Research Repository UCD

Title	Housing wealth, debt and stress before, during and after the Celtic Tiger
Authors(s)	Norris, Michelle, Winston, Nessa
Publication date	2011-03
Publication information	Norris, Michelle, and Nessa Winston. "Housing Wealth, Debt and Stress Before, during and after the Celtic Tiger." Edward Elgar, 2011.
Publisher	Edward Elgar
Item record/more information	http://hdl.handle.net/10197/4923
Publisher's statement	This material is copyrighted and is made available with the permission of the publisher for private, personal use only
Publisher's version (DOI)	10.4337/9781849805841.00010

Downloaded 2023-04-07T10:52:29Z

The UCD community has made this article openly available. Please share how this access benefits you. Your story matters! (@ucd_oa)

© Some rights reserved. For more information

Norris, M. and Winston, N. (2011) ‘Housing wealth, debt and stress before, during and after the Celtic Tiger’, pp. 74-92 in R. Forrest and Y. Ngai-Ming (2011) *Housing Markets and the Global Financial Crisis: The Uneven Impact on Households*. Cheltenham: Edward Elgar

Introduction

Compared to many other western European countries the Republic of Ireland is distinguished by historically high rates of home ownership. In 1971 60.7 per cent of Irish households were home owners compared to 50 and 35 per cent of their counterparts in Britain and Sweden respectively (Kemeny, 1981). In addition to socio-economic factors such as the predominately rural and dispersed population distribution, these levels of home ownership rates were driven by extensive government support. Direct government supports for first time home buyers covered approximately 15 per cent of the costs of an average suburban home in the late 1970s and during this decade, government provided half of all mortgage loans, as the commercial mortgage market was underdeveloped (O’Connell 2005; Fahey, *et al*, 2004). Furthermore, since the 1930s social housing tenants have enjoyed the ‘right to buy’ their dwellings, at a substantial discount from the market value and, uniquely in western Europe, no ongoing taxes are levied on owner occupied homes (O’Connell and Fahey, 1999). These supports appear particularly generous in view of the underperformance of the Irish economy which, apart from a brief period in the 1960s/ early 1970s, declined or stagnated for much of the 20th Century. As a result, population growth followed a similar pattern, as despite a high birth rate, emigration was also high, particularly in the 1950s and 1980s (Kennedy, *et al*, 1998).

From the mid 1990s, following the advent of the ‘Celtic Tiger’ economic boom, this situation changed radically (see Honohan and Walsh, 2002 for a fuller review). GDP per capita increased from 10 per cent below the

European Union average in 1995, to 35 per cent above that for the EU15 in 2007 (Central Statistics Office, various years). Together with sharp falls in taxation and interest rates, rising employment and the liberalization of the mortgage credit market, this contributed to equally dramatic demographic and housing market change. The population rose by 17 per cent and the number of households expanded by 14 per cent between 1996 and 2006 (Central Statistics Office, 2007a). Despite very high rates of new house building in recent years, annual house price growth jumped from 7.7% per annum between 1990 and 1993 to 22% per annum between 1996 and 2002 (Norris and Shiels, 2007). By the late 1990s the proportion of mortgages provided by government had fallen to 0.1 per cent, and average interest rates on new mortgages fell from 7.10 per cent in 1994 to 3.4 per cent in 2004 following Ireland's entry into European Monetary Union and entry of UK banks into the Irish mortgage lending market in the post 2000 period (Norris *et al*, 2007; European Mortgage Federation, various years).

Since mid 2007 however, the Irish economy, government finances and housing market have declined both suddenly and sharply. GDP per capita grew by 5.3 per cent in 2007, but declined by 4.2 per cent in 2008 and by 8.4 per cent in the first half of 2009 (Central Statistics Office, various years). The unemployment rate rose from 4.6 per cent in 2007 to 12.5 per cent in November 2009, and the public balance of payments, which had been positive for most of the 1997-2007 period, fell sharply to -7.1 per cent of GDP in 2008, the highest budget deficit in the Eurozone (Central Statistics Office, various years). This economic downturn has depressed rents and house prices, but the full extent of its impact on the housing market are as yet unclear. The most robust house price data available indicates that prices nationally fell by 26 per cent between December 2007 and August 2009 (Permanent TSB/ ESRI, various years). However, several commentators have suggested that these data radically underestimate the true extent of price decline.

Using data from the 2007 round of the European Union Survey of Income and Living Conditions (EU SILC) and the 1994 and 2000 rounds of its precursor survey (the European Community Household Panel) other relevant sources (principally official statistics on house prices, mortgage lending, unemployment etc), this chapter examines the implications of this boom and bust for housing wealth, debt and stress in Ireland and in

particular its impact on different age and income groups, housing tenures and regions of the country. The discussion of this issue presented here is prefaced by an outline of the methods used to compile the data on which this analysis is based and followed by a discussion of the implications of this analysis which draws on the international literature on trends in housing policy, stress debt and asset accumulation.

Research methods

This chapter draws on a number of data sources. The core of our analysis is based on data from the Irish module of two EU wide longitudinal social surveys – the European Union Survey on Income and Living Conditions (EU-SILC), conducted annually from 2003 to date and its precursor the European Community Household Panel (ECHP), which was conducted between 1994 and 2002. As part of these surveys interviews were conducted with large representative samples of Irish households and the anonymized micro-data on their results were made available to the authors via the Irish Social Science Data Archive.

Here we analyse data from the 1994, 2000 and 2007 iterations of these surveys. The first of these years marks the period prior to the Celtic Tiger boom, the second its height and the third its end and the beginning of the current severe economic down-turn. The objective of this exercise is to explore the impact of the boom and bust on housing wealth, debt and stress among different household types. In this chapter housing wealth is assessed with reference to outright ownership of principal residences and second home ownership. Mortgaged principal residences and rent or mortgage arrears during the last 12 months are employed as indicators of housing debt and subjective indicators (difficulty making ends meet and burdensome housing costs) are used to examine housing stress. In order to assess variations in the experiences of different household types these indicators are disaggregated according to: housing tenure, the age of the household head, income quartile and also whether they live in Dublin (the capital and by far the largest city), the Mid-East region (effectively the commuter belt surrounding Dublin which has grown dramatically in recent years) or in the rest of Ireland.

The data from these EU surveys is supplemented by data from the Irish census of population and an Irish sample survey – the Quarterly National Household Survey (quarter one 2007 and 2009). In addition, administrative data on the following issues is employed: house prices; mortgage lending; supports for unemployed mortgage holders, and repossessions of lands, dwellings and premises collected by the courts.

Housing wealth

Table 1 details trends in housing wealth in 1994, 2000 and 2007 as indicated by outright ownership of dwellings and second home ownership. It identifies a marked increase in housing wealth between these years among most of the social groups under examination, but indicates that this increase is distributed unevenly among the different age and income groups, regions and asset types examined.

Of the two indicators of housing wealth examined, outright ownership of principal residences expanded most dramatically between 1994 and 2007 and most consistently across most of the social groups under review. It grew among all age groups, but expanded most dramatically among households headed by an individual aged 50-64 (up 17.5 per cent) and least dramatically (up 6.8 percent) among younger households (under 50 years of age). The greatest proportionate expansion in outright ownership took place in Dublin and the Mid-East. The rest of Ireland saw a much more modest expansion in outright ownership, albeit from a higher base.

Between 1994 and 2007, levels of outright ownership fell among households in the lowest income quartile headed by individuals aged 25 to 64, whereas the opposite trend is evident among household heads in this age group with incomes in quartiles two-four. This relationship between higher income and rising outright ownership does not pertain among older households (headed by individuals aged 65 years plus). However, levels of outright ownership are very high among all households in this age group, irrespective of income.

Table 1 about here

Table 1 indicates that trends in second home ownership are less uniform, both over time and among the different social groups under examination. Although second home ownership grew rapidly among all age groups between 1994 and 2000, it declined again slightly by 2007. Furthermore, the rise in second home ownership is concentrated principally in Dublin and among households in the top income quartile.

The rising rate of outright ownership of primary dwellings and second homes among Dubliners is surprising in view of the trends in house prices since the mid 1990s. Between 1996 and the peak of the house price boom in 2006, prices in Dublin grew by 363 per cent and in the Mid-East region by 321 per cent whereas prices in the rest of Ireland rose by 260 per cent (Permanent TSB/ESRI, various years). As a result the differential between prices in Dublin and the country at large, which stood at around 10 per cent for many decades, increased to 38 per cent by 2007 (Bacon and McCabe, 1999). The scale of inflation in Dublin has been linked to inadequate housing supply, as until 2003/04 new housing output lagged behind other regions to significant extent (Norris and Shiels, 2007; Berry, *et al*, 2001). However, this inflation is also strongly related to the concentration of economic growth in this region during the Celtic Tiger period.

The distinctive nature of economic growth in Dublin also explains why high housing costs did not diminish the pace of housing asset accumulation here. Economic growth led to higher than average incomes and income growth in this city. In 1994, 29.8 per cent of Dubliners had incomes in the highest quartile compared to just 16 per cent of residents of the rest of Ireland, whereas the equivalent figures for 2007 are 44.1 and 22.5 per cent¹. The available evidence also indicates that higher housing costs in Dublin and the Mid-East pushed some households into the rented sectors, particularly lower income and younger residents. This trend is less acute than would be expected in view of the pace of regional house price inflation. Census data indicates that between 1996 and 2006 the proportion of renting households grew from 25 to 27 percent in Dublin, from 14 to 16 per cent in the Mid-East and fell from 16 to 13 per cent in the rest of Ireland (Central Statistics Office, 1996, 2006).

Trends in the intergenerational distribution of income in Ireland during the last decade are also pertinent. Between 1994 and 2007, the growth in households in the top income quartile was concentrated among younger households (headed by individuals aged 25-49 years), whereas the number of high income households headed by middle aged and older people increased only marginally between these yearsⁱⁱ. Thus, unlike many other European Countries, intergenerational inequalities in housing wealth in Ireland are to a significant extent counterbalanced by intergenerational inequalities in household incomes (see Fahey *et al*, 2004, for a more detailed discussion).

The high level of outright home ownership among older household heads in Ireland, irrespective of household income, reflects the particularly generous government subsidies for this tenure. For instance, sales of social housing to tenants at a significant discount from market value commenced on a large scale in the 1930s, and played a central role in driving the high rate of outright ownership among older, low income households (Fahey *et al*, 2004). Two thirds of the dwellings built originally for social renting have been sold to tenants, and these accounted for approximately 16.6 per cent of the total owner occupied stock in 2006 (Central Statistics Office, 2007b). From the mid 1980s, however, direct universal supports for home buyers (such as grants for first time home buyers) were gradually scaled back and ultimately abolished, and the availability and value of indirect universal subsidies, made up principally of tax relief on mortgage interest, was radically reduced (Norris and Winston, 2004). These universal supports were replaced by targeted supports for low income home buyers such as the shared ownership and affordable housing scheme. Norris *et al* (2007) suggest that due to inadequate design and housing market inflation these programmes have suffered from low take-up. Take-up of the right to buy social housing scheme has also fallen radically since the 1990s as the social housing sector has contracted and become increasingly dominated by low income households who lack the financial resources to purchase (Norris *et al*, 2007).

A sharp drop in house prices from December 2006 has obviously reduced housing wealth in Ireland. Between then and August 2009 house prices in Dublin fell by 28 per cent while house prices in the rest of Ireland

declined by 23 per cent (Permanent TSB/ ESRI, various years). House price data for the Mid-East are not available for 2009, but the 2008 data suggests that prices in this region have experienced a stronger correction than elsewhere. Several commentators and property industry surveys have suggested that these data, based on mortgage draw downs which may lag developments in selling prices, radically under estimate the true level of house price falls and that in fact prices fell by between 30 and 50 per cent between 2007 and 2009 (see Duffy, 2009).

Housing debt

Table 2 disaggregates trends in housing debt, as revealed by mortgaged principal residences, by age group, location and household income. As would be expected, in view of the rising levels of outright home ownership highlighted above, this Table reveals that the proportion of households with mortgaged principal residences fell between 1994 and 2007 among all of the social groups under examination. However, mortgage holding was unevenly distributed among these groups in 2007. Mortgages remain much more common among households headed by individuals aged between 25 and 49 years, residents of Dublin and the Mid-East and households in the highest income quartile. Furthermore, the decline in mortgage holding is concentrated strongly in the period after 2000, which coincides precisely with the height of the house price boom and less directly with the aforementioned withdrawal of public subsidies for home ownership. Most notably this Table highlights a particularly marked fall in mortgages held by younger households with incomes in the lowest quartile during this period. Only 5.8 per cent of such households had mortgaged principal residences in 2007. This development is most likely related to high house price inflation, which largely priced this group out of the market at this time. However, it is also related to the rolling back of the universalist supports for home buyers in the 1990s and to the aforementioned shortcomings in the plethora of supports for low income home buyers which replaced them.

Table 2 about here

Developments in mortgage lending which are pertinent to these housing debt trends are sketched in Table 3 below. This Table highlights historically low and declining mortgage interest rates during most of the years between 1996 and 2006 coupled with a radical increase in mortgage debt per capita in the post 2000 period. The latter trend was driven both by a sharp increase in the number of mortgage loans drawn down by borrowers and in the size of these loans – mortgages of over €250,000 increased from 2.3 per cent of total in 2000 to 41 per cent of total in 2006. This development was in turn facilitated by extensive financial product ‘innovation’ among mainstream lenders, rather than in the sub-prime sector which has remained small in Ireland compared to the USA for instance (Coates, 2008). For instance 100 per cent mortgages first became available around 2004 and between then and 2008 rose from 4 to 12 percent of all mortgages granted and mortgages with a term of more than 30 years rose from 10 to 39 per cent of mortgages concurrently (Department of the Environment, Heritage and Local Government, various years).

Table 3 about here

Trends in mortgage lending can be disaggregated according to the characteristics of borrowers thereby allowing for the identification of the social groups in greatest housing debt. As would be expected in view of the trends in house price inflation outlined earlier in this chapter, those in greatest debt are recent first time buyers, particularly those living in Dublin. In 2006, 74 per cent of this group drew down mortgages of over €250,000 compared to 38 per cent of first time buyers in the country as a whole, and 64 per cent of repeat home buyers and property investors in Dublin (Department of the Environment, Heritage and Local Government, various years). In the same year, 31 per cent of first time buyers in Dublin took on 100 per cent mortgages, as did 34 per cent of first time buyers in the country at large and just 5 per cent of repeat buyers/ investors in Dublin. Also in 2006, 70 per cent of mortgages drawn down by first time buyers in Dublin had terms of over 30 years, compared to 20 per cent of loans granted to repeat buyers/ investors in this city and 60 per cent of those granted to first time buyers in the country as a whole.

This increased concentration of high housing debt among first time buyers in Dublin was followed by a sharp downturn in house prices in late 2006, which raises the possibility of negative equity, i.e. that house values are lower than the value of related debt. Drawing on the same house price data employed in this chapter, Duffy (2009) has recently assessed the extent of negative equity in the Irish housing market. He estimates that 9.1 per cent of mortgage holders were in negative equity by the end of 2008. This rose to 18 per cent by the end of 2009 and it is estimated will rise to 29.6 per cent by the end of 2010. Given the higher loan to value ratios for first time buyer mortgages, he estimates that negative equity is more common among this group and also more severe – they make up the vast majority of households whose dwellings are worth more than 10 per cent less than the associated mortgage. Duffy's estimates indicate that the 2008 figure for negative equity in Ireland is similar to those in the US and the UK. Hellebrandt, Kavar and Waldron (2009) estimate that between 7 and 11 per cent of owner occupier mortgage holders in the UK were in negative equity in spring 2008 for instance and estimates for the USA indicate that 10 per cent of mortgages in single family dwellings were in negative equity at this time (cited in Ellis, 2008). However, the full extent of negative equity is likely to be greater than he suggests for a number of reasons. His estimates do not include mortgage top ups or interest only mortgages, which he suggests accounted for 15 per cent of mortgages approved in 2008. In addition, they are based on the, widely contested, assumption that house prices fell to 15 per cent below their peak by December 2008. Furthermore, in view of the particularly high levels of debt among recent first time buyers in Dublin, which were outlined above, negative equity is likely to be particularly common among this group.

Housing stress

Table 4 disaggregates trends in one objective and one subjective indicator of housing stress for the years 1994, 2000 and 2007. These indicators are: mortgage arrears during the previous 12 months; and burdensome housing costs. It reveals that trends in both are differentiated over time and by age group and household income.

Table 4 about here

For the most part, both mortgage arrears and the perceived burden of housing costs declined significantly among those under 65 years of age between 1994 and 2000, but they increased again by 2007. Notably this trend was more marked among households in the bottom half of the income distribution and also among younger household heads. In 2007, 47.1 per cent of household heads aged between 25 and 29 years with incomes in the bottom quartile stated that they found housing costs a heavy burden, while 13.2 per cent of the same cohort reported that their mortgage had been in arrears during the last 12 months. Conversely, despite their higher levels of housing debt, younger home owners in Dublin reported similar levels of burdensome housing costs to their counterparts in other parts of Ireland, although mortgage arrears were higher in this section of the population.

Thus, the data presented here indicates that, rather than housing debt, levels of housing stress in Ireland are driven primarily by household income, specifically by the adequacy of income compared to housing costs. For many younger residents of the Dublin and Mid-East regions, their higher incomes largely compensate them for their higher housing costs.

As mentioned in the introduction to this chapter, the post 2007 economic crisis has effected a sharp decrease in the incomes of many households principally as a result of rising unemployment. This may have in turn led to a mismatch between housing costs and income and therefore to changes in the distribution of housing stress and the frequency of mortgage defaults. Furthermore, the extensive international literature on negative equity also indicates that its presence increases the likelihood of mortgage default, but it does not necessarily result in repossession (see: Foote, Gerardi and Willen, 2008). Households most at risk of repossession are those who are both in negative equity and who experience a fall in income.

The extent of housing stress and the potential for widespread repossessions of property is not as great as might be expected in view of the sharp fall in employment in Ireland since 2007. This is because the employment contraction is concentrated in industries such as construction and manufacturing and among those 15 to 25 years, who have below average levels of mortgage holding (Central Statistics Office, 2007b, 2009). For those in public and private sector professions (such as finance and business administration, public administration, education and health and social work), which are associated with above average levels of mortgage holding, employment actually expanded between 2007 and 2009.

However, there is a high risk of mortgage default among some sections of the population. Specifically, there have been marked contractions in employment among Dubliners (-7.0 per cent between 2007 and 2009) and among those aged 25-44 years (-4.1 per cent concurrently) (Central Statistics Office, 2007b, 2009). Both of these sections of the population are likely to be highly indebted and in negative equity. The vulnerability of these groups is confirmed by data on take-up of mortgage interest supplement, the principal, means tested government support for unemployed home owners, which subsidises the interest portion of their mortgages. Take-up of this benefit grew from 3,318 households in 2004 to 8,091 in 2008. Data for the latter year indicates that claimants are strongly concentrated in Dublin (28 per cent of claimants) and among the 25-49 year age group (78.9 per cent of claimants) (Department of Social and Family Affairs, various years).

The recent increase in take-up of mortgage interest supplement and in unemployment does not yet seem to have translated into very widespread repossessions of dwellings, although repossessions have risen. Data from the Courts Information Service (various years) indicates that court cases for the possession of lands/ dwellings/ premises (disaggregated data for different types of property are not available) rose from 140 in 2004 to 490 in the first half of 2009. Industry sources indicate that this relatively low level of repossessions is the result of short term factors – specifically a 12 month moratorium on the repossession of dwellings on the part of the major Irish banks which was agreed as part of the government recapitalization of these institutions (Duffy, 2009). Repossession rates are likely to rise after the moratorium ends and also if, as expected, Eurozone

interest rates rise from their current historic low, unlike the norm elsewhere in Europe, most Irish mortgages are variable rather than fixed (Duffy, 2009).

Conclusions

This chapter has examined developments in housing wealth, debt and stress before and after Ireland's recent economic boom. It has revealed that the Celtic Tiger period is characterised by contradictory trends. On the one hand housing wealth – as measured by outright home ownership and second home ownership – increased markedly among most social groups. On the other hand, low income households, particularly in urban areas were priced out of owner occupation and forced into rented accommodation and among the mainly urban and younger households left servicing mortgages, debt levels increased radically, although the perceived burden of these debts (housing stress) did not rise in parallel because many indebted households have higher than average incomes.

This period could also be characterized as one during which Ireland's traditionally distinctive housing policy and distribution of housing assets converged with the international norm, or at least with the norm in other developed, Anglophone countries (see: Forrest, 2008). Ireland has long had high levels of home ownership, but prior to the 1990s, this was underpinned by both low house prices and what amounted effectively to a socialized system of home ownership. As part of the latter generous, universalist indirect and direct subsidies for home buyers were provided by government, the public sector was also a major provider of mortgages (and very rarely repossessed dwellings in arrears) and substantial levels of sales of social rented dwellings to tenants, at a large discount from the market value, helped lower income households to access home ownership (see: Norris, *et al*, 2007 and Norris and Fahey, 2009 for a fuller discussion). As a result home ownership was relatively evenly distributed across income groups and this remains the case among older households in Ireland, particularly those headed by individuals aged 65 and over. From the 1990s, however, these generous universalist home

ownership supports were rolled back and the housing market boomed, particularly in the capital and largest city (Dublin), to the extent that effectively a separate market operated here. Both of these developments reflect contemporary international norms, and the house price boom is also directly related to the globalization of housing finance markets, specifically to the entry of UK based banks into the Irish mortgage market after 2000 which led to increased competition for borrowers, lower borrowing costs and financial product innovation. As a result of these developments the distribution of housing assets in Ireland has begun to converge with the international norm and among younger households have become increasingly concentrated among higher income earners.

Since 2007 the Irish economy and housing market has declined both suddenly and sharply, leading to rising unemployment and negative equity. To date this bust has had less widespread negative impacts on home owners than would be expected because outright home ownership rates remain relatively high in Ireland and job losses have been concentrated among those social groups less likely to have mortgages. Ironically then, Ireland's 'transitional' home ownership system seems to have afforded it some protection from the global financial crisis. Older households, who bought their homes with the help of generous government supports, have high rates of home ownership and among younger people, home ownership is concentrated among higher income households, who can best afford to service large mortgages.

However our analysis also points up a high risk of mortgage unaffordability and default among some sections of the population – principally younger home owners in Dublin, who have recently suffered high rates of job losses, negative equity and indebtedness. These developments have not yet translated into radically increased repossessions of owner occupied dwellings; but they likely they will do so in the near future. This is because: mortgagors in Ireland are highly exposed to interest rate fluctuations and these are expected to rise in the near future; the lack of repossessions to date is due chiefly to a time limited moratorium on repossessions by the major banks, which is due to lapse in the near future and arrangements for supporting struggling mortgage holders in Ireland, which were designed in the context of low housing debt, high government subsidization of

house purchase costs and widespread use of government provided mortgages, are likely to be inadequate in the context of high debts and overwhelming dominance of commercial lenders in the mortgage market. Mortgage interest supplement, is a discretionary benefit rather than an entitlement and is also stringently means tested and therefore not generally available to households with any earned income (Norris and Winston, 2004). Furthermore, this is currently the only support available to households at risk of mortgage default in Ireland, where for instance the publicly guaranteed mortgage refinance arrangements which have been employed successfully in the USA (the Home Affordable Refinance Program and the Home Affordable Modification Program) and the UK (the Mortgage Support Scheme and Mortgage Rescue Scheme), do not currently exist (Duffy, 2009). The analysis presented in this chapter indicates that the Irish government should explore the establishment of a more comprehensive and inclusive range of supports for mortgage holders at risk of default as a matter of urgency.

References

- Bacon, P. and F. McCabe (1999), *The Housing Market: An Economic Review and Assessment*, Dublin: Stationery Office.
- Central Statistics Office (1996), *Census, 1996: Housing and Households*, Dublin: Stationery Office.
- Central Statistics Office (2007a), *Census 2006: Principal Demographic Results*, Dublin: Stationery Office.
- Central Statistics Office (2007b), *Census, 2006: Housing and Households*, Dublin: Stationery Office.
- Central Statistics Office (2007c), *Quarterly National Household Survey, Quarter 1, 2007*, Dublin: Stationery Office.
- Central Statistics Office (2009), *Quarterly National Household Survey, Quarter 1, 2009*, Dublin: Stationery Office.
- Central Statistics Office (various years), *Measuring Ireland's Progress*, Dublin: Stationery Office.
- Coates, D. (2008), 'The Irish sub-prime residential mortgage sector: international lessons for an emerging market', *Journal of Housing and the Built Environment*, **23**(2), 131–144

- Courts Information Service (various years), *Courts Service Annual Reports, 2000-2007*, Dublin: Courts Information Service.
- Department of Social and Family Affairs (various years), *Statistical Information on Social Welfare Services*, Dublin: Department of Social and Family Affairs.
- Duffy, D. (2009), *Negative Equity in the Irish Housing Market*, Dublin: Economic and Social Research Institute Working Chapter No 319.
- Ellis, L. (2008), 'How many in negative equity? The role of mortgage contract characteristics', *Bank of International Settlements Quarterly Review*, December, 81-90.
- European Mortgage Federation (various years), *Hypostat*, Brussels: European Mortgage Federation.
- Fahey, T., B. Nolan and B. Maître (2004), *Housing, Poverty and Wealth in Ireland*, Dublin: Institute of Public Administration.
- Foote, C., K. Gerardi and P. Willen (2008), 'Negative equity and foreclosure: theory and evidence', *Journal of Urban Economics*, **64**(2), 234-245.
- Forrest, R. (2008), 'Globalization and the housing asset rich: geographies, demographics and policy convoys', *Global Social Policy*, **8**(2), 167-187.
- Hellebrandt, T., S. Kavar and M. Waldron (2009), 'The economics and estimation of negative equity', *Bank of England Quarterly Review*, Quarter Two, 110-121.
- Honohan, P. and B. Walsh (2002), 'Catching up with the leaders: The Irish hare', *Brookings Chapters on Economic Activity*, Spring, 1-77.
- Kennedy, K., T. Giblin and D. McHugh (1988), *The Economic Development of Ireland in the Twentieth Century*, London: Routledge.
- Kemeny, J. (1981), *The Myth of Home Ownership: Private Versus Public Choices in Housing Tenure*, London: Routledge.

Norris, M., D. Coates and F. Kane (2007), 'Breaching the limits of owner occupation? Supporting low-income buyers in the inflated Irish housing market'. *European Journal of Housing Policy*, **7** (3), 337-356.

Norris, M. and T. Fahey (2009), *From Asset Based Welfare to Welfare Housing: The Changing Meaning of Social Housing in Ireland*, Dublin: School of Applied Social Science, University College Dublin, Working Chapter, WP09/05.

Norris, M. and P. Shiels (2007), 'Housing affordability in the Republic of Ireland: Is planning part of the problem or part of the solution?', *Housing Studies*, **22**(1), 45-62.

Norris, M. and N. Winston (2004), *Housing Policy Review: 1990-2002*, Dublin: Stationery Office.

O'Connell, C. (2005), 'The housing market and owner occupation in Ireland', in M. Norris and D. Redmond (eds), *Housing Contemporary Ireland: Policy, Society and Shelter*, Dublin: Institute of Public Administration, pp. 21-43.

Permanent TSB/ ESRI (various years), *Permanent TSB/ ESRI House Price Index*, Dublin: Economic and Social Research Institute.

TABLE 1. Indicators of Housing wealth in Ireland by age, location and income, 1994, 2000 and 2007

Indicator of housing wealth		25-49 years (% within age)			% Change '94-'07	50-64 years (% within age)			% Change '94-'07	65 years plus	
		1994	2000	2007		1994	2000	2007		1994	2007
1. Principal Residence Owned Outright		17.9	18.4	24.7	6.8	51.6	56.3	69.1	17.5	79.4	84.7
Location	Dublin	9.4	12.2	16.0	6.6	38.6	44.7	58.6	20.0	74.4	84.7
	Mid East	9.3	13.5	19.9	10.6	46.8	57.5	68.3	21.5	90.6	91.0
	Rest of Ireland	23.7	22.4	30.4	6.7	59.6	62.1	73.3	13.7	80.3	84.7
Income	Quartile 1 (lowest)	23.8	27.1	19.8	-4.0	60.3	60.6	56.9	-3.4	77.3	77.3
	Quartile 2	21.1	23.6	26.3	5.2	49.6	51.8	69.9	20.3	80.7	84.7
	Quartile 3	17.6	15.4	25.8	8.2	52.0	63.2	69.3	17.3	91.0	91.0
	Quartile 4 (highest)	10.9	13.2	23.9	13.0	45.1	50.7	74.8	29.7	84.7	91.0
2. Second home ownership		5.4	10.1	8.4	3.0	7.2	14.9	9.1	1.9	3.0	3.0
Location	Dublin	6.8	13.5	11.7	4.9	10.4	19.0	17.5	7.1	4.3	4.3
	Mid East	9.0	6.0	5.8	-3.2	4.8	10.8	3.7	-1.1	1.6	1.6
	Rest of Ireland	4.2	9.1	7.2	3.0	5.7	13.3	6.5	0.8	2.7	2.7
Income	Quartile 1 (lowest)	3.6	4.2	4.7	1.1	4.9	5.4	1.1	-3.8	1.4	1.4
	Quartile 2	4.8	9.1	1.3	-3.5	5.3	15.8	3.0	-2.3	4.4	4.4
	Quartile 3	5.3	10.7	5.0	-0.3	6.0	12.7	5.6	-0.4	9.9	9.9
	Quartile 4 (highest)	7.5	13.4	14.9	7.4	12.1	23.9	20.0	7.9	9.2	9.2

Source: Generated by the authors from the 2007 EU SILC and the 1994 and 2000 ECHP surveys.

Note: Data refer to households.

TABLE 2. Indicators of housing debt by age, location, income and tenure, 1994, 2000 and 2007

Indicators of housing debt		25-49 years (% within age)			%	50-64 years (% within age)			%	65 years plus (% within age)	
		1994	2000	2007		1994	2000	2007		1994	2000
1. Mortgage on principal residence		56.6	62.9	46.2	-10.4	37.9	32.1	16.1	-21.8	7.2	7.2
Location	Dublin	68.2	72.7	53.1	-15.1	48.0	44.1	21.6	-26.4	14.5	14.8
	Mid East	70.1	68.9	58.5	-11.6	48.2	31.0	20.0	-28.2	3.0	1.8
	Rest of Ireland	48.6	56.9	39.9	-8.7	30.8	26.0	13.3	-17.5	4.8	3.9
Income	Quartile 1 (lowest)	18.9	23.6	5.8	-13.1	20.8	9.5	4.7	-16.1	6.4	3.5
	Quartile 2	45.5	53.0	21.2	-24.3	32.9	35.0	13.7	-19.2	8.1	13
	Quartile 3	69.8	72.6	44.4	-25.4	43.5	32.6	18.4	-25.1	7.1	16.3
	Quartile 4 (highest)	80.5	78.0	64.5	-16.0	52.9	48.3	22.1	-30.8	15.3	3.4

Source: Generated by the authors from the 2007 EU SILC and the 1994 and 2000 ECHP surveys.

Note: Data refer to households.

TABLE 3. Trends in residential mortgage lending in Ireland, 1996-2008

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Representative interest rates on new mortgage loans (%)	7.10	7.50	6.00	4.38	6.17	4.72	4.69	3.50	3.47	3.68	4.57	5.07	Nav
Residential mortgage debt per capita (000s)	3.83	4.70	5.65	7.02	8.62	10.00	12.11	14.98	19.12	24.08	29.29	32.20	Nav
Mortgages paid (000s)	56.0	57.9	61.4	70.8	74.3	66.8	79.3	84.7	98.7	107.6	111.3	84.3	Nav
Loans > €250,000 (%)	Nav	Nav	Nav	1.4	2.3	4.6	5.9	9.1	18.0	27.0	37.0	41.0	41.0
100% loans (%)	Nav	Nav	Nav	Nav	Nav	Nav	Nav	Nav	4.0	7.0	14.0	10.0	12.0
Loan term > 30 years (%)	Nav	Nav	Nav	Nav	Nav	Nav	Nav	Nav	10.0	23.0	31.0	35.0	39.0

Source: European Mortgage Federation (Various Years) and Department of the Environment, Heritage and Local Government (various years).

Note: nav means not available.

TABLE 4. Indicators of housing stress by age, location and income, 1994, 2000 and 2007

Indicators of housing stress		25-49 years (% within age)			% Change '94-07	50-64 years (% within age)			% Change '94-07	65 years plus (% within age)			% Change '94-07
		1994	2000	2007		1994	2000	2007		1994	2000	2007	
Mortgage arrears during the last 12 months		9.0	2.9	3.2	-5.8	6.5	1.5	5.5	-1.0	3.4	0.0	5.8	+2.4
Location	Dublin	8.6	3.3	5.2	-3.4	5.7	0.2	2.0	-3.7	1.3	0.0	15.9	+14.6
	Mid East	8.5	0.1	0.6	-7.9	2.7	9.6	0.0	-2.7	3.8	0.0	0.0	-3.8
	Rest of Ireland	9.5	3.2	2.6	-6.9	8.1	1.4	9.7	+1.6	5.3	0.0	0.0	-5.3
Income	Quartile 1 (lowest)	30.5	4.0	13.2	-17.3	9.0	2.8	9.0	0.0	2.4	0.0	25.9	+23.5
	Quartile 2	17.1	7.4	23.3	+6.2	7.9	0.2	9.6	+1.7	4.9	0.0	0.0	-4.9
	Quartile 3	6.3	2.2	2.7	-3.6	10.1	4.5	10.3	+0.2	0.0	0.0	0.0	0.0
	Quartile 4 (highest)	3.3	0.5	0.7	-2.6	2.3	0.3	1.5	-0.8	10.6	0.0	0.0	-10.6
Housing costs a heavy burden		23.7	13.8	16.7	-7.0	17.0	13.6	13.6	-3.4	17.0	11.4	7.8	-9.2
Location	Dublin	24.5	8.8	15.9	-8.6	14.9	12.9	13.6	-1.3	15.0	8.9	6.6	-8.4
	Mid East	30.4	9.6	15.5	-14.9	16.2	15.7	11.8	-4.4	13.1	24.1	6.4	-6.7
	Rest of Ireland	22.3	17.3	17.4	-4.9	18.3	13.2	13.9	-4.4	18.1	11.3	8.3	-9.8
Income	Quartile 1 (lowest)	29.7	31.8	47.1	+17.4	24.4	21.8	21.9	-2.5	20.2	12.9	9.1	-11.1
	Quartile 2	33.9	20.8	34.7	+0.8	19.6	15.5	13.9	-5.7	13.7	7.9	9.4	-4.3
	Quartile 3	21.1	12.8	16.1	-5.0	15.8	17.7	16.9	+1.1	5.9	11.3	4.2	-1.7
	Quartile 4 (highest)	17.0	5.4	11.6	-5.4	10.7	4.6	8.4	-2.3	8.7	11.6	1.2	-7.5

Source: Generated by the authors from the 2007 EU SILC and the 1994 and 2000 ECHP surveys.

Note: Data refer to households and home owners only.

ⁱ These figures were generated by the authors from the 2007 EU SILC and the 1994 ECHP. They refer to households.

ⁱⁱ These data refer to households and were generated from the 2007 EU SILC and 1994 ECHP.