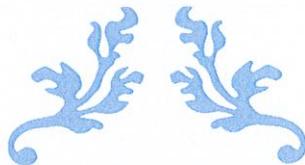


JLT INSURANCE BROKERS IRELAND LIMITED



MORTGAGE INSURANCE - A VITAL COG IN A PRUDENTIAL MORTGAGE MARKET



AUGUST 30, 2016

A report prepared for JLT by Jim Power, Jim Power Economics Ltd.

EXECUTIVE SUMMARY

- Housing is now justifiably recognized as one of the key economic and social challenges facing Ireland. Despite the unprecedented level of house building that occurred up to 2006, Ireland is now experiencing a significant shortage of social housing, owner-occupied housing and rental properties. In *General Election 2016* this was highlighted as a significant economic, political and social issue and it justifiably formed a key element of the *Programme for Government* and the subsequent *Action Plan for Housing and Homelessness*.
- The key objective of the lending regulations introduced by the Central Bank of Ireland in February 2015 is to increase the resilience of the banking and household sectors to the property market and to reduce the risk of bank credit and house price spirals from developing in the future. Following the failure to do this in the period up to 2007, it is wholly appropriate that such regulation should be put in place.
- There have been predictable consequences from the lending regulations. Notably, first-time buyers in the Greater Dublin Area are finding it difficult to accumulate a deposit of sufficient size to get on the housing ladder. This is forcing some into an already very stretched rental market and others to the broader commuter belt. Such consequences are not desirable and should not alter the current approach of the Central Bank in terms of the lending restrictions introduced. Rather, it is the role of Government to address the issues that have arisen.
- Housing is an essential element of national competitiveness. Having an adequate supply of affordable and suitable housing for owner-occupier and rental purposes is essential if Irish economic development is to continue. The Irish population is growing due to natural forces; there was net inward migration of 3,100 in the year to April 2016; and Brexit could increase foreign direct investment (FDI) into Ireland over the coming years. Increased housing supply will be essential to facilitate these developments.
- The basic problem in the housing market is an imbalance between Supply and Demand. Policy makers will have to act decisively to increase the supply of housing. There is no single silver-bullet approach, but rather a combination of measures will have to be considered. These measures could include changes to the planning process, the relaxation of state costs to housing delivery such as VAT and Development Levies to improve the economics of house building, and putting the requisite infrastructure in place to open up development sites.
- On the lending side, mandatory mortgage insurance could be considered for first-time buyers. In other words, if mortgage insurance were in place, it could facilitate higher loans to first-time buyers where mortgage repayment affordability is not an issue.

- Mortgage Insurance is primarily a credit risk mitigant that protects mortgage lenders (originators, and/or underwriters) by transferring mortgage risk from lenders to insurers for high LTV mortgages. This in turn increases the availability of mortgages to purchasers that are creditworthy and have the capacity to service a loan, but lack the deposit to meet a high LTV threshold. It also protects the lender in the event of default.
- Mortgage Insurance can play a very important role in creating a functioning mortgage market where risks are managed prudently. It enables credit worthy buyers access the housing market; it increases the resilience of the banking and household sectors to the property market; and it helps reduce the risk of damaging credit and house price spirals from developing in the future.
- In the past, problems arose with mono-line insurance companies during periods of severe house price corrections, such as the US market in 2008. Mono-line providers suffered massive financial losses, resulting in a collapse in share prices and the ratings of such companies. They were not able to cope with the level of claims, given that they had a very concentrated business model.
- A more effective approach would be to bring together a consortium of insurance companies, for whom mortgage insurance risk exposure would only represent a small percentage of their risk profile. This would help ensure the payment of claims during periods of severe house price corrections, which would not threaten the viability of the insurance company, unlike the situation with a mono-line insurer for whom mortgage risk is a very substantial part of their overall business. A group of non-specialist insurers would tend to follow each other and would get comfort from a consortium based approach, which would also share risks across all of the banks rather than one bank per insurer.
- Another significant advantage of having a consortium of insurance companies with an internationally diversified balance sheet and non-correlated risk is that the Central Bank would not end up transferring risk from one regulated entity to another in the same jurisdiction.
- Mortgage insurers tend to work closely with lenders when borrowers go into arrears to help keep those borrowers from losing their home. Mortgage insurers are experienced in restructuring mortgage debt into a more affordable repayment arrangement for the borrower to avoid a foreclosure, which is not in the interests of the lender or the mortgage insurer.
- It is difficult to provide a clear counter-factual assessment on the impact that the existence of MI might have had on the evolution of the Irish housing and mortgage market after 2000, had it been in place. The reality is that a very

irresponsible atmosphere was all-pervasive in the market after 2007. We now know that some banks did not check collateral for mortgage lending; did not check the quality of guarantees; did not check documentation; and did not carefully evaluate affordability and repayment capacity.

- We have sought to measure the savings for the banks that could have been achieved if Mortgage Insurance had been in place in the Irish market in the period up to 2008. This is based on the payment of mortgage insurance in the event of a repossession. We estimate the savings at €420 million.
- We have also considered the savings that would have been achieved if the insurers had agreed to pay the claim some 24 months or 720 days after arrears commencement. Under this scenario, we estimate the savings at €1.5 billion.
- While the financial savings for the banks if Mortgage Insurance had been in place may not appear too significant in the context of the losses suffered by the banks, which were primarily due to development problems rather than house lending problems, the reality is that if Mortgage Insurance had been in place, the insurers would have had much more oversight in the lending process and lending behaviour of the banks would have been more prudent.
- It is probable that if the MI model had been in place in Ireland after 2000, much of the excess in the market could have been avoided. Hence the correction in house prices would have been less significant and the damage to the financial sector and the overall economy would have been less severe.
- Mortgage Insurance would be good for credit-worthy house purchasers and would help protect the resilience of the banking system, and would support the aims of the Central Bank in ensuring a resilient and stable banking system. On the supply side builders would have the knowledge that First Time Buyers would have the ability to buy which would give them confidence to build. However, Mortgage Insurance should be seen as just one part of the solution to the overall housing crisis and should be part of a portfolio of policy actions needed to address what is a very real economic and social problem for Ireland. It would also be desirable to insist on Fixed Rate Mortgage products over the lifetime of the mortgage.

INTRODUCTION

Demand and supply in the Irish housing market collapsed after 2008 in line with the collapse in the economy and the deterioration in availability of mortgage credit. Over the past couple of years, demand for housing has recovered strongly, driven by fundamental factors. These include a recovery in the labour market, strong growth in personal disposable income, a gradual improvement in the mortgage availability, and a generally higher level of confidence about future economic conditions. Furthermore, Ireland's demographics are contributing strongly to fundamental demand for housing.

After a number of years of sub-normal demand for housing, there is strong pent-up demand coming back into the market. Following the sharp fall in house building after 2009, which still persists, there is simply not enough supply to meet that demand. This is resulting in a serious shortage of housing for owner-occupier, rental and social housing purposes.

In February 2015, the Central Bank of Ireland introduced new regulations on residential mortgage lending.

The key measures include:

- A Loan to Income (LTI) limit of 3.5 times gross annual income applies to all new lending for principal-dwelling homes (PDH) purposes. This limit should be exceeded by no more than 20% of the euro value of all housing loans for PDH purposes. These limits do apply to borrowers in negative equity applying for a mortgage for a new property. They do not apply to buy to let mortgages;
- For non—first time buyers of PDHs, a limit of 80% Loan to Value (LTV) applies to new mortgage lending. For first-time buyers of PDHs, a limit of 90% LTV applies on the first €220,000 of the value of a residential property, and a limit of 80% LTV applies on any value of the property thereafter. The aim is to ensure that first-time buyers purchasing more expensive properties will be required to provide a higher deposit than those purchasing cheaper properties. The total value of new lending for PDH mortgages above these limits should be no more than 15% of the euro value of all PDH mortgages in a calendar year. The LTV limits do not apply to borrowers in negative equity applying for a mortgage for a new property; and
- For non-PDH purchases, a limit of 70% LTV applies, which should not be exceeded by more than 10% of the euro value of all housing loans for non-PDH purposes.

The key objective of the new lending regulations is to increase the resilience of the banking and household sectors to the property market and to reduce the risk of bank credit and house price spirals from developing in the future. Following the failure to do

this in the period up to 2007, it is wholly appropriate that such regulation should be put in place.

Lower loan-to-value ratios should have the effect of increasing the resilience of the banking system through 'a lower loss-given-default. Lower loan/debt service-to-income ratios can reduce the probability of default'.¹ These policies should have the effect of restraining mortgage credit growth and exposure during an economic upswing, and thereby helping prevent an unsustainable mortgage credit bubble from developing.

However, there have been predictable consequences from these new lending regulations. Notably, first-time buyers in the Greater Dublin Area are finding it difficult to accumulate a deposit of sufficient size to get on the housing ladder. This is forcing some into an already very stretched rental market and others to the broader commuter belt. Such consequences should not alter the current approach of the Central Bank in terms of the lending restrictions introduced. Rather, it is the role of Government to address the issues that have arisen.

Policy makers will have to act decisively to increase the supply of housing. There is no single silver-bullet approach, but rather a combination of measures will have to be considered. These measures could include changes to the planning process, and relaxation of state costs to housing delivery such as VAT and Development Levies.

On the lending side, mandatory mortgage insurance could be considered for first-time buyers. In other words, if mortgage insurance were in place, it could facilitate higher loans to first-time buyers where mortgage repayment affordability is not an issue.

This paper examines the current status of the Irish housing and mortgage market; it describes the characteristics of mortgage insurance and how it works; it looks at the experience with mortgage insurance elsewhere; and seeks to model how the Irish housing and mortgage market might have evolved if mortgage insurance had been in place during the boom years.

CURRENT STATUS OF IRISH HOUSING MARKET

Housing is now justifiably recognized as one of the key economic and social challenges facing Ireland. Despite the unprecedented level of house building that occurred up to 2006, Ireland is now experiencing a significant shortage of social housing, owner-occupied housing and rental properties. In *General Election 2016* this was highlighted as a significant economic, political and social issue and it forms a key element of the Programme for Government.

House Prices

Between September 2007 and March 2013, national average house prices declined by 50.9% and prices outside of Dublin declined by 48.7%. Dublin prices declined by 57.1% between September 2007 and August 2012. The magnitude of these declines is unprecedented and caused very significant problems for the mortgage lenders and for those who were heavily borrowed. Many experienced considerable negative equity. The house price correction had a very negative impact on the public finances and the economy in general, not least through the negative wealth effect on consumer behaviour. It also caused a deep crisis in the banking system and a disastrous tightening of credit availability.

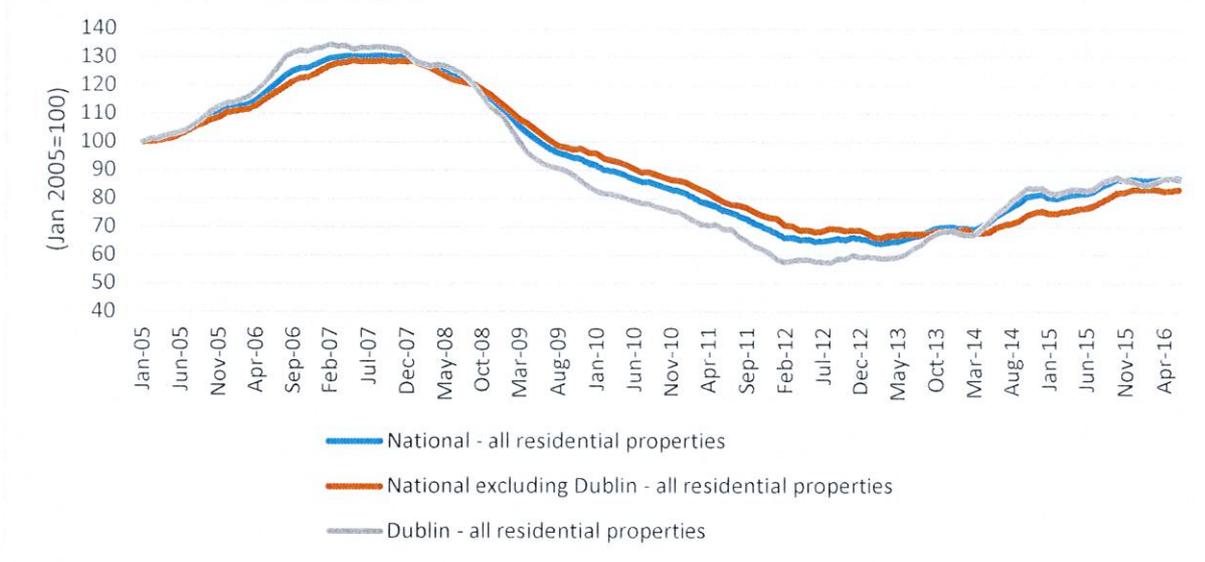
The market has recovered quite strongly over the past couple of years.

In 2015, national average house prices increased by 10.6%; Dublin prices increased by 10.2%; and prices outside of Dublin increased by 10.5%. However, as the year progressed the annual rate of growth at a national level decelerated from 15.5% in January to 6.6% in December. The growth rate in Dublin slowed from 21.6% to 2.6%, and the growth rate outside of Dublin accelerated from 9.2% to 10.2%.

In the 6 months to the end of June 2016, national average house prices increased by 0.3% to give an annual rate of increase of 6.6%; prices outside of Dublin were unchanged to give an annual rate of increase of 8.6%; and Dublin prices increased by 0.7% to give an annual rate of increase of 4.5%.

In June 2016, national average property prices were 35.9% higher than the low point seen in March 2013; Dublin prices were 51.1% higher than the low point of August 2012; and Outside of Dublin, prices were 25.9% higher than the low point in March 2013.

Figure 1: House Price Index



Source: Residential Property Price index, CSO, June 2016

The new lending regulations introduced by the Central Bank in February 2015 have clearly had an impact on the Dublin market in particular, but basic issues of affordability are also likely to be having an impact, as incomes are not growing at a sufficient pace to justify the growth in prices seen during 2014. This is particularly true in Dublin.

Figure 2: House Price Inflation (YoY)



Source: Residential Property Price index, CSO, June 2016

Rents

Private rents declined by 25.7% between March 2008 and the end of 2010. They have increased strongly over the past couple of years. In July 2016, private rents were 9.1% higher than a year earlier, and were 44.7% higher than the bottom of the rental market in late 2010.

Figure 3: Private Rent Index

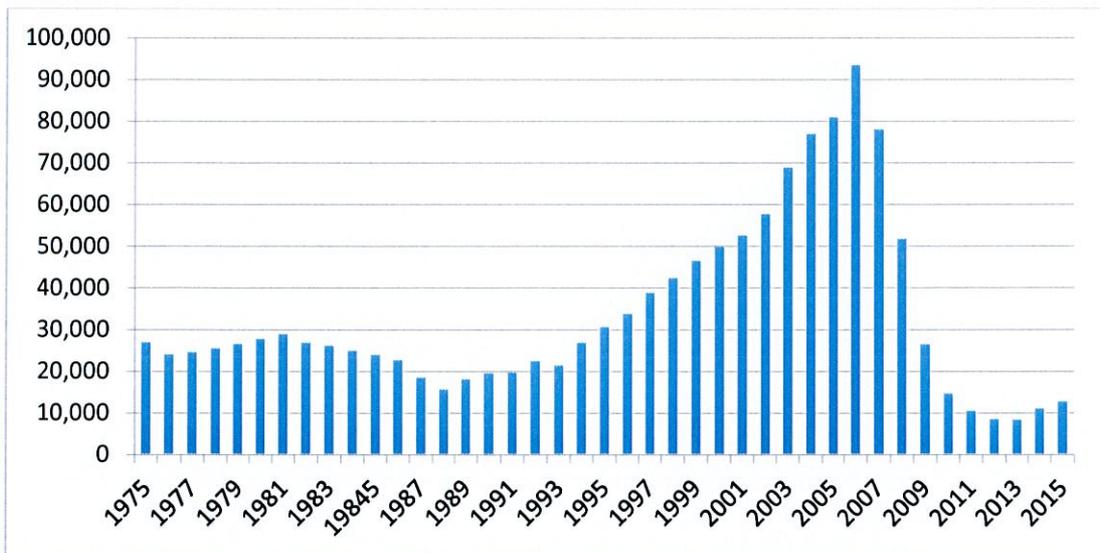


Source: CSO, Consumer Price Index, July 2016.

House Building Activity

Despite some recovery, the level of house building in the economy remains very low. In 2015, there were 12,666 new house completions, which is almost 15% higher than 2014 and is 52.6% up on the low point of 8,301 in 2013. Despite the improvement, the level of house building is way below requirements. It is probable that Ireland needs at least 25,000 new houses every year, but between 2010 and 2015, house completions averaged just 10,925 per year.

Figure 4: New Home Completions



Source: Department of the Environment, Community & Local Government

Housing was clearly identified as an issue of extreme concern in **General Election 2016**, and has been afforded significant priority in subsequent months. There is a basic imbalance between demand and supply. This is manifesting itself in a scarcity of owner-occupied housing, totally inadequate levels of social housing, and a scarcity of rental properties, which is resulting in significant upward pressure on private rents.

In the *Action Plan for Housing and Homelessness*, the Government has given priority to addressing all three issues. 5 Pillars have been identified for priority in the Plan:

- Homelessness;
- Accelerating social housing;
- Building new homes;
- Improving the rental sector; and
- Utilising fully the existing housing stock.

It is targeting 47,000 social housing units to 2021, and funding of €5.35 billion has been put in place; 25,000 new homes per year; a €200 million infrastructure fund to open up large development sites; and addressing the obstacles to greater private rented sector delivery, to improve the supply of units at affordable rents.

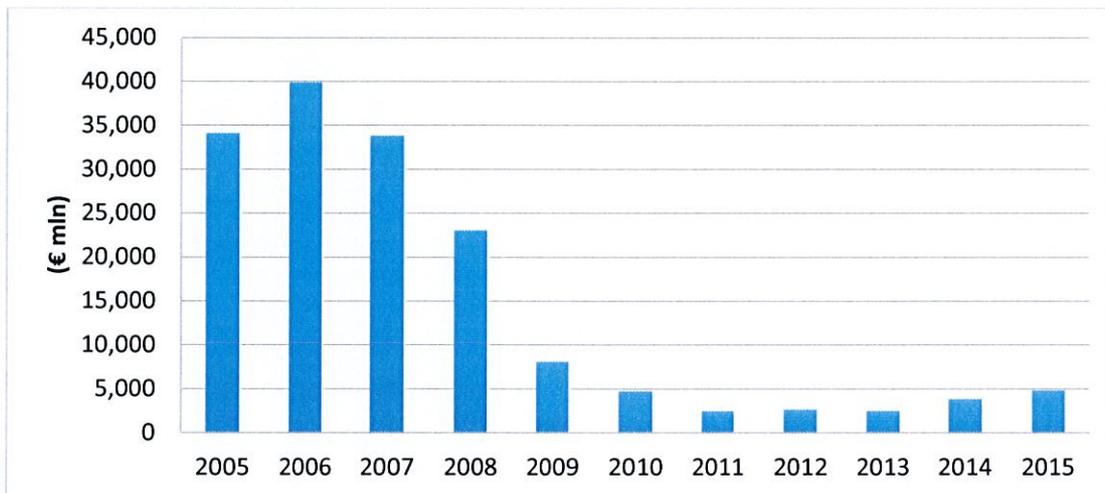
It is difficult to argue with anything in the *Action Plan for Housing and Homelessness*, but the political challenge is to make sure that the Plan is delivered in full. A supply response is the way forward. Giving first-time buyers tax breaks would not work, and the Central Bank lending regulations should not be amended, unless other actions are taken, such as the introduction of Mortgage Insurance. If more money is given to prospective buyers, they will just pay a higher price and exacerbate the upward pressure on house prices.

THE IRISH MORTGAGE MARKET

Mortgage Lending

The availability of mortgage credit is improving gradually, but is a tiny fraction of the market size in 2006, when mortgage drawdowns totaled €39.8 billion. New mortgage lending in 2015, totaled €4.85 billion. This represents an increase of 25.8% on 2014 levels, and 94.3% on 2013 levels. In current circumstances, the optimal size of the mortgage market should be around €10 billion per annum. There is still a long way to go before we get to that level of lending.

Figure 5: Value of Residential Mortgage Loan Drawdowns



Source: Banking & Payments Federation Ireland

Table 1 provides a breakdown of the mortgage market in value terms. In 2015, €2.34 billion was loaned to first-time buyers, which was 24.7% ahead of 2014. This was comprised of 13,824 mortgages, which was 20.5% ahead of 2014. In the first quarter of 2016, the total value of new mortgage lending at €1 billion was 2.5% higher than the equivalent quarter in 2015. First-time buyers accounted for 45.8% of the market, but was 7.7% lower than the first quarter of 2015. Mover-Purchasers accounted for 40.2% of the market and was 6% higher than the first quarter of 2015.

Table 1: Value of New Mortgage Lending

(€mln)	FIRST-TIME	MOVER	INVESTOR	RE-MORTGAGE	TOP-UP	TOTAL
2005	7,717	10,359	6,283	5,038	4,717	34,114
2006	8,448	11,368	7,950	6,067	6,039	39,872
2007	7,250	8,687	6,512	6,675	4,684	33,808
2008	4,833	5,572	4,096	5,295	3,253	23,049
2009	2,671	2,355	798	1,129	1,123	8,076
2010	2,037	1,539	216	461	493	4,746
2011	1,100	916	78	174	195	2,463
2012	1,351	1,032	84	64	105	2,636
2013	1,154	1,133	70	51	87	2,495
2014	1,877	1,665	115	99	99	3,855
2015	2,346	1,947	157	291	125	4,866
Q1'16	462	405	36	78	27	1,008

Source: Banking & Payments Federation Ireland

Table 2 shows a breakdown of the mortgage market in volume terms. The number of new mortgages drawn down in 2015 was 23.5% ahead of 2014, and at 27,324 reached the highest level since 2010. First-time buyers accounted for 50.7% of the market in volume terms in 2015.

In the first quarter of 2016, the total number of new mortgages at 5,446 was 3.1% lower than a year earlier. First-time buyers accounted for 47.7% of the market, but was 13.7% lower than the first quarter of 2015. Mover-purchasers accounted for 32.3% of the market and was 1.9% lower than the first quarter of 2015.

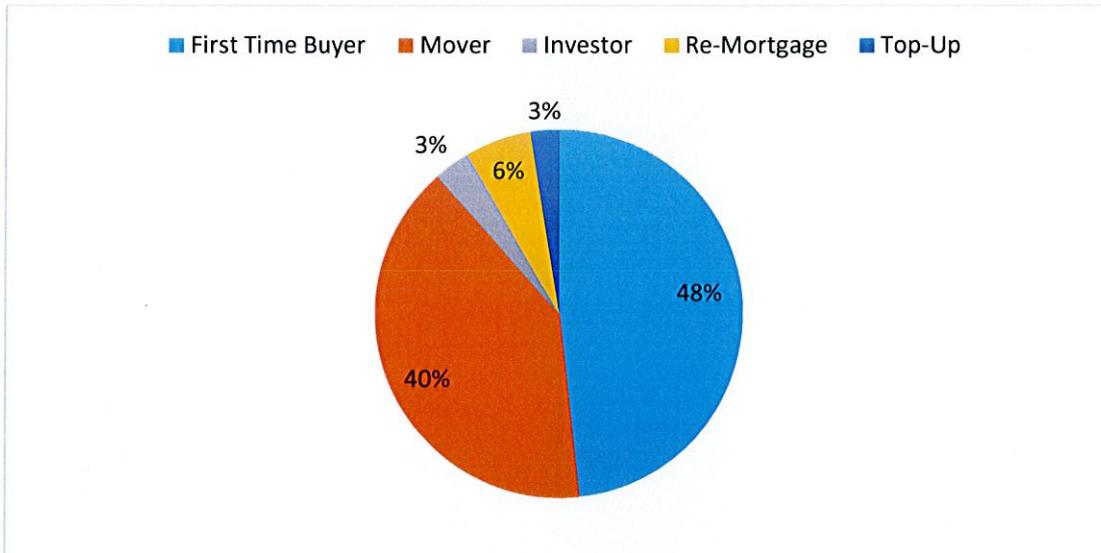
Table 2: Volume of New Mortgage Lending

(€mln)	FIRST-TIME	MOVER	INVESTOR	RE-MORTGAGE	TOP-UP	TOTAL
2005	37,879	46,760	25,856	25,944	64,821	201,260
2006	37,064	45,585	28,141	26,565	66,598	203,953
2007	30,469	32,864	20,861	25,937	47,967	158,098
2008	19,946	20,444	13,226	21,374	35,315	110,305
2009	12,684	9,395	3,018	5,774	14,947	45,818
2010	10,619	6,533	1,161	2,722	6,631	27,666
2011	6,300	4,241	509	1,137	2,005	14,192
2012	8,648	4,921	591	455	1,266	15,881
2013	7,535	5,340	597	292	1,221	14,985
2014	11,476	7,649	1,030	503	1,461	22,119
2015	13,829	8,967	1,370	1,338	1,820	27,324
Q1'16	2,599	1,760	305	392	390	5,446

Source: Banking & Payments Federation Ireland

Despite the Central Bank regulations, first-time buyers remain the largest component of the mortgage market, but it is under pressure.

Figure 6: Breakdown of Mortgage Market (value)

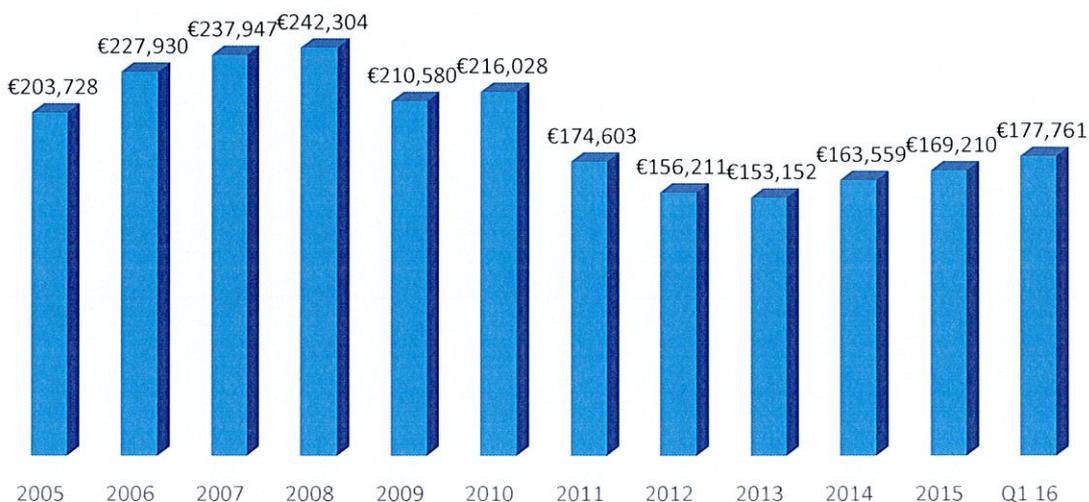


Source: Banking & Payments Federation Ireland

Average Loan Size

Figure 7 shows the evolution of the average loan size for first-time buyers since 2005. Between the peak in 2008 and the low point in 2013, the average loan size declined by 36.8%. Over the same period the average house price (for all buyers) declined by 44.6%. Between 2013 and 2015 the average loan size has increased by 10.5%. Over the same period average house prices have increased by 24.9%.

Figure 7: Average Loan Size First-Time Buyers



Source: Banking & Payments Federation Ireland.

Figure 8 shows the evolution of the average loan size for mover-purchasers since 2005. Between the peak in 2008 and the low point in 2012, the average loan size declined by 23.1%. Over the same period the average house price (for all buyers) declined by 45.7%. Between 2012 and 2015 the average loan size has increased by 2.3%. Over the same period average house prices have increased by 27.6%.

Figure 8: Average Loan Size Mover-Purchasers



Source: Banking & Payments Federation Ireland

Mortgage Arrears

In March 2016, the Irish mortgage market had 743,700 mortgages for principal dwellings outstanding, with a total value of €100.9 billion. Of this total, 85,989 mortgage accounts were in arrears. Of these accounts in arrears:

- 59,696 mortgage accounts were in arrears of 90 days or longer, accounting for 8% of the total number of mortgages. This is down from a peak of 12.9% in September 2013. These mortgages had outstanding balances of €11.9 billion, equivalent to 11.8% of the total value of PDH mortgages;
- 46,490 mortgage accounts were in arrears of 360 days or longer, accounting for 6% of the total number of mortgages. These mortgages had outstanding balances of €9.8 billion, equivalent to 9.7% of the total value of PDH mortgages; and
- 35,792 mortgage accounts were in arrears of 720 days or longer, accounting for 41.6% of all mortgage accounts in arrears. These had outstanding balances of €7.9 billion.

While the mortgage arrears situation is improving, it remains a significant challenge for mortgage providers and mortgage holders.

Figure 9: Private Dwelling House Mortgages in Arrears 90 Days+

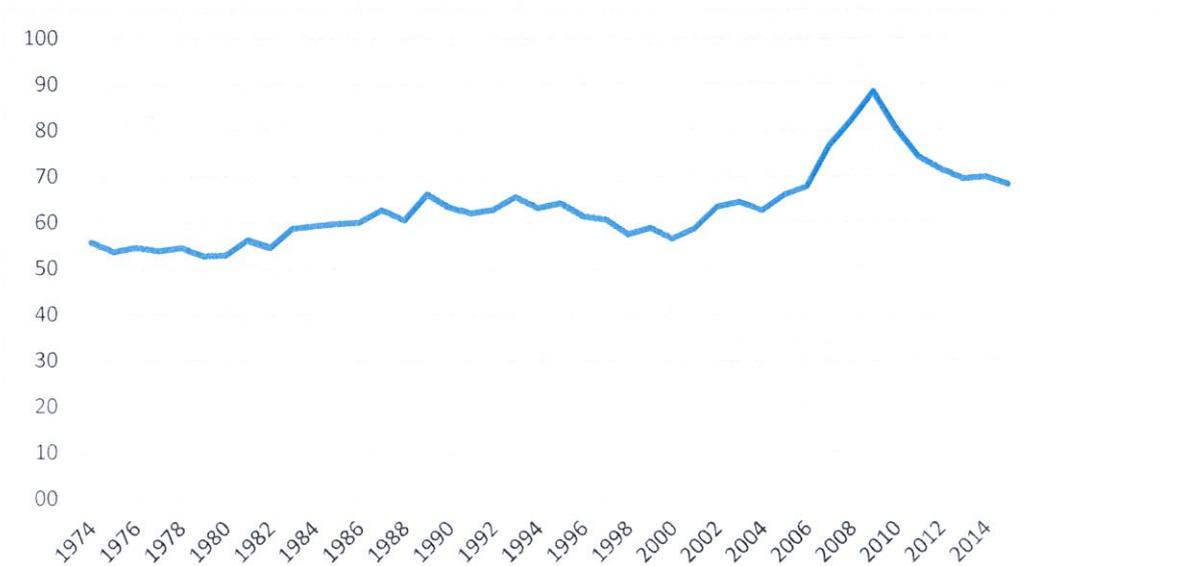


Source: Central Bank of Ireland

Loan to Value Ratio

Figure 10 shows the trend in loan to value (LTV) of new and second hand houses weighted by sales and loan size. The average LTV peaked at 88 in 2009 and has subsequently declined to stand at 68 in 2015, which is still above the long-term average of 63 between 1974 and 2015.

Figure 10: Loan to Value Ratio – New & Second Hand Houses



MORTGAGE INSURANCE

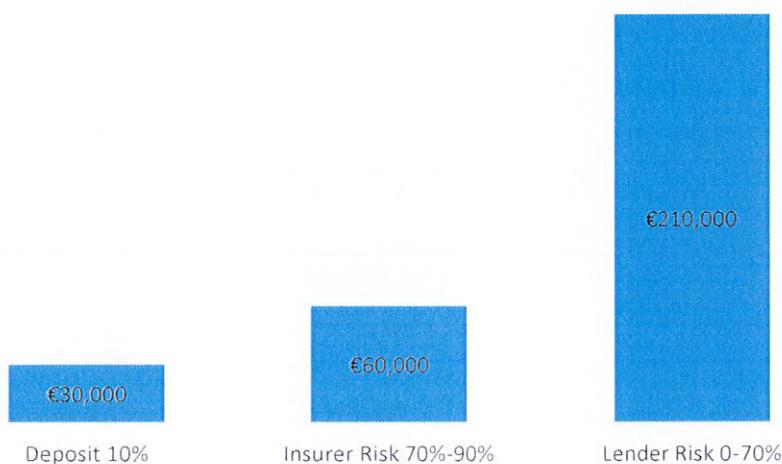
What is Mortgage Insurance?

Mortgage Insurance is primarily a credit risk mitigant that protects mortgage lenders (originators, and/or underwriters) by transferring mortgage risk from lenders to insurers for high LTV mortgages. This in turn increases the availability of mortgages to purchasers that are creditworthy and have the capacity to service a loan, but lack the deposit to meet a high LTV threshold. It also protects the lender in the event of default.

The unsustainable evolution of house prices in Ireland in the period up to 2007 was driven by a combination of factors. The availability of mortgage credit and a marked loosening of credit standards, which resulted in very high LTVs for some borrowers, were instrumental on the demand side. These high LTVs created a serious risk exposure for financial institutions once the correction in house prices started to occur. It ultimately resulted in high levels of mortgage arrears; heavy loan provisioning; and significant losses by the mortgage lenders. A mortgage insurance scheme would have protected lenders from these risks by providing a first loss protection covering the risk between certain LTV values.

Figure 11 shows an example of a 90% LTV mortgage for a house costing €300,000. The purchaser deposit would total €30,000; the insurer would cover that part of the mortgage between 70% and 90% LTV; and the lender's risk would be that part of the mortgage up to 70% LTV.

Figure 11: Example €300,000 90% LTV Mortgage



Mortgage lenders have been under significant pressure to re-build profitability, reduce the size of the balance sheet and hold adequate levels of prudential capital. High Loan LTV mortgages are much more expensive from a bank's perspective, because they are riskier and consequently the banks are forced to hold higher levels of expensive capital provision against the loans (between 4-6 times more capital is held by an IRB lender for a high LTV loan compared to a low LTV loan). Hence there is not much incentive for lenders to engage in higher LTV lending, which is typically required for FTBs.

How Mortgage Insurance Works

A mortgage insurance product can play a very important role in creating a functioning mortgage market where risks are managed prudently. The creation of a universal mortgage insurance model would impose either a mandatory requirement for all lenders or heavily incentivise the provision of high LTV mortgages to put mortgage insurance in place. This would oblige or encourage the financial institutions to insure the portion of the high LTV mortgage above a certain level, such as 70% up to 90%.

Mortgage insurance is a business to business transaction. In the past the insurance product would be provided by a mono-line mortgage insurance company, which would have the effect of transferring mortgage default risk to highly regulated and well capitalised specialist insurance companies. This would help lenders protect themselves against losses arising from the default of borrowers on high LTV residential mortgage loans.

Problems arose with mono-line insurance companies during periods of severe house price corrections, such as the US market in 2008. Mono-line providers suffered massive financial losses, resulting in a collapse in share prices and the ratings of such companies. Basically, they were not able to cope with the level of claims, given that they had a very concentrated business model.

A more effective approach would be to bring together a consortium of insurance companies, for whom mortgage insurance risk exposure would only represent a small percentage of their risk profile. This would help ensure the payment of claims during periods of severe house price corrections, which would not threaten the viability of the insurance company, unlike the situation with a mono-line insurer for whom mortgage risk is a very substantial part of their overall business. A group of non-specialist insurers would tend to follow each other and would get comfort from a consortium based approach, which would also share risks across all of the banks rather than one bank per insurer.

Another significant advantage of having a consortium of insurance companies with an internationally diversified balance sheet and non-correlated risk is that the Central Bank would not end up transferring risk from one regulated entity to another in the same jurisdiction.

Mortgage insurers tend to work closely with lenders when borrowers go into arrears to help keep those borrowers from losing their home. Mortgage insurers are

experienced in restructuring mortgage debt into a more affordable repayment arrangement for the borrower to avoid a foreclosure, which is not in the interests of the lender or the mortgage insurer.

The policy wording would include a 24-month claim settlement in order to qualify for or be in compliance with Basel Significant Risk Transfer rules (SRT). This means that within 24 months from a 3-month arrears situation occurring, a claim can be made by the lender and settled by the insurer based on a pre-agreed formula, even if the loan loss has not materialised. Then when the loss finally materialises or when the loan cures, the claim is 'trued up' and rebalanced based on actual figures.

Under a properly functioning MI model, it would be appropriate for lenders to insist that insurers would waive the right of subrogation, but retain the right to share in recoveries. In effect, insurers would not be able to chase defaulted borrowers for the claim paid, but lenders can. If the lenders are successful, then the insurer should share in these recoveries if a claim has been paid.

Mortgage Insurance would cover the shortfall in the proceeds from the sale of a foreclosed property and the outstanding loan amount up to a predefined maximum amount based on a starting LTV attachment point for each loan, usually 70%.

Lenders will agree appropriate lending criteria, but the insurers could allow some fluctuations within those criteria, depending on prevailing market conditions, but there would be limits, such as 95% LTV limits, shifts in affordability or self-certification.

Lenders would be expected to adhere to their existing policies around underwriting standards, arrears management and recoveries. Insured loans must be treated in the same way as any other loans.

Lenders who take on the MI model, would have to agree to include all loans within the LTV bands, in order to avoid 'adverse selection' or 'cherry picking'.

Mortgage Insurance and Macro-Prudential Supervision

The Central Bank of Ireland plays a key role in macro-prudential policy in Ireland. Under the terms of European Systemic Risk Board's recommendation in 2011, the Central Bank is the designated national authority responsible for certain macro-prudential powers in the Capital Requirements Regulation and Directive (CRR/CRD IV). In November 2014, the Single Supervisory Mechanism (SSM) became operational. At that stage the ECB attained supervisory powers over banks in the Euro Area and in opt-in member states. The ECB was also given a macro-prudential supervisory mandate. Effectively, the ECB and the Central Bank of Ireland have a shared competency in relation to macro-prudential policy.

The objective of macro-prudential policy is 'to mitigate the risk of a disruption to the provision of financial services caused by an impairment to all or parts of the financial system, with serious negative consequences for the real economy'ⁱⁱ. Its aim is to

strengthen the resilience of the Irish banking system and so that it can withstand adverse movements in credit and property prices and other macro-economic shocks.

Specifically, the key objectives of macro-prudential policy for the banking sector include:

- To prevent excessive credit growth and leverage;
- To prevent excessive maturity mismatch and market illiquidity;
- To limit direct and indirect exposure concentration; and
- To reduce the potential for systemically important banks to adopt destabilising strategies and to mitigate the impact of such actions.

Macro-prudential tools are becoming an increasingly important part of policy making, particularly in a global environment where interest rates currently represent a less effective tool of economic management than in the past.

The tools can act in two ways – firstly, certain well-targeted interventions may reduce the likelihood of future financial instability, by for example preventing a build-up of debt in the first place; secondly, they can be used to increase banks' capital buffers in order to make the financial system more resilient in the face of adverse shocks. Such measures can be designed to improve the resilience of the economic and financial system, while having a negligible impact on the outlook for aggregate demand and inflation. This is in contrast to a change in the monetary stance, which would have a greater impact on inflation and aggregate demand.

In 2014, the Irish Fiscal Advisory Council (IFAC)ⁱⁱⁱ assessed the risks involved in the possibility of another house price bubble and warned that the authorities should be careful in responding to any perceived housing problems, that price pressures are not fuelled even further such that these become engrained in expectations. It also stressed the importance of ensuring that the Central Bank has the necessary micro and macro prudential tools in place to control credit growth in the event that bubble-type dynamics develop in the market.

The ultimate objective of macro-prudential policy 'is to contribute to safeguarding the stability of the financial system as a whole, including by strengthening the resilience of the financial system and decreasing the build-up of systemic risk, thereby ensuring a sustainable contribution of the financial sector to economic growth'.

Mortgage Insurance could represent an important element of the macro-prudential toolkit. It can mitigate credit risk and provide a safety cushion to mortgage lenders by transferring credit default risk off their balance sheets.

In a mortgage insurance model, the insurers would have an external role in assessing the mortgage credit, thereby creating better oversight; lenders would not have to hold expensive prudential capital and could offer lower interest costs; higher lending standards would be enforced through the higher level of oversight; the solvency of the financial system would be helped through greater risk

diversification; and most importantly first-time buyers in particular would be helped on to the housing ladder, which is important from a social cohesion perspective.

It is important for policy makers to have as many macro-prudential instruments as possible at their disposal in order to manage systemic risks which can seriously affect the economic and financial stability of a country.

The Bank of England has introduced some macro-prudential measures in an effort to ease activity in the UK housing market. This included a measure to ensure that mortgage lenders do not extend more than 15% of their total number of new residential mortgages at loan to income ratios at or greater than 4.5; and a requirement that when assessing mortgage affordability, mortgage lenders should apply an interest rate stress test that assesses whether borrowers could still afford their mortgages, if at any point over the first five years of the loan, the Bank Rate were to be 3 percentage points higher than the prevailing rate of origination. The Financial Policy Committee (FPC) at the Bank of England noted however, that high Loan to Income ratios can be appropriate for some borrowers. A third element was the introduction of a Countercyclical Capital Buffer (CCB) and Sectoral Capital Requirement (SCR).

In May 2014, the FPC was made responsible by the UK government for setting the CCB and the SCR. The CCB would allow the FPC to change capital requirements above normal prudential standards in relation to all loans and exposures of banks to borrowers in the UK. It is in effect a macro-prudential instrument, which enables the FPC to put banks in a better position to withstand stress through the financial cycle by requiring them to build capital as threats to financial stability increase and then allows them to run it down if financial stability risks crystallise or ease. The FPC is required by law to set the CCB on a quarterly basis.

The SCR would allow the FPC to change capital requirements above micro-prudential standards on exposures to specific sectors judged to pose a risk to the system as a whole. The FPC will be able to adjust SCR for banks' exposure to specific sectors such as residential property, including mortgages; commercial property; and on a more granular basis for subsectors such as high LTV or high Loan to Income (LTI) mortgages. Having mandatory mortgage insurance could achieve the same objectives with reduced risk.

Mortgage Insurance and the Cost of Capital

Mortgage Insurance is not and should not be a substitute for prudent mortgage lending. In fact, the presence of MI, with the assessment of loan applications being reviewed by a solid insurer should strengthen prudence in the mortgage lending process.

Affordability or the ability to service a mortgage should be the key criterion when granting a mortgage. When there is a high LTI, affordability is an issue and creates a significant vulnerability for the borrower and for the lending institution. In 1995, the average new house price in Ireland was 4.4 times greater than the average industrial wage and the average second-hand house price was 4.2 times greater. By 2007, these

ratios had increased to 10.3 times and 12 times respectively. This seriously stretched repayment capacity and once the economy started to correct, the mortgage situation became unsustainable for thousands of highly leveraged mortgage holders, resulting in significant losses and a major shock to the financial services industry and the overall economy.

Risks associated with poor affordability should be avoided by lenders. This is systemic risk. High LTI is a sign of irresponsible lending and should attract negative incentives. Increasing capital requirements on such lending is appropriate as a means of discouraging such lending, but the risks associated with such lending cannot be mitigated.

High LTV mortgages with high LTI further exacerbates vulnerability, but high LTV mortgages can be appropriate for borrowers with high earnings and a strong repayment capacity. There is a strong case to be made for only extending high LTV mortgages to borrowers with strong affordability. The risks associated with high LTV lending are non-systemic and can be mitigated using a product such as mortgage insurance. High LTV lending is riskier than low LTV lending and so should attract higher capital requirements. However, if this lending is backed by Mortgage Insurance the risks are mitigated and potential losses are shared between the lending institution and a well-capitalised insurance company.

Recognition of capital relief under existing EU rules for high LTV borrowing supported by Mortgage Insurance should be considered by regulators. Mortgage Insurance for high LTV borrowing is less risky from a bank's perspective, as the risk is shared with a specialised mortgage insurer. This should give rise to capital relief. Capital relief for MI on a high LTV loan would provide recognition to a lender that behaves prudently. Otherwise there is no incentive for mortgage lenders to engage in high LTV lending, and so borrowers with strong affordability but who cannot get a sufficient deposit in place, will continue to be prevented from getting on to the property ladder.

Mortgage Insurance and Oversight

For a normal mortgage application, the potential loan and the risks involved are assessed by the lender. However, in a situation where there is mandatory Mortgage Insurance, the insurance company has a strong oversight role. The mortgage insurer is in a first loss situation should the borrower default, so it has a strong incentive to apply stringent underwriting standards to lending. The mortgage insurer performs independent audits on mortgage lenders, ensuring strong underwriting and collection standards.

The International Experience with Mortgage Insurance

Mortgage Insurance provides housing finance flexibility for lenders and consumers by expanding the 'underwriting envelope', usually on the basis of loan-to-value (LTV). According to the BIS^{iv}, MI is available in many countries, but is currently used extensively in Australia, Canada, France, Hong Kong, Netherlands, and the United

States. The BIS notes that in jurisdictions where it is used, it may constitute 'a positive part of a safe mortgage system' but that in situations where it is wrongly or poorly used, it may mask risks. It suggests that government policymakers should consider if MI can be used prudently in conjunction with LTV requirements to achieve certain objectives in relation to the local property market.

In Canada and Hong Kong, MI is required on high LTV loans made by regulated deposit-taking institutions. In the US, the Government-sponsored housing enterprises require MI loans they purchase that have LTV ratios above 80 per cent.

In Australia, Canada, France, Mexico, Spain and the UK, MI is incentivised through a lowering of risk-weights for the capital requirements of lenders.

In Canada, Hong Kong, Indonesia, Mexico, the Netherlands and the US, the government participates in the provision of MI. In some, the government or government agency is the dominant or sole provider of MI; while in some countries the dominance is in certain sectors and is socially targeted. In Canada, the government provides a back-stop guarantee against mortgage obligations.

The universal mortgage insurance model operates successfully in many countries across Europe and elsewhere and helps ensure a more prudent, stable and liquid housing and mortgage market.

In the UK in Budget 2013, the Chancellor of the Exchequer introduced a 'Help to Buy' scheme. The UK Government directly insures lenders for the risk in that part of the mortgage between 80-95% LTV, with lenders retaining a maximum of 0.75% exposure on the loan. This has to date proved very successful in reinvigorating the UK housing market. However, the UK government is carrying some of the risk.

A framework that supports high quality lending is deemed to be a feature of those markets that have emerged least damaged out of the global credit crisis. Canada and Australia are good examples.

The BIS Joint Forum concluded that certain types of loans are considerably riskier than others, and these may concentrate risk both in the banking sector and the insurance sectors. Negative amortisation and 100 per cent LTV loans are considered high risk, and jurisdictions should consider whether such loans should qualify for MI, and it concludes that such loans may be appropriate for MI coverage. Examples include high closing cost loans and loans to enable labour mobility where homeowners have negative equity.

The private MI industry should be free to design the MI product based on market demand. However, government should give the Central Bank the ability to intervene where there are signs of the property market overheating. The powers given to the Central Bank should be clear and transparent. This is the approach taken in other countries with similar MI schemes in place, notably the UK and Finland where the BOE and the FSA respectively have been given these powers.

MORTGAGE INSURANCE IN THE IRISH MARKET

In Construction 2020 the Government committed to giving consideration to the concept of a mortgage insurance scheme, which allows banks share the risk of mortgage lending, either with the public sector or with private insurance companies. The key aim of the proposal would be to increase bank lending in general or increase lending to specific target groups. Specifically, it is intended to examine the potential to create a mortgage insurance scheme for first-time buyers who purchase a new house.

It is difficult to provide a clear counter-factual assessment on the impact that the existence of MI might have had on the evolution of the Irish housing and mortgage market since 2000, had it been in place. The reality is that a very irresponsible atmosphere was all-pervasive in the market after 2007. We now know that some banks did not check collateral for mortgage lending; did not check the quality of guarantees; did not check documentation; and did not carefully evaluate affordability and repayment capacity.

In Appendix 1 we have sought to measure the savings for the banks that could have been achieved if Mortgage Insurance had been in place in the Irish market in the period up to 2008. This is based on the payment of mortgage insurance in the event of a repossession. We estimate the savings at €420 million.

In Appendix 2 we consider the savings that would have been achieved if the insurers had agreed to pay the claim some 24 months or 720 days after arrears commencement. Under this scenario, we estimate the savings at €1.5 billion

It is probable that if the MI model had been in place in Ireland since 2000, much of the excess in the market could have been avoided. Hence the correction in house prices would have been less significant and the damage to the financial sector and the overall economy would have been less severe.

The Irish housing market after 2007 experienced a substantial price decline and considerable negative equity for mortgage holders. This negative wealth effect had a significant negative impact on consumer spending and the overall economy. McCarthy & Quinn^v showed that mortgaged Irish households exhibited a relatively large wealth effect out of housing when compared with other countries and households' price expectations appear to be influential in determining their consumption response to shocks. These findings are particularly relevant to those mortgage holders who experienced negative equity.

The key problem for the housing market after 2000 was that it was heavily driven by strong availability of cheap credit; significant innovation in the mortgage market, much of it imprudent; intense competition; and a significant deterioration in lending criteria and underwriting standards.

It is certainly arguable, that if MI had been in place, and if the model had been applied properly from the perspective of the lending institutions, the insurers and the regulators, underwriting criteria would probably have been stricter and more prudent. Some financial institutions loaned money in an imprudent fashion and the regulatory system did not function in an effective manner. If a mortgage insurer had been in a position to oversee the mortgage process, lending based on low or vulnerable affordability metrics could have been avoided.

For a MI model to work properly, the interests of the borrower, the lenders, the regulators of both the lenders and the insurers must be aligned.

The Introduction of a MI model in Ireland at this juncture could have a number of positive impacts:

- Building a sustainable and trustworthy financial system is essential. Excessive availability of credit, often advanced by institutions without prudent checks on the asset value, the borrowers' capacity to pay or a concern to ensure that banks were
- Adequately capitalised or protected for higher risk lending has left a very negative legacy in the Irish financial system, not least in terms of reputation. Building a sound and sustainable mortgage model where all of these issues are addressed would help improve confidence in the underlying mortgage exposure in Irish banks. This should help banks access cheaper external capital and create new routes to secure capital funding, including a more diversified secondary market offering. If the underlying assets are deemed strong, securitisation would become a significant funding option for mortgage lenders.
- Worthy borrowers with strong affordability may not be in a position to provide a deposit of sufficient magnitude to bridge the gap between the mortgage offered and the house price. In the build up to the peak of the housing market in 2007, many borrowers bridged the gap by borrowing short-term and often more expensive money from a Credit Union or some other financial institution. This created a dangerous vulnerability when the economic correction occurred. Borrowers with strong affordability who cannot get a sufficient deposit together should not be forced to take on board expensive short-term borrowing to bridge the mortgage gap. In any event, it is not certain that such borrowing to bridge the mortgage gap would be possible given the current credit constraints in the Irish financial system.
- The underwriting criteria for insured loans would be stricter and more prudent. This should provide greater stability in the event of future market shocks.
- One of the problems in the Dublin housing market at the moment is that after a prolonged period of stagnation, significant pent-up demand is now emerging in the market, and without adequate supply as a result of inadequate house building, prices are being forced higher. The introduction of a mandatory MI product would increase the availability of credit for potential buyers. If house builders believed that potential buyers were able to access adequate mortgages this could encourage greater housing supply. Furthermore,

the introduction of MI would improve the capital raising potential of the banks, which in turn would result in credit availability for house builders and developers.

It would not be prudent for the State to become primary guarantor of any component of the residential mortgage market. Rather, this should be left to the private sector through a mortgage insurance model. Given the financial constraints in the Irish public finances, it would not be prudent for the Irish state to take on more contingent liabilities in the form of a mortgage guarantee. The IMF has cautioned against such mortgage guarantees in view of the implications for contingent liabilities and credit standards.^{vi}

MI should not be viewed as the only element of a 'High Quality Irish Residential Mortgage' and it should not be viewed as a policy in isolation. Other features of the market should include: sustainable debt service coverage ratios, effectively reviewed at regular intervals of time; appropriate LTV ratios combined with a prudent approach to property appraisals; prudent loan to income ratios; effective verification of the borrower's underlying income capacity; comprehensive file documentation of all loan originations kept over time; and effective collateral management and sound appraisal standards.

CONCLUSIONS

In the 'Programme for a Partnership Government, 2016, significant priority was given to solve the housing crisis, which is manifesting itself in significant shortages of social housing, owner-occupier housing and the rental market. A commitment was given to provide 'affordable, quality and accessible housing'.

The national policy imperative is to take measures to re-establish a functioning property market where there is an adequate supply of suitable affordable residential properties for both rental and owner-occupier demand. More housing supply will need to be provided in areas where demand is now clearly outstripping supply, with potentially very negative consequences. To increase housing supply, it will be necessary to re-build a sector that has been decimated and stripped of a vital skills base. Demand-side measures will also be required to ensure an adequate supply of credit and ensure that risk is managed and minimised for all stakeholders.

Mortgage lenders are under significant pressure to re-build profitability, reduce the size of the balance sheet and hold adequate levels of prudential capital. High Loan to Value (LTV) mortgages are much more expensive from a bank's perspective, because they have higher risk attaching and consequently the banks are forced to hold higher levels of expensive capital.

Hence there is a lack of incentive for lenders to engage in high LTV lending, but such lending may be necessary for worthy borrowers, particularly those who have strong earnings capacity, but cannot get a sufficient deposit together. This is particularly the case for some first-time buyers, who are experiencing difficulties as a result of the

sensible prudential measures introduced by the Central Bank of Ireland in February 2015.

The creation of a universal mortgage insurance model would impose a mandatory requirement for all lenders providing high LTV mortgages to put mortgage insurance in place. This would oblige the financial institutions to insure the portion of the high LTV mortgage above a certain level, such as 70%. This would mean that the financial institution would not have to hold expensive capital and thereby would be in a position to offer lower interest rates to borrowers.

Under such a model, the insurer would have an external role in assessing the mortgage credit, thereby creating better oversight; lenders would not have to hold expensive prudential capital and could offer lower interest costs; higher lending standards would be enforced through the higher level of oversight; the solvency of the financial system would be helped through greater risk diversification; and most importantly first-time buyers in particular would be helped on to the housing ladder, which is important from a social cohesion perspective.

The universal mortgage insurance model operates successfully in many countries across Europe and helps ensure a more prudent, stable and liquid housing and mortgage market. In the UK, the Government introduced a 'Help to Buy' scheme. The UK Government directly insures lenders for the risk in that part of the mortgage between 80-95 per cent LTV, with lenders retaining a maximum of 0.75 per cent exposure on the loan. This has to date proved very successful in reinvigorating the UK housing market. However, the UK government is carrying some of the risk. With the proposed Universal Mortgage Insurance Model, this should not be the case.

It would not make sense for the State to guarantee any component of the mortgage. Rather, this should be left to the private sector through a mortgage insurance model.

Rebuilding a functioning property, construction and mortgage sector would pay significant dividends in terms of economic activity, employment, labour market mobility, financial stability & sustainability, and social cohesion.

If a Mortgage Insurance model had been in place in the years leading up to 2008, it is probable that the losses to the financial sector, the extent of negative equity, the level of repossessions and the general economic collapse could have been less severe. Appendix 1 shows the potential impact of such a mortgage insurance scheme. This does not take account of the potential savings that would have occurred arising from the discipline of an independent eye on the market by the Mortgage Insurers providers.

In summary, it is clear that Mortgage Insurance along with the new Central Bank lending regulations would help aid the prevention of housing bubbles in the future and help support the resilience of the banking system.

Appendix 1

An assessment of any savings that might have been realised if mortgage insurance was in place is very dependent on the assumptions made.

Repossessions data are available from the Central Bank from quarter 3 2009 to date. A Central Bank press release of December 2008 finds 128 properties in bank possession between January and June of that year. Based on the ratio of first half possessions to full year for the rest of the data, we estimate that 135 properties were in repossession in 2008. We assume that the properties in repossession are distributed across loan-to-value (LTV) groups in the same distribution as the LTV as time of borrowing, done separately for first-time buyers (FTB) and repeat buyers. This distribution was available from the Department of Environment Housing Statistics.

To take account of the fact that repossessions may reflect borrowing patterns of previous years we use a 4 year moving average of the proportions within each LTV group. This has the advantage of maintaining the impact of high LTVs in the years when 100% mortgages were available, particularly for FTBs.

We distribute repossessions between FTB and repeat buyers based on market share using Banking and Payments Federation Ireland (BPMFI) mortgage drawdown statistics. Average loan size by buyer type is also available from the BPMFI data. The value of the average loan is multiplied by the number of loans within each LTV group to provide an estimate of the value of mortgage debt for each buyer type.

On the basis of our assumptions, we estimate that the value of mortgage debt associated with repossessed properties between 2008 and 2015 is over €1.3 bn. We assume that the borrower is responsible for any debt above 90% LTV and the lender is responsible for any debt below 70%. Thus, mortgage insurance is liable for the debt on LTVs between 70% and 90%. We estimate that this would amount to €420 million in savings if Mortgage Insurance had been in place in the period leading up to 2001.

Table 3: Mortgage debt for repossessed properties, by LTV, € million

	LTV Band		
	<= 70%	71-90%	91%-100%
Mortgage debt, value	€464.31	€420	€469.14

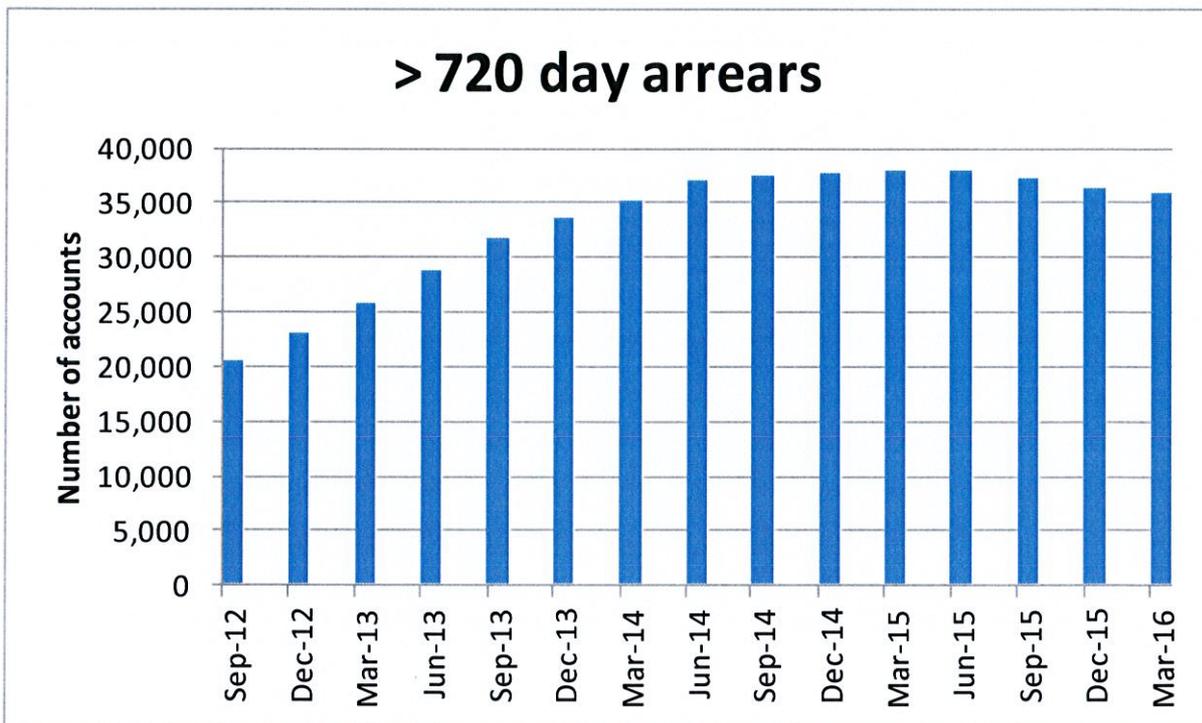
Appendix 2

Scenario II – Mortgage Insurance and >720 days arrears

In this second scenario we estimate the potential savings if mortgage insurance covered those in long-term arrears and claims are made once arrears go over 720 days.

Arrears data from the Central Bank provide us with the number of mortgage accounts in arrears by length of time in arrears and the aggregate value of the arrears. Data on >720 day arrears is available from September 2012, see Figure 12. Long-term arrears peaked in June 2015 and have since declined, albeit at a slow pace.

Figure 12: Long-term Mortgage Arrears, Sept. 2012-March 2016.



Source: Central Bank of Ireland

Using the Central Bank data, we can estimate the liability to be met by Mortgage Insurance. This is based on a number of assumptions;

- a) The arrears on the 20,622 mortgages in long-term arrears in September 2012 are fully paid by mortgage insurance;
- b) The change in the number of mortgages in long-term arrears in the following quarters to June 2015 are also paid by mortgage insurance;
- c) The additional liability each quarter is calculated based on the number of additional mortgages in long-term arrears multiplied by the average level of arrears for those in >720 day arrears;

- d) This additional liability is added to the arrears level from September 2012 to calculate the cumulative liability by June 2015.
- e) June 2015 represents the end-date for the analysis as after this quarter the number of mortgages in long-term arrears begins to decline.

On the basis of these assumptions the estimated level of saving to the economy under Scenario II amounts to €1.52 billion.

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