Statement to the Oireachtas Committee of Inquiry into the Banking Crisis in Ireland

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Introduction

In the invitation letter to appear before this committee I was asked to address five specific topics related to Irish bank funding and the banking crisis:

- The nature of funding risk built up at Irish banks
- The nature of capital risk built up at Irish banks
- Implications of competition for increased risk taking
- Influence of global financial events on capital inflows into Ireland and subsequent outflows during 2008-11
- The September 2008 bank guarantee.

Bank funding and its oversight may seem technical and dry. However, the committee has been asked to identify the causes of the Irish banking crisis. An excessive inflow of debt capital into Irish banks during 2003-2007, and a business, regulatory and policy failure to control this inflow, is the most fundamental cause of the Irish economic crisis of 2008-2012. Obviously there are other secondary causes and contributory factors, but in terms of business, regulatory and policy failure, the most basic cause of the Irish economic crisis was the failure to control a massive inflow of foreign debt capital into the Irish banking system.

A foreign debt capital inflow not only creates unstable debt levels, it also acts as an exogenous Keynesian stimulus, increasing wages and production costs, and increasing tax revenues which in turn puts upward pressure on government spending. The fiscal calamity that hit Ireland after the bust was in part due directly to the debt capital inflow, through the large fiscal cost of the bank bailout, and also indirectly, through the fiscal dislocation after the sharp reversal of this foreign-capital-based exogenous stimulus to Irish household, business and government spending.

Influence of global financial events on capital inflows into Ireland

The Irish banking crisis is often described as unprecedented, but this is not really accurate. Economists use the term “capital bonanza” for a large inflow of capital into a national economy. Capital bonanzas, when combined with business and regulatory failures of various types, often lead to national financial bubbles, followed by busts. Ireland had a capital bonanza in 2003-2007, key decision makers made policy errors in the face of this capital bonanza, and the nation suffered a massive domestic financial system bubble and bust. There are many other topics that the committee will address in its report, but it should not downplay the centrality of the large, poorly-regulated foreign debt capital flow into the Irish banking sector as the key causal factor in the Irish credit bubble and bust.

The setting for the Irish credit bubble was the global "tidal wave of liquidity" in the first few years of this century. Low inflation, large trade imbalances between Asia and the USA, and credible fears of a US slowdown led the US Federal Reserve to pump money into the economy and hold interest rates at historically low levels. The tidal wave of liquidity and low interest rates led to a stretching for yield by investors, searching for higher return from taking on more risky positions. There had been a twenty year period of financial and economic stability up to 2006, called the Great Moderation. This may have been related to new information technology and institutional improvements; in any case, it gave rise to a false confidence about financial market stability. There was talk of a 'new paradigm' of sustained, low-risk economic growth and financial market stability. This new paradigm turned out to be illusory.

All developed countries were hit by the Great Recession which followed the US credit-liquidity crisis of 2008, but only a handful of countries, including the USA, Iceland, Ireland, and Greece experienced identifiably distinct credit bubbles and busts.

The spectacular credit bubble in Iceland shares particular similarities to Ireland. It was caused by an inflow of foreign capital through the domestic banking system – in fact this inflow was proportionally larger than in Ireland. Irish banks relied on euro-denominated claims as the conduit for the foreign debt capital inflow. Icelandic banks also issued deposit accounts to foreign residents, particularly in the UK and Denmark, denominated in various local currencies. The Irish credit inflow and subsequent crash was spectacular; the Icelandic credit inflow and subsequent crash was even more spectacular. For comparison, the Icelandic banking sector borrowed 625% of GDP as foreign debt liabilities compared to 88% of GDP in Ireland (third quarter 2008, the Irish figure is net of foreign assets).[1]

In Iceland, Central Bank Governors were political appointees, often former members of the parliament with continuing ties to their political parties. One parallel to the Irish case, which has not been fully appreciated, was the extremely poor prudential oversight by the Icelandic Central Bank during their credit bubble.[2]

As Tolstoy said, "Each unhappy family is unhappy in its own way" and the same applies to financial bubbles and busts – they tend to have confusingly different profiles while sharing some underlying similarities. Greece's response to the tidal wave of global liquidity was very different from Ireland's, but even more destructive. The global wave of international capital flowed into Greek government coffers rather than being intermediated by the private banking system. The destabilizing debt capital inflow came through hidden government borrowing, well in excess of agreed EU limits, with some complicity by foreign banks and international investment banks in hiding this excess borrowing.

A key objective of Economic and Monetary Union was to allow freer and more abundant capital flows from member states with lower funding costs to member states with higher funding costs. This capital flow was envisioned running from wealthy, mature, large states

like Germany, to less-wealthy, dynamically growing, small states, like Ireland in the late-1990s. In the case of Ireland this policy-induced capital flow worked very well, in fact, one could reasonably argue that the credit bubble in Ireland arose because this EMU-induced capital flow worked *too* well. Part of the cause of the Irish credit crisis was the well-intentioned, but flawed design of the euro monetary system, with its explicit policy objective of encouraging capital flows into smaller, economically dynamic member states like Ireland. This policy-desired capital flow was exactly what happened, but at an unsustainable level. This represented a catastrophic failure of a well-intentioned EMU policy.

The economics profession shares some blame for this EMU design error. Economists had a too-rosy view of the impact of EMU on regional economic stability. Economists underestimated the macro-level feedbacks associated with capital flows in the currency union. Too-simplistic economic models assumed that as capital flowed into Ireland due to its higher cost of funds, the prices of Irish property assets would rise slightly, and this price increase would stabilize the economy with a new lower cost of funds more equal to that in capital-supplying countries. In actuality, the debt capital flow into Ireland created a macroeconomic boom which raised forecast investment *returns*, and the property price increases created an expectation of *more* property price increases, hence there was an increased rather than decreased demand for additional debt capital. Economists were aware of these types of macroeconomic feedback effects, but in the widespread political enthusiasm for EMU, the potential macroeconomic instability from EMU-induced capital flows was downplayed by economists.

Nature of funding and capital risk built up at Irish banks

The source of international funding for Irish banks was straightforward. German, French and other national markets had more deposits than they could deploy at home, so banks and other financial institutions in these countries did what seemed sensible – they transferred funds to well-rated banks in a high-growth country, without incurring exchange rate risk. The three main vehicles for this debt capital flow into Ireland were the interbank borrowing market, the issuance of bonds by Irish banks, and deposits into Irish banks by foreign financial institutions and corporations searching for slightly higher yield than available from their home banks.

In terms of the magnitude of the debt capital flow into Ireland, the net foreign liability of the Irish domestic banks in early 2003 was €29 billion (13% of Irish domestic bank assets), this increased by 449% to €158 billion (20% of bank assets) in the third quarter of 2008.[3] This figure is net of foreign assets so it excludes truly foreign activities where foreign borrowing is covered by foreign lending. The percentage of total assets figures hide the true magnitudes of the increase since Irish bank assets were growing very quickly over this period – they grew by 247% between the first quarter of 2003 and the third quarter of 2008, which is 25% per annum plus compounding. The net foreign borrowing of the Irish domestic

banking sector was 88% of annual GDP in the third quarter of 2008 whereas it had been 19% of annual GDP at the beginning of 2003.

This destabilizing foreign funding of the Irish banking sector was amplified by the uses of the funds for property development: €21 billion in Q1 2003 (9% of total assets) increasing by 524% to €133 billion (17% of total assets) in Q3 2008. Property development is a particularly risky asset class for commercial banks, much riskier than mortgage lending and less diversified than SME lending.

The Irish Central Bank (including its constituent part, the Irish Financial Services Regulatory Authority[4]) should have blocked this excessively fast debt capital inflow, and it should have blocked the enormous growth in property lending assets at domestic banks. In terms of preventing the Irish crisis, this inaction was a very costly failure. Perhaps this is the one point in the historical record where some single individual or small group could have stopped the Irish banking crisis from happening. If one or more senior officials in the Irish Central Bank had shown the wisdom and strength of purpose to block the massive and destabilizing debt capital inflow into the Irish banking sector, or its risky utilization in property development lending, the crisis would not have happened.

In the early years of this century, economists were mistaken in their too-complacent attitude toward the risk of banking crises in developed markets. This led to a grievous error in regulatory limits on the equity capital ratio (the ratio of shareholder equity to total liabilities) which was set much too low. International bank capital adequacy rules in place before 2009 only required a Tier One equity-to-assets ratio of 4%; this is now being more than doubled to 8.5%. The capital adequacy rules also put undue reliance on Tier Two equity, which consists of hybrid securities like long-term subordinated debt. Tier Two equity only provides a capital buffer after the bank resolution process has started. There were insufficiently prescriptive controls on banks' liquidity risk, and there were other failures in bank capital and liquidity risk regulation.

A commercial bank overseen by a properly functioning central bank with fiat money access has a reliable backstop in the case of a serious liquidity problem. The lender of last resort function means that the central bank can simply create and lend cash to the solvent commercial bank, taking a claim on its long-term assets as collateral. The only risk taken by the central bank is that the commercial bank subsequently becomes insolvent and the collateral does not cover the loss; this small risk can be reflected in the lending rate.

The lender of last resort function is more problematic if the commercial bank does not have high-quality assets for collateral or appears insolvent.[5] If the central bank makes an emergency loan in this case, it is partly a subsidy from the taxpayer to the other liability claimants of the commercial bank. The central bank is effectively replenishing the depleted equity capital of the bank to cover the losses of debt holders. If it is possible to do so without too much economic dislocation, it is preferable to find a resolution for the insolvent

bank, either merging it or liquidating it, or some combination. If that approach would cause widespread economic dislocation, a central bank may choose to subsidize some existing debt claimants, in the broader public interest. This is part of the "too big to fail" controversy in banking policy.

One of the secondary causes of the Irish banking crisis was the tightly rules-constrained approach of the ECB to providing emergency funding to troubled banks. The ECB interpreted its charter to require that it could not give any funding to any bank which might subsidize the bank's liabilities claimants (even its depositors), since this would be a hidden subsidy from Euro-area taxpayers to private bank debt holders in one member state. All ECB liquidity support had to follow tightly constrained rules on the eligibility of the underlying loan collateral (that is, the quality of the bank's available assets used to back the loan). The ECB was not willing to take any risk on its liquidity funding, no matter how much economic dislocation this might cause.

In the absence of liquidity support the other conventional approach to a banking crisis is to acknowledge the insolvency of some or all of the banks and resolve them. One difficulty was that Ireland in 2008 had no modern, practical legal pathway for quick and effective bank resolution.

Implications of competition for increased risk taking by Irish banks

It is useful to differentiate between *blame* for the Irish banking crisis versus *causes* of that crisis. Irish bank managers are quite correctly blamed for irresponsible lending policies during the credit bubble. But once the unsustainable debt capital inflow was allowed to swamp the banking system, these irresponsible lending policies appear somewhat more like a consequence than a cause. The debt capital floodgates had opened, with no regulatory oversight, and a false promise of speculative high-margin lending. Interbank rivalry created a contagious spread of very risky domestic lending strategies at all the domestic banks, funded in large part by foreign debt capital. This competitive dynamic was at the heart of the extremely bad strategies which infected all the Irish domestic banks.

Professor Philip Lane has new research[6] which shows the relative shares in domestic banking assets (essentially loans) of the six domestic banks each year from 2000. The two largest banks, AIB and Bank of Ireland, saw a steady decline in market share of domestic banking assets, from 75% in 2000 to 65% in 2008. Note that this loss of 10% market share was probably concentrated in the high-risk, high-margin assets like property development lending, so that within these business lines in each bank the market share decrease would be magnified. The lending strategies of AIB and Bank of Ireland were much too risky, but not risky enough to maintain market share against even worse-behaved competitors. Anglo and Irish Nationwide lowered their lending standards to take market share, and all other domestic banking rivals responded in kind.

Irish bank shareholders and share markets also pressurized bank management to pursue risky strategies. There was an expectation of rapidly increasing annual earnings and dividends or else the share price suffered relative to competitors and the bank risked becoming a takeover target. Only sector-wide controls by the Irish Central Bank could have stopped this destructive pattern. One painful but appropriate outcome after the bank collapse was that Irish bank shares lost virtually all of their investment value.

Subsequent capital outflows from Irish banks during 2008-11 (or earlier)

The funding difficulties of the Irish domestic banking sector began in August of 2007. Recall that German, French and other European banks lent some of their excess deposits to Irish banks. These same European banks were big investors in US-based mortgage-backed securities (MBS) for the same reason, as a place to channel excess funds. The US property market and mortgage security market fell sharply beginning in late 2006, leaving these banks with debilitating losses. On August 9th 2007, BNP Paribas suspended trade in three of its investment vehicles dealing in US MBS; this set off a period of global turmoil in credit-sensitive markets.

By August 2007, the Irish domestic banks had locked their assets into long-term loans, particularly property development lending and residential and investment mortgages. Many of their liabilities on the other hand relied on short-term sources of funding which had to be rolled over repeatedly. The ability of the domestic banks to access the various sources of debt funding changed from very easy to increasingly difficult beginning in August 2007.

A global credit-liquidity freeze hit the interbank borrowing market immediately after the bankruptcy of Lehman Brothers in mid-September 2008. In the third quarter of 2008, the Irish domestic banks had net international borrowing of €158 billion. Every week some of this debt would be redeemed and the liability would need to be rolled over and replaced by some alternative source. By the end of September 2008 the interbank borrowing market had frozen worldwide, and the new bank bond issuance market was also closed to Irish banks. At the same time, some of the banks were experiencing an institutional bank run, which is a coordinated withdrawal of large corporate deposits frightened by the risk of a short-term liquidity failure or insolvency of the bank.

Liquidity problems played a central role in the 2008 US crisis; it is properly called the US "credit-liquidity" crisis. The Irish crisis was different: it was purely a credit crisis; Ireland did not experience a liquidity crisis. The provision of €136 billion in liquidity support[7] (at peak) by the Irish Central Bank and European Central Bank more than covered any reasonable liquidity needs. In fact, the "liquidity" funding by the Irish and European Central Banks after September 2008 was more like a capital injection into an insolvent banking system. Ireland suffered a bank insolvency crisis, but not a liquidity crisis.

The September 2008 bank guarantee

Let me address the September 2008 bank guarantee from the perspective of bank funding and bank capital adequacy.

The European Central Bank began providing liquidity funding to the Irish domestic banks in early 2008, and the funding amount rose sharply, up to and beyond September. The ECB began questioning whether it was providing liquidity support or was effectively providing a risky capital injection. The ECB took a very rules-based approach and showed no flexibility in solving the problem.

With hindsight, the Irish domestic banking system's aggregate balance sheet including Anglo Irish Bank was insolvent by September 2008. Central Bank statistics show stated aggregate bank equity, combining Tier One and Tier Two, of €43 billion, but this does not take account of the enormous loan losses which had already begun to occur by that date. One way to adjust for these upcoming losses is to use the actual outcome. Over the next two years, the banking system required a capital injection of €64 billion.[8] At the end of 2010, the surviving Irish domestic banks had aggregate Tier One equity of €13 billion.[9] The difference between the equity capital injection of €64 billion, and the 2010 Tier One equity of €13 billion, argues for "true" Tier One equity as low as minus €51 billion before the equity capital injection. This rough ex-post equity calculation relies on hindsight, since the outcome over 2009-10 was not known in September 2008, but at least it is one objective approach to measuring the "true" aggregate equity position at that date. "True" sector-wide Tier One equity at this date was certainly negative.

In September 2008 the Irish government provided a blanket liability guarantee to an insolvent banking sector. This was a very costly error. There are three caveats. One, the lender of last resort function of the ECB was not working properly; the liability guarantee was partly intended to allow access to the flawed ECB liquidity support function. Two, the guidance provided to the government by the Irish Central Bank was very poor. Three, the information provided by some of the banks to the Irish Central Bank may have been deliberately embellished to disguise their real capital positions.

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Charts and Tables

Chart 1: Foreign and Domestic Property Development Assets of the Domestic Banking Sector

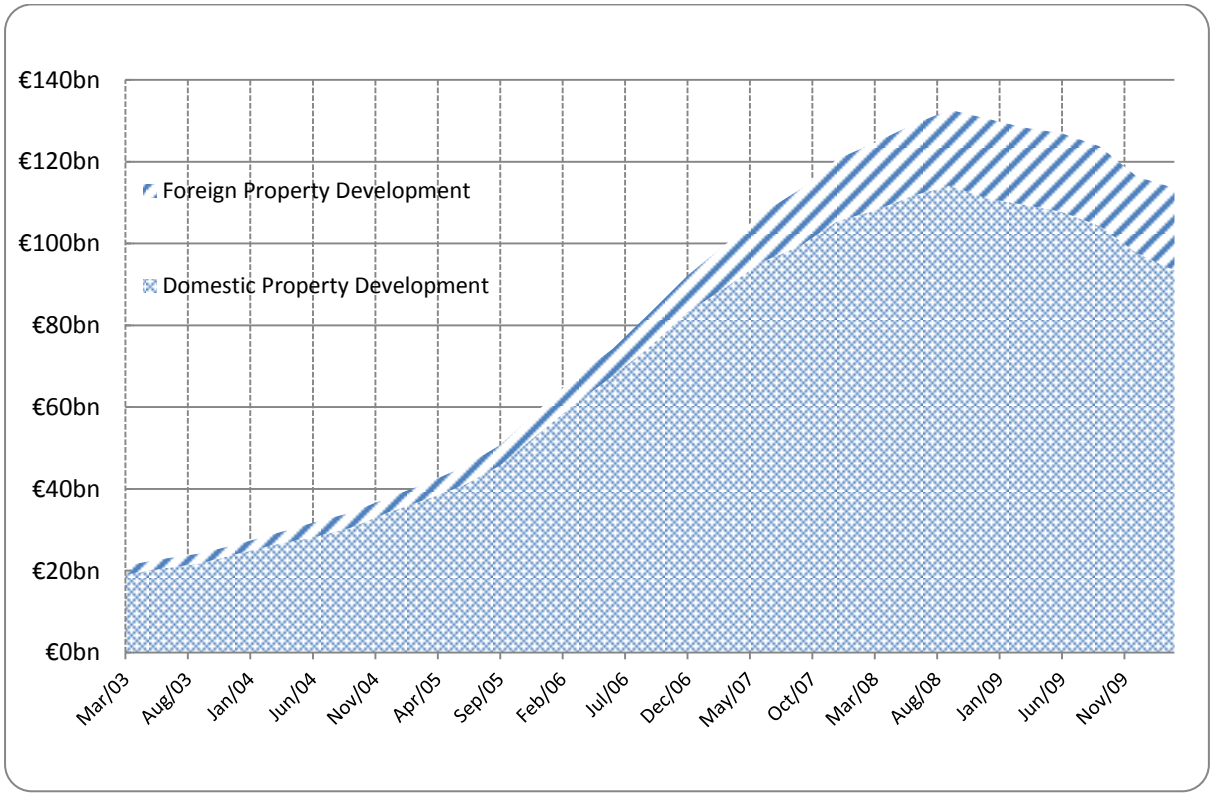

Chart 2: Interbank Lending and Net Foreign Borrowing

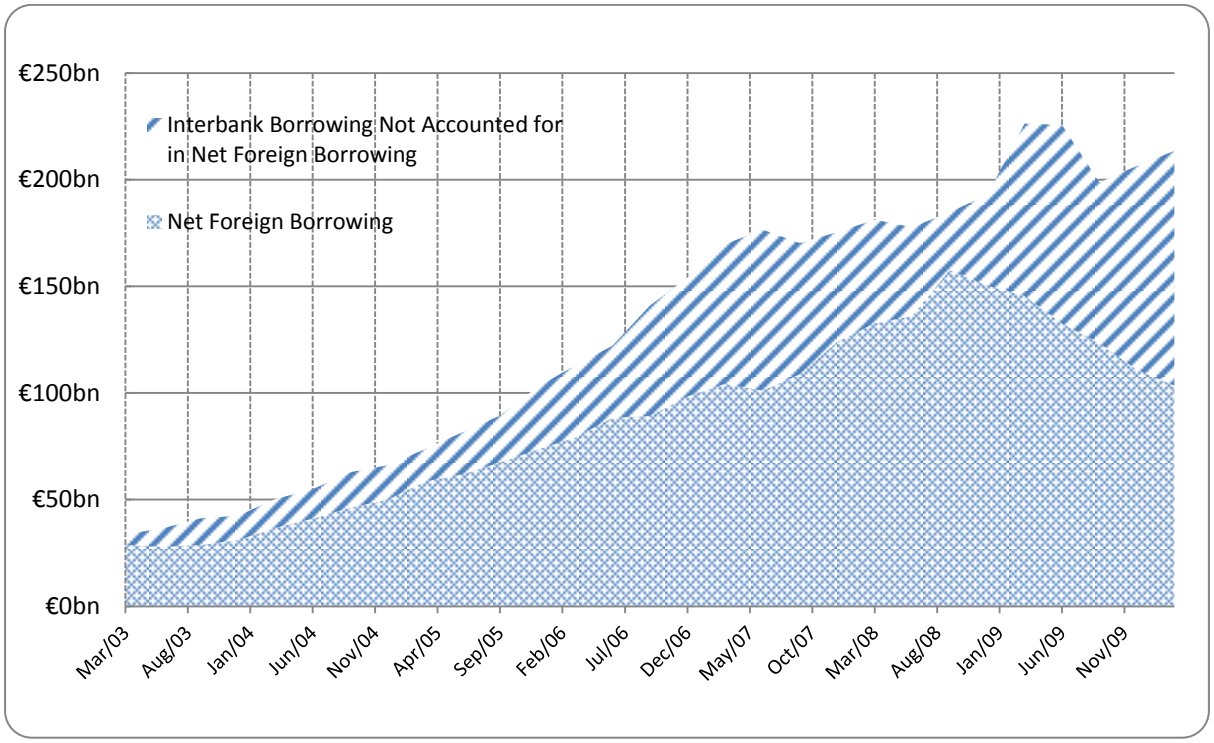

Chart 3: Domestic Banking Sector Aggregate Balance Sheet, Assets

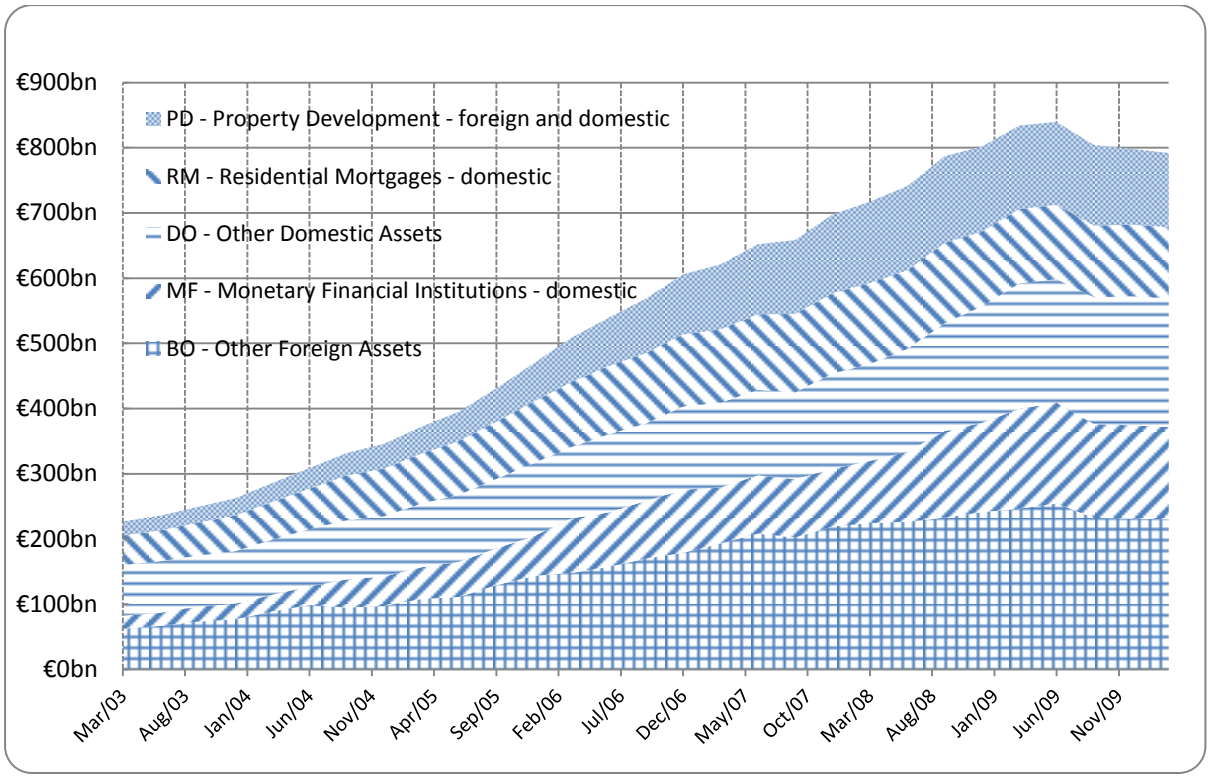

Chart 4: Domestic Banking Sector Aggregate Balance Sheet, Liabilities

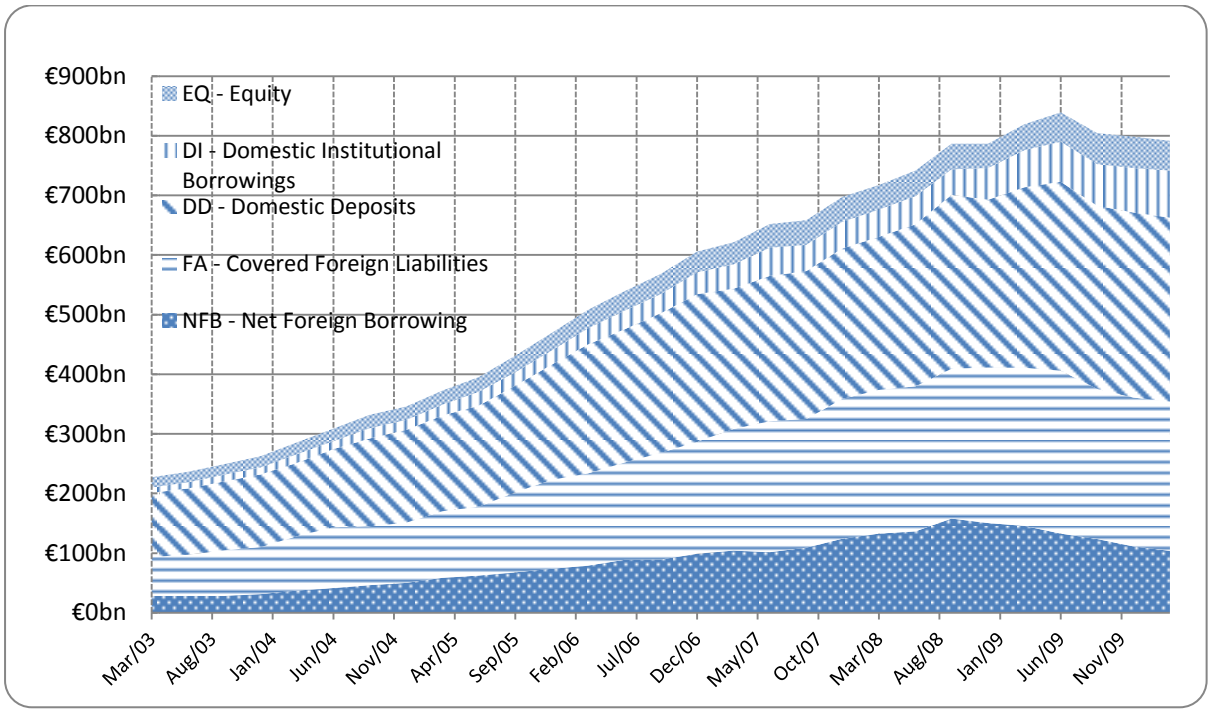

Chart 5: Time Paths of Key Ratios

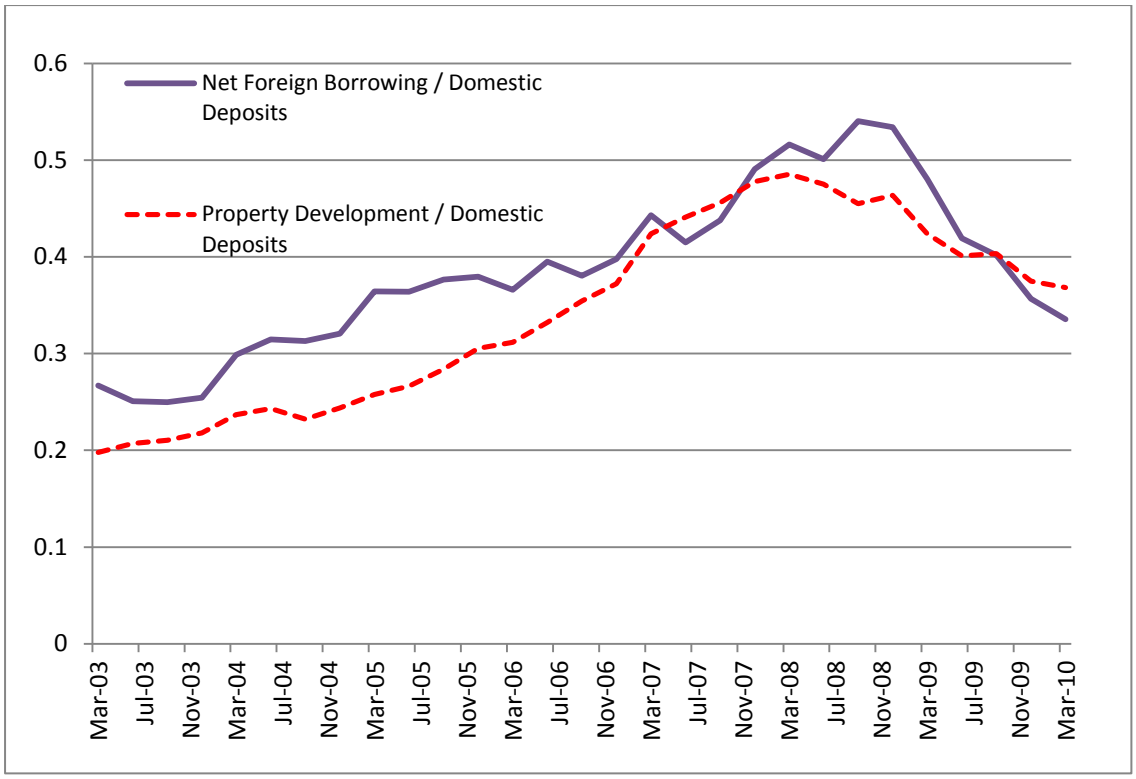

Chart 6: Time Paths of Risk Factors

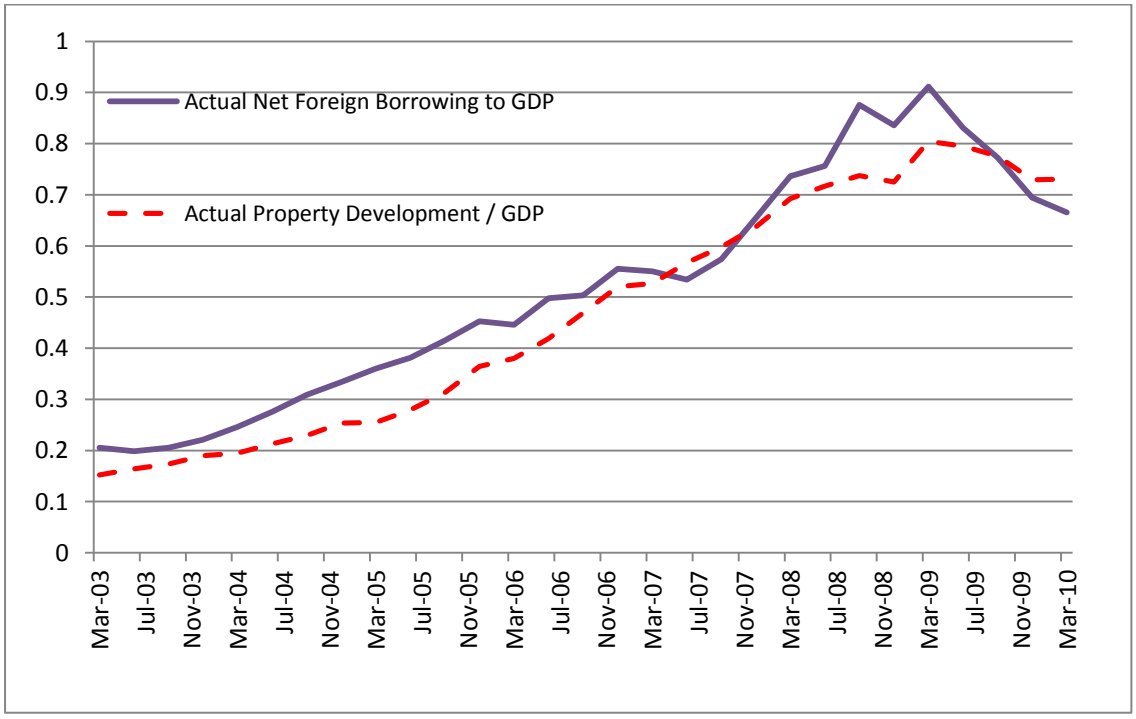

Chart 7: Annual Increase in Net Foreign Borrowing (millions of Euros)

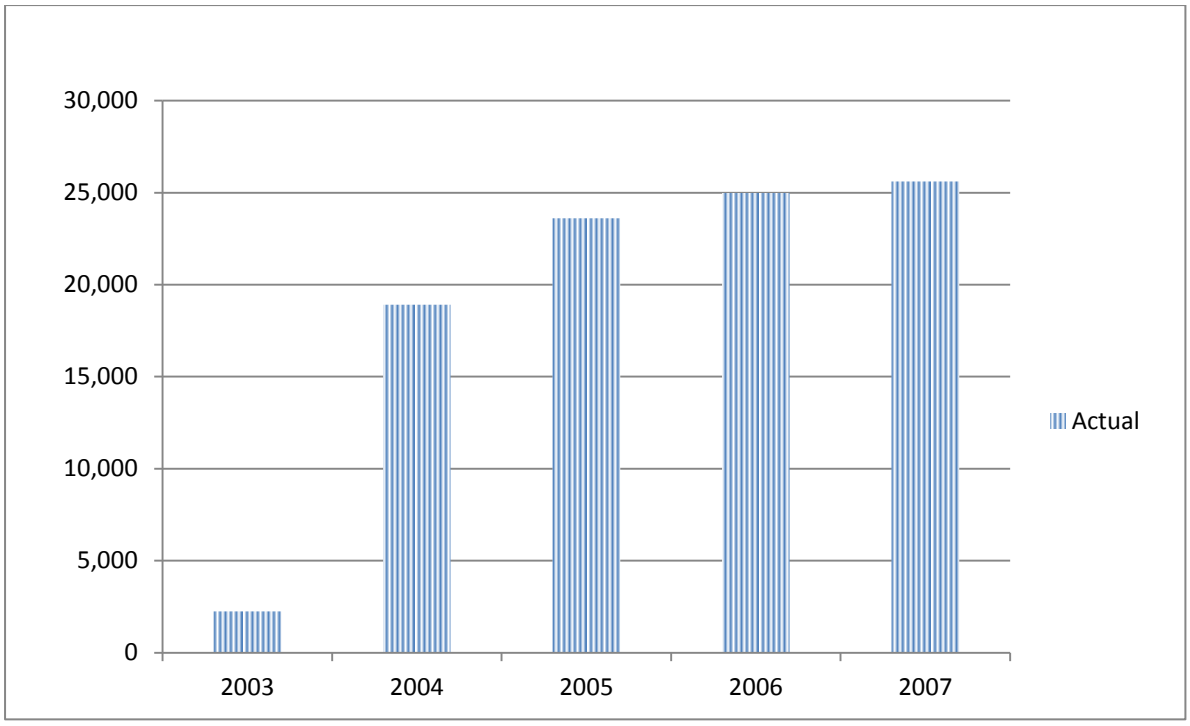

Chart 8: GDP Stimulus Associated with Annual Increase in Net Foreign Borrowing

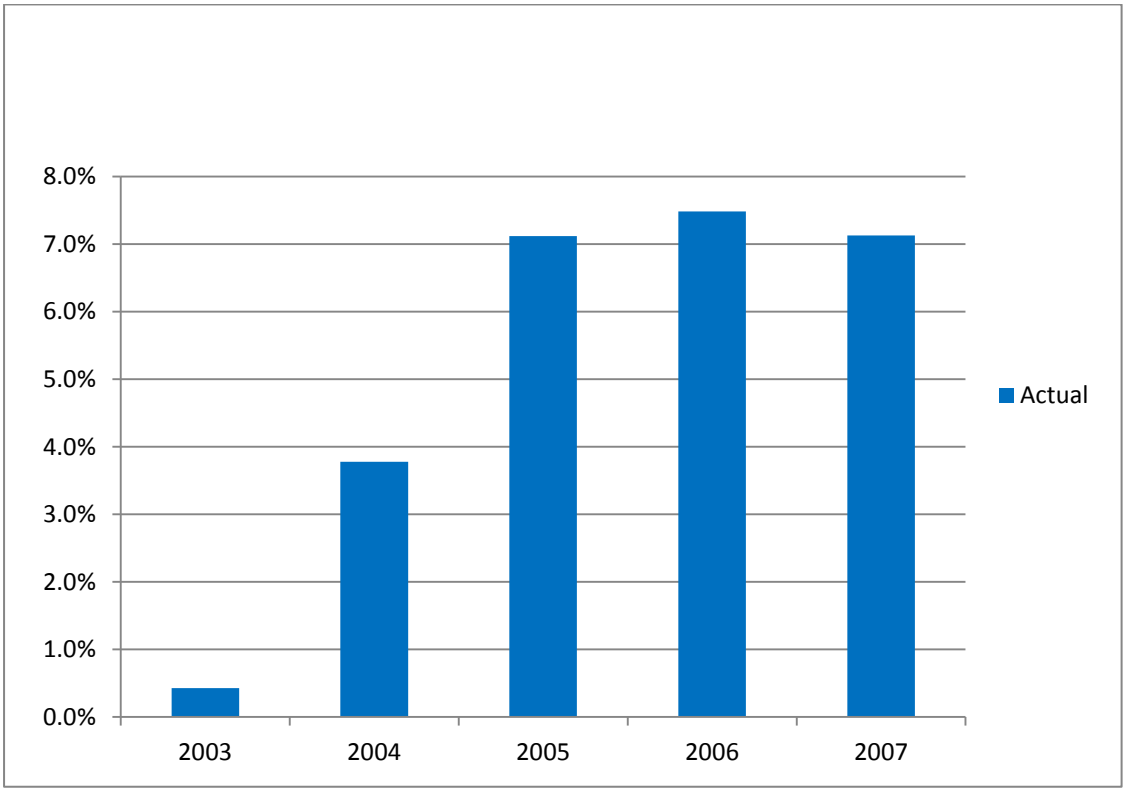

Table 1: Key Risk Features of the Irish Domestic Banking Sector in 2008:Q3

Property Development Assets	€132.8bn
% Total Assets	16.9
% GDP	73.8
Net Foreign Borrowing	€157.6bn
% Total Assets	20.1
% GDP	87.6
Residential Mortgages 2003:Q1	€45.4bn
Residential Mortgages 2008:Q3	€123.0bn
Residential Mortgages p.a. growth rate (%)	19.9
Property Development p.a. growth rate (%)	39.5

Figure 2 below is from Lane (2015). Used with permission of the author.

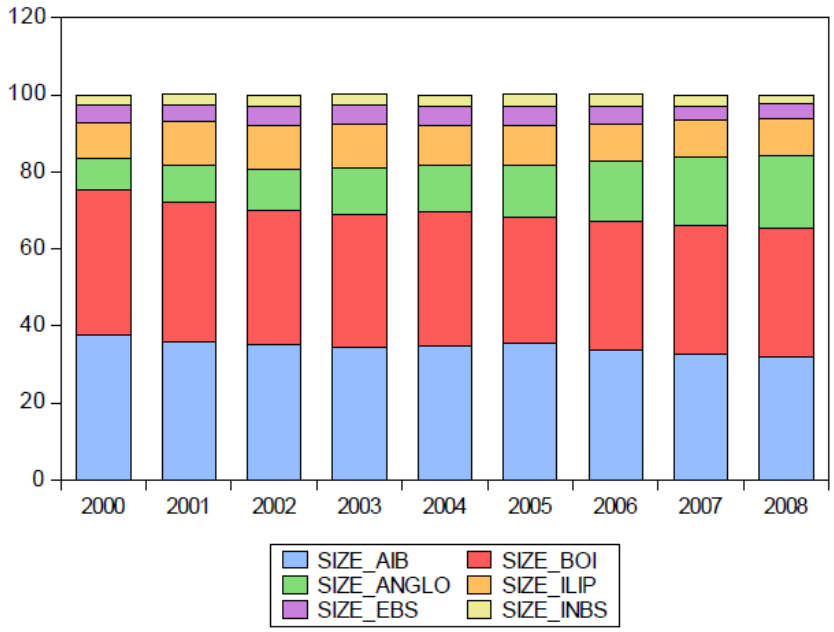

Figure 2: Shares in Aggregate Balance Sheet of Local Banks. Note: Author's calculations based on data in annual reports.

Endnotes

[1] Icelandic external debt in Q3 2008 was 9,679,154 million kroner and annual GDP that year was 1,547,817 million kroner; Icelandic Central Bank data. The Irish figures are from Connor and O'Kelly (2012) based on Irish Central Bank data.
[2] See Danielsson (2009).
[3] The Irish bank sector domestic balance sheet figures come from Connor and O'Kelly (2012) based on Irish Central Bank data.
[4] In this presentation I will not separate out the Financial Regulator from the Central Bank.
[5] A bank has a liquidity problem when it has sufficient assets to pay its liability claimants, but claimants want their money returned immediately, and the assets of the bank are tied up in long-term loans and cannot be quickly changed to cash. A bank has an insolvency problem when the market value of its assets is below the total claim of its debt liabilities. An insolvent bank cannot pay back its liabilities even if given sufficient time to realize the true market value of its assets. The clean distinction is blurred during a liquidity crisis when asset values are likely to fall below fair value and an illiquid bank may be forced to sell assets at fire sale prices. In this scenario a liquidity problem can create insolvency.
[6] Lane (2015).
[7] Irish Department of Finance (2014).
[8] Whelan (2012).
[9] Central Bank of Ireland (2011).