Quarterly Economic Commentary

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Summer 2012

The forecasts in this Commentary are based on data available by 11 June 2012. Draft completed 15 June 2012

Research Notes

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Special Articles

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Research Bulletin

12/2

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Special Articles

The Irish Housing Market

David Duffy and John FitzGerald

Introduction

The future development of the Irish housing market will play a significant role in determining the pattern of the long-term recovery of the Irish economy. While the housing market may never return to where it was in the boom years, some recovery will eventually take place. The timing of this recovery, including the timing of the turnaround in house prices, will play a role in determining when output in the economy returns towards its long-term potential. Activity in the housing market is influenced by a range of factors including incomes, prices, price expectations, interest rates and affordability. It is not possible to forecast when a turning point will take place but this note considers evidence on some of the variables which might help bring about a stabilisation in the market.

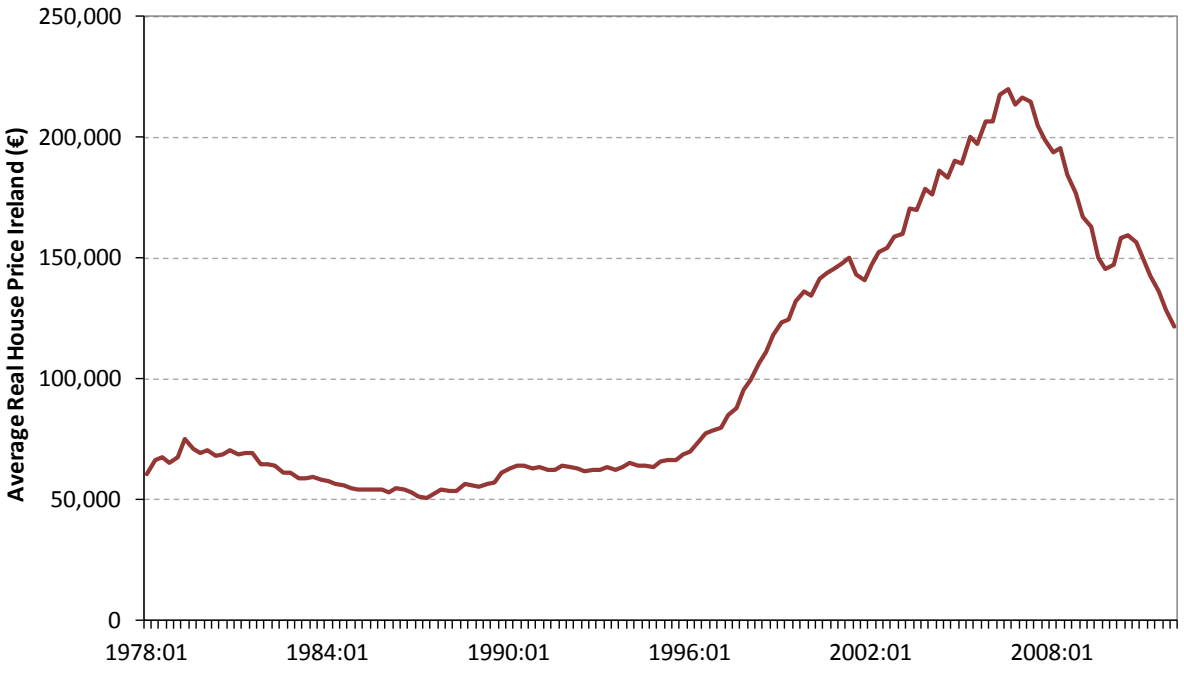
Since 2007 the housing market has collapsed and prices have fallen continually since then. This collapse of the housing market reflected the wider recession in the economy, in particular rising unemployment and increased uncertainty about the future. At least initially, many new dwellings failed to find an owner as they were completed. The related rise in the vacancy rate and the consequential collapse in prices saw housing completions fall from a peak of over 90,000 to less than 10,000 last year. However, over time, the vacant dwellings located in major urban areas have been rented out so that, as discussed below, today there are a limited number of vacant dwellings in the major urban areas.

With house building almost halted an important question is how much longer house prices will continue to fall and where the floor in the market will lie. This note does not seek to answer this question: determining the timing of turning points in the economic cycle is notoriously difficult. However, a range of recent information and research provides useful information in helping to understand the factors that might drive the housing market over the next few years.

Although more detail will follow in later publications, the recently released *This is Ireland: Highlights from Census 2011, Part 1* does offer us some insights into Ireland's housing market. It provides information on the stock of dwellings, where they are located and the vacancy rate. This affects our understanding of the supply of housing in the short to medium term. In addition, the Census data allow an examination of the population changes over the last five years, which is also useful in understanding the demographic factors that are likely to drive demand in the future.

Recent work by Kennedy and McQuinn (2012), provides additional useful evidence in understanding the working of the housing market. Their finding was that house prices are today below their long-run equilibrium. However, as was to be expected, their analysis does not tell us when a turning point in the dynamics of prices is to be expected. A paper by Kelly (2007), looked at the experience of previous house price crashes in other countries. This evidence suggested that during a housing bust prices fall by about 10 percentage points each year. Today we are five years into the fall in prices and prices are around 50 per cent below their peak – roughly what might have been anticipated based on the experience in other countries.[1] Initially prices may just stabilise. Real Irish house price data shows that after the last downturn in real house prices, in the late 1980s, the decline was followed by a number of years of stagnant prices, see Figure 4.1. Analysis by Bénétrix *et al* (2011) finds that "...house price slumps can be extremely long-lasting once they become entrenched." In addition, they present data on 59 house price slumps which show that in the four quarters following the slump, in many cases, any house price growth can be moderate.

FIGURE 4.1 Average Real House Price Ireland



Source: Based on data from Dept. of Environment *Housing Statistics* and CSO *Residential Property Price Index.*

This paper first considers the factors affecting housing supply, in particular the details of the stock of existing housing and its current utilisation. We then consider the factors driving housing demand, in particular the potential impact of

[1] See Reinhart and Rogoff (2009), for a comparison of historical real house price declines.

demographic change. We then consider the factors affecting households' decision to rent or to buy and how this may affect the dynamics of house prices.

Supply of Housing

An important issue for the recovery of the housing market will be how rapidly the absorption of the vacant housing stock takes place. With very few dwellings being built today, future demand will initially be met from this fixed supply. With fixed supply, regional variations in demand will potentially see regional differences in the timing and the nature of any stabilisation. In high demand regions, such as Dublin, prices may stabilise before they do so in other regions, where there is an excess supply of vacant dwellings. In these latter cases it may take some considerable time for the current excess supply to be absorbed. Thus, looking at regional vacancy rates and how they are moving is important in understanding where the current trend in falling prices is likely to halt first.

The Census estimate of vacant dwellings does not include dwellings under construction or derelict properties.[2] Using the Census definition of vacant dwellings, including holiday homes, almost 290,000 homes were vacant at the time the Census was taken in April 2011, giving a national vacancy rate of 14.5 per cent. Of the vacant dwellings, just over 58 per cent were vacant houses, 21.3 per cent were vacant flats and 20.5 per cent were holiday homes.

The data in Appendix Table 1 show that the national vacancy rate has not changed much since 2006. However, there is significant regional variation. In Dublin, Cork, Galway and their environs the vacancy rate has fallen since 2006, although it still remains above the 2002 rate. Analysis of the data shows the role played by holiday homes in the overall vacancy rate. For example, holiday homes accounted for over 48 per cent of the vacant stock in Westmeath in 2011, but just 0.5 per cent in South Dublin County. While the current economic situation means that some people would like to sell their holiday home, most holiday homes will not help in meeting the needs of new household formation. The very wide regional variation in vacancy rates indicates that, while in Dublin the vacancy rate is now closer to what it was in a "normal year", such as 1996, it remains exceptionally high in Connaught and the three counties of Ulster. Thus, outside the main urban centres, it is likely to be quite some time before new houses will need to be built.

[2] A dwelling was classified as under construction if it was unfit for habitation because the roof, doors, windows or walls had not yet been built or installed.

It is also important to look at the vacancy rates separately for houses and for apartments. Appendix Table 2 shows a low vacancy rate for houses in the Dublin region in 2011, down from 9.6 per cent in 2006 to 4.9 per cent in 2011. This would be close to the overall vacancy rate (including apartments) for Dublin shown in Appendix Table 1 for 1996 and 2002.

The vacancy rate for apartments is high throughout the country. Even in the Dublin area there was still quite a high proportion of vacant apartments, though still lower than the national average. Of course, the Dublin market is not homogenous and there are big variations between city areas in the availability of apartments. While a greater vacancy rate may be normal for apartments catering for a rental market, the 2011 rates still look high. Thus, there may be less upward pressure on rents for apartments, even with an increase in the number of households. Certainly outside Dublin vacancy rates for apartments are very high and it will be some time before the stock of vacant apartments in high demand locations is exhausted.

Tenure

Traditionally in Ireland the rate of home ownership has been very high. However, between 2006 and 2011 there was a dramatic increase in the share of households in private rented accommodation (Appendix Table 3). Between 2006 and 2011 the number of households in Ireland increased by 187,000 or almost 13 per cent, to 1,649,000, while the number of households renting increased by 160,000. *Quarterly National Household Survey* (*QNHS*) data suggests that new households continued to form even as the market experienced sharp falls in prices over the latter half of the period. However, nearly all the net new households formed were renting. This is probably due to a number of factors. For example, the sudden drop experienced by the housing market from 2007 onwards gave rise to the expectation of further house price falls. In addition, affordability has been an issue, initially due to high house price levels. In the current period affordability would also be affected by income cuts and the need to repay existing debts.

As a result of this change in tenure pattern, according to the *2011 Census*, 18.5 per cent of households were in private rented accommodation, compared with 9.9 per cent in 2006. The change is particularly marked in the urban areas: for example, the proportion in private rented accommodation in Galway city was 37.5 per cent (up from 24.9 per cent in 2006) and in Dublin city it stood at 32 per cent compared to 19.2 per cent in 2006. The effect of the housing crisis on households' preferences could see a long-term increase in the share of households preferring to rent than to buy. While data are not yet available from

the Census for tenure by age, we suspect that the increase in households renting is concentrated among households in their late twenties or early thirties.

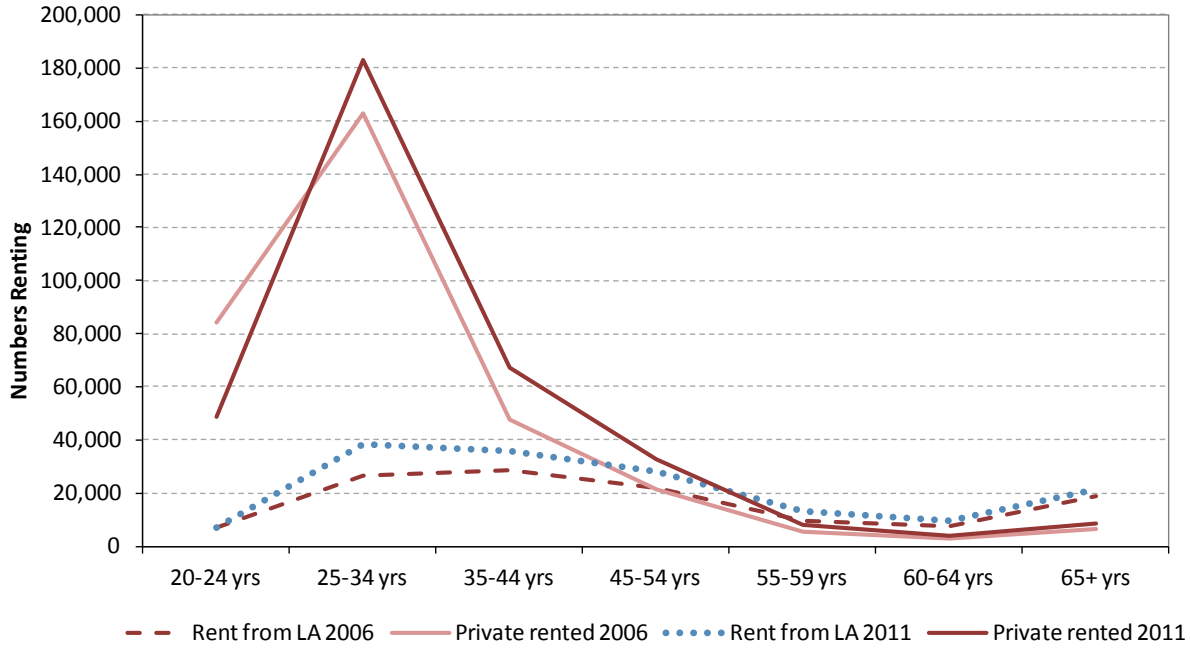
Age data from *Census 2011* shows that the absolute numbers aged 30 years is much higher than those aged either 20 or 40 years, see Figure 4.2. In the absence of Census micro-data we rely on data from the *QNHS* to get some insights into the characteristics of those who are renting. The *QNHS* data suggest that a majority of those renting are aged under 35 years. In Figure 4.3 it is also interesting to note that the number renting private accommodation is generally higher by 2011, with those aged 35-44 years increasing from 14.4 per cent in 2006 to 19 per cent in 2011.

FIGURE 4.2 Population by Year of Age

Source: CSO, *Census 2011*.

As discussed above, once the economy recovers and expectations about house prices change, it would be anticipated that a proportion of those renting would seek to buy a dwelling. A number of key factors will influence this decision, including the availability of mortgage finance. Given the impact of the crisis on incomes, the ability of households to repay any new mortgage debt will also be an important factor. Finally, the depth and duration of the crisis, in addition to widespread negative equity means it is possible the crisis will have changed the perceived attractiveness of the rental tenure choice.

FIGURE 4.3 Numbers Renting by Age Cohort



Source: Author's estimates using *QNHS* micro-data. Based on response of family unit head and those not in a family unit.

Whether a household rents or owns a dwelling they still occupy an independent dwelling. Thus, a switch in tenure from renting to owning or vice versa need not affect the number of dwellings needed to house the population. However, if a switch in tenure choice occurs, for whatever reason, it may also be combined with a change in preference for type of dwelling. While decisions about housing tenure ultimately do not affect the demand for dwellings they may, as a result, affect the demand for different types of dwelling.

Demographic Factors Affecting Household Numbers

Having considered changes in the vacancy rate and the tenure decision of households we now turn to the factors affecting the demand for dwellings over the next few years. The demand for dwellings in Ireland is affected by a range of issues. We first focus on demographic factors. The natural increase in the population, affects the number of potential households. Migration, whether immigration or emigration, also affects potential household numbers. The final "demographic" factor is the timing of the decision by an individual or individuals to jointly establish an independent household, which is affected by preferences and, of course, by the cost of housing.

In addition to these demographic factors the demand for housing is affected by two other drivers: depreciation in the housing stock and the changes in the number of vacant dwellings and the number of holiday homes. In this Section we

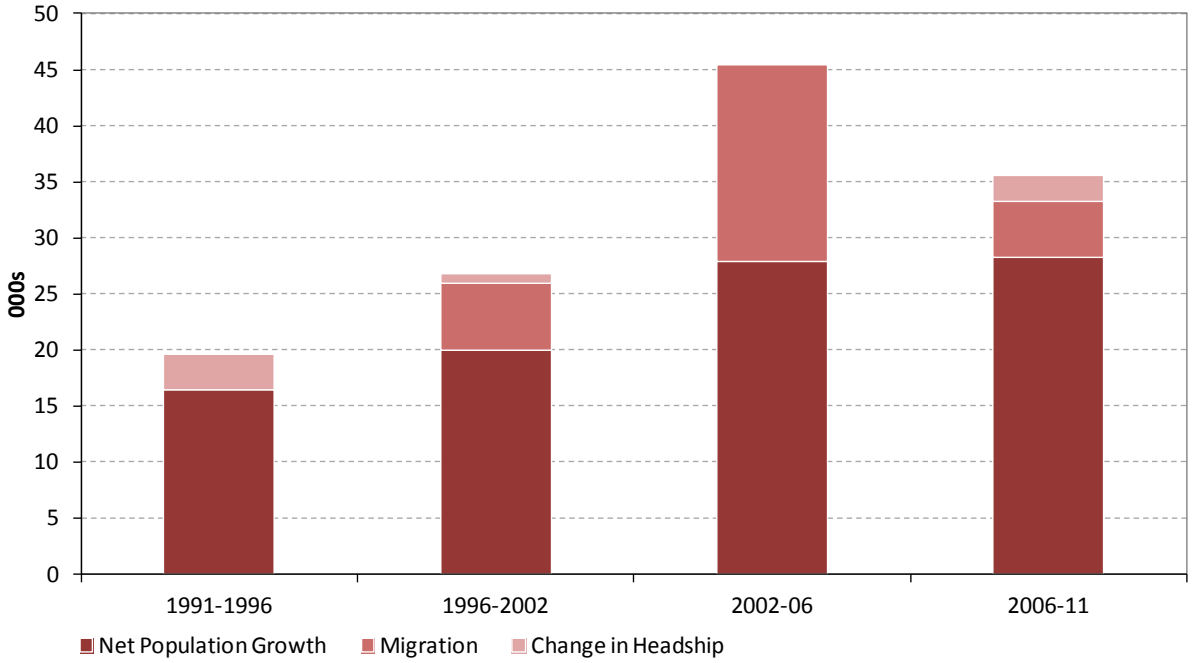
first consider the demographic factors driving household formation and we will leave till later the other factors which, together, will determine the total demand for dwellings.

We analyse the drivers of household formation using the ESRI's demographic model.[3] This model forecasts the population by single year of age using assumptions about survival rates, birth rates and migration rates. By applying age-specific headship rates[4], the number of households for each year is derived. Here we first use this model to decompose the change in the number of households over the period 1991-2011 into the different demographic components (Figure 4.4). We then use the model to estimate the future increase in household numbers over the next decade based on a set of assumptions about migration and assuming unchanged headship rates.[5]

Figure 4.4 shows this decomposition of new household formation for the inter-censal periods since 1991. The effect of the very high birth rate up to 1980 shows up as a big increase in new households in the period 1996-11. As with earlier generations, the children of the 1970s have moved to set up independent households as they reach their late twenties. At its peak, the excess of new households over households disappearing due to deaths added around 28,000 a year to the total stock of households over the period 2002-11. The very high level of immigration over the period 2002-6 meant that an additional 17,500 dwellings a year were needed to house the inflow of new households. Even with the reversal of migration from 2009, the net effect of migration between 2006 and 2011 was to add 4,900 households a year.[6] Thus, the underlying increase in demand for housing from demographic factors averaged 45,000 dwellings per annum between 2002 and 2006, and 33,200 dwellings per annum between 2006 and 2011.

3 An outline of the model is given in Byrne, Znuderl and FitzGerald (2011).
4 The proportion of a cohort heading up an independent household.
5 Over this horizon assumptions about birth rates and death rates make little difference to the numbers.
6 Duffy (2007), showed that headship rates for immigrants were similar to that for natives.

FIGURE 4.4 Demographic Drivers of the Demand for Dwellings[7], Thousands per Year



The Census data also provide some insights into a number of other factors that contribute to the demand for housing. Headship rates in Ireland are low by the standards of other rich countries in the EU 15. Table 4.1 shows that the number of houses per adult is lower in Ireland and Spain than in a sample of other EU-15 countries such as the Netherlands, Germany or the UK. A comparison of age specific headship rates for Ireland, Germany and the UK in Conefrey and FitzGerald (2009), shows that this difference arises especially for households in their 20s and their 30s. Even with the housing boom of the last decade this difference in headship rates remains the case for Ireland. While this could be due to different preferences,[8] it is more likely to be because of the rapid rise in the cost of having an independent household, observed over the period 1991-2006. It is interesting that, even with the severe economic difficulties faced by households over the period 2006 to 2011, as shown in Figure 4.4 headship rates actually increased, resulting in a need for an additional 2,400 dwellings a year. Such a rise in headship could be explained by the fall in the cost of renting over that period, which made the establishment of an independent household by those in employment more affordable than in earlier years. Against that the rise in unemployment militated against household formation. As a result, this factor was quite minor in driving household numbers. Nonetheless, it is interesting that it was positive for the first time since 1996.

7 A dwelling refers to a house or apartment.

8 For example, Irish people may be later to leave home or they may be more prepared to share a dwelling when they are not a couple than is the case elsewhere.

The difference between the change in the number of dwellings recorded in successive Censuses and the change in total number of dwellings built over the same period provides an estimate of depreciation, or dwellings which went out of use over the same period. Thus, in addition, to the increase in the number of households each year, around 9,000 houses a year disappeared from the housing stock. This can be explained by a number of factors – redevelopment (e.g. Ballymun); conversion of multi-occupation dwellings to single occupation; dereliction (e.g. old farmhouses). On top of that, as outlined in Section 2, a significant number of houses were built that did not find occupants – they were vacant.

For the period 2011-21 we use the demographic model to estimate the potential increase in the number of households. The single most important factor is the demographic pressure stemming from the natural increase in the population. A number of other important assumptions are made in undertaking this work. First, and probably most uncertain, is the assumption of significant but limited outmigration over the period 2011 to 2015.[9] The actual outturn will, inter alia, depend on what happens over the coming years in the real economy. Past forecasts of migration have proved very unreliable. However, our emigration assumption is broadly consistent with what we know about the pattern of migration in recent years.

The second simplifying assumption we make is that there will be no change in headship over the rest of the decade. This could prove to be a conservative assumption given the relatively low headship rates today in the under 35s, the dramatic reduction in the cost of housing in recent years and the prospect of some recovery in the economy and fall in unemployment over the rest of the decade.

On the basis of these assumptions we estimate that there will be some slowdown in the "natural increase" in the number of households, reflecting a fall in the birth rate in the 1980s. However, it could still give rise to an increase in household numbers of between 15,000 and 20,000 a year up to the early years of the next decade. Obviously, with higher levels of emigration household formation would be slower to increase. The assumption of no change in headship, in other words, a constant share of each age group heading up an independent household, and assuming a constant rate of obsolescence of 5,000 units per annum (low by historic standards), would suggest a need for an additional 20,000 dwellings a year over the period to 2016 to house the additional households and an

[9] It is assumed that net emigration runs at 25,000 a year to 2015 and zero thereafter.

additional 25,000 a year in the subsequent five year period.[10] To the extent that there are vacant dwellings available the need for new dwellings will be reduced. If housing costs do not rise rapidly in the coming years, with a recovery in the economy and a gradual fall in unemployment, a rise in headship rates could be anticipated which would put further pressure on the housing stock in the medium term.

TABLE 4.1 Numbers of Dwellings per Thousand Adult Population, 2001

	Total Dwellings	Occupied Dwellings
Denmark	620	595
Estonia	599	521
France	634	526
Germany	599	
Hungary	519	475
Ireland 2001	467	467
Ireland 2006	574	478
Ireland 2011	600	499
Poland	454	421
Portugal	633	448
Spain	655	444
UK	575	551

Source: *Eurostat* and *Census of Ireland.*

With fewer than 10,000 houses a year being built, the anticipated increase in household numbers should initially result in some reduction in the number of vacant dwellings. However, some regional variations may occur. If, for example, the increase happens in the Dublin area, where there are relatively few vacant houses, this may require more houses to be built later in the decade. As of today the prospect of a rise in house building seems some way in the future.

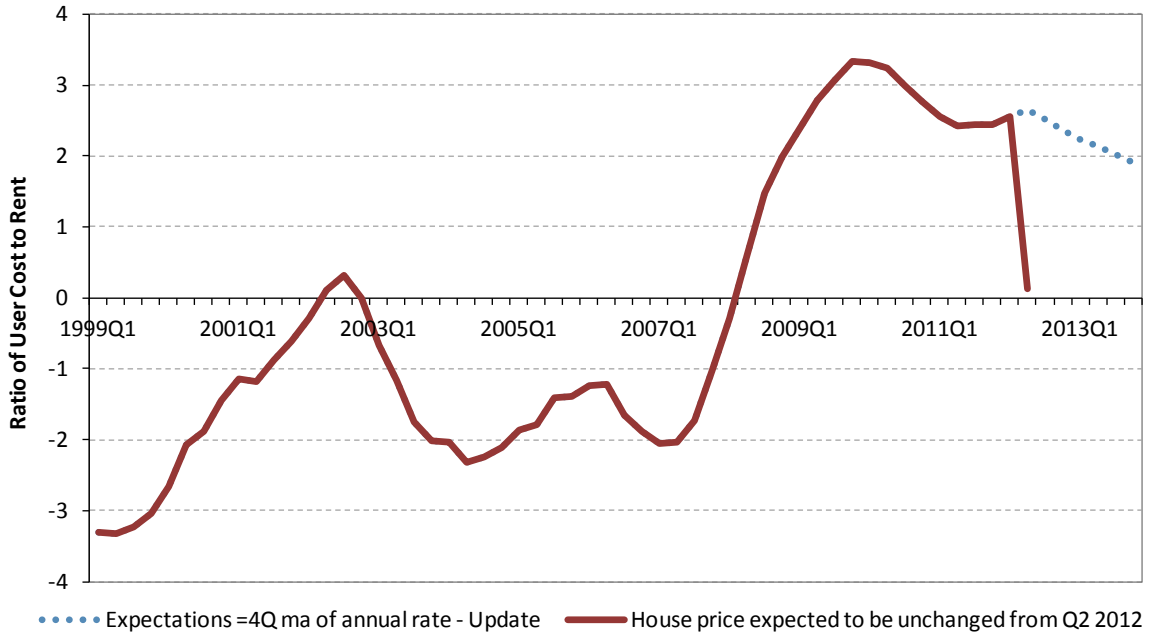
The User Cost of Housing

Section 4 explored the potential demand for housing units arising from demographic factors. However, a key determinant of whether or not this potential demand will be realised are price expectations. In both a housing market that is growing dramatically, a bubble, and in a collapsing market, expectations about future price changes have a big effect. It is difficult to predict the floor in a collapsing market because this will also be determined by expectations. Given that so much depends on expectations of households about the future, expectations that are difficult to model, it is difficult to predict when the market will reach a floor and just how low that floor will be.

[10] If emigration ran at twice this level this would reduce the increase in household numbers to around 10,000 a year in the period to 2016.

A useful framework to consider the role of expectations as they affect the decision by households to buy a dwelling rather than to rent is provided by Duffy (2011). Decisions by households on whether or not to buy a dwelling depend, to a significant extent, on whether purchase is likely to be better value than renting in the immediate future. As discussed above, there is a large stock of people who are renting who are facing this choice today. Central to the decision whether to buy or to continue to rent will be expectations of future price changes as these determine whether the potential buyer considers themselves to be facing a capital gain or capital loss. Even if households believe that, in the long run, prices will be stable in real terms, if they believe that prices will fall in the coming year then there is a benefit to the household from waiting by avoiding any expected capital loss.

FIGURE 4.5 Ratio of the User Cost of Housing Relative to Renting



The role of expectations as they affect the decision to buy in the coming year rather than to rent is reflected in Figure 4.5. Here we use a measure of the user cost of housing which includes expectations of changes in capital values. This allows the comparison of the annual cost of owning a house to the annual cost of renting. The user cost is the notional price an owner-occupier pays for the housing services provided by their dwelling, the rate of return or the cost of owning a house. The user cost measure takes account of tax, mortgage borrowing, maintenance and depreciation costs as well as house price expectations. The Figure shows the ratio of the user cost of buying a house relative to the cost of renting on the basis of a range of different expectations about the change in house prices in the coming year. The dotted green line in Figure 4.5 shows the user cost to rent ratio where future house price

expectations are assumed to be based on the experience of the previous year. As can be seen in the Figure, for much of the period, when house prices were increasing high expected house price appreciation meant that the user cost of housing was negative, as large capital gains made home acquisition attractive. From 2007 onwards the fall in house prices, leading to the expectation of further house price falls, reversed this and the user cost to rent ratio rose dramatically, peaking in quarter 4, 2009. The extent to which the ratio rose during the housing market downturn reflects the capital loss experienced by homeowners.

Since quarter 4, 2009 the ratio has fallen. In our base scenario, where house price expectations are assumed to be based on the experience of the previous year, the user cost-to-rent ratio gradually moves downwards. However, today, it still remains well above the level that would make it profitable to buy unless households expect house prices to stabilise or to begin to increase again. The solid blue line shows what would happen if expectations suddenly changed so that households expected no change in real house prices next year and into the future. In that case it would be profitable to switch immediately from renting to buying.

This makes for a rather unstable and unpredictable environment. While Kennedy and McQuinn (2012) may consider the "fundamentals" of the housing market, suggesting that house prices may have fallen too far, because an end to the trend of falling prices depends on changed expectations it is much more difficult to predict when any turnaround will occur. Of course any change in expectations needs to be combined with house prices at affordable levels for those currently renting. *Census 2011* contains data on the distribution of weekly rents. Assuming a 25 year mortgage, a 90 per cent loan-to-value ratio and based on the current average interest rate for mortgages, approximately 4.25 per cent, we can estimate a house price level consistent with current rental payments. This suggests that current house price levels would only allow approximately 40 per cent of those renting to buy, and this is on the assumption that they have saved the required deposit.

Conclusions

The recent publication of some details from *Census 2011* Census provides us with some insights into the current state of the housing market and into some of the factors that will determine its path over the next few years. The data suggest that, in key urban areas, the stock of vacant houses is not very large. This is particularly the case for houses in the greater Dublin area. A significant increase in demand to buy houses in these urban locations could exhaust the vacant stock and, given a very low level of house-building, this would begin to put upward

pressure on prices. In addition, assuming significant emigration until 2015, demographic pressures will mean that dwellings will have to be found for a minimum of around 15,000 to 20,000 new households each year over the coming decade. (If emigration proved higher or lower than this it would clearly affect the change in household numbers.) Given the limited stock of vacant dwellings in high demand locations, and given the low level of new build, even if there is no change in the perceived incentives to buy, the increase in household numbers, driven by demographic change, will eventually begin to put upward pressure on rents, provided there is not large scale net migration.

The data also show an unusually high proportion of households who are renting today – probably because it is more profitable to rent than to buy in a market that was seen as over-valued or, now, in a falling market. Should their expectation of future prices change there could be quite a number of households who would quickly find it profitable to buy rather than to rent though, even then, they would need to be convinced that property prices had really stabilised. However, it is very difficult to predict when expectations of prices will change. While the experience of the crisis may mean that not all of these households will look to buy a dwelling in the future, it is expected that a proportion of these would seek to buy once their price expectations change.

While property prices may never return to anywhere near where they were in real terms in the past, when expectations change it is likely that the recent sharp fall in house prices will be halted. This will lead to some increase in the numbers of households seeking to buy rather than rent. Whether this demand will materialise in practise will depend on the availability of mortgage finance from the banking system. In a somewhat longer time scale, there will also probably be some pressure to increase the level of building from the current very low level. However, such a change would also depend on the availability of finance for building.

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APPENDIX TABLE 1 Vacancy Rate by County

	1996	2002	2006	2011
State	8.4	9.8	15.0	14.5
Leinster	5.5	6.7	11.6	10.3
Carlow	6.2	7.8	12.3	13.8
Dublin	4.3	5.0	9.7	8.3
Dublin City	5.7	6.1	11.7	10.2
Dún Laoghaire-Rathdown	2.2	2.8	6.2	7.7
Fingal	3.4	4.9	8.8	7.0
South Dublin	3.2	4.3	8.9	5.4
Kildare	3.6	5.8	9.9	8.0
Kilkenny	6.4	6.6	12.0	11.9
Laois	7.9	9.0	15.7	12.5
Longford	10.8	12.8	22.2	21.6
Louth	6.5	6.4	13.4	12.2
Meath	6.1	8.2	10.6	8.9
Offaly	6.9	7.7	12.9	11.8
Westmeath	8.1	9.7	15.3	13.4
Wexford	10.6	16.6	21.5	21.0
Wicklow	8.0	7.2	11.4	9.9
Munster	**10.4**	**11.5**	**16.5**	**16.5**
Clare	12.8	16.1	20.1	21.2
Cork	9.6	10.4	15.3	14.6
Cork City	5.7	6.0	12.0	11.1
Cork County	11.3	12.1	16.5	15.8
Kerry	17.3	18.5	24.8	26.4
Limerick	7.9	8.2	12.6	12.3
Limerick City	6.2	5.6	12.7	12.3
Limerick County	8.7	9.4	12.6	12.3
North Tipperary	8.4	10.1	13.4	14.7
South Tipperary	7.6	7.4	12.7	12.6
Waterford	9.0	11.5	16.8	16.4
Waterford City	5.5	7.1	14.3	14.8
Waterford County	11.7	14.8	18.7	17.6
Connacht	**12.9**	**15.3**	**21.4**	**21.3**
Galway	10.6	12.6	17.9	16.9
Galway City	6.0	7.7	13.0	11.2
Galway County	12.5	14.7	20.1	19.4
Leitrim	18.6	21.7	29.3	30.5
Mayo	15.8	18.4	24.4	24.7
Roscommon	12.0	15.4	21.8	23.2
Sligo	12.4	13.9	23.1	22.2
Ulster (part of)	**13.2**	**16.7**	**23.1**	**24.3**
Cavan	11.2	12.8	21.2	21.6
Donegal	15.6	20.9	27.0	28.6
Monaghan	8.9	8.1	12.8	13.6

APPENDIX TABLE 2 Vacancy Rate by Broad Property Type

	Apartments		Houses	
	2006	2011	2006	2011
	%	%	%	%
State	19.4	25.2	11.8	13.4
Leinster	**23.9**	**21.1**	**13.4**	**8.4**
Carlow	17.9	41.1	8.2	12.2
Dublin	18.5	18.6	9.6	4.9
Dublin City	11.4	19.1	7.0	5.7
Dún Laoghaire-Rathdown	15.2	20.1	8.6	4.5
Fingal	25.5	15.5	6.4	5.4
South Dublin	24.1	17.9	9.7	3.4
Kildare	20.1	21.6	13.4	6.7
Kilkenny	39.2	31.8	17.3	11.0
Laois	38.2	35.5	27.6	11.4
Longford	30.8	50.5	14.3	20.2
Louth	20.0	36.7	11.3	10.4
Meath	24.5	25.9	14.2	7.4
Offaly	32.7	35.9	16.5	10.7
Westmeath	29.5	32.9	27.2	11.8
Wexford	15.5	43.7	12.6	20.2
Wicklow	26.1	19.4	19.2	9.2
Munster	**25.1**	**32.2**	**25.3**	**15.7**
Clare	25.9	38.2	17.3	20.6
Cork	24.6	28.4	10.8	13.7
Cork City	27.3	25.6	19.3	8.0
Cork County	30.0	31.5	33.6	15.3
Kerry	23.4	42.2	13.3	26.2
Limerick	26.8	29.6	10.5	10.7
Limerick City	18.3	30.8	14.4	7.6
Limerick County	24.8	27.1	15.2	11.9
North Tipperary	26.0	35.6	13.9	14.0
South Tipperary	30.5	33.8	19.1	11.9
Waterford	30.2	40.5	13.9	14.7
Waterford City	31.7	42.8	22.9	10.2
Waterford County	28.6	32.2	27.1	17.6
Connacht	**23.8**	**35.6**	**21.4**	**20.8**
Galway	19.5	27.5	13.3	16.4
Galway City	32.8	21.6	24.5	8.8
Galway County	44.7	40.0	40.4	18.9
Leitrim	35.1	57.0	32.0	29.6
Mayo	35.4	45.5	27.5	24.1
Roscommon	35.1	52.8	29.6	22.5
Sligo	32.2	41.9	29.9	21.4
Ulster (part of)	**31.0**	**49.5**	**26.6**	**23.5**
Cavan	37.2	50.9	37.0	20.3
Donegal	19.3	53.7	14.4	28.0
Monaghan	21.9	35.1	17.0	12.5

APPENDIX TABLE 3 Share of All Households that are in Private Rented Accommodation, %

	2002	2006	2011
	%	%	%
State	11.1	9.9	18.5
Leinster	**11.7**	**10.8**	**20.3**
Carlow	10.8	8.8	15.8
Dublin	14.5	13.8	25.1
Dublin City	21.0	19.2	32.0
Dún Laoghaire-Rathdown	11.3	11.1	20.0
Fingal	8.2	9.5	21.5
South Dublin	6.6	7.7	16.8
Kildare	9.2	8.5	17.3
Kilkenny	7.9	6.9	13.6
Laois	7.3	6.0	13.2
Longford	7.1	7.6	16.0
Louth	9.0	7.0	14.9
Meath	5.9	5.8	13.7
Offaly	6.7	6.4	13.6
Westmeath	10.8	8.8	18.1
Wexford	8.2	7.6	14.5
Wicklow	8.2	7.5	14.9
Munster	**10.6**	**9.1**	**16.6**
Clare	9.1	7.7	14.2
Cork	11.8	10.2	18.8
Cork City	18.4	15.4	27.0
Cork County	9.1	8.3	16.0
Kerry	9.2	7.6	14.3
Limerick	11.8	10.3	17.9
Limerick City	17.4	14.3	24.3
Limerick County	9.0	8.5	14.9
North Tipperary	7.7	6.8	13.1
South Tipperary	7.8	6.9	13.7
Waterford	9.9	8.8	14.7
Waterford City	13.4	12.9	20.1
Waterford County	7.0	5.5	10.5
Connacht	**10.9**	**9.8**	**17.4**
Galway	13.9	12.7	20.9
Galway City	27.7	24.9	37.5
Galway County	7.3	6.9	13.3
Leitrim	7.1	7.0	14.2
Mayo	9.1	7.6	14.5
Roscommon	6.8	6.2	13.0
Sligo	10.4	8.5	16.6
Ulster (part of)	**8.2**	**6.8**	**13.5**
Cavan	7.2	7.0	15.1
Donegal	8.8	6.5	12.9
Monaghan	7.5	7.3	13.4