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What impact do house prices have on household debt and labour supply in Australia?

HOUSEHOLDS ACCUMULATE DEBT AS HOUSE PRICES INCREASE LEAVING THEM VULNERABLE TO HOUSING AND LABOUR MARKET SHOCKS. HOUSE PRICE INCREASES ALSO POTENTIALLY PROMOTE OR DAMPEN LABOUR SUPPLY AND LABOUR FORCE PRODUCTIVITY.

KEY POINTS

- There is a strong relationship between house price changes and household indebtedness in Australia. Our results show that a $1,000 (2013 AUD) increase in house value is associated with a $240 increase in household debt among home owners.
- When their housing wealth increases, home owners adjust their debt portfolios, and hence reduce their debt servicing. A 1.0 per cent increase in local house price growth is associated with an 0.321 per cent decrease in the non-mortgage debt of home owners.
- There are important differences in the relationship between house prices and household indebtedness across demographic groups, and by level of debt holdings. The responsiveness of household debt to house prices is greater among households with higher levels of indebtedness.
- House price movements have clear and consistent impacts on labour market activities. The magnitude of the effect varies by gender, family type and life-cycle stage.
- The most important responses to house price changes are in the labour force participation and hours of work by women (partnered and single). The effect is strongest among the older cohort and is associated with early

*This bulletin is based on research conducted by **Professor Garry Barrett**, **Dr Kadir Atalay** and **Dr Rebecca Edwards** at the AHURI Research Centre—The University of Sydney. The research explored the nature and magnitude of the relationship between house prices, household debt and the labour market decisions of Australian households.*

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retirement by those experiencing above average housing wealth gains.

- Younger partnered men and women exhibit a reduction in hours of work in response to the gain in housing wealth. That is, these gains in wealth effectively fund time away from work to undertake non-market activities such as providing household care for children, ageing parents, undertaking volunteer work or enjoying more leisure.

CONTEXT

The effect of house prices on households' financial decisions has been an important question facing researchers and policy-makers. Increases in house prices may lead households to take on additional debt, refinance an existing mortgage, or change the composition of the debt held. Studies of labour supply have also found significant changes in work patterns due to house price movements. Labour force participation and hours of work decisions have been found to be sensitive to households' housing tenure and their age. To inform the development of policy in Australia, empirical evidence is needed to confirm the importance of these relationships, and to gauge the magnitudes of the effects.

RESEARCH METHOD

This research uses the Household Income and Labour Dynamics in Australia (HILDA) dataset, 2001–2012. The analysis exploits the longitudinal nature of the survey and the rich information on households and individuals available in the data. In particular, every four years, respondents in the survey are asked detailed questions about their holdings of assets and liabilities. We supplement the HILDA data with a panel of local government area house price data collected by Residential Property Data.

The longitudinal nature of HILDA provides an opportunity to examine the dynamics of labour supply, household debt and the borrowing behaviour of Australian households. The study examines these questions by using panel data and cross-sectional econometric models.

KEY FINDINGS

Impact of housing wealth on household debt

Overall, the results indicate that a $1,000 increase in housing wealth is associated with an increase in debt of approximately $240 per annum. This is a large response compared to the magnitudes found in studies in the United States and United Kingdom.

There is an association between house prices and the non-mortgage debt of home owners. The increase in the value of their property (that can be used as security for a loan) may loosen borrowing constraints. As a result, home owners can reallocate their debt portfolios to reduce their debt servicing by reducing non-mortgage debt and increasing mortgage debt.

Responses to types of household debt

There are important differences among home owners' responses to house price changes. House price increases are associated with larger increases in total indebtedness for home owners with higher initial loan-to-value (LTV) ratios. Home owners with larger values of non-mortgage debt as well as higher LTV ratios are more sensitive to house price movements compared to other home owners. Finally, middle-aged home owners exhibit a stronger response to house price movements compared to older and younger home owners.

The take-up of further mortgage debt among vulnerable highly leveraged households exposes them to income, housing and financial market shocks. The results are in contrast to the general belief in Australia that debt is held by those most able to service it—higher income and high-wealth households. Macroeconomic policy-makers should interpret high levels of debt and rising household debt-to-income ratios in Australia carefully.

Overall, the findings show that house price changes influence household debt through two channels: a direct wealth effect and an indirect collateral effect via the household's borrowing capacity. That is, some households face borrowing constraints and, for these households, rising house prices increase the value of their property that may be used as security for a loan and thereby loosen the borrowing constraints. The analysis shows that collateral and wealth effects have prominent roles for different subgroups of the population. Households' responses to house prices vary by housing tenure status and debt levels. Our results indicate that in response to increasing house prices, some home owners, especially home owners with low debt, engage in debt financing of consumption (involving extracting equity from their home). Other home owners, especially those with relatively high debt levels refinance existing mortgages or adjust existing debt portfolios.

Labour supply response to changes in house prices

Consistent with international findings, the analysis of the micro data on labour supply, housing debt and house prices suggests that there are important differences in the patterns of labour supply and housing debt and wealth over the life-course and between partnered and single Australians.

The analysis reveals economically significant responses to above average changes in house prices among home owners. The most important responses are in labour participation and hours of work by women, both partnered and single. The effect is strongest among the older cohort of women and is associated with early retirement for those experiencing above average housing wealth gains.

Another important response is observed among younger partnered men and women who exhibit a reduction in hours of work in response to the gain in housing wealth. The evidence suggests that, at a formative stage of the family life-cycle, the housing wealth gains effectively subsidise non-market activities—potentially including family care activities—for this group.

The analysis also considers the role of mortgage debt obligations, and there is consistent evidence that greater mortgage debt obligations are associated with higher hours of market work. Overall, the analysis provides robust evidence that house price movements have clear and consistent impacts on individual and family wealth and on their labour market activities. The magnitude of that effect clearly varies by gender and life-cycle stage.

POLICY IMPLICATIONS

These findings will assist macroeconomic and public policy-makers to better understand the ways that the housing market can affect the wider economy.

Implications for macroeconomic stability

The findings have potentially important macroeconomic implications, particularly in the context of upswings and declines in the economy and in house prices. The take-up of further mortgage debt among highly leveraged households exposes those households to the risk of significant loss if house prices fall or if interest rates rise. This, in turn, may pose a systemic risk for the macroeconomy. An economic shock, emanating in either financial, labour or housing markets, may lead to widespread defaults that would cause the shock to spread across markets and threaten the performance of the aggregate economy. Therefore, policy-makers may need to consider limits on, or regulate the risks associated with, the continued collateralisation of debt in a potential deflationary environment.

Implications for retirement incomes

Housing represents an important component of household wealth and is a key form of retirement saving for many Australian families. The analysis reveals that higher house price growth is associated with early retirement for women (though not for men). Consequently, public policies that contribute to house price growth can induce earlier retirement among home owners, particularly if equity withdrawal to fund consumption is facilitated.

Importantly, the detailed analysis by housing tenure status and debt position reveals a more complex and nuanced pattern of responses to house price growth. The evidence shows that drawing down on housing wealth to fund consumption is more commonly used by wealthier households (home-owning partnered women who experienced unexpected high house price growth). At the same time, those with higher debt, who reconfigure their debt portfolio more heavily toward mortgages, continue to face important risks related to future house prices and employment security. These issues are relevant for policy-makers in considering the adequacy of the current retirement income system.

Implications for labour force productivity

Productivity growth is the foundation of sustained improvements in the standard of living and hence represents a prime concern of policy-makers. The results of the research presented in this report highlight two ways in which housing and housing finance-related policies might influence productivity growth. First, results indicate that housing policies can play a potentially important role in driving labour market participation decisions in Australia, and hence should be considered in conjunction with other labour market policies to encourage employment participation. The research findings also suggest that it is important to consider the links between labour supply, housing debt and house prices separately for different demographic sub-groups. As a result, policy-makers should take note of these heterogeneous responses when designing housing policies. Second, as house price growth tends to affect labour supply, while simultaneously making it more difficult for renters to become home owners, policies that dampen house price inflation (e.g. new housing supply) may also contribute to labour force productivity growth.

FURTHER INFORMATION

This bulletin is based on AHURI Project 73041, *House prices, mortgage debt and labour supply: evidence from Australian households*.

Reports from this project can be found on the AHURI website: www.ahuri.edu.au or by contacting AHURI Limited on +61 3 9660 2300.

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Australian Housing and Urban Research Institute

ADDRESS Level 1, 114 Flinders Street Melbourne Victoria 3000 TELEPHONE +61 3 9660 2300
EMAIL information@ahuri.edu.au WEB www.ahuri.edu.au

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