irish governments to serve as an economist on government commissions and selected state bodies. I have never requested such appointments.

When I was offered an appointment as a non-executive Director of the joint Central Bank/IFSRA Board at the start of 2007, I gave careful consideration before accepting. I was aware of the constraints of any part-time non-executive Director. I also do not share the view of some economists who arrogantly believe they have a monopoly of wisdom and I knew that some of my assessments might not be correct. I was also concerned about risks in the Irish economy which had built up since 2000 and I knew it would be a difficult role.

Irish public discourse sometimes assumes that everyone is motivated by personal gain. Therefore I feel it is necessary to note that where I have given personal informal economic advice to Government Ministers, or where I have served on state boards, I have not done this for fees or for any personal gain. I have always requested that I receive no Director's fees

and I have never claimed expenses for such appointments and I have no public sector pension entitlements. When I was appointed as a part-time non-executive Director to the Joint Board of the Central Bank/IFSRA, I wrote to the Governor and explicitly asked to forego my Director's fees. This proved initially to be administratively difficult for the Bank and so I gave the fees to a charity. Subsequently in line with my request, the Central Bank found a mechanism to forego any payment of Director's fees to me.

When I was asked more recently would I join the board of the IDA, I indicated I would do so on condition that I receive no fees or expenses. I have never previously released this information nor do I seek any credit for it but this has been symbolically important to me to reinforce my freedom to express independent views and to prevent misrepresentations. This is not unusual for economists and many other economists in Ireland have given much greater time and more valuable inputs to Governments for decades. This continues a long tradition of independent economists being willing to give their professional views. For example, when I was a young student in Trinity College I was full of admiration for economists such as Professor Dermot McAleese and Professor Louden Ryan who with many others gave freely of their time to input to governments without any fees and usually without any recognition. Similarly, valuable advice was given from the late 1970s on by economists in the Dublin Economic Workshop even though in many cases unfortunately this advice was ignored. Later in the 1980s when I was part of an informal government review on industrial policy, I still remember the courteous and gently delivered but extremely harsh criticisms and insights given by Professor Louden Ryan to that group.

There is of course nothing unusual in Governments asking for views from economists, either by telephone or by their inputs at occasional meetings. This is the norm in nearly all advanced economies. Indeed in Ireland I think it would be better if such advice was more frequently obtained even if there is a personal risk for the economists in getting in the cross-fire of party political arguments. However if economists do not attempt to influence policy, based on the evidence in order to enhance economic welfare, then I think it questions the very rationale for the economics profession.

Separately, in my statement of evidence I have outlined details of advice I have given to Government Ministers or to officials of relevance to other areas of the Inquiry. A number of the specific areas of advice which the Inquiry has asked me to discuss are areas which I have no recollection of discussing or providing advice on and no documentation. One area not mentioned in the request was the issue of the subsequent liquidation of Anglo Irish Bank and I recall a discussion with an economist in the Department of Finance on this issue. On a different matter, I also recall a meeting in early October 2010 at the Department of Finance prior to the bail out where I and other external economic experts were requested to give our views.

I also have a recollection that at the time that NAMA was being considered, I was concerned how to protect the interest of the State if NAMA took loans from banks and if NAMA subsequently had to sell these at a loss. I remember thinking that one way of dealing with this would be to put a condition on the takeover of loans that if NAMA subsequently had to incur losses that these should be paid for by a future levy on bank profits. I don't recall, however, if I ever mentioned this to the Department of Finance or to the Governor of the Central Bank or to anyone in Government or to any other individual.

Annex 7: Independent Assessment of the Economy and Implications for Unemployment presented by Alan Gray to An Taoiseach Mr. Cowen and others at meeting and subsequent dinner on 28 July 2008 (Druids Glen Discussion) including Alan Gray's original detailed notes prepared at that time and highlighting concerns on the economy and suggesting that urgent action was needed if the decline in economy was not to accelerate.

The original notes which I prepared prior to the meeting and which I gave a copy at the time to An Taoiseach and possibly other guests are attached. Only the headings in black were circulated. The material in blue are my personal summaries of issues and rationale and points in blue were not circulated at the meeting. (While I dated the document the previous day, Sunday 27th July, I had worked on this during the previous week in my office and during the previous weekend. My recollection is that I discussed external views of the economy with some other economists. I would not, however, have revealed why I was asking for their views.)

The background is that I was invited to attend a meeting to discuss unemployment and the economy with An Taoiseach and it was scheduled for 28 July 2008. I was not involved in organising this event or deciding on attendees. Towards the end of the meeting An Taoiseach suggested it would be useful to continue the discussion that evening and asked if I could join the group for dinner. After the meeting I understood some of the other guests were due to play golf but I was not invited and I did not play golf. (I have never played golf) My memory is that I left the meeting before 2 o'clock. I returned to my office to work on some research. As requested I returned in the evening to continue the discussion.

I have always treated any advice I give as strictly confidential and this has often permitted me to offer strong views. However, when the discussion became a matter of public debate I felt that the balance of interest between public disclosure and professional confidentiality had shifted. I therefore issued a statement in the media concerning this discussion and I attach a copy of this. I have now taken the decision, to support the work of the Inquiry, to release the original notes which I used for my inputs to that discussion.

As reflected in my notes, I indicated my view that while Ireland had made remarkable achievements since the 1950s the country was facing its most difficult economic and employment challenge in over two decades and that the scale of challenge should not be underestimated.

Action was subsequently taken by the then Government in a number of these areas although not always based on my detailed suggestions and I would not have had the arrogance to expect this. Many of these issues have also been comprehensively addressed by the current Government.

I understood how these views might have sounded to some of the attendees who did not know me or how independent economists conduct themselves. More importantly I appreciated how difficult it might be to take action in these areas but I was obliged as an independent economist to tell it how I saw it based on the evidence and in the public interest. I felt however that the then Taoiseach was open to hearing my views and I have found the same experience of openness with most governments. He did not outline what decisions he would take or not on any of the issues and I would not have expected him to. The approach by An Taoiseach to the discussion was professional and he asked detailed questions as I gave my analysis.

BUILDING ON ACHIEVEMENT : DISCUSSION NOTES FOR OUTLINE OF A PLAN FOR ECONOMIC EXPANSION AND INCREASED PRODUCTIVITY WHICH REFLECTS SCALE OF CURRENT CHALLENGE

NOTES PREPARED BY ALAN GRAY ON SUNDAY 27TH JULY 2008 FOR MEETING ON UNEMPLOYMENT AND ECONOMY WITH AN TAOISEACH ON 28 JULY 2008

I had concerns that the achievements which Ireland had made in the late 1950s could be reversed unless action was taken.

1. OVERALL ASSESSMENT

- (i) IRELAND FACING ITS MOST DIFFICULT ECONOMIC CHALLENGE IN OVER TWO DECADES AND SCALE OF CHALLENGE SHOULD NOT BE UNDERESTIMATED.

In expressing this view it was very clear to me that the economy was starting to decline probably even more rapidly than indicated in the official economic statistics and which always are produced with a lag. I was also worried that the scale of the challenge of attempting to prevent the Irish economy going into free fall and the impact for unemployment could be understated. This was evident to me even before the disastrous impact on the world economy arising from the Lehman Brothers bankruptcy the following September which no one could have predicted.

- (ii) IRELAND HAS BEEN HIT BY FOUR MAIN INTERNATIONAL DEVELOPMENTS, NAMELY: GLOBAL CREDIT CRUNCH; UNPRECEDENTED INCREASES IN ENERGY PRICES; DECLINE IN INVESTOR AND CONSUMER SENTIMENTS; AND RISING EUROPEAN INTEREST RATES.

I briefly referred to international factors which had contributed in part to the crisis.

- (iii) IRELAND'S POSITION HAS BEEN ESCALATED BY SOME KEY DOMESTIC ISSUES, NAMELY OVERDEPENDENCE ON CONSTRUCTION SECTOR WHICH IS IN DRAMATIC DECLINE, PUBLIC SECTOR EXPENDITURE INCREASING AT A RATE WHICH CAN NO LONGER BE AFFORDED, A SIGNIFICANT DECLINE IN COMPETITIVENESS AND INEFFECTIVE COMPETITION AND LOW PRODUCTIVITY IN KEY SERVICES SECTORS.

I wanted also to stress that it was not just international factors which were at work but an overdependence on the construction sector. I felt at the time this was in dramatic decline and I was deeply concerned for the impact on unemployment although I felt a significant downsizing of the construction sector was both inevitable and desirable. I also gave my view that the growth in public expenditure could not be afforded and I referred to scale of decline in competitiveness and ineffective competition which economists had been pointing out for some time.

- (iv) COMBINATION OF INTERNATIONAL AND NATIONAL DEVELOPMENTS HAS LED TO A STAGNANT ECONOMY IN CONTEXT WHERE RAPID GROWTH WAS ASSURED AS A RIGHT AND THIS COMBINED WITH SHARPLY DECLINING ASSET VALUES AND FEARS RE ECONOMIC PROSPECTS IS LEADING TO A SHARP LOSS IN INVESTOR AND CONSUMER CONFIDENCE. POSITION HAS BEEN MADE WORSE DUE TO UNCERTAINTY FROM REJECTION OF LISBON TREATY.

The contribution of these international and national economic factors was leading to a collapse in confidence and asset values and I thought it had been made worse by the recent rejection of the Lisbon Treaty in Ireland. I was concerned about the impact of this on unemployment.

- (v) DESPITE THESE FACTORS, IRISH ECONOMY HAS UNDERLYING STRENGTHS INCLUDING QUALITY OF INDIGENOUS COMPANIES, SCALE OF FOREIGN DIRECT INVESTMENT, TALENTED PEOPLE, LOW GOVERNMENT DEBT, ENGLISH SPEAKING EU COUNTRY, SKILLED LABOUR FORCE AND ENTREPRENEURIAL BASE.

I noted that the economy had strengths which had resulted in remarkable achievements since the late 1950s and which had meant Ireland had grown very rapidly in the period to 2000.

- (vi) GIVEN DEVELOPMENTS IN INTERNATIONAL ECONOMY AND DOMESTIC DEVELOPMENTS IT IS SURPRISING THAT IRISH ECONOMY IS NOT IN A DEEP RECESSION AND THIS REFLECTS UNDERLYING STRENGTH.

The underlying strengths and the fact that FDI had not collapsed had resulted in the economy not yet being in a deep recession and I expressed my opinion that this was surprising to me as an economist.

- (vii) HOWEVER, UNLESS THERE IS A DECISIVE AND MARKED TURNAROUND IN CONSUMER AND INVESTOR CONFIDENCE, THE DECLINE IN ECONOMIC PERFORMANCE COULD ACCELERATE.

I however indicated that I felt unless there was a decisive and marked turnaround, the decline in the economy would accelerate with resultant impacts on unemployment and investment.

- (viii) WHILE ACCEPTING THAT THE SPEED OF DECLINE WAS UNANTICIPATED AND THAT 'NEW' GOVERNMENT IS ONLY MONTHS IN PLACE, THERE IS WIDESPREAD BELIEF THAT THE RESPONSE BY GOVERNMENT TO DATE IS NOT SEEN AS ADEQUATE. PERCEPTION THAT MAIN RESPONSE HAS BEEN SOME ADJUSTMENTS TO PUBLIC FINANCES, EXHORTATIONS NOT TO TALK ECONOMY INTO RECESSION AND UNCERTAINTY HOW TO RESPOND TO LISBON REJECTION.

I accepted that while the Taoiseach was only leader of Government for a number of months I felt a responsibility to give my view that there was a belief among Irish and international economists that the response to date to the emerging economic crisis was not adequate.

- (ix) NEED FOR A CREDIBLE AND RADICAL ECONOMIC PLAN TO BE PREPARED AND 'SOLD' IN IRELAND AND INTERNATIONALLY. SUGGEST THIS SHOULD BE TARGETED FOR LAUNCH IN SEPTEMBER. PLAN SHOULD BE NEW 5 YEAR PLAN FOR ECONOMIC EXPANSION AND INCREASED PRODUCTIVITY AND SHOULD BE FOCUSED ON CONTINUING IRELAND'S ACHIEVEMENTS.

I indicated that there was a need for a radical economic plan to be prepared.

- (x) WITH AN EFFECTIVE PLAN THERE IS OPPORTUNITY TO REVERSE INVESTOR AND CONSUMER SENTIMENTS AND RETURN IRISH ECONOMY TO A SUSTAINED GROWTH PATH. PLAN MUST NOT SIMPLY BE A PUBLIC FINANCE RESPONSE.

I suggested there was a potential opportunity to reverse the decline in the economy but I was not sure if this could be achieved and would not be easily achieved but what was clear was that action was needed.

2. PRELIMINARY IDEAS FOR CONSIDERATION RE NEW ECONOMIC PLAN

SUGGEST PLAN SHOULD INCLUDE 6 KEY AREAS OF RESPONSE:

I suggested the economic evidence was that a Government response in six areas was needed and I felt that most respected independent economists would share my views. The six areas I outlined were as follows:

(i) MEASURES TO IMPROVE COMPETITIVENESS OF ECONOMY AND ATTRACTION FOR INWARD INVESTMENT.

The decline in competitiveness was well known and would need to be tackled. I also felt some contraction in domestic demand was probably necessary and so the focus should be on export led growth and the attraction of inward investment.

(ii) MEASURES TO ADDRESS ADJUSTMENT IN CONSTRUCTION AND HOUSING SECTOR.

The biggest concern I felt in this area was the implications of the inevitable and necessary decline in the construction sector of high numbers employed in this sector. I also knew that these skills were not in general transferable to the export sector and so specific programmes would be needed. I was also concerned of the impacts of lower income groups and first-time buyers being able to get housing.

(iii) CUTS IN PUBLIC EXPENDITURE.

I indicated that I was very well aware of how expenditure cuts could impact on individuals but I felt there was no alternative for the economy. I know there were continuing demands within Irish society for more expenditure and while each case could have merits when viewed in isolation, in terms of appropriate economic policies I saw no option but to cut public expenditure. I thought the real issues related to what expenditure programmes would be cut taking account of the impact on equity and on employment.

(iv) SIGNIFICANT PUBLIC SECTOR REFORM.

I felt that in the boom times, reform of the public sector had not been introduced and there were a proliferation of agencies and other concerns. This reflected my experience as a member of a previous OECD expert group on public sector reform.

(v) REMOVAL OF BARRIERS TO EFFECTIVE COMPETITION IN KEY SERVICES SECTORS.

The extent of vested interests in a wide range of services sector was a long standing concern of mine and of many economists and reflected in many of my previous publications.

(vi) INTRODUCTION OF OTHER INNOVATIVE POLICIES IN A RANGE OF AREAS.

I also suggested that other innovative policies should be introduced.

On the detailed ideas I indicated I was much more uncertain of what was appropriate and that these would need to be very carefully assessed to see if they were desirable or would have unintended consequences. I therefore said that these should be seen as very illustrative brain storming ideas and were only preliminary ideas for consideration and that expertise outside of mine would be required to decide on their merits but it might be useful for the Government and their advisors to think of the type of ideas which could be considered.

(I) MEASURES TO IMPROVE COMPETITIVENESS OF ECONOMY AND ATTRACTION FOR INWARD INVESTMENT

(A) CONSIDERATION OF FURTHER REDUCTION IN IRELAND'S CORPORATE TAX RATE:

- Recognises key attractiveness of tax rate for inward investment
- Provide 'new product' for Ireland Inc. to market
- Possibility for rate cut to 11% or 9%
- Need to ensure state-aid compliance but potential to reduce rate if appropriate seems clear cut
- Could be combined if required with some technical adjustments to reduce exchequer costs
- Potentially could be some restrictions on time base e.g. only apply to existing firms or firms establishing in Ireland over next 3 years
- Potentially could be some delay in triggering of new rate. For example, will apply from 2010 for firms established before that date
- If this stimulated significant investment could be revenue enhancing
- Likely to be significant impact on confidence and indication of government action.

Ireland had a low 12.5% corporate tax rate and previously had 10%. In my mind however the Exchequer received a lot less than 12.5% in effective returns due to numerous technical factors and tax planning structures. I thought there might be merit in considering a change in the basic rate to 11% or 10% or 9% but I stressed the need to consider a wide range of issues including state aid compliance, whether it was appropriate or not and ways to remove 'deadweight'.

I suggested this as I knew that inward investment and export growth was the only way Ireland could halt the decline in a context of inevitable contraction in domestic demand. I also knew that many other countries had lower 'effective tax rates'. I felt there was a potential to remove certain technical treatments of FDI tax which had enabled some companies to pay zero tax. I felt on balance this may or may not be the right solution but could lead to other ideas.

(B) INTRODUCE A FIRST YEAR CORPORATE PROFIT TAX EXEMPTION FOR NEW SMALL BUSINESS START-UPS CONCERNING OPERATION OVER NEXT 24 MONTHS:

- Signal support for innovators and risk takers in difficult market environment
- Provide opportunity for individuals who lose job in current downturn
- Promote confidence

I indicated that I had more confidence that a targeted initiative for new small start-ups would merit very careful consideration. I was thinking in particular of those in the construction sector who I thought were likely to lose their jobs and who should be supported in micro businesses.

(C) NEW INITIATIVE TO ESTABLISH IRELAND AS BEST LOCATION FOR PREMIUM SCIENCE BASED KNOWLEDGE:

- Establish Taoiseach Council of international scientists comprising exclusively of Nobel Prize Winners in Science
- Reallocation of €50 million of existing SFI Funds to an elite programme involving universities to attract to Ireland Nobel Prize Winners and Nobel Prize Nominees in Science to lead research projects in Ireland
- IDA (Ireland) and SFI to target inward investment in new emerging areas of applied research
- Open Door Visa and Citizenship Programme to be introduced to attract first class scientists to Ireland
- Professor Exchange Programme to be developed with leading US and Irish Universities
- E-Science initiative to be developed by IDA (Ireland) and SFI to give Ireland leadership in this emerging field which links internet based tools with supercomputers, high speed networks and software for simulation in scientific research

I indicated that there were potential initiatives to enhance knowledge based activities which I had seen in other countries in my role as Chairman of London Economics, but these would need to be evaluated.

(D) INTRODUCTION OF SPECIFIC INITIATIVES TO IMPROVE COST BASE FOR FIRMS IN IRELAND:

- Specific proposals to be developed over next month

I indicated that I was not in a position to give even illustrative preliminary ideas on this but that it should be possible for the key government departments and agencies to develop ideas.

(E) ENTERPRISE IRELAND TO BE GIVEN NEW RESPONSIBILITIES FOR SERVICES SECTOR:

- Assisting sector to internationalise
- utilising overseas service firms in Ireland to access export opportunities for Irish firms
- highlighting business success models

I indicated that there may be potential for indigenous services to internationalise and this could compensate in a small way for the downturn in employment which I thought could arise in such firms.

(F) REVISED EQUITY START UP INVESTMENT SUPPORT FOR NEW FIRMS:

- Specific proposals to be developed over next month

I again indicated this was an issue which the agencies and departments could be asked to develop ideas on over the following month.

On the ideas to deal with the implications for unemployment of the rapid decline in construction and housing I felt these in particular would need to be evaluated with great care and were only illustrative for consideration of possible types of ideas.

(II) POSSIBLE MEASURES TO ADDRESS ADJUSTMENT IN CONSTRUCTION AND HOUSING SECTOR

(A) PROVISION OF MEDIUM TERM CREDIT FUND FOR HOME OWNERSHIP TO BE OPERATED JOINTLY WITH FINANCIAL INSTITUTIONS:

- Similar to previous Irish Government EIB/Banks loan scheme for Enterprise Ireland companies
- Restricted to loans for purchase of principal private residences in Ireland
- Not available for purchase of investment properties
- Not available for purchase of commercial properties
- Not available for purchase of holiday homes
- Standard credit terms to apply
- Fund available to access by Irish and overseas credit institutions providing funds lent for purchase of principal residences in Ireland
- Certain size limits to apply e.g. loans of >€0.75m

I suspected that those wishing to buy a new house might need some credit support but this would need careful examination. I stressed, however, it should not be for property developers and should only be available for housing for families for their principal permanent residency and should be restricted to loans below a certain level. I suggested this would need to be evaluated in much more detail.

(B) FASTER TURNAROUND TIME FOR PLANNING DECISIONS BY LOCAL AUTHORITIES AND AN BOARD PLEANÁLA:

- Reflecting potential for productivity improvements due to reduced number of planning applications

(C) NEW CONSTRUCTION SECTOR EXPORT UNIT TO BE ESTABLISHED BY ENTERPRISE IRELAND TO ASSIST CONSTRUCTION COMPANIES AND RELATED SERVICES TO EXPLOIT OVERSEAS MARKET OPPORTUNITIES:

- Services to be offered to construction firms, architects, engineers, quantity surveyors and estate agencies
- Ireland's overseas Embassies to support Enterprise Ireland's new unit to secure opportunities
- Export Market Opportunities Evaluation Grants Programme to be introduced for construction firms
- Assistance for Irish construction firms to establish overseas offices to be provided

One of my main concerns on the evidence of the decline in construction which I expected would accelerate was the impact on employment but I felt there were limits to what could be achieved and that a decline in construction was appropriate. However, I felt that if measures were introduced to help construction workers and firms find employment on overseas projects it could minimise to some extent the scale of collapse in unemployment.

(D) NEW FIRST TIME BUYER MORTGAGES TO BE PROVIDED BY NTMNA/HOUSING FINANCE AGENCIES:

- Expanded fund of €200m to be provided
- Revised eligibility terms to be introduced

The Housing Finance Agencies were focused on lower income families most in need and if we were to prevent homelessness I thought this group should be significant. I had particular personal reasons for my interest in this area.

(E) GOVERNMENT GUARANTEE NO TO RING FENCE EXISTING MORTGAGE INTEREST TAX BREAK AND STAMP DUTY EXTENSION FOR FIRST TIME BUYERS FROM ANY CUTS IN PUBLIC EXPENDITURE WHICH WILL BE INTRODUCED OVER PERIOD OF PLAN:

- Provide certainty to housing market for next five years on continued existence of supports
- Provide certainty for purchases in evaluating affordability

I thought that mortgage interest rate tax supports should be radically reduced both on equity grounds and to dampen prices in the property market. I felt however that those first-time buyers who had recently bought or were considering buying should be protected.

(F) RE-PHASING OF TIMING OF ELEMENTS IN NATIONAL DEVELOPMENT PLAN TO ACCELERATE SMALLER SCALE LABOUR INTENSIVE CONSTRUCTION PROJECTS:

- e.g. schools
- Details of accelerated investments to be announced

My concerns on likely levels of unemployment for construction workers led me to suggest a focus on more labour intensive small construction projects as the employment impact would be greater.

(G) CONSIDERATION OF A HOME BUY SCHEME:

- Involves households within certain income groups to part buy/part rent a premises
- UK Government has a similar scheme
- Less certain of this idea but may merit further consideration and probably better than local authority housing
- New Zealand government have recently introduced a similar first-house buyer scheme in May 2008 involving an interest free second mortgage in exchange for Government owning a portion of the property

As I was very aware that people were being priced out of the housing market and knew the dangers of homelessness, I felt that targeted measures to help lower income groups would be worth consideration, rather than the mad investor-led incentives of the past. I also thought this could help slightly reduced the unemployment impacts.

(H) SALE OF LOCAL AUTHORITY HOUSING AND USE OF FUNDS TO INVEST IN CONSTRUCTION PROJECTS

I was of the view that selling local authority housing to existing tenants but not to investors could provide a fund for necessary social housing even in periods of cutbacks with positive impacts on employment. I knew that completion of new local authority housing in Ireland had been running at over 6,000 per year in the previous few years but I knew that if the recession hit badly local authorities would be squeezed to reduce new builds. I felt this proposal would however enable social housing to be protected in expenditure cuts and would have a beneficial impact on construction employment.

On cuts in public expenditure I knew these would have impacts and I did not feel I had expertise to identify areas but I outlined some general points. I also felt these were political decisions outside of my expertise as an economist.

(III) CUTS IN PUBLIC EXPENDITURE

- SET OUT IN PLAN BUDGETS TARGETS
- OUTLINE IN DETAIL PRECISE AREAS FOR CUTS. DON'T WAIT TILL BUDGET
- INDICATE WILLINGNESS TO NOT ACCEPT PUBLIC SECTOR PAY DEALS WHICH ARE NOT AFFORDABLE
- INDICATE NEED FOR PAY FREEZE FOR SALARIES ABOVE CERTAIN LEVELS

I felt strongly on income equality grounds a differential approach should be taken to wealthier high income individuals and those with more modest incomes.

- ISSUE OF SYMBOLIC CUTS IN CABINET PAY

While I felt a little outside of my comfort area as an economist suggesting to the Taoiseach that the Cabinet should face pay cuts, I believed in the importance of such symbolic acts and so I included this in my notes.

- PUBLIC SECTOR RECRUITMENT EMBARGO OUTSIDE OF HEALTH/ EDUCATION
- EXTENSION OF TARGETED REDUNDANCY SCHEME FOR AGENCIES AS WELL AS FOR HSE
- REVISIONS TO SELECTED TAX BREAKS

On tax breaks I felt there was a wide range of tax breaks on areas such as pensions etc. which were very regressive and were benefitting highest income groups and which could not be justified as the economy moved into recession.

(IV) SIGNIFICANT PUBLIC SECTOR REFORM

On public sector reforms I felt the need to take action and to influence decisions.

- (A) ANNOUNCE FINAL DECISIONS ON AGENCY RATIONALISATION
- (B) IMPLEMENT DECISIONS
- (C) ADDITIONAL TASK FORCE PROPOSALS

These reflected my views of experience of OECD expert group on public sector reform.

(V) REMOVAL OF BARRIERS TO EFFECTIVE COMPETITION IN KEY SERVICES SECTORS

- RANGE OF AREAS REQUIRING DECISION
- SPECIFIC PROPOSALS CAN BE DEVELOPED OVER NEXT MONTH

I indicated that the Competition Authority and Government Departments as well as inputs from external economists should be able to develop proposals.

I also indicated the need for other innovative actions but that I was not able to even give preliminary ideas for testing.

(VI) INTRODUCTION OF OTHER INNOVATION POLICIES IN A RANGE OF AREAS

- EDUCATION
- ENVIRONMENT
- OTHER

3. SUGGESTIONS RE PROCESS AND INDICATIVE TIMELINES

I pointed out that if An Taoiseach felt there was a need to prepare a plan to attempt to turn around the economy there were a number of potential options for how this could be done. I thought the two most appropriate were either a civil service led plan or a publicly appointed group. The later I saw as having some merits and what I had in mind was the initiative in the 1980s chaired by Professor Loudon Ryan which prepared 'Proposals for a Plan'. I felt it probably should also be led by the Minister and Department of Finance but that these were only my own ideas and I was not sure of this as they were matters for Government decision and not for me to recommend.

OPTIONS

- (I) CIVIL SERVICE TO PREPARE PLAN
- (II) PUBLICLY APPOINTED GROUP
- (III) PRIVATE HAND PICKED TEAM OF ADVISERS
- (IV) SECRETARY GENERAL FINANCE/MINISTER FOR FINANCE TO BE TASKED WITH PREPARING THE FIRST DRAFT WITH POLICY DIRECTION AND SPECIFIC IDEAS TO BE INPUTTED BY AN TAOISEACH AND TO UTILISE ADVISERS TO REVIEW AND FINALISE
- (V) DRAFT FOR GOVERNMENT DECISION.

DETAILED SUGGESTIONS ON PROCESS TIMELINES (PRESENTED OVERLEAF)

- ACCEPT TARGETS MAY BE UNREALISTIC BUT REFLECTS VIEWS ON URGENCY

On timescale I was very concerned about the speed of what was happening in the economy and my concerns over unemployment and thought I should outline very ambitious targets to reflect this but I knew the timescales were not realistic but I thought it should not be postponed for consideration until after the summer and work should begin as soon as possible.

DETAILED SUGGESTIONS ON PROCESS/TIMELINES	INDICATIVE TIMESCALE
1. MINISTER FOR FINANCE/SECRETARY GENERAL TO BE BRIEFED AND TASKED WITH PREPARING DRAFT	DRAFT BY 3 RD WEEK AUGUST
2. TAOISEACH TO WRITE PERSONALLY TO CHIEF EXECUTIVES OF TOP 100 COMPANIES AND SOCIAL PARTNERS AND POSSIBLY SELECTED OTHERS INVITING INPUTS/SUGGESTIONS ON KEY AREAS SUCH AS IMPROVING IRELAND'S COMPETITIVENESS	2 ND WEEK AUGUST
3. CABINET TO BE BRIEFED AND ASKED TO INPUT IDEAS TO MINISTER FOR FINANCE	2 ND WEEK AUGUST
4. FIRST DRAFT TO BE EVALUATED AND REVISED	4 TH WEEK AUGUST
5. PRESENTATION TO CABINET FOR DECISION	1 ST WEEK SEPTEMBER
6. PLAN TO BE ANNOUNCED TO DÁIL AND SUBSEQUENT PRESS CONFERENCE INVOLVING BUSINESS LEADERS AND SOCIAL PARTNERS	2 ND WEEK SEPTEMBER
7. SUMMARY OF PLAN TO BE SENT TO ALL MULTINATIONALS AND IRISH COMPANIES AND A SHORTENED VERSION TO EACH HOUSEHOLD	2 ND WEEK SEPTEMBER
8. INTERNATIONAL PRESS CONFERENCE	
9. NATIONAL TOUR OF PLAN	
10. INTERNATIONAL MARKETING OF PLAN	

4. NEXT STEPS

1. TAOISEACH TO DECIDE ON MERITS OF PREPARING A SPECIFIC PLAN

I indicated that I was not 100% sure on the merits of developing a specific plan but I was certain on the need for decisions.

2. IF IT IS DECIDED TO PROCEED, TAOISEACH TO DECIDE ON KEY PROCESS/TIMESCALES AND MERITS OF SPECIFIC IDEAS

I indicated that the appropriate process and timescale and the merits of any ideas would need to be carefully evaluated.

3. ORGANISE IMPLEMENTATION

Details of My Public Statement on January 13, 2001

As I mentioned as a professional economist I would not normally release any details of confidential discussion. However, I decided to issue a public statement when this meeting became a subject of national debate. I was very conscious of standard professional procedures on confidentiality. I was also aware of other constraints as I had in earlier years signed the Official Secrets Act and I also had specific constraints under the Central Bank 1942 Act, but I did not think these applied. I was uncertain, however, what to release and whether to release my detailed notes or not.

A copy of my previous statement which led to a subsequent Dáil Debate on 13 January 2011 is a matter of public record and I present this below.

As I have indicated elsewhere in my evidence to the Inquiry there was no discussion of banking issues or of Anglo Irish Bank or related matters either at the dinner or at the previous meeting which I attended or at any other time when I was present.

Irish Times: Full text of Alan Gray statement

First published: Thu, Jan 13, 2011, 00:00

Full text of the statement made by Alan Gray about an informal dinner with the Taoiseach.

Indecon managing partner, Mr Alan Gray, is happy to confirm he was invited to attend an informal dinner with the Taoiseach in Druids Glen on Monday 28th July, 2008. The purpose of the invitation was to provide independent ideas to stimulate economic growth and to reduce unemployment in Ireland.

The attendees at the dinner comprised An Taoiseach, Mr Fintan Drury, Mr Gary McGann, Mr Sean Fitzpatrick and the Taoiseach's driver.

Mr Gray met Mr Fitzpatrick for the first time on that date, 28th July 2008. Indecon confirms that the practice has never acted for Anglo, and Anglo were never a client of the firm.

As a leading economist and author, and head of the largest economic consultancy practice in Ireland, Alan Gray has been invited to give his views on economic and unemployment policies to respective governments in Ireland and governments internationally. Alan Gray edited the book on Responses to Irish Unemployment and was also author of the book on Employment Potential in Irish Manufacturing in the 1980's.

At no time when Mr Gray was present at the dinner was there any discussion of banking issues or of Anglo Irish Bank or any related matters. The discussion focused exclusively on initiatives to encourage new small indigenous firms, and measures to attract additional investment to Ireland and other responses to unemployment.

Mr Gray did not play golf with the group.

Annex 9: Details of Interactions with Anglo Irish Bank in 2008

I would like to make some additional comments for the Inquiry on the details of the two short interactions which I had with representatives of Anglo Irish Bank later during 2008. As I have indicated elsewhere I would normally have felt very constrained in commenting on any meeting or any discussion. However, I decided to issue a public statement on this when the meeting at Druids Glen became a matter of national debate. I needed to balance normal professional confidentiality with wider public interest. A copy of my statement is attached. In commenting on this I have been careful in the light of future legal cases but I do not think anything I have raised in my evidence is relevant to this. I also know that some people who hear that anyone who met individuals associated with a bank might mistakenly believe that one acts for that organisation or that you reflect their views. If one's sense of independence is determined by who one meets or who one talks to, it is of a different type than is in the DNA of all economists I respect.

The brief interactions took place at a time when Anglo was viewed as a solvent public quoted company.

I would also like to put on the record that:

- ☐ I had no personal or financial or other relationship with Mr. Drumm or Mr. Fitzpatrick or with Anglo Irish Bank. While I have subsequently heard of corporate entertainment by Anglo Bank to rugby, soccer, golfing and other outings I was never invited to any of these, nor would I have had any interest in being invited.
- ☐ I also confirm I never took any action nor made any representations on behalf of Anglo nor would ever have agreed to. I have never presented any proposals on any issue from Anglo to An Taoiseach or to any members of the Government or any government official or anyone in the Central Bank or to any other persons at any time. In terms of fair process I also would like to note that no one from Anglo has ever asked me to take action on their behalf or to make representations on their behalf.
- ☐ If anyone thought I would make representations on their behalf or give such an interaction an undue significance by mentioning it to senior policymakers this would have been a mistake. In terms of fair procedures I again wish to clarify that I am not suggesting anyone had such views at the time.
- ☐ I also confirm I have never held any shares in Anglo Irish Bank.
- ☐ I have never sought or obtained any loans from Anglo.
- ☐ I have never had any financial or professional and other dealings with the Bank.

Irish Times: Alan Gray statement

First published: Fri, Jan 14, 2011, 00:00

Gray confirms he held two additional meetings with Anglo officials

To ensure that there is full information on the public record, economist Alan Gray has confirmed to *The Irish Times* that early in September 2008 Mr Sean FitzPatrick called his office and indicated that he was close to his premises and requested a short meeting. Mr FitzPatrick did not indicate the purpose of this meeting in advance.

At the meeting, Mr FitzPatrick indicated that the Irish banking sector was experiencing liquidity difficulties. Mr Gray indicated that this was well known in the market and recommended that the appropriate channel to discuss this was for Anglo Irish Bank to contact officials in the Central Bank. Mr FitzPatrick indicated that they were already informed and the meeting concluded after a number of minutes.

To Mr Gray's surprise, late in September, possibly on the 29th, Mr FitzPatrick and Mr Drumm arrived unexpectedly at his office. When they were met, they expressed their view that due to the crisis in the international financial markets, Anglo were experiencing extremely severe liquidity difficulties – a fact which was of no surprise to Mr Gray as this was by now well known in the financial markets. Mr Gray again indicated that they should discuss this with the Central Bank officials and they indicated that this had been done. Mr Drumm had a presentation with him but did not give this to Mr Gray and he used it as brief speaking notes. They did not ask Mr Gray to take any action or make any representations to any other parties. Mr Gray then concluded the meeting which in total had lasted approximately five to 10 minutes.

Mr Gray did not discuss this with any other parties and at no stage ever made any representations of any kind on behalf of Anglo Irish Bank. Mr Gray confirms he did not discuss this with the Taoiseach, or with anybody else.

On the night of the Government guarantee, Mr Gray confirms that An Taoiseach contacted him by telephone to obtain his views as a director of the Central Bank on the likely market reaction, if a Government guarantee was introduced. In the discussion, Mr Gray raised the issue of the importance of considering State aid issues and suggested that if there was any guarantee, a fee should be charged through the banks, and that it should be time limited.

Following the nationalisation of Anglo Irish Bank, Mr Gray's own views were in favour of the early wind down of the bank. At all times Mr Gray has acted properly in the public interest without fear or favour of any vested interest. He is non-political and is a respected independent economist. Mr Gray previously directed the radical major review of property-based tax incentives, where he recommended the wholesale abolition of these incentives which he believed were artificially increasing property prices.

As is a matter of public record, at his first meeting of the Central Bank Board, in 2007, just before the emerging crisis in the international markets, the decision was made by the board to significantly increase the capital requirements on speculative property loans in Irish banks. Mr Gray strongly supported this decision.

Mr Gray had no subsequent meetings with any officials from Anglo Irish Bank. As indicated previously, Anglo has never been a client of Indecon and neither Indecon nor Alan Gray have ever represented Anglo in any context.

While matters concerning Mr Gray's views and contacts are normally confidential, he has decided to release the above information in the public interest.

Mr Gray will be making no further comment on this issue.

Annex 12: Extracts from other Independent Economists Assessment of Bank Guarantee

In assessing the Guarantee Decision as well as considering my documented evidence there are a number of aspects of analysis undertaken by other economists that I believe are particularly insightful and on which I agree. In particular I refer to previous analysis undertaken by Professor Patrick Honohan and the very important external view given by Professor Antoin Murphy from Trinity College.

Professor Honohan noted in his important investigation into the Irish Banking crisis completed in May 2010 that:

“Closure of all, or a large part of the banking system would have entailed a catastrophic immediate and sustained economy – wide disruption involving very significant, albeit extremely difficult to quantify, social costs, reflecting in particular the fundamental function of the payment system in a modern economy. These costs would have been broad-based in terms of income, employment and destruction of the value of economic assets and would have been on top of the necessary downturn which has actually occurred.”

From my understanding this was the main rationale for the original guarantee decision proposed by the Department of Finance and by the Governor of the Central Bank at the Emergency Board Meeting of 25 September and indeed is my interpretation of the rationale for guarantees introduced by the UK Government and by a number of governments in other countries.

Governor Professor Honohan’s view in May 2010 was that “given the perceived lack of solvency problem at Anglo (or the other banks) on balance a guarantee seems to have been the best approach, not least because no clear and effective medium-term solution appeared available.” This, however, does not in any way underplay the high costs of the Guarantee. I note Professor Honohan’s other strong criticism of the Guarantee concerning the categorisation of assets covered and in particular in relation to bondholders.

There is now understandably a debate over certain details of the Guarantee and over the inclusion or otherwise of subordinated debt in the Guarantee. As I indicated in my evidence, I find it morally indefensible that Ireland was not permitted to subsequently impose loss sharing arrangements on the bondholders. However, what was the appropriate decision at the time of the merits of including them or not in the Guarantee is not something I have considered in detail but the impacts of this may be much less than envisaged. The impact of Ireland being forced not to impose losses was, however, significant.

At the time of the guarantee the issue of either inclusion of subordinated bond-holders was not presented as options to the Board of the Central Bank for consideration or discussed at the Board.

On the overall appropriateness of the Guarantee, while (from the time I heard of this as an option on September 25th at the Central Bank Board) I had been arguing for consideration of other options, by the time of the guarantee decision, it was in my judgement the sensible option of the ‘terrible’ options available. However, having to guarantee a complete banking system could never be seen as an attractive option. There can also be legitimate debate about aspects of this decision. My judgement having considered this very carefully in the last six years is that it was the least-worst option among a number of options which were by then available. The most insightful independent analysis of this has in my view been undertaken by Professor Antoin Murphy and by Dr. Donal Donovan which concluded that:

“Taking into account the very substantial costs that would otherwise have been incurred, the guarantee decision of 29 September 2008, despite its high cost consequences, nonetheless may have been ‘the least worst’ solution available. The granting of the guarantee was not the ‘big mistake’ that caused Ireland’s financial crisis – the crisis was due to the very serious errors of judgement made by many institutions and individuals long before end-September 2008.”

However, I strongly believe the Guarantee was never going to be a solution to the underlying problems but prevented a systemic run on the Irish banking sector. In my view major errors were made prior to and post the Guarantee which were of much more significance.

**Annex 14: Simplified Model demonstrating the economic linkage between
Liquidity and Solvency**

This technical note is important in highlighting the link between liquidity and solvency. The lack of focus on this was I think part of the issue with stress testing and also may explain why the assessment of capital adequacy of the banks was misjudged by the banks and by independent financial advisers.

Model of Bank Behaviour and Liquidity and Solvency

Accounting Identities:

Equation 1 Assets == Liabilities

$$C + L \equiv E + D$$

C = Cash + liquid reserves with Central Bank, etc.

L = loans, lending

E = equity capital

D = Deposits + Debt (we can think of these as the same for now; generalisation to Debt + Deposits at different rate is possible).

Assumed Behavioural Motivation:

Banks maximise profits by making (choosing) loans, L , at a margin over their capital.

Equation 2 $\max_L \pi = (r + \delta)L - r(E + D)$

s.t.: Liquidity constraint

s.t.: Solvency constraint

Where:

p = profit per annum;

r = interest rate/cost of funds – (this can be thought of as WACC); $0 < r < 1$

δ = margin on lending over r . $0 < \delta < 1$;

Competitive equilibrium assumption:

Assume δ is set by a Bertrand Competitive equilibrium between a duopoly of banks. We can think of δ as then being a minimum competitive level of retail margin, such that banks cover their operating costs. (We've omitted these from the model without loss of generality as they would just shift the profits function down, and then δ would have to be set such as to cover them.)

Now given the above, the bank could potentially make infinite profits as long as loans and capital can be increased. Alternatively, there may be adequacy constraints for liquidity and solvency as well.

Liquidity Constraint:

Equation 3 $C \geq R_L(E + D)$

The liquidity needs are generally a function of equity and debt and deposits, and set in terms of a liquidity ratio, R_L , $0 < R_L < 1$.

Solvency Constraint:

Equation 4 $\frac{E}{D} \geq R_S$

The Solvency Constraint is generally in terms of some minimum ratio of equity to debt in terms of market value, or book value. For now, this can be a market or regulatory constraint or both; R_S , $0 < R_S < 1$.

In what might be 'normal' times, the bank's liquidity constraint is binding and the solvency constraint is not.

Equation 5 $C = R_L(E + D)$

But by the accounting identities:

Equation 6 $(E + D) - L = R_L(E + D)$

Rearranging:

Equation 7

$$-L = (R_L - 1)(E + D)$$

Equation 8

$$L = (1 - R_L)(E + D)$$

Substituting into the profit equation:

Equation 9

$$\pi = (r + \delta)(1 - R_L)(E + D) - r(E + D)$$

Equation 10

$$\pi = (r(1 - R_L) + \delta(1 - R_L))(E + D) - r(E + D)$$

Equation 11

$$\pi = (r(1 - R_L) + \delta(1 - R_L) - r)(E + D)$$

The liquidity constraint when binding forms a binding constraint on the bank and limits its profits to a function of the interest rate/cost of funds, r , the retail margin δ , and the liquidity requirement ratio, R_L , only.

Writing the rate of profit on capital:

Equation 12

$$\frac{\pi}{(E+D)} = r(1 - R_L) + \delta(1 - R_L) - r$$

Equation 13

$$\frac{\pi}{(E+D)} = -rR_L + \delta(1 - R_L)$$

Equation 14

$$\frac{\pi}{(E+D)} = \delta(1 - R_L) - rR_L \geq 0$$

Equation 15

$$\delta > r \frac{R_L}{(1 - R_L)}$$

The bank makes positive profits if the margin is sufficiently over the cost of funds, adjusted for the liquidity constraint. For some normal values, as an illustrative example:

Equation 16

$$\frac{\pi}{(E+D)} = \delta(1 - R_L) - rR_L$$

Setting $\delta=0.05$, $R_L= 0.1$, and $r = 0.025$

$$0.0425 = 0.05(1 - 0.1) - 0.025(0.1)$$

It is useful to consider an illustrative table of values. If the margin is low enough over the cost of funds, or if the ratio is too high, the bank will not make positive profits. A table is presented overleaf.

rate of profit	delta	RL	r	rate of profit	delta	RL	r	rate of profit	delta	RL	r
0.017	0.020	0.100	0.010	0.008	0.010	0.100	0.010	0.008	0.010	0.100	0.010
0.043	0.050	0.100	0.025	0.016	0.020	0.100	0.025	0.007	0.010	0.100	0.025
0.063	0.075	0.100	0.050	0.022	0.030	0.100	0.050	0.004	0.010	0.100	0.050
0.083	0.100	0.100	0.075	0.029	0.040	0.100	0.075	0.002	0.010	0.100	0.075
0.103	0.125	0.100	0.100	0.035	0.050	0.100	0.100	-0.001	0.010	0.100	0.100
0.123	0.150	0.100	0.125	0.042	0.060	0.100	0.125	-0.004	0.010	0.100	0.125
rate of profit	delta	RL	r	rate of profit	delta	RL	r	rate of profit	delta	RL	r
0.019	0.020	0.050	0.010	0.009	0.010	0.050	0.010	0.009	0.010	0.050	0.010
0.046	0.050	0.050	0.025	0.018	0.020	0.050	0.025	0.008	0.010	0.050	0.025
0.069	0.075	0.050	0.050	0.026	0.030	0.050	0.050	0.007	0.010	0.050	0.050
0.091	0.100	0.050	0.075	0.034	0.040	0.050	0.075	0.006	0.010	0.050	0.075
0.114	0.125	0.050	0.100	0.043	0.050	0.050	0.100	0.005	0.010	0.050	0.100
0.136	0.150	0.050	0.125	0.051	0.060	0.050	0.125	0.003	0.010	0.050	0.125
rate of profit	delta	RL	r	rate of profit	delta	RL	r	rate of profit	delta	RL	r
0.016	0.020	0.150	0.010	0.007	0.010	0.150	0.010	0.007	0.010	0.150	0.010
0.039	0.050	0.150	0.025	0.013	0.020	0.150	0.025	0.005	0.010	0.150	0.025
0.056	0.075	0.150	0.050	0.018	0.030	0.150	0.050	0.001	0.010	0.150	0.050
0.074	0.100	0.150	0.075	0.023	0.040	0.150	0.075	-0.003	0.010	0.150	0.075
0.091	0.125	0.150	0.100	0.028	0.050	0.150	0.100	-0.007	0.010	0.150	0.100
0.109	0.150	0.150	0.125	0.032	0.060	0.150	0.125	-0.010	0.010	0.150	0.125

Endogenous equity value based on loans and interaction with liquidity constraint:

First, we need to introduce (annual) time periods, t , and market value and book values for equity and debt/deposits.

Assume book values can deviate from market values with a lag. The book value is 'marked-to-market' after a one period lag.

Assume no tax differential treatment to debt/deposits, and assume capital structure is just fixed currently at book values: $E = 0.25$ and $D = 0.75$ so total enterprise value is 1 (call it €billions); so $D + E = 1$ for current book value.

Profits of the firm equal:

$$\text{Equation 17} \quad \pi = (\delta(1 - R_L) - rR_L)(E_b + D_b)$$

We can think of these in terms of book values, $(E_b + D_b)$, if say, dividends and interest payments are based on book values. The book and market values are the same in the long run.

Now assuming capital asset pricing market equilibrium, the fair value of the company or the market value of its debt and equity is the expected present discounted value (PDV) or DCF value of its stream of profits *ad infinitum*.

$$\text{Equation 18} \quad (E_m + D_m) = \sum_{t=1}^{\infty} \pi_t = E_t \left\{ \left(\frac{1}{1+r_t} \right)^t (\delta_t(1 - R_L) - r_t R_L)(E_b + D_b) \right\}$$

Assuming margins and interest rates fixed for simplicity, rational expectations, the value of the perpetuity is:

$$\text{Equation 19} \quad (E_m + D_m) = \frac{1}{r} (\delta(1 - R_L) - rR_L)(E_b + D_b)$$

$$\text{Equation 20} \quad (E_m + D_m) = \left(\frac{\delta(1-R_L)}{r} - R_L \right) (E_b + D_b)$$

$$E_m = \left(\frac{\delta(1 - R_L)(E_b + D_b)}{r} - R_L(E_b + D_b) \right) - D_m$$

But loans are exactly equal:

$$L = (1 - R_L)(E + D)$$

If the liquidity constraint is binding, so substitute for illustrative purposes.

$$E_m = \left(\frac{\delta L}{r} - R_L(E_b + D_b) \right) - D_m$$

Assume the market value of debt and deposits is equal, in order to focus on equity as the residual.

$$E_m = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) E_b + \left(\frac{\delta(1 - R_L)}{r} - R_L \right) (D) - D$$

Since the book of the equity has to equal $1-D$,

$$E_m = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) (1 - D) + \left(\frac{\delta(1 - R_L)}{r} - R_L \right) (D) - D$$

$$E_m = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) - D$$

So the market equity value is purely a function of the liquidity constraint, the margins on retail, the cost of funds, and is the residual after debt/deposits value. Now in general, the liquidity constraint could be a function of a regulatory requirement, or it could be a function of market conditions and normal needs for liquidity. The model is very general with regards to this.

Introducing the solvency constraint now:

$$\frac{E_m}{D} = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) \frac{1}{D} - 1 > R_S$$

Assume that the solvency constraint is binding with respect to book value of equity, and that the link to market equity operates with a one period lag (t-1 to t), then, the solvency ratio is also algebraically equivalent to the gearing, and we can write the debt/deposits in terms of book equity and the solvency ratio:

$$E_{m,t} = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) - \frac{E_{b,t-1}}{R_S}$$

There are some values for which the bank cannot meet both the liquidity and solvency constraints. Some illustrative examples are presented in a table overleaf.

market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio
0.700	0.020	0.100	0.010	0.200	0.200	-0.300	0.020	0.100	0.010	0.200	0.100	-0.300	0.020	0.100	0.010	0.200	0.100
0.700	0.050	0.100	0.025	0.200	0.200	-0.300	0.050	0.100	0.025	0.200	0.100	-0.300	0.050	0.100	0.025	0.200	0.100
0.250	0.075	0.100	0.050	0.200	0.200	-0.750	0.075	0.100	0.050	0.200	0.100	-0.750	0.075	0.100	0.050	0.200	0.100
0.100	0.100	0.100	0.075	0.200	0.200	-0.900	0.100	0.100	0.075	0.200	0.100	-0.900	0.100	0.100	0.075	0.200	0.100
0.025	0.125	0.100	0.100	0.200	0.200	-0.975	0.125	0.100	0.100	0.200	0.100	-0.975	0.125	0.100	0.100	0.200	0.100
-0.020	0.150	0.100	0.125	0.200	0.200	-1.020	0.150	0.100	0.125	0.200	0.100	-1.020	0.150	0.100	0.125	0.200	0.100
market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio
0.850	0.020	0.050	0.010	0.200	0.200	-0.150	0.020	0.050	0.010	0.200	0.100	-0.150	0.020	0.050	0.010	0.200	0.100
0.850	0.050	0.050	0.025	0.200	0.200	-0.150	0.050	0.050	0.025	0.200	0.100	-0.150	0.050	0.050	0.025	0.200	0.100
0.375	0.075	0.050	0.050	0.200	0.200	-0.625	0.075	0.050	0.050	0.200	0.100	-0.625	0.075	0.050	0.050	0.200	0.100
0.217	0.100	0.050	0.075	0.200	0.200	-0.783	0.100	0.050	0.075	0.200	0.100	-0.783	0.100	0.050	0.075	0.200	0.100
0.138	0.125	0.050	0.100	0.200	0.200	-0.863	0.125	0.050	0.100	0.200	0.100	-0.863	0.125	0.050	0.100	0.200	0.100
0.090	0.150	0.050	0.125	0.200	0.200	-0.910	0.150	0.050	0.125	0.200	0.100	-0.910	0.150	0.050	0.125	0.200	0.100
														0.000			
market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio	market equity	delta	RL	r	book equity	Solvency Ratio
0.550	0.020	0.150	0.010	0.200	0.200	-0.450	0.020	0.150	0.010	0.200	0.100	-0.450	0.020	0.150	0.010	0.200	0.100
0.550	0.050	0.150	0.025	0.200	0.200	-0.450	0.050	0.150	0.025	0.200	0.100	-0.450	0.050	0.150	0.025	0.200	0.100
0.125	0.075	0.150	0.050	0.200	0.200	-0.875	0.075	0.150	0.050	0.200	0.100	-0.875	0.075	0.150	0.050	0.200	0.100
-0.017	0.100	0.150	0.075	0.200	0.200	-1.017	0.100	0.150	0.075	0.200	0.100	-1.017	0.100	0.150	0.075	0.200	0.100
-0.088	0.125	0.150	0.100	0.200	0.200	-1.088	0.125	0.150	0.100	0.200	0.100	-1.088	0.125	0.150	0.100	0.200	0.100
-0.130	0.150	0.150	0.125	0.200	0.200	-1.130	0.150	0.150	0.125	0.200	0.100	-1.130	0.150	0.150	0.125	0.200	0.100

We now have a model that links the liquidity constraint and the solvency constraint to the market value of equity next period, t .

It is useful to consider some numerical examples of the above. Of particular interest is where market conditions might mean that the liquidity constraint indicates that there are 'abnormal' conditions. R_L might become R_L' , for example, where liquidity needs are increased by some positive factor, say due to a crisis or a run on the bank. Another way to model this could be two liquidity constraints, a market and a regulatory one, and the one that is more stringent is binding.

$$E_{m,t} = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) - \frac{E_{b,t-1}}{R_S}$$

In terms of analysis of the decision processes in the early stages of the banking crisis, we can then solve for values of the liquidity constraint for which the market equity value will be always less than or equal to zero, given the other parameters.

$$E_{m,t} = \left(\frac{\delta(1 - R_L)}{r} - R_L \right) - \frac{E_{b,t-1}}{R_S} \leq 0$$

$$\left(\frac{(\delta - \delta R_L)}{r} - R_L \right) \leq \frac{E_{b,t-1}}{R_S}$$

$$\frac{\delta}{r} - \left(\frac{\delta}{r} + 1 \right) R_L \leq \frac{E_{b,t-1}}{R_S}$$

$$R_L \geq \frac{-\left(\frac{E_{b,t-1}}{R_S} - \frac{\delta}{r} \right)}{\left(\frac{\delta}{r} + 1 \right)}$$

$$R_L \geq \frac{-\left(r \frac{E_{b,t-1}}{R_S} - \delta \right)}{(\delta + r)}$$

$$R_L \geq \frac{\delta}{(\delta + r)} - \frac{E_{b,t-1}}{R_S} \frac{r}{(\delta + r)}$$

So the liquidity constraint has a maximum, in that any level equal or above this level and the market value of the equity will be less than or equal to zero.

It is useful to consider some numerical examples again, presented overleaf.

market equity	0.000	0.010	0.000	0.020	0.100	0.200	Debt/Deposits	0.500	market equity	-0.150	0.010	0.100	0.020	0.100	0.200	Debt/Deposits	0.500
	0.000	0.020	0.100	0.030	0.100	0.200				0.000	0.020	0.100	0.030	0.100	0.200		
	0.000	0.030	0.143	0.040	0.100	0.200				0.075	0.030	0.100	0.040	0.100	0.200		
	0.000	0.040	0.167	0.050	0.100	0.200				0.120	0.040	0.100	0.050	0.100	0.200		
	0.000	0.050	0.182	0.060	0.100	0.200				0.150	0.050	0.100	0.060	0.100	0.200		
	0.000	0.060	0.192	0.070	0.100	0.200				0.171	0.060	0.100	0.070	0.100	0.200		
market equity	0.000	0.010	0.167	0.020	0.050	0.200	Debt/Deposits	0.250	market equity	-0.225	0.010	0.150	0.020	0.100	0.200	Debt/Deposits	0.500
	0.000	0.020	0.250	0.030	0.050	0.200				-0.083	0.020	0.150	0.030	0.100	0.200		
	0.000	0.030	0.286	0.040	0.050	0.200				-0.013	0.030	0.150	0.040	0.100	0.200		
	0.000	0.040	0.306	0.050	0.050	0.200				0.030	0.040	0.150	0.050	0.100	0.200		
	0.000	0.050	0.318	0.060	0.050	0.200				0.058	0.050	0.150	0.060	0.100	0.200		
	0.000	0.060	0.327	0.070	0.050	0.200				0.079	0.060	0.150	0.070	0.100	0.200		
market equity	0.000	0.010	0.333	0.020	0.100	0.350	Debt/Deposits	1.000	market equity	0.367	0.020	0.150	0.020	0.100	0.300	Debt/Deposits	0.333
	0.000	0.020	0.000	0.030	0.100	0.150				0.083	0.020	0.150	0.030	0.100	0.300		
	0.000	0.030	0.143	0.040	0.100	0.200				-0.058	0.020	0.150	0.040	0.100	0.300		
	0.000	0.040	0.222	0.050	0.100	0.250				-0.143	0.020	0.150	0.050	0.100	0.300		
	0.000	0.050	0.273	0.060	0.100	0.300				-0.200	0.020	0.150	0.060	0.100	0.300		
	0.000	0.060	0.308	0.070	0.100	0.350				-0.240	0.020	0.150	0.070	0.100	0.300		

The above demonstrates there are values of the liquidity constraint, the value of debt, and the solvency constraint, and reasonable choices of the other parameters where there does not exist any values for which the market value of equity is positive.

Thus the model and previous analysis show that a serious degradation in liquidity or the sudden need for high amounts of liquidity could indicate all else equal that the solvency of banks is jeopardised.

Annex 18: Alan Gray's Recollection on His Expectations in 2007/2008 on Future Property Prices

At my first meeting of the Central Bank Board in 2007 there was a discussion of the fact that the latest evidence which suggested that during November there was a nominal change in house price inflation of 0.1 per cent which represented a real decline. I noted that this was the sixth successive month where there had been a reduction in the rate of increase in house prices and a nominal fall in the value of house prices outside of Dublin. At my second meeting there was a discussion of the fact that residential construction output would be significantly lower in 2007. At the Central Bank board meeting at the end of March 2007 there was also a discussion of the doubling of the vacancy rate in the US against a background of the emerging difficulties in the sub-prime mortgage market. I agreed with the external independent evidence which suggested that there may be an overvaluation of Irish housing prices, which at that time was judged by economists in the ESRI to be around 15 per cent. I also felt that judging appropriate values was very difficult.

The implications of the decline in house prices and the potential impacts for bad debt were also discussed at the Central Bank board meeting at the beginning of 2007. It was noted that the capital requirements of the banks were determined by the Basel Standards. As a new non-executive I noted that the Central Bank management were aware and shared my concerns at signs of a further build up in vulnerabilities and in particular in terms of the continuing high rate of credit growth and increased levels of indebtedness, and the implications of the slowdown in house prices and the increasing repayments burden faced by households. There was also a discussion of the fact that the provisions being made against bad debt were determined by accounting rules, namely the International Accountancy Standards. There was a detailed presentation and discussion on the issue of the financial stability of the sector. The executives informed the Board that their overall conclusion from their interim financial stability report was that financial stability risks had increased marginally although the Irish banking system continued to be stable in their assessment and was in a sufficiently healthy position to weather a significant adverse shock. The Bank management following the Board discussion which I participated in agreed to conduct further analysis of the vulnerabilities arising from the growth of credit and indebtedness and the developments in house prices as well as the implications of liquidity risks to the assessment of financial stability.

At one of my early Central Bank Board meetings in early 2007 there was a discussion of the increasing concerns regarding the sub-prime mortgage market in the US and the increase in volatility and uncertainty for financial markets. I was aware as an economist that future markets at that time reflected the increased uncertainty regarding the global risks.

There was a focus in the Board discussion on the potential implications for the economy of a contraction in construction activity. I and some other non-executives asked that further work would focus on the risks associated with property lending with particular reference to commercial property, the buy-to-let market and the emergence of sub-price lending. This is included in minutes of the Central Bank board meeting on 29 March 2007.

The risks in the property market were again discussed by myself and the other directors at my next Central Bank Board meeting on 27 May and the focus was on the impacts of a potential property price downturn and the exposure to the price of building land and the impacts for bank loans to developers who hold significant building land banks. While the moderation in the growth of credit was welcomed the Board noted that it was still substantially higher than average euro area credit growth and it was agreed by the management team that scenarios for the implications of this for financial stability would be tested. [This is recorded in extracts on this from the Central Bank board meeting of 3 May 2007.]

I was very aware that real property prices had probably increased by three-fold in real terms in the period since mid-1990s and I found an acceptance and an understanding of the risks inherent in that among the executives and other non-executive board members. This awareness was also very evident from the presentations made by the professional economists in the Bank. It was clear that real residential property prices had peaked in late 2006 and there was evidence of a reversal in prices and in construction activity. However, far too much comfort was taken from the belief that a gradual decline in prices would occur and that this would be manageable. I outline in separate annex on financial stability the reasons for this view and I also attach the detailed drafts and presentations undertaken by the Central Bank economists which indicates that how the issues were considered.

My recollection is that back in 2007/2008 I expected a decline in property prices and activity in the construction sector. However, I do not wish to try and pretend that I had the wisdom to envisage the scale of the impact on banking sovereignty and very few if any other economists envisaged the scale of the impact on Irish banks or could predict the collapse of inter-bank funding as a result of the Lehmans bankruptcy. This is not to attempt to justify any assessments but highlights the limitations of economic forecasting. The risks to the property sector had been identified also by other economists. The most insightful view at that time was contained in the article by the economist, Professor Morgan Kelly of UCD. His research suggested an annual fall in real house prices of 6 to 7 percent over a decade. Other views by most leading economic commentators were somewhat less pessimistic on the likely scale of property price declines but risks to Irish construction activity were recognised. However, at the time and based on available information, it was not thought that this would mean that Irish banks would face a solvency problem even if circumstances were the scale of property collapse outlined by Professor Morgan was to occur. At that time of Professor Morgan's detailed ESRI article in July 2007, he was of the view that there was some evidence that "the wealth effect on consumption might not be as strong in the United States." He pointed out that there had been no fall in personal savings in Ireland during the housing bubble and households have not consumed home equity through second mortgages. Professor Morgan Kelly's article also suggested that the larger banks which dominate lending were at that time well capitalised and the banking system had, until recently at least, avoided the worst excesses of the sub-prime mortgage market, although it was likely that many interests only and 100 per cent mortgages could go sour. Professor Morgan suggested that it was the scale of the Irish house building industry that makes a fall in house prices particularly troubling and he outlined concerns over a prolonged rise in unemployment. This was a concern I shared. Professor Morgan pointed out that house price falls have three effects. First, households feel less wealthy and consume less. Secondly, banks face more bad loans and become more cautious in their lending. Thirdly, investment falls as home building falls. This view was broadly aligned with my own assessment. However, in a later Irish Times newspaper article of September 7, 2007, Professor Morgan Kelly did impressively document his view that the exposure to commercial retail estate posed a grave threat to bank solvency. Unfortunately I do not recall seeing this newspaper article at that time and have only seen it retrospectively. I also do not know how I would have assessed this at this time and I am conscious of not pretending to have insights 'in reverse' time.

Annex 19: Alan Gray's Recollection on Discussions on Contrarian Views at Central Bank/IFSRA

Within the Central Bank/Financial Regulator I felt at board level there was openness to hearing and considering all views and I personally never felt constrained in expressing views. Indeed I appreciated the patience of the Governor and of my other board members in listening to sometimes strongly experienced opinions by a newly appointed Director. There was also active discussion by other board members, and by the Governor who often led on the discussion of risks.

In terms of internal executive contrarian views I was not aware of any strong contrarian views being expressed by executives at board meetings. When I joined the Board in 2007 I believe there was awareness by the Governor and other board members of external views and expert advice on the risks to the economy particularly due to the rise in property prices.

Confidential Meetings with Managers

However, I was aware that sometimes those with contrarian views might be reluctant to discuss these at what were fairly formal board meetings. In attempting to ensure a focus on risks and to understand all views, at an early stage in my board appointment in 2007 I asked if I could meet each of the management team and department managers in the IFSRA. This was organised and I requested one-to-one confidential meetings. Some of the managers expressed surprise at why I wished to meet them and I explained that I wanted each individual to describe their work and to feel free to express any views to me in confidence. Specifically, I asked whether there were any issues which as a new non-executive Director I should be aware of concerning bank regulation or supervisory policy or risks as I was keen to hear all views. I was also keen to hear if any individuals felt they needed more expert advice or resources. The main issue which was identified was what I thought was a mainly administrative issue of shared access to information technology support and I was informed this had been discussed for some time in the Central Bank/Regulator. I subsequently contacted both the Governor and the Regulator and received assurances that this would be addressed.

Annex 20: Details of Telephone Call with An Taoiseach and Economist Alan Gray on Night of the Guarantee Decision

As I indicated some years ago in my public statement An Taoiseach called me on the night of the Guarantee. As far as I know this was not known by anyone until I decided to release this information as part of my previous public statement. As I have outlined elsewhere I always respected professional confidentiality and indeed this is essential for my work as an economist both in Ireland and internationally. Because of the focus of the public debate on the decision to implement a guarantee I felt that the balance of respecting confidentiality and legitimate public disclosure was in favour of such disclosure once the meeting and dinner at Druids Glen became a matter of national debate. This may have given an inappropriate focus on this phone call.

My recollection of the night of the Guarantee is I had heard on the news that crisis talks were taking place in Government Buildings and involving banks, the Central Bank, and the Financial Regulator. Prior to this, there had been almost continuous discussions/monitoring at the Central Bank/Regulator on the liquidity position of banks but no discussions on the Guarantee other than at the key Emergency Board Meeting some days earlier. My recollection is that I had been kept up to date as a Central Bank Director on details of liquidity measures. As I knew of the escalation of the scale of liquidity problems the necessity for such a meeting at Government Buildings was certainly not a surprise and I had a deep fear that we were facing the closure of the Irish banking sector the next morning. My belief was that as far back as 25 September the issue of a Guarantee of all the major six banks was likely to be the option tabled as I had not heard of any developments regarding the other options I had suggested including an ECB response. I felt that if there had been any developments on an EU wide initiative I and the other Central Bank Directors would have been informed as I found the Governor of the Central Bank to be very open to keeping Board Members informed of developments in this escalating crisis period.

On the night of the formal Guarantee decision as an economist on the Central Bank Board, I was more than anxious to know what policymakers would decide and would the Irish banking system collapse which I had by then feared as a possible outcome. I had difficulty sleeping in the days coming up to this date as I knew what would be the consequences for Ireland if there was a systemic bank closure with resultant poverty and the collapse of the economy. I also felt a feeling of isolation that most of society did not have access to the detailed information which I had on the Board and my assessment of impending crisis. What I had feared was what recently happened in Greece.

On the 29th September I was not invited to join the discussions at Government Buildings and I did not see any of the advisors' reports or receive any response to any views I had expressed at the Central Bank Board Meeting or any response to the options paper I had circulated. Neither did I expect to be invited or to receive any such response, but I was extremely concerned about developments as I had been living with the escalating crisis since the 15th September.

I was home with my family when I heard the news on television that the US Congress decided to reject the US bail out plan (TARP). I was astonished at this news and felt this would be the final straw and unless there was a European or international or national response a major international banking and economic crisis was likely and a bank run in

Ireland probable. I hoped there would be an international or an ECB response. On the evening of 29th September I received a call from An Taoiseach to say that the Government was considering an option of guaranteeing the banks and did I have any views on this and what in my view would be the likely market reaction. I was the independent external economist on the Board of the Central Bank and bound by the Central Banks Act's confidentiality legislation. I was implicitly aware that the Taoiseach would have been obtaining the views from the many teams of advisors which were examining the issue for the Department of Finance as well as insights and advice of the Governor of the Central Bank and senior staff from NTMA as well as Department of Finance officials and IFSRA and possibly many others. I also assumed that all the major banks were present in Government Buildings but I did not ask the Taoiseach if this was the case.

I have heard subsequently of some newspaper reports that other Central Bank Directors may have been surprised at the introduction of a guarantee but I do not know if these reports are correct. If they are I do not understand this given that it was the main option presented to the Board four days previously. I fully accept that the details of issues such as the classes of liabilities to be covered were never shared at Board level or our views sought.

In the telephone conversation I recall reinforcing the same key points which concerned me at the Central Bank Board Meeting four days earlier and which are documented in my more detailed correspondence sent to the Department of Finance and which were the focus of nearly all my thoughts in the days before the 29th September, namely:

- The issue of the credibility of the Guarantee and the likely market reaction.
- The importance of ensuring that the action was not illegal and would not be overturned by EU State Aid Rules. I did not know the details of what was being proposed and I had a residual concern that the decision could be overturned with disastrous implications for Ireland. I had no insights into whether my concerns on compatibility with EC Treaty State Aid rules had been assessed although I assumed that they would have been.
- The critical necessity to only provide a very short time limited guarantee for the exceptional period of financial vulnerability in order to minimise any risk to the State was something I remember highlighting. This was necessary in my view to minimise any exposure to the state aid and was aligned with the limited time guarantee given by the UK Government to Northern Rock which I was aware of. It was also necessary to ensure it met the fair remuneration of the guarantee criteria required by EU State Aid Rules and to enhance the chances of a positive market reaction.
- I also felt it was essential to charge the banks an appropriate fee for the Guarantee reflecting the value of the guarantee to them and the risk to the state and I indicated that to the Taoiseach. I also believed that fees for individual banks should reflect the specific risks and those banks in greater difficulty should pay the higher levels. As far as I recall I did not have a chance to mention this aspect to the Taoiseach but I doubt that this was the type of detailed technical issue I would have raised with the Taoiseach in a period of intense crisis.

All of the above points were relevant to the market credibility of the Guarantee something which I was very uncertain on.

My overwhelming fear was that the Guarantee would not work or would not be seen as credible and that Ireland would face a bank run. In my mind I was hoping that plans were in place for the following morning if whatever action was taken did not work. I was thinking the

country would have to implement capital controls, closure of the banks and restrictions on ATMs but I did not discuss this with the Taoiseach.

Annex 21: Composition, Skills and Experience at the Central Bank, Regulator and Department of Finance

On the issue of skills and manpower at one of my early IFSRA Board meetings in April 2007 the need for **“further work to be done to ensure the resources in place are proportionate to the regulatory tasks”** was agreed at the Board as well as the **“strong case for developing a three year manpower plan.”** At the next board meeting the report from the sub-committee on the 2008 manpower requirements was discussed and it was indicated that **“in addition to looking at additional requirements the subcommittee will look at options for reallocation of existing manpower.”** It was also indicated that **“there are significant issues around new work and the skill mix.”** In looking at manpower planning at the May 2007 meeting the sub-committee reported that **“systemic analysis of activity, benchmarking and of possible additional use of outsourcing options would all be appropriate elements of dealing with the rising work load in the context of a risk-based approach to regulation.”** The IFSRA Board at the meeting agreed to accelerate work on staff requirements and **“for planning purposes, the 2008 budget to be based on a full-year actual staff numbers of 38 – an increase in complement of 25.”** It was further agreed that **“in addition to pushing forward with the recruitment of current vacancies, recruitment processes for twenty five additional staff should begin immediately.”** It was also agreed that the management should have freedom to allocate the staff in the most needed areas.

In addition to the issues discussed above, there was an awareness among the management that there were gaps in the extent of international experience and also in terms of the detailed allocation of staff between different functions. There were also gaps in certain skills including forensic accounting and corporate finance. Whether these and other skills if available would have resulted in any different result is an open question and I have some views on this.

I recall at one of my first meetings of the board participating in a discussion of the options for securing expert advice on international financial sector developments as it very quickly became clear that there were emerging strains in international markets. At my third meeting of the Board of the Financial Regulator at end March 2007 I recommended that the secondment of staff to and from the UK and/or the US regulatory authorities be considered and other directors also expressed support for this. I was keen to know whether the approach to financial regulation in Ireland was aligned with other countries’ experiences in practice.

On the issue of expertise in the Department of Finance, I am not competent to comment on this. I have since read that there were only a reported 39 economists trained to a Master’s Degree level out of a staff of 542 in 2010. In my experience this is a lower number of economists than in some other countries and I welcome the recent move to create a government economic service and to employ additional professional economists. It has also emerged in the Department’s own assessments that it did not have sufficient detailed banking/corporate finance expertise and over time the specialist economic resources were less than they were previously. There was also, in my opinion, insufficient interaction between the economics profession and the Department of Finance. Whether the presence of additional economists or additional financial experts would have changed the specific banking crisis is, however, something which I would be doubtful about. Where an expanded economic team may have potentially assisted was on highlighting risks in macroeconomic policy.

Annex 22: Role of Advisers in Investigating Capital Adequacy of Irish Banks

As is now well-known the leading accountancy and financial advisors PWC were commissioned to investigate the capital adequacy of the main Irish Banks. I am not sure however what level of information has been made available to the Inquiry concerning the draft reports or the discussion on these at the IFSRA Board. A working draft presentation of the PWC interim findings dated 11 November 2008 was presented to the IFSRA board of directors. Interim results suggested a benign conclusion on capital requirements for all of the banks.

The early draft analysis then proceeded to undertake what were described as PWC illustrative highly stressed scenarios. The report noted that these assumed PBT levels as per individual bank scenario remained unaffected and they noted this may not be realistic in a highly stressed environment. Even the worst case scenarios presented in the interim presentation were benign and suggested continuing viability for all of the banks.

At the meeting of the Board I was active in discussing the findings and I expressed surprise that the results were so positive even in what was deemed as highly stressed scenario. I also questioned how it was that the highly stressed scenario showed higher capital ratio in 2010 for one particular institution compared to other banks. The PWC team justifiably indicated that these were only preliminary results and were based on the specified assumptions.

I indicated that I doubted that the benign outcomes would be the reality but that I did not have any specific information on which to base this. I stressed that it was critical to investigate this further. I accept that this was in line with what the PWC team had planned and they indicated this at the meeting and in terms of fair procedure I don't wish to suggest otherwise. I outlined my views on the reason for the investigation which was that policymakers had to have the best insights into what they were likely to be facing whatever that suggested.

In the final report the results were still very optimistic. PWC was not alone in having a much more benign view on the banks and this may relate to the links between solvency and liquidity which I discuss elsewhere in my evidence. It also highlights the difficulties in predictions particularly in volatile times. I have not undertaken any review of the terms of reference for these investigations or the available information which the accountants had access to and I am not making any comments on this work as I wish to only account for my responsibilities. As is clear, the findings were not valid given subsequent developments.

I have indicated in my documented evidence that I wrote to the Governor of the Central Bank/Department of Finance on 22 January 2009 indicating that I did not accept that the banks would not need more capital. I felt the banks would not have sufficient capital to meet regulatory requirements after dealing with bad debts.

Annex 23: Insights into Operation of Joint Board of Central Bank/IFSRA in Immediate Period to Crisis (i.e. 2007-2008)

I would like to share with the Inquiry some personal impressions of the operation of the Board of IFSRA and the Central Bank in the immediate period prior to the Crisis (i.e. 2007-2008). As I was not on the Joint Board prior to that I cannot give any insights into experience in the period 2000 -2007.

From my first board meeting in 2007 as a part-time non-executive Director I was anxious to fully understand the key issues. I also wanted to ensure a focus on the important risks. I was not alone among the non-executive Directors or the full-time officials in this.

However, after a short number of months on the Board I gained a much greater understanding of the scale of the issues which were being faced. These were in part due to emerging strains in international financial markets. However, they were also due to the systemic risks built up as a result of decisions made in the years to 2007. Deficiencies in approaches to credit assessments and compliance in individual organisations was also a part of the story. This made it even more difficult to address the key risks. A large number of issues were raised at many IFSRA board meetings, some of which represented significant irregularities and some more minor and all had to be dealt with. These included irregularities and breaches of rules. I gained an impression, appeared from the information given to the board, that the officials were very active on these issues and specific details of actions taken were outlined. I would be willing to discuss some examples of these.

However, I started to come to the conclusion that there was only so much a part-time non-executive Director could do to address the range of minefields which kept emerging and as soon as one was addressed others seems to emerge. I discussed with my family resigning from the joint board even though I had been on it such a short time.

After another very long late meeting of the IFSRA board I was walking towards Trinity College to meet some friends. On my way I was walking with one of the other non-executive Directors of IFSRA and I discussed the fact that I was considering withdrawing from the Board. He was someone who I respected and who previously had a distinguished career in the public service. He was in my view someone of ability and integrity and had shown great commitment and diligence at the previous board meetings. He urged me to reconsider my decision and suggested my perspective was needed. For good and bad that conversation late one night on Dame Street changed my decision to resign.

Annex 25: Alan Gray's Comments on Stress Testing and Macro-Prudential Policy

Overview of Stress Testing Undertaken

As is evident from the documents attached in subsequent Annexes, the Central Bank completed detailed stress testing which examined the implications of lending and funding decisions by bankers and other financial institutions for the stability of the financial system and the overall health of the economy. There was also a very active consideration at Board level by the Governor and the non-executive directors of this analysis. My assessment of the reasons stress testing did not lead to an expectation of the scale of collapse which occurred is discussed briefly below. It is however useful to indicate the importance of this given the European and Irish policy position that no bank of systemic importance would be allowed fail.

‘No Fail’ Policy

Prior to 2008 there was no bank of systemic importance within the Eurozone which was ever allowed to fail in the sense of closure and depositors and others losing their funds. Undoubtedly, shareholders losing their investments were perceived differently.

While this policy was never discussed publicly I recall that during my time on the Central Bank Board there were a number of explicit references from the Department of Finance and the Governor that this was the agreed policy.

My recollection is that the reason given for this was that it would lead to unacceptable contagion in the Eurozone and more importantly the collateral damage in terms of public panic and damage to the Irish economy was viewed as being of far greater than any costs of a bailout.

I was also aware of the potential impact and long-term danger to an economy and the unimaginable poverty and indeed violence which could result from a run on the bank system. Six years previously, Argentina experienced such a development and is still facing the impacts of that situation with capital controls remaining in place.

The stated policy position that no systemic bank would be allowed fail was understandable and there was no doubt that this was both the national and European policy decision up to the crisis.

Why was Stress Testing Not Effective in Predicting the Crisis?

A discussion of why the scale of crisis was internationally not envisaged has been examined extensively by economists internationally and also in Ireland. However, looking at the Irish case it is clear from the analysis that the economists at the Central Bank worked on this in detail and considered a wide range of scenarios and diligently examined the international research on property cycles. This research did not suggest that the scale of crisis which occurred was likely. This view was consistent with the assessment of international organisations such as IMF and also leading economic research forecast teams. As I note elsewhere Professor Kelly’s 2007 prescient article did examine significant real price reductions which suggested significant declines in house prices in real terms over a number of years. When these were converted to nominal terms the stress testing was interpreted as

suggesting that would probably be manageable but the speed and scale of crisis which emerged was not considered.

One of the reasons for the failure to identify the potential scale of declining property prices on the banking system may have been that comfort was mistakenly taken from the impact of the previous evidence of the recent property price booms in Ireland, namely the ending of the property price increases in Ireland in 2001. In the five or six years to 2001, the rate of increase in property prices was much more rapid than occurred in the subsequent property boom from 2001 – 2007. For various reasons this, however, was very different to the latter period although this was not fully appreciated. Part of the differences in the previous property boom up to 2001 and what happened subsequently was the role played by the inappropriate property tax incentives as well as increases in interest relief and the reductions in stamp duty. Also of significance is that the impact of the worldwide liquidity crisis did not apply to the previous property slowdown in 2001 and the economic growth previously was based on a real expansion of Irish economic activity based on exporting to international markets.

Another factor which may have been important was that in most but not all international property crashes the scale of the decline in asset prices was not at the levels which subsequently occurred. There may also have been a belief that because major borrowers had significant assets internationally, this would provide a cushion to an Irish collapse. I have, however, no evidence that this guided the stability assessments which were prepared.