

**Evaluation of Options for Resolving Property Loan Impairments and Associated  
Capital Adequacy of Irish Credit Institutions:**

**Proposal for a National Asset Management Agency (NAMA)  
And Associated Required Policy Initiatives**

*Report of Special Advisor  
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## Summary Conclusions & Recommendations

1. Ireland, as with many other economies is experiencing a crisis in its banking and financial sector. At the heart of the banking crisis being experienced in Ireland is concern of capital markets with the adequacy of banks capital to meet future loan impairments and institutions' capacity to obtain additional capital externally, in the event that proves necessary. Future impairments are of concern because, for the past decade now Ireland has experienced rapid inflation in property values and lending to the property sector has been an increasingly important component in credit institutions' lending. In addition, there have been several well publicised regulatory failures and dubious practices carried out by management at a number of institutions, which have heightened international concern about the health of the financial sector.

### *Banks Deposit Liabilities*

2. At present Irish banks face an extremely unstable outlook in respect of international, wholesale deposits, upon which they have become significantly dependent in the decade to date to fund expansion of their assets (lending). In recent times they have experienced major withdrawals of these deposits, in excess of €45Bn, to date in 2009, a shortening of the average duration of deposits and substantial recourse to the Central Bank for short-term liquidity support. This is not a sustainable trend.

### *Substantial Impairments to the Property Loan Portfolios to Be Faced*

3. As regards their property loan portfolios, looking forward to 2011 the six guaranteed credit institutions face cumulative economic impairment on their property loan exposures of around €34Bn. or 20 per cent of the total value of property loans outstanding at September 2008 of €158Bn. Of this amount about €21Bn relates to institutions development loan book (33 per cent) and the remainder of €13Bn is expected to arise with respect to the property investment loan book, 14 per cent of those loans. In considering these projections it needs to be borne in mind that the results are sensitive, to certain of the assumptions made in deriving the estimates. The implications of this sensitivity need to be incorporated when considering the implications of the projected impairment or devising propositions as to how they should be dealt with.

### *Initiatives to Date Insufficient*

4. The initiatives taken to date by Government are considered to be insufficient to achieve rates of capital adequacy that would encourage investors to hold and invest further equity in Irish credit institutions, when prospective impairments are considered. As long as this remains the case share values are likely to remain depressed and deposit liabilities are likely to experience continued attrition and foreshortening in duration. This will undermine banks' capacity to grow lending in support of the enterprise economy, thus complicating recovery of the real economy. Moreover, a projected additional capital requirement of some €9Bn, (over and above the €7Bn recently announced) in the absence of restructuring, assumes also that Irish banks remain in their current 'zombie' status till 2011. Such a prospect would hinder economic recovery, complicate further the required adjustment of the public finances and leave Ireland's international credit rating subject to downward pressures and speculative attacks. Therefore additional and far reaching measures need to be undertaken, as soon as possible to place the banking system on a sound footing.

### *Public Finance Position & Banks Capital Adequacy Issues are now intertwined*

5. Deterioration in the Government Debt/GDP ratio is underway, as the general government deficit widens. A significant part of this deterioration arises from the effects of cyclical downturn. Moreover, discretionary budgetary adjustments to curtail the widening deficit will be partially undone by the deflationary impact of the discretionary measures

themselves. To some degree, in the absence of international recovery and/or gains in competitiveness and productivity in Ireland the domestic fiscal adjustment process has the characteristics of a vicious spiral comprising weakening economic activity leading to widening of the Government deficit and indebtedness leading to discretionary fiscal adjustments leading to further erosion of economic activity and so on.

6. The deterioration in Ireland's credit terms associated with fiscal position has been compounded by the additional contingent liabilities of €440Bn assumed by Government by virtue of the necessity to guarantee the deposits of credit institutions from September last. Capital markets are uncertain how to value the additional liability of the Government on foot of the guarantee and the resulting confusion is causing Irish bond spreads to widen unfavourably. Moreover, the fact that it is evident that deposits have not been stabilised as a result of the Guarantee is compounding the perception that the contingent liabilities could become real.

7. Against the backdrop outlined above it is imperative that initiatives should be undertaken that will lead to stability in banks deposit and term debt liabilities and eliminate the need for a renewal of the guarantee. **To achieve this requires removing all doubts about capital adequacy of the credit institutions and their capacity to deal with prospective loan impairments.**

#### *Additional Supporting Initiatives*

8. It is appropriate that additional supports should focus on the asset impairment issue and associated implications for capital adequacy. There are a number of broad approaches (which are not mutually exclusive) to bank capital support schemes. These revolve around: Recapitalisation Programmes involving stress testing against expected losses; Asset Guarantee Schemes and Asset management arrangements.

#### *Recapitalisation Programmes*

9. The key features are:
- Future Capital shortage is anticipated by testing adequacy of current capital in stress scenarios;
  - The adequacy of capital (quality and quantity) to absorb losses is assessed;
  - The regulatory authority may then require more capital, which may be raised from the market (e.g. by way of rights issue) or attraction of new shareholder, which may be either private or State;
  - Approach needs to take account of implications of market conditions for cost of capital to bank; dilutive implications for existing shareholders; protection of State capital if the external shareholder is Government;
  - There have been many recapitalisation programmes put in place in the US and EU in the current crisis including in Ireland where Government have agreed to invest €3.5Bn by way of preference shares in each of AIB and Bank of Ireland.

#### *Assets Guaranteed/Risks Insured By the State*

10. The key characteristics of this approach are:
- Troubled assets remain on the balance sheet of the banking system;
  - Troubled assets are not subject to upfront mark-to-market write downs;
  - The bank usually is liable to a relatively small first loss tranche and the State covers elevated losses for a fee;
  - Equity capital is not affected as assets do not have to be sold at the current marked-down levels;
  - No initial outlay is required from the State and a fee, premium or compensation arrangement is paid for the guarantee;

- Compensation to the State in the form of convertible preferred shares or warrants is dilutive, of existing shareholders;
- Such schemes have been implemented at ING, Citigroup and Bank of America, and RBS.

#### *Asset Management Arrangements*

11. The key features of this approach are:
- Troubled assets are transferred from the balance sheet of the banks at an agreed price;
  - Mandatory participation required;
  - The banks take the impairment loss to profit and loss account now;
  - The bank is cleansed of troubled assets making valuation of the remaining part of the bank less complicated;
  - The removal of impaired loans reduces the risk weighted assets of the bank and releases capital (or reduces the shortfall in capital required)
  - A discounted sale of assets may result in a significant reduction in the equity of the seller;
  - Significant financing may be required from the State for the Asset Management Company, impacting negatively on the fiscal position;
  - Examples include UBS and Securum/Nordbanken in the 1990s Swedish crisis
12. **The Asset Guarantee/Risk Insurance approach contains intuitively attractive features – notably, it doesn't involve upfront cost. However, when considered in the context of characteristic features of the Irish situation, in particular taking account of the contingent liability aspect; the implications of loans remaining on banks balance sheets and the continuing capital requirements of property related projects, it appears that the Asset Management approach has the potential to offer greater assistance to achieving resolution of the impairment issue upfront and maximising taxpayer returns, over the longer term.**

#### *Proposed Comprehensive Recapitalisation and Refinancing of Banks Property Loan Portfolios*

13. As noted above in para.3 the projected economic impairment of the six institutions combined property development and investment book is estimated at €34 Bn over the period Sept 2008 to March 2012 (BOI year end). An effect of realising this kind of shortfall would require further capital injections of about €9.25Bn to bring core Tier1 Capital ratios in certain institutions to a level of c.7.5 per cent, about the level market investors currently regard as 'acceptable'. **However, this assumes that Irish banks remain in their current 'zombie' state until March 2012. It is concluded that, such a prospect would hinder economic recovery, complicate further the required adjustment of the public finances, do nothing for the banks' share price or ability to lend and leave Ireland's international credit rating subject to downward pressures and speculative attacks.**

14. Table A establishes the implications for re-capitalisation of realising the projected impairment of property related assets in 2009, on the basis that a 'market acceptable' rate of Tier1 capital is about 7.5 per cent and that the loan books on which the impairments exist are transferred to an AMC. The details underlying this summary are contained in Appendix 3.

15. Thus, the extent of a comprehensive recapitalisation programme would be of the order of €16.25Bn, in additional capital distributed across the six institutions, in the absence of any restructuring of these institutions. This would not be sensible nor would it satisfy capital markets and it is considered that an appropriate restructuring would entail:

**Table A: Impact of Crystallising Projected Property Loan Impairments in 2009 on Achievement of Tier1 Capital Ratio of 7.5 per cent Assuming Transfer of Loan Book to AMC €Bn**

	Total	AIB	Anglo	BOI	INBS	ILP	EBS
Property Related Impairment	34.4	11.1	12.8	7.7	2.3	0.2	0.35
Transfer of Property Related Loan Books to AMV (=Reduction in risk weighted assets) – Best estimate	158.3	50.0	60.0	37.0	8.0	1.5	1.8
Additional Capital Injection over existing commitments to maintain Tier1 Ratio of 7.5%	16.25	5.0	8.5	0.75	1.5	0.0	0.5

- Removal of all property related assets to an AMC (total book value €158.3Bn subject to an impairment charge of €34.4Bn) in consideration of a Bond with a face value of €123.9Bn;
- Consolidation of rump of INBS and Anglo to be sold to highest bidder as a business franchise, or wound down as liabilities mature (some additional capital injection required from State, probably €1.5-2Bn, on the basis that assets are transferred post impairment equivalent to current Tier1 Capital, with balance of RWAa capitalised to about 5 per cent);
- Capital injection of €0.5Bn to EBS and possibly Consolidate EBS with PermanentTSB with a strong residential mortgages franchise (assuming Irish Life capitalises it);
- Capital injection of €5Bn into AIB (over and above the €3.5Bn already committed).

16. **In this way the additional capital requirement would be mitigated to about €7.5Bn, with an attendant refinancing of the property loan book with a bond with a face value of €124Bn. In all circumstances it is clearly imperative that visibility and agreement of the ECB as to funding a bond of the stated face value would be procured before any decision is taken by Government to proceed with the recommended approach contained in this report.**

*Consequences in terms of majority ownership of AIB & BOI by the State*

17. The immediate impact of the re-capitalisation programmes (already agreed) and proposed above would be to raise the degree of ownership of the State in the two main commercial banks – AIB and BOI – to substantial majorities, probably around 90 and 85 per cent respectively, depending on the price at which capitalisation was undertaken and the precise form of the capital investment. In consequence, most of the pre-impairment earnings of these institutions (currently projected to be about €1.9Bn p.a. and €1.5Bn p.a. respectively in the case of AIB and BOI from 2009) would accrue to the State. However, there is an important distinction between this position and fully nationalised entities. Notably, and similar to the RBS and Lloyd’s Banking Group in the UK, both institutions would retain their stock exchange listings and their shares would continue to trade on the Irish and London Stock Exchanges. Accordingly, as and when market conditions improve and the performance of Irish banks return to growth there will be a natural exit mechanism available whereby the Government should be able to divest itself of its majority ownership, should it wish to do this, in an orderly manner that allows it to realise gains on behalf of the taxpayer over time.

*Proposal for a National Asset Management Agency (NAMA)*

18. Credibility is the overriding requirement of any proposal which is going to be successful at addressing banks capital adequacy issues. This requires firstly that the operation be entirely transparent, that the resulting fiscal costs can be absorbed, and that the government’s prospective debt profile is a sustainable one.

*Functions to be discharged*

19. The functions to be carried out by a NAMA would comprise:
- Management and control of the assets transferred to it;
  - Employment/outsourcing whatever resources required to carry out its functions efficiently and professionally;
  - As it will control a large segment of the market, it should be able to regulate against further market failure due to oversupply in the future;
  - It will carry no previous baggage and will have a single objective - to maximise value to the State over a long time horizon of say 10-15 years;
  - It will not have any other banking functions or aspirations;
  - It will not favour any institution or client over another, but can make decisions with the advantage of an overview which individual banks cannot have;
  - It will have well marked out procedures to prevent fraud but will encourage a suitable commercial culture;

*An extension of the remit of the National Treasury Management Agency (NTMA)*

20. For a number of reasons it is considered that the Asset Management function should be carried out under the governance, direction and management of the NTMA and be designated as the National Asset Management Agency (NAMA). The reasons are as follows:

- The international reputation of the NTMA as a centre of excellence in the management of Ireland's national debt is extremely high. Markets would take comfort from the fact that this very important task is being carried out under the aegis of NTMA;
- NTMA has a proven track record in being able to successfully bolt on and manage related complex businesses to its core remit of managing the national debt – as demonstrated by its development of the National Development Finance Agency (NDFA) and the State Claims Agency and the National Pensions Reserve Fund (NPRF);
- Uniquely in Ireland, it has the core managerial competence and critical mass of technical know how to do the job. It would have to further strengthen its management capacity and technical know how, particularly in areas relating to property finance and restructuring but in the overall scale of the task this would not be a major hurdle to overcome.

*Legislative Basis*

21. The NAMA Initiative would require new legislation (the “NAMA Act”) which would create NAMA under the umbrella of the NTMA.

*How Should Assets be transferred: Voluntarily or Mandatory Approach?*

22. Even with the unpalatable alternatives of potential nationalisation or removal from the Guarantee Scheme, any attempt to introduce the NAMA Initiative on a voluntary or negotiated basis with the banks is likely to be extremely challenging, slow and prone to breakdown. Even if it could be achieved on a voluntary basis, it is hard to see how it could be implemented uniformly across the banks, as each bank is likely to take a different approach. These difficulties are particularly pronounced in terms of the pricing of assets. A failure to provide absolute clarity to the markets in relation to timing and terms of the asset transfers could prove fatal to the success of the initiative. To be effective, it is essential that the NAMA Initiative be implemented on a mandatory basis which is provided for in the NAMA Act. This would, in effect, operate to nationalise the development land and commercial property books only of the banks while leaving the banks themselves in private ownership.

*How the NAMA should be capitalised: Bond Issued by Government or with the Benefit of a Government Guarantee*

23. The advantage of this approach, from the point of view of the banks is that it severs any link between the bank and the outcome of the impaired loan. Moreover, since the credit quality of the bond is Government there is zero risk weighting with consequential savings in capital. Another advantage is that the bond, in the hands of the banks, should be eligible collateral for the purpose of Repo agreements at the Central Bank and this, could be used by banks to replenish liquidity. The disadvantage, obviously, is that it adds €124Bn to the national debt at end 2009 – total €199Bn (111% of GDP).

*Impact of Increase in National Debt*

24. It should be noted at the outset that a lot of negative news has already been priced into the Republic of Ireland's CDS and Cash secondary market levels, despite the relatively strong position of Ireland on a Government Debt to GDP ratio (Ireland currently stands at 40.9 per cent relative to the Eurozone average of 65.4 per cent. The Republic of Ireland's 5-year senior CDS is currently trading at the wider end of its European peers at a level of 250bps versus the peer group average of 150bps. Therefore, markets would seem to be discounting a substantial rise in indebtedness. Issuing €120Bn of Government Bonds would push the Government Debt to GDP ratio to 95 per cent in 2008 (restated) and to 119 per cent in 2009. This would take Ireland's debt GDP ratio to rates comparable with Iceland, Italy and Greece. Ireland's CDS spread is at or exceeds these other countries. On this basis it cannot be concluded that Ireland's relative funding cost would deteriorate in line with the rise in indebtedness. It is well known that there has been considerable speculative pressure against the sovereign rating, in anticipation of substantial deterioration in the public finances.

25. One key question would be whether the measures underlying the bond issue (i.e. the creation of an asset management agency and associated banks' recapitalisation measures) were considered by capital markets to resolve the capital adequacy question about Irish banks and the associated attrition being experienced in banks' deposit liabilities which in turn has created the need for the Guarantee scheme. Another key factor relates to the underlying public finance position and current efforts towards stabilising the deficit, which is widening beyond expectations. Then there is the question of the impact of such expansion of the debt on the capacity to service the debt. Ireland has the capacity to absorb additional debt service costs if these were to come about. Finally, the proposed issuance would not take place without the support of the ECB. Of itself, that would tend to mitigate adverse speculative reaction. However, there remains the risk however that the market may focus solely on the 'headline' news, pushing CDS levels wider, unless the strategic plan is explained comprehensively and clearly.

*Revising the Credit Guarantee*

26. A restructuring of the Guarantee consistent with the introduction of the NAMA initiative should be seen as an integral element of a comprehensive strategy. In summary, the aim should be to enhance the credibility of the Guarantee by simultaneously reducing the contingent liability under it and by extending its temporal scope in relation to the sort of long-term bond issuances which are critical to ensuring the covered institutions' survival.

*Sharing Unanticipated Gains and Losses on Impairments: Provision for Equity, Warrants and Other Features*

27. The projected value of impaired loans is sensitive to the underlying assumptions and there is need to protect the State from potential unanticipated losses. One way of achieving this would be for banks, which are transferring impaired loans to the NAMA to provide a warrant to purchase shares in the bank which can be exercised by the Government in several years time at a price – and here's the key – which depends inversely on the value of the impaired debt at that future date. The future date needs to be set far enough into the future for

the market in these kinds of assets to have settled down and their price less imponderable. If the valuation of impaired assets is significantly greater than anticipated at the time of transfer, the warrant will end up too costly to exercise. If the valuation proves to have been wrong and the assets end up worth far less than at the time of transfer the Government will hold an equity stake compensating it in the end for the additional losses it has taken on the assets.

*Required Characteristics of the Financial Instrument Used to Finance the NAMA*

28. Credibility is required at the level of the financial instruments used to replace bad debts in the balance sheet of insolvent banks. There is a temptation to opt for injecting an instrument with low cash outlays now. For example, the NAMA might simply offer the banks a non-interest bearing bullet bond with a long maturity, but the same face value as that of the non-performing assets. The real value of such a bond falls well short of the value of performing loans of equal face value. A bank that is offered no more than that in return for ceding non-performing loans is likely to run into difficulties again, as its operations cannot easily be brought back to profitability. Even if sufficient zero-coupon bonds are injected to bring the *net present value* of the promised payments up to the required level (when calculated at the risk-free discount rate), such an arrangement may not be regarded as satisfactory from the credibility point of view. A government which acts like that will be suspected of temporizing. Market participants will likely assume that it has no clear idea of how it is going to fund the bullet payment at maturity. Accordingly, holders will discount the value of the bond, attaching only a moderate probability to its being honoured in full and on time. Marked-to-market, a bank holding such an asset may still be insolvent, and may feel itself to be insolvent, with all of the incentive problems which that creates. If the bond is tradable in a fairly competitive market, these valuation and credibility problems will come out in the open and force the government to face up to them. Also this type of bond would be of limited use or no value for the banks in accessing ECB collateral.

*Maturity, yield and negotiability of injected assets*

29. In the presence of deep capital markets with a wide range of available maturities, as the Euro-area bond market is, the exact maturity of any marketable government bond injected into the bank will be of little consequence for the incentives facing the bank, as the bank will easily and speedily be able to exchange it for assets of the desired maturity, i.e. cash. Even if the injection of funds is large relative to the overall size of the capital markets, the choice of maturity can be left as a matter of overall debt management policy, and not as one of banking policy.

30. The most straightforward approach then, is to inject a type of asset which is more in line with the sort of asset which a bank would voluntarily hold on its balance sheet: with interest rate floating in line with the market. The value of such a bond should move in tandem with the property assets acquired by NAMA. In short, with an asset that can readily be regarded as “bankable”. Such an instrument can more easily be made marketable, thereby freeing the bank to move forward with an asset-side strategy that is not dependent on its particular failure history.

*Valuation Issues at Transfer: Supplementary Assessor Process*

31. In this approach, the valuation is done prior to transfer and payment by the NAMA itself, following expedited due diligence. The Assessor structure then follows subsequently at a suitable time to ensure that the amount paid was indeed fair. This has a number of benefits in that the timeframe in which the Assessor operates in is no longer relevant to the timing of the transfer, the NAMA can price more strategically taking into account the market impact of the pricing and there is only upside for the banks when the Assessor ultimately reports (i.e. he will report either nothing further due in compensation or a positive amount).

32. The valuation issues at transfer stage are quite tractable. The first issue will be to categorise and sub-categorise these loans. These could be different as to geography and liquidity, and to ease of marking to market. This would allow certain types or qualities of loan to be filtered out, however it would be best if NAMA had a wider range of assets. The next issue would be to divide the assets between (income producing) Investment Properties and (non-income producing) Building and Development Land.

33. The income producing assets could have the prospect of being written down to a level where the income (in aggregate and with some headroom) would pay interest and yield a profit to the bank. These could then be held to maturity. These could be retained in the lending bank if funds did not permit them to transfer in a balanced portfolio.

34. The non-income producing assets would then be transferred. If this transfer was contemplated, it could be done as follows:

- Value the underlying security (property) and then mark the loan itself to market, bearing in mind a range of LTV's and other risks. Although this could be done there will be significant argument as to the basis, methodology and quantity of value. For example a pure 'mark to market' exercise, taking into account the almost total absence of credit, could result in what is popularly referred to as a 'firesale' value – this would be unpalatable but nevertheless the correct value if that is what is required. However given the consequences of this mark-down, it may be more practical to look at a 'normalised' value which could be defined. Two separate outturns are likely depending on whether there is a mandatory regime or a voluntary one. Or
- Depending on the category of underlying security, an across-the-board discount of the asset of x cents in the Euro could be paid. However the transferring institution could have equity (or other exposure) to the NAMA proportionate to the "value" of the assets transferred although this may not be desirable, as the objective should be to break the link between banks and the property assets, at least at the outset.

#### *The Need for Accompanying Policy Initiatives*

35. A major programme of the kind outlined should be integrated with:

- A Macro-economic Recovery Plan Securing a Sustainable Public Finance Position;
- Initiatives to promote economy wide Productivity & Competitiveness gains;
- Public Sector Reform Initiatives and Sector Development Initiatives;
- A strategy for promoting a Smart economy.

#### *A Macro-economic Recovery Plan Securing a Sustainable Public Finance Position*

36. A baseline scenario set out, suggests that the underlying structural deficit in the public finances is of the order of 5 to 6 per cent of GDP. This estimate is arrived at on the assumption of a return to world growth from 2011 onwards. In turn, it suggests that over half the likely deficit in 2009 will be the result of the exceptional nature of the world recession in the period 2008-2010. This "cyclical" element of the deficit is the result of the normal automatic stabilisers taking effect in times of recession.

37. The impact of a budgetary package which includes a series of taxation increases and expenditure cuts in 2009 and 2010 additional to those already implemented in January 2009 have been examined. This package amounts *ex ante* to additional savings of €5.8 billion. These *ex ante* cuts of €5.8 billion lead to an *ex post* saving of €4.5 billion by 2010. The difference is largely due to loss of revenues from expenditure taxes since the fiscal package leads to a significant fall in consumption expenditure. The impact of this package is examined under two scenarios. The first implements this package assuming there will be a world recovery in 2011, the second assumes that the world recession will persist into 2012.

38. Under the first scenario the implementation of the fiscal correction package leads to a medium term loss of GDP of 2 per cent together with 2 per cent lower employment (equivalent to 38,000 jobs), higher unemployment and higher emigration. By 2015 cumulative net emigration is 44,000 higher than in the baseline. These represent permanent losses to the economy and can be broadly characterised as the cost to the economy of fiscal tightening during a recession. With a world recovery in 2011 this fiscal package is sufficient to bring the deficit to 3 per cent of GDP by 2015 and to restore tax revenues' share of GNP to 2006 levels

39. Under normal circumstances it would be advisable to avoid such permanent losses by delaying fiscal retrenchment until the recovery sets in. In 2010 this fiscal package is equivalent to the government removing 2.5 per cent of GDP from an economy in the throes of a very deep recession. This action further depresses consumption and investment so that the deficit widens in 2010. However, as discussed further in the conclusions, these are not normal circumstances and there is too much uncertainty surrounding the prospective timing of a world recovery. This is illustrated here by the results of the second scenario. If the world recovery is delayed by one year, then the costs to the economy are significantly higher. GDP is 5.5 per cent lower in 2015, employment is 2.9 per cent lower (58,000 jobs) and there is cumulative additional net emigration of 56,000.

40. If the forecasts in the baseline scenario were "certain" and if world financial markets were "normal" then it would probably be appropriate to delay taking fiscal action to close the structural deficit until the economy was recovering in the period 2011-2015. While it would require considerable fiscal tightening over that period, the damage in terms of unemployment would be greatly reduced by such a delay. The cost of such a delay would be that the debt/GDP ratio would eventually asymptote out at a higher level, with all that that would entail in terms of future interest payments and higher taxes. However, there is exceptional uncertainty surrounding these forecasts and it is quite possible that the world recovery will be delayed beyond 2010/11. As a result, prudence would suggest taking some action at this stage to begin tackling the structural deficit. A second reason for taking additional fiscal action today in the depths of the recession is the need to convince financial markets that the Irish economy will be able to sustain the current and prospective levels of borrowing. However, it should not be necessary to eliminate the entire structural deficit in 2009 and 2010, or even the majority of it. The fact that world recovery will dramatically reduce the deficit through the operation of automatic stabilisers means that some of the task of restoring the public finances to long-term equilibrium can be best left for the recovery phase.

*Productivity & Competitiveness: Lowering the Costs of Doing Business*

41. Competitiveness is the ability of Irish-based firms to achieve success in international markets, so as to provide Ireland with the opportunity to improve living standards and quality of life. Improving living standards depends on, among other things, raising incomes through strong productivity growth and providing high quality employment opportunities for all. Given Ireland's small domestic market, Ireland requires a vibrant exporting sector and must therefore maintain and develop its international competitiveness. An economy which is internationally competitive needs to be supported by a business environment and broader socio-political climate which encourages high levels of investment in enterprise, public infrastructure, skills and knowledge, and that provides the appropriate incentives and flexibility to respond to change.

42. A key weakness of the Irish economy is the continued decline in Ireland's cost competitiveness. Between January 2000 and September 2008, Ireland experienced a 32 percent loss in international price competitiveness (real HCI), reflecting a combination of higher price inflation in Ireland (approximately one third of the loss) and an appreciation of the Euro against the currencies of many trading partners (nominal HCI). Ireland has a history

of out pacing average Euro-zone inflation since joining the currency union, becoming the second most expensive country within the EU-15. Ireland's above average rate of inflation is largely due to inflation in the price of services, most of which are domestically provided. Since 1999, Irish services inflation has consistently outpaced the Euro-zone average. A series of recommendations are contained in the Report to improve cost competitiveness under the headings:

- Electricity costs;
- Moving towards a lower carbon economy;
- Waste Disposal costs;
- Enhancing competitiveness in Sheltered Sectors.

#### *Public Service Reform*

43. Achieving an integrated public service, capable of maximising value for the taxpayers' money, will require targeted actions in a number of areas. Many of these reforms have been identified by the OECD's review of the public service, including:

- Performance measures need to look at outcomes rather than inputs and compliance with processes.
- Increased flexibility is needed to allow managers to achieve those outcomes;
- Budget frameworks should facilitate prioritisation and reallocation of spending;
- Improved coordination is needed between departments and agencies on cross-cutting issues;
- Greater use of networks is needed to bring together relevant players from across the public service;
- A renewed emphasis is needed on the role of ICT and eGovernment in strengthening information sharing and integrated service delivery. Relative performance in this area has weakened significantly in recent years;
- As in the wider economy, the quality and skills of people working in the public service determines the quality of outcomes. More open recruitment to the civil and public service, and greater mobility between the public and private sector at all levels, would broaden the pool of experience in the public sector and create a stronger culture of change.
- At the individual level, greater accountability and responsibility matched with suitable levels of autonomy and methods to recognise excellence will be required;
- At the management level, finding real mechanisms for addressing under-performance have been identified as a priority by Government.

#### *Promoting a Smart Economy*

44. The Smart Economy combines the successful elements of the enterprise economy and the innovation or 'ideas' economy while promoting a high-quality environment, improving energy security and promoting social cohesion. A key feature of this approach is building the innovation or 'ideas' component of the economy through the utilisation of human capital - the knowledge, skills and creativity of people - and its ability and effectiveness in translating ideas into valuable processes, products and services. A second important aspect is the greening of the economy and the development of green enterprise.

45. The Smart Economy has, at its core, an exemplary research, innovation and commercialisation ecosystem. The objective is to make Ireland an innovation and commercialisation hub in Europe – a country that combines the features of an attractive home for innovative R&D-intensive multinationals while also being a highly-attractive incubation environment for the best entrepreneurs in Europe and beyond. This will be the successful formula for the next phase of the development of the Irish economy and for delivering quality and well-paid jobs.

46. The Smart Economy is a ‘Green Economy’ in that it recognises the inter-related challenges of climate change and energy security. It involves the transition to a low-carbon economy and recognises the opportunities for investment and jobs in clean industry. The core of this Green New Deal is a move away from fossil-fuel based energy production through investment in renewable energy and increased energy efficiency to reduce demand, wastage and costs.

*Government Actions to Build the Smart Economy*

47 The five Action Areas of the Framework are:

- Meeting the Short-term Challenge – Securing the Enterprise Economy and Restoring Competitiveness;
- Building the Ideas Economy – Creating ‘The Innovation Island’;
- Enhancing the Environment and Securing Energy Supplies;
- Investing in Critical Infrastructure;
- Providing Efficient and Effective Public Services and Smart Regulation.

*Positioning Ireland for Recovery*

48. Productivity growth is a key to improving living standards, particularly as it allows for sustainable pay increases without eroding cost competitiveness. Achieving higher productivity growth rates is critical for long term competitiveness and sustainable wage growth. Average productivity growth rates in Ireland were below the OECD average in the period 2004-2007, and significantly below earlier performance in 2001-2004. While productivity performance is multifaceted, the future supply of a highly educated workforce, equipped with skills-sets aligned to business needs, is an important enabling factor for recovery. Future success is equally dependent on the response to the all-pervasive issues of energy security, cost and climate change.

## **1. Crisis in Irish Banking**

### **1.1 Introduction**

Ireland, as with many other economies is experiencing a crisis in its banking and financial sector. At the heart of this crisis is a concern of capital markets about the adequacy of capital to meet future loan impairments and institutions' capacity to obtain additional capital externally, in the event that proves necessary. Future impairments are of concern because, for the past decade now Ireland has experienced rapid inflation in property values and lending to the property sector has been an increasingly important component in credit institutions' lending. In addition, there have been several well publicised regulatory failures and dubious practices carried out by management at a number of institutions, which have heightened international concern about the health of the financial sector.

Irish credit institutions have become increasingly dependent for growth on expansion in net external liabilities (deposits from overseas) and the growing concern has resulted in these liabilities shrinking in the past six months or so, and recourse to the Central Bank, for liquidity has risen dramatically.

A number of initiatives have been taken by the Authorities to date, to deal with the underlying matters of concern and allay concerns. Thus, on 30 September 2008 the Government undertook to guarantee for two years all the deposit liabilities (retail, commercial and institutional) and money borrowed from other financial institutions and all covered bonds, senior debt and dated subordinated debt of six banks and credit institutions. In January, 2009 Anglo Irish Bank Corporation was nationalised and in February the Government announced it would inject €3.5Bn by way of preferential shares into each of AIB and Bank of Ireland.

Section 1.2 analyses trends in bank lending and credit expansion. Section 1.3 looks at developments in relation to deposits and liquidity. In Section 1.4 projections are made of expected impairments to the property loans of the six State guaranteed credit institutions. Finally, an assessment is made of the likely impact of these impairments on the adequacy of capital.

### **1.2 Recent Developments in Lending and Credit Expansion**

There has been rapid expansion in all categories of credit for most of the decade to date. Year on year growth in lending for real estate and construction, in particular was extremely rapid, increasing by over 40 per cent during 2003/4 before accelerating there after to peak at over 60 per cent, in the third quarter of 2006. Since then there has been a marked slowdown in the rate of increase which nevertheless was still above 20 per cent, year on year at September 2008. (Chart 1.1)

Similarly, lending for residential mortgages growth accelerated from year on year rates of increase of 20 per cent in the early part of the decade to around 33 per cent

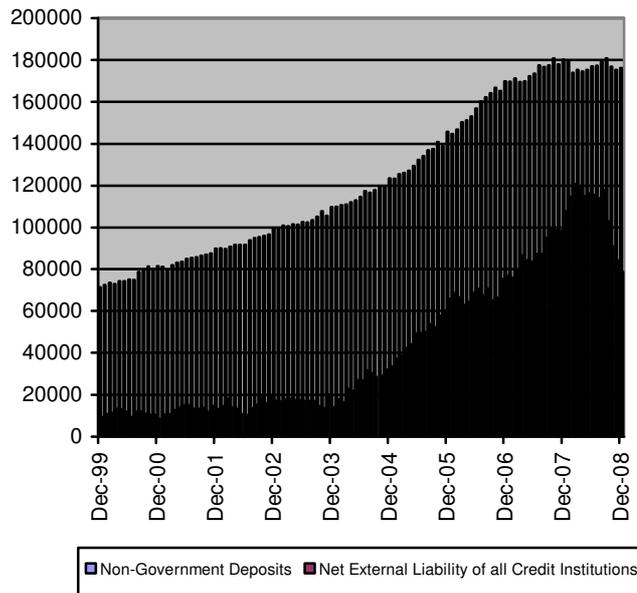
through the second half of 2003 and 2004. Since then there has been mortgage lending growth has slowed to a standstill by end 2008. (Chart 1.1)

**Chart 1.1: Growth in Selected Credit Aggregates**



To a considerable degree, the credit expansion described above has been financed by a growth in the net external liability of the credit institutions (Chart 1.2), which has grown from under €10Bn at the start of 2000 to a peak of almost €120Bn by the first quarter of 2008. However, since then the net external liability (NEL) has declined sharply to €78.6Bn by end 2008. The expansion of credit institutions net external liability up to early last year was facilitated by membership of the Euro and credibility of Ireland's economic performance and management of the public finances. The decline in NEL during 2008 has been accompanied by increasing recourse to the Central Bank for liquidity; its refinancing operations rising by about €45Bn during 2008 to €48Bn at end November last and €100Bn at end February 2009 (comprising over €50Bn in respect of the six institutions covered by the Guarantee and €50Bn for IFSC operations and non-Irish institutions. The figure continues to grow.

**Chart 1.2: Deposits and NEL of Credit Institutions**



### 1.3 Increased Dependence of Banks on Wholesale Money Markets for Liquidity

A corollary of Irish banks' reliance on wholesale international money markets for liquidity to fund past credit expansion is higher dependence on refinancing of these interbank deposits and term financing to maintain liquidity going forward.

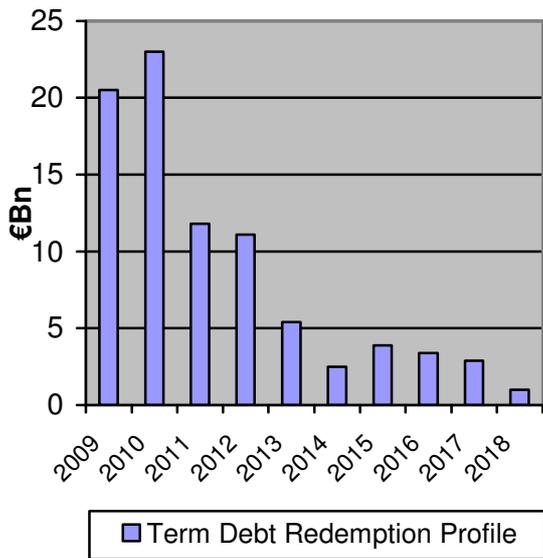
#### *Shortening in term Structure of Deposits*

Short-term borrowings amount to €163Bn, (€74Bn interbank plus €69Bn CP/CD). The main banks are experiencing a foreshortening in the duration of their interbank books. For example, one major bank [BOI] has experienced cuts (to end February) in inward credit lines from non institutional customers of €15Bn since end December. It has rolled over just 19% of maturing liquidity (€800m rolled versus maturities of €4,200m). In the same period [AIB] has seen a decline in retail, corporate and deposits from non-bank financial institutions of about €13Bn. And there is market commentary of domestic banking institutions continue to pay uneconomic rates for deposits.

#### *Investor Demand for Short and Long Term Irish Bank Guaranteed Debt*

The term debt and capital redemption profile of selected Irish financial institutions (AIB, Anglo, BOI and ILP) is shown in Chart 1.3. Redemptions in 2009 amount to €20.5Bn. However, demand is currently very weak. Investors in Irish State guaranteed have seen their spreads double or even treble since their launch. They are the worst performing bonds in the sector. Since August 2007, credit default swap levels have risen by about 10-20 times. So far this year Irish banks have raised only €1Bn to date leaving over €19Bn to be refinanced.

**Chart 1.3: Term Debt Redemption Profile**



If banks' short-term debt fails to roll-over the refinancing requirement this year could rise to €163Bn. While the Irish State is still able to issue, the prospects of Irish banks issuing under State guarantee would be very challenging, especially in the light of deteriorating investor sentiment towards Ireland's financial sector.

The banks' balance sheets of course contain a reasonable amount of contingent liquidity. An estimate of the amount of repo-eligible collateral is contained in Chart 1.4. On the basis of the estimated value of mortgage backed securities (MBS) and Covered Bonds retained by the issuer in 2008-9 (YTD) over €33Bn could be made available as repo collateral. This exceeds the wholesale funding requirement. However, while these estimates suggest that adequate liquidity can be found in the short-term, it is clearly highly unsatisfactory that Irish banks would need to rely on recourse to the Central Bank for liquidity in the extent that is suggested by the figures above.

*Conclusion*

***In summary, Irish banks face an extremely unstable outlook in respect of international, wholesale deposits, upon which they have become significantly dependent in the decade to date to fund expansion of their assets (lending). In recent times they have experienced major withdrawals of these deposits in excess of €45Bn, to date in 2009, a shortening of the average duration of deposits and CP and substantial recourse to the Central Bank for short-term liquidity support.***

## 1.4 Emerging Property Related Economic Impairments & Prospects to 2011 for the Six Guaranteed Financial Institutions

Table 1.1 below contains a summary of the property loan exposures of the six credit institutions, whose deposits are guaranteed by the Government, as at September 2008, following on the rapid expansion of credit described above in Section 1.1. A more detailed analysis is contained in Appendix A, which provides data on the geographic distribution of these loans according to category of property investment.

**Table 1.1 Summary Property Exposure (Sept 2008) €Bn – updated estimates**

	AIB	Anglo	BOI	INBS	ILP	EBS	Total
<b>Land</b>							
Unzoned	1.5	1.4	0.4	0.1	-	-	3.4
Zoned with no PP	6.0	5.2	2.3	2.1	-	0.2	16.4
Zoned with PP	3.5	3.2	2.8	0.8	-	0.2	10.6
WIP/Construction	10.0	8.6	7.5	1.8	-	0.1	30.6
Other		4.6	-	1.2	-	-	2.1
<b>Total Land &amp; Development</b>	<b>21.0</b>	<b>23.0</b>	<b>13.0</b>	<b>6.0</b>	<b>-</b>	<b>0.5</b>	<b>63.5</b>
<b>Property Investment</b>							
Commercial	23.0	37.0	20.8	2.0	1.5	1.3	85.6
Residential	4.2		3.2				7.4
Contracting	1.8						1.8
<b>Total Property Investment</b>	<b>29.0</b>	<b>37.0</b>	<b>24.0</b>	<b>2.0</b>	<b>1.5</b>	<b>1.3</b>	<b>94.8</b>
<b>Total Property Exposure</b>	<b>50.0</b>	<b>60.0</b>	<b>37</b>	<b>8.0</b>	<b>1.5</b>	<b>1.8</b>	<b>158.3</b>

\*Contracting

Source: Summary Report, PriceWaterhouseCoopers, Updated with best estimates available.

As may be seen the aggregate property loan exposure amounted to €158 Billion, with some €63.5 Billion being accounted for by Land & Development loans with the balance of €94.8Bn accounted for by investment loans. Anglo has the greatest exposure at €60 Billion, with approximately over a third of this relating to land & development. AIB's exposure amounts to €50 Billion, with just under half relating to land/development. Bank of Ireland's exposure is just €37 Billion, with a third of that relating to land and development.

In order to assess the likely future impairment experience associated with these loans it is necessary in the first instance to assess the current and prospective outlook for the various categories of investments for which the credit has been extended.

### *Development Land in Ireland*

The marked slowdown in the volume and value of transactions during 2008 makes it more difficult to obtain representative data for comparison purposes. However, there is no doubting the trend and the broad orders of magnitude of reductions in development land values across Ireland<sup>1</sup>. In summary there is consensus amongst

<sup>1</sup> The commentary below draws on material contained in *Development Land Market Report June – Dec 2008*, The Property Week & Developer.ie and on discussions with market professionals.

market professionals that in Dublin and other urban centres values are down by around 50 per cent from 2006 peak levels. Outside metropolitan areas, it is to be expected that they have gone down even more, particularly in locations where there is considerable unsold stock of new homes and poor transport links to major centres of employment.

The Property Week development land database recorded 352 properties brought to the market in 2008 - just over half of the 672 properties recorded in 2007. Analysis of the listings by type suggests that green-field sites represented the largest share (40.8%) of development land sites for sale in 2008, followed by commercial buildings (26.0%), residences (11.6%), mixed-use development sites (10.8%), and industrial buildings (9.2%). These are mostly in line with 2007 figures.

Some features of the data are relevant to an assessment of value change and likely loan impairment. For example, Mixed-use sites with planning permission had the highest average advertised price per hectare at €18.3 million, compared to an average of just €1.5 million for sites without planning permission, which underlines the substantial price premium a site with planning permission can obtain versus a site without permission. The planning permission price premium is not nearly as high for development sites already occupied by commercial buildings (€12.7 million per hectare with planning permission versus €7.8 million per hectare without planning permission) or existing residences (€11.1 million per hectare with planning permission and €8.0 million per hectare without planning permission), though this is due to higher existing use value on these sites compared to that on the sites for mixed-use developments. Interestingly, there is virtually no difference between the average advertised price for green-field sites with (€1.5 million per hectare) and without planning permission (€1.6 million per hectare).

It is possible to compare the average advertised price per hectare recorded in 2008 with the average for 2007. However, it must be borne in mind that this analysis is based on a sample of advertised prices and therefore may not accurately represent the market as a whole. However, it does give some indication as to the scale of change in prices observed over the last twelve months. It shows that the average price per hectare for sites with commercial buildings with planning permission fell by more than half and commercial buildings without planning permission fell by more than three-quarters. The average price per hectare for mixed-use sites fell by around two-thirds, while sites with industrial buildings fell by around 40 per cent. Green-field sites with planning permission fell by one-quarter, though the figures indicate a one-third increase in the average price of green-field sites without planning permission. Overall, however, the data confirm a dramatic drop in development land values almost right across the market.

Further declines in value are to be expected. In the residential sector there is a significant overhang of completed but unsold residences and with demand weakening further there will be additional downward pressure on end values. The residual valuation of development sites in these circumstances must, inevitably, fall further.

Depending on location it is considered that a peak to trough decline in the value of residential development land of 50-80 per cent is in prospect over the period 2006-

2011, with commercial development land falling 50-70 per cent during the same period.

*Development Land in the UK*

The picture in the UK for development land is broadly similar to that in Ireland. Residential land values are falling at a faster rate than was seen in the early 1990s.<sup>2</sup> Urban land values fell by 49 per cent in 2008. Greenfield land recorded a drop of 49 per cent. To put the current land market into context the 50 per cent fall in land value recorded in 2008 was more rapid than was the case in the early 1990s when development land values fell by 60 per cent over a two year period. At that time it took land values 10 years to return to their former 1989 peak values. While the underlying demographic and housing supply situation in the UK situation is stronger in the UK than in Ireland the momentum of decline to date, along with the continuing weakening of housing demand in the short-term suggests strongly that values will weaken further this year and into 2010. Overall a peak to trough decline in development land values of 50-60 per cent from 2007-2010 is expected.

*Commercial Property*

Commercial real estate values in Ireland have fallen 37 per cent to end 2008.<sup>3</sup> It is expected that yields, which were 6.6 per cent at end 2008 will converge towards those in the UK currently 8 per cent. In addition, rents in Ireland are expected to decline as the recession deepens, reinforcing the downward trend in values. This would point to a peak to trough decline in commercial investment values of 50 – 70 per cent, in the period 2006-2011. For the UK a peak to trough decline in the range 40-60 per cent is expected, though the trough is expected to be reached earlier than Ireland.

Table 1.2 below draws together the results of the discussion above in summary format.

**Table 1.2: Expected Peak-Trough Declines in Property Values by Type of Investment (Percentages)**

	Development		Investment	
	Residential	Commercial	Residential	Commercial
Ireland	60-80 per cent 2006-2011	50-70 per cent 2006-2011	40-70 per cent 2006-2011	50-70 per cent 2006-2011
International	50-60 per cent 2007-2010	50-60 per cent 2006-2010	40-50 per cent 2006-2010	40-60 per cent 2006-2010

*Additional Assumptions Required to Project Economic Impairment*

In order to estimate the likely economic impairment of property loans summarised in Table 1.1 above associated with the declines in values summarised in Table 1.2, certain under considerations have to be included. Firstly, allowance has to be made for the fact that all loans were not taken out at the peak. This matter can be incorporated in the analysis fairly readily: from the fact that property lending approximately doubled between mid 2006 and end 2008. Secondly, the degree of

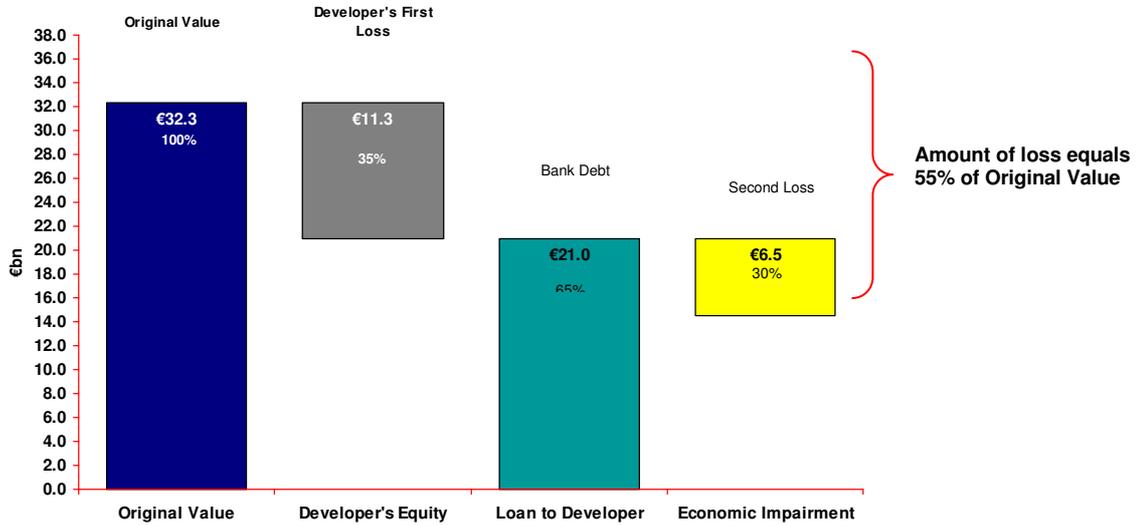
<sup>2</sup> See for example, *UK Residential Development Land*, Savills UK Research January 2009

<sup>3</sup> See IPD

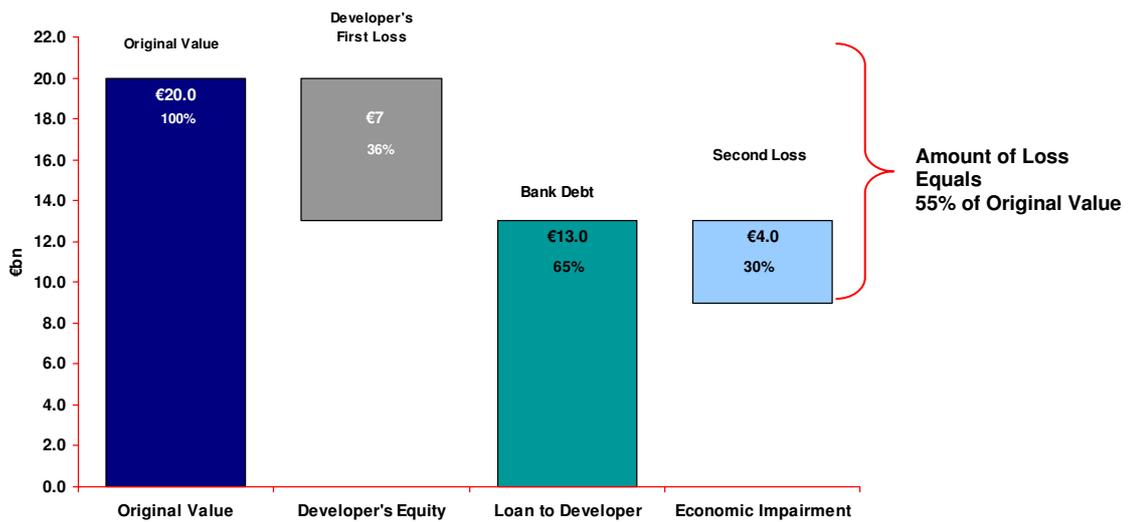
impairment depends crucially on the amount of equity available to take the ‘first loss’. In this respect explicit assumptions have been made (see Charts 1.4 – 1.9 below) in respect of loan to value ratios associated with different categories of loan. Other issues, such as the effect of cross guarantees are not possible to model explicitly and can only be incorporated in a discretionary manner. The charts set out for each of the various financial institutions covered by the Governments deposit guarantee, the expected cumulative economic impairment of property loans from September 2008 to 2011, both in absolute terms and as a percentage of the relevant loan book, at September 2008.

A summary profile is contained in Table 1.3. As can be seen the analysis indicates a cumulative impairment of approximately €19.6Bn (equal to 31 per cent of the value of loan book at September 2008 as updated) in respect of the aggregate property development loan book of the six credit institutions over the period September 2008-2011 with a further €15Bn expected in respect of the property investment loan book of the six institutions. In total, therefore the economic impairment of the six institutions combined property development and investment book is projected at €34Bn, to March 2012.

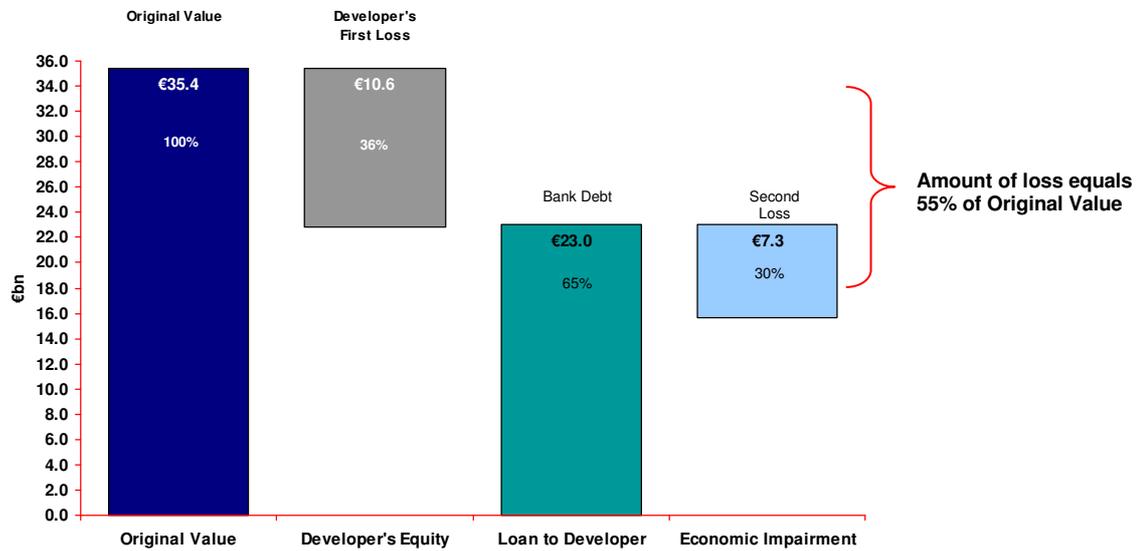
**Chart 1.4: AIB Development Loans: Projected Economic Impairment 2008-2011, €Bn**



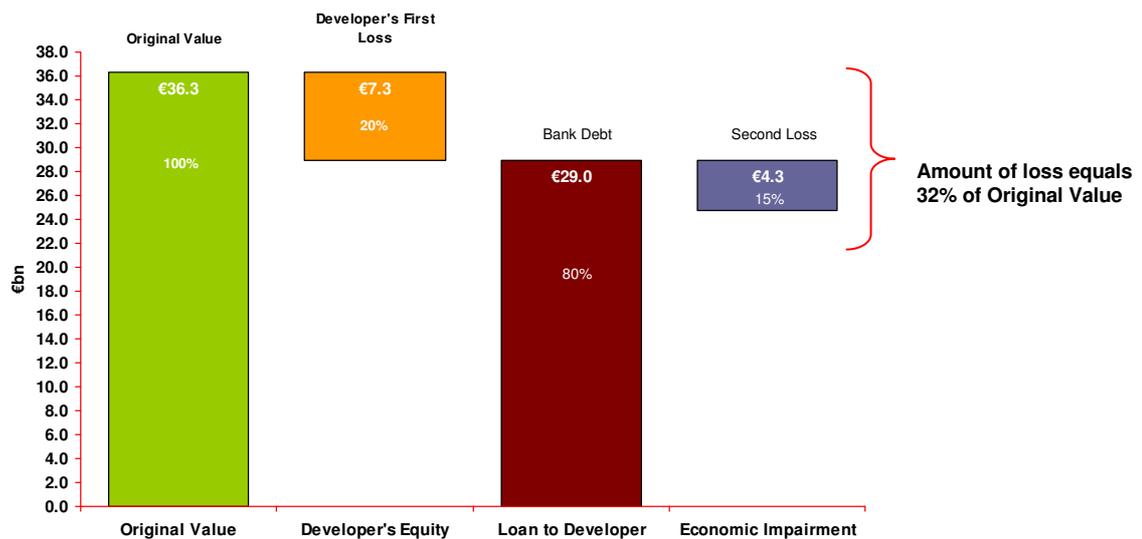
**Chart 1.5: BOI Development Loans: Projected Economic Impairment 2008-2011, €Bn**



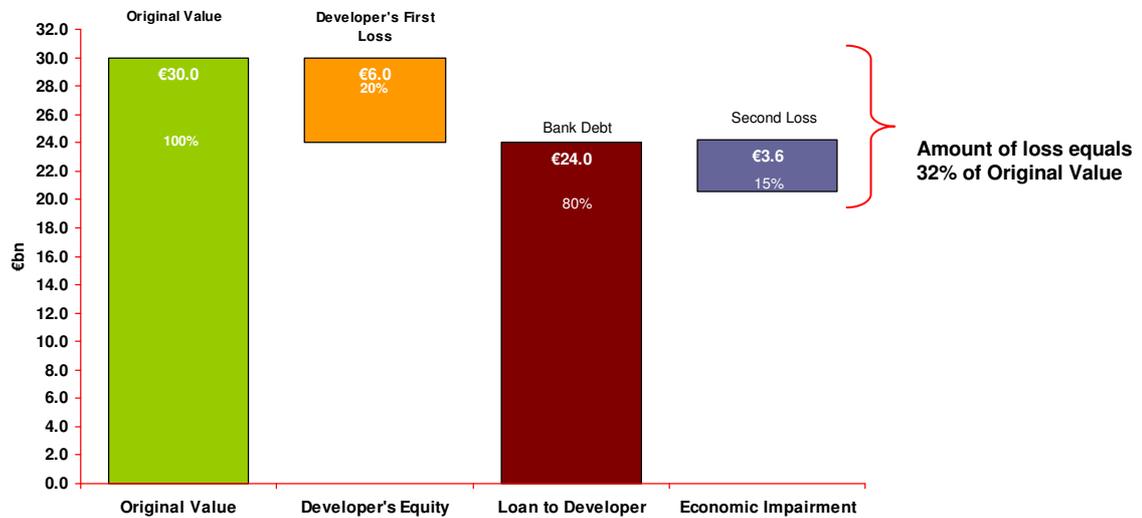
**Chart 1.6 Anglo Development Loans: Projected Economic Impairment 2008-2011, €Bn**



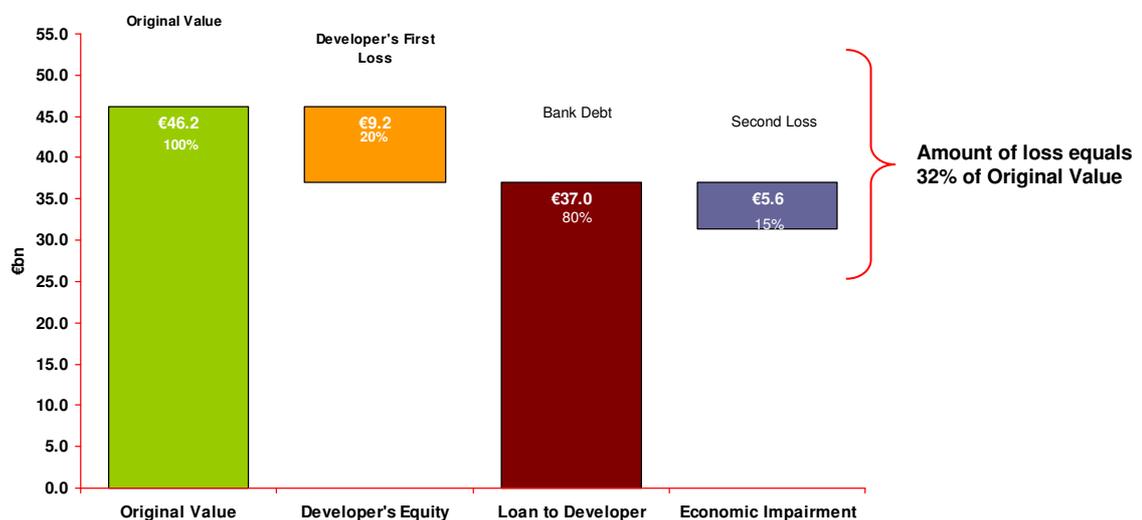
**Chart 1.7 AIB Investment Loans: Projected Economic Impairment 2008-2011, €Bn**



**Chart 1.8: BOI Investment Loans: Projected Economic Impairment 2008-2011, €Bn**



**Chart 1.9: Anglo Investment Loans: Projected Economic Impairment 2008-2011, €Bn**



**Table 1.3: Summary of Projected Economic Impairment of Property Loan Portfolios of the Six Guaranteed Credit Institutions Sept 2008-2011, €Billion**

<i>Development Loans</i>		Total	AIB	Anglo	BOI	INBS	ILP	EBS
1	Estimated Original Value of Development Assets (Based on <i>average</i> LTV ratio of 65%)	97.7	32.3	35.4	20.0	9.2	-	0.8
2	Development Loans Outstanding Sept 2008	63.5	21.0	23.0	13.0	6.0	-	0.5
3	Projected Value of Development Assets in 2011 (On the basis of an <i>average</i> decline of 55 per cent in the value of development assets from Sept. 2008 as updated)	43.9	14.5	15.9	9.0	4.1		0.4
4=1								
-3	Reduction in the Value of Assets (Sept 2008-March 2012)	53.8	17.8	19.5	11.0	5.1		0.4
5=1-								
2	Amount of reduction absorbed by write-off of developer's equity	34.2	11.3	12.4	7.0	3.2		0.3
6=5								
-4	Cumulative impairment of bank's loan book	19.6	6.5	7.3	4.0	1.9		0.1
7=6/2								
	Value of impairment as a percentage of bank's loan book at Sept 2008 as updated – best estimate available	31	31	31	31	31		31

**Table 1.3 Continued: Summary of Projected Economic Impairment of Property Loan Portfolios of the Six Guaranteed Credit Institutions Sept 2008-2011, €Billion**

	<i>Property Investment Loans</i>	Total	AIB	Anglo	BOI	INBS	ILP	EBS
1	Estimated Original Value of Property Investment Assets (Based on <i>average</i> LTV ratio of 80%)	118.5	36.3	46.2	30.0	2.5	1.9	1.6
2	Property Investment Loans Outstanding Sept 2008	94.8	29.0	37.0	24.0	2.0	1.5	1.3
3	Projected Value of Property Investment Assets end 2011 (On the basis of an <i>average</i> decline of 32 per cent in the value of property investment assets from Sept. 2008)	80.6	24.7	31.4	20.4	1.7	1.3	1.1
4=1-3	Reduction in the Value of Assets (Sept 2008-2011)	37.9	11.6	14.8	9.6	0.8	0.6	0.5
5=1-2	Amount of reduction absorbed by write-off of developer's equity	23.7	7.3	9.2	6.0	0.5	0.4	0.3
6=5-4	Cumulative impairment of bank's loan book	14.2	4.3	5.6	3.6	0.3	0.2	0.2
7=6/2	Value of impairment as a percentage of bank's loan book at Sept 2008	15	15	15	15	15	13.3	25

*Sensitivity of the Projections to Key Assumptions*

It is important to understand that an aggregate analysis of the kind described above contains many implicit assumptions, which could serve to bias or cause errors in the results. It is therefore important to test the sensitivity of the results to the key assumptions namely: the expected rate of decline in the value of property development and investments; and the equity that can be called upon to meet the ‘first loss’. And indeed as shown in Table 1.4 the results are quite sensitive to changes in these assumptions.

**Table 1.4: Sensitivity of Estimated Economic Impairment to Variations in Certain Key Assumptions**

Average Decline in Value of Assets	<i>Development Assets</i>			Average Decline in Value of Assets	<i>Investment Assets</i>		
	% Variation from 55	Impairment € Bn	% Variation from 19.0		% Variation from 32.0	Impairment € Bn	% Variation from 15.0
51	-7.3	15.3	-12.0	28.0	-12.5	9.3	-35.0
53	-3.6	17.2	-8.0	30.0	-6.2	11.7	-18.7
<b>55</b>	<b>0</b>	<b>19.0</b>	<b>0</b>	<b>32.0</b>	<b>0</b>	<b>15.0</b>	<b>0</b>
57	3.6	21.1	12.8	34.0	6.2	16.5	14.6
59	7.3	23.0	23.0	36.0	12.5	18.9	31.3
LTV Ratio	% Variation from 65	Impairment € Bn	Variation from 19.0	LTV Ratio	% Variation from 80	Impairment € Bn	Variation from 15.0
69	6.2	21.7	16.0	84	5.0	18.2	26.4
67	3.1	20.5	9.6	82	2.5	17.3	20.1
<b>65</b>	<b>0</b>	<b>19.0</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>15.0</b>	<b>0</b>
63	-3.1	17.8	-4.8	78	-2.5	12.3	-14.6
61	-6.2	16.4	-12.0	76	-5.0	10.1	-30.0

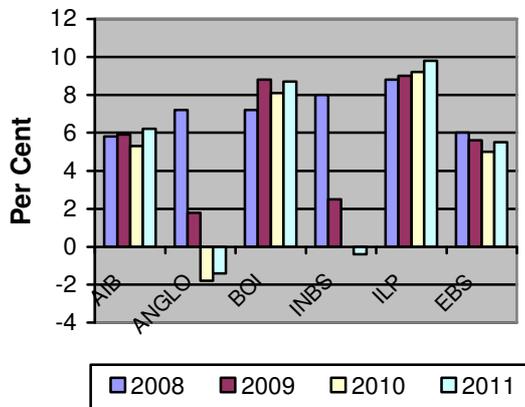
Thus, in the case of development loans a four per cent variation in the around the projected rate of decline in the value of development assets leads to a variation of plus/minus €4.3-3.4Bn (15 per cent) around the projected impairment of €19Bn for these assets. Similarly, a variation of 12.5 per cent around the projected decline of 32 per cent in investment assets leads to a variation of €4.5-5.1Bn around the projected impairment of €15Bn for these assets. The sensitivity of the impairment projections to variations in the LTV ratio follows a similar pattern.

*Conclusions*

***In conclusion, looking forward to 2011 the six guaranteed credit institutions face cumulative economic impairment on their property loan exposures of around €34Bn. or 20 per cent of the total value of property loans outstanding at September 2008 of €158.3Bn. Of this amount about €20Bn relates to institutions development loan book (31 per cent) and the remainder is expected to arise with respect to the property investment loan book, 15 per cent of those loans. In considering these projections it needs to be borne in mind that the results are sensitive, to certain of the assumptions made in deriving the estimates. The implications of this sensitivity need to be incorporated when considering the implications of the projected impairment or devising propositions as to how they should be dealt with.***

## 1.5 Implications for Capital Adequacy and Future Growth

**Chart 1.10: Impact of Projected Impairment on Tier1 Capital**



The Implications of the projected impairments for the capital adequacy of each of the six State guaranteed credit institutions is contained in Appendix 2 (Table A2.1). A summary is shown in Chart 1.10. It can be seen that in the case of Anglo and INBS, the projected Tier1 Capital ratio, would fall substantially below the current regulatory minimum of 4 per cent. In the case of Bank of Ireland (with the benefit of the €3.5Bn injection of Government Capital & Irish Life & Permanent Tier1 Capital would remain at levels of 8 and 9 per cent respectively, i.e. levels regarded as satisfactory by reference to current market expectations. In the case of AIB (also with the benefit of €3.5Bn of Government Capital) and EBS, Tier1 Capital ratios remain above the regulatory current minimum level of 4 per cent. However, at under 6 per cent and 5 per cent respectively the projected Tier1 rates of capital suggest further capitalisation measures will be necessary in these institutions if they are to attain levels considered by the market to be adequate (i.e. around 7-8 per cent). An indication of the required additional capital to bring tier1 ratios to 7.5 per cent is contained in Table 1.5.

**Table 1.5: Projected Additional Capital Required to Raise Tier1 Capital Ratio to 7.5 Per cent Following Projected Impairment €Bn**

Total	AIB	ANGLO	BOI	INBS	ILP	EBS
8.4	1.5	5.6	-	1.0	-	0.3

### Conclusion

*The initiatives taken to date by Government are considered to be insufficient to achieve rates of capital adequacy that would encourage investors to hold and invest further equity in Irish credit institutions. As long as this remains the case share values are likely to remain depressed and liquidity are likely to experience continued attrition and foreshortening in duration. This will undermine banks' capacity to grow lending in support of the enterprise economy thus complicating and slowing recovery of the real economy. Moreover, the projected capital requirements noted above, assume that Irish banks remain in their current 'zombie' status till end 2011. Such a prospect would hinder economic recovery, complicate further the required adjustment of the public finances and leave Ireland's international credit rating subject to downward pressures and speculative attacks.*

***Therefore additional and far reaching measures need to be undertaken to place the banking system on a sound footing.***

## 2. Re-emerging Constraints on the Public Finances

### 2.1 Introduction

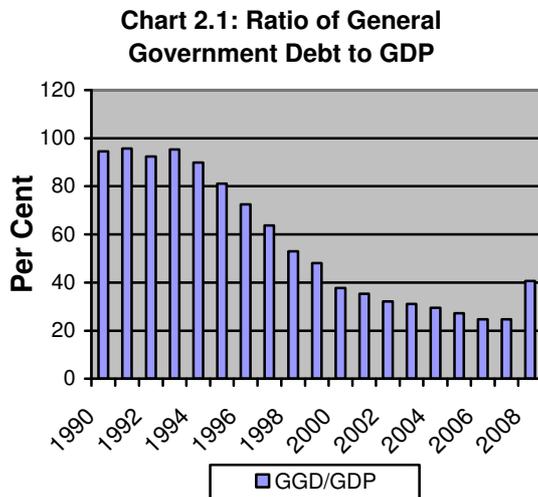
The past decade and a half have seen a dramatic transformation in the public indebtedness position, from one where Ireland was amongst the highest in the EU to the lowest. Much of the improvement has come about as a result of very strong economic growth and the impact of automatic stabilisers, notably a high elasticity of tax revenue with respect to GDP growth. With the contraction of the economy in 2008 the general government deficit has widened and the debt GNP ratio has risen sharply.

In addition to concern about the turnabout in the public finances and the speed with which it has occurred an additional complication has been the intertwining of public finance concerns with those faced by the banking sector via the impact of the deposit guarantee scheme.

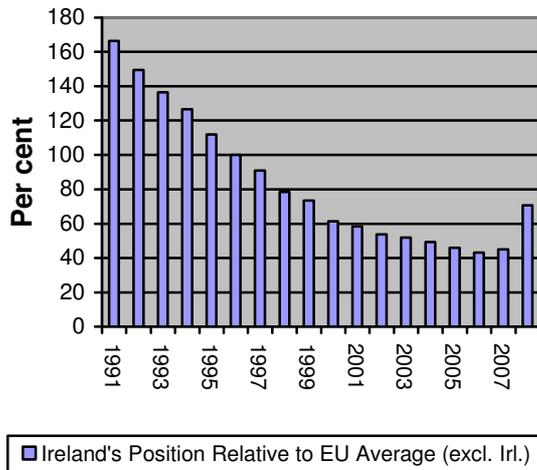
The overall effect has been a sharp rise in the cost of government funding and confusion in capital markets surrounding the prospective extent of Government indebtedness with consequential uncertainty surrounding Government issuance and credit terms.

### 2.2 Deficits, Public Debt and Escalating costs of funding

Chart 2.1 shows the General Government Debt as a per cent of GDP, since 1990 while Chart 2.2 depicts the position of Ireland relative to the average of the EU over the same period. The picture in both cases is very similar: a dramatic fall has occurred since the early 1990s to 2007 followed by a sharp increase in 2008. However, even at end 2008 the debt as a per cent of GDP remained a modest 41 per cent. (The EU average was 61 per cent.)

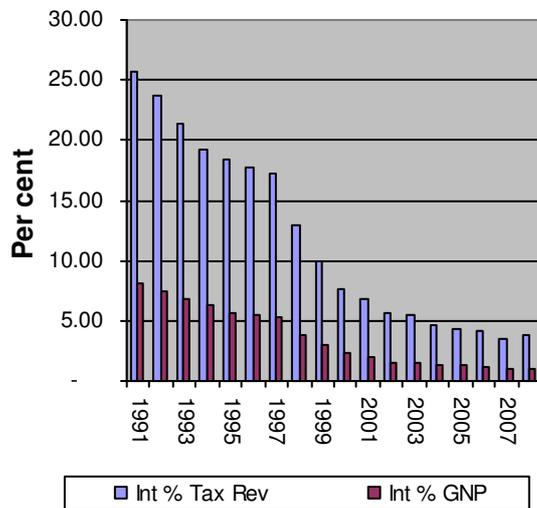


**Chart 2.2: Ireland's Position Relative to EU Average (excl. Irl.)**



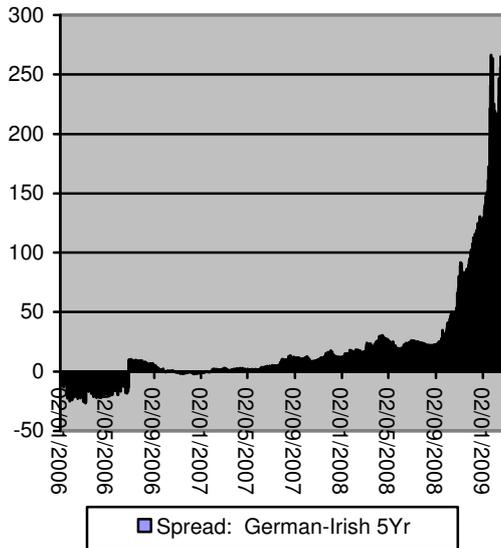
The reduction in indebtedness as a per cent of GDP has been accompanied by an equally significant fall in debt service costs (Chart 2.3). Interest costs as a per cent of tax revenue represent 3.8 per cent of tax revenue compared with over 25 per cent in 1991.

**Chart 2.3: General Government Debt Service Costs**

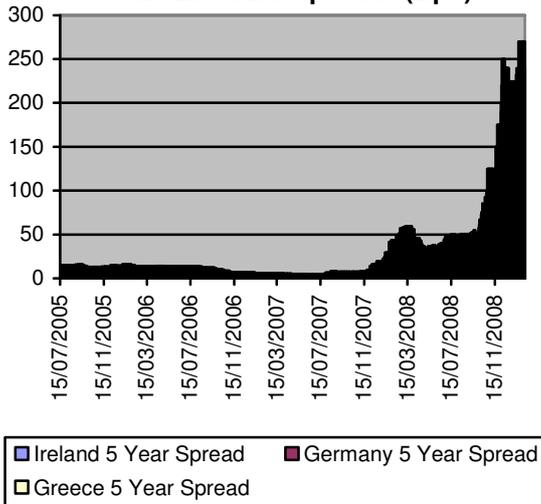


Notwithstanding the long-term favourable trend in indebtedness and debt servicing cost the turnabout in 2008 as a result of the widening deficit has been accompanied by a very sharp rise in the relative cost of Government debt issuance in recent times. Thus in the past five months the spread of Irish 5-year bonds over German Bunds of similar maturity has trebled to around 280bps. Similarly, the credit default swap (CDS) rate for Irish bonds, (Chart 2.5) which had been similar to that of Germany for much of the decade to date began to increase dramatically from the third quarter of 2008 and now exceeds that for Greece, previously the country with the highest CDS rate in the EU.

**Chart 2.4 Spread: German-Irish 5Yr (bps)**



**Chart 2.5: CDS Spreads (Bps)**

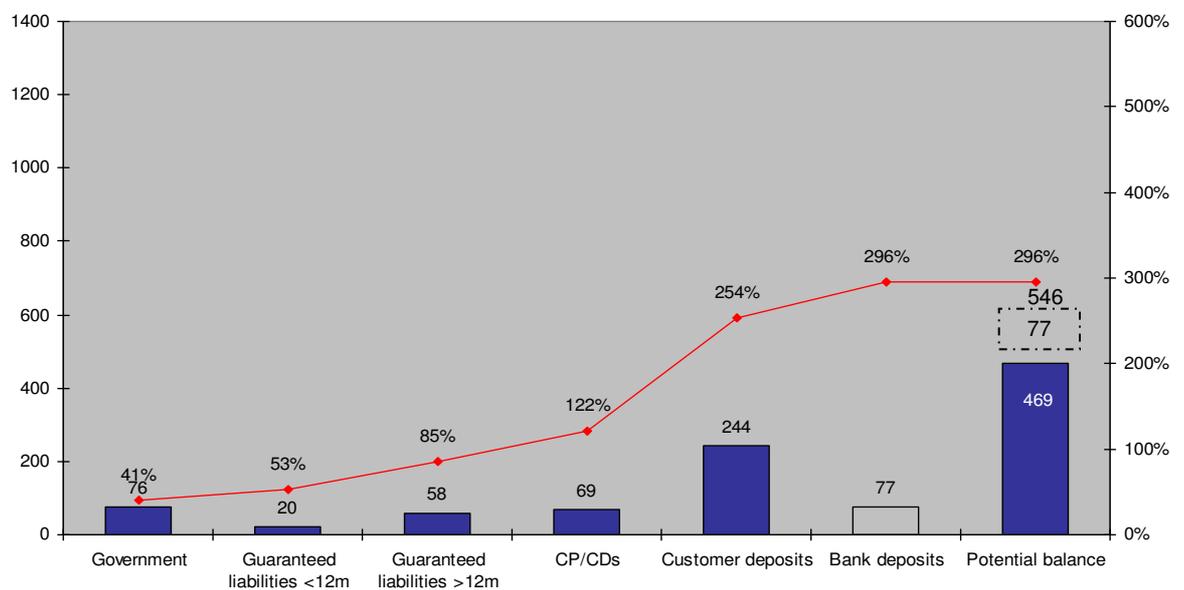


### 2.3 Implications of Bank Support Measures to Date: Contingent Liabilities of the Exchequer

Undoubtedly, the sharp turnabout in the public finances during 2008 and the concomitant rise in the Government debt/GDP ratio would be expected to be accompanied in some widening of spreads. However, Ireland is not alone in experiencing an increase in the Debt/GDP ratio, indeed many countries, UK, France Germany have embarked on fiscal stimulatory measures while Ireland's policy stance has been increasingly contractionary. In part at least the deterioration in Ireland's relative cost of funds is related to the contingent liabilities of €440Bn assumed by the Government in respect of banks and credit institutions deposit guarantees. These were taken on from 30 September and it is from around that date that credit spreads have

deteriorated most sharply. Capital markets are simply adding contingent liabilities to the outstanding and prospective debt as a result of the widening deficit and coming up with very large numbers, (Chart 2.6). In effect the sovereign debt rating is being intertwined with the country's banking problems via the guarantee on deposits. Uncertainty has been created because of the contingent nature of the bank guarantee on deposits and other debt it is evident to market participants that credit institutions' deposits have not been stable since the guarantee was put in place. Hence, the probability of the guarantee being called has been raised. At the same time the underlying cause of deposit instability: the question of the capital adequacy of the credit institutions to meet prospective impairments remains unresolved. In these circumstances the likelihood is that the uncertainty premium in yield being attached to government debt will continue and indeed may increase, as economic conditions deteriorate.

**Chart 2.6: Gross Government Debt & Contingent Liabilities**



## 2.4 Conclusions

Deterioration in the Government Debt/GDP ratio is underway, as the general government deficit widens. A significant part of this deterioration arises from the effects of cyclical downturn. Moreover, discretionary budgetary adjustments to curtail the widening deficit will be partially undone by the deflationary impact of the discretionary measures themselves. To some degree, in the absence of international recovery and/or gains in competitiveness and productivity in Ireland the domestic fiscal adjustment process has the characteristics of a vicious spiral comprising weakening economic activity leading to widening of the Government deficit and indebtedness leading to discretionary fiscal adjustments leading to further erosion of economic activity and so on.

The deterioration in Ireland's credit terms associated with fiscal position has been compounded by the additional contingent liabilities assumed by Government by virtue

of the necessity to guarantee the deposits and other debt of credit institutions from September last. Capital markets are uncertain how to value the additional liability of the Government on foot of the guarantee and the resulting confusion is causing Irish bond spreads to widen unfavourably. Moreover, the fact that it is evident that liquidity has not been stabilised as a result of the bank Guarantee is compounding the perception that the contingent liabilities could become real.

Against the backdrop outlined above it is imperative that initiatives should be undertaken that will lead to stability in banks deposit and term debt liabilities and eliminate the need for a renewal of the guarantee. To achieve this requires removing all doubts about capital adequacy of the credit institutions and their capacity to deal with prospective loan impairments.

### **3. Approaches to Recapitalisation of Financial Institutions and Regaining Long-run Stability of the Financial System**

#### **3.1 Introduction**

As noted in the outset of Chapter 1, the fundamental issue in relation to banks is concern about the level of capital and access to new capital. The reason for concern is that markets know that the collapse in property values means substantial write-offs are in prospect and these impairments will be charged against capital. This situation, or more precisely uncertainty surrounding the magnitude of losses and its implications for capital adequacy (both the minimum regulatory requirement and the higher rate which markets are seeking as a measure of economic adequacy), along with associated worries about quality of regulation and management practices in certain institutions has 'spooked' depositors, wholesale lenders and holders of bank debt. The Government Guarantee has not arrested the leakage of liquidity. Indeed, an effect of the guarantee has been to blur the lines between sovereign credit and the banks' capital adequacy problems. A result appears to be attrition in the roll-over of the Government's Commercial Paper (CP) Programme.

It is evident also that there is widespread scepticism surrounding the adequacy of the proposed investments by Government, by way of taking up preference shares in the amount of €3.5Bn in each of AIB and Bank of Ireland.

Additional supports need to be considered and it is appropriate that these should focus on the asset impairment issue and associated implications for capital adequacy. There are a number of broad approaches (which are not mutually exclusive) to bank capital support schemes. These revolve around: Recapitalisation Programmes involving stress testing against expected losses (Section 3.2); Asset Guarantee/Risk Insurance Schemes (Section 3.4); Asset management arrangements (Section 3.5) and. These various approaches are considered below. However, in addition to conducting a general comparative analysis of these approaches their suitability in the current Irish context is addressed and with regard to the projected magnitude of loan impairments and its implications for capital adequacy, (as discussed in Chapter 2 above). The conclusions are contained in Section 3.8.

#### **3.2 Recapitalisation Programmes**

The key features are:

- Future Capital shortage is anticipated by testing adequacy of current capital in stress scenarios;
- The adequacy of capital (quality and quantity) to absorb losses is assessed;
- The regulatory authority may then require more capital, which may be raised from the market (e.g. by way of rights issue) or attraction of new shareholder, which may be either private or State;

- Approach needs to take account of implications of market conditions for cost of capital to bank; dilutive implications for existing shareholders; protection of State capital if the external shareholder is Government;
- There have been many recapitalisation programmes put in place in the US and EU in the current crisis including in Ireland where Government have agreed to invest €3.5Bn by way of preference shares in each of AIB and Bank of Ireland.

### **3.3 Considerations as to Nationalisation**

Where a bank's net worth has already been wiped out or would be by future impending losses or where Government are or will become dominant shareholders, as a result of recapitalisation or other initiatives, nationalisation may be the most effective means of protecting the interests of all of the stakeholders – Government, equity and bondholders, depositors and the business franchise owned by the bank – and carrying out the required restructuring to enable the bank to stabilize its business in support of the wider economy in the future. For example, nationalisation could be used to facilitate mergers of operations and improve efficiency of scale in accessing wholesale credit markets; to bring about required strengthening of management and/or corporate governance.

In effect where taxpayers are liable for guaranteeing the deposit liabilities of banks and also guaranteeing the bank against losses in the value of assets (in whole or substantial part), by any arrangement, such as those described above nationalisation may be considered necessary to overcome issues of moral hazard. These are mostly likely to arise with respect to shareholders, who may be seen to be bailed out or 'gifted' as a result of initiatives to support bank capital. Another such concern may be the additional cost to the taxpayer in terms of deteriorations of the markets' rating of sovereign debt instruments and the premium paid to bondholders in respect of this.

A number of nationalisations have been made in the course of the current crisis in the UK, notably Northern Rock and Bradford & Bingley. And of course here in Ireland Anglo Irish Bank Corporation was nationalised in January 2009.

### **3.4 Assets Guaranteed By the State**

The key characteristics of this approach are:

- Troubled assets remain on the balance sheet of the banking system;
- Troubled assets are not subject to upfront mark-to-market write downs;
- The bank usually is liable to a first loss tranche and the State covers elevated losses for a relatively small fee, of 2-2.5 per cent once off;
- Equity capital is not affected as assets do not have to be sold at the current marked-down levels;

- No initial outlay is required from the State and a fee, premium or compensation arrangement is paid for the guarantee;
- Compensation to the State in the form of convertible preferred shares or warrants is dilutive;
- Such schemes have been implemented at ING, Citigroup and Bank of America, and RBS. The RBS scheme set a first loss of just 6 per cent, which is very small.

### **3.5 Asset Management Arrangements**

The key features of this approach are:

- Troubled assets are transferred from the balance sheet of the banks at an agreed price;
- Mandatory participation is required;
- The bank takes the losses upfront to the P&L Account now;
- The bank is cleansed of troubled assets making valuation of the bank less complicated;
- The removal of impaired loans reduces the risk weighted assets of the bank and releases capital (or reduces the shortfall in capital required)
- A discounted sale of assets may result in a significant reduction in the equity of the seller;
- Significant financing may be required from the State for the Asset Management Company, impacting negatively on the fiscal position;
- Examples include UBS and Securum/Nordbanken in the 1990s Swedish crisis

### **3.6 Comparative Analysis of Selected Approaches: Asset Guarantees vs. Asset Sales**

A summary comparison of the general attributes of the Asset Guarantee approach compared with the Asset Management Approach from the point of view of Government and banks respectively is contained in Table 3.1 below. A perusal of the main points indicates some seemingly comparatively attractive features to both Government and banks from the Asset Guarantee approach. Notably, from the Government and banks point of view: there is no initial outlay for the Government and therefore no impact on the fiscal deficit. For the banks, risk is transferred but equity capital does not require to be written down and the assets remain on their balance sheet and crucially, under their control. Conversely, in the case of asset sales the deficit of the government is adversely impacted from the outset, since it must directly or indirectly purchase the impaired assets. For the banks sales of assets at written down values will adversely impact equity investors and may require them to recapitalise, as losses are realized upfront. Intuitively, these aspects alone tend to favour the guarantee approach over sale of assets. However, in the current Irish context, consideration of certain other aspects of these approaches tends to reverse

this conclusion. These relate to the contingent liability problem inherent in the bank Guarantee approach; the implications of continuity of management of the impaired assets and future financing requirements of impaired assets.

**Table 3.1: Comparative Analysis of Asset Guarantee vs. Asset Sale Approach**

Asset Guarantee	Asset Sale
<i>Government Considerations</i>	
<ul style="list-style-type: none"> <li>• Earns premium with no initial outlay;</li> <li>• Has no immediate impact of General Government deficit or Exchequer debt;</li> <li>• There is risk sharing with first loss retained by the bank providing an incentive;</li> <li>• State may be able to impose restrictions on asset management.</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase assets with significant outlay or government issuance or guarantee;</li> <li>• Earns net income after financing cost;</li> <li>• Each asset purchased has to be financed. The higher the price paid the larger the deficit to be financed;</li> <li>• Risk sharing also, since the bank has to write off the difference between book value and the current value of the security;</li> <li>• State gains control over asset management but may assume downside risk; however, this latter aspect can be avoided.</li> </ul>
<i>Bank Considerations</i>	
<ul style="list-style-type: none"> <li>• Risk is transferred , though assets remain on the balance sheet;</li> <li>• Fees/premiums are determined based on credit risk alone;</li> <li>• Equity Capital is not affected as assets are not removed from the balance sheet;</li> <li>• Regulatory capital ratios improve because of reduced risk weight of assets and increases further if compensation to State is in the form of preference shares</li> <li>• Equity investors have to estimate losses on asset portfolios and the true extent of the risk transfer</li> <li>• There is flexibility in structuring attachment/detachment points for asset guarantee such that the bank can optimise risk transfer and the fees;</li> <li>• Fees for the guarantee can be in terms of cash premiums or preference shares and warrants.</li> </ul>	<ul style="list-style-type: none"> <li>• Banks balance sheets are cleansed of troubles assets;</li> <li>• Asset prices assume a discount for credit losses as well as an illiquidity premium, so sales may result in considerable losses</li> <li>• Will pricing of assets at one bank be carried across at all banks?;</li> <li>• Loss guarantees provided to buyer can help improve pricing and lower loss on sales;</li> <li>• Sale of assets at market prices will significantly worsen equity capital and may require re-capitalisation of banks as well as the AMC;</li> <li>• In current market conditions it would be difficult to achieve recapitalisation without Government support</li> <li>• Position for equity investors is made clearer as they can concentrate on the valuing the franchise of the bank net of the bad assets</li> <li>• Clean asset sale with no downside risk retained by the bank is best for equity investors. However, it is possible to keep investors on the 'hook' after transfer.</li> </ul>

*Contingent Liability Aspect*

The very features which make the asset guarantee approach intuitively attractive - no money upfront from government; no write down in banks' balance sheet assets, - contain also an inherent fundamental weakness. Namely, that a contingent liability is

created in the balance sheet of the Exchequer. The situation has significant parallels with the bank Guarantee of the six credit institutions. It too was adopted on the basis that it involved no up-front outlay on the part of the Exchequer and on the basis that it would not be 'called' and therefore the premium payments by banks would be a net receipt to the Exchequer. In the event, capital markets have not grappled well with the contingent liability of €440Bn created by the deposit guarantee. The tendency has been to price Irish sovereign debt unfavourably, (See Section 2.1 above), reflecting a view that more issuance of Government debt will be required. Indeed, an argument has developed that if any part of the guarantee came to be called, in effect all would be called and that would lead to extreme problems for the Exchequer! The point of relevance here is that contingent liabilities are inherently uncertain in nature are often evaluated in an ill informed way with resulting errors and the potential for further adverse speculation against Ireland. As a result of the need to guarantee the debt liabilities of Irish credit institutions the credit rating of sovereign Ireland has become inextricably bound up with the issue of Irish banks capital adequacy. A further guarantee approach, this time in respect of banks' property related loan assets, would create a further layer of uncertainty through the creation of another contingent liability on the Exchequer. This would further entwine the sovereign rating with Irish banks capital adequacy problems without actually providing any clarity as to how capital adequacy would be achieved, other than through a calling of the contingent liability. Snap!

By contrast the asset sales approach, while involving the recognition of 'pain' at the outset has the merit of certainty and clarity, provided of course the projection of the extent of impairment is accurate in the first place. In current Irish circumstances there is much to be said for recognising and crystallising prospective property related loan losses explicitly, rather than allowing them to remain on banks' balance sheets with a concomitant *additional* contingent liability on the Exchequer.

#### *Continuing Management Control*

A feature of the Guarantee approach is that the assets remain on the balance sheets where they have been created. Another side to this is that they continue to be managed by the officers and executives of banks which created the problem-assets in the first place. In the case where assets are complex financial instruments, such as many of the assets acquired by banks that were originated in the US and based on sub-prime borrowers then their valuation and resolution may best be undertaken in the banks which acquired them and which have the financial skills appropriate to this task. The nature of impaired loan assets simply is not of this character. They are loans created and secured by property assets (i.e. development land, work in progress, completed but unsold residential stock and under-performing property investments), which are now worth significantly less than was envisaged by the loan. There is not a great deal banking skills can do to resolve this dilemma. Moreover, the property development companies involved in these transactions are almost entirely privately owned, championed by entrepreneurial characters and mostly without equity (or recourse to equity markets, see *Future Capital Financing Requirements of Impaired Assets*, below) and in many cases do not have the depth of management skills to engage in the kind of portfolio sales and work-outs which ultimately are required to resolve the impairment issue.

AMCs seem to offer tempting prospects for avoiding many of the shortcomings associated with a continuation of the existing bank-property developer relationship. Potential advantages include: (i) economies of scale in administering workouts (since workouts require specialized, and often scarce, skills) and in forming and selling portfolios of assets, (ii) benefits from the granting of special powers to the government agency to expedite loan resolution and (iii) the interposing of a disinterested third party between bankers and clients, which might break “crony capitalist” connections that otherwise impede efficient transfers of assets from powerful enterprises. The latter may seem particularly beneficial in circumstances markets, where ownership concentration and connections between borrower and banks are often very close.

Sweden’s AMCs provide examples of some of these potential advantages, but other countries have found it difficult to realize them.<sup>4</sup> First, government agents may lack the information and skills of (more highly compensated and incentivized) private market participants. Second, government agencies do not operate in a vacuum; they, too, are creatures of the societies that create them, and government agents must negotiate, rather than dictate, solutions, just as private market participants must do. In negotiations with government agencies and private participants alike, the strength of one’s position depends on one’s “threat point” (the ability to credibly threaten adverse consequences to one’s bargaining opponent, if agreement is not reached).

Notwithstanding, it is considered that AMCs, by virtue of the potential advantages they contain (as noted above) have the potential to bring about better economic resolution of the impaired loans of Irish property developers than relying on existing bank management and banker-developer relations, which have brought about the problems in the first place.

#### *Future Capital Financing Requirements of Impaired Assets*

A further important consideration relates to the future financing requirement of impaired assets. Many of the impaired assets will be capable of achieving higher values if they can be worked-out rather than disposed. A key issue to successful work out will be access to additional capital, (equity and debt) required for the work out. It is extremely difficult to see how existing property developers will be able to access capital markets effectively for such equity and banks’ capacity to extend credit will be limited by the absence of collateral available from most of them. Potentially the amounts involved are large and a feature of Irish property developers is that they are not publicly quoted and have not had a history of recourse to equity markets for their funding, unlike for example the UK where there are many listed property development and residential house builders. Instead they have relied on retained earnings (for equity) and bank lending for the balance. This shortcoming cannot be put right now and it represents a significant impediment looking forward to resolution of the impairment issue, at least cost.

However, an AMC does have the potential to at least mitigate this issue in two respects. Firstly, it has the potential to achieve scale and overview of developments

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<sup>4</sup> See for example *Financial Crisis Policies and Resolution Mechanisms: A Taxonomy from Cross-Country Experience*, Charles W. Calomiris, Daniela Klingebiel, and Luc Laeven Chapter 2 in Patrick Honohan and Luc Laeven eds., *Systemic Financial Crises: Containment and Resolution*. (New York: Cambridge University Press). 2005.

and projects. As it is banks will be concerned about the security they hold and how that can be maximized and realised. In many instances more than one bank will be involved in the security and their individual interests may not correspond. An AMC would be able to achieve project oversight. Secondly, if properly structured and resourced (with relevant property related skills) such an entity would have the potential to attract long term capital in a manner that individual development companies would not.

*Conclusion*

***The Asset Guarantee approach contains intuitively attractive features. However, when considered in the context of characteristic features of the Irish situation it appears that the Asset Management approach has the potential to offer greater assistance to achieving resolution and transparency of the impairment issue and maximising taxpayer returns.***

### **3.7 Recapitalisation Implications of Removing Impaired Assets from Banks' Balance Sheets in 2009 & Financing Implications of an AMC**

As noted earlier (see Table 1.4) the analysis in Section 1.4 indicates a projected cumulative impairment of approximately €19.6Bn (equal to 30 per cent of the value of loan book at September 2008) in respect of the aggregate property development loan book of the six credit institutions over the period September 2008-2011 with a further €14.2Bn expected in respect of the property investment loan book of the six institutions. In total, therefore the economic impairment of the six institutions combined property development and investment book is estimated at €33-34 Bn over the period Sept 2008 to 2011. An effect of realising this kind of shortfall would (see Table 1.8), require further capital injections of about €9Bn to bring core Tier1 Capital ratios in certain institutions to a level of 7.5 per cent, about the level market investors currently regard as 'acceptable'.

However, this scenario assumes that Irish banks remain in their current 'zombie' state until 2011. It has been concluded already, (Section 1.5) that, such a prospect would hinder economic recovery, complicate further the required adjustment of the public finances and leave Ireland's international credit rating subject to downward pressures and speculative attacks. Table 3.2 establishes the implications for re-capitalisation of realising the projected impairment of property related assets in 2009, on the basis that a 'market acceptable' rate of Tier1 capital is about 7.5 per cent and that the loan books on which the impairments exist are transferred to an AMC. The details underlying this summary are contained in Appendix 3.

**Table 3.2: Impact of Crystallising Projected Property Loan Impairments in 2009 on Achievement of Tier1 Capital Ratio of 7.5 per cent Assuming Transfer of Loan Book to AMC €Bn**

	Total	AIB	Anglo	BOI	INBS	ILP	EBS
Property Related Impairment	34.4	11.1	12.8	7.7	2.3	0.2	0.3
Transfer of Property Related Loan Books to AMV (=Reduction in risk weighted assets)	158.3	50.0	60.0	37.0	8.0	1.5	1.8
Additional Capital Injection over existing commitments to maintain Tier1 Ratio of 7.5%	16.25	5.0	8.5	0.75	1.5	0.0	0.5

Thus, the extent of a comprehensive recapitalisation programme would be of the order of €15Bn, in additional capital distributed across the six institutions, in the absence of any restructuring of these institutions. This would not be sensible and it is considered that an appropriate restructuring would entail:

- Removal of all property related assets to an AMC (total book value €158.3Bn subject to an impairment charge of €34.4Bn) in consideration of a Bond with a face value of €123.9Bn;
- Consolidation of rump of INBS and Anglo to be sold to highest bidder as a business franchise, or wound down as liabilities mature (some additional capital injection required from State, probably €1.5-2Bn, on the basis that assets are transferred post impairment equivalent to current Tier1 Capital, with balance of RWAA capitalised to about 5 per cent);
- Capital injection of €0.5Bn to EBS and possibly Consolidate EBS with PermanentTSB with a strong residential mortgages franchise (assuming Irish Life capitalises it);
- Capital injection of €5Bn into AIB (over and above the €3.5Bn already committed).

In this way the additional capital requirement would be mitigated to around €7.5Bn, with an attendant refinancing of the property loan book with a bond with a face value of €123.9Bn. In all circumstances it is clearly *imperative* that visibility and agreement of the ECB as to funding a bond of the stated face value would be procured *before* any decision is taken by Government to proceed with the recommended approach contained in this report.

*Consequences in terms of majority ownership of AIB & BOI by the State*

The immediate impact of the re-capitalisation programmes (already agreed) and proposed above would be to raise the degree of ownership of the State in the two main commercial banks – AIB and BOI – to substantial majorities, probably around 90 and 85 per cent respectively, depending on the price at which capitalisation was undertaken and the precise form of the capital investment. In consequence, most of the pre-impairment earnings of these institutions (currently projected to be about €1.9Bn p.a. and €1.5Bn p.a. respectively in the case of AIB and BOI from 2009)

would accrue to the State. However, there is an important distinction between this position and fully nationalised entities. Notably, and similar to the RBS and Lloyd's Banking Group in the UK, both institutions would retain their stock exchange listings and their shares would continue to trade on the Irish and London Stock Exchanges. Accordingly, as and when market conditions improve and the performance of Irish banks return to growth there will be a natural exit mechanism available whereby the Government should be able to divest itself of its majority ownership, should it wish to do this, in an orderly manner that allows it to realise gains on behalf of the taxpayer over time.

### **3.8 Conclusions**

Irish credit institutions face a very considerable recapitalisation and refinancing requirement, dwarfing the investment of €7Bn already agreed by Government in AIB and Bank of Ireland.

The preferred approach, would see impaired assets transferred to an AMC; (that being preferred over the Asset Guarantee approach for the reasons described above), operated by an appropriate State agency. As regards the capital injections required to raise Tier1 levels to acceptable market norms it is considered that the best approach would be a direct investment in AIB and EBS (amounting to €5.5Bn) with the rump of Anglo and INBS being wound down or sold to the highest bidder in the market. Nevertheless there would be an additional recapitalisation charge of about €2-2.5Bn required in the case of the latter even in order to stabilise these (combined) institutions as a prelude to wind-down or sale.

The key aspect of the above pursued in Chapter 4 relates to the proper establishment structuring, and financing of the proposed AMC.

## 4. Proposal for a National Asset Management Agency (NAMA)

### 4.1 Introduction

Credibility is the overriding requirement of any proposal which is going to be successful at addressing banks capital adequacy issues. This requires firstly that the operation be entirely transparent, that the resulting fiscal costs can be absorbed, and that the government's prospective debt profile is a sustainable one. It also requires that, even though the government is handing out a bond now, it is not thereby signalling an open-ended intention to bail-out shareholders, managers or large creditors in future.

This chapter contains a proposal to establish a *National Asset Management Agency* (NAMA) (Section 4.2). It sets out the factors which should determine how qualifying assets should be transferred to an NAMA (Section 4.3) and addresses the valuation issue (Section 4.4). The financing options are discussed in Section 4.5 and an appraisal is made in Section 4.6.

### 4.2 A National Asset Management Agency (NAMA)

The functions to be carried out by a NAMA would comprise:

- Management and control of the assets transferred to it;
- Employment/outsourcing whatever resources required to carry out its functions efficiently and professionally;
- As it will control a large segment of the market, it should be able to regulate against further market failure due to oversupply in the future;
- It will carry no previous baggage and will have a single objective - to maximise value over a given period;
- It will not have any other banking functions or aspirations;
- It will not favour any institution or client over another, but can make decisions with the advantage of an overview which individual banks cannot have;
- It will have well marked out procedures to prevent fraud but will encourage a suitable commercial posture;

#### *Anglo to become the Asset Management Agency?*

There have been some suggestions towards using Anglo as an Asset Management Agency into which impaired loans would be transferred. This suggestion seems to be put forward on the basis that it already has the highest concentration of commercial property loans and since nationalisation in January last, is owned by the State. It is considered that such a locus would be entirely inappropriate, for the following reasons:

- Considered against the set of functions which it is envisaged a NAMA would be required to discharge (see above), it is difficult to see that Anglo would or could become a suitable entity for carrying out the task.
- As noted earlier (See Section 3.7), it is considered that the interposing of a disinterested third party between bankers and clients, which might break “crony capitalist” connections that otherwise impede efficient transfers of assets from powerful enterprises would be both necessary and desirable if the economic return on impaired assets is to be maximized. There would be little or no hope of achieving this if Anglo were used as the locus for Asset Management activities;
- Given the extent of the damaged reputation of Anglo, the association in the public’s mind of Anglo with all that is currently wrong with the Irish economy and the estimated scale of the capital requirement in order to raise its Tier1 ratio to market acceptable levels, about €5.5Bn, it is considered that the best approach *vis-à-vis* Anglo would be to transfer its impaired loans to an AMC and sell the balance of its business to the highest bidder in the market or otherwise wind it up.

*An extension of the remit of the National Treasury Management Agency (NTMA)*

For a number of reasons it is considered that the Asset Management function should be carried out under the governance, direction and management of the NTMA and be designated as the National Asset Management Agency (NAMA). The reasons are as follows:

- The international reputation of the NTMA as a centre of excellence in the management of Ireland’s national debt is extremely high. Markets would take comfort from the fact that this very important task is being carried out under the aegis of NTMA;
- NTMA has a proven track record in being able to successfully bolt on and manage related complex businesses to its core remit of managing the national debt – as demonstrated by its development of the National Development Finance Agency (NDFA) and the State Claims Agency and the National Pensions Reserve Fund (NPRF);
- Uniquely in Ireland, it has the core managerial competence and critical mass of technical know how to do the job. It would have to further strengthen its management capacity and technical know how, particularly in areas relating to property finance and restructuring but in the overall scale of the task this would not be a major hurdle to overcome.

*Legislative Basis*

The NAMA Initiative would require new legislation (the “NAMA Act”) which would create NAMA under the umbrella of the NTMA. The primary features of the NAMA Act would be as follows:

- The establishment and funding of NAMA under the umbrella of the NTMA

- The provision of powers to NAMA to price and effect transfers of relevant assets from the banks
- To define what assets are eligible for transfer
- To provide for an expedited transfer mechanism
- To oblige the banks to co-operate in all relevant respects
- To provide for an Assessor process to ensure the constitutionality of the transfers
- To define the objectives of NAMA and the principles under which it operates.
- Consideration should also be given to the stamp duty and other tax implications of the transfers, as well as the value and treatment of losses created in the banks through the transfers.

### 4.3 Which Assets should be transferred: Qualifying Criteria

#### *Eligible Assets and Institutions*

Perhaps the most key element in introducing the NAMA Initiative will be the definition of what assets may be subject to mandatory transfer under the NAMA Act. The definition should relate to the substance of the assets to be transferred rather than the categorisation of that asset by the bank in question. As ever, the issues will arise around the boundaries of the definition. A comprehensive work stream should be commenced around developing this definition as soon as practicable.

The definition of relevant assets should aim to achieve clarity for the markets and all stakeholders as to what is being transferred. The question of what constitutes a relevant asset will be significant from the perspective of the EU in applying their State Aid analysis. This is a significant issue and is addressed later in this paper.

It is intended that the business of the NAMA would be confined to commercial property (which would include residential building land, unsold houses and apartments), but it would not include residential mortgages and would not include general business lending where some real estate element was used as security.

The main mechanisms for the identification and transfer of assets to the NAMA would be determined by:

- Contents of agreement between NAMA and financial institutions;
- Simplified method of transfer of designated assets;
- Mandatory transfer arrangements;
- Obligations to conduct due diligence;
- Examination of title issues ;
- Security and enforcement issues.

#### *How Should Assets be transferred: Voluntarily or Mandatory Approach?*

Even with the unpalatable alternatives of potential nationalisation or removal from the Guarantee Scheme, any attempt to introduce the NAMA Initiative on a voluntary or negotiated basis with the banks is likely to be extremely challenging, slow and prone to breakdown. Even if it could be achieved on a voluntary basis, it is hard to see how

it could be implemented uniformly across the banks, as each bank is likely to take a different approach. These difficulties are particularly pronounced in terms of the pricing of assets. A failure to provide absolute clarity to the markets in relation to timing and terms of the asset transfers could prove fatal to the success of the initiative. To be effective, it is essential that the NAMA Initiative be implemented on a mandatory basis which is provided for in the NAMA Act. This would, in effect, operate to nationalise the development land and commercial property books only of the banks while leaving the banks themselves in private ownership.

Note that should a mandatory approach be adopted, the NAMA Act would need to be introduced at an early stage in order to facilitate due diligence and pricing prior to transfer.

The NAMA Act should operate to automatically transfer the relevant assets to NAMA, thereby enabling mass transfers of assets without the need for and cost of the normal transfer formalities. This will be effective for Irish assets, but not those in other jurisdictions. To deal with this, the Act would provide for the transferring banks to hold foreign assets and the proceeds on trust and to the order of NAMA, pending a formal transfer being affected.

Consideration should also be given to providing a simple legislative basis for the subsequent sale and transfer by NAMA of the assets to significantly reduce the cost and legal complexity of sales.

#### **4.4 The Valuation Issue: Preliminary Considerations**

##### *Supplementary Assessor Process*

In this approach, the valuation is done prior to transfer and payment by the NAMA itself, following expedited due diligence. The Assessor structure then follows subsequently at a suitable time to ensure that the amount paid was indeed fair. This has a number of benefits in that the timeframe in which the Assessor operates in is no longer relevant to the timing of the transfer, the NAMA can price more strategically taking into account the market impact of the pricing and there is only upside for the banks when the Assessor ultimately reports (i.e. he will report either nothing further due in compensation or a positive amount).

On the basis that the assets involved comprise loans relating to Investment Property of €94.8Bn subject to impairment of €14.2Bn and Building and Development Land of €63.5Bn, subject to impairment of €19.6Bn.

- The first issue will be to categorise and sub-categorise these loans. These could be different as to geography and liquidity, and to ease of marking to market. This would allow certain types or qualities of loan to be filtered out, however it would be best if NAMA had a wider range of assets.
- The next issue would be to divide the assets between (income producing) Investment Properties and (non-income producing) Building and Development Land.
- The income producing assets could have the prospect of being written down to a level where the income (in aggregate and with some headroom) would pay

interest and yield a profit to the bank. These could then be held to maturity. These could be retained in the lending bank if funds did not permit them to transfer in a balanced portfolio.

- The non-income producing assets would then be transferred. If this transfer was contemplated, it could be done as follows :

(1) Value the underlying security (property) and then mark the loan itself to market, bearing in mind a range of LTV's and other risks. Although this could be done there will be significant argument as to the basis, methodology and quantity of value. For example a pure 'mark to market' exercise, taking into account the almost total absence of credit, could result in what is popularly referred to as a 'firesale' value – this would be unpalatable but nevertheless the correct value if that is what is required. However given the consequences of this mark-down, it may be more practical to look at a 'normalised' value which could be defined. Two separate outturns are likely depending on whether there is a mandatory regime or a voluntary one.

or

(2) Depending on the category of underlying security, an across-the-board discount of the asset of x cents in the Euro could be paid. However the transferring institution could have equity (or other exposure) to the NAMA proportionate to the "value" of the assets transferred, although this may not be desirable as the objective should be to break the link between banks and the property assets at least at the outset.

2(a) the assets, once held in the NAMA could be re-valued and a one-off adjustment made in the NAMA to establish equity between the unit holders. This would be done on an identical basis so the relativities would be fair between the lending banks, i.e. a specific date chosen, basis of value etc.

2(b) A certain flexibility could be built into the transfer discount on the basis of a further entitlement/warrant to shares in the cleansed bank which would be linked to the final outcome if it were a loss.

Example :

	€bn.
Loan asset transferred (nominal)	30
At 70% LTV underlying original property value	43
Current value, say	23
	(20)
Property write down (total)	(20)
Bank loan write down (gross)	(7)
Loan asset transfers @ say	20
Pref. shares subscribed	20
<u>Outturn (A)</u>	
Asset sold over 5 years	30
Less costs/carry/performance *	4
	6
Surplus to be dividended back to unit holders	6

- \* Management fee 0.5% p.a.
- Carry cost €2.5bn
- Performance, say 10%

Outturn (B)

Asset sold over 5 years	23
Less costs/carry, say	3.5
	(0.5)

Extra pref. shares to cover loss

#### 4.5 How Should the NAMA be capitalised: Options

There are a number of options to consider as regards the capitalisation of the proposed (NAMA). Clearly, an objective has to be to minimise the Exchequer cost, subject to achieving credible financing of the entity.

*Option 1: Credit enhanced Bond without Government Guarantee*

Under this scheme (Chart 4.1) the NAMA would issue a bond to the six guaranteed credit institutions in an amount sufficient to cover the value of those institutions impaired assets. Then the assets would be transferred to the NAMA. In effect the impaired loans would be replaced on the balance sheet of the banks with a bond in the name of the NAMA. The credit quality of the bond would depend on the equity in the balance sheet of the NAMA. The greater is the equity the lower the exposure of the bondholders to the impaired loans.

The principal shortcoming with this approach is that the transfer of risk from the banks' balance sheet will always be partial, the extent being governed by the quantum of equity sitting in front of the bond in the balance sheet of the NAMA.

As to the equity itself, it is probably unlikely that private equity alone would take a position in the NAMA without the presence also of some State equity, on say a 50:50 basis. However, there are indications that international private equity portfolios are seeking to acquire property portfolios of banks. In effect the NAMA would offer such exposure to Irish and UK impaired property development and investment opportunities. The advantage would arise in terms of limiting the Exchequer's exposure to refinancing of the banks impaired loans to the equity it needed to invest in the NAMA as a joint venture partner with private equity.

<b>Chart 4.1: Transactions between Banks &amp; NAMA</b>			
<b>Banks Balance Sheet €Bn</b>			
Equity	-34.4	Property Loan Book	158.3
		Bond	123.9
Total	-34.4	Total	-34.4
<b>NAMA Balance Sheet €Bn</b>			
Equity	10.0	Cash	10.0
Bond	123.9	Property Loan Book	123.9
Total	133.9	Total	133.9

*Option 2: Bond Issued by Government or with the Benefit of a Government Guarantee*

The advantage of this approach, from the point of view of the banks is that it severs any link between the bank and the outcome of the impaired loan. Moreover, since the credit quality of the bond is Government there is zero risk weighting with consequential savings in capital (or reduction in requirement to achieve market acceptable level) equal to the extent of € 4.96Bn (€124Bnx0.04). Another advantage is that the bond should be eligible collateral for the purpose of Repo agreements at the Central Bank and this, could be used by banks to replenish liquidity. The disadvantage, obviously, is that it adds €123.9Bn to the national debt.

Clearly, it is important to consider the impact of adding such a quantum to the national debt in ‘one-fell-swoop’.

*Consequences of Increase in National Debt*

It should be noted at the outset that a lot of negative news has already been priced into the Republic of Ireland’s CDS and Cash secondary market levels, despite the relatively strong position of Ireland on a Government Debt to GDP ratio (Ireland currently stands at 40.9 per cent relative to the Eurozone average of 65.4 per cent. The Republic of Ireland’s 5-year senior CDS is currently trading at the wider end of its European peers at a level of 250bps versus the peer group average of 150bps. Therefore, markets would seem to be discounting a substantial rise in indebtedness. This has been discussed earlier. (See Section 3.3 and Chart 1.6 above). Issuing €120Bn of Government Bonds would push the Government Debt to GDP ratio to 95 per cent in 2008 (restated) and to 119 per cent in 2009. This would take Ireland’s debt GDP ratio to rates comparable with Iceland, Italy and Greece. Ireland’s CDS spread is at or exceeds these other countries. On this basis it cannot be concluded that Ireland’s relative funding cost would deteriorate in line with the rise in indebtedness. It is well known that there has been considerable speculative pressure against the sovereign rating, in anticipation of substantial deterioration in the public finances.

One key question would be whether the measures underlying the bond issue (i.e. the creation of an asset management agency and associated banks’ recapitalisation measures) were considered by capital markets to resolve the capital adequacy question about Irish banks and the associated attrition being experienced in banks’ deposit liabilities which in turn has created the need for the Guarantee scheme. Another key factor relates to the underlying public finance position and current efforts towards stabilising the deficit, which is widening beyond expectations.

Then there is the question of the impact of such expansion of the debt on the capacity to service the debt. As envisaged at present the margin on the loans against which the bond would be issued is generally 2 per cent so if the Government bond pays 3 month euribor on say €120Bn the annual cost would be €2.1Bn ( $=120 * 1.75$  per cent). The commercial loan book is €100Bn, however if €25Bn of this book is impaired and has stopped paying the Commercial loan book earns 3 month euribor plus 2 per cent equal to 2.8Bn pa (i.e.  $€75Bn * 3.75$  per cent = €2.8Bn). Hence the free interest cash flow to the AMC is €0.7Bn pa before costs, (i.e. 2.8Bn less 2.1Bn). In these circumstances there would be no net burden in terms of additional debt service costs. It should also be recalled (See Chart 2.3) that the debt service costs of the national debt amounted to under 1 per cent of GNP (3.8 per cent of tax revenue) in 2008. Therefore, Ireland has the capacity to absorb additional debt service costs if these were to come about.

Finally, the proposed issuance would not take place without the support of the ECB. Of itself, that would tend to mitigate adverse speculative reaction. Moreover, other supplementary precautions could be taken. For example, participating institutions could be restricted from selling the Bonds into the market. Government Bonds would be used only for repo with the ECB – this would address the market's concerns regarding upcoming supply. The NTMA could indicate the intention of a buyback programme under which the bonds issued would be repurchased and retired as asset values recover.

There remains the risk however that the market may focus solely on the 'headline' news, pushing CDS levels wider, unless the strategic plan is explained comprehensively and clearly.

#### *Scope for Revising the Credit Guarantee*

The Guarantee Scheme should be restructured as follows:

- There should be an extension of the Guarantee Scheme to cover future longer-term bond issuance by the covered institutions. This would be in line with both international and EU trends where the average term of State cover for bond issues extends beyond 2010.
- The following should be removed from the scope of the Guarantee of: (a) dated subordinated debt (Lower Tier 2); (b) asset covered securities; and (c) senior unsecured debt that matures beyond the expiry of the Guarantee on 29 September 2010. This would have the effect of reducing the State's contingent liability under the Guarantee and, in any event, the covered institutions get no benefit from the guarantee of these types of liabilities.
- There should be changes to some of the commercial conduct provisions contained in paragraphs 36 to 49 of the Guarantee Scheme, in order to enhance the Minister of Finance, Central Bank and Financial Regulator's supervisory powers in relation to the covered institutions for the duration of the Guarantee.
- There should be purely technical amendments to the Guarantee Scheme to clarify certain matters which have given rise to queries from the market and interested parties.

A restructuring of the Guarantee consistent with the introduction of the NAMA Initiative should be seen as an integral element of a comprehensive strategy. In summary, the aim should be to enhance the credibility of the Guarantee by simultaneously reducing the contingent liability under it and by extending its temporal

scope in relation to the sort of long-term bond issuances which are critical to ensuring the covered institutions' survival.

*Sharing Unanticipated Gains and Losses on Impairments: Provision for Equity, Warrants and Other Features*

As discussed above in deriving Table 1.4, the projected value of impaired loans is sensitive to the underlying assumptions and there is need to protect the State from potential unanticipated losses. One way of achieving this would be for banks, which are transferring impaired loans to the NAMA to provide a warrant to purchase shares in the bank which can be exercised by the Government in several years time at a price – and here's the key – which depends inversely on the value of the impaired debt at that future date. The future date needs to be set far enough into the future for the market in these kinds of assets to have settled down and their price less imponderable. If the valuation of impaired assets is significantly greater than anticipated at the time of transfer, the warrant will end up too costly to exercise. If the valuation proves to have been wrong and the assets end up worth far less than at the time of transfer the Government will hold an equity stake compensating it in the end for the additional losses it has taken on the assets.

There's scope for many refinements of this scheme, including variations in the pricing and maturity of the warrants, and whether they should be for common or preferred shares. This flexibility should facilitate arriving at a deal which is both politically viable and sufficiently attractive to the bank shareholders, in relation to future unanticipated losses.

#### **4.6 Appraisal: Required Characteristics of the Financial Instrument Used to Finance the NAMA<sup>5</sup>**

Credibility is required at the level of the financial instruments used to replace bad debts in the balance sheet of insolvent banks. There is a temptation to opt for injecting an instrument with low Exchequer cash outlays. For example, the NAMA might simply offer the banks a non-interest bearing bullet bond with a long maturity, but the same face value as that of the non-performing assets. The real value of such a bond falls well short of the value of performing loans of equal face value. A bank that is offered no more than that in return for ceding non-performing loans is likely to run into difficulties again, as its operations cannot easily be brought back to profitability. Even if sufficient zero-coupon bonds are injected to bring the *net present value* of the promised payments up to the required level (when calculated at the risk-free discount rate), such an arrangement may not be regarded as satisfactory from the credibility point of view. A government which acts like that will be suspected of temporizing. Market participants will likely assume that it has no clear idea of how it is going to fund the bullet payment at maturity. Accordingly, holders will discount the value of the bond, attaching only a moderate probability to its being honoured in full and on time. Marked-to-market, a bank holding such an asset may still be insolvent, and may feel itself to be insolvent, with all of the incentive problems which that creates. If the

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<sup>5</sup> This Section draws heavily from Chapter 4 in Patrick Honohan and Luc Laeven eds., *Systemic Financial Crises: Containment and Resolution*. (New York: Cambridge University Press). 2005.

bond is tradable in a fairly competitive market, these valuation and credibility problems will come out in the open and force the government to face up to them.

*Maturity, yield and negotiability of injected assets*

In the presence of deep capital markets with a wide range of available maturities, as the Euro-area bond market is, the exact maturity of any marketable government bond injected into the bank will be of little consequence for the incentives facing the bank, as the bank will easily and speedily be able to exchange it for assets of the desired maturity, i.e. cash. Even if the injection of funds is large relative to the overall size of the capital markets, the choice of maturity can be left as a matter of overall debt management policy, and not as one of banking policy.

The most straightforward approach then, is to inject a type of asset which is more in line with the sort of asset which a bank would voluntarily hold on its balance sheet: with interest rate floating in line with the market. The value of such a bond should move in tandem with the property assets acquired by NAMA. In short, with an asset that can readily be regarded as “bankable”. Such an instrument can more easily be made marketable, thereby freeing the bank to move forward with an asset-side strategy that is not dependent on its particular failure history.

#### **4.7 Attracting Equity Capital**

Recovery of the impaired property related assets of Irish banks (in particular development assets) will take considerable time and additional finance if returns are to be maximised. A feature of the Irish property development sector is the preponderance of privately owned enterprises, with a high reliance on debt as compared with equity finance. It has been noted already (see Section 3.6) that it will be extremely difficult to secure additional continuing finance to bring projects to completion, from existing funding sources. As regards development land, there is little point in spending money until the market has absorbed to unsold work in progress and completed stock Banks are already over-extended relative to the security they hold and developers’ lack access to equity capital markets due their private status.

An important role for NAMA is considered to be the attraction of equity. There are a number of reasons for believing that private equity investors could find NAMA an attractive investment proposition. Firstly, its status and authority would be likely to allay any governance and transparency concerns and it appeal naturally to an institutional investor base in a manner that privately owned property development companies would not. Secondly, the scale and scope of the assets under management would mean that investors would achieve a degree of risk diversification that could not be achieved by investing in any one property development company. Thirdly, the fact that NAMA would have a considerable degree of market power (at least in respect of the development asset exposure to the Irish market) should tend to make it more attractive to equity investors than alternatives which would not have such power.

Therefore, NAMA could attract private equity in support of its role which could be a source of continuing/additional financial support to projects in workout, thus enhancing the overall return from the asset management exercise.

#### **4.8 Business Model of the NAMA**

The NAMA will need to evaluate the portfolio which it assumes in terms of (or some such similar classification):

- Residential development land packages (loans) which have little or no prospect of having any commercial development potential in the medium term. (Examples will include un-zoned and zoned residential development land in rural areas and other areas where the supply of zoned residential land represents the equivalent of twenty or more years demand for residential development).
- Commercial and mixed use development land packages in towns or edge of towns or rural areas which have little or no prospect of having any commercial development potential in the medium term;
- Residential or commercial development land packages, which are well located in centres of population growth which offer the prospect of being viable in the medium term;
- Completed but unsold residential developments;
- Semi-completed commercial (and mix use) developments in Ireland which can be viable or will not be viable in the medium term;
- Residential development land packages in the UK distinguishing the Greater London Area and the rest of the UK;
- Commercial (and mix use) development land packages in the UK similarly classified;
- Semi completed or completed but unsold developments in the UK;
- Development and investment packages in Europe;
- Development and investment packages in the USA.

In relation to these various (or similar) categories of assets it will be necessary to decide:

- Which assets should be disposed of immediately?
- Which assets should be held for the present on a passive basis?
- Where is there scope for assembling saleable portfolios of development land and investments that would be of interest to private equity or institutional investors?
- Where is there scope for creating financial and/or commercial joint ventures which would maximise the return to the State (and JV partners) over an acceptable time frame?

In order to discharge the functions above the NAMA will need to establish in-house functional competence in:

- Legal;
- Project Finance
- Project management

- Planning & Design (plus external advisory)
- Sales & marketing (plus external advisory)

Client/JV relationship managers in respect of several hundred clients (some of whom, the largest 22 will have up to 40 (large) projects, in more than 2 jurisdictions) some of which will be More than 1:1 and others 1: more than 1. It's in this area that a cross-over occurs with existing bank relationships.

Logistically, it will be necessary that an interim management plan of NAMA is drawn-up, which establishes the basis upon which direct management of the assets will be assumed by NAMA over say a six to twelve month period and which sets out whatever agency or other arrangements which may be required to be established between NAMA and existing loan providers during this interim phase and pending the adequate (human) resourcing of NAMA. During this interim phase it is imperative that NAMA and not the banks should have executive control over the assets.

## 5. The Need for Accompanying Policy Initiatives

### 5.1 A Macro-economic Recovery Plan

The current recession has led to an alarming deterioration in the public finances. In 2006 the general government balance was in surplus to the tune of 3 per cent of GDP, by 2008 this had shifted to a deficit of over 6 per cent and initial forecasts suggest that without further action this could widen to 15 per cent by 2010.

In a recession the public finance deficit position automatically deteriorates through the operation of the so-called automatic stabilisers (higher unemployment leads to higher welfare payments, lower tax revenues etc.). The key question for policy makers now is, how much of the deficit is structural and how much is cyclical (driven by the recession). It is concluded here that the structural deficit is of the order of 5 to 6 per cent of GDP.

Any attempt to close the structural deficit will lead to a further deterioration in employment and output in the economy, and so carries substantial costs. The results suggest that a fiscal corrective package equivalent (*ex ante*) to approximately an additional 1.7 per cent of GDP in 2009 and an additional 2.5 per cent of GDP in 2010 would be sufficient to bring the structural deficit below 3 per cent. This implies that after such a package most of the remainder of the borrowing in 2010 would be likely to be due to the very deep recession. While it is necessary to take such remedial action, the costs of introducing such a package of measures in the middle of such a deep recession are likely to be substantial.

### 5.2 Recovery Scenarios for the Irish Economy 2009-2015

This Section contains a series of scenarios for the Irish economy for the period 2009-2015. The objective of these is to assess the extent to which the current public finance problems are structural. Using two different assumptions about the world recovery these scenarios model the possible time path of the economy and of the public finances out to 2015. They also consider how the time paths might be affected by an illustrative package of budgetary measures over and above those already agreed (in January 2009).

The scenarios have been developed using the HERMES macro-economic model of the Irish economy. They are roughly calibrated to a revised set of numbers for 2009 and 2010, which take account of information that has become available over the last two months.

The first scenario presented shows how the economy would develop if a neutral fiscal policy were pursued between now and 2015. It is based on the scenario for the world economy published in the January 2009 *National Institute Economic Review*. This is used as the base case against which the other two scenarios are compared.

The second scenario includes a series of illustrative budgetary measures to be implemented in 2009 and in 2010.

The final scenario combines the illustrative package of fiscal measures with a scenario where the world economy recovers from the world recession one year later than is assumed in the base case. In other words rapid growth is assumed to return to the world economy in 2012 rather than 2011.

Throughout the scenarios it is assumed that the financial system is reformed and restructured so that it responds to the recovery in the economy in 2011/12 by providing adequate credit.

*External Assumptions*

The forecasts for the international economy are taken from the NIESR January 2009 Review. In essence, they anticipate a sharp contraction in activity in the major economic blocks that impact on the Irish economy this year. A tentative recovery is expected in 2010 with growth expected to be very modest or flat that year. Most of the world’s economies are forecast to grow at rates close to potential over the period 2011-2015. Table 1 below summarises the growth prospects for the international economy over the medium term.

**Table 5.11: Real GDP Growth, Baseline**

	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011-2015</b>
USA	2.0	1.3	-2.5	0.4	3.0
UK	3.0	0.7	-2.7	0.6	2.6
Euro Area	2.6	0.9	-2.0	0.0	2.1
World	5.0	3.5	0.5	1.7	4.2

As growth prospects remain weak in the short term and inflationary pressures remain very much subdued monetary policy is expected to remain accommodative. Underlying the NIESR forecast is the assumption that the ECB keep the intervention rate on hold until the second half of 2010. The recent realignment of sterling against the euro is expected to be maintained over the forecast horizon with sterling stabilising in the range of £0.88-£0.91 per euro. The Euro is projected to weaken against the dollar from an average rate of \$1.33 per euro in 2009 to around \$1.25 per euro in 2015.

This set of forecasts is predicated on the assumption that problems in the international banking sector will be resolved quickly and that the fiscal stimulus packages being introduced in many countries will be effective. However, there is considerable uncertainty about the timing of the world recovery.

*Fiscal Assumptions*

The fiscal policy assumptions underlying the different scenarios are summarised in Table 5. 2.

The baseline scenario incorporates the decisions made in the January 2009 package, which primarily affect public service pay rates. It is assumed in this scenario that no further fiscal policy interventions occur between January 2009 and end 2015 – a neutral fiscal policy is pursued. That means that tax rates are held constant (or

indexed in the case of specific taxes) and tax bands are also indexed. It is assumed that there is no change in public service numbers over the full period. (This might in other contexts be considered to be a non-neutral assumption as it implies a fall in the share of public goods provision in the economy between 2011 and 2015.) Transfers adjust to take account of changing numbers unemployed. Also rates of transfers are indexed.

**Table 5.2: Fiscal Policy Assumptions**

<b>Package 2009</b>	<b>Details</b>	<b>2009</b>	<b>Full year</b>	<b>2010</b>	<b>2009 + 2010</b>
	Pensions Levy	1160	1400	240	1400
	Reduction in Professional Fees (medical, legal etc)	67	80	13	80
	Overseas Development Aid	95	95	0	95
	Early Childcare Supplement	51	75	24	75
	General Administrative Reductions	140	140	0	140
	Capital savings – 3.6% across-the-board reductions	300	300	0	300
	<i>Subtotal</i>	<i>1813</i>	<i>2090</i>	<i>277</i>	<i>2090</i>
April 2009	Honohan Income tax plan	1667	2500	833	2500
	Carbon tax €20 a tonne	407	610	203	610
	Cuts in public service numbers	420	630	210	630
	<i>Subtotal</i>	<i>2493</i>	<i>3740</i>	<i>1247</i>	<i>3740</i>
Budget 2010	NDP price			1000	1000
	NDP volume (rescheduling)			300	300
	Excise			400	400
	Cuts in public service numbers			350	350
	<i>Subtotal</i>			<i>2050</i>	<i>2050</i>
<b>Cumulative Total</b>		<b>4306</b>	<b>5830</b>	<b>3574</b>	<b>7880</b>

In the two other scenarios an illustrative fiscal package in April 2009 and 2010 as set out in Table 5.2 is incorporated.

The illustrative April 2009 package is structured to produce *ex ante* savings of around €2.5 billion in 2009 with full year *ex ante* savings of around €3.7 billion. The major element of this package is assumed to be the “Honohan” income tax package. Details are given at:

<http://www.irisheconomy.ie/index.php/2009/02/28/bringing-the-income-tax-structure-back-into-sustainable-shape/>

For administrative reasons it may not be realistic to assume that such an income tax package could be introduced one third of the way through the year. However, it is used here for illustrative purposes only. It is also assumed that a carbon tax of €20 a tonne is imposed on those sectors not covered by the EU Emissions Trading Scheme from 1<sup>st</sup> May 2009. Finally it is assumed that there is a cut in public service numbers beginning a third of the way through the year saving around €0.42 billion within 2009.

The 2010 Budget is assumed to take account of a fall in the price of building and construction investment resulting in a saving of around €1 billion. In addition, the volume of public investment is assumed to be reduced by around €0.5 billion as projects are re-phased to take account of the lower than expected growth in the economy and lower expected levels of congestion in the use of public infrastructure.

A further small cut in public service numbers is assumed with some increase in excise taxes. Together these would result in savings *ex ante* of around €2.1 billion in 2010 to be added to the carryover effect of the measures taken within 2009, amounting to around €1.5 billion. Together these should result in *ex ante* savings in 2010 of around €3.6 billion.

It is assumed that no further fiscal policy action is taken after 2010 – a neutral budgetary policy, as defined above, is pursued.

*Baseline Scenario*

This scenario is based on the public finance assumptions and assumptions on world economic conditions outlined above. Table 5.3 shows some key figures from the Baseline scenario. Following two years of significant contraction in economic activity in 2009 and 2010, expect economic growth is expected to recover from 2011. This is predicated on the assumption that the world economy, and hence world demand for Irish exports, will have recovered from the current slowdown by 2011.

**Table 5 3: Results for the Baseline Scenario**

Year		2009	2010	Average Growth 2011-2015
GDP	%Change	-7.20	-1.49	4.89
GNP	%Change	-6.68	-0.39	5.39
Total Employment	%Change	-7.42	-5.32	2.94
Output, industry	%Change	-6.29	-1.18	5.52
Output, market services	%Change	-4.65	-0.58	6.06
Consumer Prices	%Change	-1.98	0.27	2.78
Non-ag. Wage Rates	%Change	-1.59	-1.36	4.55
				Value in 2015
Personal Savings Ratio	Level	12.8	13.0	6.9
General Government Balance	%GDP	-13.70	-15.37	-5.45
General Government Debt	%GDP	52.99	64.51	80.70
Balance of Payments	%GNP	-0.8	1.1	0.4
Unemployment Rate	%	11.93	15.70	5.78
Net Migration	Level	10,000	10,000	

Growth in world trade directly affects the Irish economy through the manufacturing, business and financial services and tourism sectors. The internationalisation of business services has increased substantially the combined effect (through all channels) of growth in world demand on the Irish economy. The multiplier effect of an increase in world growth of 1 percentage point from 2009 would be to raise Irish GNP by 1.32 percentage points above what it otherwise would have been by 2015.

This high degree of responsiveness to growth in world demand contributes significantly to the average growth in GNP in the Baseline of 5.4 per cent over the period 2011 to 2015.

Domestic competitiveness relative to the rest of the world determines what share of world output is produced in Ireland. The increase in unemployment associated with the contraction in economic activity over the period 2008 to 2010 is expected to lead to significant wage moderation in the private sector. The baseline scenario takes into account the pensions levy introduced in January this year, which will lead to a reduction in wage rates in the public sector. As a result, wage rates in the economy as a whole are expected to decline by a cumulative 5.4 per cent over the period 2009 to 2011. This significant improvement in competitiveness helps drive the growth in GNP over the period from 2011 to 2015.

For 2009 and 2010, the recession in the international economy, in addition to falling domestic demand, leads to a substantial fall in output in the manufacturing and market services sectors. Overall GNP is expected to fall by 6.7 per cent in 2009 and 0.4 per cent in 2010. The recovery in the international economy assumed in the Baseline scenario, in addition to the improvement in Irish competitiveness, is expected to give rise to a strong recovery in both sectors over the period 2011 to 2015 with average output growth of 5.5 per cent in manufacturing and 6.6 per cent in market services. As a result GNP growth is expected to resume to average 5.4 per cent between 2011 and 2015.

The sharp slowdown in the economy in the years 2008 to 2010 is expected to result in a dramatic rise in unemployment and the unemployment rate. As a result of lower levels of activity in the manufacturing and market services sectors total employment is expected to fall by 7.4 per cent in 2009 and by a further 5.3 per cent in 2010. The unemployment rate is expected to reach almost 12 per cent this year before peaking at 15.4 per cent in 2010. In line with the anticipated recovery in economic activity from 2011 onwards, employment growth is expected to resume and average 2.9 per cent over the period 2011 to 2015. As a result, the unemployment rate is expected to fall back to 5.4 per cent by the end of the period.

Throughout these simulations migration is assumed to behave in response to movements in relative after tax wage rates. However, with a world-wide recession the propensity to migrate for a given wage differential may well fall. If migration were not to resume, this would lead to a higher unemployment rate and a slower decline in the unemployment rate during the recovery period.

With the balance of payments broadly in balance this year, or at the latest next year, this means that the forecast external borrowing by the government sector of 14% of GDP will be counterbalanced by a reduction in the banking sector's net foreign liabilities. With the liabilities of the Irish banking sector being guaranteed by the Irish government, this will mean that the government's contingent liabilities will remain roughly unchanged in 2008 and 2009.

If the government takes further fiscal action in April, this will tend to push the balance of payments into surplus this year and an increasing surplus next year. For every one percentage point reduction in government borrowing through discretionary fiscal

action the balance of payments deficit also tends to fall by around one percentage point (or the surplus rises).

As any recovery in the Irish economy is likely to occur initially through a recovery in world demand, increasing the demand for Irish exports, the next few years are likely to see an increasing surplus on the balance of payments counterbalanced by a gradual fall in government borrowing. In the Baseline scenario, a balance of payments surplus of 1.1 per cent is expected in 2010 with the balance of payments expected to remain broadly in balance thereafter.

As both the borrowing by the government and the refinancing of its existing liabilities by the banking system are guaranteed by the government and carried out on fixed interest terms, in the long run the interest payments by the government on its rapidly increasing debt are likely to be counterbalanced by the reduction in the interest rate.

On the public finances, the lower level of economic activity and employment is likely to reduce government receipts from a range of taxes. At the same time, government expenditure is expected to rise due to higher welfare payments arising from the increase in unemployment. Assuming no further fiscal action in addition to the measures announced in January, the general government balance as a percentage of GDP is expected to reach -13.7 per cent this year and to peak at -15.4 per cent in 2010. As a consequence, the general government debt would rise to 65 per cent in 2010 and 81 per cent by 2015<sup>6</sup>. The resumption of economic growth after 2011 would be likely to bring about an increase in government revenue from taxation. The rise in employment would bring about an increase in income tax revenue while the fall in unemployment would reduce government welfare payments. This would result in a significant improvement in the general government balance which would fall to -5.5 per cent of GDP by 2015. As this is the deficit which remains assuming a neutral fiscal stance, -5.5 per cent can be regarded as an estimate of the structural budget deficit, i.e. the deficit that remains assuming a normal world recovery beginning in 2011 and neutral fiscal policy.

The base line scenario assumes a slow recovery in the housing market from 2011 onwards. Housing completions would gradually rise from a nadir of 15,000 in 2010 to 25,000 in 2011 reaching between 35,000 and 40,000 in 2015. However, as discussed in the attached box, if vacancy rates prove to be lower than expected the recovery, when it comes, could be somewhat more rapid than envisaged here.

#### *Fiscal correction*

In this section the impact of a budgetary package which includes a series of taxation increases and expenditure cuts in 2009 and 2010 additional to those already implemented in January 2009 is examined. This package amounts *ex ante* to additional savings of €5.8 billion (see above for details). These *ex ante* cuts of €5.8 billion lead to an *ex post* saving of €4.5 billion by 2010. The difference is largely due to loss of revenues from expenditure taxes since the fiscal package leads to a significant fall in consumption expenditure. The impact of this package is examined

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<sup>6</sup> This is the gross debt. It includes deposits with the Central Bank together with the NPRF, the SIF and a number of other funds. In 2008 the gross debt figures was 41.3 per cent of GDP while the net debt figure was 20 per cent of GDP., 40 billion lower

under two scenarios. The first implements this package assuming there will be a world recovery in 2011, the second assumes that the world recession will persist into 2012

Table 5.4 summarises the impact of these two scenarios relative to the baseline. Under the first scenario the implementation of the fiscal correction package leads to a medium term loss of GDP of 2 per cent together with 2% lower employment (equivalent to 38,000 jobs), higher unemployment and higher emigration. By 2015 cumulative net emigration is 44,000 higher than in the baseline. These represent permanent losses to the economy and can be broadly characterised as the cost to the economy of fiscal tightening during a recession. With a world recovery in 2011 this fiscal package is sufficient to bring the deficit to 3% of GDP by 2015 and to restore tax revenues' share of GNP to 2006 levels

**Table 5.4: Fiscal Correction compared to the Baseline**

	I. Fiscal Correction							II. Fiscal Correction + delayed recovery				
	2009	2010	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
<i>Percentage change relative to the benchmark</i>												
GDP	-0.8	-1.6	-1.9	-2.0	-2.1	-2.1	-2.0	-4.1	-5.4	-5.9	-5.8	-5.5
GNP	-0.7	-1.2	-1.6	-1.7	-1.6	-1.4	-1.2	-3.3	-4.3	-4.7	-4.4	-3.8
Consumption	-1.8	-3.1	-3.9	-4.3	-4.5	-4.5	-4.4	-3.7	-4.7	-5.3	-5.6	-5.5
Investment	-0.6	-4.7	-4.5	-4.6	-4.5	-4.2	-4.0	-6.1	-7.2	-7.2	-6.3	-5.3
Labour Force	0.0	-0.3	-0.6	-0.8	-1.0	-1.1	-1.2	-0.7	-1.0	-1.3	-1.5	-1.6
Employment	-0.8	-1.6	-1.7	-1.9	-1.9	-1.9	-1.9	-3.2	-3.6	-3.5	-3.2	-2.9
Consumption Deflator	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.0	-0.3	-0.4	-0.4	-0.4
Wage Rate	0.4	0.1	0.0	0.0	0.0	0.1	0.1	-0.1	-1.9	-2.9	-3.3	-3.3
Manufacturing Output	0.0	-0.2	-0.4	-0.4	-0.4	-0.4	-0.5	-6.2	-7.9	-8.1	-7.7	-7.2
Services Output	-0.8	-1.7	-2.0	-2.2	-2.2	-2.2	-2.1	-3.2	-4.9	-5.6	-5.6	-5.3
<i>Absolute change relative to the benchmark</i>												
BOP surplus, % of GNP	0.9	2.1	2.3	2.5	2.6	2.7	2.7	1.0	0.4	0.3	0.3	0.3
Unemployment Rate	0.7	1.1	0.9	0.9	0.8	0.8	0.7	2.2	2.3	2.0	1.6	1.2
Net Emigration '000s	0.0	8.6	11.5	8.7	6.4	4.9	3.7	12.6	15.4	11.6	5.4	2.5
Net Govt. Savings (bn)	2.1	4.5	4.8	4.8	5.1	5.6	6.3	3.2	2.3	2.0	2.1	2.7
Deficit % of GDP	-1.2	-2.5	-2.4	-2.3	-2.3	-2.4	-2.5	-1.1	-2.3	-1.3	-0.6	-0.4
Debt/GDP Ratio	-0.3	-0.8	-1.6	-2.3	-3.2	-4.0	-5.0	0.8	2.4	3.1	3.1	2.8

Under normal circumstances it would be advisable to avoid such permanent losses by delaying fiscal retrenchment until the recovery sets in. In 2010 this fiscal package is equivalent to the government removing 2.5 per cent of GDP from an economy in the throes of a very deep recession. This action further depresses consumption and

investment so that the deficit widens in 2010. However, as discussed further in the conclusions, these are not normal circumstances and there is too much uncertainty surrounding the prospective timing of a world recovery. This is illustrated here by the results of the second scenario. If the world recovery is delayed by one year, then the costs to the economy are significantly higher. GDP is 5.5% lower in 2015, employment is 2.9% lower (58,000 jobs) and there is cumulative additional net emigration of 56,000.

Under the baseline scenario, the deficit is 5.4% of GDP in 2015. Given that this estimate follows five years of strong growth, this can be regarded as a good estimate of the scale of the structural deficit in 2009. The fiscal correction package is equivalent to 2.5 percentage points of GDP in 2010, this structural correction is sufficient to bring the structural deficit below 3% by 2015. However, with the world recovery delayed for one year, the deficit would be 4.5% by 2015. In these circumstances the deficit would only fall below 3% in 2019.

The collapse in tax revenues expected in 2009 and 2010 could see tax revenues share of GDP fall from 29 per cent in 2006 to 24 per cent in 2010 if there is no further fiscal action taken. Under the fiscal correction package this would be stabilised at 26 per cent in 2010 and it would be restored to 2006 levels by 2015. In relation to the structural deficit, these figures suggest that the tax measures included in the illustrative fiscal package are sufficient to restore the structure of tax revenues which preceded the recession<sup>7</sup>. On the expenditure side, government expenditure excluding debt interest payments was equivalent to 31 per cent of GDP, which is likely to reach 40 per cent by 2010 if no fiscal policy action is taken. Even with fiscal policy action, it will still exceed 29 per cent in 2010 given the growth in cyclical expenditures – the so-called automatic stabilisers. Under the fiscal policy action scenario, this share falls to below 32 per cent by 2015, back to its 2007 pre-recession share.

### *Conclusions*

The base scenario set out in this note suggests that the underlying structural deficit in the public finances is of the order of 5 to 6 per cent of GDP. This estimate is arrived at on the assumption of a return to world growth from 2011 onwards. In turn, it suggests that over half the likely deficit in 2009 will be the result of the exceptional nature of the world recession in the period 2008-2010. This “cyclical” element of the deficit is the result of the normal automatic stabilisers taking effect in times of recession.

If the forecasts in the baseline scenario were “certain” and if world financial markets were “normal” then it would probably be appropriate to delay taking fiscal action to close the structural deficit until the economy was recovering in the period 2011-2015. While it would require considerable fiscal tightening over that period, the damage in terms of unemployment would be greatly reduced by such a delay. The cost of such a delay would be that the debt/GDP ratio would eventually asymptote out at a higher level, with all that that would entail in terms of future interest payments and higher taxes.

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<sup>7</sup> The use of the word “structural” in relation to tax revenues in 2006 could be regarded as misleading. Since the beginning of 2000 the share of property-related taxes in total revenue increased, which meant that the collapse in the property market revealed a structural gap in tax revenues.

However, there is exceptional uncertainty surrounding these forecasts and it is quite possible that the world recovery will be delayed beyond 2010/11. As a result, prudence would suggest taking some action at this stage to begin tackling the structural deficit. For this reason the effects of an illustrative fiscal package in April 2009 and an illustrative budget for 2010 have been simulated. If supplemented with some further limited tightening of fiscal policy in the recovery phase (not included in the simulations in this note) this could eliminate the structural deficit by 2015. In the case where the world recovery was delayed by a year this fiscal tightening would still leave the public finances in 2015 in a similar position to that shown in the base line scenario.

A second reason for taking additional fiscal action today in the depths of the recession is the need to convince financial markets that the Irish economy will be able to sustain the current and prospective levels of borrowing.

However, it should not be necessary to eliminate the entire structural deficit in 2009 and 2010, or even the majority of it. The fact that world recovery will dramatically reduce the deficit through the operation of automatic stabilisers means that some of the task of restoring the public finances to long-term equilibrium can be best left for the recovery phase.

The scenarios shown suggest that the Irish economy remains fairly resilient. Because the recovery in Ireland will be driven by a recovery in demand for Irish exports rather than through any recovery in domestic demand it is likely to lag the recovery in the US and the rest of the EU. The labour market in Ireland is already reacting to adjust costs and to begin to restore competitiveness on international markets. The prospective fall in prices will aid this process, improving competitiveness broadly defined. While this will not have a major impact on output and employment during the recession, if the Irish economy behaves in its normal fashion it should mean that the world recovery will produce robust growth in Ireland.

Nonetheless, there is likely to be a permanent loss of output in Ireland as a result of the recession of 2008-2010. At best, GNP in 2015 will be 12 per cent below “potential”. If the world recession lasted a year longer than assumed in the base scenario the loss in 2015 could be at least 15 per cent. While these losses would be reduced in the very long run, even then they are likely to be substantial. This will mean that the infrastructure that was necessary to deal with expected congestion levels of 2015 will now not be needed till 2018 or later. It will also mean that emissions of greenhouse gases will be lower than expected in 2020.

Even in the base scenario the economy moves into a balance of payments surplus by 2010. With any additional fiscal action to eliminate the structural deficit by 2015 the surplus would be substantially increased. This means that over the course of the period to 2015, while government indebtedness will rise, national indebtedness will fall. As much of the reduction in net foreign indebtedness will occur through the banking system, the government’s contingent liabilities will also continue to fall as the economy recovers.

## 5.2 Productivity & Competitiveness: Lowering the Costs of Doing Business

Competitiveness is the ability of Irish-based firms to achieve success in international markets, so as to provide Ireland with the opportunity to improve living standards and quality of life. Improving living standards depends on, among other things, raising incomes through strong productivity growth and providing high quality employment opportunities for all. Given Ireland's small domestic market, Ireland requires a vibrant exporting sector and must therefore maintain and develop its international competitiveness. An economy which is internationally competitive needs to be supported by a business environment and broader socio-political climate which encourages high levels of investment in enterprise, public infrastructure, skills and knowledge, and that provides the appropriate incentives and flexibility to respond to change.

A key weakness of the Irish economy is the continued decline in Ireland's cost competitiveness. Between January 2000 and September 2008, Ireland experienced a 32 percent loss in international price competitiveness (real HCI), reflecting a combination of higher price inflation in Ireland (approximately one third of the loss) and an appreciation of the Euro against the currencies of many trading partners (nominal HCI). Ireland has a history of out pacing average Euro-zone inflation since joining the currency union, becoming the second most expensive country within the EU-15. Ireland's above average rate of inflation is largely due to inflation in the price of services, most of which are domestically provided. Since 1999, Irish services inflation has consistently outpaced the Euro-zone average.

### 5.2.1 Energy Sector

#### *Electricity Costs*

Irish industrial electricity costs are the second highest in the EU-25. Irish prices increased by 70 percent between January 2000 and January 2007, which was more than twice the average rate of increase across the EU-15 (32.8%). The sustained escalation in electricity costs has acute implications for small and medium sized business under public electricity supply (PES), and for large energy users under the Single Electricity Market. High electricity prices are being driven by a number of factors, including reliance on imported fossil fuels and exposure to global fuel price increases — particularly for gas. In addition, low levels of spare generation capacity, limited interconnection, the poor availability performance and relatively small scale of Irish generation plants, inefficiencies in distribution and limited competition in generation and supply directly contribute to uncompetitive electricity costs.

#### *Distributing the Carbon Windfall*

In August 2008, the Government announced it would use the carbon windfall accruing to the ESB in 2008 to offset some of the price increases arising from increasing fuel prices. The Commission for Energy Regulation (CER) has estimated the windfall gains accruing to all generators at €280 million per annum between now and 2012.

### *Controlling Costs in Generation and Transmission*

Ireland's high dependence on fossil fuels means that electricity prices are particularly exposed to global fuel price volatility. However, it has been estimated that domestic *controllable costs* accounted for 30 percent of the difference between Irish and average EU electricity prices in 2004. Under the Single Electricity Market (SEM), the full cost of carbon is being passed through to electricity customers since January 2008 via higher prices. Since electricity generators receive grand-fathered (free) carbon credits under the Emissions Trading Scheme, this, results in additional annual profits (windfall gains) until 2012 for the generators. This is based on a cost of carbon of €25 per tonne and carbon allowances of 74 percent under the ETS.

Regulation of operators should focus on bringing this differential in controllable costs into line with competitors. Ireland's transmission infrastructure requires significant investment, which will be financed through future electricity prices. There is a view that high-tension cables should be placed underground, primarily fuelled by concerns over health and the integrity of the rural landscape. However, Eirgrid estimates the incremental cost of using underground cables to strengthen the transmission grid (circa 650km of transmission cables and 100km for the North-South tie line) would be €6 billion—costs that would be borne by industrial and residential customers. These costs are prohibitive and underground cables would be technically inferior from the perspective of guaranteeing security of supply. Therefore, high-tension transmission cables should continue to be placed overhead.

### *Balancing Affordable Renewables Targets with International Competitiveness*

Ireland is working towards its EU target of producing 15 percent of its electricity needs from renewable sources by 2010, which will improve the diversity of the fuel mix and carbon performance. While the marginal cost of wind and other renewables is low or negligible, meeting the 2020 target of 40 percent will require substantial investment in the electricity grid and back-up power generation. From a competitiveness perspective, there does not appear to be any first-mover advantage to Ireland in going beyond the already ambitious EU climate change targets. While the Commission for Energy Regulation (CER) is assessing the costs of implementing this target, the implementation of more burdensome targets should not proceed in the absence of a finalised cost assessment. In conjunction with the three percent per annum reduction in CO<sub>2</sub> levels also set by Government, this would result in a cumulative reduction in greenhouse gases in excess of those mandated by the EU. The combination of these policies has important cost implications for businesses and all consumers of energy in Ireland.

Finally, price supports for renewable electricity generation provide for a guaranteed price of €140 per megawatt hour for electricity produced by new offshore wind plants and €220 per megawatt hour for wave and tidal energy. This compares with a fixed price of €57 per megawatt hour for onshore wind generation. While public subsidies can play a key role in supporting an emerging sector, there is concern about the potential inflationary impact of an expensive price-floor on renewables and this should be reviewed.

### *Securing Energy Supply and Competitiveness*

Ireland remains particularly exposed to rising international oil and gas prices due to dependence on imported fossil fuels. One of the key actions identified in the 2007

*Energy White Paper* is a 500MW east-west interconnector linking the Irish and British transmission systems by 2012. The timely delivery of this interconnector and the North-South tie line is critical to improving Ireland's energy competitiveness as it will support greater security of supply and potentially introduce greater competition in the Irish electricity market.

#### *Adapting the Fuel Mix*

The development of a cost-effective basket of renewable sources of energy, and the technology to harness Ireland's considerable endowments of wind and wave power, can play important roles in reducing Ireland's dependency on imported fossil fuels in future. There is a need for a review to focus on reducing dependence on imported fossil fuels, halting deteriorating energy cost competitiveness and protecting security of supply through greater diversification. A comprehensive review would address the fact that Ireland has limited additional opportunities for hydro generation, that nuclear generation is not currently permitted under legislation and that none of Ireland's municipal waste is converted into energy (compared to approximately half of Danish and Swedish waste). Other important issues include the fact that, renewables require significant conventional back-up, therefore Ireland's reliance on gas as a fuel source is increasing. This implies a reduction in the diversity of the fuel mix and a greater exposure to the volatility of global gas markets. The UK has become a net importer of natural gas and this lengthening of the supply chain means Ireland will become increasingly dependent on natural gas sourced from more distant and politically unstable suppliers. Access to liquefied natural gas (LNG) opens different market sources and supply pathways for gas. Enhanced storage facilities for LNG have the capacity to raise LNG inventories and enhance security of supply.

ESB's coal-fired generation plant at Moneypoint, accounts for 21 percent of its generation capacity, and is due for decommissioning in 2020-2025. The options for replacing this source need to be carefully examined, including analysis of the potential of nuclear power and clean coal technologies. There is currently a statutory prohibition on the production of energy from nuclear technology in Ireland. However, in light of the need to enhance security of supply and diversify to sustainable low-carbon energy sources, a technical study on the feasibility of nuclear is now being conducted as part of a comprehensive review of the fuel mix used by Ireland. For this to occur within the envisaged timeframe of Moneypoint closure, action on technical assessment and planning/legal considerations are required presently. However, as fossil fuels are likely to play a key role in Irish energy for many decades, it is important to support efforts to make them cleaner and more efficient. This will entail ways to manage associated pollution and greenhouse gas emissions, including the development and adoption of carbon capture and storage technologies for power stations.

#### *New Business Opportunities and Energy Efficiency*

In light of the strengths of the existing enterprise base in Ireland and opportunities that are expected to arise in the future, a number of environmental goods and services sub-sectors offer opportunities for Ireland. Some of these sub-sectors have high export potential (renewable energies, clean technologies and processes and energy efficiency products and services) while others are sub-sectors with strong domestic potential (waste management, water supply and wastewater treatment and environmental consultancy). Potential exists to attract investment in niche environmental goods and

services areas such as renewable energies and clean technologies and processes. Some large Irish-based multinationals are already investing heavily in this area.

A coordinated strategy of ensuring policy and regulatory certainty in the various environmental subsectors, continuing public commitment to investment in environmental and energy-oriented R&D, developing key skills relevant to this sector, and building on Ireland's strong information and communication technologies (ICT) capabilities are central to benefitting from the growth of the sector. The budgeted increase in spending on the *Strategy for Science, Technology and Innovation* (additional €15.4 million during 2009) should support the development of the environmental goods and services sector and accelerate the deployment of renewables technology. Equally, proposed The Government published a study which assesses the medium to long-term security of supply on an all-island basis, including the scope for a common approach to gas storage and LNG.

Energy efficiency is one of the most effective tools to jointly address cost competitiveness, security of supply and environmental sustainability objectives. Improving energy efficiency will require the development of new skills sets in terms of the design, building and operation of more energy efficient systems, including buildings, equipment and transportation. The downturn in the construction sector provides an opportunity to train/retain people to take advantage of these opportunities. Setting stricter building standards and codes, with the ultimate aim of reaching passive energy houses and zero-energy buildings, in conjunction with schemes to support investment in retrofitting existing houses, offices and other buildings can help to achieve greater energy efficiency. The expansion of Sustainable Energy Ireland's *Home Energy Saving Scheme* is a good example in this regard.

### 5.3.2 *Moving Towards a Lower Carbon Economy*

Much of the focus to date has concentrated on the electricity generation and industrial sectors as targets for carbon reduction. As large individual carbon emitters, their initial prioritisation was justified; however agriculture and transport are together responsible for 47 percent of total greenhouse gas (GHG) emissions. While the agricultural sector has stabilised greenhouse gas emissions, emissions from the transport sector have increased by 170 percent since 1990. Given that the European Commission is seeking a 20 percent cut in domestic (non ETS) emissions by 2020, sector specific measures are required to meet targeted emissions reductions.

#### *Transport Sector*

Road transport accounts for 97 percent of total transport emissions. Nothing less than a paradigm shift will be required to reverse the rising trend in greenhouse gas emissions from this sector. There are a number of policies that could be used to reduce emissions from this sector, such as greater investment in sustainable public transport (*e.g.* continued electrification of rail, hybrid buses, quality bus corridors, etc.); renewable energy sources (*e.g.* bio-fuels) for transport; electric and hybrid vehicles; cycling, car-pooling and mobility management schemes; flexible working patterns and the infrastructure required to enable this (*e.g.* high quality broadband); and sustainable land-use planning.

### *Agricultural Sector*

Despite the stabilisation of emissions over the past decade, the agricultural sector remains the largest source of greenhouse gases in Ireland. The competitiveness of the agriculture sector is important to Ireland — it contributes €4.2 billion to Gross Value Added in the economy, employs over 123,000 people and is regionally dispersed. Although there are very few cost-neutral options available to this sector, a more serious engagement with improving the carbon performance of the agricultural sector is required. A number of steps are essential, including: better utilisation of nutrients, reduced reliance on nitrogen fertilisers and adoption of new slurry-spreading technology.

### *Better Land-Use Planning*

Good land planning can play a key role in terms of supporting sustainability and competitiveness. Ireland has not been successful in developing cities of scale outside the Greater Dublin Area (GDA), instead opting for a policy of land-use planning which enables the sprawl of low-density housing developments around the GDA and surrounding counties. This approach is not sustainable from energy, environmental, climate change or quality-of-life perspectives. With the publication of *Planning Guidelines on Sustainable Residential Development in Urban Areas*, the focus now needs to be on implementation.

### **5.3.3 Waste Disposal Costs**

While landfill costs in Ireland have moderated in the last two years, Dublin and Cork retain the most expensive landfill costs of all cities benchmarked in a recent NCC report. Actions are required to remove barriers to private investment in waste management infrastructure.

### **5.3.4 Enhancing Competition in Sheltered Sectors**

Enhancing competition within Ireland's domestic economy is vital to improving competition in price, quality and service. It also stimulates productivity where firms invest in the development of new products and processes to gain competitive advantage. There are a number of examples of the benefits of greater competition in domestic markets (*e.g.* air travel, taxis, and telecommunications), but a wide range of sectors in Ireland is relatively sheltered from competition. Reasons for this include the power of producers in these sectors and the role of self-regulation; the nature of the good/service produced; the limited scope for competition (in the case of natural monopolies); the small size of the Irish market; the role of Government and regulators; and weak consumer voice and action. If sheltered sectors of the locally traded services sector are not exposed to greater competition, services inflation will continue to outpace the Euro-zone average and the cost competitiveness of Irish firms will deteriorate further. A summary of key outstanding Competition Authority recommendations is outlined below

### *Legal Services*

- Establish an independent and accountable Legal Services Commission, with overall responsibility for regulating the legal profession and the market for legal services, putting consumers and the public interest at the heart of the regulation of legal services.
- Establish a profession of “conveyancers”, as exists in other countries. Conveyancers should be regulated to ensure they have appropriate training, professional indemnity insurance, ethical rules and a compensation fund to provide professional conveyancing services just like, and in competition with, solicitors.
- Enable barristers to provide legal advice directly to clients; to form partnerships; and to work in groups.
- Ensure that legal fees are assessed on work done and not on the size of a client’s award.
- Ensure that inefficient processes, where they directly and unnecessarily inflate costs, are subject to reform.

### *Professional Services*

- The Competition Authority has made a number of recommendations to various departments in its reports on the architectural (D/Environment), dentistry (D/Health), optometry (D/Health) and veterinary (D/Agriculture) professions. These recommendations were designed to make these professions more competitive, and to give consumers more choice and value for money in service delivery and need to be implemented in full.

### *Retail Financial Services*

- Legislate for the legal recognition of electronic copies and substitutes for cheques; and to facilitate the transfer of mortgage security on a bank loan.

### *Accessing Affordable Credit*

There are serious concerns that the turmoil in global financial markets and the exposure of Irish banks to the declining property sector is affecting Irish firms in terms of their ease of access to finance and its cost. Scope exists to leverage the Government’s guarantee of financial institutions and current recapitalisation programmes to press upon lenders the importance of the availability of adequate and affordable capital to businesses. Funding decisions should be based on the long-term commercial viability of the business. The success of viable businesses should not be hindered by the tightening of credit standards, reduced access to wholesale funding markets, or the reluctance of banks to explore innovative solutions. Many small firms rely on bank credit to smooth out seasonal cash-flow issues, while exporting firms require access to sufficient working capital to exploit export opportunities where they exist — particularly in high growth emerging economies.

### *Easing Unnecessary Regulatory Burdens*

Easing the administrative requirements that regulations create can improve the business environment by reducing costs, minimising the time businesses spend fulfilling regulatory requirements and increasing productivity. Government needs to vigorously implement the *BetterRegulation* agenda to achieve the target to reduce administrative burdens by 25 percent by 2012.

### **5.3 Public Sector Reform**

The State plays an important role in the Irish economy by providing public goods and services and regulating economic activity. A well managed, innovative and efficient public administration system is essential to driving Ireland's economic recovery. In the changed economic and fiscal environment, the challenge for the sector will be to deliver better services with fewer resources. This will require a commitment to the substantive changes needed to meet emerging social and economic requirements and an effective programme to bring about such changes at every level of public administration. If Ireland is to maximise the contribution of the public service to achieving societal objectives and to meeting citizens' expectations, then a move towards a public service which operates as an integrated and coherent system is needed.

The public sector is not homogenous in terms of its objectives, structures, desired outcomes and service delivery. It is important to recognise that state bodies have very different roles, for example policy formulation, implementation, operational activities etc. Reform measures need to be carefully considered in light of the specific roles and outcomes required from individual public sector organisations. The statement from Government on transforming the public services which aims to improve performance, create flexibility in the deployment of people and assets, and to identify a precise agenda for transformation in specific sectors needs to be given an effective implementation platform. However.

New governance structures need to be considered to address the complex challenges and cross-cutting objectives such as competitiveness, social inclusion, climate change and ultimately to address the long-term needs of citizens more effectively. A high level of integration in policy formulation and implementation across Government is required. As the activities of a wide range of Government departments and agencies impact on the success of enterprises, Ireland needs to have structures and processes that ensure that these departments act in mutually complementary and supportive ways.

In line with international trends, the number of sector regulators in Ireland has grown in recent years. It is important that clear criteria are set to guide the establishment of regulators; that subject to the specific needs of different sectors, consistent legislation and structures are set across regulators; and that best practice is adopted. Periodic reviews are necessary to assess if regulators are meeting their objectives effectively and if their number or role requires amendment, including whether potential exists to merge regulators or regulatory activities. There is a need for greater clarity as to the role of regulators in respect of public policy formation.

Achieving an integrated public service, capable of maximising value for the taxpayers' money, will require targeted actions in a number of areas. Many of these reforms have been identified by the OECD's review of the public service, including:

- Performance measures need to look at outcomes rather than inputs and compliance with processes.
- Increased flexibility is needed to allow managers to achieve those outcomes;
- Budget frameworks should facilitate prioritisation and reallocation of spending;

- Improved coordination is needed between departments and agencies on cross-cutting issues;
- Greater use of networks is needed to bring together relevant players from across the public service;
- A renewed emphasis is needed on the role of ICT and eGovernment in strengthening information sharing and integrated service delivery. Relative performance in this area has weakened significantly in recent years;
- As in the wider economy, the quality and skills of people working in the public service determines the quality of outcomes. More open recruitment to the civil and public service, and greater mobility between the public and private sector at all levels, would broaden the pool of experience in the public sector and create a stronger culture of change.
- At the individual level, greater accountability and responsibility matched with suitable levels of autonomy and methods to recognise excellence will be required;
- At the management level, finding real mechanisms for addressing underperformance have been identified as a priority by Government.

Rapid economic growth and a burgeoning population have also placed unprecedented demands on the system of local government. The sector now faces a number of challenges that are relevant for national competitiveness, including:

- Working collaboratively to support the delivery of national objectives, including the development of the nine gateway towns identified in the *National Spatial Strategy*;
- Allowing inefficient or fragmented public services to be coordinated at a national level. For some public services (*e.g.* waste management, water services) local authority or administrative boundaries are not best suited to providing an integrated service or to exploiting economies of scale;
- Providing assurances that public money is properly administered and spent to good effect; and,
- Separating the multiple roles of local authorities in some areas. For example, in the area of waste collection, local authorities often act as providers, planners and even as regulators of private sector competitors.

#### **5.4 Sector Development Initiatives**

##### *Positioning Ireland for Recovery*

Productivity growth is a key to improving living standards, particularly as it allows for sustainable pay increases without eroding cost competitiveness. Achieving higher productivity growth rates is critical for long term competitiveness and sustainable wage growth. Average productivity growth rates in Ireland were below the OECD average in the period 2004-2007, and significantly below earlier performance in 2001-2004. While productivity performance is multifaceted, the future supply of a highly educated workforce, equipped with skills-sets aligned to business needs, is an important enabling factor for recovery. Future success is equally dependent on the response to the all-pervasive issues of energy security, cost and climate change. Diversifying energy sources and the search for security and affordability is no longer an abstract long term policy objective. Similarly, the importance of how commitments

to international climate change agreements are implemented, and how those are related to domestic targets, cannot be overstated.

### *Education*

Achievement of the targets set out in the *National Skills Strategy* (NSS) is essential. Increasing retention rates at secondary level and progression to tertiary education will require the successful targeting of poorly performing students earlier in their development. To tackle disadvantage where it exists, and to support the working lives of parents, the establishment of a system of pre-primary education should be a medium-term priority. A cost-neutral option in this regard would be to replace the poorly-targeted Early Years Supplement with a targeted subsidy to accredited early childhood care and education providers.

### *Strategy for ICT in Schools*

The current and forecasted rise in unemployment places new pressures on existing structures for skills specific training (*e.g.* construction related apprenticeships), retraining and up-skilling. This involves a shift from the provision of construction based training to a focus on training which supports displaced construction workers and others to find opportunities in other sectors of the economy such as environmental management systems and energy efficiency. Potential may also exist to incentivise participation in life long learning and create a culture of up-skilling, through effective use of the taxation system. It is notable that those workers who are most vulnerable during the current downturn are least likely to upgrade their skills' set.

## **5.5 Promoting a Smart Economy**

The Smart Economy combines the successful elements of the enterprise economy and the innovation or 'ideas' economy while promoting a high-quality environment, improving energy security and promoting social cohesion. A key feature of this approach is building the innovation or 'ideas' component of the economy through the utilisation of human capital - the knowledge, skills and creativity of people - and its ability and effectiveness in translating ideas into valuable processes, products and services. A second important aspect is the greening of the economy and the development of green enterprise.

We can learn lessons from the current international financial crisis and pursue these twin initiatives to ensure the creation of high quality, well-paid employment which lasts through any future upturns and downturns in the global economy.

The Smart Economy has, at its core, an exemplary research, innovation and commercialisation ecosystem. The objective is to make Ireland an innovation and commercialisation hub in Europe – a country that combines the features of an attractive home for innovative R&D-intensive multinationals while also being a highly-attractive incubation environment for the best entrepreneurs in Europe and beyond. This will be the successful formula for the next phase of the development of the Irish economy and for delivering quality and well-paid jobs.

The Smart Economy is a ‘Green Economy’ in that it recognises the inter-related challenges of climate change and energy security. It involves the transition to a low-carbon economy and recognises the opportunities for investment and jobs in clean industry. The core of this Green New Deal is a move away from fossil-fuel based energy production through investment in renewable energy and increased energy efficiency to reduce demand, wastage and costs.

This sustainable approach to economic development complements the core strength of the economy in the use of natural resources in the agriculture, forestry, fisheries, tourism and energy sectors. It recognises that manufacturing industries are already relatively clean and green in the low level of resource inputs they use and environmental outputs they create. It will allow us develop a digital services export economy which will only require a high speed broadband network, a renewable electricity supply and our own ingenuity to succeed.

#### *Government Actions to Build the Smart Economy*

The Framework consists of a set of interlocking elements each of which is reflected in a series of Action Points, which demonstrate the specific measures which are being taken as a matter of urgency. The five Action Areas of the Framework are:

- Meeting the Short-term Challenge – Securing the Enterprise Economy and Restoring Competitiveness;
- Building the Ideas Economy – Creating ‘The Innovation Island’;
- Enhancing the Environment and Securing Energy Supplies;
- Investing in Critical Infrastructure;
- Providing Efficient and Effective Public Services and Smart Regulation.

#### *Meeting the Challenge – Securing the Enterprise Economy and Restoring Competitiveness*

Meeting the challenge of securing the economy in what are among the most difficult global economic circumstances since the foundation of the Irish state is an absolute priority for Government. A strategy is being implemented to manage the current short-term difficulties, maximise the rate of pick-up in economic activity, restore competitiveness, stabilise the banking sector, and assist those who lose their jobs during the downturn, while respecting the unavoidable constraints on policy arising from the fiscal and international environment. This strategy to secure Ireland’s Enterprise Economy will provide a strong base from which to pursue the next phase of economic development.

#### **Key actions:**

- A fiscal support is being applied to pump billions of Euro into the economy through unparalleled investments in infrastructure which will make the economy more competitive. This constitutes proportionately the largest capital programme in the EU;
- Capital investment allocations will be reviewed to identify scope for re-prioritisation towards more labour-intensive activities;
- Significant funding will be made available for a range of housing programmes and insulation schemes;

- Steps to broaden the tax base will be taken, having due regard to the recommendations of the Commission on Taxation;
- The low corporate tax regime has been a central pillar of Ireland's industrial policy and a, low corporation tax rates (including the 12.5% rate) will be maintained and a range of pro-enterprise tax measures to stimulate activity and employment growth will be introduced;
- Activity and employment in the construction sector will benefit from substantial and sustained capital investment under the NDP; in particular the Exchequer will provide €1.66 billion for housing in 2009, Stamp Duty applicable to commercial property is being reformed, and Enterprise Ireland will provide a construction sector export service to assist companies and professionals to market their products and services abroad;
- A whole-of-Government response to recommendations contained in reports of the Competition Authority will be published within nine months of their publication;
- Reforms to reduce legal costs and tackle factors which continue to drive costs and delays arising from the legal system will be pursued;
- A target of reducing administrative burdens on business by 25% by 2012, will be pursued beginning with concrete measures in Taxation, Environment, Health and Safety, Statistics, Employment and Company Law and introduce a consolidated inspections programme to reduce the number of inspection visits to business;
- The Government will improve co-ordination between Departments and Agencies in order to improve access to job search, training and education, community and employment programmes and will provide a range of opportunities for up-skilling and re-skilling;
- Specific actions include increased Job Search Supports capacity; an initiative to target young people who become unemployed; additional places, predominantly in training, for the unemployed;
- Retraining of construction and other workers will be re-focused and enhanced in order to support retrofitting of the housing stock and provide the skills for the green economy;
- Initiatives to protect mortgage holders include the Government's insistence that banks participating in the Guarantee Scheme confirm their compliance with the Irish Banking Federation (IBF) Code of Practice on Mortgage Arrears, support through the Money Advice and Budgeting Service, and careful monitoring of practices in relation to mortgage arrears and a pro-active approach to any further regulatory or other steps required;
- A range of measures is included to build on the strengths in the Agriculture, Fisheries and Food Sectors and exploit the potential of an export-led, natural resources based Agri-food sector. They include income support and capital investment on farms, environment and animal welfare enhancing schemes, further investment in the food processing sector, supporting innovation, marketing and research and development throughout the sectors and continued support for sustainable forestry;
- A range of measures will be introduced to re-invigorate the international financial services industry including: reform of the legislative framework for financial services in Ireland, support for a targeted up-skilling programme for the industry to enhance the skill base necessary to attract and retain

investment; increased support for Research, Development and Innovation activity; extending the number of double taxation treaties; and vigorous promotion targeting new opportunities in areas such as specialist leasing, pensions, technology development and sovereign wealth funds.

*Building the Ideas Economy – Creating The ‘Innovation Island’*

The key objective of this Action Area is to make Ireland an innovation and commercialisation hub of Europe – a country that combines the features of an attractive home for innovative multinationals while also being a highly-attractive incubation environment for the best entrepreneurs from Ireland and overseas. It builds on Ireland’s significant multinational presence and Ireland’s stock of highly-skilled workers and higher education institutions by incentivising greater investment, in high-value research and development areas in science and technology. In addition, the objective is to create an exemplary research, innovation and commercialisation ecosystem which capitalises on the Government’s unprecedented €8.2 billion investment in science and technology. This will be achieved by mobilising Ireland’s cohesive ‘Team Ireland’ agencies to translate knowledge creation into economic return. It will involve creating a similarly R&D-intensive indigenous enterprise sector through the provision of strong supports for start-up companies and entrepreneurs whose companies will provide the employment of the future.

**Key actions:**

- Up to €500 million will be generated to create a venture fund, known as ‘Innovation Fund – Ireland’, to support early stage R&D-intensive SMEs. The capital will be divided into five venture funds of between €75-150 million;
- The new fund will be operated in coordination with existing financial supports from Enterprise Ireland for early stage R&D intensive SMEs, in order to ensure efficient allocation of resources and avoid overlapping supports;
- More favourable tax treatment of the carried interest of venture capital is being introduced at a rate of 15% for partnerships and 12.5% for companies to encourage the availability of so-called ‘smart capital’ for investing in start-up innovative companies who will be the employers of the future;
- The multinational community will be incentivised to intensify innovative, high-value activity and technological convergence which will provide quality jobs;
- Entrepreneurship, business start-ups and employment creation will be driven by a number of highly-favourable taxation measures including exemption from corporation tax arising in the first three years of operation for business start-ups, a tax abatement scheme for restricted shares, and a refund in the case of forfeited shares, to assist companies, including start-up companies, in retaining key employees;
- A Remittance Basis of Taxation scheme will apply, in appropriate circumstances, to income earned from the exercise of an employment in this State where the payment is made outside of the State;
- Significantly enhanced R&D tax arrangements are being introduced; an industry-led Competence Centre Programme is being rolled-out in Applied Nanotechnology, Advanced Manufacturing Productivity, Energy, BioEnergy, Composites and Advance CMOS Circuits; and an action plan will be developed for expanding research and development in converging technologies combining science-based strengths with enterprise capacity;

- Revised arrangements for the taxation of intellectual property will be developed during the course of 2009;
- In the light of the above, there will be a review of the potential for the active management of Intellectual Property, whether generated or domiciled in Ireland;
- Fast-track visa arrangements will be provided for key researchers and highly skilled staff and their spouses. They will also be eligible for fast-track progression to long-term residence;
- Manufacturing will continue to play a fundamental part in the economic future, with an increasing focus on securing competitive advantage through innovation, R&D and design;
- There will be continued substantial investment in R&D through implementation of the Strategy for Science, Technology and Innovation, as demonstrated by significant allocations in Budget 2009, launch of a 5<sup>th</sup> cycle of the Programme for Research in Third-Level institutions and the preparation, by June 2009 of an Action Plan for Health Research;
- There will be focus on the promotion of commercialisation of opportunities arising from research undertaken including through the Commercialisation Fund, the Incubator Space Scheme, and the Technology Transfer Strengthening Initiative;
- A particular focus will be on opportunities arising from research in the renewable energy and environmental technologies areas, including the development and commercialisation of ocean energy and Science Foundation Ireland's recently added third pillar of energy;
- Science Foundation Ireland will continue to build Ireland's world class research capacity in strategic areas allied to the needs of industry;
- To accelerate Ireland's global science reputation, by 2013, SFI will attract to Ireland a premium cohort of world class researchers who have been nominated for, or secured prizes, awards and honours that will drive up the international visibility of Ireland to the global research community and the global high-tech business community;
- A review is being conducted to ensure maximum coherence and collaboration between the enterprise development agencies and to identify any gaps in support;
- Opportunities will be explored and pursued in international services including in Tourism, Construction, the Maritime Sector, Arbitration and Digital Trade Facilitation;
- Positioning Ireland as a location of choice in the International Education market will be pursued;
- A number of initiatives to support life-long learning will be implemented;
- Restructuring the higher education system will be a priority with a new Higher Education Strategy to enhance system wide performance;
- Higher Education institutions will be supported in pursuing new organisational mergers and alliances that can advance performance through more effective concentration of expertise and investment;
- Under the Strategic Innovation Fund, priority will be given to flexible learning initiatives that can be targeted at up-skilling people in the workforce;

- Research funding through SFI will be used, to instil a commercialisation culture in third-level institutions alongside the now embedded teaching and research culture;
- Entrepreneurship, mathematical, science and language skills will be fostered and the roll-out of Project Maths will be prioritised;
- Study in priority areas will be promoted through the Discover Science and Engineering programme, which will now assume a role in relation to maths;
- In partnership with industry, development of a targeted programme of bursaries to increase participation in key engineering programmes at third level will be promoted;
- Young Scientist winners will be linked with a third-level institution and/or a firm to enable them to bring their idea to development and the top 3 finalists will have laboratory/research space, as appropriate, in universities for the summer;
- The Schools Broadband Programme will be continued, the range of services available to schools will be expanded and the range of digital content available to schools will also be expanded;
- The objective of equipping second-level schools with 100Mb per second broadband connectivity will be pursued;
- Summer schools in science and engineering will be expanded with an emphasis on innovation and commercialisation;
- The HEA will progress the provision of entrepreneurship and management training skills on scientific and engineering doctoral programmes in universities;
- An Action Plan will be developed for improving trade, investment and tourism links with new and fast-developing markets by end-2009;
- We will review the network of diplomatic and consular missions in order to ensure a proper alignment of resources with strategic objectives;
- A consultative mechanism will be established with public and private sector representatives to advise on the economic work of Embassies;
- Enterprise Ireland will build on its existing network of offices in Asian and other high-growth markets;
- The IDA will shift resources from non-business generation to business generation, expand the number of staff based in the United States and seek to diversify the source of foreign direct investment (having recently set up offices in Mumbai, India, and Beijing, China);
- The programme of Ministerial-led trade Missions will be expanded to build on both existing markets and also new opportunities, including Asia, the Gulf States, Brazil, Russia and the developing EU markets;
- Detailed proposals will be brought forward to stimulate and enhance economic links with the overseas Irish, including the vital issue of Ireland/US Economic Relations;
- IDA, Enterprise Ireland and SFI will develop a marketing campaign for 'The Innovation Island'.
- A new Knowledge Society Strategy will be published by mid-2009 with an action plan for the use of new high speed broadband networks to further enterprise, educational and environmental objectives.

*Enhancing the Environment and Securing Energy Supplies*

The EU has committed to reducing overall carbon emissions by 20% by 2020. Agreement on a climate change package in Copenhagen next year will further increase our responsibilities and this transformation must be planned for now. The International Energy Agency has also warned that the 'era of cheap oil is over'. Ireland, which is over 90% reliant on imported fossil fuel, must alter this dangerous dependence. The economy needs to be protected from future oil and gas supply shocks. Radically enhanced energy efficiency across all sectors of the economy, together with actions to diversify supply through investment in renewable energy will deliver reduced costs, reduced emissions and greater energy security.

The success of the economy is intimately related to how well the environment is managed. For example, tourism depends on high quality landscapes and built environments and certain high value-added parts of the food industry depend on Ireland's 'green image' for competitive advantage. In addition, the environment and energy areas are beginning to provide very significant opportunities for industrial and enterprise development through Green Enterprise.

**Key actions:**

- The production of renewable electricity will be increased in a cost-effective manner to meet the new increased target of 40% of electricity from renewable resources by 2020;
- Over the next two years an estimated €400 million will be spent by the private sector building an additional 400mw of wind power to meet the 2010 target for 15% of power to come from renewable electricity supplies;
- EirGrid will spend €4 billion between now and 2025 building a new electricity transmission system to tap into renewable energy resources;
- The ESB has set out its own zero emissions corporate plan for 2030 and a related €22 billion long term investment budget;
- Bord Gáis have set out a €5 billion investment strategy to develop the gas network and clean energy technologies;
- The East West interconnector will be completed in 2012 while planning further interconnection to the UK and the Continent;
- A framework will be in place in early 2009 to support the development of auto-generation projects by large industry as well as micro-generation in the small business, agriculture and domestic level;
- 21,000 smart meters will be placed in Irish homes as a test project prior to the roll out of the new smart grid to every home in the country;
- Development and commercialisation of ocean energy technologies will be fast-tracked under the Ocean Energy Development Programme 2008-2012;
- Restructuring of the electricity sector through finalisation of the CER / ESB Asset Divestment Strategy will be progressed by end year and the transfer of the national transmission assets to EirGrid;
- The consent process for energy developments on the foreshore will be modernised in 2009;
- €30 million will be spent in 2009 helping the installation of better insulation in over 25,000 houses;
- The range of energy efficient equipment purchased by companies that can qualify for accelerated capital allowances is being increased, including energy

- efficient data-server systems and, vital in these times of high energy costs, electricity provision equipment and control systems;
- In the first quarter 2009 the Government will publish its National Energy Efficiency Action Plan including the targeted 33% improvement in energy efficiency in its own services by 2020;
  - Environmental considerations will be further integrated into the public procurement process in 2009, with the goal of bringing us in line with the best performers in Europe;
  - Current capital appraisal and cost-benefit analysis guidelines will be amended in early 2009 to incorporate best practice in reflecting the cost of CO2 emissions in cost benefit analyses;
  - An announcement on the issue of a Carbon Levy, assisted by recommendations of the Commission of Taxation, will be made in Budget 2010. Particular attention will be paid to ensuring that any Levy does not impact adversely on the most vulnerable or on the economy;
  - Further appropriate modifications to the motor tax system will be considered to encourage continuous improvements in the efficiency of the car fleet and to encourage a move from advanced plug-in hybrid vehicles to full electric vehicles;
  - The Government will support measures at EU level to have a lower rate of VAT apply to eco-friendly products;
  - A high-level Action Group on Green Enterprise will report to Government within four months, setting out an Action Plan for developing green enterprise in Ireland;

#### *Investing in Critical Infrastructure*

Continued commitment to high levels of investment in infrastructure will provide an important basis for economic recovery and growth while also supporting employment and stimulating economic activity. Given the current economic and financial circumstances, there is a need to prioritise projects and expenditure with the most immediate positive impact on the economy and employment. Investment must also be delivered in a coherent and efficient manner and be consistent with the vision of a 'Smart Economy'. The key role of dynamic city-regions in driving economic growth and in enhancing regional and national competitiveness, by acting as economic engines for their regions and providing a critical mass of public and private institutions, will be reflected in this process.

#### **Key actions:**

- Investment under *Transport 21* will be continued concentrating on completion by 2010 of the five major inter-urban motorways, continuing development of the Atlantic Road Corridor, increased public transport capacity and maintaining the momentum on project planning and statutory approvals;
- Some €2 billion will be invested over the coming years in Dublin Airport;
- €300-600 million in capital investment will be made in commercial seaports over the period to 2013;
- Investment will be made in 2009 of €1.3 billion capital funding in social housing, €102.5 million in Affordable Housing Initiatives and other Private Housing Supports, and €560 million in Water Services;

- A capital allocation is being made in 2009 to the school building programme of €581 million with a third-level capital investment of €265 million;
- The Arts, Sports and Tourism capital allocation of €148 million in 2009 will develop sporting and cultural infrastructure and enhance the infrastructure aimed at tourists and foreign visitors. The Convention Centre Dublin and Lansdowne Road Stadium are scheduled for opening in 2010;
- ESB, EirGrid and Bord Gáis are investing over €1 billion in 2008 and in 2009 in extending and upgrading the national electricity and gas distribution and transmission networks while ESB is investing €22 billion up to 2020 in the electricity network, the National Smart Meter programme and renewable energy R&D and commercialisation projects;
- EirGrid will also invest €4 billion from now up to 2025 in the national transmission grid under the Grid 25 Strategy and is delivering the electricity interconnector between Ireland and Wales to schedule by 2012 while undertaking the feasibility work on next phase interconnection with UK/mainland Europe;
- Continued investment of some €700 million each year by the private sector in the upgrading of the broadband network via a telecoms regulatory framework which has the promotion of competition as a core objective will be supported;
- There will be a requirement for open access fibre to be installed, where practicable, in new premises;
- The National Broadband Scheme, will be rolled out, which will ensure that every part of the country has full access to broadband coverage;
- An analysis of the implementation of the National Spatial Strategy (NSS) by end March 2009 will be used to assess the extent to which sectoral programmes are aligned with the NSS and to recommend any necessary re-prioritisation;
- The Dublin Transport Authority will be established in early 2009;
- A Public Transport Regulation Bill will be enacted in 2009 to reform the licensing of access to the bus market;
- The Strategic Corridor Frameworks for the Atlantic Gateway cities (Waterford, Cork, Limerick, Galway) will be completed early in 2009;
- Work on implementation of the cross-border North West Gateway Initiative (Letterkenny/Derry) will also be well underway in early 2009;
- Under the Rural Development Programme funding of €425.4 million will be provided for the diversification of the rural economy, creating up to 12,000 jobs in rural areas;
- The CLÁR and Gaeltacht schemes will also continue to provide key rural infrastructure and supports for small enterprises.

#### *Efficient and Effective Public Services and Smart Regulation*

Reform and renewal of the public service is essential if Ireland is to achieve the ambitious economic and social challenges set out in this document. Efficiency and effectiveness in the delivery of public services is critically important in progressing economic recovery and reform and will be directed strategically through the fast-track programme of reform set out in the recent *Government Statement on Transforming Public Services*.

At the same time, while Ireland's regulatory environment is well regarded internationally, reform must be accelerated in order to maximise competitiveness and accessibility of the system for business and citizens, in particular by minimising red tape. Where regulation is necessary to achieve policy goals it should be clearly communicated, and regularly evaluated. Enforcement should be based on risk so as to minimise the burden on citizens and businesses.

***Key actions:***

- The Special Group on Public Service Numbers and Expenditure Programmes will recommend by end-June 2009 reductions in public service numbers, further rationalisation of State Agencies and reallocation of staff and expenditure resources;
- Centralised and specialised procurement will be used to acquire goods and services more effectively, efficiently and at lower cost to the taxpayer, including through the introduction of e-auctions;
- Public Bodies will share services for functions such as payroll, human resources, financial management, procurement and ICT systems management;
- Performance measurement will be improved through the development of specific outcomes and indicators for all sectors, organisations and individuals;
- Performance and underperformance of staff within the Public Service will be measured and addressed through strengthening, standardising, and monitoring the performance management system;
- Performance assessments will be developed in areas of the Public Service where none currently exist;
- Barriers will be identified and removed to a unified public service labour market to include new arrangements on redeployment and exit options where people cannot be redeployed;
- Priority e-government projects will be developed to facilitate information sharing across public service bodies and to improve value for money and service standards;
- An Administrative Burden Reduction Programme will be introduced to reduce volume and frequency of data required from the public;
- The system of Regulatory Impact Analysis will be strengthened and enhanced;
- Accessibility to legislation will be improved by early 2009 through updating the Electronic Statute Book to include all 2008 Acts and Statutory Instruments from 2005 to 2008.

## Appendix 1: Property Loan Exposure of Guaranteed Credit Institutions

**Table A1.1 Allied Irish Bank Property Exposure (Sept 2008) €mn**

	ROI	UK	CM	Poland	Group	%Mix	%Group
Commercial Investment	10,302	3,668	5,405	1,186	20,561		
Residential Investment	2,121	1,732	342	28	4,224		
Commercial Development	6,363	1,223	479	734	8,799		
Residential Development	10,605	2,853	547	734	14,740		
Contracting	909	713	68	141	1832		
<b>Total Loans</b>	<b>30,301</b>	<b>10,189</b>	<b>6,842</b>	<b>2,823</b>	<b>50,155</b>		

**Table A1.2 Anglo Irish Bank Property Exposure (Sept 2008) €mn**

	ROI	UK	US	Other	Group	%Mix	%Group
Commercial Investment	22,664	15,375	6,684	-	44,723		
Residential Investment	1,308	854	1,129	-	3,291		
Commercial Development							
Residential Development	12,843	5,497	1,339		19,679		
Contracting	-	-	-		-		
<b>Total Loans</b>	<b>36,815</b>	<b>21,726</b>	<b>9,152</b>		<b>67,693</b>		

**Table A1.3 Bank of Ireland Property Exposure (Sept 2008) €mn**

	ROI	UK	Corporate	Private Banking	Group	%Mix	%Group
Commercial Investment	3.9	9.5	5.4	2.2	21.0		
Residential Investment	1.0	1.6	0.2	0.4	3.2		
Commercial Development	0.8	1.1	1.1	-	3.0		
Residential Development	1.7	2.1	1.3	-	5.1		
Land-bank	2.0	1.8	1.6	0.1	5.5		
<b>Total Loans</b>	<b>9.4</b>	<b>16.1</b>	<b>9.6</b>	<b>2.7</b>	<b>37.8</b>		

## Appendix 2: Impact of Projected Property Loan Impairments on Future Capital Adequacy Leaving Assets on Banks Balance Sheets

**Table A2.1: Impact of Projected Impairment on Capital Adequacy of the Six State Guaranteed Credit Institutions**

<b>AIB</b>	<b>31/12/2008</b>	<b>31/12/2009</b>	<b>31/12/2010</b>	<b>31/12/2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	2,700	1,900	1,900	1,900	8,400
Impairments	(1,800)	(4,000)	(4,000)	(2,200)	(12,000)
Post Impairment profits	900	(2,100)	(2,100)	(300)	(3,600)
Carry Forward Retained Earnings 2008		900	900	900	
Carry Forward Retained Earnings 2009			(2,100)	(2,100)	
Carry Forward Retained Earnings 2010				(2,100)	
<b>Core TIER1 Capital</b>	<b>6,875</b>	<b>6,875</b>	<b>6,875</b>	<b>6,875</b>	<b>6,875</b>
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>4,500</b>	<b>4,500</b>	<b>4,500</b>	<b>4,500</b>
<b>Total Core TIER1</b>	<b>7,775</b>	<b>10,175</b>	<b>8,075</b>	<b>7,775</b>	<b>7,775</b>
<b>Risk Weighted Assets (assumes drop off as impairments occur)</b>	<b>134,000</b>	<b>132,000</b>	<b>130,000</b>	<b>130,000</b>	<b>130,000</b>
<b>Core TIER 1 %</b>	<b>5.80%</b>	<b>7.71%</b>	<b>6.21%</b>	<b>5.98%</b>	<b>5.98%</b>

<b>BOI</b>	<b>31/03/2009</b>	<b>31/03/2010</b>	<b>31/03/2011</b>	<b>31/03/2012</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	1,800	1,400	1,400	1,400	6,000
Impairments	(1,450)	(3,500)	(3,500)	(750)	(9,200)
Post Impairment profits	350	(2,100)	(2,100)	650	(3,200)
Carry Forward Retained Earnings 2008		350	350	350	
Carry Forward Retained Earnings 2009			(2,100)	(2,100)	
Carry Forward Retained Earnings 2010				(2,100)	
<b>Core TIER1 Capital</b>	<b>7,300</b>	<b>7,300</b>	<b>7,300</b>	<b>7,300</b>	<b>7,300</b>
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>
<b>Total Core TIER1</b>	<b>7,650</b>	<b>9,050</b>	<b>6,950</b>	<b>7,600</b>	<b>7,600</b>
<b>Risk Weighted Assets (assumes drop off as impairments occur)</b>	<b>116,000</b>	<b>112,000</b>	<b>110,000</b>	<b>110,000</b>	<b>110,000</b>
<b>Core TIER 1 %</b>	<b>6.59%</b>	<b>8.08%</b>	<b>6.32%</b>	<b>6.91%</b>	<b>6.91%</b>

ANGLO	30/09/2008	30/09/2009	30/09/2010	30/09/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	1,700	1,000	1,000	1,000	4,700
Impairments	(1,000)	(3,400)	(3,000)	(600)	(8,000)
Post Impairment profits	700	(2,400)	(2,000)	400	(3,300)
Carry Forward Retained Earnings 2008		700	700	700	
Carry Forward Retained Earnings 2009			(2,400)	(2,400)	
Carry Forward Retained Earnings 2010				(2,000)	
Core TIER1 Capital	5,600	5,600	5,600	5,600	5,600
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>
<b>Total Core TIER1</b>	<b>6,300</b>	<b>5,400</b>	<b>3,400</b>	<b>3,800</b>	<b>3,800</b>
<b>Risk Weighted Assets (assumes drop off as impairments occur)</b>	<b>85,000</b>	<b>80,000</b>	<b>78,000</b>	<b>78,000</b>	<b>78,000</b>
<b>Core TIER 1 %</b>	<b>7.41%</b>	<b>6.75%</b>	<b>4.36%</b>	<b>4.87%</b>	<b>4.87%</b>

INBS	31/12/2008	31/12/2009	31/12/2010	31/12/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	250	175	175	175	775
Impairments	(200)	(1,000)	(500)	(300)	(2,000)
Post Impairment profits	50	(825)	(325)	(125)	(1,225)
Carry Forward Retained Earnings 2008		50	50	50	
Carry Forward Retained Earnings 2009			(825)	(825)	
Carry Forward Retained Earnings 2010				(325)	
Core TIER1 Capital	1,300	1,300	1,300	1,300	1,300
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>
<b>Total Core TIER1</b>	<b>1,350</b>	<b>1,275</b>	<b>950</b>	<b>825</b>	<b>825</b>
<b>Risk Weighted Assets (assumes drop off as impairments occur)</b>	<b>15,000</b>	<b>14,000</b>	<b>13,000</b>	<b>13,000</b>	<b>13,000</b>
<b>Core TIER 1 %</b>	<b>9.00%</b>	<b>9.11%</b>	<b>7.31%</b>	<b>6.35%</b>	<b>6.35%</b>

<b>IL&amp;P</b>	<b>31/12/2008</b>	<b>31/12/2009</b>	<b>31/12/2010</b>	<b>31/12/2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	341	250	250	250	1,091
Impairments	(375)	(375)	(375)	(250)	(1,375)
Post Impairment profits	(34)	(125)	(125)	0	(284)
Carry Forward Retained Earnings 2008		(34)	(34)	(34)	
Carry Forward Retained Earnings 2009			(125)	(125)	
Carry Forward Retained Earnings 2010				(125)	
Core TIER1 Capital	2,100	2,100	2,100	2,100	2,100
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Core TIER1</b>	<b>2,066</b>	<b>1,941</b>	<b>1,816</b>	<b>1,816</b>	<b>1,816</b>
<b>Risk Weighted Assets (assumes stays constant)</b>	<b>18,200</b>	<b>18,200</b>	<b>18,200</b>	<b>18,200</b>	<b>18,200</b>
<b>Core TIER 1 %</b>	<b>11.35%</b>	<b>10.66%</b>	<b>9.98%</b>	<b>9.98%</b>	<b>9.98%</b>

<b>EBS</b>	<b>31/12/2008</b>	<b>31/12/2009</b>	<b>31/12/2010</b>	<b>31/12/2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	60	40	40	40	180
Impairments	(125)	(175)	(175)	(25)	(500)
Post Impairment profits	(65)	(135)	(135)	15	(320)
Carry Forward Retained Earnings 2008		(65)	(65)	(65)	
Carry Forward Retained Earnings 2009			(135)	(135)	
Carry Forward Retained Earnings 2010				(135)	
Core TIER1 Capital	600	600	600	600	600
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>
<b>Total Core TIER1</b>	<b>535</b>	<b>900</b>	<b>765</b>	<b>780</b>	<b>780</b>
<b>Risk Weighted Assets (assumes stays constant)</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>	<b>11,000</b>
<b>Core TIER 1 %</b>	<b>4.86%</b>	<b>8.18%</b>	<b>6.95%</b>	<b>7.09%</b>	<b>7.09%</b>

<b>Summary all Financial Institutions</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	6,851	4,765	4,765	4,765	21,146
Impairments	(4,950)	(12,450)	(11,550)	(4,125)	(33,075)
Post Impairment profits	1,901	(7,685)	(6,785)	640	(11,929)
Carry Forward Retained Earnings 2008	0	1,901	1,901	1,901	
Carry Forward Retained Earnings 2009	0	0	(7,685)	(7,685)	
Carry Forward Retained Earnings 2010	0	0	0	(6,785)	
Core TIER1 Capital	23,775	23,775	23,775	23,775	23,775
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>10,750</b>	<b>10,750</b>	<b>10,750</b>	<b>10,750</b>
<b>Total Core TIER1</b>	<b>25,676</b>	<b>28,741</b>	<b>21,956</b>	<b>22,596</b>	<b>22,596</b>
<b>Risk Weighted Assets (assumes stays constant)</b>	<b>379,200</b>	<b>367,200</b>	<b>360,200</b>	<b>360,200</b>	<b>360,200</b>
<b>Core TIER 1 %</b>	<b>6.77%</b>	<b>7.83%</b>	<b>6.10%</b>	<b>6.27%</b>	<b>6.27%</b>

### Appendix 3: Impact of Crystallising Projected Property Loan Impairments in 2009 on Achievement of Tier1 Capital Ratio of 7.5 per cent

AIB	31/12/2008	31/12/2009	31/12/2010	31/12/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	2,700	1,900	1,900	1,900	8,400
Impairments	(1,800)	(11,100)	(1,000)	(1,000)	(14,900)
Post Impairment profits	900	(9,200)	900	900	(6,500)
Carry Forward Retained Earnings 2008		900	900	900	
Carry Forward Retained Earnings 2009			(9,200)	(9,200)	
Carry Forward Retained Earnings 2010				900	
Core TIER1 Capital	6,875	6,875	6,875	6,875	6,875
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>8,500</b>	<b>8,500</b>	<b>8,500</b>	<b>8,500</b>
<b>Total Core TIER1</b>	<b>7,775</b>	<b>7,075</b>	<b>7,975</b>	<b>8,875</b>	<b>8,875</b>
<b>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank) (€50 bn assets transferred to Bad Bank L&amp;D €21bn @ 66% of carrying value + €29bn with €4bn hit)</b>	<b>134,000</b>	<b>95,000</b>	<b>105,000</b>	<b>115,000</b>	<b>115,000</b>
<b>Core TIER 1 %</b>	<b>5.80%</b>	<b>7.45%</b>	<b>7.60%</b>	<b>7.72%</b>	<b>7.72%</b>

BOI	31/03/2009	31/03/2010	31/03/2011	31/03/2012	Total
Pre Impairment profits (assumes drop in 2009 onwards)	1,800	1,500	1,500	1,500	6,300
Impairments	(1,450)	(7,700)	(750)	(750)	(10,650)
Post Impairment profits	350	(6,200)	750	750	(4,350)
Carry Forward Retained Earnings 2008		350	350	350	
Carry Forward Retained Earnings 2009			(6,200)	(6,200)	
Carry Forward Retained Earnings 2010				750	
Core TIER1 Capital	7,300	7,300	7,300	7,300	7,300
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>3,500</b>	<b>4,250</b>	<b>4,250</b>	<b>4,250</b>	<b>4,250</b>
<b>Total Core TIER1</b>	<b>11,150</b>	<b>5,700</b>	<b>6,450</b>	<b>7,200</b>	<b>7,200</b>
<b>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank) (€37 bn assets transferred to Bad Bank €13 bn L&amp;D @ 66% of carrying value + €24BN with hit of €3.5bn)</b>	<b>116,000</b>	<b>75,000</b>	<b>85,000</b>	<b>95,000</b>	<b>95,000</b>
<b>Core TIER 1 %</b>	<b>9.61%</b>	<b>7.60%</b>	<b>7.59%</b>	<b>7.58%</b>	<b>7.58%</b>

ANGLO	30/09/2008	30/09/2009	30/09/2010	30/09/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	1,700	1,000	1,000	1,000	4,700
Impairments	(1,000)	(12,800)	(500)	(500)	(14,800)
Post Impairment profits	700	(11,800)	500	500	(10,100)
Carry Forward Retained Earnings 2008		700	700	700	
Carry Forward Retained Earnings 2009			(11,800)	(11,800)	
Carry Forward Retained Earnings 2010				500	
Core TIER1 Capital	5,600	5,600	5,600	5,600	5,600
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>7,500</b>	<b>7,500</b>	<b>7,500</b>	<b>7,500</b>
<b>Total Core TIER1</b>	<b>6,300</b>	<b>2,000</b>	<b>2,500</b>	<b>3,000</b>	<b>3,000</b>
<b>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank) (€23 bn assets transferred to Bad Bank L&amp;D @ 66% of carrying value OF €37BN WITH A hot of €5.5bn)</b>	<b>85,000</b>	<b>25,000</b>	<b>22,000</b>	<b>20,000</b>	<b>20,000</b>
<b>Core TIER 1 %</b>	<b>7.41%</b>	<b>8.00%</b>	<b>11.36%</b>	<b>15.00%</b>	<b>15.00%</b>

INBS	31/12/2008	31/12/2009	31/12/2010	31/12/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	250	175	175	175	775
Impairments	(200)	(2,300)	(150)	(150)	(2,800)
Post Impairment profits	50	(2,125)	25	25	(2,025)
Carry Forward Retained Earnings 2008		50	50	50	
Carry Forward Retained Earnings 2009			(2,125)	(2,125)	
Carry Forward Retained Earnings 2010				25	
Core TIER1 Capital	1,300	1,300	1,300	1,300	1,300
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>
<i>Total Core TIER1</i>	<i>1,350</i>	<i>725</i>	<i>750</i>	<i>775</i>	<i>775</i>
<i>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank) (€6 bn assets transferred to Bad Bank @ 66% of carrying value)</i>	<i>15,000</i>	<i>9,000</i>	<i>6,500</i>	<i>5,500</i>	<i>5,500</i>
<i>Core TIER 1 %</i>	<i>9.00%</i>	<i>8.06%</i>	<i>11.54%</i>	<i>14.09%</i>	<i>14.09%</i>
			<i>Loan decline</i>	<i>Loan decline</i>	
IL&P	31/12/2008	31/12/2009	31/12/2010	31/12/2011	Total
Pre Impairment profits (assumes drop in 2009 onwards)	341	250	250	250	1,091
Impairments	(375)	(200)	(275)	(200)	(1,050)
Post Impairment profits	(34)	50	(25)	50	41
Carry Forward Retained Earnings 2008		(34)	(34)	(34)	
Carry Forward Retained Earnings 2009			50	50	
Carry Forward Retained Earnings 2010				(25)	
Core TIER1 Capital	2,100	2,100	2,100	2,100	2,100
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<i>Total Core TIER1</i>	<i>2,066</i>	<i>2,116</i>	<i>2,091</i>	<i>2,141</i>	<i>2,141</i>
<i>Risk Weighted Assets (assumes stays constant) (€0 bn assets transferred to Bad Bank @ 66% of carrying value)</i>	<i>18,200</i>	<i>18,200</i>	<i>18,200</i>	<i>18,200</i>	<i>18,200</i>
<i>Core TIER 1 %</i>	<i>11.35%</i>	<i>11.63%</i>	<i>11.49%</i>	<i>11.76%</i>	<i>11.76%</i>
			<i>No change</i>	<i>No change</i>	

<b>EBS</b>	<b>31/12/2008</b>	<b>31/12/2009</b>	<b>31/12/2010</b>	<b>31/12/2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	60	40	40	40	180
Impairments	(125)	(350)	(15)	(15)	(505)
Post Impairment profits	(65)	(310)	25	25	(325)
Carry Forward Retained Earnings 2008		(65)	(65)	(65)	
Carry Forward Retained Earnings 2009			(310)	(310)	
Carry Forward Retained Earnings 2010				25	
Core TIER1 Capital	600	600	600	600	600
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>0</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>
<b>Total Core TIER1</b>	<b>535</b>	<b>725</b>	<b>750</b>	<b>775</b>	<b>775</b>
<b>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank) (€1 bn assets transferred to Bad Bank @ 66% of carrying value)</b>	<b>11,000</b>	<b>10,000</b>	<b>11,000</b>	<b>12,000</b>	<b>12,000</b>
<b>Core TIER 1 %</b>	<b>4.86%</b>	<b>7.25%</b>	<b>6.82%</b>	<b>6.46%</b>	<b>6.46%</b>
			<b>Loan growth</b>	<b>Loan growth</b>	
<b>Summary all Financial Institutions</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>
Pre Impairment profits (assumes drop in 2009 onwards)	6,851	4,865	4,865	4,865	21,446
Impairments	(4,950)	(34,450)	(2,690)	(2,615)	(44,705)
Post Impairment profits	1,901	(29,585)	2,175	2,250	(23,259)
Carry Forward Retained Earnings 2008	0	1,901	1,901	1,901	
Carry Forward Retained Earnings 2009	0	0	(29,585)	(29,585)	
Carry Forward Retained Earnings 2010	0	0	0	2,175	
Core TIER1 Capital	23,775	23,775	23,775	23,775	23,775
<b>Government CT1 injection (in 2009 c/fwd to future years)</b>	<b>3,500</b>	<b>22,250</b>	<b>22,250</b>	<b>22,250</b>	<b>22,250</b>
<b>Total Core TIER1</b>	<b>29,176</b>	<b>18,341</b>	<b>20,516</b>	<b>22,766</b>	<b>22,766</b>
<b>Risk Weighted Assets (assumes drop off - assets transferred to Bad Bank)</b>	<b>245,200</b>	<b>137,200</b>	<b>247,700</b>	<b>265,700</b>	<b>265,700</b>
<b>Core TIER 1 %</b>	<b>11.90%</b>	<b>13.37%</b>	<b>8.28%</b>	<b>8.57%</b>	<b>8.57%</b>