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Working Paper No. 319

October 2009

Negative Equity in the Irish Housing Market

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Subsequently published in "Negative Equity in the Irish Housing Market"
The Economic and Social Review, Vol. 41 No 1, Spring 2010, pp.109-132

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[1] This paper has benefited from comments and discussions with John Fitz Gerald, Pete Lunn, ESRI, John McCartney CSO, Kieran McQuinn, CBFSAI, and participants at an internal ESRI seminar. The usual disclaimer applies.

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Negative Equity in the Irish Housing Market

A consequence of the recent house price falls is that some households will find themselves in the situation where they owe more than their houses are worth. In other words they are in negative equity. Having peaked in early 2007 house prices in Ireland have fallen steadily. By July 2009 house prices were down 24 per cent from their peak in early 2007. Estimates of the number in negative equity range from around 140,000 home owners in November 2008 to 150,000 households in August 2009.[3] A mortgage borrower is in negative equity if a drop in house prices results in the value of the house being lower than the outstanding debt. The level of debt remaining depends on the initial price paid, the initial loan and any equity, given the loan-to-value ratio, as well as any reduction in the capital balance outstanding as a result of mortgage repayments. Some borrowers will also benefit from equity accumulated from any house price increases that occurred after they purchased their house.

The first part of this article provides an overview of why negative equity matters. Section two briefly outlines some of the features of the Irish housing boom. Section three estimates the number in negative equity in Ireland, primarily based on published data from the Department of Environment. Estimates as to the numbers in negative equity are sensitive to the underlying assumptions. In the fourth section we explore the impact of a number of alternative assumptions. Following this, using unpublished data from the EU Survey of Income and Living Conditions, the fifth section attempts to provide some indication of those employment sectors where individuals are vulnerable to the impact of negative equity. In the sixth section some policies to overcome the problem are examined and finally section 7 concludes.

Why is Negative Equity Important?

In many cases negative equity will not be an issue. Many of those in negative equity will be unaffected and will continue to pay their mortgage without difficulty. A reasonably common perception associates negative equity with mortgage default, with concerns that the large increase in the numbers in negative equity will result in a substantial increase in mortgage defaults. Foote, Gerardi and Willen (2008) show that

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[3] "140,000 homeowners have fallen into negative equity" Sunday Independent, November 2, 2008. "Living on the edge" Sunday Times, August 23rd, 2009

negative equity does not automatically lead to default. They found that of borrowers likely to be in negative equity in Massachusetts in the early 1990s less than 10 per cent eventually defaulted and based on their model predict for 2008-2010 that between 6-8 per cent of negative equity borrowers will default. Although negative equity is a condition of default, they show that in itself negative equity does not result in an increase in default. Whether or not default occurs depends on a number of factors. Borrowers may still be able to afford the monthly repayments and may expect the loan balance to move below the value of the house at some time in the future. The negative impact on the borrower's credit rating and accompanying difficulty accessing borrowing in the future may make it worthwhile to continue to service the mortgage rather than default. The probability of default increases if negative equity occurs at the same time as a cash-flow problem, possibly caused by illness, divorce or job loss. Work by Wilson (2007) shows that falling property prices can be associated with falling mortgage delinquency rates, as occurred in Hong Kong between 1998 and 2003. In this case, Wilson finds that owners had "sufficient liquidity to forestall default even though many had negative equity". In the case of Hong Kong the fall in interest rates that happened at the same time as the fall in property prices is seen as an important contribution to low mortgage delinquency rates.

Negative equity can have an adverse impact on consumer spending as consumers feel less wealthy but also feel that they no longer have access to funds via housing equity. Homeowners facing negative equity may increase precautionary saving.

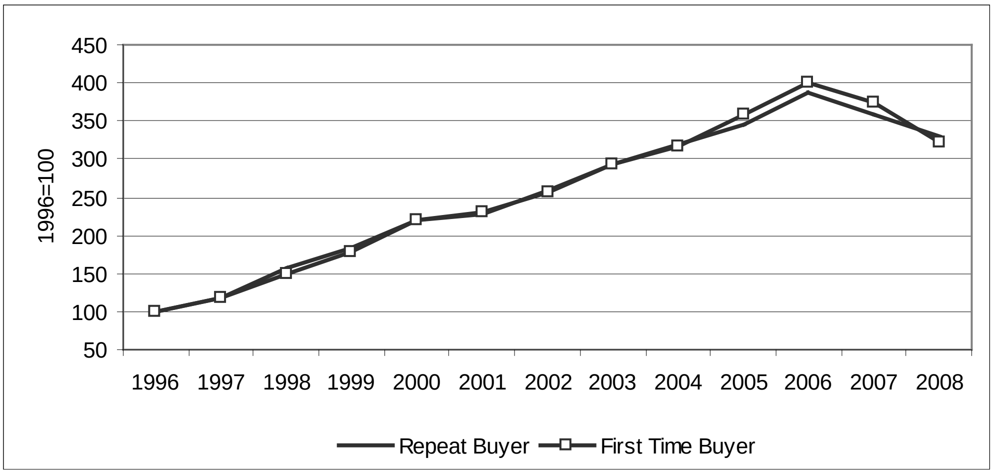
Negative equity is likely to dampen mobility as the housing market recovers. Being in negative equity may prevent a potential seller from lowering their asking prices sufficiently to attract buyers. Those in negative equity are likely to wait until house prices recover sufficiently to repay their outstanding mortgage. Any recovery in transaction levels is therefore likely to lag recovery in prices. Henley (1998) using the British Household Panel Survey finds negative equity has a serious impact on residential mobility. Using US data Ferreira et al, (2008), show that negative equity can affect the labour market with workers "locked in" to a location as they are reluctant to sell and realise a loss. Gyourka and Siaz, (2003), find that owners with negative equity behave more like renters and re-invest less in their properties. Negative equity can also have implications for the financial system and the availability of credit, (Hellebrandt, Kawar and Waldron, 2009).

The Housing Market Boom

The *permanent tsb* house price index shows that the housing market peaked in early 2007, having experienced a boom since the mid-1990s. This boom, apart from a short interruption in 2001, is reflected not only in house prices but also in other indicators which show a huge expansion of activity levels within the market. Entry to EMU brought about lower interest rates and competition in the mortgage market also brought about discounted interest rates to attract customers. The number of mortgage loans approved and paid rose dramatically. Department of Environment statistics show that the number of mortgage loans paid in a single year rose to over 111,000 in 2006, compared to a level of around 57,000 in 1996. Between 2000 and 2008 over 760,700 mortgages were issued. Accompanying this was a large increase in the level of residential mortgage debt outstanding, from close to €14 billion in December 1996 to nearly €148 billion in December 2008[4]. The housing market boom also saw financial product "innovation" to encourage or facilitate homeownership. Mortgages products with terms longer than the traditional 20 years were introduced. Loan-to-value ratios began to increase and borrowers were able to access 100 per cent mortgages compared to the previous maximum of 92 per cent for most borrowers. Lending criteria moved from income multiples to a limit based on the ratio of mortgage service cost to income. Interest only mortgages were introduced. Finally, lenders began to target the subprime mortgage sector. Ellis (2008a) attributes some of the blame for the housing market meltdown in the United States and the rise in the number of borrowers in negative equity to the easing of lending standards that occurred there.

[4] Central Bank data, level of mortgage debt outstanding adjusted for securitisation.

*Figure 1: Irish House prices, by buyer, December each year**



*Index based on nominal prices
Source: *permanent tsb* House Price Index

Estimating the number in negative equity

The Department of Environment provides a breakdown on the range of loan-to-values (LTVs) which shows that in 2008, 22 per cent of repeat buyers had an LTV of 90 per cent and over.[5] What is most noticeable is the high proportion of first-time buyers (FTB) with a very high loan-to-value ratio. In 2007 and 2008 around one in four first-time buyers had a loan-to-value ratio of 100 per cent. The increase in LTVs has been followed by a sharp fall in house prices.

Table 1: Range of Loan-to-Value ratios, by Buyer Type

	Loan to Value					
	<= 70%	71-80%	81-90%	91-95%	96-99%	100%
	% of Mortgages Drawndown, by year of drawdown					
*Repeat Buyer**						
2004	45	18	24	9	1	4
2005	43	17	24	11	1	5
2006	44	18	23	9	1	6
2007	50	15	20	9	1	5
2008	47	15	17	14	1	7
First-Time Buyer						
2004	17	8	23	46	1	6
2005	16	7	15	47	2	13
2006	16	6	12	27	5	34
2007	19	7	12	28	9	26
2008	18	7	13	31	8	23

*Also includes residential investors
Source: DoEHLG, Housing Statistics

[5] Annual Housing Statistics Bulletin

The Department of Environment also provide data on the range of mortgage terms, which shows that there has been a lengthening of mortgage terms. However there is quite a difference depending on the buyer type. The majority of repeat buyers, 56 per cent in 2008, have a mortgage term of 25 years or less. In sharp contrast, 82 per cent of FTBs have a mortgage term longer than 25 years and 54 per cent, the majority, have a mortgage term of between 31 and 35 years in 2008.

Table 2: Range of Loan Terms, by Buyer Type

	Years				
	<=20	21-25	26-30	31-35	36+
	% of loans, by year of drawdown				
First-Time Buyer					
2004	12	23	43	22	1
2005	8	15	33	41	3
2006	6	11	24	56	4
2007	6	10	19	62	3
2008	7	11	17	54	11
Repeat Buyer*					
2004	41	34	20	5	1
2005	35	33	21	10	1
2006	32	33	20	14	1
2007	31	30	20	18	2
2008	31	25	18	18	7

*Also includes residential investors
Source: DoEHLG, Housing Statistics

Although alternative house price measures differ on price levels and the pace of change there is general consensus that prices peaked in 2007. In order to estimate the number of borrowers who might be facing negative equity we use the following assumptions:

1. House prices are the December house price for each year from *permanent tsb*. The prices used are for Repeat Buyer and First-Time Buyer. Based on these prices by December 2008 house prices were approximately 15 per cent below their peak, see Figure 1. Forecasts for 2009 and 2010 are guided by the *Quarterly Economic Commentary*, Summer 2009, in which new house prices were forecast to fall by 14 per cent in 2009 and 2010.
2. A mortgage term of 25 years is assumed for repeat buyers. Based on Table 2 this is probably reasonable for former owner-occupiers. However, the table also shows that in general FTBs have a longer mortgage term and so a term of 35 years is assumed for FTBs.

3. The interest rate is the representative mortgage rate from the CSO databank for December each year. The interest rate in year of drawdown is applied for the mortgage term.[6] For 2009 and 2010 the interest rates is based on the forecast in the Summer 2009 *Quarterly Economic Commentary* at 3 per cent for both years.
4. Department of Environment statistics show that for the period 2004-2008 first-time buyers accounted for just over a third of mortgages. This is applied to the total number of loans to allocate between repeat and first-time buyers in 2009 and 2010.
5. The range for loan-to-values in 2009 and 2010 is assumed to be an average of previous years (2004-2008). The loan-to-value ratio is based on the year of drawdown and does not take account of the impact of any refinancing. Those who refinanced close to the peak in house prices would not have had a long period to make repayment prior to house prices falling.
6. Borrowers are assumed to commence paying back their mortgage immediately. The mortgage is assumed to be repaid in full by the end of the term. In the initial years a higher proportion of the repayment goes towards repaying interest rather than reducing the capital.
7. Data is not yet available for loan volumes in 2009. However, statistics from the Irish Banking Federation show that in quarter 1 2009 loan volumes were over 60 per cent lower than in the same period in 2008. To provide loan volume estimates for 2009 we multiply the 2008 total by 0.5, and repeat this for 2010. The average LTV range for 2004-08 is applied to our estimated loan volume.

It should be noted that the repeat buyer data includes residential investors as these are not differentiated from other buyers in the published data. Statistics from the Irish

[6] Use of a variable interest rate would, in the current environment, lower the repayments. In the early years of a mortgage the bulk of repayment goes towards paying of interest rather than repaying capital. Thus, use of a variable rate is likely to increase the numbers in negative equity.

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Banking Federation show that residential investment letting mortgages accounted for 12.8 per cent of mortgage lending in 2005 and rose to 18.9 per cent in 2008.

Using these assumptions we calculate the annual mortgage repayments. As stated above it is also assumed that repayment of the mortgage debt starts immediately. The amount of principal paid off is equal to the repayment less interest due. The mortgage balance is reduced each year, taking account of the fact that in the earlier years of the mortgage term a higher proportion goes towards interest repayment rather than principal reduction. The outstanding balance is compared to the house price in each year. If the mortgage balance is greater than the house price then the borrower is considered to be in negative equity.

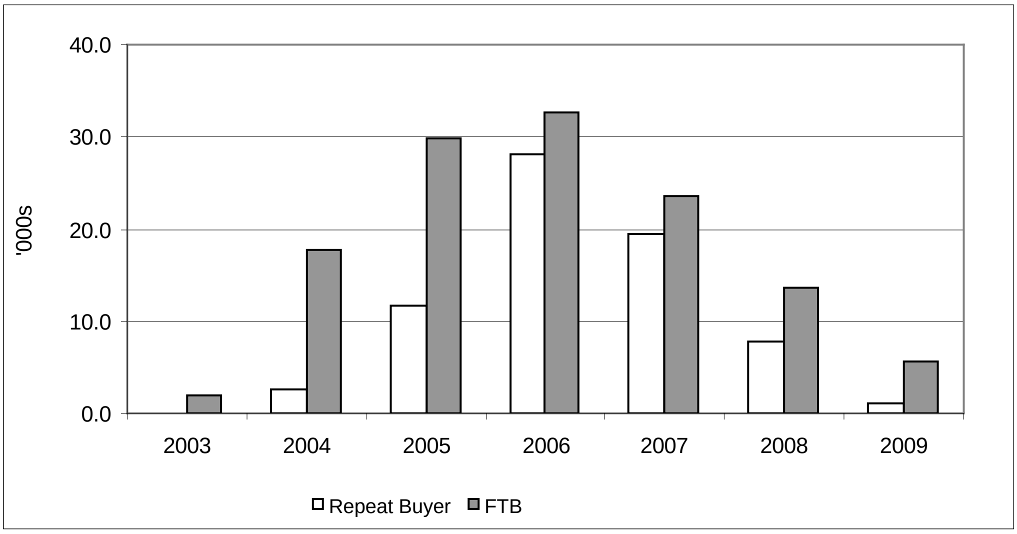
The fall in house prices in 2007 resulted in a small number of borrowers in negative equity at the end of the year, 19,525. These are mostly FTBs with high loan-to-value ratios. House price falls in 2008, following declines in 2007, mean the number of mortgage borrowers with mortgage debt levels higher than their house price at end 2008 is estimated at over 57,000.

House prices have continued to fall in 2009. It is assumed that the decline is in line with those forecast in the Summer 2009 *Quarterly Economic Commentary*. If these forecasts prove to be correct then by end 2009 house prices will be around 30 per cent lower than peak in nominal terms. Allowing for the repayment of mortgage debt since drawdown the fall in house prices by end 2009 means that the number of mortgage borrowers with mortgage debt levels higher than the price of their house increases to over 116,000, up by 58,000 compared with the end-2008 figure. This represents a doubling of those in negative equity. Those in negative equity now include some who borrowed with a high LTV as far back as 2004. Of those estimated to be in negative equity at the end of 2009, 76.8 per cent are FTBs. This is supported by Table 1 which shows that FTBs are more likely to have a higher loan-to-value ratio.

If, as anticipated, house prices continue to fall in 2010 and using similar assumptions to those outlined above, by the end of 2010, the number of mortgage borrowers in negative equity could rise to over 196,000. Figure 2 shows that borrowers who drew their mortgage down between 2005 and 2007 are most likely to be in negative equity, as are FTBs.

Based on Census 2006[7], approximately 40 per cent of Irish households are repaying a mortgage or purchasing from a local authority. The most recent *Medium-Term Review* estimates that the number of households in Ireland in 2008 was over 1.5 million. Applying the ratio from Census 2006 implies over 645,000 households have mortgage debt. Assuming that borrowers in the Department of Environment data correspond to households then 18 per cent of households who have a mortgage will be in negative equity at end-2009, nearly one in five. By end-2010, 29.6 per cent of households with a mortgage, nearly 1 in 3, will be in negative equity. In the case of FTBs, the number in negative equity would rise to over 125,000 by end 2010

Figure 2: Number of Mortgage Borrowers in Negative Equity by end-2010 (by year of loan drawdown.)



How does the situation in Ireland compare internationally? Estimates produced for the UK suggest that between 7 and 11 per cent of UK owner-occupier mortgage holders were in negative equity in the Spring of 2009, depending on the data source used (Hellebrandt, Kawar and Waldron, 2009). Alternative estimates for the UK by Tatch (2009), put the proportion at the end of 2008 at 13 per cent of homeowners who had taken out mortgages between Q2 2005 and end-2008. Ellis (2008b) quotes numbers for the United States which estimate that over 10 per cent of the US single-family housing stock were already in negative equity in early 2008.

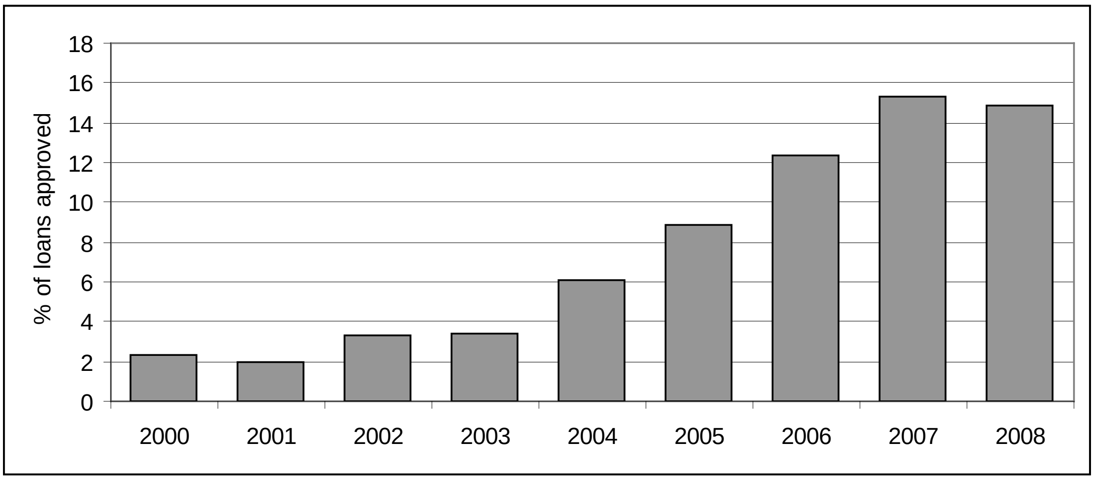
[7] Central Statistics Office, Census 2006, Volume 6 - Housing

Table 3: Summary Table, Total

	Estimated Mortgage Loans in Negative Equity	Estimated number of households	Estimated number of households with mortgage debt	Negative equity loans as % of total number of households	Negative equity loans as % of households with mortgage debt
	(1)	(2)	(3)	(4)=(1)/(2)	(5)=(1)/(3)
				%	%
End 2008	57,389	1,554,648	631,187	3.7	9.1
End 2009	116,083	1,591,983	646,345	7.3	18.0
End 2010	196,015	1,629,195	661,453	12.0	29.6

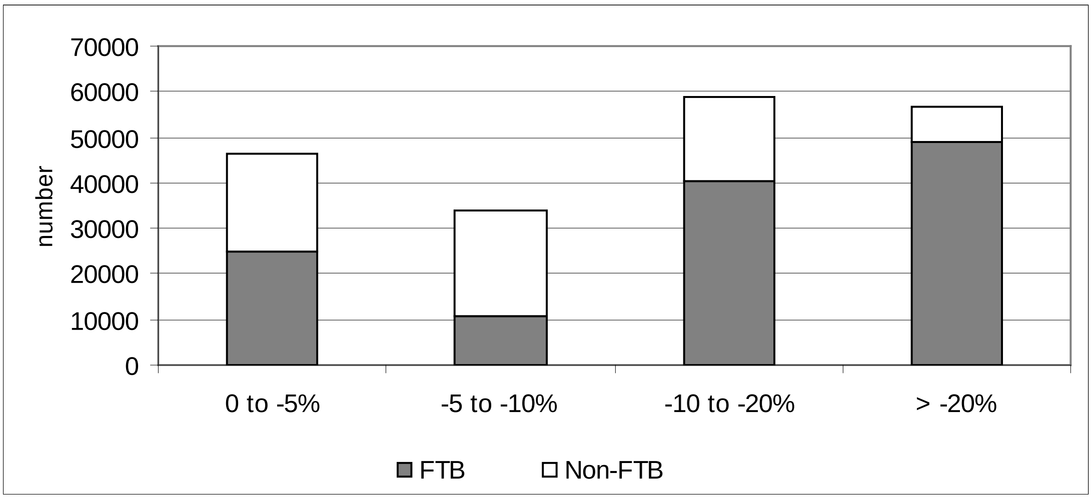
The numbers may not fully capture the numbers in negative equity given the extent to which top-up mortgages and refinancing took place. The Irish Banking Federation show that around the peak in house prices in 2007 top-up mortgages accounted for approximately 30 per cent of loan draw downs, with re-mortgages accounting for a further 16 per cent. The latter stages of the boom in house prices saw increasing interest in interest only mortgages. Given that no capital would be repaid for the portion of the term that is interest only this would increase the number of borrowers in negative equity. Figure 3 shows that the proportion of interest only loans had risen in recent years and accounted for approximately 15 per cent of loans approved. Ellis (2008b) shows that mortgages that do not amortise in their early years are more prone to moving into negative equity.

Figure 3: Interest only loans as a % of loans approved, Ireland



Based on the data it is also possible to calculate the value by which borrowers are in negative equity at the end of 2010. For 23 per cent, negative equity accounts for less than 5 per cent of the estimated house price. Approximately another 17 per cent have negative equity of between 5 and 10 per cent, while 30 per cent have negative equity between 10 and 20 per cent of the estimated house price. Nearly 29 per cent have negative equity over 20 per cent of the value of the house. It is noticeable that the majority of those with negative equity less than 10 per cent are repeat buyers, whereas the majority over 10 per cent are first-time buyers.

Figure 4: Negative equity, degree of shortfall, end-2010



Sensitivity of the Estimates

While Table 3 shows estimates for the number of borrowers in negative equity is should be remembered that the estimates are sensitive to the assumptions underlying them. In order to assess how sensitive the estimates are, this section looks at the change in the numbers based on a series of alternative assumptions.

The base estimates have been prepared assuming a mortgage term of 25 years for a repeat buyer and 35 years for a first-time buyer. Longer mortgage terms, for example 35 years for FTBs, means that less of the principal is paid off in the early years of the mortgage and so increases those exposed to negative equity. If the estimates were produced using a mortgage term of 25 years for first-time buyers, then the numbers in negative equity would be over 7,600 lower at end-2009 and nearly 31,000 lower at end-2010. In the post-boom period it could be argued that access to credit is more difficult and mortgage terms may be curtailed. If it is therefore assumed that in 2009 and 2010 repeat buyers can only access a 20 year mortgage and first-time buyers can only access a 25 year mortgage this has the impact of lowering the numbers in negative equity at end 2010 by nearly 3,300.

A similar argument can be made with regard to loan-to-value ratios over the forecast period. If media reports are correct the maximum loan-to-value ratio available at the moment is 92 per cent. Data on the range of LTVs prior to 2004 is not available. A crude "weighted" LTV for the published data gives an LTV of approximately 80 per cent for repeat buyers and close to 90 per cent for first-time buyers. In order to assess the effect of lower LTVs in the future the range of LTVs is adjusted to lower the weighted LTV to 75 per cent for repeat buyers and 85 per cent for FTBs. In effect mortgages with an LTV greater than 96 per cent are eliminated for FTBs. The impact is to lower the numbers in negative equity at end-2010 by 6,500. The impact on the numbers in negative equity from altering either the mortgage term or the loan-to-value ratio in 2009 and 2010 is relatively small. However, these alternative assumptions do change the distribution of the shortfall with less borrowers experiencing negative equity greater than 20 per cent.

The estimates have been prepared using the permanent tsb house price index and house price forecasts from the *Quarterly Economic Commentary*. However, there has been much coverage of anecdotal evidence which suggests that the fall in house prices has been much greater than captured by official statistics. Thus the sensitivity of the estimates to greater house price falls is examined. As an alternative, house prices are assumed to fall by 20 per cent in 2009 and by around 27 per cent in 2010. This would leave house prices 50 per cent lower than their peak at the end of 2010. This more severe house price fall has a dramatic effect on the estimates of those in negative equity. The numbers increase by nearly 72,500 in 2009 and by nearly 154,000 in 2010.

Table 4: Alternative scenarios and negative equity numbers

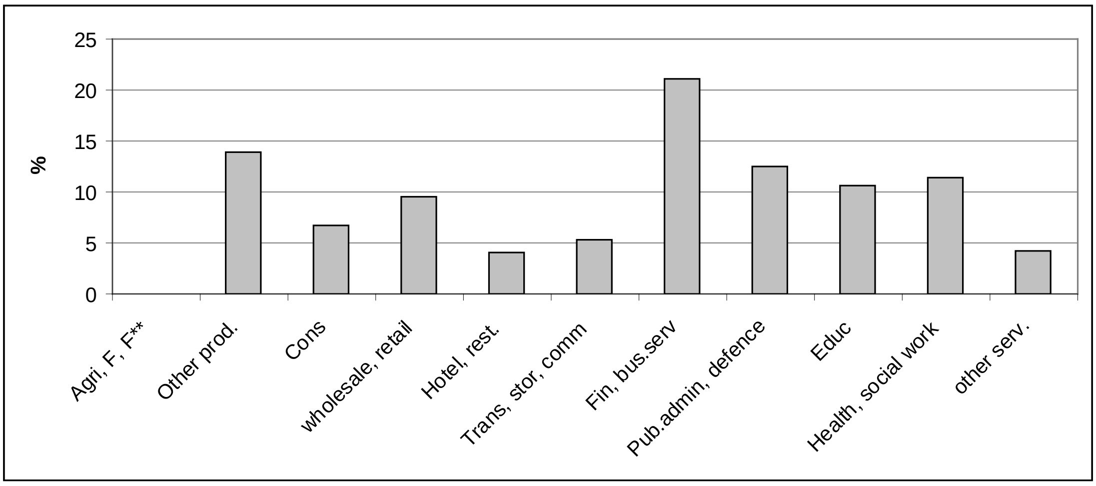
		Alternative scenarios			
	Base case	FTB mortgage term = 25 yrs	Lower mortgage terms in 2009 and 2010	Lower LTVs in 2009 and 2010	House prices down by 50% from peak, end 2010
End 2007	19,525	17,578	19,525	19,525	19,525
End 2008	57,389	51,574	57,389	57,389	57,389
End 2009	116,083	108,410	116,083	116,083	188,551
End 2010	196,015	165,101	192,747	189,472	349,715

Who is vulnerable?

The analysis in section 3 shows that mortgage borrowers in negative equity are likely to be first-time buyers, and/or those with a high loan-to-value. A general conclusion running through much of the research on negative equity, (for example, Haughwort and Okah, 2009, Haughwort, Peach and Tracy, 2008, Foote, Gerardi and Willen, 2008) is that the presence of negative equity does not necessarily result in mortgage default, although it increases the likelihood of default. Many households in negative equity will continue to be able to make monthly mortgage repayments and so will not default. Those who are at most risk of default are those who are in negative equity and who experience a cash-flow problem. These cash-flow problems could be caused by illness, divorce or job loss.

The Survey of Income and Living Conditions (SILC) carried out by the CSO asks households about the nature of housing occupancy. Microdata files from this survey allow us to examine the nature of occupancy by sector of employment. Figure 5 shows the distribution of households with a mortgage by the sector of employment of the survey reference person for 2007. Over 20 per cent of mortgages are held by those employed in financial services and nearly 15 per cent by those in other production industries.

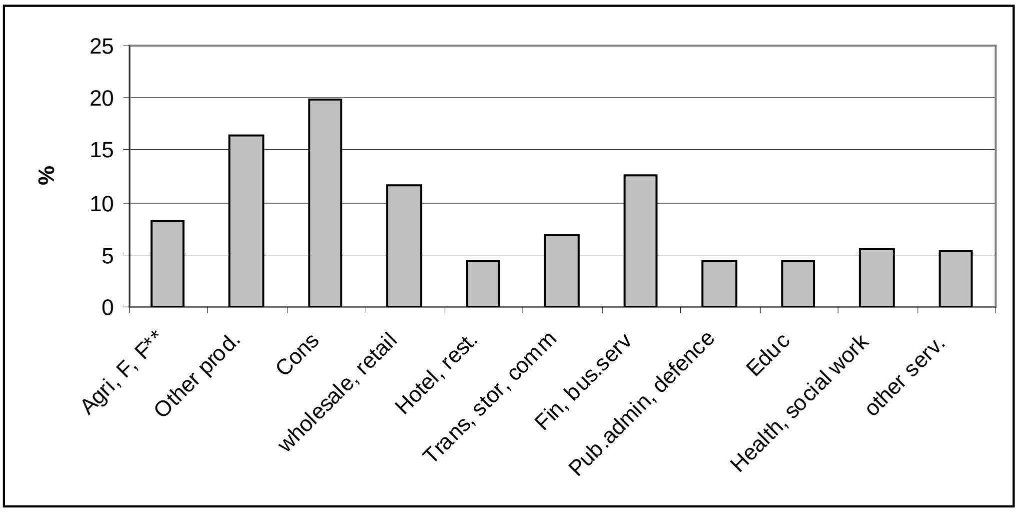
*Figure 5: Proportion of households who own their homes with a mortgage by sector of employment of the head of household**



*where the PES of the head of household is 'at work'. Reference period is Jan.2006 to Dec.2007.
**Sample size too small
Source: Estimate based on information from the Survey on Income and Living Conditions, CSO

QNHS microdata allows us to compare the distribution of employment to the distribution of mortgages. While financial and business services account for 12.5 per cent of employment it accounts for 21.1 per cent of mortgage holders. Similarly, public admin. and defence, education, and health and social work each account for between 4-5 per cent of employment, but account for between 10-12.5 per cent of mortgages. In contrast, in the second quarter of 2007, just following the peak in house prices, construction accounted for nearly 20 per cent of employment but only 6.7 per cent of mortgages.

*Figure 6: Proportion of households by sector of employment of the head of household**



*where the PES of the head of household is 'at work'. Reference period is Quarter 2, 2007.
Source: Estimates based on QNHS data

The QNHS shows the deterioration in the Irish labour market in recent times. There has been a large increase in unemployment, rising from below 5 per cent prior to the first quarter of 2008 to a rate of 10.2 per cent in quarter 1, 2009. Table 5 shows the change in employment by sector between the first quarter of 2007, when house prices peaked and the most recent data for the first quarter 2009. The largest falls in employment have been in construction (-31.3%), other production industries (-11.4%) and hotels and restaurants (-11.1%). Those employed in these sectors are more vulnerable to the combination of negative equity and an income shock caused by job loss. Policy responses to prevent default are discussed in the next section.

Table 5: Employment by sector, Annual % change

	Q1 2008	Q1 2009	Q1 2007 to Q1 2009	Mortgages by sector of employment	Sector of employment
	%	%	%	% of household heads	% of household heads
Agri, forestry and fishing	8.9	-13.1	-5.4		
Other production industries	-4.5	-7.3	-11.4	13.9	16.5
Construction	-5.9	-27.1	-31.3	6.7	19.9
Wholesale and retail trade	7.2	-9.7	-3.2	9.5	11.6
Hotels and restaurants	-1.0	-10.2	-11.1	4.1	4.4
Transport, storage and communication	-1.1	0.9	-0.2	5.3	6.8
Financial and other business services	8.2	-5.6	2.1	21.1	12.6
Public admin and defence	1.6	3.6	5.2	12.5	4.3
Education	-2.1	6.1	3.9	10.7	4.5
Health and social work	5.0	1.4	6.5	11.4	5.6
Other services	4.0	-4.1	-0.3	4.2	5.3
	1.7	-7.5	-5.9		

Source: Based on QNHS data and EU-SILC data

Public Policy and Negative Equity

Generally policies put in place by government or by lenders do not directly deal with negative equity but have had the goal of reducing the probability of default. These are usually either loan modification which puts in place a permanent change to the terms of the loan, possibly a lower interest rate or a reduction to the outstanding balance. Alternatively the lender may agree to lower payments without changing the loan terms and the reduction in payments is added to the outstanding balance, forbearance policies.

In the face of concerns about the rising number of households in negative equity the US government has launched the Making Home Affordable programme[8] for borrowers through the Freddie Mac and Fannie Mae agencies. The Making Home Affordable Program offers two different potential solutions for borrowers: (1) refinancing mortgage loans, through the Home Affordable Refinance Program (HARP), and (2) modifying mortgage loans, through the Home Affordable Modification Program (HAMP).

Closer to home, during the trough of the UK housing market in early 1993, published estimates of households in negative equity were upwards of 1.5 million[9].

[8] Full details are available at www.makinghomeaffordable.gov

[9] Quoted in Tatch 2009. Cutler (1995) also examines negative equity in a UK context.

The more recent slump in UK house prices has resulted in an estimated 900,000 in negative equity (Tatch, 2009). Budget 2009 (HM Treasury) announced the extension of a number of supports to those experiencing negative equity. These include the Mortgage Rescue Scheme and Mortgage Support Scheme for those who are vulnerable to financial difficulties or who have suffered income or employment loss. The Mortgage Rescue Scheme has two strands – an equity loan enabling mortgage repayments to be reduced, or alternatively the debt is cleared completely and the applicant pays rent at a level they can afford. The Mortgage Support Scheme defers some of borrowers' interest payments for up to two years, with the UK government guaranteeing a proportion of the deferred interest.

There has also been a private sector response to the difficulties negative equity creates for housing market mobility. The Nationwide Building Society in the UK launched a 125 per cent mortgage for existing customers who are experiencing negative equity and need to move house. Borrowers needing to move can replace their existing mortgage with a new loan of up to 95 per cent of the value of the property. An additional loan of 25 per cent of the loss incurred from the existing property could be added on[10].

Foote, Gerardi and Willen (2008) model the effectiveness of alternative strategies that lenders might pursue to address negative equity. They find that policies should focus on lowering repayments in order to make default less attractive. As these forbearance policies mean that borrowers do not avoid repaying the mortgage in full it means that lenders, and public money used to support any scheme, is not exposed to moral hazard problems associated with modification policies.

Conclusions

This analysis attempts to estimate the number of mortgage borrowers in negative equity. A feature of the housing market boom was a large increase in the numbers borrowing for house purchase. The length of the house-price boom means that people who had entered the housing market in the late 1990s and early years of this decade are, to date, unaffected. The decline experienced in house prices to date, coupled with the anticipated decline in 2009 would essentially capture people who financed purchases between 2004 and 2008 and would push 116,000 borrowers into negative

[10] Nationwide Building Society Press Release, July 9th, 2009.

equity. The anticipated decline in prices in 2010 would take the number of borrowers up to 196,000 and include those who financed purchases in 2003 and 2009 with high LTVs. Although this represents a large number of households in absolute terms it is a small proportion of the stock of households in Ireland.

Estimating the numbers in negative equity indicates that higher LTVs, interest only mortgages and a longer mortgage term contributes to higher numbers exposed to negative equity. This is in common with Ellis (2008b). The analysis finds that those who borrowed at, or close to the peak, namely 2006 and 2007, with a high loan-to-value ratio are more likely to find themselves in negative equity. FTBs are also more likely to have a mortgage the value of which is higher than the house price. This in part reflects the use by FTBs of longer mortgage terms.

Negative equity can cause difficulties for households and for the macro-economy. However, US research has shown that negative equity does not cause default or foreclosure but rather is a condition of default. Foote et al (2008) find that around 10 per cent of US households that fall into negative equity default. The research suggests that policies that lower mortgage repayments, thereby making default less attractive, are preferable. Policies should only allow borrowers to delay rather than avoid repaying their mortgage in full, to avoid the moral hazard problem of assisting those who do not need it.

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