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# Ireland and Iceland in Crisis A: Increasing Risk in Ireland<sup>1</sup>

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## Abstract

Ireland went from being the poorest member of the European Economic Community in 1973 to enjoying the second highest per-capita income among European countries by 2007. Healthy growth in the 1990s eventually gave way to a concentrated boom in property-related lending in the 2000s. The growth in the aggregate loan balances of Ireland's six major banks greatly exceeded the growth in gross domestic product (GDP); as a result, bank loan balances grew from 1.1 times GDP in 2000 to over 2.0 times GDP by 2007. Given the small size of the domestic retail depositor base, the Irish banks increasingly funded loan growth using the wholesale market, despite its risks. The property-related lending boom proved unsustainable during the global financial crisis, and, on September 29, 2008, the government of Ireland took the unprecedented step of guaranteeing the deposits and substantially all other liabilities of the major Irish banks.

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<sup>1</sup> This module is one of four produced by the Yale Program on Financial Stability (YPFS) examining issues impacting Ireland and Iceland in the years surrounding the global financial crisis. The following are the other modules in this case series.

- *Ireland and Iceland in Crisis B: Decreasing Loan Loss Provisions in Ireland*
- *Ireland and Iceland in Crisis C: Iceland's Landsbanki Icesave*
- *Ireland and Iceland in Crisis D: Similarities and Differences*

Cases are available from the Journal of Financial Crises.

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## 1. Introduction

On the evening of Monday, September 29, 2008, just weeks after the failure of the United States investment bank Lehman Brothers and the subsequent seizing up of the global financial system, the government of Ireland took the bold step of guaranteeing the deposits and substantially all other liabilities of the six major Irish banks, together with those of the Postbank (a unit of the state-owned postal service that offered simple banking services). These Irish banks came to be referred to as the “covered banks” because they had their liabilities covered by the government guarantee.

1. Allied Irish Banks
2. Anglo Irish Bank
3. Bank of Ireland
4. EBS Building Society
5. Irish Life and Permanent
6. Irish Nationwide Building Society
7. Postbank Ireland

The guarantee was very comprehensive, extending even to uninsured deposits and to unsecured liabilities. As a result, the amount guaranteed was €375 billion, approximately double Ireland’s gross domestic product. This case module will focus on the increasing risk in the Irish financial system in the years leading up to 2008, while a separate case module will compare the Irish government’s guarantee with actions taken by the government of Iceland in response to the crisis.

The nation of Ireland transitioned from being the poorest member of the European Economic Community when it joined in 1973 to enjoying the fastest population growth of all European Union member states and the second highest per-capita income by 2007. However, healthy economic growth based on deregulation, low income tax rates, and a competitive cost structure in the 1990s eventually gave way to a boom in property-related lending in the 2000s that proved unsustainable during the global financial crisis.

The aggregate loan balances of Ireland’s covered banks more than tripled from €120 billion in 2000 to €400 billion by 2007, while speculative commercial loans grew nine-fold. The growth in loans far exceeded the growth in gross domestic product (GDP). As a result, total loans and advances by the covered banks grew from 1.1 times GDP in 2000 to over 2.0 times GDP by 2007.

This rapid growth in property-related lending resulted from a combination of factors. Ireland’s economy and income caught up with those of its European neighbors, bolstering the ability and desire to own property. In addition, the Irish government gave tax incentives to boost property ownership. Ireland adopted the euro in 1999, which reduced exchange rate risk and interest rates, making it easier for people to borrow. Ireland’s banks sought to defend their market share by increasing property-related lending. The banks increasingly funded these loans in the wholesale market (borrowing from banks and other financial firms), despite the attendant risks.

The remainder of the case is organized as follows. Section 2 provides a factual description of the growth in Irish property-related lending and property values. Section 3 details how the economic background, monetary policy, fiscal policy, and increased competition in the banking sector combined to cause such rapid growth in property-related lending in Ireland. Section 4 briefly describes how Ireland's central bank, the International Monetary Fund, and the Organization for Economic Cooperation and Development reacted to the growth in lending. Section 5 discusses how Irish banks funded much of the increase in loan balances with wholesale borrowing, together with some reasons for, and risks of, this funding strategy. Section 6 summarizes the collapse of the Irish banking system and the resulting government guarantee.

## Questions

1. What are some useful qualitative indicators that macro-prudential financial regulators could monitor to assess the possibility of increased risks in a rapidly growing economy?
2. What are some quantitative benchmarks that regulators could calculate to measure whether credit growth should merit increasing attention?
3. Why might banks be tempted to rely excessively on short-term wholesale funding, and what are the risks of that strategy?

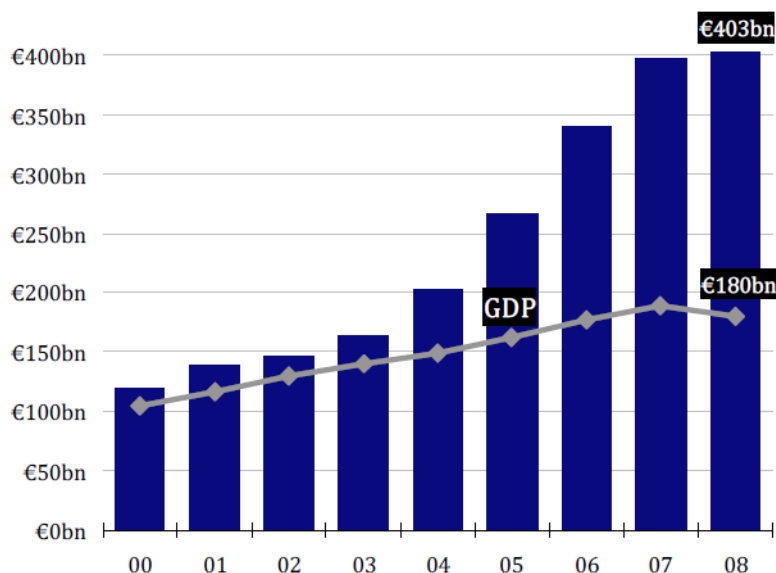
## 2. Extent of the Growth in Property-Related Lending

Before the financial crisis of 2007-09, Ireland's banking sector had grown rapidly during the 2000s. As can be seen in Figure 1, the aggregate loan balances of Ireland's covered banks more than tripled from €120 billion in 2000 to €400 billion by 2007. The growth in loans far exceeded the growth in GDP over the same time period. As a result, total loans and advances by just the covered banks (i.e., not all Irish banks) grew from 1.1 times GDP in 2000 to over 2.0 times GDP by 2007 (Commission of Investigation 2011, §2.2.2).

The composition of this loan growth can be evaluated along two dimensions: the location of the borrower, and the type of loan. From 2002 to 2007, domestic lending to Irish borrowers fluctuated between 64% and 68% of the covered banks' total lending, as domestic and foreign loan balances grew at similar rates. However, loan growth was disproportionately concentrated in property-related lending, as shown in Figure 2 (Commission of Investigation 2011, §2.2.5-2.2.7).

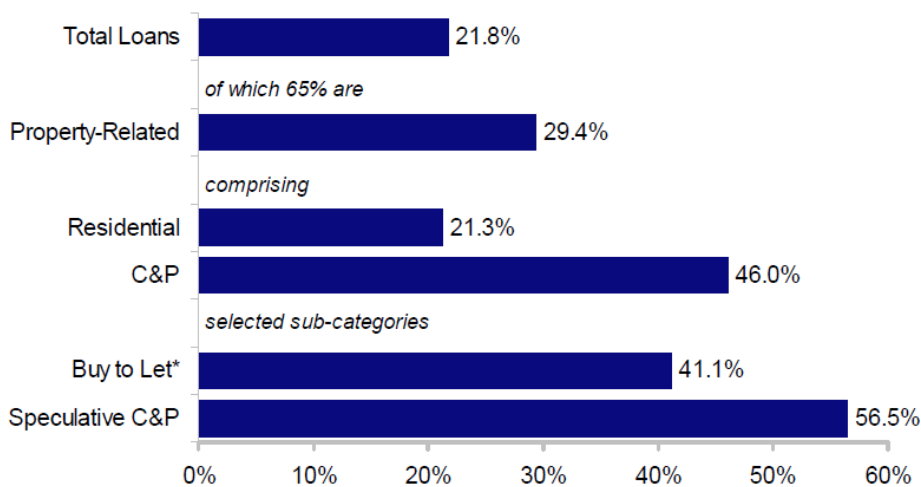
Whereas total loan balances grew at a compound annual rate of 21.8% between 2002 and 2007, property-related loans increased by an average of 29.4% per year. At the same time, the overall riskiness of these loans also increased. Residential mortgages grew at an average of 21.3% per year, roughly in line with total loan growth, but the use of risky no-down-payment loans rose from 5% in 2004 to 15% of all loans (and 30% of loans to first time home buyers) by 2006. Construction & property (C&P) loans, generally considered riskier than residential mortgages, increased more than twice as quickly, by an average of 46.0% per year. Furthermore, speculative C&P loans (on projects for which no construction or rental contract was in place) grew even faster at a compound annual rate of 56.5%. As a result, speculative C&P lending increased nine-fold between 2002 and 2007, from €3.8 billion to €34.0 billion.

Figure 1: Loans and Advances to Customers by the Covered Banks



Source: Commission of Investigation 2011, 13.

Figure 2: Domestic Lending by Covered Banks to Irish Residents: Compound Annual Growth Rates, 2002-07



Source: Commission of Investigation 2011, 17.

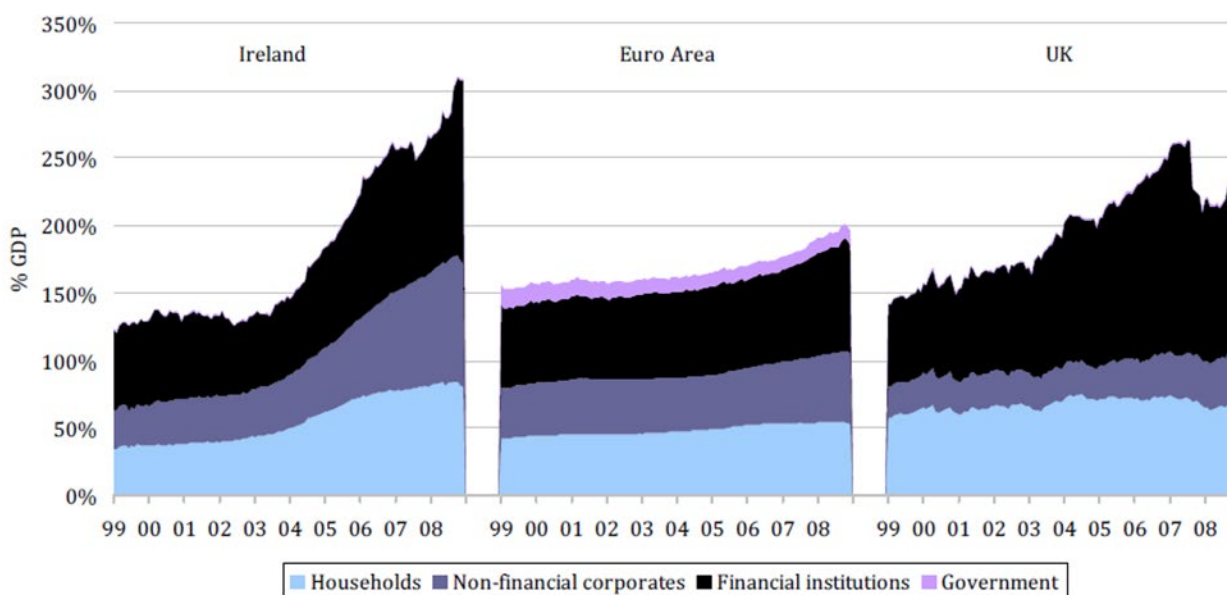
Of course, rapid loan growth during the early- and mid-2000s was not unique to Ireland, as banks in many countries expanded their lending. However, as can be seen in Figure 3, data collected by the European Central Bank shows that Ireland's total lending grew faster

between 1999 and 2008, and also ended the period at a higher percent of GDP, than did lending in the United Kingdom (Ireland's largest trading partner) and in the broader Euro area. (Figure 3 includes loans by all Irish banks, including the central bank, and therefore lending is larger relative to GDP than what is shown in Figure 1.) Focusing specifically on property-related lending, Ireland's banks outpaced those in the United Kingdom, especially in non-residential loans, as shown in Figure 4 (Commission of Investigation 2011, §1.3.1).

Of course, rapid loan growth during the early- and mid-2000s was not unique to Ireland, as banks in many countries expanded their lending. However, as can be seen in Figure 3, data collected by the European Central Bank shows that Ireland's total lending grew faster between 1999 and 2008, and also ended the period at a higher percent of GDP, than did lending in the United Kingdom (Ireland's largest trading partner) and in the broader Euro area (Figure 3 includes loans by all Irish banks, including the central bank, and therefore lending is larger relative to GDP than what is shown in Figure 1.). Focusing specifically on property-related lending, Ireland's banks outpaced those in the United Kingdom, especially in non-residential loans, as shown in Figure 4 (Commission of Investigation 2011, §1.3.1).

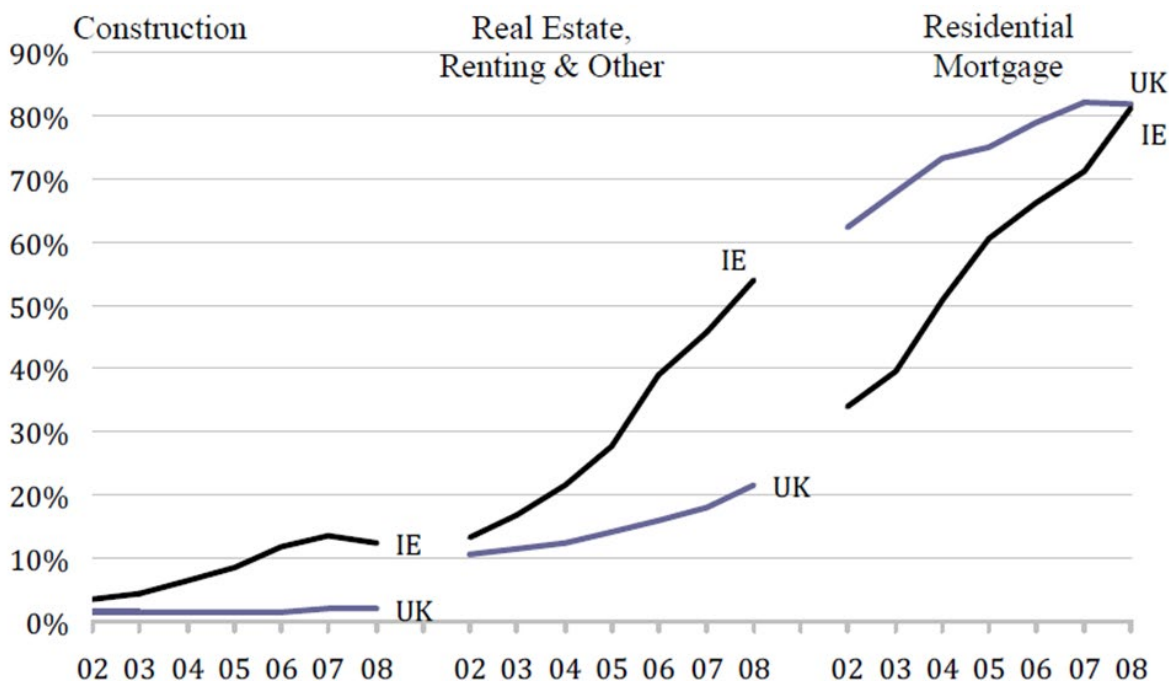
Given the relentless expansion of property-related lending by Ireland's banks, the fact that real estate prices also rose dramatically during the same time period is not a surprise. The two go hand in hand. With real estate loans more readily available and featuring easier terms, borrowers are able to bid up prices. In turn, higher real estate prices make it easier for property owners to refinance existing loans, while also increasing the value of the collateral against which banks are lending.

Figure 3: Lending in Ireland, the Euro Area, and the United Kingdom



Source: Commission of Investigation 2011, 3.

Figure 4: Domestic Property-Related Lending in Ireland and the United Kingdom

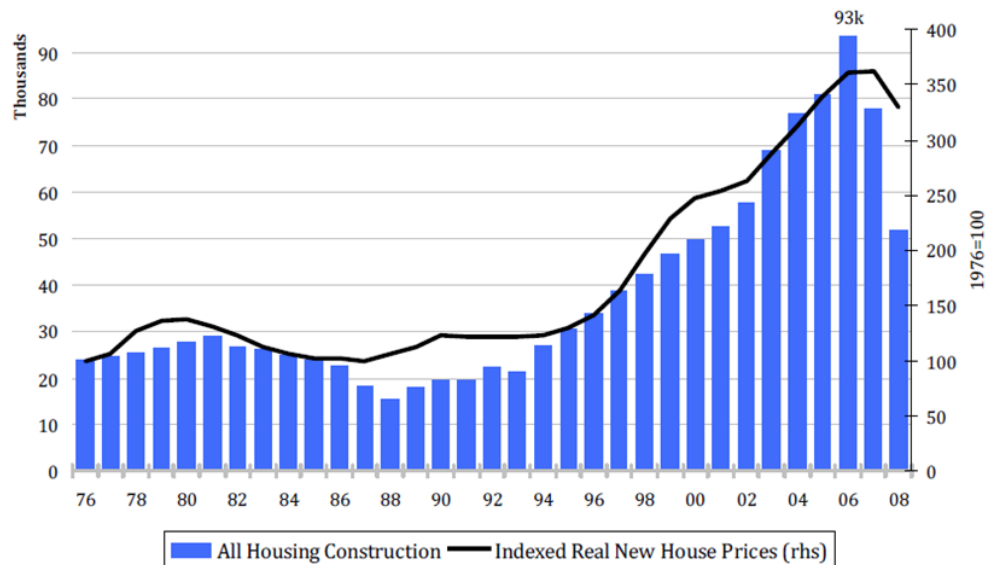


Source: Commission of Investigation 2011, 18.

As can be seen in Figures 5 and 6 herein, after adjusting for inflation, new home prices in Ireland almost tripled between 1995 and 2007, and commercial property values actually did triple during the same period. This equates to real price appreciation at a compound annual rate of almost 9% and 10% for residential and commercial properties, respectively, above and beyond the inflation rate. This rate of price appreciation was almost double the average annual growth in Ireland's real GDP during the period (Commission of Investigation 2011, §2.2.12).

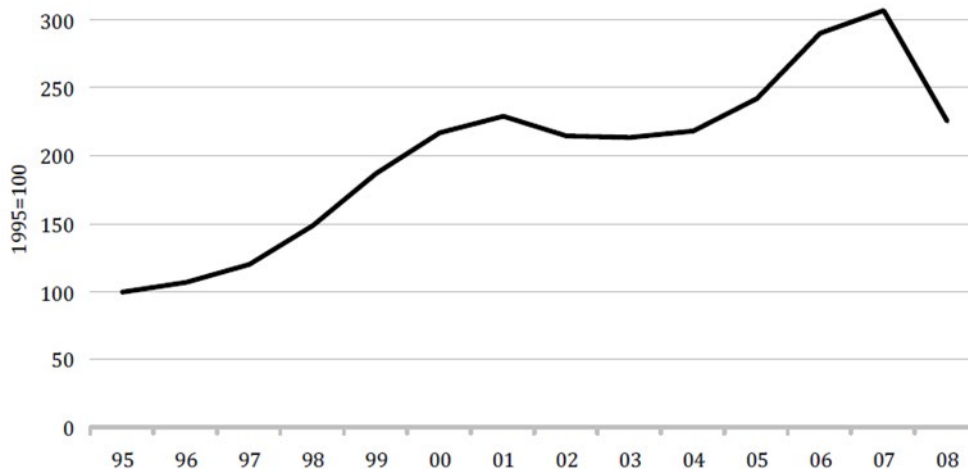
Growth in the covered banks' loan books resulted in increased profitability. Ireland's covered banks reported an aggregate profit after tax of €2.2 billion in 2000. After first decreasing in 2001, bank profitability then increased every year, reaching €5.6 billion in 2007. This was an increase of approximately 155% between 2000 and 2007. This growth in profitability translated into even greater growth in market value, as the stock market capitalization of the four listed covered banks increased from €20.4 billion in January 2000 to €57.4 billion by February 2007, as can be seen in Figure 7 (Commission of Investigation 2011, §2.2.3-2.2.4).

Figure 5: New House Prices (REAL) &amp; Housing Construction, 1976-2008



Source: Commission of Investigation 2011, 19.

Figure 6: Real Indexed Commercial Property Values - Combined Office, Retail &amp; Manufacturing



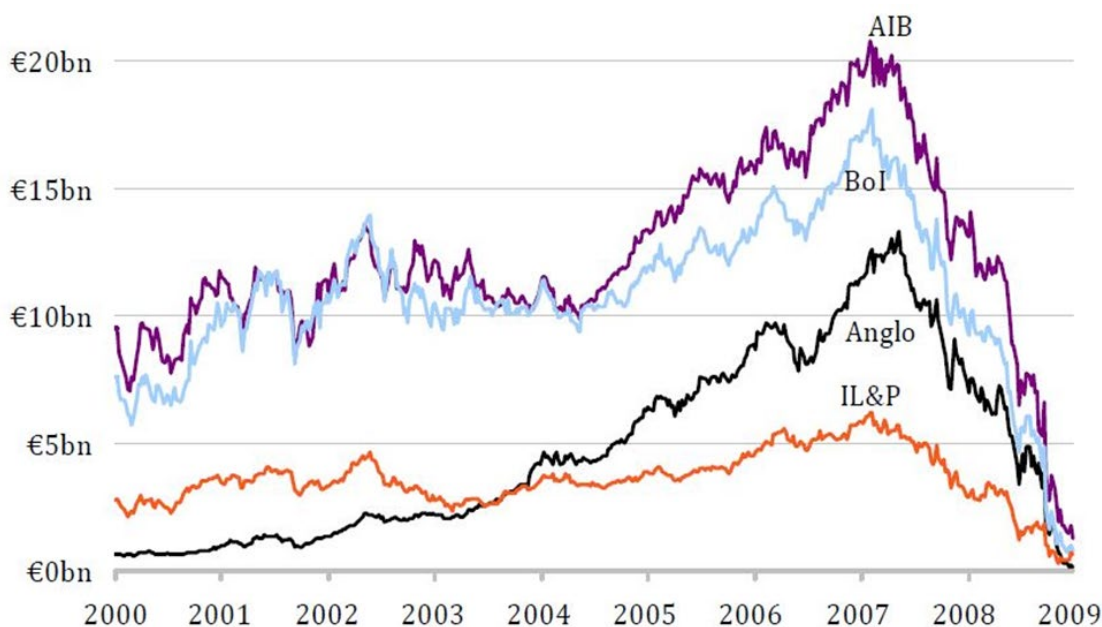
Source: Commission of Investigation 2011, 19.

However, some part of the increase in reported Irish bank profitability must be attributed to the impact of an accounting pronouncement by the International Accounting Standards Board (IASB) that took effect in 2005. In an effort to simplify, standardize, and bring more objectivity to the accounting treatment of financial instruments, the IASB mandated use of the “incurred loss” model of setting aside reserves for loan losses, under which banks (and



other companies) are allowed to make loan loss provisions only when objective evidence exists at the closing balance sheet date that a loan or other receivable is impaired. Previously, companies would set aside larger reserves based on the probability that some borrowers would default in the future and not pay on time and in full (This topic is explored in greater detail in Zeissler et al. 2014B.).

Figure 7: Market Capitalizations of the Listed Covered Banks



Source: Commission of Investigation 2011, 14.

### 3. Reasons for the Rapid Growth in Lending

A number of factors contributed to this rapid growth in Ireland's property-related lending. These factors could serve as useful precautionary signs to macro-prudential financial regulators in other countries.

#### Macroeconomic Background

When Ireland joined the European Economic Community as part of its 1973 expansion from six to nine members, it was the poorest member in the organization. Ireland continued to lag economically until the early 1990s, when investment was spurred by deregulation, low corporate income tax rates (10.0 to 12.5% during the 1990s), and a competitive cost structure resulting from trilateral wage agreements between employees, unions, and the government. As an export-oriented economy, Ireland benefited greatly from the reduction in regulations and tariffs that accompanied the launch of the European Union (EU) in 1993, the successor of the European Economic Community. The combination of these factors further fueled a period of rapid economic growth in Ireland that had started in the late 1980s causing it to be known as the "Celtic Tiger" (Honohan 2010, 20-21).

As Ireland's economy caught up to the rest of Europe, with per-capita income second only to Luxembourg among EU countries, coupled with by far the highest rate of population growth of all EU member states, a dramatic increase in both the ability and aspiration to own property resulted. Economists used this growth in income and population as the basis for their prediction that any future economic downturn would result in at worst a minor slowdown in the Irish real estate sector (Regling & Watson 2010, 21).

### **Monetary Conditions**

Ireland was one of the 11 nations that adopted the euro at its initial launch on January 1, 1999.<sup>5</sup> Before EU member states could adopt the euro in 1999 or in later years, they had to meet limits on inflation, government budget deficit, and government debt-to-GDP ratio. This had the desirable effect of lowering interest rates in the Eurozone countries. Ireland's short-term interest rates decreased by 2/3 from the early- and mid-1990s to the period from 2002 through 2007, and the country's real short-term interest rates were negative from 1999 to 2005. Long-term interest rates were cut in half. This dramatic reduction in Ireland's interest rates boosted asset values (including property prices) and made it more affordable for individuals and businesses to borrow, fueling the credit boom (Regling & Watson 2010, 24).

Furthermore, by reducing or eliminating exchange-rate risk, the common euro currency simplified and thus fostered borrowing, lending, and investing among the Eurozone countries and their major trading partners. As a result, Irish banks could obtain funds more cheaply and thus reduce their cost of capital. However, they also faced increased competition from banks in neighboring countries, as discussed more fully later in this section.

### **Fiscal Policy**

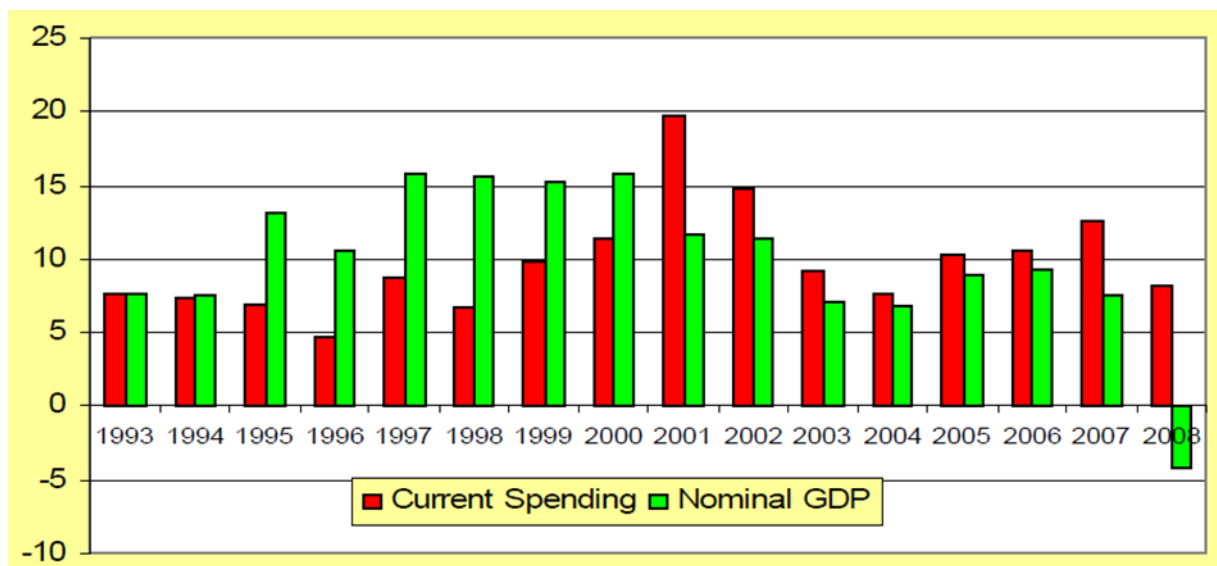
The Irish government was the envy of many of its European neighbors from the mid-1990s until 2006, since it achieved fiscal surpluses every year. The government wisely used some of the surplus to fund the national pension system. However, the growth rate of Ireland's private sector began to slow around 2000 as the aforementioned advances in per-capita income began to reduce Ireland's competitiveness relative to that of other countries. Wishing to sustain the spirit of the Celtic Tiger as long as possible, the government ramped up its own spending at a rate faster than nominal GDP each year from 2001 through 2008, in contrast with the spending restraint shown through 2000, as shown in Figure 8 (Regling & Watson 2010, 25).

In addition, more so than other EU countries, Ireland used its taxation system to favor property ownership, specifically home ownership. Irish property owners could deduct the interest portion of mortgage payments from their income tax, but they did not have to pay property tax, which would otherwise have raised the costs of ownership and thus perhaps somewhat restrained soaring property values. Also, the Irish government increasingly directed tax relief to the property sector (Regling & Watson 2010, 27).

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<sup>5</sup> The others were Austria, Belgium, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

Figure 8: Annual Change in Government Spending and Nominal GDP



Source: Regling & Watson 2010, 26.

### Increased Foreign and Domestic Competition in the Banking Sector

Though Ireland's economy as a whole benefited from the lower interest rates, regulation, and tariffs that accompanied adoption of the euro in 1999, the country's banks faced increased competition. Foreign institutions, especially from the United Kingdom, competed aggressively with Ireland's domestic banks by offering lower interest rates, faster approvals, and new residential mortgage products such as 100% loan-to-value mortgages. For example, the Bank of Scotland entered the Irish market in 1999 and quickly gained market share by offering home mortgages "at substantially lower interest rates than domestic banks at that time" (Commission of Investigation 2011, §2.3). Competition in Ireland's commercial property lending market also increased. Consumer protection advocates in the government applauded the intensified competition since it provided more choices to borrowers.

Management of domestic banks grew increasingly focused on preserving their independence by preventing a predatory takeover by another bank, either foreign or domestic. Bank officers thus sought business models and strategies that would lead to faster revenue growth, higher reported profits, and larger stock valuations. The answer came in the form of steadily increasing property values (See Section 2.) and readily available, low cost wholesale funding (See Section 4.), the combination of which allowed all Irish banks to grow rapidly without losing significant market share to one another or to foreign competitors (Commission of Investigation 2011, §2.3).

## 4. Reactions to the Rapid Growth in Lending

Financial Stability Reports issued on an annual basis by the Central Bank of Ireland in the years before the crisis indicated an awareness of the possible risks accompanying the credit growth, but generally opined that the nation's financial system could absorb these risks if they came to fruition. Periodic reports issued at the time by the International Monetary Fund (IMF) were similarly cautionary, yet reassuring.

For example, the IMF Financial System Stability Assessment Update of August 2006 indicated that "sustained rapid credit growth" in Ireland raised the country's household debt-to-GDP ratios to "among the highest in Europe" and that a "significant slowdown in growth" would have "adverse consequences for employment." However, the report also noted that a significant slowdown in growth was "extremely unlikely in the near term," that the financial system was "well placed" to handle a downturn in house prices or general economic growth, and that the major banks had "adequate capital buffers to cover a range of large but plausible hypothetical shocks" (IMF 2006, 5). One year later, in its recurring Article IV consultation dated August 2007, IMF staff warned that Irish "banks have large exposures to the property market," but that stress test results indicated that bank capital cushions were "adequate to cover a range of shocks" (IMF 2007, 1).

In its Economic Survey of 2008, however, the Organisation for Economic Cooperation and Development (OECD) was, in total, less reassuring when commenting:

The risks associated with the sharp run-up in domestic indebtedness have so far been contained. Irish banks are well-capitalized and profitable, so they should have considerable shock-absorption capacity. However, turmoil in the international markets continues to impact on the Irish financial system. Transparency in financial markets worldwide needs to be improved to restore confidence. It is important to prepare for downside risks and, in conjunction with international efforts, Ireland should consider its own arrangements. (OECD 2008, 2).

## 5. Funding the Rapid Growth in Lending

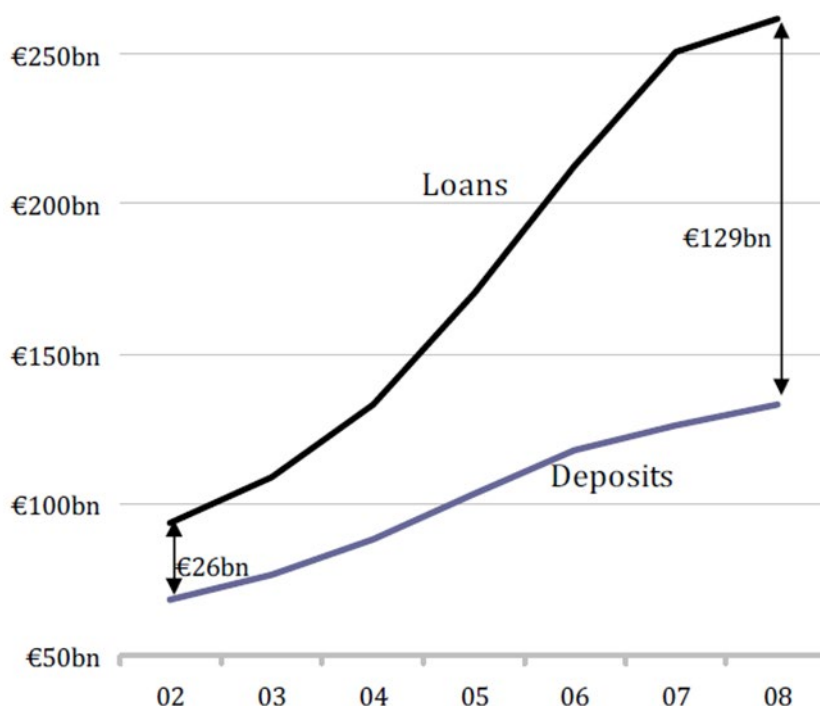
The growth in the balance sheets of the Irish banks described in Sections 2 and 3 may have been asset-driven (increased loan growth, which necessitated finding sources of funding for those new loans) or liability-driven (increased availability of funds, which necessitated finding a safe and profitable use of those extra funds). The reports issued by the Irish government in 2010 and 2011 in the aftermath of the crisis favor the former explanation, since the rapid loan growth experienced by Ireland's banks could not be funded by retail (personal and small business) deposits alone. Banks therefore turned to the wholesale market for additional funding.

The loan balances of Ireland's covered banks exceeded the deposit balances held on behalf of customers by €26 billion in 2002. Over the next few years, the growth rate of loans was higher than the growth rate of the general economy and personal incomes, as discussed previously. Therefore, loan and deposit balances both grew, but loans grew much faster than deposits. The gap between loan and deposit balances at the covered banks quintupled by 2008 to €129 billion, as can be seen in Figure 9, and the aggregate loan-to-deposit ratio of the Irish banking system grew to 200%, higher than in comparable euro area economies (Regling & Watson 2010, 33). The loan-to-deposit ratios of the covered banks are shown in

Figure 10; note that Irish Life and Permanent (IL&P) relied far more heavily on wholesale funding and less on deposit funding than the other covered banks.

Ireland's banks financed much of this gap between loans and deposits by borrowing in the wholesale market. The Irish government commission that investigated the country's banking crisis explained, "Wholesale funding usually comprises deposits from banks, senior debt, asset covered securities, commercial paper, certificates of deposit, and securitizations. It tends to be diversified across geographies, investor types, and maturities" (Commission of Investigation 2011, fn 47).

Figure 9: Domestic Funding Gap of the Covered Banks



Source: Commission of Investigation 2011, 39.

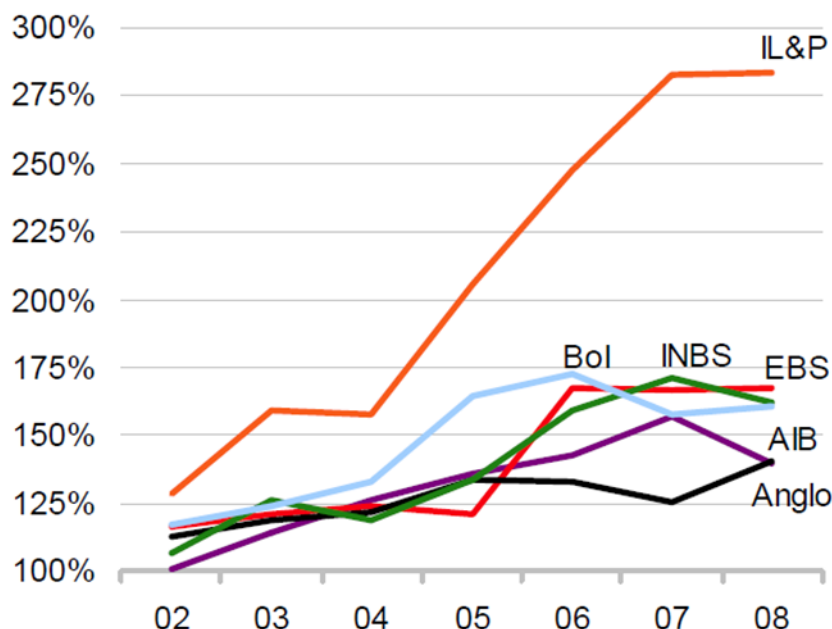
### Reasons for Wholesale Funding

Multiple reasons existed why the Irish funding gap was filled with wholesale funding, as opposed to other sources. As mentioned in Section 3, Ireland was one of the 11 nations that adopted the euro at its launch in 1999, thereby reducing or eliminating exchange-rate risk in cross-border borrowing, lending, and investing. As a result, wholesale funding for Eurozone banks was readily available in large amounts and at low interest rates, and the Irish banks received much of their wholesale funding from foreign lenders (Commission of Investigation 2011, §2.4.13).

In addition to low-cost and easy availability, government legislation also led to increased use of wholesale funding in Ireland. Two of the covered banks, the EBS Building Society and the Irish Nationwide Building Society (INBS), historically specialized in accepting deposits from retail customers and making residential mortgage loans, much like savings and loan associations in the United States. However, the Building Societies Act of 1989 allowed Ireland's building societies to make loans for residential housing development and to raise

funds in the wholesale market. INBS, the larger and more aggressive of the two, obtained almost 50% of its funding from wholesale sources by 2008 (Commission of Investigation 2011, §2.4.6).

Figure 10: Loan-to-Deposit Ratios of the Covered Banks



Source: Commission of Investigation 2011, 40.

Many banks around the world had adopted a business model that separated operations, broadly speaking, into the lending side of the business (a revenue center) and the funding side of the business (a cost center), with the sources and uses of funds intermediated by the bank's Treasury department, which was run as a profit center. Since short-term interest rates are usually lower than long-term interest rates, bank Treasury employees could boost profitability by borrowing in the short-term wholesale market, albeit while neglecting long-term funding stability (Commission of Investigation 2011, §2.8.6 and 5.2.10).

Perhaps most simplistically, bank management and boards benchmarked performance against competitors, often with the aid of analysts and consultants. All drew comfort from the fact that peer banks in Ireland and in other countries also had chosen to heavily fund themselves in the wholesale market (Commission of Investigation 2011, §2.8.4).

### Risks of Wholesale Funding

One of the reasons that wholesale funding was often cheaper than other sources of funding at this time was because wholesale funding tended to have a shorter maturity (e.g., a bank may have borrowed for a single day via an overnight repo agreement, but it was unlikely to issue a bond for a period of a few days, weeks, or months). However, the risk of overreliance on short-term funding was that Ireland's banks became "more vulnerable not only to fluctuations in international interest rates but also to changes in market sentiment and in their own perceived creditworthiness" (Commission of Investigation 2011, §2.8.2).

Ireland's banks erred in thinking that wholesale funding would always be readily available at some price. Banks assumed that their wholesale lenders would raise the interest rate in a

panic situation, but banks did not think that lenders would partially or fully withdraw funding by raising the amount of required collateral or by refusing to roll over loans (Commission of Investigation 2011, §5.2.11).

However, as international credit markets tightened from August 2007 into 2008, Irish banks also saw the amounts and maturities of their wholesale funding curtailed, especially as creditors grew increasingly worried that Ireland and its banks were overexposed to property-related lending. This sudden drying up of essential funding is, of course, exactly what happened to many banks around the world during the peak of the financial crisis, including Lehman Brothers.

## 6. Collapse

One common finding among economic research spawned by the 2007-09 financial crisis is that financial crises are typically preceded by credit booms, though not all credit booms end in a crisis (Gorton & Ordoñez 2014). Unfortunately, Ireland's credit boom proved to be a "bad boom."

Anglo Irish Bank, widely considered to be the most vulnerable of Ireland's major banks, saw its stock price tumble on Monday, September 29, 2008, just weeks after the failure of the Lehman Brothers investment firm. Bank of Ireland and Allied Irish Banks requested an emergency meeting with the Irish prime minister and the finance minister, worried that an Anglo Irish default would lead to a rapid loss of funding for the other banks. That same evening, the government of Ireland took the bold step of guaranteeing the deposits and substantially all other liabilities of the major Irish banks. The guarantee was very comprehensive, extending even to uninsured deposits and to unsecured liabilities. As a result, the amount guaranteed was €375 billion, approximately double Ireland's gross domestic product (See Zeissler, et al. 2014D for a more detailed description of the Irish government's guarantee and a comparison of the guarantee with actions taken by the government of Iceland in response to the crisis.).

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