



ESRI Research Note

Household Formation and Tenure Choice

David Byrne, David Duffy and John FitzGerald

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1. Introduction

In an article in the Spring *Commentary* we considered the effect of prospective demographic changes on the need for additional dwellings over the coming decade (Duffy *et al.*, 2014). A range of different scenarios were considered suggesting that there was a need for between 19,000 and 33,000 additional dwellings a year. The range of estimates depended on assumptions about migration and headship rates – the proportion of people of a particular age who are the head of an independent household. This note presented evidence that headship rates in Ireland had risen over the last decade but that they are still lower than in England, Wales, Northern Ireland and France. However, as was indicated in the article, the factors driving headship rates were not well defined, which left uncertainty as to how they would move in the future. This note presents evidence from recent research which focuses on the factors driving household formation and tenure choice.

Because of the important role that decisions on household formation play in determining the demand for dwellings, we have developed a model which takes account of many of the factors that explain individuals' decisions to form an independent household.² In this note we use this model to provide greater insight into the household formation process and to better understand the pressures that the housing market will face in the short- to medium-term.

The second aspect of household behaviour we examine is the choice to buy or to rent a dwelling. The proportion of people renting has risen significantly over the last five years and it is important to understand what are the factors underlying this change. A separate but related model has been developed which explains tenure choice – whether to buy, rent or avail of social housing. We use this model to consider to what extent people, who have been renting in recent years, may now choose to buy. Such a change in preference for tenure would put additional

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² "Household Formation and Tenure Choice: Did the great Irish housing bust alter consumer behaviour?", Byrne, Duffy and FitzGerald, ESRI Working Paper 487, 2014.

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pressure on the market for dwellings for sale and raise the requirement for future funding of households' investment in housing.

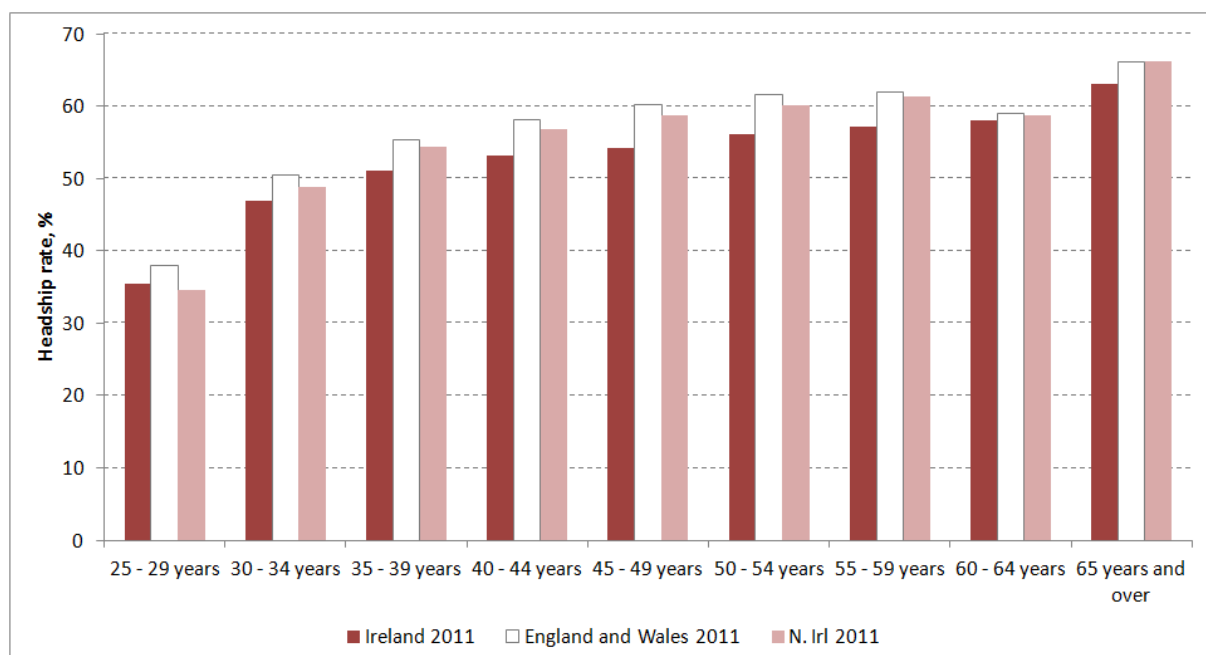
This research uses *Quarterly National Household Survey* data on individuals and households for the period 2001-2011. This spans the build up of the housing bubble to 2007 and the subsequent collapse in the housing market. Because of the large sample size we are able to consider the behaviour by five year cohorts – those aged 20-24, 25-29, 30-34 and 35-39. We concentrate on these four age groups as they span the period when individuals normally form independent households, moving out from their parental homes, and it also spans the period when households have, in the past, tended to buy their first dwelling.

In Section 2 of this note we apply the model of household formation to consider how changes in the cost of accommodation may affect the number of households and, hence, pressures on the housing market. In Section 3 we discuss the implications of our model of tenure choice for the number of people seeking to switch from renting to owning, as the cost of each form of tenure changes. Section 4 concludes on the implications of this research for the housing market in Ireland over the next few years.

2. Household formation

Historically Ireland has had a low headship rate relative to England and Northern Ireland. Figure 1, taken from Duffy *et al.* (2014) compares the headship rates in Ireland, Northern Ireland and England and Wales, by different age groups in 2011.

FIGURE 1 Headship Rates, Ireland, Northern Ireland, England and Wales, 2011



Source: Duffy *et al.* (2014).

This shows that, across the relevant age groups, headship rates are significantly lower in Ireland than in the other two locations. This is despite a convergence since 2000; headship rates rose in Ireland while falling in England and Wales in the same period. Figure 1 also highlights that the 25-29 and 30-34 year age-groups are particular focal points for household formation.

The decision to form a household depends on a wide variety of factors, including individual traits, numerous social factors and the ability to afford the cost of setting up a household. Byrne *et al.* (2014) focus on the impact of affordability, notably in the context of falling rents, and on a range of individual-specific factors which are discussed below. Affordability is captured in two ways; the ratio of average rents to Personal Disposable Income³ (PDI) and the individual's educational attainment. Byrne *et al.*, find that falling rents post-housing crash in Ireland are significantly linked with the increase in household formation rates. In particular, we find that if renting were less affordable (i.e., if the ratio of rent to PDI were at the 2007 level rather than the 2011 one), the 2011 household formation rate for those aged 25-29 would have been 2.3 percentage points lower. In addition, the formation rate for the 30-34 year age-group would have been 2.1 percentage points lower. We thus find that we can attribute household formation by 17,000 individuals between the ages of 25 and 34 in 2011 to the fall in the ratio of rent to PDI.

The second important factor in affordability is educational attainment. Byrne *et al.* (2014) use this as a proxy for income and ability to pay, in the absence of data in the *Quarterly National Household Survey* on individual income. Using Upper Secondary education (Leaving Certificate) as a reference group, we find significant effects of both lower and higher education. Those with lower education have significantly higher formation rates than the reference group, due to life-stage effects; their early departure from the education system allows them to enter the labour market earlier, to form families earlier, etc. This effect diminishes with age. Those with higher education also have higher formation rates due to their greater incomes. While they delay entry to the labour market, the financial return to their higher education results in a greater ability to offset the cost of household formation.

We control for a range of other factors which are important in the household formation process, including gender, marital status, migration status, labour market status, and region. We find, for instance, that women are significantly more likely to form independent households than men, and migrants have higher formation rates than the native Irish population. The importance of the cost of accommodation in driving the decision to form an independent household is also emphasised by the fact that the model indicates higher rates of household formation outside Dublin. This reflects the fact that, while incomes are higher in Dublin, the cost of accommodation was also much higher in Dublin than in the

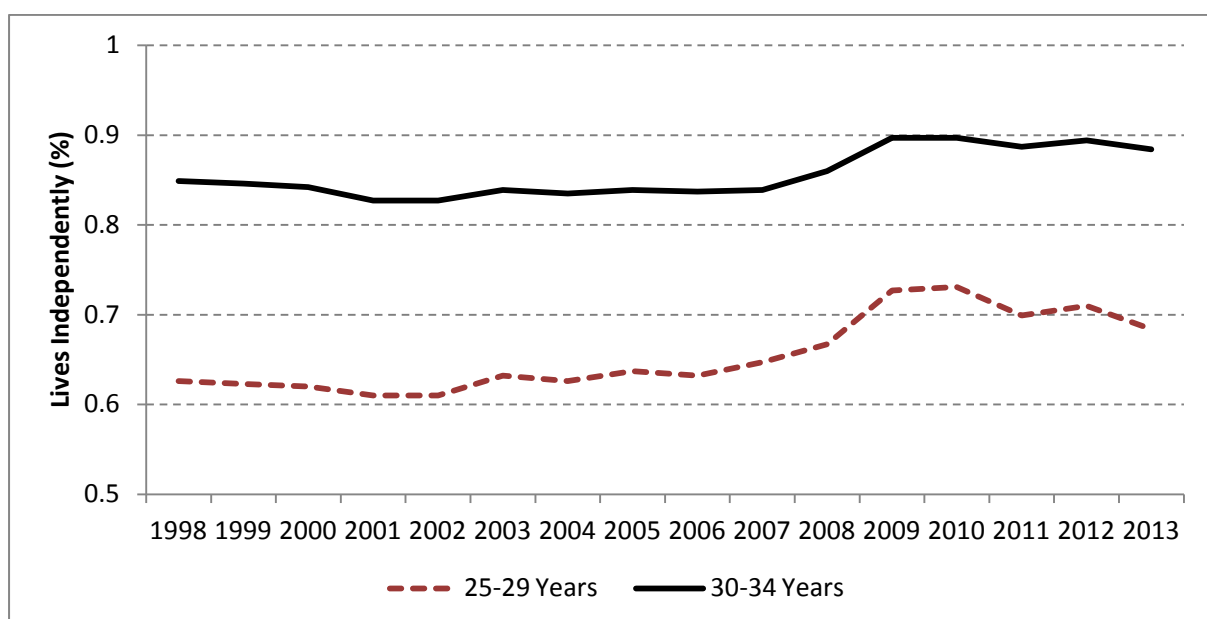
³ Data provided by the CSO *Regional Accounts*.

rest of the country, more than offsetting the effects of higher incomes. Other factors including transport infrastructure and greater geographic distances are likely to play a role in the higher formation rates outside Dublin.

Furthermore, we also use decomposition methods to ascertain whether the change in formation rates in Ireland can be attributed to a change in behaviour or a change in the distribution of attributes in the population. There has been, for instance, a great increase in the proportion of Irish people with Third Level education, and this could be associated with higher formation rates. We show that this played a significant role in the change in formation rates before 2006, but did not afterwards. This reflected the fact that a big increase in participation rates occurred in the 1990s to reach something of a plateau in the 2000s. Furthermore, behavioural change, likely in response to the cost of household formation, is the significant factor in the post-2006 change in formation rates.

Figure 2 shows household formation rates for the 25-29 and 30-34 year age-groups between 1998 and 2013. Formation rates grew particularly strongly in these age-groups post-crisis, despite the very large increase in unemployment from the onset of the crisis. The analysis shows that an important factor in the increase in household formation was the fact that the rent to income ratio fell significantly as a result of the crisis. Prior to the crisis rents had been rising rapidly and the cost of forming an independent household was a major incentive to remain at home with parents or to share accommodation with friends, rather than moving into independent accommodation. However, after the crisis, while incomes fell, the fall in rents was substantially greater. The result was that, for those with a job, independent living became much more affordable. This fall in the cost of accommodation dominated the effect of rising unemployment.

FIGURE 2 Household Formation by Age Group, 1998-2013



Source: Author's calculation based on QNHS data.

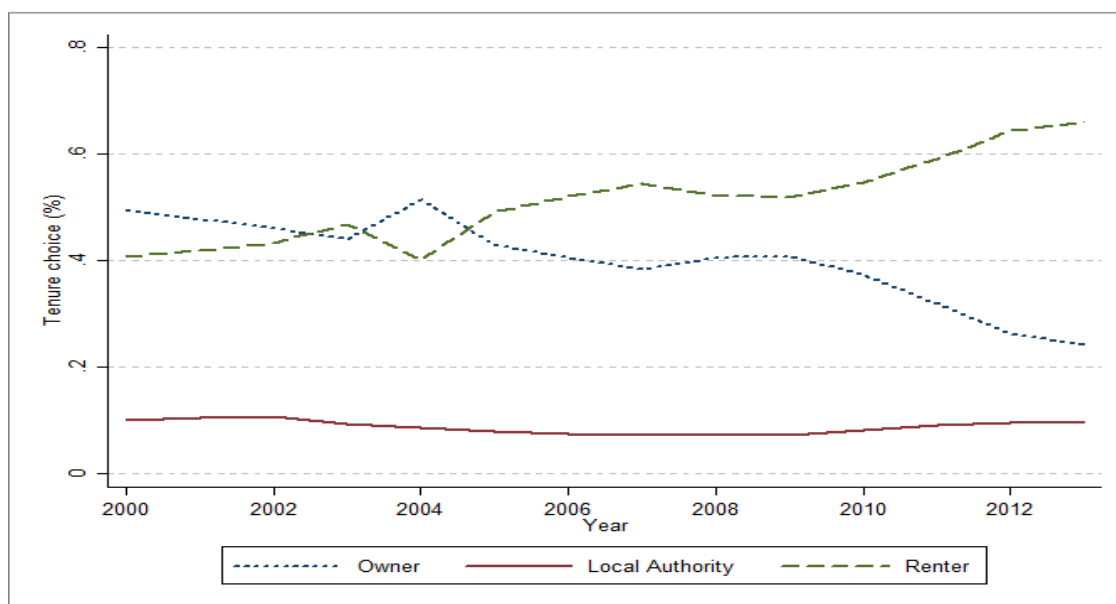
As the downward trend in the rent to income ratio has now been reversed, in the coming years this will tend to reduce the numbers setting up independent households encouraging them, instead, to share accommodation or to live with their parents for longer. This will slightly ease demand pressures in the housing market although the rise in rents still leaves rents approximately 15 per cent below their 2007 level. However, if housing supply does not respond, rents will continue to rise. In turn, this will serve to moderate demand by discouraging more and more people who are under 35 years from setting up independent households.

3. Tenure Choice

There has been a significant change in the tenure choice behaviour of younger Irish people in recent years, particularly since the housing bubble burst. Figures 3 and 4 show the tenure choice of the 25-29 and 30-34 year age-groups respectively, between 2000 and 2013. In each cohort the proportion in Local Authority dwellings remains fairly stable throughout.

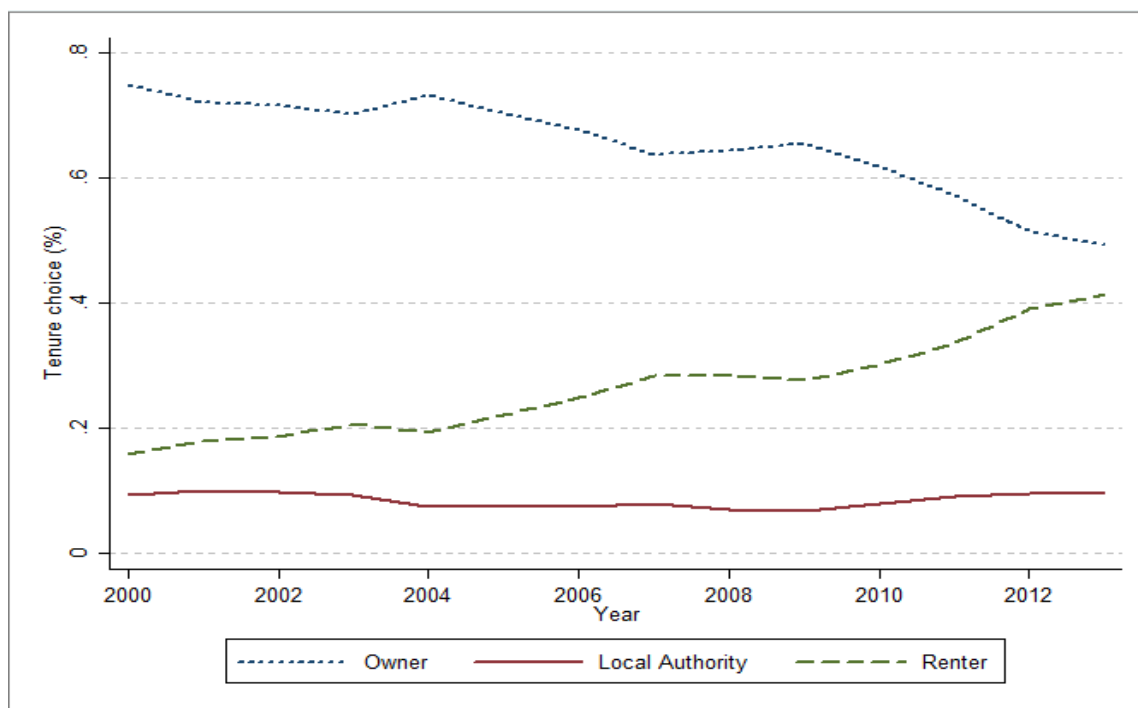
Figure 3 shows that the proportions of individuals aged 25-29 in rented and in owner-occupied housing were roughly equal in the early part of the 2000s. The share renting began to rise slowly from 2005 onwards, and then more rapidly after 2008. Similarly, for the cohort aged 30-34 (Figure 4), since the property market bubble burst there has been a big change in behaviour, with an ever increasing share of the cohort choosing to rent. This change in choice of tenure among younger cohorts in Ireland may reflect the fact that they were sufficiently young when the crisis hit that they had not committed to homeownership. Furthermore, when the housing bubble burst relative costs began to favour renting, incentivising younger Irish people to become renters.

FIGURE 3 Tenure Choice for Those Aged 25-29 Years



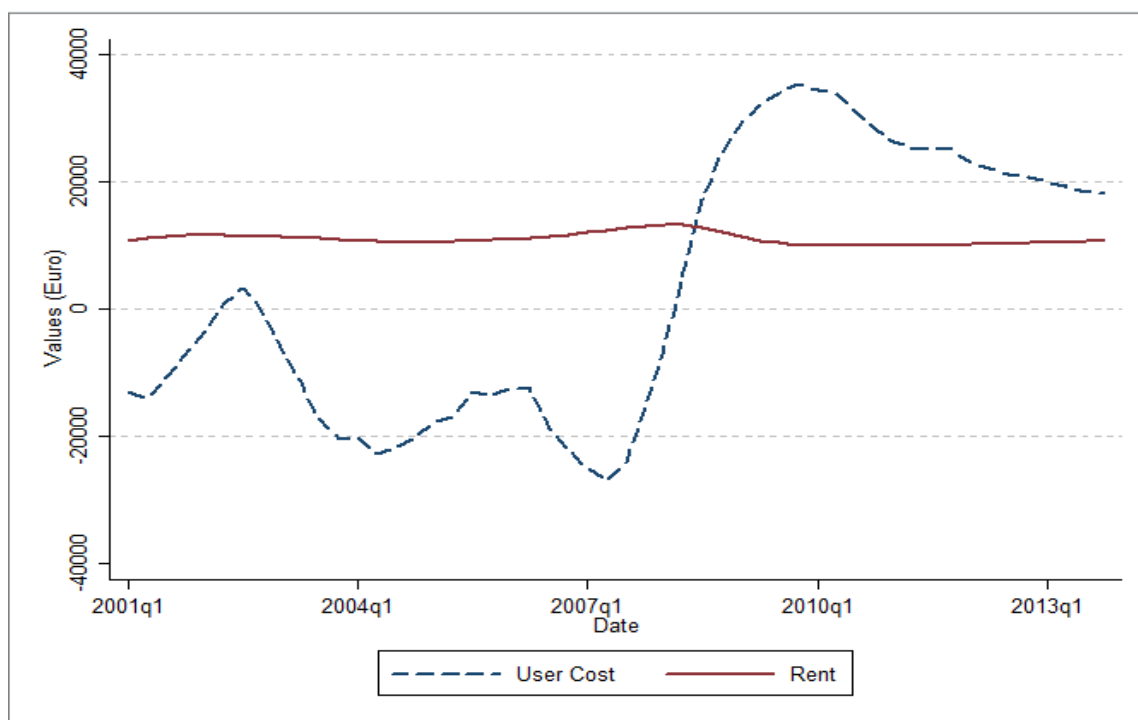
Source: Byrne et al. (2014).

FIGURE 4 Tenure Choice for Those Aged 30-34 Years



Source: Byrne et al. (2014).

FIGURE 5 The User Cost of Owning Relative to Renting



Source: Byrne et al. (2014).

Figure 5 shows the costs of renting and owning: average rents and the user cost of housing. The user cost is a notional cost of owning a home, incorporating taxation, depreciation, mortgage costs and, importantly, price expectations. The rise in the user cost of owning after 2007 reflects a change from a period where homeowners were expecting to experience capital gains from ownership to one where they expected to experience a substantial loss due to falling prices post-

crash. In addition, rents were also falling in the post-2008 environment, further encouraging households to rent.

However, house prices hit a floor just over a year ago and have since begun to rise again. House prices are expected to rise in the next few years and households are probably building this into their expectations and into their assessment of what is the appropriate tenure choice for them in coming years.

Byrne *et al.* (2014), model the factors underlying the choice of tenure by individuals. These include the relative costs of tenure, the user cost less average rent, and individual-level characteristics including education, marital and family status, labour market status, migration status and region. In addition, we control for household formation while estimating tenure choice, as formation was increasing over the period and new entrants tend to be renters. Our focus is on quantifying the role that movements in tenure costs played on the tenure choice decision. We find that these movements were important, although we note that a range of other factors, including uncertainty in financial, housing and labour markets, certainly played an important role also.

Our results show that the relative cost of tenure is a significant factor in the choice of tenure of those aged 25-34. An increase in the user cost or a fall in average rents is associated with falling homeownership and increasing renting. The model thus shows that the fall-off in homeownership post-2008 is partly attributable to movements in the relative costs and partly to an increasing household formation rate. However, with the reversal in the trend in house prices, the incentive for renting relative to homeownership is weakening. Should house prices continue to rise, particularly due to a lack of supply of new housing, the user cost will fall due to increasing price expectations. This will induce a shift in preferences towards owning once more.

If the user cost equals average rents then there is no longer an incentive in favour of renting. The model suggests that if the user cost falls to this level then approximately 2.6 per cent of current renters will wish to switch to owner-occupied housing. These households would add to the effect of rising population in the relevant age cohorts, which is the primary driver of housing demand. Thus the overhang of potential buyers, which was low two years ago, continues to grow, putting upward pressure on the market for owner occupation.

However, one additional area of uncertainty is whether the result of the crisis has been a permanent change in preferences away from home ownership to renting. The crisis has illustrated the fact that homeownership carries risks, which may have been ignored by many households prior to the crisis. If there has been such

a change in preferences, then the estimated overhang of additional “buyers”, discussed above, may be an overestimate.

Our results also show that having greater means, as represented by higher education, has a significant effect on the tenure choice decision. Those with higher education are likely to be renters across all age-groups, while its impact on the probability of homeownership changes at around the age of 30. Before that age there is a significantly negative effect, possibly reflecting the fact that, because of the time spent gaining a Third Level education in their early twenties, those with higher education were not in a position to buy at the height of the housing boom. Furthermore, once the user cost began to fall from 2008 onwards it was always going to be uneconomic for them to buy.

Meanwhile, in the older age-groups, having higher education is positively associated with homeownership, which may reflect a change in preference once individuals reach their thirties. Migrants also tend towards renting rather than owning, while households with children tend to be less likely to be renters. This may reflect the need for larger accommodation or the fact that households with children are less mobile than those without and the uncertainty of tenure associated with renting means that they place a higher value on homeownership.

4. Conclusions

There is significant pressure on the Irish housing market today which is reflected both in rising rents and in rising house prices. If households who are currently renting, but who would be better off buying, actually managed to buy, that could possibly free up a stock of dwellings to rent. Further research is required to establish what form of dwelling will be demanded by households in the coming years.

The effect of the rise in rents will be to delay the formation of an independent household by some individuals in the coming years. This will tend to reduce headship rates, slightly easing pressures for additional dwellings. However, the growth in the size of the cohort of people aged 20-39 means that a substantial supply of additional dwellings will be needed over the coming decade (Duffy *et al.*, 2014).

The nature of the dwellings that people will seek to buy is not clear from this research and it merits further consideration. The research outlined in Morgenroth (2014), suggests that the additional dwellings need to be located firstly in Dublin and its environs.

To the extent that there are pressures for higher levels of homeownership as a result of demographic changes and changes in relative prices, this will only be realised if additional dwellings are built and if the financial sector can finance such a change. There are concerns about the willingness and ability of the financial system to actually fund the building sector to expand its production of dwellings.

Until the supply of dwellings responds to the rise in prices and rents, there will continue to be upward pressure on prices. This rise in prices should incentivise a supply response. However, to minimise the price rise that will occur, it will be very important to deal with any regulatory or administrative obstacles, which may be hindering an early supply response by the building industry.

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