SUBMISSION TO THE CENTRAL BANK OF IRELAND Macroprudential Policy Measures and the Irish Residential Market

Sherry FitzGerald Research, August 2016

Contents:

Executive Summary

In 2015, the Central Bank of Ireland implemented macroprudential tools[i] that restrict mortgage lending. Since the global financial crisis, similar tools have been deployed in a number of countries as precautionary measures. Their first objective is to safeguard stability in the financial system by building resilience to potential shocks, while also bolstering household resilience. This submission is an analysis, by reference to available evidence, of the impact of these new measures on the market and a review of the current calibrations in Ireland.

Section one of this submission includes an overview of the underlying data on the performance of the residential market in the period since the introduction of the macroprudential rules. Against a backdrop of strong performance in the economy generally, the residential market is dysfunctional in terms of transactional volumes, supply, construction activity and access of important cohorts of buyers to mortgages in particular. All indicators show a residential market in a deep supply side crisis. From our analysis of the market it does appear that the dysfunctional nature of the market is being exacerbated by the application of the macroprudential policies in their current calibration.

Section two provides a synopsis and analysis of data relating to the mortgage and housing markets. Based on a review of the available data on the mortgage market from a risk perspective, we would suggest there is no consistent picture of elevated risk, in Ireland. We would suggest that a number of distinctive local factors already act as a brake on excessive leverage, including the highly concentrated nature of competition in the credit market and the relatively high interest margin being charged to borrowers in the market. In this context, calibrating LTV and LTI tools at their existing restrictive levels raises the question as to whether this is an overly zealous approach and, if so, whether at this point such an approach has net benefits or net costs.

Section three sets out the comparative international practice. Even in Europe, calibration and the impact of these tools differs greatly. Ireland is in a group of countries with the most severe calibration of LTV and LTI type limits. This is surprising given the current modest levels of risk across a range of relevant indicators drawn from international observation. Ireland's tools impact principally at the level of the borrower, rather than the financial institution.

Section four assesses the current calibration of the macroprudential tools, both in the context of the data in the previous sections and in the wider context of the full market impact. It also assesses the consistency, or otherwise, of the position with broader policy initiatives, in particular, the Central Banks' role in supporting economic expansion.

In the final section of the paper we assess the potential benefit of a structured and transparent set of risk indicators that would build clarity on risk identification, and also help to assess effectiveness and guide calibration. Finally, we encourage the Central Bank to publish its cost-benefit analysis for choices regarding the tools and their calibration, in line with some Central Banks in other jurisdictions. In our view, this would help build public support for the measures.

In summary, it is our view that, while laudable in the intent, the excessive prudence of the current calibration of macroprudential policy does impose significant costs on the economy. It specifically, lowers investment, stifles supply of new units and leads to very important cohorts being excluded from the relevant markets. This occurs in our opinion, while there is no consistent picture of elevated risk across a number of indicators used to assess calibration. The current position would also appear to conflict with the recognition by Government of housing issues at the top of the structural agenda of the economy and the society.

Finally, following our review of the market, it is our view that at this stage in the economic cycle, the calibration of the limits and allowances should be amended as follows:

- A maximum of 85% LTV mortgage funding on all PDH mortgages, excluding First time buyers for which a higher LTV threshold should be applicable.
- A maximum of 90% LTV mortgage for First time buyers, preferably with no limit on value. This is more in line with international practice as there are few international examples of a value mechanism being considered necessary.
- If absolute levels of the values of individual housing units need to be specified, then the limit should be increased to €300,000 to reflect the median value of housing traded in Dublin and also put the limit nearer to the estimated economic cost of producing units.
- LTI levels of 4.0 times relating to all properties.

Other recommendations;

We would encourage the Central Bank to publish a transparent set of risk indicators against which to guide calibration, assess effectiveness and help to steer the market with respect to these tools. Having such a publicly available set of indicators would be useful for the transparency of the Central Banks decisions on these tools. In addition, the publication of the cost-benefit analysis of policy decisions and calibrations would be welcomed.

1.0 Overview of Residential Market Trends

A review of leading indicators reveal a residential market in a deep supply side crisis. Against a backdrop of strong performance in the economy generally, the residential market is dysfunctional in terms of transactional volumes, supply and construction activity, and access of important cohorts to the market.

Firstly, an analysis of activity levels during the first quarter of 2016 revealed a reduction in sales recorded in the Property Price Register (PPR), of 9%, compared to the same period in 2015.

The first three months of the year saw sales activity slowing down in all regional centres compared to the same period in 2015. Most notably, Limerick and Galway saw activity reduced by 23% and 25% respectively.

In terms of new dwelling sales, activity decreased by 5% during the first three months of 2016 compared to the same period in 2015. Cash-buyers accounted for 48% of all residential transactions during quarter one 2016, which points to significant market access issues for most buyers.

New construction activity, while improving, is still significantly below market requirements. According to the latest figures from the Department of Environment, Community and Local Government, a total of 4,293 residential units were completed nationally during the first four months of 2016.

Finally, the persistent mismatch between the volume of investors entering the market and those leaving is still fuelling very strong rental inflation, most notably in the large urban areas.

1.2 Demand, Price and Transaction Trends

The Sherry FitzGerald Barometer, which analyses price performance in the established housing market (i.e. not 'new' homes), reveals moderate performance in terms of capital value appreciation in the opening half of 2016, largely consistent with that recorded in the corresponding period in 2015.

The average price of residential property in Ireland rose by 1.4% in quarter two 2016, bringing growth in the year to date to 2.7%, akin to growth recorded in the same period the previous year, 2.8%.

Dublin witnessed continued moderate price inflation. Prices rose by 1.0% in quarter two 2016, bringing the year to date inflation to 1.7%. This compares to 1.5% recorded in the same period in 2015.

House price growth remained relatively strong outside Dublin, with the quarterly national growth excluding Dublin at 1.9%. In the opening six months of 2016, residential price inflation outside Dublin was up by 4.0%, however, the level of growth has slightly moderated compared to 4.7% during the same period in 2015.

Notably, quarter one saw sales activity slowing when compared to 2015. In Dublin, approximately 2,760 sales were recorded, down by 6% year on year. Dublin accounted for the largest portion of total sales in Ireland, 31%. Cork saw just over 1,000 properties transact during the first quarter, down 8%. Activity was down 23% in Limerick and 25% in Galway.

In terms of new dwelling sales, activity decreased by 5% during the opening quarter of 2016 compared to the same period in 2015. However, the average value of new dwellings sold actually increased by 33% nationally and by 9% in Dublin. It should be noted, that given the limited volume of new dwellings sold, this price analysis may prove to be volatile. However, it does appear to support a market held view that the macroprudential rules are limiting sales in the starter home market, but showing increased activity in the mid to higher value new home schemes.

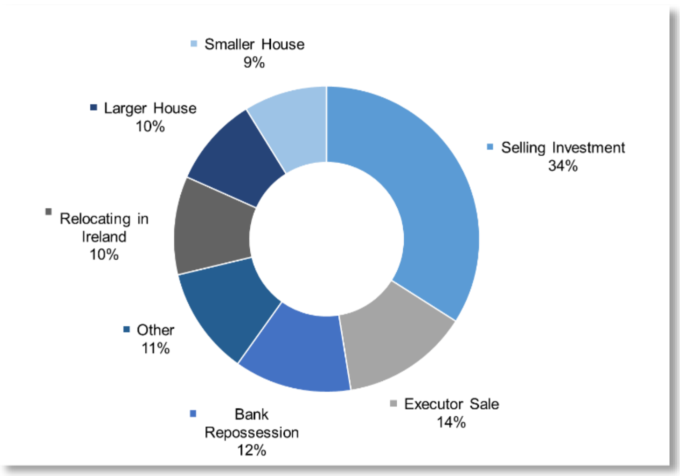
A review of closed transactions through Sherry FitzGerald during the opening six months of 2016 reveals that the volume of private investors leaving the market and the sales following on from bank repossessions remain worryingly high, at 34% and 12% of the total correspondingly. Furthermore, these figures were somewhat higher outside Dublin than in the Capital. This suggests that potentially

46% of all sales were investors off-loading their investment properties. In contrast, only 19% of all properties were purchased by investors.

This is not a new trend, it has been evident for over five years and it is having a debilitating impact on the rental sector. An analysis of Sherry FitzGerald's sales as an indicator for the overall market suggests that, in the five year period 2011-2015 inclusive, net of multifamily transactions, an estimated 34,000 rental dwellings were taken from the market.

This process is underpinning the rental increases being observed in the rental markets.

Vendor profile



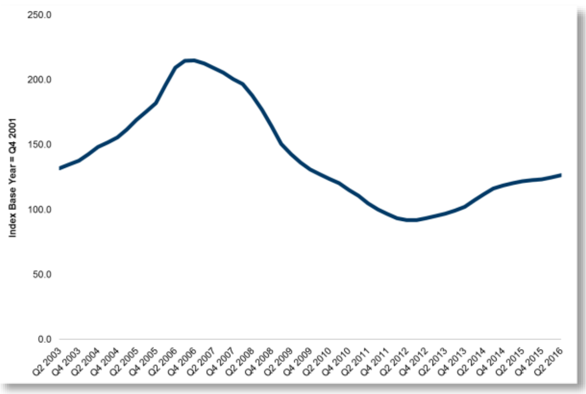
Source: Sherry FitzGerald Research

Purchaser Profile

Profile of Purchasers January to June 2016	Ireland	Dublin
Owner Occupation	70%	77%
Investment	19%	15%
Additional Residence	9%	7%
Development	2%	1%

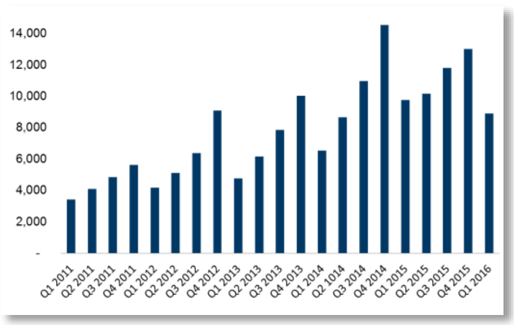
Source: Sherry FitzGerald Research

Sherry FitzGerald All Ireland Barometer of Second-Hand House Prices



Source: Sherry FitzGerald Research

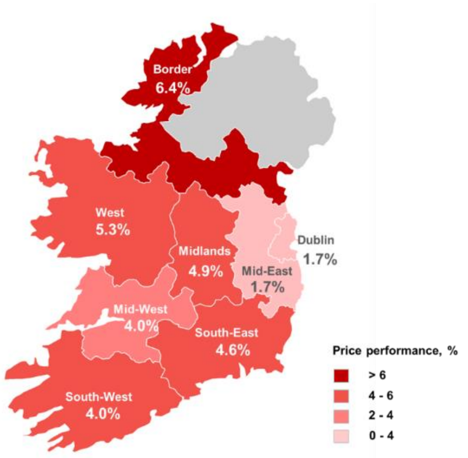
Volume of Transactions – Nationwide*



Source: PPR/Sherry FitzGerald Research

*excl. block/multi-family sales

Regional Price Performance – H1 2016*



Source: Sherry FitzGerald Research

*CSO NUTS 3 statistical regions

Cash buyers remain prevalent in the housing market. A comparison between sales recorded in the PPR and data on mortgage drawdowns provided by the Banking and Payments Federation Ireland (BPFI), reveals that cash-buyers accounted for 48% of all residential transactions during the first quarter of 2016. Excluding top-ups and re-mortgages, a total of 4,664 mortgages, with a value of €0.9 billion, were drawn in the first three months, reflecting a 9% decrease year on year.

1.2 Supply Trends

In terms of supply, the latest available data for residential building activity reveals a market which is expanding moderately, however, output levels look set to remain significantly below market requirements.

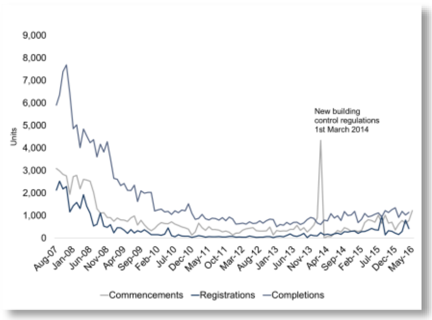
Although not within the immediate scope of this submission, it is noteworthy that the market consensus is that the sustainable level of annual housing output, bearing in mind demographic and household formation data, is approximately 25,000 units per annum. Significantly less than this number have been produced over the last decade. Due to this growing latent demand in the market, it is our view that the required level of output to bring the housing market back to a supply-demand balance is approximately 30,000 units per annum.

According to the latest figures from the Department of Environment, Community and Local Government, a total of 4,293 residential units were completed nationally during the first four months of 2016, up by 20% compared to the corresponding period in 2015. While completions in Dublin increased by 43% year on year, volumes remain below the projected minimum required level in the Capital. Volumes in Cork increased by 53%, whereas disappointingly, the volume of completions were moderately down year on year in both Galway and Limerick.

An analysis of commencement notices recorded through Local Government Management Agency (LGMA), reveals that a total of 4,066 units nationally were given commencement notice during the first five months of 2016, up 39% on the same period in 2015. Dublin recorded 1,337 units, representing an increase of 37% year on year. Similar to the previous year, activity was largely concentrated in Fingal. Outside Dublin, volumes were up in all the regional centres, with Cork accounting for most of the commenced units, 546, or 13% of the national total.

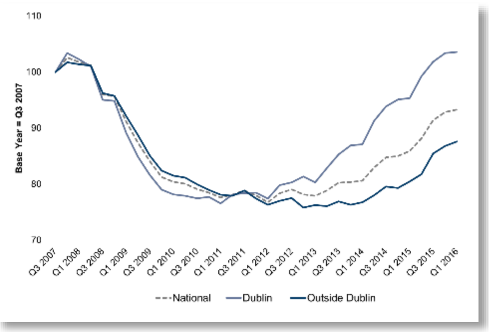
Residential Building Activity

2007 - 2016



Source: DoECLG

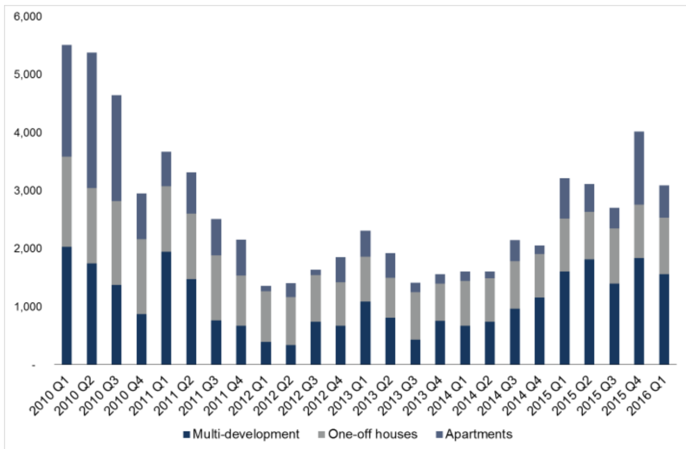
Rent Index, Private Residential Tenancies Board



Source: PRTB/ESRI

Planning Permissions by Type

2010 – Q1 2016



Source: CSO

Translating this uplift in commencement notices into potential completions is challenging however, given the role that the completion of partially built units played in driving overall development levels over the past ten years. As such, even with the uplift in commencement data, there is downside risk to final completion levels for 2016 and 2017 due to the reducing contribution of partially built units to overall stock.

According to the latest data from the Central Statistics Office for the opening quarter of 2016, a total of 3,091 new dwelling units were granted planning permission. This represents a reduction of 23% on the previous quarter, however, it is worth noting that the final quarter of 2015 saw a five-year record high in the number of permissions granted. When the figures from quarter one are compared to quarter one 2015, volumes are only moderately down, by 4%.

There are a number of factors inhibiting supply, including high mandated costs of construction, availability/use of land and infrastructure, risk of delays in the planning process and so forth. Sherry FitzGerald Research is currently collaborating with The Economic and Social Research Institute (ESRI) to provide some empirical data that will underpin current development costs and this will be available in autumn 2016.

In the interim, our feedback from the market is that the restrictive nature of the macroprudential tools is a significant factor in the reduced level of supply. Producers of housing units have reflected in their output decisions the concerns of first-time buyers and other key cohorts in the market regarding the accessibility of mortgage finance for the market.

The dynamic of the imbalance between supply and demand, falling transactional levels and also the exit of investors from the private rented sector is having a profound effect on the housing challenge faced by citizens, particularly the increasing number forced into the rental market.

Notably, annual average rents nationwide increased by 8.6%, according to the Residential Tenancies Board (RTB) index. The average cost of renting an apartment in Dublin is currently €1,306 per month, whereas renting a house on average costs €1,454.

As further detailed in section four, increasing levels of homelessness and severe housing shortages have become a serious societal and political issue.

Furthermore, Brexit will undoubtedly bring challenges for the Irish economy and will likely pose a challenge for the housing market, as Brexit may lead to an uplift in occupier demand and housing rental demand from the foreign direct investment sector. In particular, Dublin may benefit from increased demand from financial services companies in need of an EU base. This will lead to further increased demand for housing.

1.4 Transaction Price Analysis

An analysis of units traded in Dublin in the opening quarter of 2016, with comparatives to quarter one 2015 as registered in the Property Price Register, gives some interesting insights into the volume of units traded at various price brackets.

Value Breakdown	2015 Q1		2016 Q1		ANALYSIS 2016 vs 2015	
	Volume	% of total	Volume	% of total	% Unit Change	Cum % Vol of Units Traded - 2016
<€200,000	**792**	27.0%	**645**	23.4%	-19%	**23.4%**
€200,000-€220,000	**156**	5.3%	**144**	5.2%	-8%	**28.6%**
€220,000-€240,000	**168**	5.7%	**177**	6.4%	5%	**35.0%**
€240,000-€260,000	**209**	7.1%	**163**	5.9%	-22%	**40.9%**
€260,000-€280,000	**188**	6.4%	**174**	6.3%	-7%	**47.2%**
€280,000-€300,000	**162**	5.5%	**144**	5.2%	-11%	**52.4%**
€300,000-€400,000	**496**	16.9%	**483**	17.5%	-3%	**70.0%**
€400,000-€500,000	**267**	9.1%	**322**	11.7%	21%	**81.6%**
€500,000-€600,000	**176**	6.0%	**166**	6.0%	-6%	**87.6%**
€600,000-€1m	**321**	10.9%	**341**	12.4%	6%	**100.0%**
Total	**2935**	100%	**2759**	100%	-6%	**100.0%**

Source: Sherry FitzGerald Research/PPR.

In the opening quarter of 2016, there was a 6% decline in units traded in Dublin, which is consistent with the reported dampening of market activity. This decline includes a significant 17% reduction in units traded under the €220,000 price level, made up of a decline of 19% in units up to €200,000 and an 8% fall in the €200,000 to €220,000 category. Only 28.6% of units traded fell within this €220,000 level. This effect will bring more first time buyers within scope of the "stepped" arrangement for deposit requirements.

The median price of units traded was just shy of €300,000 on the basis that 52.4% of units were sold at less than €300,000.

Under the current "stepped" calibration, if a first time buyer sought to buy this "median" unit they would require an additional deposit of €8,000, because of the stepped nature of the rules. In our experience, such additional hurdles are quite significant for first time buyers, who typically have to contend with, amongst other things, high rents in their current accommodation.

The market has expanded, in absolute and relative terms, in the €400,000 to €500,000 area.

Our data from developers is also reflective of these changes. Developers are cautious about producing starter homes for first time buyer cohorts. They are particularly concerned about the challenging mortgage environment faced by this cohort of purchasers, given the fact that the typical cost of producing a 3 bed semi-detached unit, is in the region of €330,000, as per the recent Institute of Chartered Surveyors Survey.

1.5 Conclusion

The residential market remains in a very dysfunctional state. Activity levels, in terms of transactions and construction, remain below trend with downside risk in the short to medium term. Price growth is relatively stable, however, the pressure of pent up demand is putting greater pressure on the rental sector, generating extraordinary rental value growth.

This dysfunctional market is being further impeded by the stringent nature of the macroprudential policy rules for mortgage lending. It is our contention that the application of these rules is negatively impacting demand and new construction activity in the essential starter home market. Furthermore, the delay in first time buyer demand is putting increasing demand side pressure on an already constrained rental sector, which is putting increasing upward pressure on rental levels.

2.0 Mortgages Market, Risk and the Housing Market

From a review of the available data on the mortgage market from a risk perspective, and an analysis of a number of indicators used internationally to assess calibration, we would suggest there is no consistent picture of elevated risk in Ireland. We note that Central Bank's Countercyclical Capital Buffer (CCB) announcement on 1 April 2016 maintained the CCB rate on Irish exposures at 0%, noting that credit developments remain subdued, credit growth is weak, the outstanding stock of credit is below trend, new domestic lending for property related purposes by Irish banks remains relatively modest, and there was no current evidence of increasing imbalances or vulnerabilities.

Real estate markets are not in a state of exuberance. If the underlying risk that these tools are seeking to address is financial stress arising from exuberance in real estate markets, then this is not such a time. Construction as a percentage of the economy is still significantly less than it is in most other developed economies. Supply issues are driving prices, including the impact of the macroprudential policies on the output of builders, not an excessive amount of credit. In any event, even if headway were made on other supply issues, which may take a number of years, there are several other local factors which mitigate against credit-driven over-exuberance:

- Borrowers' face higher borrowing costs than in other jurisdictions because of the competitive concentration factor in the Irish market place – this alone militates against tight use of the tools.
- Meanwhile, our main mortgage lenders have been recently recapitalised and have had macroprudential buffers imposed.
- Tax treatment of housing has a significant effect on credit and house price growth[ii]. This is currently a further negative on the growth of credit.
    - In Ireland, tax treatment of property purchasing is punitive in the structures that would have the potential to take on debt from Irish financial institutions
    - 75% allowance of mortgage interest on residential buyers in the buy-to-let sector
    - High marginal tax rates
    - Major block purchases are encouraged by funding structures for overseas investors, but these are generally lightly geared as regards domestic financial institutions.

We have applied a set of risk indicators that are used internationally in this area (more detail in Appendix 3). A summary of our analysis is presented here as well as overview commentary:

BoE measure	*Irish data, published as of June 2016*	*Concern re indicator?*
LTI and LTV ratios on new residential mortgages	• Average balance for all loans was approximately €164,718. • Median Originating Loan to Value (OLTV) was 77%. First Time Buyers (FTBs) have a higher average OLTV when compared with second and subsequent buyers (SSBs) (75% to 59%). Majority of these loans were originated or approved prior to the introduction of the CBI restrictions.	No.
Household credit growth	• The growth in loans for house purchase remains negative. • Private Dwelling Houses (PDH) credit outstanding is in decline (-0.6%), pace of decline shows some signs of stabilisation • Continued declines (-9.6%) for Buy-to-Lets (BTL). • While there has been a recovery in the domestic economy, households continue to deleverage. • Deleveraging and decline is continuing for non-mortgage consumer credit.	No
Household debt to income ratio	• Household debt sustainability continues to improve • Debt-to-income and debt-to-asset levels decreasing • Irish household indebtedness remains high in a European context. • As regards mortgage arrears, default rates were lowest in Cork, Dublin and Galway, where capital values are highest. • Arrears rates were high in counties in the Border and Midlands regions, where capital values are relatively low.	Possibly, due to high legacy levels.
Approvals of loans secured on dwellings	• New mortgage approvals (both value and number) have fallen year-on-year in Q4 2015, from €1.5bn to €1.3bn. • The number of new loan approvals has also decreased from 8,339 in Q4 2014 to 7,124 in Q4 2015.	No, from a financial stability view point.

	• FTB being squeezed - as of December 2015, FTBs accounted for 49.4% of new loans which is down on previous observations and note the approvals are falling in absolute terms also.	
Housing Transactions	• Our data indicates falling transaction levels • Value and number of new mortgage loans increased year-on-year to Q4 2015. This continues the trend from 2014. • There has been an increase in the value of new lending between Q4 2014 and Q4 2015, from €1.34bn to €1.45bn. • Number of new loans has increased from 7,583 in Q4 2014 to 8,103 in Q4 2015. • Lending volumes remain below levels seen in the period 2005-2007 • FTBs share in total lending fell marginally	No
House price growth	• No evidence that house prices have become "increasingly disconnected from fundamentals" (as cited on page 5 of CP-87)[iii] • "The latest data available to the Central Bank on house purchase prices for first-time buyers nationally suggests the median house price was €200,000 for the first half of 2015.[xvii]"	No
House price to household disposable income ratio	• House price-to-income index is just below its long-run average	No
Rental yield	• Rental yield is above the long-term European average	No
Spreads on new residential mortgage lending	• The interest rate in Ireland as of February 2016, at approximately 3.38 per cent, is the highest of the countries presented. • See comments above re measure of highly concentrated competition	No. Indicates another barrier to over-leverage

3.0 Comparative International Practices

A review of international experience of the application of macroprudential policies reveals some interesting disparities in its application. As these tools are positioned as precautionary in nature, surprisingly some of the larger financial systems such as France and Germany do not at this point have LTV and LTI tools in place. In the US policy makers appear to have paid little attention to many of the macroprudential aspects of real estate lending including LTV and LTI tools. The following is a summary of the 16 European countries with LTV/LTI tools [iv]:

Overview of LTV and LTI limits, in cases where EU countries have implemented

Feb-16

	LTV based measures			LTI measures		Comments
	Main	FTB	Collateral	Type	Level	
Malta	70%					
Cyprus	80%					
Hungary	80%			DSTI		
Ireland	80%	90%		LTI	3.5	
Estonia	85%			DSTI	50%	
Lithuania	85%			DSTI		
Norway	85%					
Poland	85%		90%			
Romania	85%		95%			
Sweden	85%					Min amortisation above 70%
Czech Republic	90%					
Finland	90%	95%				
Latvia	90%		95%			
UK				LTI times	4.5	
Denmark	95%					
Netherlands	100%					
Slovakia	100%					Limits on proportion >90%

It is worth noting that Ireland is in the group of countries with the most severe calibration of LTV and LTI type limits. It should also be noted that these limits are currently calibrated despite deploying the other lender level tools, the Countercyclical Capital Buffer and Other Systemically Important Institution Buffer (for 2 lenders).

In particular, there are few, if any, examples of specifying unit values for properties similar to Ireland's €220,000 limit that applies to first time buyers. Whatever risks are considered as arising, such that a first time buyer making significant trophy purchases, are usually dealt with at the level of bank lending policies.

Ireland's tools impact principally at the level of the borrower, not the lender. Furthermore, in promoting LTV and LTI tools as the main policy tool, the regulatory focus is on those taking out new mortgages in particular. In a number of other EU countries, including those with important places in the financial stability system, the focus of macroprudential policy is principally in regulating the balance sheets of the financial institutions. At this level, tools include liquidity limits and increased risk weighting; a Countercyclical Capital Buffer; a Capital Conservation Buffer; a Systemic Risk Buffer; additional buffers for Global Systemically Important Institutions, of which Ireland has none designated to date, and what is classed as "Other Systemically Important Institutions", of which Ireland currently has two designated. The Central Bank has already mandated the building of significant buffers at the level of the Irish lending institutions and has put this process in place.

A number of distinctive local factors act as a brake on excessive leverage. The highly concentrated nature of competition in Ireland is a standout factor in our market and, as further set out in Appendix 2, this is reflected:

- In the calculation of the Herfindahl index (HH Index) for the stock of outstanding Irish mortgages, values of greater than 1800 are internationally accepted by competition practitioners to be high. The current Irish level (at greater than 2100) exceeds this threshold, this indicates a highly concentrated market. The index has increased since the onset of the crisis and is currently high in a historical Irish perspective due to market exits, mergers and loan transfers.
- Irish borrowers for new homes face the highest lending margins across Europe. The interest rate in Ireland as of February 2016, at approximately 3.38 per cent, is the highest of the countries presented in recent data.

In this context, calibrating LTV and LTI tools at some of the most restrictive levels raises the question as to whether this is an overly zealous approach and, if so, whether at this point such an approach is beneficial in overall terms in the current circumstances.

4.0 Overall Assessment of the Central Banks Macroprudential Policy

This section provides an overview of the wider implications of the macroprudential policy. The implementation of the macroprudential tools has been the most significant differential intervention in the market in the past eighteen months, bearing in mind that the other developments would have had a supportive impact on the market, such as lower interest rates and continued growth in national income levels. Although a direct causal link is difficult to establish, we present, in this submission, a selection of the relevant data as we see it and our professional opinion as regards the impact of the policies on this housing and mortgage market.

In addition to the changes noted in Section 2 above, the following changes are, in our view, significantly linked to the policies:

- Many citizens excluded from the mortgage and housing market
- A build-up of unmet housing and home ownership demand
- Access to housing being a significant societal, political and economic issue
- Supply issues driving prices, including the impact of the macroprudential policies on the output of builders.

The impact of the policies has resulted in a redistribution of limited credit away from important cohorts in the housing market. We note that "[Central Bank] acknowledge that our measures impact on individuals' ability to access credit and purchase houses"[v]. However, it should be noted that the restrictions apply to significant categories of participants in the market. The issue in our view is therefore less one of individual access but rather market discrimination against important cohorts in the population.

In terms of assessing the policy, we would observe that much of the Central Banks' analysis to date focuses principally on those who are successful in financing housing with credit, using measures such as loans approved, loans drawn down and the data related to the LTV, LTI indicators of these loans. The approach takes little, if any, account of those who are unsuccessful or do not apply for credit and who appear in the rental sector, homelessness, social housing waiting lists and other inappropriate settings that impose significant social and economic costs on households, businesses and the economy as a whole. This must be addressed as part of this review.

Those excluded include:

- The younger age cohorts whose income will rise as their careers progress. These are critical demographic cohorts for the household formation stage as well as for the mortgage and housing markets. In our view, and as further outlined in this submission, the €220,000 specification and the allowances to lenders are simply not adequate to deal with property types and demand in these cohorts and hence many buyers are not able to access mortgages or housing.
- Buyers based in areas where capital values are relatively high (Dublin in particular); there is a well recognised phenomenon whereby property market participants trade off price and rental level in a capital city for increased amenity and enhanced opportunity for income growth in the future. This is not captured in the absolute levels used in the calibration of Central Bank's tools. We also note with great interest the evidence that mortgage arrears are lowest in the urban areas where capital values are highest.
- Buyers who could apply high rents that they are paying to fund mortgages, but by requiring a substantial up front deposit amount, the current approach allows them no ability to reflect their ability to service loans.
- First-time buyers do not have existing housing equity gains to contribute to a deposit but who may expect increases in their income. For these reasons, high LTV and LTI mortgages are more prevalent among first-time buyers. First-time buyers play an important role in a well-functioning market — in order for other owners to exit from housing ownership they must, in turn, be replaced, for example, by new entrants. The current policies break this important cycle in the market.
- There are now additional cohorts of non-first time buyers who have been labelled "Worst Time Buyers" in the media, i.e. they are recovering from making purchasing decisions at times when market values were at or close to their peak. Generally still in the younger cohorts and now perhaps with a growing family, these buyers still have housing needs but are being held to deposit standards and LTI standards that they typically cannot meet.
- Buyers who are buying property following a marital breakup – these buyers are treated as second and subsequent buyers who have, it is assumed, access to existing equity but this is frequently not the case.

As such, the current approach may partially mitigate the impact of problems in the future but at a cost today of lower output of housing, lower levels of growth, and a redistribution of limited credit away from important cohorts in the housing market.

To date, the Central Bank has described at a high level the benefits of the current approach. The main benefit of macroprudential policy will be the reduced probability of losses stemming from a crisis or from the amplification of shocks by the financial sector. While the quantitative benefits of the tools can be estimated in terms of reduced credit losses and fewer highly indebted households, it is difficult to quantify the reduction in the probability of crises that would result, or the timing of these benefits.

Dell'Ariccia et al show that the use of macroprudential tools decreases the probability that credit booms end up in a banking crisis by about 20%. However, it is important to note that these tools will not fully eliminate the risk nor indeed is there any evidence that it will mitigate the majority of the risk.

The marginal benefit of a particular policy choice, or calibration, depends on the effects of, and interactions with, other policies. Accordingly, it is important to see the benefits in the context of other policies. As further detailed below, we are concerned that benefits that are currently expected from the relatively more severe calibration in Ireland are compromised by the obvious conflict between this and other economic policies and government priorities.

There are also costs in setting the parameters at the current level to achieve less stress in the financial system. In a general sense, these are less output (particularly of housing stock); reducing GDP growth in the short run, for example through reduced housing investment and other related spending; higher unemployment; lower inflation.

As the limits only apply to mortgage lending, there could be some substitution towards other types of lending, for example into unsecured forms of credit if borrowers opt to improve or extend existing homes rather than move. Furthermore, when the impact of a limit would be to postpone borrowing rather than eliminate it, these effects would be temporary and unwound when the transactions took place.

There are the direct costs imposed on the institutions in implementing the new policy, as these tools tend to raise the cost of intermediation and credit as it internalises externalities. Those higher costs can affect longer-term growth, by shifting the composition of output away from capital spending. In the short run, the direct effects of imposing or recalibrating the tools are likely to be on the distribution of mortgage lending and the expectations of lenders and borrowers. The likely result of these policies would be fewer loans being extended or smaller loans being extended than would have been the case without the policy action.

All of the above is leading to a situation where current calibration conflicts with other policy initiatives, including the likely direction of fiscal policy and policy initiatives to solve one of the largest structural problems in the economy - the provision of housing[vi]. This is clearly evident from the recent "Rebuilding Ireland" policy document. The current policy and tools are constricting the manner in which housing supply responds to household formation.

We recognise that the macroprudential tools are, of their nature countercyclical. "*Effective countercyclical macroprudential policy will be pre-emptive—taking away the credit punch bowl as the party gets going and making sure it is full when the party dies down*." [vii] However, we are extremely concerned by the costs imposed on the economy by the dysfunctional nature of the current market.

We are concerned that excessive prudence in the financial stability area is in conflict with policy initiatives elsewhere and we question the net benefit in terms of stability, particularly when risks are low-to-modest and housing is a critical issue in the structure of the economy.

Central Banks typically have a dual mandate and, while recognising financial stability as an important objective, many also choose language, approaches and calibrations that are reflective of a supportive role in growing the economy. This is not at all inconsistent with financial stability. It should be part of a broader and more holistic approach to achieving the stability objectives.

Such issues raised above are not policy matters that are beyond the remit of the independent Central Bank in Ireland. They are pivotal to structural improvements in the economy. Central Banks ought to be independent in terms of its outlook and decision making but are not an independent sector of the economy. The tools ought to be as set out in CP-87, the Central Banks consultancy document "consistent with sustained growth in aggregate credit supporting the effective functioning of the housing market and on terms that do not place financial stability at risk". In our view, currently this is not the case and this needs to be addressed as part of the review.

It is our view, that the current tools and calibrations are overly zealous and the costs are outweighing the benefits. The benefits, at this stage in the cycle, are minimal and appear rather inappropriately, to be aimed at bubble-busting exuberance. The message that the measures send to the market place is that demand in the housing market is not encouraged and supported at borrower level. In particular, the current calibration is dis-incentivising the supply of housing at a time when it is a critical constraint in the economy and one which, without effective policy responses, is causing additional economic costs and distress to households.

5.0 Risk Identification and benefit of a structured and transparent set of risk factors

It is commonly agreed that risk identification is the foundation for macroprudential action. If there is a clear and present danger to financial stability, it makes sense to immediately curtail credit expansion. There is no evidence that this is the current situation in Ireland. These tools are therefore focused on a second class of macroprudential actions: measures that insure against tail risks and therefore reduce the possibility of future instability. These tail risks are unlikely events and not fully reflected in market prices that might have systemic effects—events for which the financial system and its customers might not be fully prepared[viii].

Following the recent re-capitalisation of Irish banks and the actions of the Central Bank in establishing a framework of buffers addressing the vulnerability of lenders, one prominent externality that remains is the business cycle effect of the behavior of heavily indebted households - heavily indebted households cut back disproportionately on spending in the recession.

This is important because the instruments and calibration need to target the specific risk identified. In the current Irish context, LTV is not a very strong measure to target households, because the loans can continue to rise with rising valuation levels

The regulatory burden falls on those seeking new mortgages. On an individual household basis, highly leveraged households are unlikely to be seeking or be able to access further mortgage lending credit. In any event, refinance and mortgage distress are not within the scope of these limits.

The high levels of debt to income in Ireland by international standards is a legacy of the recent financial crisis and, notwithstanding the current trend of deleveraging, it will be largely unaffected by the tools given the long term maturity of these loans.

Contrary to the situation one year ago, the system now has the benefit of additional tools in place, specifically lender capital buffers to achieve the same or similar outcomes.

That said, there is no doubt that a structured and transparent set of risk indicators that would build clarity on risk identification and also help to assess effectiveness and guide calibration of these tools would be very beneficial. In our view, it would be helpful to identify such indicators, which would allow the Central Bank to guide, in advance, ranges for parts of the cycle when distress might be emerging as a heightened risk.

It is entirely appropriate that the tools may be calibrated in different ways at different points in the housing and credit cycles. This should make the process dynamic rather than static. In an ideal world – including the benefit of a widely understood set of risk indicators - trigger points could be identified and these changes could be signalled to the market in advance, to allow for rational planning.

While no single set of indicators can ever provide a perfect guide to systemic risks from the housing market, the Central Bank should routinely review these core indicators which have been helpful in identifying emerging risks to financial stability from the housing market in the past. The indicators would be considered alongside those for the other macroprudential tools like lender capital buffers, market and supervisory intelligence, and 'stress tests' to judge which of the Central Banks' tools — including existing capital tools or these housing tools — might be most appropriate in response to risks stemming from a particular sector of the economy or in aggregate.

This approach is adopted in other countries, where core indicators suggested for LTV and DTI limits include measures of lender and household balance sheet stretch and measures of conditions and terms in the housing market. One example is detailed in Appendix 3.

Finally, we urge the Central Bank to publish its cost - benefit analysis for choices regarding tools and their calibration. In our view, in addition to building public support for these tools, this need is particularly heightened if the Central Bank wishes to continue with the current levels of calibration of the tools.

We note that the Central Bank insist in its public statements that "*We must take a medium to long term view*." We acknowledge that, in general, the costs of tools like DTI or LTV limits taking effect would be more apparent in the short term while the benefits accrue over the medium to long term. Nevertheless, in reaching a policy decision, we would expect that the Central Bank ought to weigh expected benefits of an action against expected costs and to set out clearly and publicly its quantification and rationale.

6.0 Recommendations

Finally, following our review of the market, it is our view that at this stage in the economic cycle, the calibration of the limits and allowances should be amended as follows:

- A maximum of 85% LTV mortgage funding on all PDH mortgages, excluding First time buyers for which a higher LTV threshold should be applicable.
- A maximum of 90% LTV mortgage for First time buyers, preferably with no limit on value. This is more in line with international practice as there are few international examples of a value mechanism being considered necessary.
- If absolute levels of the values of individual housing units need to be specified, then the limit should be increased to €300,000 to reflect the median value of housing traded in Dublin and also put the limit nearer to the estimated economic cost of producing units.
- LTI levels of 4.0 times relating to all properties.

Other recommendations;

We would encourage the Central Bank to publish a transparent set of risk indicators against which to guide calibration, assess effectiveness and help to steer the market with respect to these tools. Having such a publicly available set of indicators would be useful for the transparency of the Central Banks decisions on these tools. In addition, the publication of the cost-benefit analysis of policy decisions and calibrations would be welcomed.

7.0 APPENDICES

Appendix 1

- Loan to Value (LTV) limits on new mortgage lending
  - For non-first time buyers of primary dwelling homes (PDH): A limit of 80% LTV applies
  - For first time buyers (FTBs) 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 to any excess thereafter.
  - Total loans for PDH purposes which breach either of these above limits should not exceed 15% of the total loans (by value) by a lender.
  - Buy to Lets (BTL) - For non-primary dwelling home purchases: A limit of 70% LTV applies, which should be exceeded by no more than 10% of the total loans (by value) for non-PDH purposes.
- A Loan to Income (LTI) limit of 3.5 times gross annual income applies to all new lending for PDH purposes. This limit should be exceeded by no more than 20% of the total loans (by value) for PDH purposes. Mortgages for non-PDH purposes, i.e., BTL mortgages, are exempt from the LTI limit.

Appendix 2

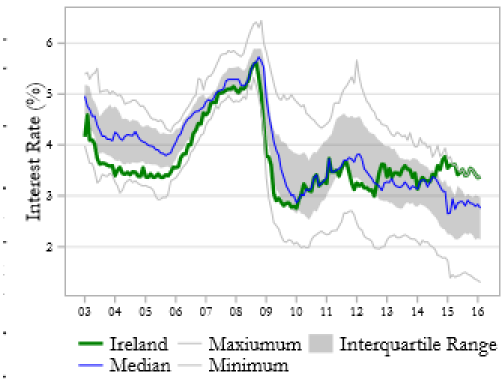
The interest rate in Ireland as of February 2016, at approximately 3.38%, is the highest of the countries presented. (Countries were selected on the basis of data availability. Included countries are: AT, DE, ES, FI, FR, GR, IE, IT, LU, NL, and PT.)

The average interest rate on outstanding mortgages in Ireland stood at 2.6% in Q4 2015.

The rate on outstanding PDH mortgages stood at 3.96% for standard variable rate (SVR) contracts and 1.07% for tracker contracts.

The standard variable rate on new lending for PDH mortgages stood at 3.76% in Q4 2015, down from 4.13% in Q1 2015.

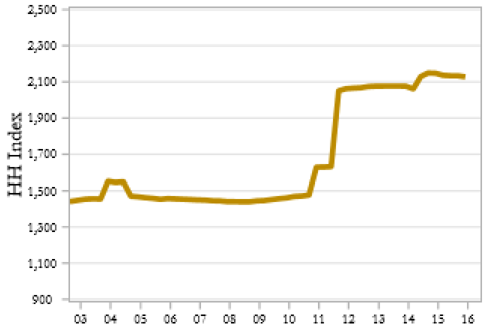
Figure 15. Interest Rates on New House Purchase Loans, Jan 2003 - Feb 2016



Source: European Central Bank, MIR. Note: These data include restructured mortgage arrangements.

Herfindahl index (HH Index) for the stock of outstanding Irish mortgages. The index has increased since the onset of the crisis and is currently high in a historical Irish perspective. The sharp increases in 2011 relate to market exits, mergers (such as AIB and EBS) and loan transfers. Values of greater than 1800 are internationally accepted by competition practitioners to be high. As the current Irish level exceeds this threshold, this indicates a highly concentrated market.

Figure 26. Concentration Index for Irish Mortgage Lending, Q1 1998 - Q4 2015



Source: Central Bank of Ireland confidential data.

Appendix 3

Core indicator set for LTV and DTI limits[a]

	Indicator	Average 1987-2006[b]	Average 2006[c]	Minimum since 1987[b]	Maximum since 1987[b]	Previous value (oya)	Latest value (as of 18 March 2016)
Lender and household balance sheet stretch							
1	LTI and LTV ratios on new residential mortgages						
	Owner-occupier mortgage LTV ratio (mean above the median)[d]	90.6%	90.6%	81.6%	90.8%	86.2%	86.6% (2015 Q4)
	Owner-occupier mortgage LTI ratio (mean above the median)[d]	3.8	3.8	3.6	4.1	4.0	4.1 (2015 Q4)
	Buy-to-let mortgage LTV ratio (mean)[e]	n.a.	n.a.	70.9%	78.6%	71.5%	71.2% (2015 Q4)
2	Household credit growth[f]	10.3%	11.2%	-0.6%	19.6%	2.3%	2.5% (2015 Q3)
3	Household debt to income ratio[g]	108.7%	149.4%	87.6%	157.4%	133.7%	133.9% (2015 Q3)
	of which: mortgages[g]	76.8%	109.3%	56.7%	118.3%	103.6%	103.3% (2015 Q3)
	of which: owner occupier mortgages[h]	85.7%	100.1%	72.6%	104.5%	88.1%	86.7% (2015 Q3)
Conditions and terms in markets							
4	Approvals of loans secured on dwellings[i]	97,914	119,036	26,679	134,882	61,166	74,581 (Jan. 2016)
5	Housing Transactions[j]	130,055	139,048	51,670	223,005	96,600	105,940 (Jan. 2016)
	Advances to homemovers[k]	48,985	59,342	14,300	93,500	24,000	24,800 (Jan. 2016)
	% interest only [l]	53.2%	31.0%	2.2%	81.0%	2.9%	2.4% (Jan. 2016)
	Advances to first time buyers[k]	39,179	33,567	8,500	55,800	20,100	21,400 (Jan. 2016)
	% interest only [l]	52.1%	24.0%	0.0%	88.0%	0.0%	0.0% (Jan. 2016)
	Advances to buy-to-let purchasers[k]	9,919	13,408	3,603	18,967	7,800	9,500 (Jan. 2016)
	% interest only [m]	n.a.	n.a.	50.0%	73.3%	66.7%	69.1% (2015 Q4)
6	House price growth[n]	1.8%	2.2%	-5.6%	7.0%	1.5%	2.1% (Feb. 2015)
7	House price to household disposable income ratio[o]	3.2	4.7	2.3	4.9	4.2	4.4 (2015 Q3)
8	Rental yield[p]	5.8%	5.1%	4.8%	7.6%	5.0%	4.9% (Jan. 2016)
9	Spreads on new residential mortgage lending						
	All residential mortgages[q]	81 bps	50 bps	34 bps	361 bps	190 bps	158 bps (Jan. 2016)
	Difference between the spread on high and low LTV residential mortgage lending[q]	18 bps	25 bps	1 bps	293 bps	180 bps	89 bps (Feb. 2016)
	Buy-to-let mortgages[r]	n.a.	n.a.	61 bps	398 bps	286 bps	253 bps (2015 Q4)

Irish data - BOE Indicators, measured in an Irish context

Category - Lender and household balance sheet stretch

1 <u>LTI and LTV ratios on new residential mortgages</u>

Owner-occupier mortgage LTV ratio (mean above the median)(d)

Owner-occupier mortgage LTI ratio (mean above the median)(d)

Buy-to-let mortgage LTV ratio (mean)(e)

The table presents the statistics for loan balance, originated loan-to-value (OLTV) and mortgage term for PDH and BTL loans. The average balance for all loans was approximately €164,718, median OLTV was 77% and average term was 26 years.

Figure 13 shows the distribution of OLTV ratios for new lending between December 2014 and June 2015 from the CBI LLD sample. As with the second half of 2014, lending for the PDH market is clustered around 90% OLTV with lower levels of lending originated with LTVs above 90%. For BTL loans, there was more variation across LTV at origination. <u>It must be noted that a majority of these loans were originated or approved prior to the introduction of the Central Bank of Ireland restrictions</u> which came into force February 2015. SSB refers to second & subsequent buyers. FTBs have a higher average OLTV when compared with SSBs (75% to 59%).

Table 2. Overview of New Lending, December 2014 - June 2015 - Loan Level Data

Variable	All	PDH	BTL
Median Balance (EUR)	148500	151200	91000
Mean Balance (EUR)	164718	168784	109536
Median OLTV (%)	77	79	60
Mean OLTV (%)	69	69	60
Mean Term (years)	26	27	17

Source: Central Bank of Ireland, LLD.

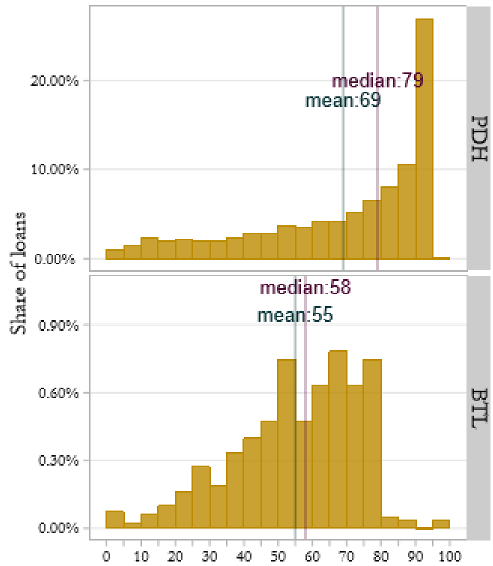
Note: Data cover Allied Irish Bank (including EBS), Bank of Ireland and Permanent TSB. It does not contain information on the lending activity of other market participants.

Table 3. Summary of Originating LTV Distribution, New Lending Between December 2014 and June 2015

		PDH		BTL
Statistic	*All*	*FTB*	*SSB*	
Mean	69	75	58	55
Median	79	86	62	58
60th percentile	85	90	71	63
70th percentile	90	90	79	67
80th percentile	90	91	85	72
90th percentile	92	92	90	75

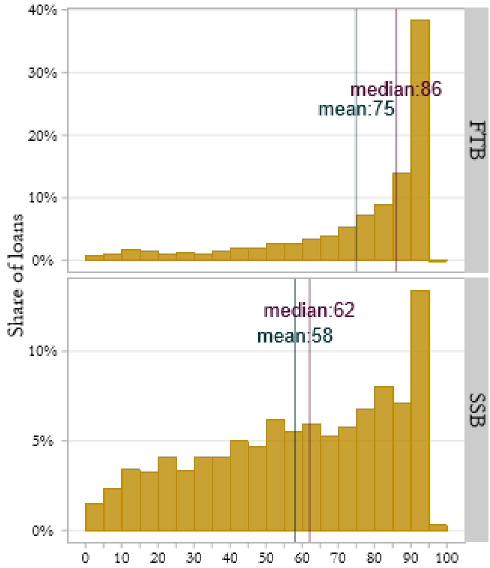
Source: Central Bank of Ireland, Loan-Level Data.

Figure 13. Distribution of Originated Loan-to-Value Ratios, New Lending Between December 2014 and June 2015



Source: Central Bank of Ireland, LLD. Note: Y axis is per cent count of all loans both PDH and BTL i.e. both panels sum to 100%.

Figure 14. Distribution of Originated Loan-to-Value Ratios by Buyer Status, New Lending Between December 2014 and June 2015

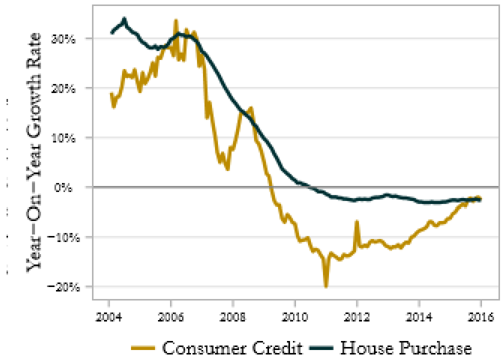


Source: Central Bank of Ireland, LLD. Note: Y axis is per cent count of loans in each panel i.e. each panel sums to 100%.

2 Household credit growth(f)

<u>In the mortgage market, the pace of decline in outstanding credit for Private Dwelling Houses (PDH) shows some signs of stabilisation with continued declines for Buy-to-Lets (BTL).</u> While there has been a recovery in the domestic economy, households continue to deleverage. <u>Deleveraging is continuing for non-mortgage consumer credit.</u> However, the pace of decline has slowed in recent quarters and growth is evident in certain market segments (3-5 year loans). Regarding the performance of non-mortgage loans, the arrears rate is also on a declining trend. As of June 2015, arrears rates ranged from approximately 4% on revolving

Figure 4. Growth Rate in Credit for House Purchase and Consumer Credit, Q1 2003- Q4 2015

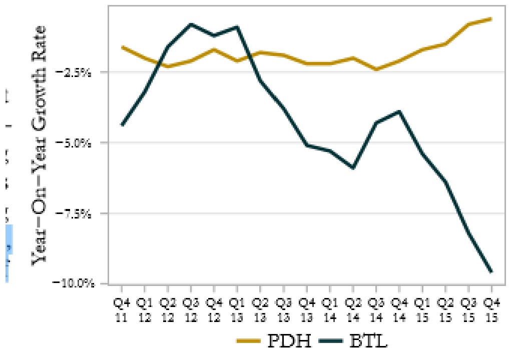


Source: Central Bank of Ireland, Credit, Money and Banking Statistics Note: These growth rates are taken from CBI table A.5.1 facilities (credit cards and overdrafts) to 14.4% for unsecured term loans.

The growth in loans for house purchase remains negative. The growth in consumer loans is also negative but the pace of reduction has been slowing more recently.

As of Q4 2015, loans for PDH and BTL declined at an annual rate of -0.6% and -9.6%, respectively.

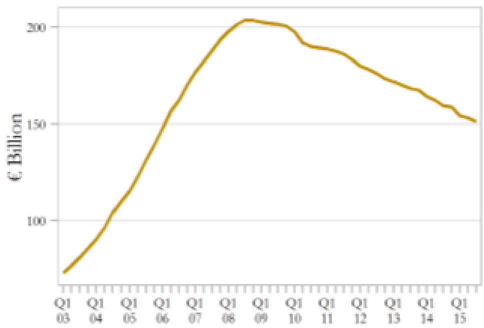
Figure 6. Growth Rate in Outstanding Mortgage Stocks by Dwelling Type, Q2 2004- Q4 2015



Source: Central Bank of Ireland, Private Household Credit and Deposits. Note: Data are taken from table A.18.1 of the CBI statistical release.

Total debt at Q3 2015 comprises short-term loans (up to one year or payable on demand) of approximately €5.4bn and long-term loans (greater than one year maturity) of €145.7bn.

Figure 1. Outstanding Household Loans, Q1 2003- Q3 2015



Source: Central Bank of Ireland, Quarterly Financial Accounts data.

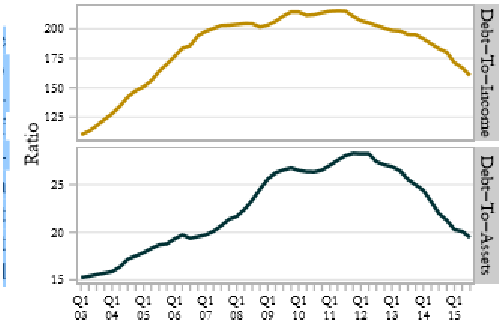
3 Household debt to income ratio(g)

of which: mortgages(g)

of which: owner occupier mortgages(h)

Household debt sustainability in Ireland continues to improve with both debt-to-income and debt-to-asset levels decreasing. However, Irish household indebtedness remains high in a European context. Figure 2 presents the household debt-to-disposable income ratio and the household debt-to-asset ratio. Household debt-to-income continues to fall, suggesting further improvement in the debt sustainability of households. The decline in debt-to-income mainly reflects deleveraging rather than income growth, which has been modest. A downward trend is also evident in the debt-to-asset ratio. These indicators suggest an improvement in the sustainability of household balance sheets.

Figure 2. Household Debt-to-Income and Debt-to-Asset Ratios, Q1 2003- Q3 2015

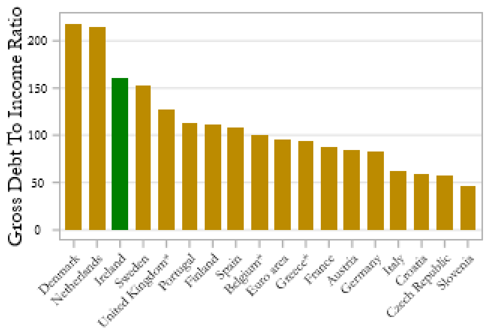


Source: Central Bank of Ireland, Quarterly Financial Accounts.

Ireland has the third highest level of DTI behind Denmark and the Netherlands.

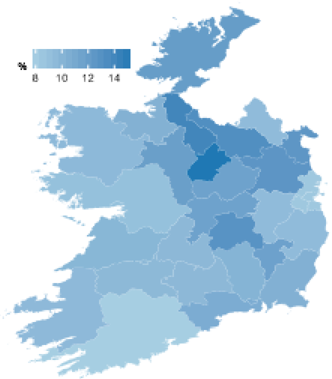
Note - Default rates were lowest in Cork, Dublin and Galway. Arrears rates were high in counties in the Border and Midlands regions.

Figure 3. Debt-to-Income Ratios Across Countries, Q3 2015



*Source: Central Bank of Ireland, Quarterly Financial Accounts and ECB Statistical Data Warehouse (SDW). Note: * indicates data is for Q2 2015. Note: Debt-to-income ratios excluding Ireland taken from ECB SDW.*

Figure 18. Arrears Rates on All Residential Mortgages by County (Per Cent of Loans), December 2014



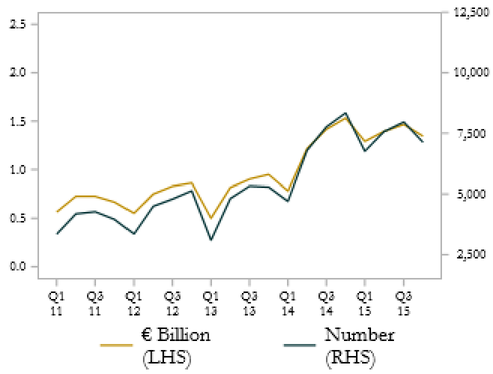
Source: Central Bank of Ireland, Loan Level Data.

<u>Conditions and terms in markets</u>

4 Approvals of loans secured on dwellings(i)

New mortgage approvals (both value and number) have fallen year-on-year in Q4 2015, from €1.5bn to €1.3bn. The number of new loan approvals has also decreased from 8,339 in Q4 2014 to 7,124 in Q4 2015.

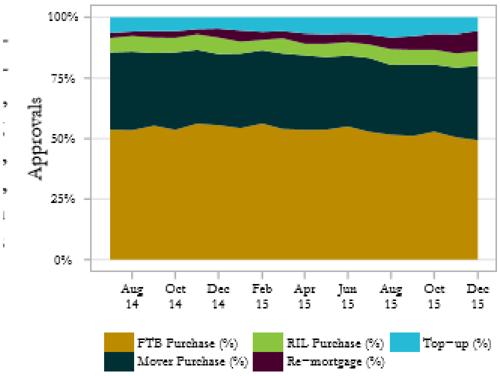
Figure 9. New Mortgage Approvals by Count and Balance, Q1 2011-Q4 2015



Source: Banking and Payments Federation Ireland.

FTB being squeezed - As of December 2015, FTBs accounted for 49.4% of new loans, Movers account for 30.7% of new loans with 5.9 per cent for RIL, 8.2% for Re-mortgages and 5.6% for Top-ups.

Figure 10. Breakdown of New Mortgage Approvals (Count) by Credit Type, Q2 2014 - Q4 2015



Source: Banking and Payments Federation Ireland.

5 Housing Transactions(j)

Advances to homemovers(k) –

% interest only (l)

Advances to first time buyers(k)

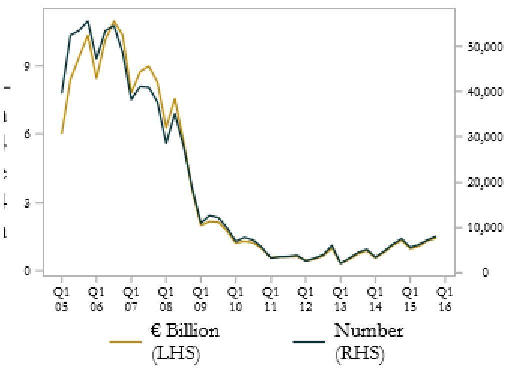
% interest only (l)

Advances to buy-to-let purchasers(k)

% interest only (m)

The value and number of new mortgage loans increased year-on-year to Q4 2015. This continues the trend from 2014. There has been an increase in the value of new lending between Q4 2014 and Q4 2015 from €1.34bn to €1.45bn. The number of new loans has increased from 7,583 in Q4 2014 to 8,103 in Q4 2015. Lending volumes remain below levels seen in the 2005-2007 period.

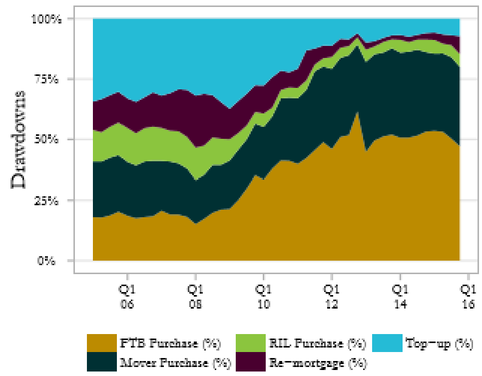
Figure 11. New Mortgage Lending by Loan Count and Balance, Q1 2005-Q4 2015



Source: Banking and Payments Federation Ireland.

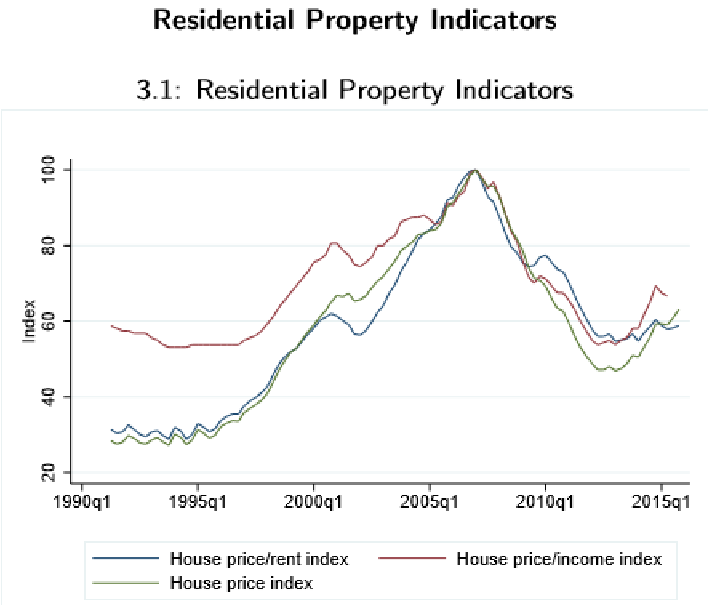
The share of FTBs in total lending fell marginally in the most recent data.

Figure 12. Breakdown of New Mortgage Lending Count by Credit Type, Q1 2005 - Q4 2015



Source: Banking and Payments Federation Ireland.

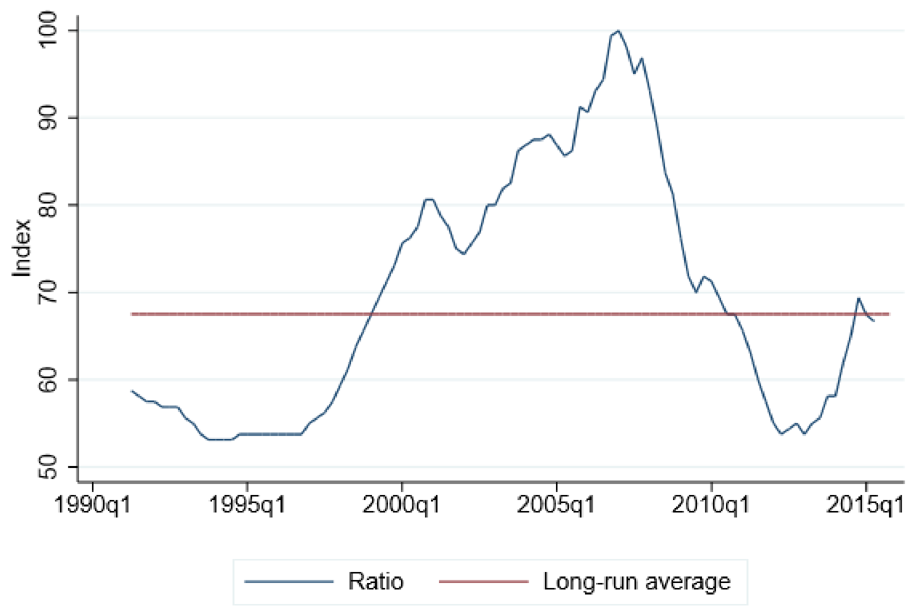
6 House price growth(n)



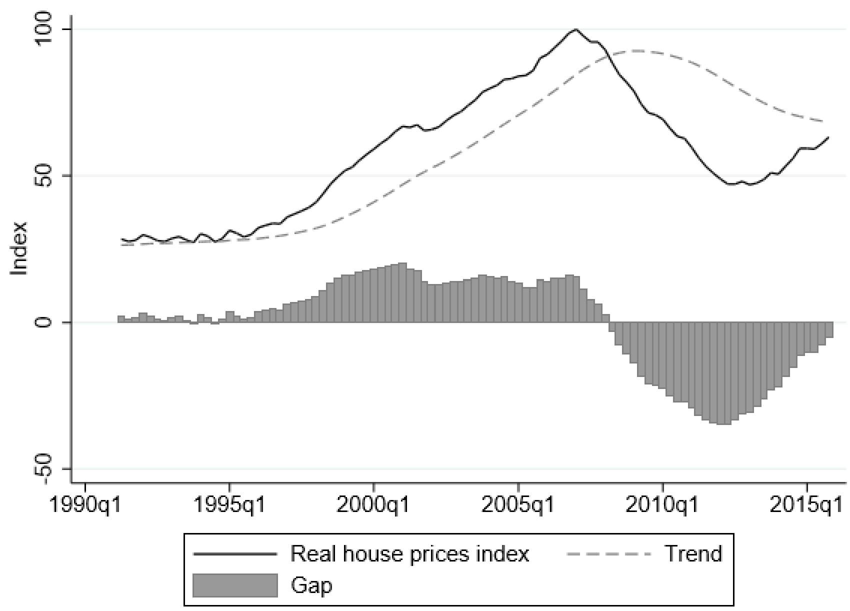
The latest data available to the Central Bank on house purchase prices for first-time buyers nationally suggests the median house price was €200,000 for the first half of 2015.[xvii] This is associated with a deposit requirement of 10% of the purchase price. For first-time buyers in Dublin, the median purchase price over the period was €262,000; the deposit requirement in this case is 11.6%.

7 House price to household disposable income ratio(o)

3.2: House Price-to-Income Index



3.3: House Price Gap



8 Rental yield(p)

Table 1: Analysis of Indicator Volatility

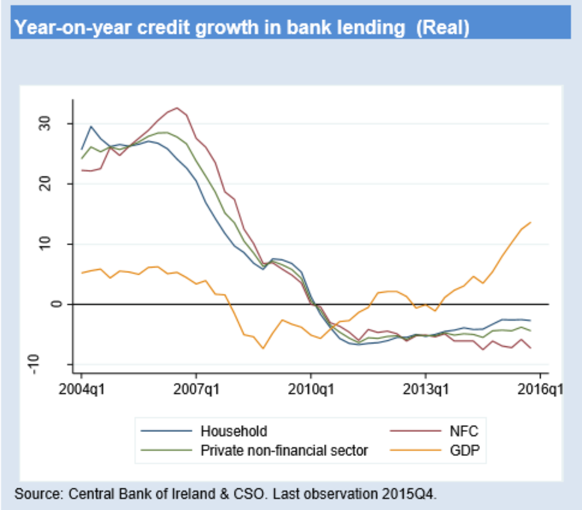
	Standard Deviation					
	Ireland			EU Average		
	Full Sample	Pre-1999	1999-present	Full Sample	Pre-1999	1999-present
Credit Gap Indicators						
Standardised Credit-to-GDP Ratio	2.8%	2.5%	3.1%	1.6%	1.7%	1.3%
Alternative Credit-to-GDP Ratio	2.5%	2.2%	3.0%	1.6%	1.7%	1.3%
Other Indicators						
House Price-to-Rent Ratio	4.5%	5.1%	3.1%	2.3%	2.5%	1.7%
House Price-to-Income Ratio	1.7%	1.4%	2.15%	2.3%	2.3%	1.8%
Current Account Balance	0.7%	0.8%	0.6%	0.5%	0.6%	0.4%

Source: Central Bank of Ireland.

Appendix 4

In its Countercyclical Capital Buffer (CCB) announcement on 1 April 2016 the Central Bank, in maintaining the CCB rate on Irish exposures at 0%, noted the following:

- Credit developments in the economy remain subdued as the private non-financial sector continues to deleverage.
- Credit growth is weak across both the household and non-financial corporate (NFC) sectors and has been lagging behind GDP growth.
- The outstanding stock of credit is below-trend, as measured by both the standardised credit-to-GDP ratio and a national specific measure of the same that adjusts for the contribution of multinational non-financial corporations.
- Despite some moderation, rates of increase in real estate prices remain robust, especially on the commercial side. Overall, however, new domestic lending for property related purposes by Irish banks remains relatively modest, despite recent increases. Developments in this area will continue to be carefully monitored.
- Additional indicators, such as those relating to external imbalances and the private-sector debt burden, do not currently point to increasing imbalances or vulnerabilities.



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[1] Included in appendix 1

[1] (Kuttner and Shim (2013)

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[1] Reference CP-87?

[1] Summary based on : https://www.esrb.europa.eu/national_policy/html/index.en.html

[1] Speech by CBI Deputy Governor Sharon Donnery - 9 June 2016 as published on CBI website.

[1] We will leave aside for another time, the argument that the currently calibrated approach on the face of it conflicts with expansionary monetary policy and also leave aside the arguments as whether macroprudential tools make up for a loss of independent monetary policy at the periphery.

[1] Macroprudential policy: Implementation and effectiveness - speech by Don Kohn (Member of the Bank of England FPC and former Vice Chair of the Federal Reserve). Speech given at the European Central Bank on 27 April 2016

[1] Macroprudential policy: Implementation and effectiveness - speech by Don Kohn (Member of the Bank of England FPC and former Vice Chair of the Federal Reserve). Speech given at the European Central Bank on 27 April 2016.

[iv] Summary based on : https://www.esrb.europa.eu/national_policy/html/index.en.html