

Sales Activity, House Prices and New Housing

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Much of the research effort regarding housing markets in Australia has been focused on the determinants of existing house prices. A widening gap between increases in established house prices and new building activity during the course of the 2000s has raised interest in the factors impeding the supply of new housing.

Chronic shortages of new housing, by fuelling expectations of increases in the price of existing housing, can lead to bouts of speculative behaviour and contribute to volatile spending patterns. The interaction of the established housing market and prices of existing housing with the new dwelling sector has received insufficient attention.

There has been little mention of the role of sales activity in the established housing market and its relevance to the formation of house prices and new dwelling activity. An examination of dwelling sales reveals that sales volumes and prices are positively correlated. However, changes in sales volumes respond in the short term more quickly and to a larger degree than house prices to shifts in demand conditions. Because sales respond before house prices to variations in market conditions, fluctuations in dwelling sales may be a superior indicator of changes in housing demand. This paper looks at linkages between sales activity, house prices and the level of new dwelling starts.

Sales Activity

The conventional demand and supply approach may be appropriate for most products, but the housing market is complicated. Housing not only generates accommodation services (thus satisfying a key requirement of the Australian economy, namely shelter for its population), but housing is also a long-lived asset which forms part of the nation's stock of capital, the housing stock.

Housing services are exchanged regularly for rental payments in the rental market. However, the transactions market for dwellings is much larger than the rental sector. The ownership of housing assets is traded regularly by owner-occupiers and investors. The interaction of buyers and sellers of existing dwellings determines the prices of housing assets.

The stock of dwellings is not the same as the 'supply' of dwellings for sale (or for rent), since only a portion of the existing housing stock is part of the active asset market in the shorter term¹. Most of the properties offered for sale are put on the market by potential changeover owner-occupiers as well as by investors. There are some



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¹ This key distinction is frequently overlooked

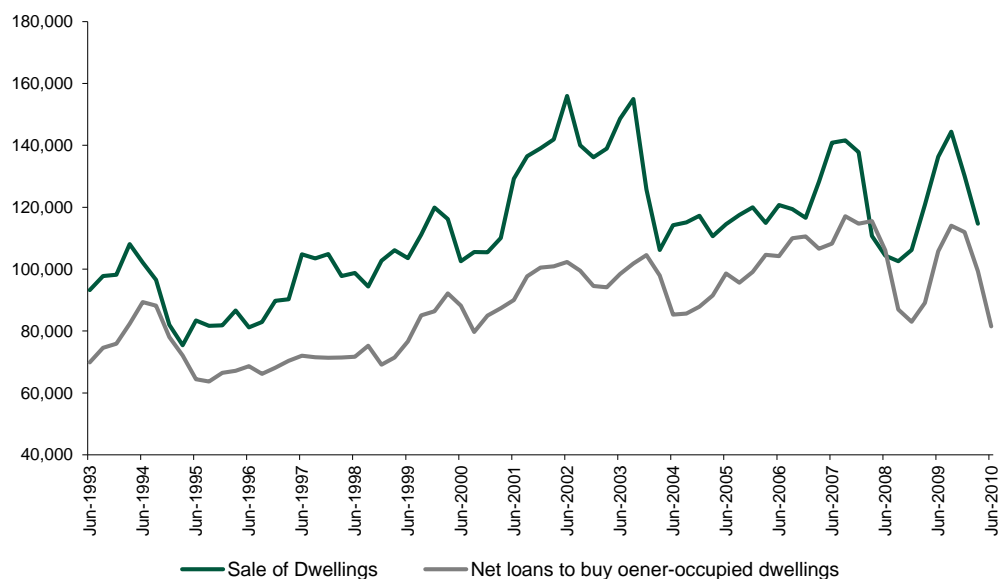
properties for sale that emanate from deceased estates and household separations as well as ‘forced’ or distressed sales and mortgagee-in-possession sales. Also, some of the ‘for-sale’ market includes newly-completed spec built homes.

The turnover rate of the existing dwelling stock depends on the number of people who intend to sell or buy and the time taken to achieve a sale. Over the course of a year, about 6 per cent of the existing dwelling stock turns over; at its peak in 2003-04, 600,000 dwelling units were sold, equivalent to about 8 per cent of the total stock of dwelling units. The rate of stock turn may seem modest, but with more than nine million dwellings in Australia’s housing stock, the annual number of transactions of established dwellings exceeds considerably the number of additions to the housing stock through new dwelling completions.

An important feature of housing markets involves the connection between transactions in the existing housing stock and new dwelling activity. Because new dwellings and existing dwellings are near substitutes, the dominance of trading activity in the housing stock means that the level of residential building activity will be affected closely by the volume and prices of dwelling units being bought and sold in the existing housing market. An indication of the significance of trading activity in the established housing stock can be gleaned from private collections of sales activity as well as official figures on the number of loan commitments to purchase dwellings.

Lending to Owner-Occupiers and Sales of Dwellings

Sources: ABS, Australian Property Monitors



The chart above shows the number of sales of dwelling units² and the number of loan commitments to owner-occupiers to purchase dwellings³. Both series reveal a number of cycles in the turnover of residential property, which can transmit fluctuations to the level of new residential construction.

² Figures on the number of sales of dwellings are collected by private sector agencies from transactions recorded with state government agencies. The sales figures were provided by Australian Property Monitors. Sales were recorded at the time of exchange and have been seasonally adjusted. They do not include purchases of vacant residential land and transactions for Tasmania. Sales figures for Tasmania are not available prior to 2003. The number of sale transactions does not separate established and newly-completed dwellings or identify owner-occupiers and investors. Sales information is obtained on a regional basis. Processing times mean there is approximately a five-to-six month lag to finalise sales figures.

³ The series on loan commitments included approvals for the purchase of existing and new dwellings after removing loans for the refinancing of existing dwellings and cancellations of loans. A loan commitment for the purchase of a holiday home would be included in the series of loans for owner-occupation if the holiday home was to be utilised as a secondary residence by the owner. The number of loans approved to buy dwellings in Tasmania was not included in the series to ensure comparability with the sales figures. Loans to owner-occupiers for the construction of dwellings were not included because they finance the construction and not

Not surprisingly, the number of sales exceeds the number of loans to owner-occupiers to purchase dwellings. The gap between the aggregate number of sales of dwellings and the number of loans to owner-occupiers to buy dwellings should provide a guide to the number of dwellings bought for sale or rental⁴ as well as dwellings purchased outright.

There are no time series on the incidence of dwellings purchased outright. However, based on some official surveys, it is possible that cash-based sales represent about 15 per cent of all dwelling sales⁵. The bulk of dwellings bought outright are purchased by repeat owner-occupiers. Few first home buyers acquire their dwelling without a loan. Purchasers of dwellings for rental investment are more likely to acquire property with debt, reflecting the deductibility of interest expenses for income tax purposes.

The lack of information on cash-based purchases of dwellings makes it difficult to draw conclusions about the time profile of dwellings acquired outright over the course of the housing cycle. Obviously, home purchasers who own their dwelling outright or with substantial equity ought to be less sensitive to movements in interest rates than potential buyers with low levels of equity. However, in order to realise the equity in their dwelling, repeat buyers have to rely on the proceeds from a sale, the timing of which is likely to be affected by changes in interest rates altering the number of house hunters in the market.

Householders who own their dwelling outright can be expected to keep their property on the market for some time in order to achieve their reservation price, which suggests that the number of cash-based purchases may fluctuate in line with changes in overall buyer activity and house prices. On this basis, the proportion of all dwellings that are bought outright might be more stable than the number of dwellings acquired with (or should this be “with”?) loans in the short-to-medium term⁶.

Despite the inherent limitations and deficiencies in the series on dwelling sales and loan approvals, both series exhibit a reasonably close visual correlation in relation to turning points (notwithstanding that loan approvals lead sales), reflecting the numerical significance of sales and purchases by owner-occupiers. The availability of lending figures on a monthly and timely basis makes the series a useful barometer of changes in housing markets. Increasing the timeliness and general availability of information relating to the sale of dwellings would make a very useful contribution to improving analysis of housing markets.

The Composition of Buying Activity

Housing assets are bought and sold regularly in the transactions market by owner-occupiers and investors. There is a substantial overlap between buyers and sellers due to the presence of changeover owner-occupiers in the housing market. These include existing owner-occupiers who are trading-up as well as those who are trading-down in the owner-occupier market.

the purchase of a dwelling. An estimate of the number of loan cancellations had to be based on the value of loan cancellations relative to the total value of lending commitments to owner-occupiers.

⁴ A dwelling bought in Australia but financed overseas would be included in the sales figures but not in the ABS series on housing finance commitments. The extent of foreign-financed purchases of Australian residential property is not known. For example, the ABS 2007-08 Housing Mobility and Conditions (Catalogue no. 4130.0.55.002) indicated that about 20 per cent of owner-occupiers residing in their dwelling less than a year did not have a mortgage, which was equivalent to about 15 per cent of total dwelling sales in that period. The ABS Australian Housing Survey 1999 (Catalogue no. 4182.0) provides estimates of the number of owner-occupiers who purchased dwellings in 1997-98 and when compared with figures on loans to owner-occupiers, suggests that 20 per cent of owner-occupiers bought their dwelling outright between 1997-1998, accounting for 17 per cent of all dwelling sales in that period. The proportion of owner-occupiers utilising mortgage loans to purchase dwellings increased during the next decade reflecting the increases in house prices relative to incomes.

⁵ Marion Kohler and Anthony Rossiter, *Property Owners in Australia: A Snapshot*, Reserve Bank of Australia, Research Discussion Paper 2005-03, May 2005, p.20. According to the ABS 1997 Household Investors in Rental Dwellings (Catalogue no. 8711.0), about 14 per cent of rental investors who purchased a dwelling for rental income, bought the dwelling outright, representing about 3 per cent of all dwelling sales. However, the survey is dated and precedes the step-up in the prices of dwellings which occurred in the first part of the next decade.

⁶ In order to form an estimate of the number of dwellings bought for rental or re-sale, it was assumed that 15 per cent of repeat owner-occupiers purchased their dwelling outright. No allowance was made for cash purchases by first home buyers or investors.

But not all buyers of dwellings necessarily rely on the sale of their property, such as first home buyers, first-time investors and some purchasers of secondary residences. Similarly, not all sellers of dwellings are exchanging their dwelling for an alternative property. These could include investors selling off stock acquired for sale or for rental purposes as well as deceased estates and distressed sales.

Repeat owner-occupiers account for the bulk of dwellings being purchased - more than six -out-of ten dwellings⁷. The balance is spread nearly evenly between first home buyers and individuals acquiring dwellings for rental or resale.

Number of Dwellings Bought by Type of Buyer

(per cent of existing and new dwellings purchased)

	1990s	2000s
First home buyers	19.9	18.6
Investors	16.0	19.8
Repeat owner-occupiers	64.1	61.6
Total	100.0	100.0

Sources: Based on ABS, Housing Finance and sales figures from APM.

The number of dwellings bought for rental or re-sale rose strongly during the early part of the 2000s, peaking in 2002-03. It has been suggested that the increase in buyer activity by investors in the early part of the 2000s was influenced by falling global equity markets and favourable changes to the taxation treatment of capital gains that occurred from late September 1999⁸.

Strong increases in established house prices during the first part of the 2000s may have raised the investment demand for property not only for rental but for re-sale as well. Not all of the property purchased during that period would have been destined for the rental sector. Some of the growth in investment activity could have been targeted at the first-time and repeat owner-occupier markets as professional and part-time investors bought existing residential property for improvement, renovation and re-sale.

The boom in investor activity was followed by a very sharp contraction in the number of dwellings bought by investors during 2004-5. In light of the pace of expansion in investor activity during 2001-03, some correction in activity was to be expected. However, the plummeting level of investor purchases after 2003 may have been amplified by the imposition of the investor vendor tax in NSW in April 2004, which was later removed in August 2005⁹.

Even though investor-related activity increased in absolute and relative terms during the early years of the decade, the rental market did not become glutted with property. Purchase activity by first home buyers

⁷ ABS Housing Finance provides information on the number of loan commitments made to first home buyers and non-first time owner-occupiers. The time series includes lending for the refinancing of existing dwellings to non-first home buyers. A loan is recorded as a refinancing loan where the same financial institution is making the new loan. If an existing owner-occupier refinances a loan with a different financial institution, the loan is recorded as a new loan. Attempts by government to reduce the cost for existing owner-occupiers to change their home loan provider, indicates that instructions for the recording of refinancing loans and loans for the purchase of dwellings may need to be reviewed. In 2009-10, refinancing accounted for more than 50 per cent of loans to existing owner-occupiers. Accordingly, the number of loans for the purchase of dwellings by repeat owner-occupiers was calculated after removing the number of refinancing loans.

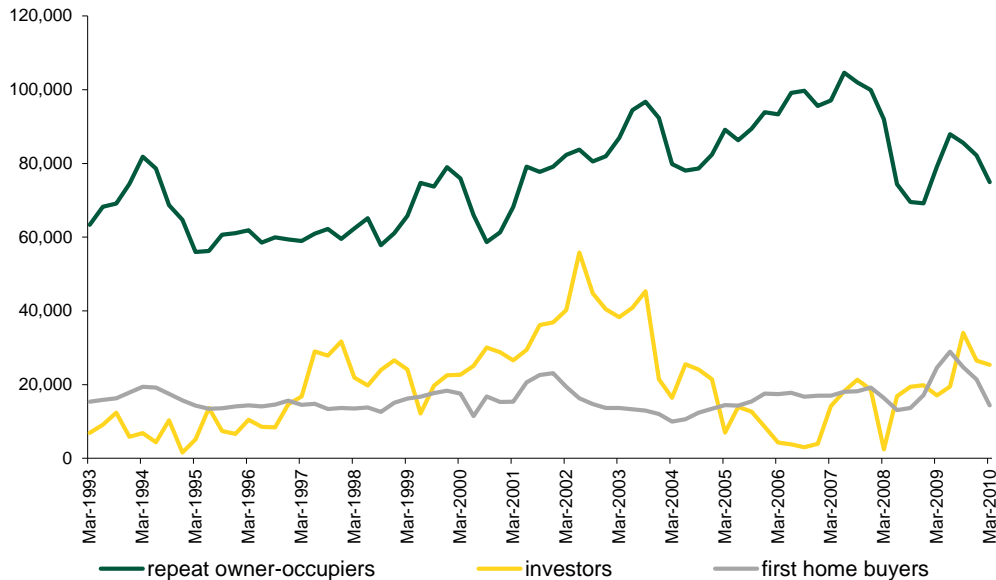
⁸ Alan Oster, House Prices-Drivers and Links to the Broader Economy: Rational or Irrational Exuberance, Shann Memorial Lecture, August 2005, p.5.

⁹ The NSW vendor tax was set at 2.5 per cent of the sale price of investment dwellings.

declined during this period, which meant that the demand for rental accommodation remained firm. Also, a marked slowing in the growth of house prices after 2004 saw the number of dwellings bought by investors in retreat whereas purchase activity by repeat owner-occupiers displayed reasonable health, at least until the Global Financial Crisis struck in 2008.

Number of Purchases by Type of Buyer

Sources: ABS, Australian Property Monitors



Not only did investor activity increase during the first half of the 2000s, so too did the purchase activity of repeat owner-occupiers. Some of the additional buying activity by existing owner-occupiers may have involved the acquisition of holiday homes. In contrast, first home buying activity slowed in the first half of the decade, under the weight of large increases in house prices which increased deposit gaps. Government-provided incentives for first home buyers contributed to the spike in first home purchase activity in 2009 and to a lesser extent in 2001. At its peak in mid-2009, purchases by first home buyers accounted for more than 29 per cent of all dwellings bought.

About 60 per cent of first home buyers previously were renting from a private sector landlord; about a quarter were in shared housing or living with parents¹⁰. On this basis, incentives to stimulate first home buying activity would increase the overall demand for dwelling units, since about 40 per cent of first home buyers would not be vacating a dwelling unit when transitioning to owner-occupancy. While it has been claimed that government incentives for first home buyers can have a 'significant stimulatory effect on aggregate demand'¹¹, their impact should not be over-stated since first home buyers represent a modest share of the total home-buying market.

House Prices and Sales Activity

House prices are an outcome of both demand and supply factors. Imbalances between the asset demand for dwellings and the supply of dwellings for sale will be channelled through changes in house prices and sales volumes.

While the stock of housing is a slowly evolving variable, the level of sales activity exhibits pronounced short-term fluctuations. In a market where house purchases and transaction costs are lumpy,

¹⁰ ABS, Housing Occupancy and Costs, 2007-08, Catalogue no. 4130.0.

¹¹ Gavan Wood, Richard Watson and Paul Flatau, A microsimulation model of the Australian housing market with applications to Commonwealth and State policy initiatives, Australian Housing and Urban Research Institute, Final Report, No. 33, March 2003, p.xi

information is limited, decisions are costly and not reversible, home buying activity is more likely to be 'jumpy', imparting volatility to the turnover of property.

A positive shift in the demand for existing housing will have an impact on the number of houses sold and the number of houses placed on the for-sale market. Buyers and sellers are more likely to interact when the market is more buoyant due to the relatively lower costs involved in searching and matching sellers with buyers.

Higher sales activity acts like an expansion of the housing supply function for dwellings. If the flow of dwelling units for sale is not responsive to an increase in housing demand, a shortage of dwellings for sale will place upwards pressure on existing house prices in order to attract owners of existing property to offer their dwelling on the for-sale market.

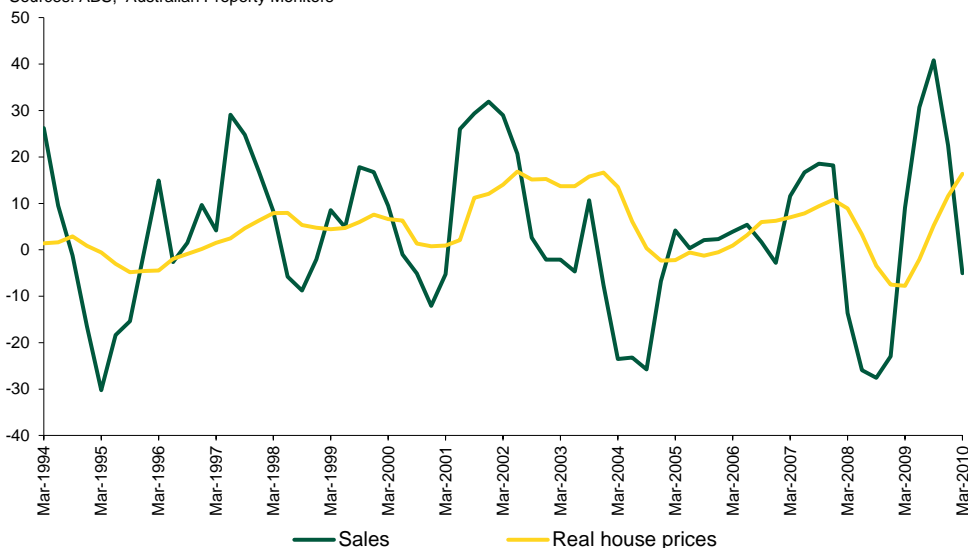
High transaction costs can impede the flow of dwelling units onto the for-sale market. The larger that transaction costs are relative to sale prices, the more house prices will have to increase in order to attract more sellers into the market¹².

An important influence on house price dynamics should be exerted through the movement of sales relative to the inventory of dwellings being offered for sale¹³. If sales run ahead of the inventory of dwelling units for sale, an excess of demand over supply will see house prices increasing. But a downward shift in market demand may not translate to symmetrical reductions in existing house prices in the shorter term if sellers want a price close to recent sales ('backward looking' price expectations) and are averse to lowering prices to achieve a sale. Because house prices do not adjust quickly to clear the market, changes in the asset demand for housing are reflected first in changes in turnover.

Even though real house prices have exhibited a pattern of significant cyclical variation, changes in sale prices have rarely fallen into significant negative territory (see figure below). On the other hand, the fluctuations in dwelling sales carry most of the adjustment to cyclical changes in housing demand. Although changes in house prices and sales levels are positively correlated, changes in the level of sales tend to lead house price changes into and out of the housing cycle.

Existing House Prices and Sales of Dwellings - Australia, annual % change

Sources: ABS, Australian Property Monitors



¹² There are substantial costs connected with the sale and purchase of a dwelling, including the time required for market search, agents' fees, stamp duty, registration fees, legal fee and removal costs. The explicit transaction costs can be equivalent to about 8-to-10 per cent of the price of a dwelling.

¹³ Australia does not have readily available information on the number of dwellings for sale (or for rent).

With downwards price inertia, adjustment to lower demand occurs more through quantity clearing (reduced sales volumes) than price clearing (prices falling immediately to match sales with demand). When demand falls and prices stick, some sale transactions will still occur, but the prices may be biased upwards.

Since sales adjust to shifts in market conditions ahead of prices, it appears that the expectations of buyers respond prior to sellers in the face of a shift in market conditions¹⁴. An important implication is that changes in sales levels are likely to be a better variable for identifying changes in the demand for dwellings than changes in house prices.

Sales Activity and New Dwellings

An important and distinctive feature of housing markets surrounds the relationship between the existing housing market and new housing production. The new and established housing markets are connected through the 'for-sale' transactions' market reflecting the importance of repeat owner-occupiers in the new housing market.

Sales and Starts - Australia

Sources: ABS, Australian Property Monitors



Inevitably, there are delays before house building responds to a more buoyant market. Since most new homes are purchased by existing owner-occupiers, the demand for new dwellings relies on existing owners being able to sell their dwelling, which can take some months before a contract for sale settles. For producers of new land and housing it takes time to acquire land, obtain the necessary planning consents, deliver services to re-zoned land, design dwellings and obtain necessary permits for the construction of dwellings. Construction periods are more likely to lengthen when demand conditions are strong and vice versa.

Of course, not all new dwellings are provided under a contract to build. Some dwellings are built for sale. If the increase in the demand for existing dwellings leads to a positive gap between the asset price of existing houses and new housing costs, there is likely to be a supply response from builders and developers. An increase in sales transactions and auction clearance rates might also serve as a signal to builders and developers of a likely increase in the demand for new homes which could induce additional

¹⁴ This situation was most recently observable in the transition from a 'sellers' to a 'buyers' market which occurred over 2010 as interest rates increased.

building activity. In contrast, low turnover of the existing housing stock indicates that stocks of unsold dwellings are likely to increase and spec builders could be expected to react by reducing new dwelling construction.

Linking transactions activity and house prices in established housing markets is likely to be important in explaining residential building activity. An integrated approach to established housing markets and residential building poses substantial challenges not only theoretically but also because of the paucity of relevant statistical information on items of close interest.