



## **The Irish banking crisis: lessons learned, future challenges**

**Address to Mazars Banking Conference, 2010  
by Jonathan McMahon, Assistant Director General,  
Financial Institutions Supervision, Central Bank of Ireland**

**26 May 2010**

### **Introduction**

The subject of my talk today is the Irish banking crisis and the response of the Irish authorities. I will cover four areas:

- The causes of the Irish banking crisis, and the lessons we will learn from it;
- How the post-crisis economic model frames the challenges banking supervisors will face in Ireland;
- How we will organise and conduct banking supervision in Ireland; and
- Some of the actions being taken to address banking system, and individual bank, risks.

### **Causes of the banking crisis**

Between the mid-1990s and 2007, Ireland experienced a major asset bubble in residential and commercial property prices. It was not the only country to do so, but the scale of increases was remarkable:

- Commercial property prices. [See slide 3]
- Residential property prices. [See slide 3]

In the household sector, this led to significant leverage of balance sheets. In each year since 2003, Irish household indebtedness<sup>i</sup> exceeded 100%, with the

figure reaching 182.3% in 2009. [See slide 5] Irish households remain amongst the most leveraged in the developed world; and as residential property prices have collapsed, The Economic and Social Research Institute has estimated that 116,000 households were in negative equity as of August 2009.<sup>ii</sup>

In the commercial property sector, the price falls have also been dramatic.

Ireland's 'bad bank', The National Asset Management Agency ('NAMA'), is now taking property development loans from the banks in return for ECB eligible bonds. The haircut applying to these transfers, even allowing for conservatism in the valuations, underscores the scale of the likely losses. This process is not yet complete, but the numbers speak for themselves. [See slide 6]

The NAMA process is also reminding us of the pervasiveness of property development lending. Anglo Irish Bank's entanglement with this sector is well known. It is not necessarily appreciated outside Ireland that the two main retail monolines, the Irish Nationwide Building Society ('INBS') and the Educational Building Society ('EBS'), also ensnared themselves in high risk property lending. These institutions, currently dependent on government support, have recently had NAMA imposed haircuts of 58% and 37% respectively. While development property lending is not the whole story, it is clear that both institutions departure from their core strategies of lending to retail customers accelerated their struggle to remain independent. The new Chairman of INBS's statement that its future 'will involve focusing on the traditional savings and loan products' tells its own story.<sup>iii</sup>

## **Funding**

The banks' ability to borrow cheaply in international wholesale markets made, in large measure, this run-up in asset prices possible.

Between December 2004 and December 2007, Irish banks imported deposits at an incremental rate of €22.8bn annually. This compared to deposits of €18.6bn per year for the same period sourced domestically. The international deposits raised were predominately from wholesale sources, and at the peak of their borrowing, Irish banks raised €149bn, 50%, of all of their deposits internationally. [See slide 7]

This phenomenon, not of course exclusive to Ireland, has been labelled a 'capital flow bonanza'. The authors who coined this term observed that large capital inflows increase markedly the likelihood of a banking crisis within the receiving country.<sup>iv</sup> This clearly happened in Ireland. The Irish 'bonanza' also had wider economic effects: the ready availability of cheap credit fuelled an unsustainable expansion of Irish domestic demand, which in turn bid up the domestic cost base and eroded the competitiveness of the export sector. Looked at now, it is clear that the growth in Ireland's current account deficit between 2005 and 2007 was an indicator of future problems. [See slide 8]

### **Financial instability**

The consequence of the banking crisis has been a period of financial instability, ultimately brought under some control by decisive but costly government intervention.

The impact on the economy has been stark, with over 250,000 jobs lost and output down around 10% since the start of the recession. [See slide 9] The cost of government support has also been material, with €25.4bn already committed to support the financial sector in 2009 and 2010. Government debt has risen from 24.9 % of GDP in 2006 to 64% in 2009, and it is projected to reach 84% in 2010. Government borrowing costs have also increased, with spreads on Irish debt having diverged from German spreads (although purchases of German government bonds explained some of this change). [See slides 10, 11 and 12]

### **The post-crisis economic model**

Ireland is now emerging from the recession, and over time it will grow its way out of the fiscal pressures which have accompanied the transfer of liabilities from the private to the public sector. As the Financial Times observed on 28 April, '[Ireland] has a credible recovery plan and has bounced back before'.<sup>v</sup> There is also much to be said for the argument that what has been called Ireland's 'intangible infrastructure' disposes the country towards future growth.<sup>vi</sup>

Growth will occur in an economy highly open to global trade and international capital flows.<sup>vii</sup> This economic model is the product of reforms made over a number of decades, the cornerstone of which is Ireland's membership of the European Union. The model has delivered very significant economic benefits.<sup>viii</sup> [See slide 13] But it also exposes Ireland to the full force of global macroeconomic conditions - indeed its success is predicated on doing so. It further means that the government's ability to intervene to ameliorate macroeconomic conditions is also lower than in less liberalised, less open economies. In particular, membership of the eurozone, where, monetary and exchange rate policies are set by reference to average conditions in the euro area, reduces discretion over monetary policy. In the 2000s, it is clear that the low ECB policy rate facilitated the growth of property prices in Ireland.

Clearly, ECB support has been essential to managing the fallout from the unwinding of the property price bubble, with Irish banks able to borrow from the central bank. Eurozone membership has also enabled the government to borrow to support the banking system in a manner, and at a cost, that might not have been possible had Ireland been outside the eurozone. In turn, this has helped the government, through funding guarantees and capital injections, to prevent the banks defaulting on external debts, thereby protecting Ireland's sovereign rating. It has also allowed the banking system to be stabilised. This is a very significant achievement; but as Iceland's contrasting experience suggests<sup>ix</sup>, it is an achievement which owes much to Ireland's EU membership.

Notwithstanding the nature and scale of government intervention in the banking system, it is striking that the Irish economic model, and the philosophy underpinning that model, are largely unchanged from the pre-crisis years. The economy remains very open to foreign competition and investment. Low corporate tax rates have been maintained. Large multinationals continue to operate from Ireland. Dublin remains an important international financial centre. The industrial relations framework, although exhibiting some strains, continues to function in accordance with its purpose.

In this sense, government action has not only protected the economy and financial system, it has also forestalled retrenchment from the open, liberalised economic system of the pre-crisis years. Given the depth and duration of the recession, this is not unremarkable.

But what does the survival of this model mean for the prospects for future financial stability?

It would be a crude form of determinism that led to a conclusion that Ireland's economic model biases it towards financial instability. This is not so, or at least it does not have to be so. Until 2000, the country enjoyed a period of intense yet well-balanced growth.<sup>x</sup> Many features of that period remain in place. I have already described the banking system free-for-all which got us from there to here, and yet it would be moot, and simplistic, to suggest that the prescription is to avoid a repeat. It is clear, though, that the Irish economic model has proved deeply vulnerable to a banking system crisis. One can only extend this point so far as more analysis is needed of the sources of financial instability, both within and outside Ireland. The focus for that work does, however, have to be the relationship of the Irish banking system to the real economy; it also has to encompass questions about the connections between the domestic and international financial systems. It is evident that a banking system which became, in effect, a leveraged 'play' on property prices may not adapt easily to the demands of the export-led economy on which recovery will depend. The opening shots in the debate now about the future of banking in Ireland is already begging this question: how can the banking system, for too long a mortal threat to economic growth, best meet the needs of the real economy? Or, to put it differently, if government wishes to maximise the utility of the banking system to the real economy, while minimising its negative externalities, what new policies are needed to achieve that objective? Banking supervision is part of the answer, but not a complete answer.

The banking crisis imparts this question with a particular relevance for Ireland. A striking lesson of the global banking crisis is the danger of allowing banks to operate to free market principles within free market economies.<sup>xi</sup> The particular challenge for Ireland emerges from its chosen model of economic governance,

which leaves government with fewer levers to pull when risks start to accumulate in the banking system. There are equally few tools available to deal with the unwinding of those risks. This has forced the Irish government to innovate, with the response to deleveraging involving two connected steps: first, the cleansing of bank balance sheets of 'bad assets'; and second, bank re-capitalisation.<sup>xii</sup> Other countries have been able to deploy a wider range of monetary and fiscal 'shock absorbers' to offset de-leveraging in the banking system - for example, the policy of Quantitative Easing in the UK. [See slide 14] Absent EU-wide solutions (which have, of course, been forthcoming in recent weeks), such broad-based policy responses are not available to Ireland.

The lesson for policy makers is therefore clear: in an open economy where there is only limited control of monetary conditions, and where government cannot directly influence the value of the currency or the price and supply of money, the avoidance of banking sector leverage has to be a leading policy objective. Banking supervision can counter this risk, but its success will depend, as the crisis has made clear, on there being wider institutional and policy mechanisms which can lean against asset price bubbles. In Ireland, the challenge is arguably somewhat more acute as it is unclear that the banking system is yet structurally capable of providing credit in a manner ultimately beneficial to the real economy and, in turn, greater diversification in bank earnings. In the near term, banks need to invest in their non-property lending capabilities. For the longer term, more radical reforms may be required if a stable, profitable banking system is to support the real economy. Some model of utility banking may be one answer, for example. We will identify the reforms that could achieve the objective of greater stability when we publish a policy paper on the future of banking supervision on 21 June.

### **A liberal market for consumer credit, and limited credit assessment infrastructure**

A related challenge arises from the structure of consumer credit markets in Ireland.

Consumer credit markets are highly developed, and consumers' ability to access credit is largely unfettered. This allows households to borrow from a range of sources to meet consumption requirements.

There is also no direct regulation of credit limits, for example through restrictions on LTV ratios. This has meant that Irish households have been able to accumulate liabilities more easily than consumers in countries where there is stricter regulation, for example France or Germany. We must take account of the absence of such 'dampers' in our supervision of banks.

The wider question policy makers need to address is whether credit growth, with the potential it creates for destabilising asset bubbles, is a social good. The danger for Ireland is not only rapid credit growth *per se*. It is that such rapid growth occurs in a system in which lending is highly concentrated to households. Policy reforms might therefore delay Ireland's next 'Minsky moment'; they could also moderate its consequences.

A further related problem is the absence of a developed infrastructure for credit assessment, such as exists in the similarly liberalised UK and US markets. This is a gap we will look to close.

### **Ireland's integration into the international financial system and its role as an international financial centre**

In addition to the challenges of supervising Ireland's domestic banks, we must also address the risks which arise from Ireland's integration into the European and international financial systems.

The most immediate of these is our role as host for subsidiaries of EU banks which take Irish retail deposits.

As a host country, we are somewhat dependent on home country supervisors to ensure (a) that the parent banks of Irish branches are prudentially sound, (b) that information relevant to financial stability in Ireland is shared with us, and

(c), in wind down or insolvency situations that deposit compensation arrangements are robust.

Our participation in the Single Market, and our observance of its requirements, are immutable commitments. However, the limitations of the home-host model have been revealed during the crisis. This has exposed Ireland to some risk from EEA banks operating in Dublin. For Irish regulators and their EU counterparts, it has undoubtedly exacerbated the resolution of prudential problems involving branches or subsidiaries in other EU jurisdictions.<sup>xiii</sup>

A related challenge arises from the ceding of discretion to the EU for many areas of financial services legislation and policy. Given Ireland's economic model, and the nature of its relationship to Europe, this is a rational and ultimately beneficial stance; but it does mean that Ireland cannot legislate away the prudential risks it faces.

Ireland's role as a financial centre within the EU raises a similar set of issues.

A major attraction of Ireland for non-EEA financial institutions is their ability to use this jurisdiction as a jumping-off point for other EU markets. Most of these institutions are located within the International Financial Services Centre ('IFSC'). The IFSC has fast-tracked Ireland's ascent as a financial centre, and today it provides substantial employment, tax revenues, and some prestige.<sup>xiv</sup> Like any financial centre, particularly one large relative to the resources of its host, it can be a source of risk. [See slide 15] These can be reputational: for example where a prudential or conduct of business problem crystallises in a host jurisdiction.<sup>xv</sup> They can also be financial: for example the risk that the Irish government would have to compensate EU consumers of a financial institution based in Ireland but with customers in other EU countries.

A further challenge inherent in the IFSC model (and international financial centre models *per se*) is that, by definition, asymmetries of information will always exist between (a) the host country supervisor and (b) the regulated firm and its home country supervisor. Asymmetries of information will also exist between (c) the parent financial institution and (d) its subsidiaries or branches in other

jurisdiction. These asymmetries arguably matter less within the EU, where the respective roles of home and host are well defined. They matter more for non-EEA financial institutions, albeit these risks can be reduced through close bilateral cooperation and/or the application of local capital, liquidity and governance requirements.

Most problematically for a host country, asymmetries of interest can exist.

What do I mean by this?

A financial institution incorporated outside Ireland, but with operations here, may look to protect, or come under pressure from its home country to protect, the parent institution at the expense of its overseas operations. It could do so by sweeping cash held in host jurisdictions back to the home country. During the crisis, this risk led regulators to intervene to secure locally the resources of foreign firms operating within their borders.<sup>xvi</sup> It could lead a financial institution to 'walk away' from its liabilities overseas, problematic as this can be to the sovereign rating of the home country. Another danger is that a financial institution might choose to hold less capital or liquidity for a given portfolio, irrespective of regulatory capital requirements, than it would in its home country. It might also locate 'problem' assets outside its home country. These are clearly not the actions of a responsible financial institution, but as the crisis demonstrates, neither are they fragments of the imagination.

There is some danger that the IFSC model could become more rather than less vulnerable to these challenges as home country safeguards are erected.

Home countries have already sought greater oversight of non-domestic operations, and this has led to increased restrictions on parental support, and in some cases the forced divestment of legal entities, asset portfolios or business lines. The construction of 'living wills' facilitates this task.<sup>xvii</sup>

Host countries have sought equivalent protections through, for example, the conversion of branches into subsidiaries, forced capital or liquidity add-ons, and the appointment of additional independent non-executive directors. The ability of legal entities in host countries to upstream capital or liquidity has been restricted. This also affects the IFSC model.

Although I would not overstate the consequences of these developments, neither do I think that Ireland, as a financial centre, can ignore them. There are very sound legal and policy reasons to resist restrictions on the free movement of capital. But if we choose not to implement additional regulatory safeguards, we should understand the potential financial and reputational consequences. There is not an immutable upside in being an international financial centre.

### **Addressing the challenges**

This is therefore the context within which Ireland's banking supervisors have to operate. I hope this brief overview reveals the nature of our task. I also hope it also affirms why supervision of banks is essential to Ireland's future financial stability.

I now want to set out what we are doing to address these challenges. In broad terms, our work can be categorised in four ways:

- changes to supervisory structures;
- changes to supervisory culture and approach;
- changes to the regime within which we supervise; and
- a greater focus on international supervisory cooperation.

### **A new structure for banking supervision**

The new unitary Central Bank structure introduced in Ireland creates a robust institutional platform for banking supervision.

Under these new arrangements, banking supervisors are already working alongside colleagues in markets, payments, financial stability and other outward-facing central banking functions. During the recapitalisation exercise, and most recently in the period of heightened market concerns about sovereign risks, this model has proved its worth.

We have also recently created a new function within banking supervision called Prudential Analytics. This function comprises two distinct teams, Risk Analytics and Business Model Analytics, who will work with supervisors to identify the root causes of prudential problems.

## **Supervisory culture**

While these new structures take us so far, we will also need to continue to reform our approach to supervision.

This work is well underway, and in the past 18 months a more intrusive model of supervision has increased markedly our knowledge of the detail of our banks' activities.

But such is the importance of this work, and such also are the public and political expectations of regulators, that there is still some way to go in enhancing supervisory practices.

Further progress is required in how we think about our role as banking supervisors, and specifically about how extensively we will intervene in the commercial decisions banks make.

The need for such reflection is very clear.

In the period preceding the crisis, supervisory culture internationally, with the possible exception of some Asian countries, tended to be too deferential towards free market ideas, and too responsive to critics of regulation and regulators. It is also clear that numerical estimations of risk came to beguile financial institutions and regulators alike – for example, the outputs of VAR models or Basel II capital calculations. Although this reflected the increased complexity of financial markets, the consequence was to erode confidence in basic prudential checks and broader judgements about the merits of rapid growth in the financial system. Our task at the Central Bank is therefore to foster a supervisory culture in which we take judgements on banks' own judgements, and are then prepared

to be tenacious, but not pig-headed, in defence of the public interest objectives government has given us.

### **Supervisory skills**

Our ability to do so will turn on the skills, knowledge and confidence of our people.

We are fortunate in already having talented, motivated people at the Central Bank. As we increase our complement of supervisors, so we need to make sure our new people are trained to the same high standards.

To this end we have introduced an ambitious programme of mandatory training for all new, and many existing, supervisors. This is a significant financial investment for the Central Bank, and it reflects the seriousness of our commitment to raising the standards of supervision.

### **Enforcement**

We expect that our supervisory interventions will enable us to achieve our statutory objectives. In the event that more formal action is necessary, supervisors need to be able to sanction banks which fail to manage risks adequately.

The absence of a dedicated enforcement function has been a major gap in Ireland's regulatory regime. This gap has now been closed. We will use this tool where it is justified.

These reforms to our supervisory culture and approach will be essential to our future success. We must also update our regulatory regime to accompany these changes.

## **Authorisation and supervision of senior executives and non-executives**

We are learning from other countries that a robust regime for the approval and supervision of individuals is an effective way to enforce high governance, risk management and business conduct standards. We have requested that equivalent legislation, based on clear fitness and probity standards, be introduced in Ireland.

In the meantime, we are already interviewing potential board members and senior executives. Where we have had doubts about a candidate's suitability for a role, we have requested changes to the appointment process. I would expect us to increase those interventions in the coming months.

I should say that we also expect financial institutions to be more judicious when filling senior positions, and also to engage us at an early stage in an appointment process.

## **Cross-border supervisory cooperation<sup>xviii</sup>**

Given the international component of our financial system, and given also Ireland's EU and international obligations, we will seek greater cooperation with supervisory colleagues in other jurisdictions where it is beneficial to do so.

Although the crisis has led to some reduction in international cooperation, and possibly in the appetite for cooperation, there is clearly still a need for cross-border supervision of what continues to be a trans-national financial system. This is not to say that financial institutions should be able to structure themselves regardless of national borders. Nor is it to suggest that they should be unanchored to political and regulatory structures which foster responsible behaviour. It is to argue that in a world of international capital flows and complex financial networks, cooperation between regulators can yield benefits to home and host alike.

Given the openness of Ireland's financial system, we need to progress such solutions. We will therefore look to improve cross-border supervisory

arrangements; and if this requires us to cede regulatory sovereignty, we will do so.

## **The implications for banks**

What will the changes I have described mean in practice for banks operating here?

We will publish our detailed proposals on 21 June, but for now I think our work programme, and by extension that for the banks, will include:

- Continued detailed scrutiny of risk management arrangements within the banks, for example the day-to-day work of credit, asset and liability, and other key committees.
- A continued focus on the detail of individual loan portfolios, and in aggregate, therefore, the quality of the assets banks hold. [See slide 16]
- Greater concern with lending standards. Security and collateral, while an essential component of prudent lending, should be viewed as a fallback: a secondary source of repayment if the primary source, normal income or cash flow, proves inadequate. Insufficient analysis and assessment of credit applications and poor lending standards contributed to the global financial crisis. We will continue to evaluate how banks approach valuation, realisation and the perfection of title.
- A greater focus on how banks fund themselves, and an intrusive approach to business models we consider unsustainable from a liquidity perspective. The implementation, over time, of new standards on liquidity.<sup>xix</sup>
- More time spent considering the viability of banks' business models, for example by drilling down into the dynamics of Income Statements, or reviewing in detail the plans for new business activities. We will 'second guess' commercial decisions and we will not apologise for doing so. It is very clear that poorly thought through business decisions easily morph into prudential problems. [See slide 17]
- The implementation of specific rules on large exposures and concentration limits. Given the banks' record on property lending, we will also be

considering whether Ireland-specific policy measures, for example higher risk weights for certain categories of lending, are justified.

- An increased focus on the skills, capability and independence of non-executive directors, reflecting the work still to be done more generally to professionalize that cadre of individuals who sit on the boards of financial institutions in Ireland.

The inevitable consequence of these and other reforms is that banks and their shareholders will have to adapt to lower but more stable returns. Is this unrealistic given the scale of government support for the sector? Banking is reliant on confidence. Confidence in banks depends, in large measure, on government support for the banking sector, actual or implied.<sup>xx</sup> Banks need to account for this implied subsidy in their own measures of corporate performance. They also need to adapt their behaviour to reflect the constraints the Irish government faces in dealing with an overheated banking system. How bankers behave when government pay constraints are removed will tell us much about the depth of their commitment to these broader measures of return.

At the same time, I think that we need to be cautious to distinguish between returns which become excessive or unsustainable, and those profits necessary to re-capitalise the banking system through the accretion of retained earnings. Banking services are essential to economic recovery; and over the course of the economic cycle, banks will need to be soundly capitalised and exhibit conservative funding profiles. These conditions have a cost attached to them; and some sustainable level of bank profitability will ultimately have to depend on re-pricing of interest rates for borrowers in due course.

### **Forthcoming actions**

Today I want to announce that in upcoming visits to the major retail banks we will be taking specific actions in two areas.

### **Review of remuneration practices**

The first will be to take a close look at the governance and oversight of remuneration practices within banks.

It is clear that the structure and quantum of compensation has been a major factor in the financial crisis globally. Within Ireland, it would appear that remuneration arrangements over-emphasised asset acquisition and under-emphasised the effective stewardship of funding needs. The consequences of this skewed approach are clear today.

To this end, we are going to drill-down into three related areas:

- The board level arrangements for setting and scrutinising remuneration priorities; The nature, substance and frequency of board-level evaluations of remuneration practices; and
- How banks, through their remuneration policies and practices, are balancing the rewards for, respectively, asset acquisition and deposit gathering.

Already we have seen evidence that some banks are failing to match the maturity of assets and liabilities in a way that will lead to balance sheet stability and sustainable profitability.

This is not acceptable.

### **Review of bank strategies**

We will also use the Supervisory Review process to evaluate the quality of bank strategies.

It is clear that the environment for banks will be challenging. We therefore expect bank boards to have thought through, and then described in credible detail, what this will mean for their business models. There are some important questions:

- What funding pressures will banks face?
- How will banks' business models stand-up to these funding pressures?
- What assets will be available to lend against?

- Are some of the remaining banks likely to be over reliant on net interest income?
- How will banks maintain credit standards in a competitive market?
- What challenges will cross-border banks, operating without branch networks, create for the incumbent retail banks?

A key area of our focus will be the steps banks are taking to broaden their lending capabilities. In the pre-crisis years, Irish banks became excessively reliant on property lending, and their earnings consequently were too concentrated. There is now an economic imperative to lend to other sectors of the economy. There is also a prudential imperative: banks will require diversity in their earnings to attract lower capital charges and higher credit ratings.

We will intervene if we are not satisfied that a strategy is well conceived. We will also intervene if we see a lack of progress in implementing a well-conceived strategy.

## **Conclusions**

Ireland is positioned for economic recovery. The banks are stronger as a result of the recapitalisation exercise. The Central Bank will soon operate within an improved legislative framework. There is political support for regulation and the independence of the regulator. The numbers of supervisors is being increased, albeit from a low base; and we are enhancing the skills of new and existing staff. These changes build on work that an able and committed team has already completed.

But downside macroeconomic risks remain. We are concerned that some Irish banks are not moving with purpose to address deficiencies in governance and risk management arrangements revealed during the crisis. It is equally concerning to see business plans which contain return on equity forecasts in the late-teens and early twenties. These levels of reward cannot be realised, in this market, without a high degree of risk; and it is unclear that the underlying assumptions can withstand scrutiny.

On 21 June, we will publish our own paper describing further reforms of the regulatory regime for banks operating in Ireland. It will explain, in detail, how we propose to supervise banks. Many of the points I have made today foreshadow the contents of that paper. The theme running through both, which I will not apologise for labouring, is that our work as banking supervisors must take account of the dynamics of the Irish economic model, and in particular the absence of fiscal or monetary 'shock absorbers' which might substitute for more direct regulation of banks' balance sheets. Alongside fiscal policy, therefore, which is itself subject to EU fiscal targets, banking supervision is one of the few tools available to Irish policymakers to address an accumulation of risk in the banking system. It is clear that Ireland will remain a liberalised, open economy. The task for Ireland's banking supervisors, which we will elaborate on next month, is to help protect that model.

---

<sup>i</sup> Defined as personal sector credit as a share of disposable income.

<sup>ii</sup> D. Duffy (2010) 'Negative Equity and the Irish Housing Market, The Economic and Social Review, Vol. 41, No. 1, Spring, 2010, pp. 109–132.

<sup>iii</sup> 'Chairman's Review', 9 April 2010. Irish Nationwide Building Society Annual Report & Accounts, 2009.

<sup>iv</sup> Carmen M. Reinhart, Vincent R. Reinhart, Capital Flow Bonanzas: An Encompassing View of the Past and Present, NBER Working Paper No. 14321, September, 2008.

<sup>v</sup> Lex, Financial Times, 28 April, 2010.

<sup>vi</sup> Michael J. O'Sullivan and Rory Miller, *What did we do right? Global perspectives on Ireland's 'miracle'*, 2010, pp. 6-7

<sup>vii</sup> The Economic and Social Research Institute provides a pithy, precise description of the development of the Irish economy at [http://www.esri.ie/irish\\_economy/](http://www.esri.ie/irish_economy/)

<sup>viii</sup> When it joined the EEC in 1973, Ireland had an average income per head of 62% of the EU average. Living standards have since outpaced the EU average in terms of GDP per capita standards. By 1995 GDP per capita in Ireland stood at 88% of the EU-15 average, peaking at 133% of the average in 2007. EU membership has served to increase Ireland's attractiveness as a significant location for inward FDI. The EU has provided Ireland with improved trade opportunities, providing a source of market access for the trade of Irish products and offering a pool of labour supply, delivering a consequent expansion in employment opportunities. Further gains are associated with relatively stable inflation and the steady interest rate expectations which have ensued. In addition, membership of the EU has led to the breakup of former national monopolies and enhanced competition.

<sup>ix</sup> See IMF: <http://www.imf.org/external/pubs/ft/scr/2010/cr1095.pdf>

<sup>x</sup> See Professor Patrick Honohan, 'What went wrong in Ireland?', May, 2009.

---

<sup>xi</sup> Reinhart and Rogoff have written about the incidences of banking crisis following periods of liberalisation. *This time is different*, 2009, pp. 155-157.

<sup>xii</sup> Under a new capital standard, which exceeds existing Basel and EU requirements, the domestic Irish banks are raising fresh tier one, and of that predominantly equity, capital. This will be available to absorb future losses from assets created during the boom.

<sup>xiii</sup> In a recent speech, Lord Turner observed that even had Ireland sought to impose controls on the amount of lending its domestic banks were doing in the 2000s, such a measure would probably have been ineffective given the economy's openness to foreign entrants. This is one of the issues we will consider in our upcoming paper on banking supervision. Adair Turner, What do banks do, what should they do and what public policies are needed to ensure best results for the real economy? CASS Business School, 17 March 2010.

<sup>xiv</sup> Reference statistics on jobs on tax revenues from IFSC (As of end 2008 some 24,906 people were employed in the IFSC, while IFSC-related tax receipts for the year end 2008 amounted to €858.2 million. Source: Finance Dublin Yearbook.

<sup>xv</sup> The problems that Hypo Real Estate, and its Dublin-based subsidiary, DEPFA bank, experienced in 2008 are illustrative of this problem.

<sup>xvi</sup> See Congressional Oversight Panel, November Oversight Report, 6 November, 2009, p. 44. [http://cop.senate.gov/documents/cop-110609-report.pdf?bcsi\\_scan\\_447638299E31E942=0&bcsi\\_scan\\_filename=cop-110609-report.pdf](http://cop.senate.gov/documents/cop-110609-report.pdf?bcsi_scan_447638299E31E942=0&bcsi_scan_filename=cop-110609-report.pdf)

<sup>xvii</sup> See Thomas Huertas, Resolution and Contagion, CCBS/FMG Conference, London, 26 February, 2010. [http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/0226\\_th.shtml](http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/0226_th.shtml)

<sup>xviii</sup> The Governor of the Central Bank of Ireland, Professor Patrick Honohan, has described how the European Systemic Risk Board might have involved itself in the housing bubble of the 2000s. Remarks by Governor Patrick Honohan at the RBWC, OeNB and Austrian Ministry of Finance Conference, 11 December, 2009.

<sup>xix</sup> Basel Committee, International framework for liquidity risk measurement, standards and monitoring, December, 2009.

<sup>xx</sup> Paul Tucker, Chatham House Conference on 'The New Financial Frontiers', 29 April, 2008.