The Impact of Asset Price Trends on Irish Households

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Abstract

Irish household net worth increased substantially between 2001 and 2006, rising by 82 per cent. However, in an environment of stock market volatility, decreased investment in housing assets and falling house prices, household net worth declined by almost 8 per cent in 2007. This article examines how the changing economic environment influenced households' portfolio composition of assets and liabilities over the past seven years. It also analyses the forces driving changes in household net worth. Findings show that 84 per cent of the increase in household net worth between 2001 and 2006 was driven by increases in the value of their net financial assets and housing assets. Household saving accounted for the remainder of the increase. In 2007, however, a contraction of saving and a decline in the value of both housing and financial assets resulted in a fall in household net worth. The article concludes with an assessment of the possible impact of these trends on consumption. Available evidence suggests that trends in household net worth impact on consumption indirectly, primarily by influencing consumer sentiment.

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1. Introduction

There has been considerable interest in the economic behaviour of Irish households over the last number of years. This is not surprising, given that in 2007 household net disposable income was equivalent to almost 48 per cent of Gross Domestic Product. Furthermore, a number of recent events, mainly the financial market turbulence and the slowdown in the housing market, have generated an increased level of interest in both the economic activities and the accumulation of wealth of the Irish household sector.

This article looks at the evolution of the household sector balance sheet[1] and examines how households have responded to changes in the economic climate over the past seven years. Section 2 presents an overview of trends in the portfolio composition of the household balance sheet. It also analyses trends in household net worth. The determinants of household net worth, are examined in Section 3, where the separate influences of saving and valuation effects are identified. The impact of changes in household net worth on consumption behaviour are explored in Section 4, while overall conclusions are presented in the final section.

2. Recent Developments in Household Net Worth

The Irish household balance sheet, summarised in Table 1, details the stock of household assets (financial and non-financial[2]) and liabilities over the period 2001 to 2007[3]. It also describes the transactions and revaluations, which have contributed to changes in the stocks. The data are derived from the Central Statistics Office (CSO) *Institutional Sector Accounts*, published in May (CSO, 2008)[4] and CBFSAI estimates of housing assets (see Box 1).

[1] In the CSO accounts and in this paper 'household sector' includes non-profit institutions serving households.

[2] Housing assets, as the primary component of non-financial assets, are used as a proxy for all non-financial assets. Two offsetting influences on the value of household non-financial assets, which are difficult to estimate, are excluded. These are houses owned by property companies, which would reduce household assets, and commercial property owned by households, which would boost them.

[3] The full balance sheet is presented in the Appendix.

[4] The first publication of *Institutional Sector Accounts* by the CSO was in April 2007.

The balance sheet is split into its key components, which are then used to show how net lending to households is financed (see Appendix). On the financial assets side, the main categories[5] are 'currency and deposits', 'shares and other equity' and 'insurance technical reserves'[6] (ITRs). The liabilities side almost entirely comprises of 'loans'. Estimates of the value of housing assets, in addition to transactions in housing and market revaluations, enable an overall assessment of household net worth and saving to be made.

A breakdown of the composition of financial assets in Chart 1 shows a marked change in the portfolio composition of the household balance sheet in 2002 and 2007, reflecting periods of financial market volatility in these years.

In 2002, the international economic environment deteriorated to a significant degree. The slowdown in activity in the US spread to the euro area resulting in a standstill in most industrialised economies. This was mainly caused by a sharp correction in investment in information technology — the bursting of the dotcom 'bubble' — following a number of years of strong growth, as well as the lagged impact of oil price rises. The events of 11 September 2001 also had an adverse effect by undermining US consumer confidence and sentiment, thereby delaying the recovery that subsequently occurred by 2003.

Global financial markets have experienced a number of bouts of volatility over the course of 2007. The catalyst was growing concerns over signs of significant distress in the subprime mortgage sector in the US which emerged in late 2006. The effect was a sharp and sizeable repricing of risk, which triggered widespread financial market turbulence. In this environment, equity markets weakened and there was large-scale writing down of asset values.

[5] Detailed definitions of these categories are described in the CSO (2007d) publication.

[6] Insurance technical reserves include life insurance policies and pension funds.

Box 1: Estimation of Housing Assets

The CBFSAI estimation of housing assets of Irish households is based on the size and value of the housing stock. Data on the size of the housing stock was derived from annual house completions calculated by the Department of the Environment, Heritage and Local Government (DEHLG). Two key adjustments were made to this data. Firstly, an estimate of annual depreciation was incorporated and secondly, 15,000 houses were deducted from 2007 completions to account for the fact that houses built but not sold increased significantly last year. Such unsold houses are primarily assets of the non-financial corporate sector, rather than the household sector.

Data on the value of housing assets were obtained from the *permanent tsb/ESRI* house price index. In accordance with national accounting, end-year prices were used for new and existing housing to estimate the value of the housing stock in a given year, whereas the annual average price for new housing was used to estimate transactions in housing in a given year.

The estimation of the value of the stock of housing assets in this article differs somewhat from the approach originally taken in Kelly (2006). The difference is due to the use of end-year prices in this article, rather than average price data, which necessitated a change in the data source from DEHLG estimates of house prices to *permanent tsb/ESRI* estimates. Drawing on end-year data more accurately reflects the trends in house prices in 2007. In an environment of rising house prices between 2001 and 2006, annual average figures (as obtained from the DEHLG) provided a relatively conservative estimate of housing wealth. In the context of falling house prices during 2007, annual average prices would not capture the fall in value of the housing stock. Since house prices are significantly lower in the *permanent tsb/ESRI* series compared to those published by the DEHLG, the change in methodology results in a marked decline in the housing assets of households for 2001 to 2005, compared with estimates in previous CBFSAI studies. Year-on-year trends in both series, however, are consistent over the period.

Results show that the 2002 and 2007 shocks had a direct impact on the portfolio composition of Irish households. In these years, ‘currency and deposits’ increased as a proportion of total financial assets and ‘ITRs’ fell. This downward trend was not evident for ‘shares and other equity’ for these years because this asset class comprises unquoted equity and property held abroad, in addition to quoted equity. The valuation changes on these assets are difficult to measure and may be less susceptible to stock market volatility.

Overall, the results show that in 2007 households had considerable holdings of ‘currency and deposits’, which accounted for approximately 33 per cent of their financial assets. ‘Shares and other equity’ accounted for 25 per cent and the balance, 41 per cent, primarily comprises ‘ITRs’.

Table 1: Summary Balance Sheet of the Irish Household Sector, 2001–2007*

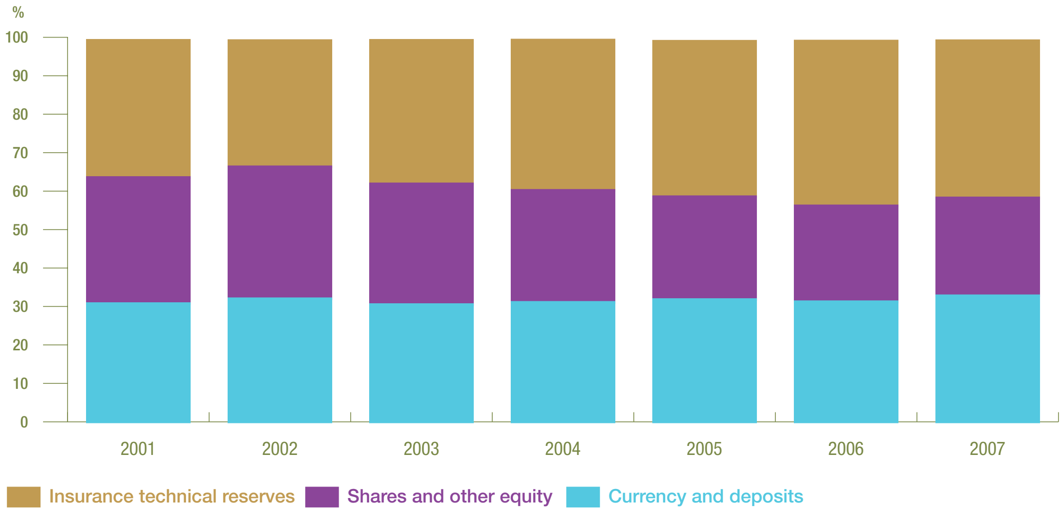
€ million		Stocks	Transactions	Revaluations
Total Financial Assets				
	2001	180,422	n/a	n/a
	2002	185,477	10,812	–5,757
	2003	214,929	11,958	17,494
	2004	240,129	15,081	10,119
	2005	276,958	22,730	14,099
	2006	308,182	15,147	16,077
	2007	311,815	10,735	–7,102
Total Liabilities				
	2001	62,765	n/a	n/a
	2002	75,370	12,513	92
	2003	89,692	15,285	–963
	2004	112,271	22,433	146
	2005	145,972	33,355	346
	2006	176,311	30,364	–25
	2007	197,318	21,185	–178
Net Financial Position:		*Net Financial Wealth*[a]	*Net Financial Transactions*	*Revaluations of Net Financial Assets*
	2001	117,657	n/a	n/a
	2002	110,107	–1,700	–5,850
	2003	125,237	–3,327	18,457
	2004	127,858	–7,352	9,973
	2005	130,986	–10,625	13,753
	2006	131,871	–15,217	16,102
	2007	114,497	–10,450	–6,924
Housing Assets:		*Total Stock of Housing Assets*	*Acquisition of Housing Assets*	*Revaluations of Housing Assets*
	2001	237,903	n/a	n/a
	2002	291,891	10,046	43,942
	2003	346,930	13,346	41,693
	2004	394,198	17,244	30,024
	2005	446,102	19,673	32,231
	2006	516,349	25,898	44,349
	2007	484,479	16,835	–48,705
Net Position:		*Net Worth*[b]	*Saving*[c]	*Total Revaluations*
	2001	355,560	n/a	n/a
	2002	401,998	8,346	38,092
	2003	472,167	10,019	60,150
	2004	522,056	9,892	39,997
	2005	577,088	9,048	45,984
	2006	648,220	10,681	60,451
	2007	598,976	6,385	–55,629

Note: [a]Net Financial Wealth = Net Financial Assets;
[b]Net Worth = Net Assets;
[c]Saving = Net Financial Transactions plus Acquisitions of Housing Assets.

*See Appendix for full balance sheet results.

Sources: *Institutional Sector Accounts: Financial* (CSO, 2008) and CBFSAI calculations of housing assets.

Chart 1: Portfolio Composition of Household Financial Assets, 2001—2007 [7]



Total household assets increased by 90 per cent between 2001 and 2007. This took the form of a 73 per cent increase in household financial assets and a 104 per cent increase in housing assets. Liabilities increased even more rapidly, by 214 per cent, over the same period. In view of the very rapid rise in personal indebtedness since 2001, driven by the expansion in borrowing for residential mortgages, it is not surprising that household borrowings, i.e. liabilities, have increased faster than household assets (Kelly, Cussen and Phelan, 2007).

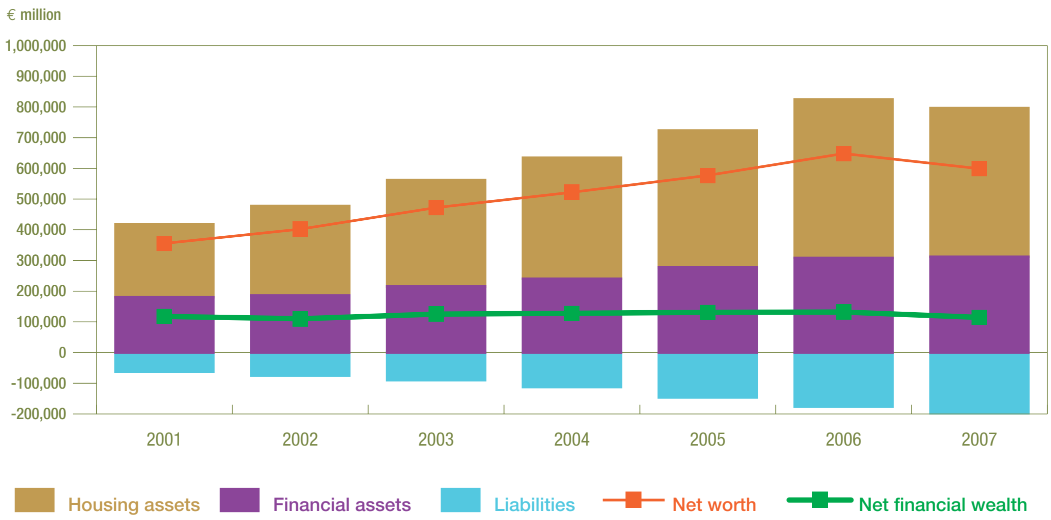
The net financial wealth component in Table 1 is derived by subtracting household liabilities from their financial assets. The data show that, despite a fall of 6 per cent in 2002, driven largely by a fall in the value of 'ITRs', net financial wealth increased by 20 per cent from 2001 to 2006. There was, however, a substantial decrease in net financial wealth of 13 per cent in 2007. Therefore, even though household financial assets continued to increase in 2007, albeit at a slower pace than in previous years, the rate of increase in financial liabilities considerably outpaced that of assets. Household financial assets increased by just 1 per cent while liabilities increased by 12 per cent over 2007.

Household net worth in Table 1 is calculated as household assets (financial and housing assets) less their liabilities. There was a strong upward trend in household net worth between 2001 and 2006, resulting in an 82 per cent increase. In 2007, this trend was reversed for the first time; results show a fall of some 8 per cent in the net worth of Irish households.

A summary of the above data is presented in Chart 2, where it is clear that much of the increase in household net worth since 2001 is due to the substantial increase in housing assets. In 2001, housing assets accounted for 67 per cent of household net worth; this had grown to 81 per cent by 2007. High annual rates of house completions and strongly rising house prices were reflected in a rapid increase in residential mortgage lending, which reached an annual rate of over 28 per cent in March 2006. Consequently, household loans as a proportion of household net worth grew from 17 per cent in 2001 to 32 per cent in 2007. The chart also shows that 2007 was marked by a contraction in housing and slow growth in financial assets. Between 2001 and 2006 housing assets grew, on average, by 17 per cent annually. In 2007, however,

[7] The household sector also holds small quantities of 'secutities other than shares' and 'other accounts receivable' (see Appendix).

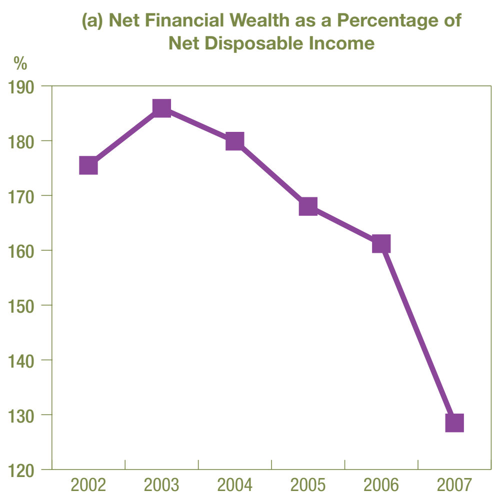
Chart 2: Trends in Household Net Worth, 2001—2007

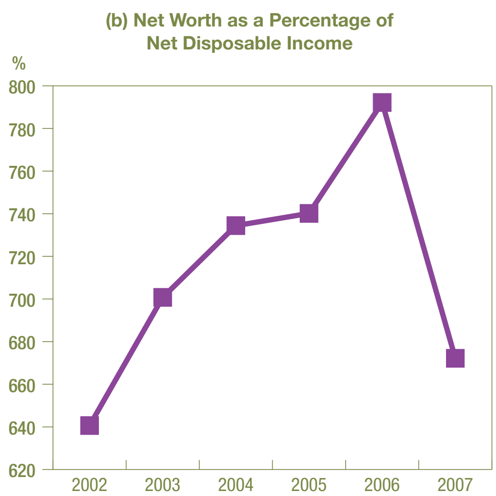


housing assets fell by 6 per cent. For financial assets, the average annual increase between 2001 and 2006 was 11 per cent. This fell to 1 per cent in 2007.

Given that household net disposable income has grown by 42 per cent over the period 2002 to 2007[8], it is of interest to see how household wealth has evolved in this context. Net financial wealth and net worth are plotted as a percentage of net disposable income between 2002 and 2007 in the charts below. These show that net financial wealth as a percentage of net disposable income (Chart 3a) has been falling since 2003, with the largest decline occurring in 2007. Household net worth as a percentage of net disposable income (Chart 3b), maintained an upward trend until 2006, however, before declining sharply in 2007.

Chart 3: Trends in Household Net Financial Wealth and Net Worth as a Percentage of Net Disposable Income, 2002—2007





[8] Net disposable income data from the CSO *Institutional Sector Accounts: Non-Financial* (CSO, 2007b) available for 2002–2006 and CBFSAI projection for 2007.

3. The Determinants of Household Net Worth

Household net worth rose by 82 per cent from 2001 to 2006, to €648 billion. However, this trend was reversed in 2007 with an 8 per cent decline in household net worth (Table 1 and Chart 2). These dramatic changes raise the question as to whether the rise and subsequent fall in household net worth resulted from changes in transactions in financial and housing markets (i.e. household saving) and/or changes in prices impacting on the value of financial and housing assets. There are, therefore, two channels through which household net worth can change. These relationships are outlined in Box 2, which shows that changes in household net worth occur directly through changes in saving or indirectly through changes in the value of their wealth components.

The percentage contribution of household saving and changes in asset valuations to household net worth are examined in Charts 4a to 4c. Firstly, household transactions in assets and liabilities between 2002 and 2007 are depicted in Chart 4a. These transactions are summarised by the line showing the saving rate. The results show that transactions in financial assets by households peaked in 2005, but contracted in 2006, and again in 2007. Transactions in housing assets grew steadily up to 2006, and expanded rapidly in that year. In 2007, however, housing transactions by households contracted for the first time during the period examined. The rate at which households incurred liabilities, mostly mortgages for residential property purchase, grew at a similar pace to the acquisition of household total assets, thereby ensuring a relatively stable saving rate over the period 2002 to 2006. Saving fell in 2007, however, as the rate of increase in household liabilities outpaced the increase in household assets.

Changes in the valuation of housing and financial assets of households as a percentage of net worth are shown in Chart 4b. The results show that a large revaluation took place in 2003 as financial assets recovered from a turbulent financial market in 2002. The value of financial assets held continued to increase up to 2006 against a background of low interest rates and rising equity markets. However, global financial market turmoil caused the value of these assets to fall dramatically (by €7 billion) in 2007. In terms of housing assets, the results show a significant increase in the value of housing up to 2006. However, in 2007 housing values fell for the first time over the period analysed (by approximately €49 billion).

The overall impact on net worth of changes in saving and changes in the valuation of households' portfolio is shown in Chart 4c. Between 2001 and 2006, only 16 per cent of the increase in net worth was due to household saving. The remainder of the increase is mainly accounted for by valuation changes in housing assets, 'ITRs' and 'shares and other equity'. Large negative valuation changes in 2007 dwarfed saving and led to a fall of almost 8 per cent in net worth.

Box 2: Determinants of Household Net Worth

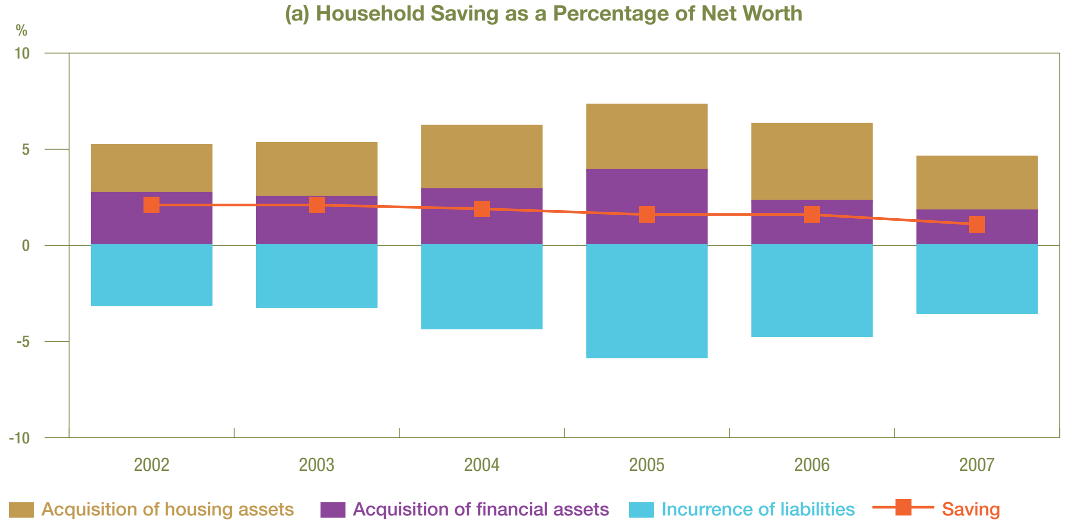
$$\triangle \text{ Net worth} = \text{Saving} + \triangle \text{ Value of household assets}$$

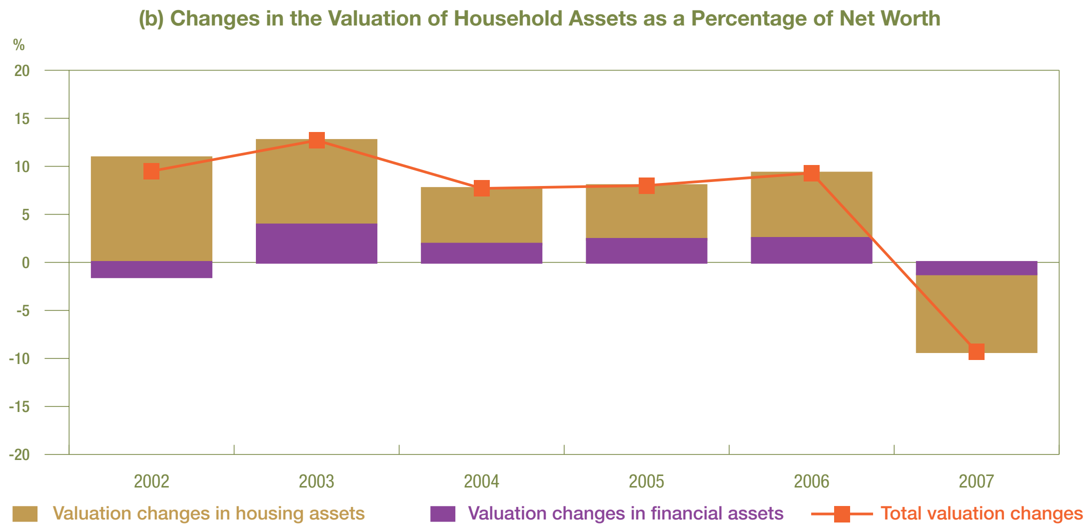
where;

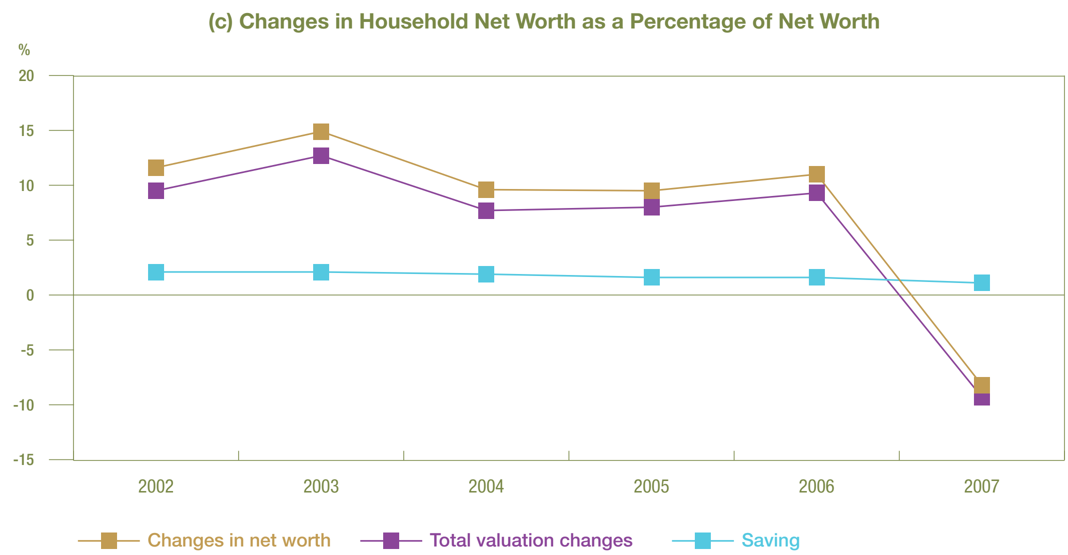
Saving = Net financial transactions + Net acquisition of housing assets

Note 1: Non-financial and financial accounts data published by the CSO are not fully integrated. Therefore, the level of saving estimated in this article will differ from the saving rate published in both national accounts and non-financial *Institutional Sector Accounts*.
Note 2: For definitions of national accounts terminology within the financial accounts framework see Appendix.

Chart 4: Percentage Contribution of Saving and Valuation Changes to Household Net Worth, 2002—2007







4. The Fall in Household Net Worth and its Impact on Consumption

The permanent income hypothesis (Friedman, 1957) postulates that households will attempt to smooth their consumption over time based on estimates of their permanent income. In theory, therefore, households will borrow and save in an attempt to smooth consumption over time and, as a result, consumption behaviour should be affected primarily by permanent changes in wealth and income. This section considers the channels through which a change in household net worth can impact upon consumption.

The composition of households' portfolio of assets is a potentially important factor in determining the impact of changes in wealth on consumption. Given that household assets have different liquidity, capital certainty, visibility and collateral properties, it cannot be assumed that the marginal propensity to consume (MPC) out of each asset type is the same. Therefore, the impact on consumption of a change in the household sector balance sheet will not be homogeneous across wealth components or across households.[9]

As outlined in Section 3, much of the increase in household net worth in recent years was driven by valuation changes in 'ITRs', and housing assets. 'ITRs', however, are usually a long-term investment by households and are therefore highly illiquid. In addition, a number of surveys have found that the household sector, in general, has a low awareness of the value of their pension funds. A pilot study for an ECB survey of household finances, conducted by the CBFSAI in late 2007, found that most households found it difficult to quantify the value of their financial assets held in life assurance and pension funds. Moreover, the results of a recent Financial Regulator survey (2008) revealed that only 21 per cent of consumers were aware that stock market performance could directly affect their endowment policies. Therefore, valuation changes in 'ITRs' are generally not very visible, so wealth accruing through this channel is unlikely to have a significant influence on consumption. The exception is likely to be older households whose pension funds are close to maturity, where 'ITRs' are more liquid and, therefore, more visible.

Equity and house prices are widely discussed in the media and households generally have a greater awareness of changes in the value of these assets. A number of studies have examined the impact of valuation changes in 'shares and other equity' and housing assets on consumption, and the analysis presented below draws on some of their findings.

4.1 Shares and other equity

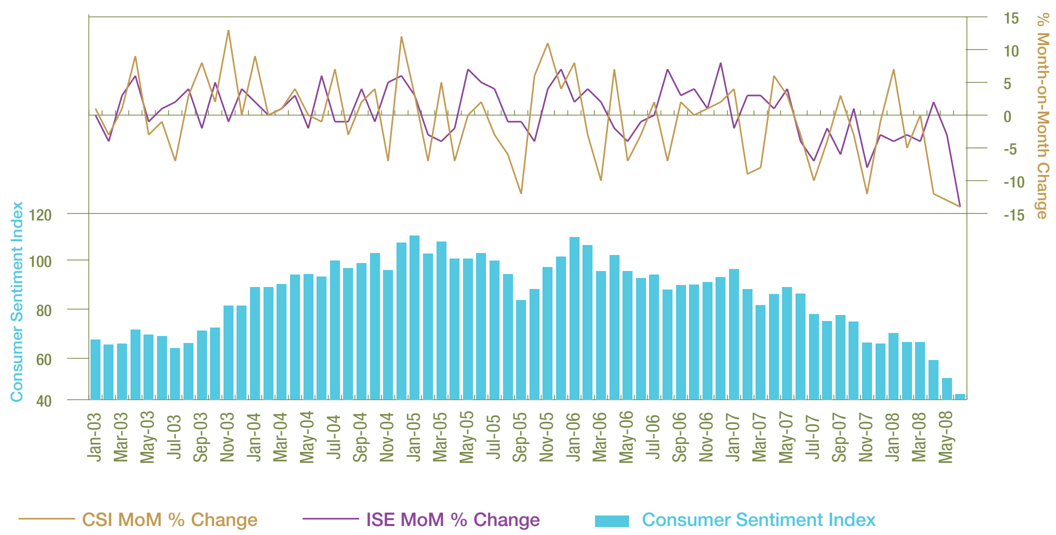
In the household sector the category 'shares and other equity' contains quoted equity, unquoted equity and property held abroad.[10] It is unlikely that changes in household wealth as a result of valuation changes in unquoted equity or property held abroad will have a significant impact on consumption. These assets are relatively illiquid and valuation changes are not very visible to households. However, numerous studies have found a positive relationship between quoted equity prices and consumption; these include Poterba (2000) for the US economy and Dvornak and Kohler (2007) for Australia. This relationship was also tested by Bayoumi and Edison (2003) for 16 industrial countries, including Ireland. Their analysis found that a fall in quoted equity prices negatively affects consumption.

The direct effect of changes in the value of quoted equities held by households, however, is likely to be small. Firstly, equity prices are one of the most volatile aspects of household wealth. It is, therefore, difficult from the household perspective to assess if changes in this asset are temporary or permanent. Secondly, the proportion of households that hold quoted equity is low, estimated to be less than 1 per cent in Ireland (CSO 2007a), and these households are more likely to be in the

[9] Households' aggregate spending decisions are also influenced by the distribution of wealth across households of different ages. Distributional issues were considered in Kelly (2006) and are not dealt with separately here.

[10] Quoted equity covers shares with prices quoted on a recognised stock exchange; unquoted equity refers to those shares that are not quoted; property held abroad is a financial asset of the household sector and is comprised of property purchased outside Ireland by Irish households.

Chart 5: The Irish Stock Exchange and Consumer Sentiment Indices, January 2003—June 2008



upper tail of the income distribution.[11] A number of studies suggest that the MPC of higher income households is lower, therefore a valuation change on quoted equity would have a limited direct effect on consumption.

There is evidence, however, to suggest that changes in quoted equity prices can have a more far-reaching indirect impact on consumption. Valuation changes in equity markets may reflect changes in the overall prospects for the economy, which influence consumer confidence and thereby indirectly impact on consumption behaviour. Jansen and Nahuis (2003) tested the relationship between consumer confidence and the stock market between 1999 and 2001 for 11 European countries. They found that most countries had a positive contemporaneous correlation between stock prices and consumer confidence, and that Ireland had the highest correlation over this period. This relationship can also be seen in Chart 5, where monthly changes in the Irish Stock Exchange Index (ISEQ) and the Consumer Sentiment Index (CSI) between January 2003 and June 2008 are plotted. The results show a relatively close relationship over much of the period. Though quite volatile, the CSI has on average declined steadily since January 2006. By June 2008, the index had reached its lowest-ever level. The indications, therefore, are that while falling wealth levels may have little direct impact, generally negative consumer sentiment may lead to higher precautionary saving and lower household consumption in 2008 than trends in disposable income would suggest.

[11] This estimate excludes shares held by households through pension fund investments.

4.2 Housing Assets

As with stock prices, valuation changes in housing assets could also affect consumer confidence. Housing assets are much more widely held by households than 'shares and other equity', as owner occupied housing in Ireland stands at approximately 75 per cent (CSO, 2007c). Valuation changes in this instrument, therefore, inevitably affect a higher proportion of households. In addition, changes in the value of housing assets are relatively more visible to Irish households. The Financial Regulator (2008) found that 39 per cent of customers surveyed personally monitor developments in the housing market, whilst only 12 per cent monitored stock market developments.

As housing is relatively illiquid, an appreciation in housing assets will have a questionable direct effect on consumption. Housing is also an important source of collateral for households' borrowing, and a rise in house prices can improve households' access to credit. Conversely, when household balance sheets deteriorate as a result of falling house prices, access to credit and households' ability to smooth consumption may be constrained.

The links between house prices, household wealth and consumption have been the subject of extensive study. The results of OECD research (Catte et al, 2004) seem to confirm the existence of significant housing wealth effects on consumption in the US, the UK, Canada, the Netherlands and Australia. More recent work in the Bank of England (Benito et al, 2006), however, suggests that the relationship between house prices and consumption in the UK has weakened in recent years. Moreover, the authors point out that "linkages between house prices and consumer spending are more subtle — and rather less stable — than is often supposed". Drawing on data from the Office for National Statistics *Family Expenditure Survey*, they show that changes in consumer spending since the mid-1980s by both UK homeowners and renters are closely related and have reacted similarly to changes in house prices. This points to common factors behind both house prices and consumption, with future income expectations being viewed as most important.

Studies on housing wealth and consumption in Ireland have reached similar conclusions and have found little evidence that increasing property values in recent years had any impact on consumption. ESRI research (Hogan and O'Sullivan, 2007) found that rises in consumer spending here can be explained by increases in real personal disposable income, and that increases in housing wealth did not affect consumption. O'Donnell (2007) also reached similar conclusions. To the extent that higher property values facilitate greater access to credit, it appears that this is mainly used for residential investment purposes, through home improvements and extensions. The Irish Banking Federation found that approximately 14 per cent of the value of total new mortgage lending in the first quarter of 2008 was for mortgage top-up purposes. The feedback they received from lenders indicated that the majority of these loans were used for property extensions and renovations.

Since rising house prices and housing wealth have been found to have had little impact on consumption in Ireland, it would be tempting to conclude that the marked decline in households' housing wealth in 2007 would not have a negative effect on consumption expenditure either. The effects, however, may not be symmetrical. In addition, tighter credit conditions — the reduction in the availability of 100 per cent mortgages, coupled with tightening of stress testing by banks — mean that households now require larger deposits to purchase housing assets. While lower house prices have improved affordability, households must now endeavour to increase saving in order to fund the purchase of housing assets and this is likely to impact on consumption.

5. Conclusions

The build-up of personal indebtedness, the slowdown in the housing market and the overall importance of the household sector in the economy have focussed attention on the economic behaviour of Irish households. Household net worth increased by 82 per cent between 2001 and 2006, largely driven by revaluations in their assets, primarily their housing assets. In addition, results in Section 2 show that housing assets as a proportion of net worth increased from 67 per cent in 2001 to 81 per cent by 2007. Lower house prices and a decline in new house purchases, together with declining stock markets in 2007, caused household net worth to fall. Housing and equity markets have weakened further in 2008 and this will inevitably lead to a further deterioration in household net worth.

Our analysis also showed that the main factors influencing trends in household net worth were fluctuations in the value of housing assets and 'ITRs'. Only 16 per cent of the almost €300 billion increase in household net worth between 2001 and 2006 was due to household saving. In 2007, household net worth fell by almost 8 per cent, as significant falls in the value of both housing and financial assets dwarfed household saving.

The extent to which this fall in household wealth will affect consumption is difficult to determine. Previous work in this area suggests that the direct effects will probably be limited. Households' two largest asset categories — housing and 'ITRs' — are relatively illiquid, with a large proportion of households unaware of fluctuations in the value of the latter. The indirect effects of the fall in wealth, however, may be important. Equity prices and consumer sentiment are closely linked, while lower housing wealth and tighter credit conditions can constrain household borrowing and lead to higher saving levels.

The indirect effect on sentiment in the economy, therefore, appears to be the most likely channel through which trends in financial and housing markets influence consumption. In the context of falling household net worth, this indirect effect may lead to a structural change in the relationship between household income and consumption. The outcome could be somewhat weaker consumption in the future than trends in income would suggest.

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Appendix

Full Balance Sheet of the Household Sector, 2001–2007

€ million		Stocks	Transactions	Revaluations
Financial Assets:				
Currency and deposits				
	2001	55,468	n/a	n/a
	2002	59,359	3,890	0
	2003	65,509	6,150	0
	2004	74,589	9,080	0
	2005	88,051	13,462	0
	2006	96,230	8,179	0
	2007	102,185	5,956	0
Securities other than shares				
	2001	528	n/a	n/a
	2002	504	23	–47
	2003	426	–78	0
	2004	249	–177	0
	2005	153	–96	0
	2006	148	–1	–4
	2007	111	–58	21
Shares and other equity				
	2001	59,161	n/a	n/a
	2002	63,661	3,676	824
	2003	67,497	2,488	1,348
	2004	69,954	2,243	214
	2005	74,082	4,816	–688
	2006	76,844	2,783	–21
	2007	79,386	2,172	370
Insurance technical reserves				
	2001	64,377	n/a	n/a
	2002	60,865	3,026	–6,538
	2003	80,235	3,222	16,148
	2004	93,855	3,715	9,905
	2005	111,977	3,333	14,789
	2006	132,096	4,016	16,103
	2007	127,466	2,866	–7,496
Other accounts receivable				
	2001	889	n/a	n/a
	2002	1,089	197	0
	2003	1,262	174	0
	2004	1,482	220	0
	2005	2,697	1,215	0
	2006	2,864	170	0
	2007	2,667	–201	0
Total Financial Assets				
	2001	180,422	n/a	n/a
	2002	185,477	10,812	–5,757
	2003	214,929	11,958	17,494
	2004	240,129	15,081	10,119
	2005	276,958	22,730	14,099
	2006	308,182	15,147	16,077
	2007	311,815	10,735	–7,102

Full Balance Sheet of the Household Sector, 2001–2007 — *contd.*

€ million		Stocks	Transactions	Revaluations
Liabilities:				
Loans				
	2001	60,822	n/a	n/a
	2002	73,171	12,250	99
	2003	87,143	14,936	–964
	2004	109,575	22,292	140
	2005	142,689	32,800	314
	2006	173,129	30,460	–20
	2007	193,692	20,741	–178
Other accounts payable				
	2001	1,944	n/a	n/a
	2002	2,199	263	–8
	2003	2,549	349	1
	2004	2,696	141	6
	2005	3,283	555	32
	2006	3,182	–95	–6
	2007	3,625	444	–1
Total Liabilities				
	2001	62,765	n/a	n/a
	2002	75,370	12,513	92
	2003	89,692	15,285	–963
	2004	112,271	22,433	146
	2005	145,972	33,355	346
	2006	176,311	30,364	–25
	2007	197,318	21,185	–178
Net Financial Position:		*Net Financial Wealth*[a]	*Net Financial Transactions*	*Revaluations of Net Financial Assets*
	2001	117,657	n/a	n/a
	2002	110,107	–1,700	–5,850
	2003	125,237	–3,327	18,457
	2004	127,858	–7,352	9,973
	2005	130,986	–10,625	13,753
	2006	131,871	–15,217	16,102
	2007	114,497	–10,450	–6,924
Housing Assets:		*Total Stock of Housing Assets*	*Acquisition of Housing Assets*	*Revaluations of Housing Assets*
	2001	237,903	n/a	n/a
	2002	291,891	10,046	43,942
	2003	346,930	13,346	41,693
	2004	394,198	17,244	30,024
	2005	446,102	19,673	32,231
	2006	516,349	25,898	44,349
	2007	484,479	16,835	–48,705
Net Position:		*Net Worth*[b]	*Saving*[c]	*Total Revaluations*
	2001	355,560	n/a	n/a
	2002	401,998	8,346	38,092
	2003	472,167	10,019	60,150
	2004	522,056	9,892	39,997
	2005	577,088	9,048	45,984
	2006	648,220	10,681	60,451
	2007	598,976	6,385	–55,629

Note: [a]Net Financial Wealth = Net Financial Assets;
[b]Net Worth = Net Assets;
[c]Saving = Net Financial Transactions plus Acquisitions of Housing Assets.

Sources: *Institutional Sector Accounts: Financial* (CSO, 2008) and CBFSAI calculations of housing assets.

Definitions

Net financial wealth is defined as the difference between stock of financial assets and liabilities.

Net worth is defined as the difference between stock of total assets and liabilities.

Net lending/borrowing is defined as the difference between financial transactions in assets and liabilities.

Net financial saving is defined as the difference between transactions in financial assets and lilabilities.

Saving is defined as the difference between transactions in assets and liabilities.