



## RBA/ESA Economics Competition 2013

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# SECOND PRIZE

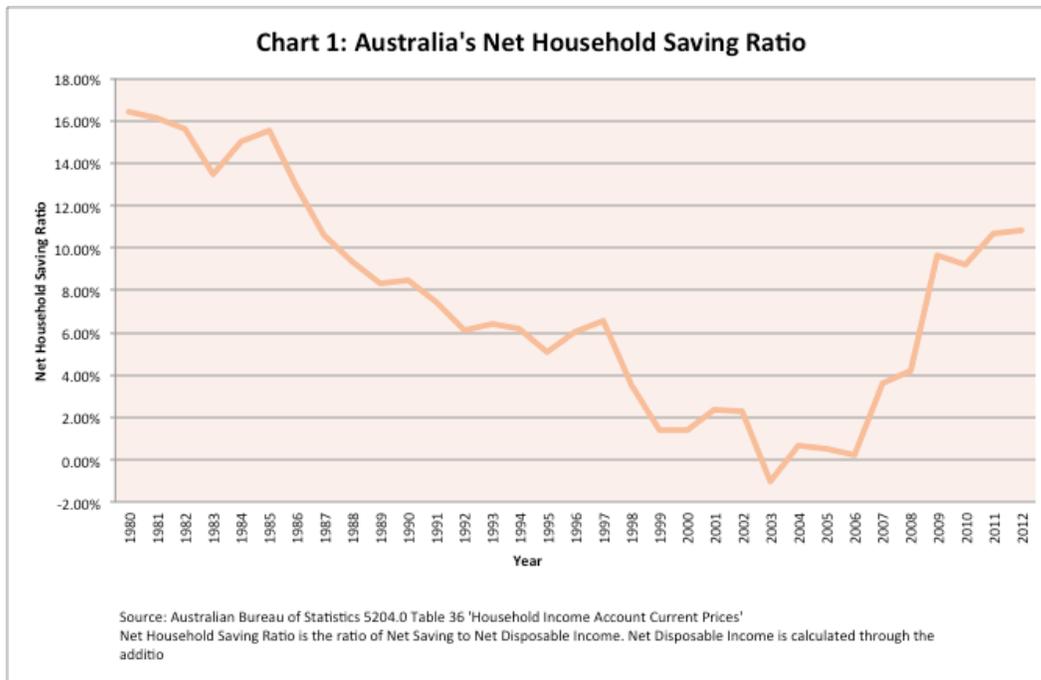
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*Household Saving in Australia:  
Anatomy and Analysis*

# Household Saving in Australia: Anatomy and Analysis

## Introduction

After declining for two decades, Australia's household saving ratio has begun to return to levels that have not been seen since the mid 1980s (see chart 1). The deregulation of financial markets in the 1980s removed the constraint of many households to go into debt, leading to the decline in the savings rate. Whilst the Global Financial Crisis has had an impact on household saving through its effect on capital gains and the terms of trade, the trend upward began before the onset of the crisis. This pattern has been mirrored in other similar English speaking developed nations. Household saving affects not only banks (as deposits are their largest of funding), but also the economy's susceptibility to global financial shocks, the current account, and the rate of inflation.



## Explaining Household Saving: Financial Deregulation

The deregulation of domestic and international financial markets in the 1980s gave impetus to the trend decline in the household saving rate over the period 1985-2004. Hiebert (2006) attributes the run-up in debt as an attempt by households to smooth their consumption profiles over the long term. Friedman's permanent income theory and Modigliani and Brumberg's life-cycle theory propagate the idea that agents prefer a stable path of consumption. Individuals and households plan their consumption and savings behaviour over the long-term, intending to smooth their consumption in the face of temporary and unexpected fluctuations in income. The model stipulates that consumers

## Household Saving in Australia: Anatomy and Analysis

prefer to dissave when young, and reach peak wealth prior to retirement, in which they then liquidate their wealth. Prior to the liberalisation of Australia's financial system in the 1980s, households had limited access to financial intermediation to gain credit. Young consumers were unable to finance their desired level of consumption, and were limited to consume off their endowment.

Deregulation and microeconomic reform created competition between the providers of financial intermediation, eliminating the constraint of going into debt for the asset poor. The relaxation of impediments to credit reduced aggregate savings, combined with innovative new financial instruments that permitted previously illiquid obligations to be securitised and traded. Younger consumers were able to take on higher debt levels to fund consumption, reflected by the steady decrease in the household saving ratio. As the availability of credit increased and nominal interest rates declined, household consumption grew more quickly than income for around a decade (Lowe 2011).

Households used debt to finance the purchase of homes and other financial assets that had previously been out of their reach. Older consumers experienced no significant shift in their consumption patterns as they still experienced an "inability to borrow when they were young" (Bayoumi 1993).

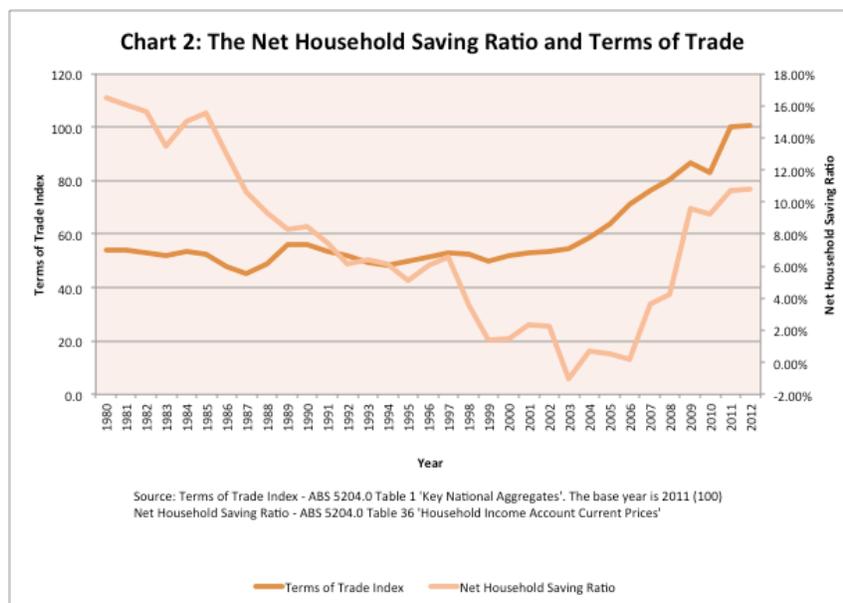
The effect of the deregulation of financial markets on the household saving ratio was, by its very nature, temporary. The effect of the increase in aggregate consumption shrank as older consumers who had previously been credit constrained when young dropped out of the economy. Therefore the effect of deregulation was as Lowe described, in itself a "one-off event", explaining why household saving began to increase before the GFC (Lowe 2011). As households enter a new post-deregulation steady state, household savings will become more sensitive to factors that had traditionally played a role in its determination prior to financial liberalisation, such as wealth and real income (Bayoumi 1993).

## Household Saving in Australia: Anatomy and Analysis

### Explaining Household Saving: The Terms of Trade

Households have treated the terms of trade boom as a transitory boost to their incomes, putting aside a higher share of their income for future consumption (Thorne and Cropp 2008). This effect was first described in 1950 by Harberger and then by Laursen and Metzler, and is known as the Harberger-Laursen-Metzler hypothesis. It stipulates that an improvement in the terms of trade raises a country's real income level and that part of this increase in real income will be devoted to saving provided that it is perceived to be temporary, as consumers attempt to smooth their consumption profile over time (Ostry and Reinhart 1991).

Between 1998-99 and 2008-09, Australia's terms of trade underwent an unprecedented rise of 75 percent, due to changes in both the prices and the composition of traded goods and services (Australian Bureau of Statistics 2010). During this period, import prices grew by only 9 percent, while export prices grew by 86 percent. Strong terms of trade growth translated into average real household gross disposable income growth of 5 percent per annum during the period (Thorne and Cropp 2008). Households recognised that the unprecedented level of real income growth, having previously averaged 3 percent per annum over the previous decade, was temporary. Growth in consumption was therefore not commensurate to income growth. Households increased their savings to maintain their smooth long-term consumption profile (see chart 2). This explains why in general consumption growth is less volatile than income growth.



## Household Saving in Australia: Anatomy and Analysis

### Explaining Household Savings: Capital Gains

Strong capital gains were also a key factor behind the significant decline in household savings ratio from the 1980s to the early 2000s. In the period of 1980 to 2002, strong growth in the equity price index and the housing price index was matched by a decrease in household saving (see chart 3). Capital gains act as a substitute for traditional saving (Thorne and Cropp 2008). This is due to the tendency of households to earmark certain assets as part of a long-term saving portfolio, and others as a way to finance current expenditure (Hiebert 2006). Thus, as capital growth accelerates, households do not save as large a share of their employment income as they would have otherwise. As capital growth declines, as it did during the GFC, households increase the amount they save to maintain their desired level of wealth.

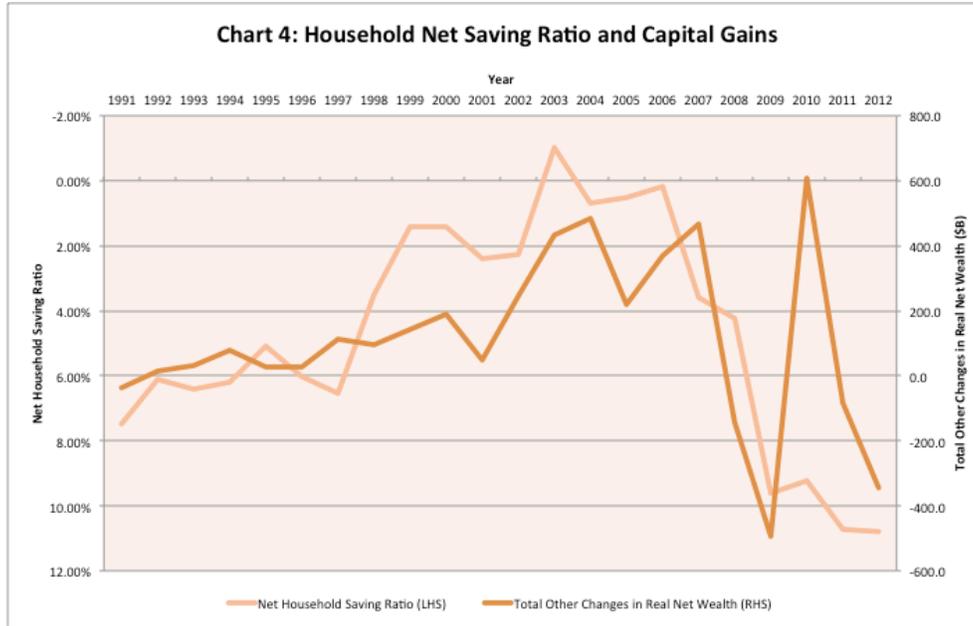
**Chart 3: Household Saving Rates and Real Asset Price Dynamics**



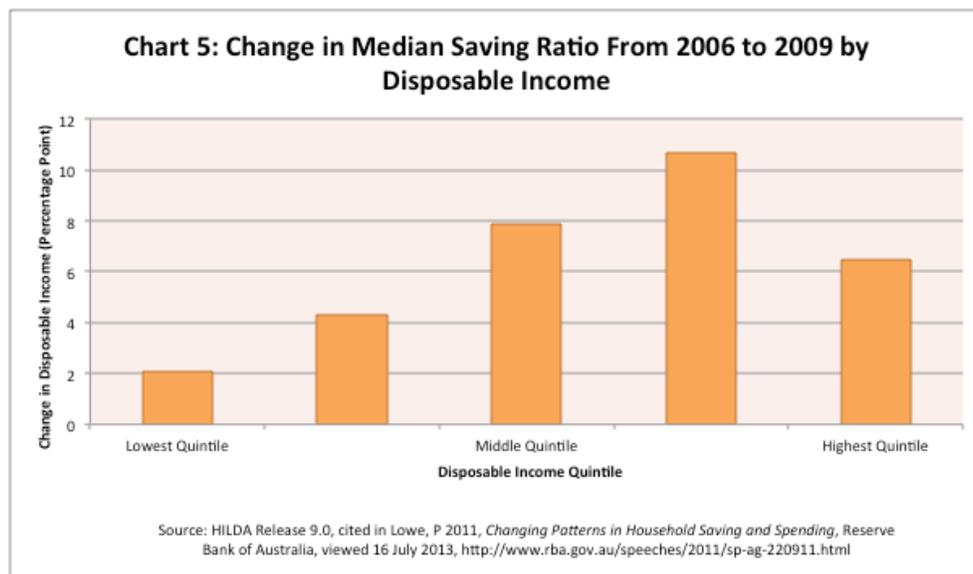
Source: Hiebert, P 2006, 'Household Saving and Asset Valuations in Selected Industrialised Countries', Reserve Bank of Australia, August, viewed 15 July 2013, <http://www.rba.gov.au/PublicationsAndResearch/RDP/RDP2006-07.html>

However, in the period following the Global Financial Crisis, the relationship between household saving and capital growth has become ambiguous (see chart 4). The household saving ratio has increased, whilst capital growth has largely undulated due to uncertainty in capital markets about the nature of the recovery.

## Household Saving in Australia: Anatomy and Analysis



Capital gains have a disproportionate effect on the savings decisions of wealthier households. Low-income households do not have the same scope as wealthier households to increase saving as the majority of their income is spent on necessities, rather than investing in equities and housing (see chart 5).

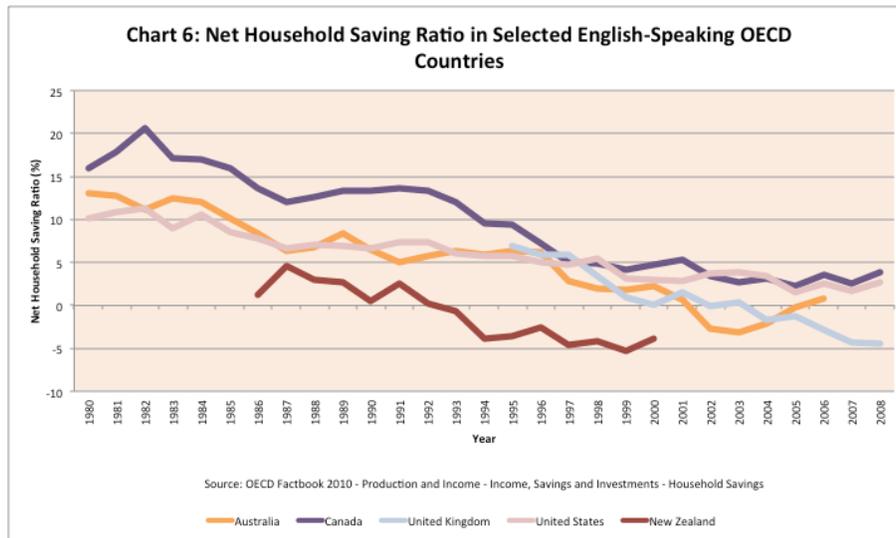


### International Trend in Household Saving

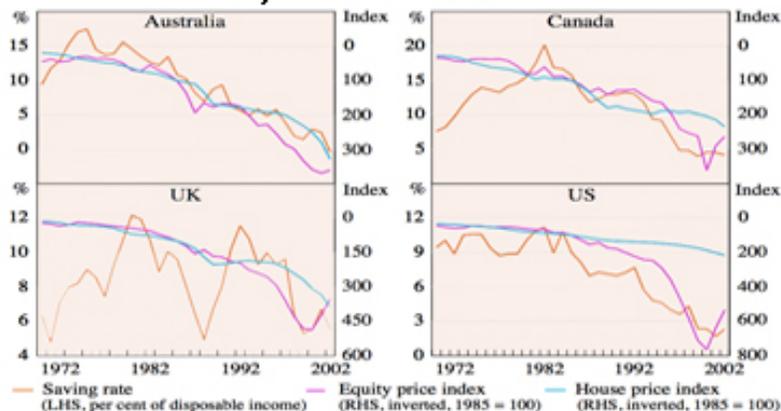
Since the 1980s, there has been considerable variation between the household saving rate in different OECD countries. The downward trend in the household saving rate

## Household Saving in Australia: Anatomy and Analysis

experienced from 1980 to 2004 extended beyond Australia to several other English-speaking countries including Canada, New Zealand, the United States, and the United Kingdom (see chart 6). Households in these countries were significant beneficiaries of the financial liberalisation of the 1980s, as their respective Governments embraced policies to remove credit constraints and internationalise financial markets. Hiebert attributes the fall in household saving since the early 1980s in these countries to a trend rise in wealth and improved access to capital gains in the financial and residential housing markets (see chart 7). Furthermore, these countries are characterised by similar institutional features such as tax mix, social security schemes, and household consumption of public services. As outlined previously, these factors are important determinants of the household saving rate.



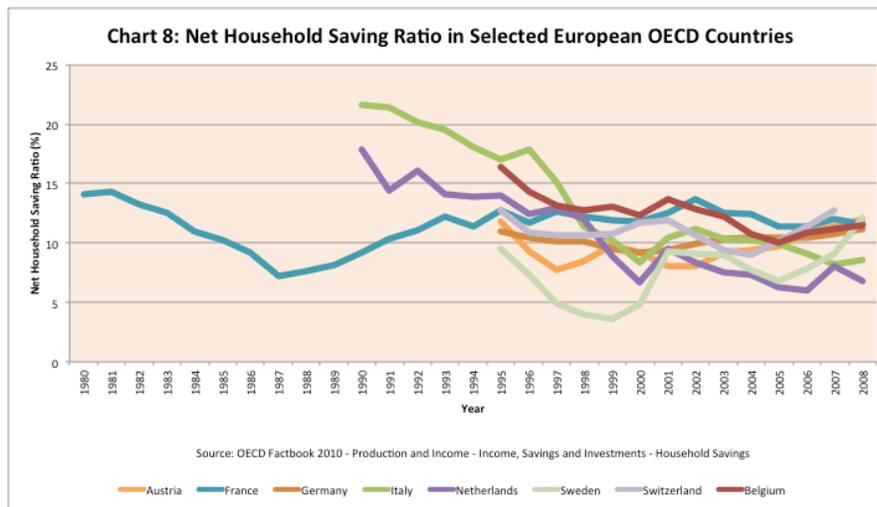
**Chart 7: Household Saving Rates and Real Asset Price Dynamics in Selected**



Source: Hiebert, P 2006, 'Household Saving and Asset Valuations in Selected Industrialised Countries', Reserve Bank of Australia, August, viewed 15 July 2013, <http://www.rba.gov.au/PublicationsAndResearch/RDP/RDP2006-07.html>

## Household Saving in Australia: Anatomy and Analysis

However, many non-English speaking OECD countries did not experience a similar downward trend in the household saving ratio over the same period (see chart 8). Indeed, there appears to be far less of a discernible trend. Studies by Bertraut (2002) and Barrell and Davis (2004) suggest that the wealth effect has a substantially smaller effect in continental Europe, largely due to fiscal policy settings such as the treatment of taxation on capital gains, and the degree of financial liberalisation. One factor that has contributed to the relatively higher household saving rate in Europe is the structure of the household's asset portfolio. In Europe, households prefer investing in bank deposits and fixed income, whilst the English speaking countries that experienced a substantial decrease in the savings ratio outlined above have invested a greater proportion of their investments in housing and equity (Reserve Bank of Australia 2006). Once capital gains are factored in to the saving rate, the distribution between savings rates narrows.



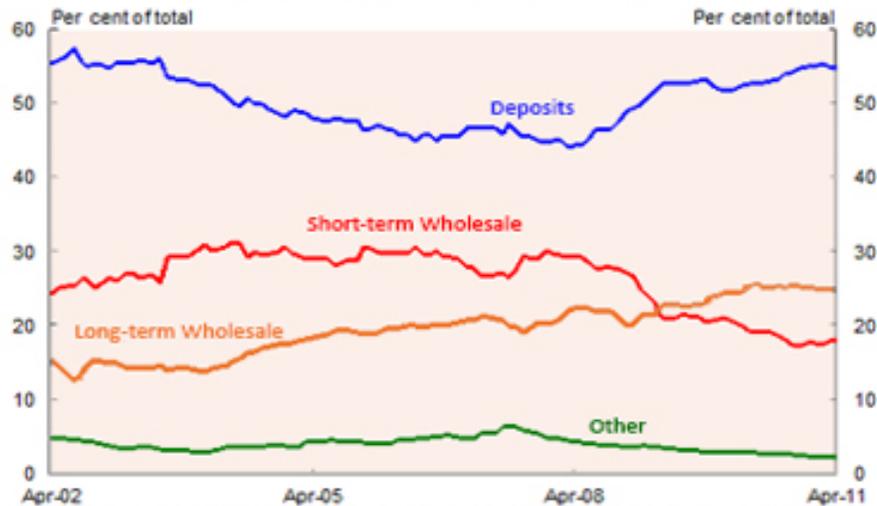
### Implications of Household Saving: Bank Funding

An immediate effect of the rise in the household saving has been an increase in the Australian banking sector's deposit base. Freestone et al. (2011) argue that increased household saving, in the form of increased deposits, has increased the resilience of the Australian banking sector by reducing its reliance on short-term wholesale funding markets and helping it move towards a "more reliable funding pattern". During the Global Financial Crisis, banks worldwide struggled to extend their short-term debt as international credit markets tightened. Realising the volatility of relying on short-term

## Household Saving in Australia: Anatomy and Analysis

wholesale funding, banks have tried to gear their funding base towards deposits and long-term wholesale debt. Higher household savings have made this transition possible for the Australian bank sector. Since April 2008, deposits have increased as a share of bank funding by 10 percentage points to approximately 55 percent, directly at the expense of short-term wholesale funding (Freestone et al. 2011) (see chart 9). Accordingly, increasing household savings has increased the stability of the Australian financial sector.

**Chart 9: Sources of Bank Funding**



Source: RBA and Australian Prudential Regulatory Authority, cited in Freestone et al. 2011, 'The Rise in Household Saving and its Implications for the Australian Economy', *Economic Roundup*, vol. 2, viewed 15 July 2013, <http://www.treasury.gov.au/PublicationsAndMedia/Publications/2011/Economic-Roundup-Issue-2/Report/The-rise-in-household-saving-and-its-implications-for-the-Australian-economy>

### Implications of Household Saving: Downside Inflationary Pressures

The moderation in household consumption required to increase the savings rate reduces demand-side inflationary pressures (Econtech 2008). Prior to the turnaround in the household saving rate in 2004-05, the Australian economy was operating above capacity (Freestone et al. 2011), meaning that macroeconomic equilibrium required upward pressure on interest rates. By alleviating this pressure, the increase in the household saving rate moderates wage and price demands. Gittins (2013) asserts that the household savings rate has returned to its historical norm and is stabilising around its current level. Consequently, consumption will grow in line with incomes, meaning that household demand will have a less dampening effect on the property and retail sector than in recent

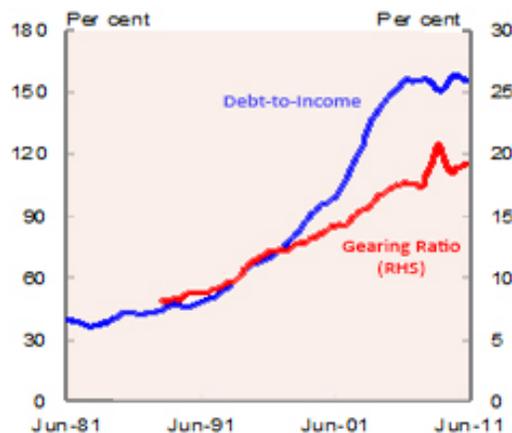
## Household Saving in Australia: Anatomy and Analysis

years. However, household consumption will not be as strong as it was during the period that the savings rate was falling.

### Implications of Household Saving: The Current Account Balance

A high household savings rate reduces the dependence on foreign financing of domestic capital (Econtech 2008). Despite Australia consistently having posted a surplus on the balance of international trade in goods and services, the current account balance has been negative due to a deficit on net income payments. High household savings, which in turn lead to a higher national savings rate, reduces the current account deficit by decreasing the volume of foreign debt required to finance domestic investment. Household saving has increased as a proportion of the national savings rate since 2008-09 (Freestone et al. 2011). High levels of foreign liabilities increase the Australian economy's exposure to global economic shocks, which consequently have the capacity to negatively influence foreign perception toward investing in Australia (Econtech 2008). Therefore, a high level of household saving has the ability to insulate Australia against international economic crises and increase financial stability. Likewise, the stabilisation in household indebtedness has reduced household sensitivity to interest rate changes (see chart 10). Whilst not necessarily decreasing household vulnerability to shocks, it has stopped the vulnerability from rising in recent years.

**Chart 10: Measures of Household Indebtedness**



Source: RBA, cited in Freestone et al. 2011, 'The Rise in Household Saving and its Implications for the Australian Economy', *Economic Roundup*, vol. 2, viewed 15 July 2013, <http://www.treasury.gov.au/PublicationsAndMedia/Publications/2011/Economic-Roundup-Issue-2/Report/The-rise-in-household-saving-and-its-implications-for-the-Australian-economy>

## **Household Saving in Australia: Anatomy and Analysis**

### **Conclusion**

Financial deregulation had a significant impact on Australia's household saving from 1985 to 2004. However, in future, Australia's household saving will primarily be influenced by the confluence of wealth and income determinants, primarily capital gains and the terms of trade. Australia has not been the only country to see the impacts of financial liberalisation. Several other developed nations that underwent comparable financial deregulation in the 1980s have witnessed similar trends in household saving, and are influenced by similar factors. Rather than being just a statistic, the household saving rate has real and measurable impacts on the macroeconomy on metrics such as bank funding, the current account and inflation. Rather than being at an unusually high level, many commentators concede that household saving is returning to normality following decades of decline. It is therefore important that policymakers adapt to an economic environment characterised by an elevated level of household saving.

## Household Saving in Australia: Anatomy and Analysis

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