



Reserve Bank of New Zealand Analytical Notes

A deeper look at recent housing market trends:
Insights from unit-record data

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NON-TECHNICAL SUMMARY

In October 2013 the Reserve Bank placed a temporary ‘speed limit’ on high loan-to-value ratio (LVR) residential mortgage lending, restricting banks’ new lending at LVRs over 80 percent to no more than 10 percent of total residential mortgage lending. This policy was implemented to reduce financial stability risks associated with the housing market, against the backdrop of elevated household debt, high and rapidly rising house prices, and a large share of new lending going to borrowers with low deposits. The policy had an immediate dampening effect on housing market activity and house price inflation, and facilitated a strengthening in bank balance sheets. However, since late 2014, upward pressure on the housing market has re-emerged, predominantly in Auckland, posing renewed risks to financial stability.

With the housing market showing renewed signs of strength, this paper provides a detailed overview of market conditions and examines developments following the imposition of the speed limit on high-LVR lending. We find that increased housing market activity in recent months has been driven by strong investor demand, both within and outside of Auckland, as reflected in increased investor purchases and significant growth in investor-related mortgage credit. Much of the increase in investor purchase shares has coincided with a fall in the share of movers, with the first home buyer share increasing slightly following its decline after the introduction of LVR speed limits. We also investigate whether the LVR policy has led to an increase in cash buying activity or borrowing from institutions outside of the regulatory net. We do not find evidence of the former with cash buyer shares falling in Auckland and remaining broadly flat in the rest of the country. There is some evidence of a modest increase in the share of transactions involving non-banks since October 2013, although non-bank activity remains low.

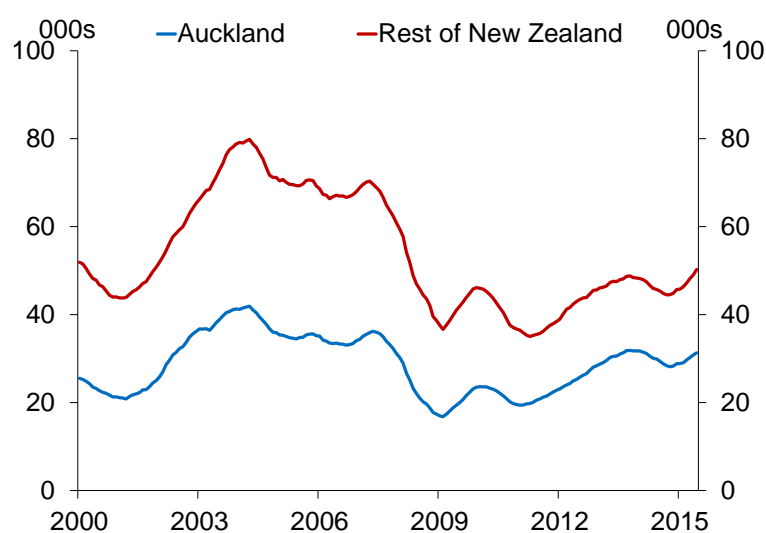
We then undertake a more detailed analysis of investor activity given their heightened prevalence in the market. The primary driver of their increased market share has been a rising incidence of small investors (that are heavily reliant on credit) in the market, as opposed to greater activity among larger investors. This suggests that the incoming changes to the LVR restrictions could have a significant dampening effect on Auckland housing market activity and house price inflation. We also find that investors are disproportionately represented at both ends of the price spectrum, contrary to popular opinion that investors predominantly buy relatively cheap properties for use as rentals. Finally, we offer some additional insights into cash buyers, with the evidence pointing towards increased investor

leverage relative to other market participants, consistent with the strong growth in investor-related mortgage commitments in recent months.

1 INTRODUCTION

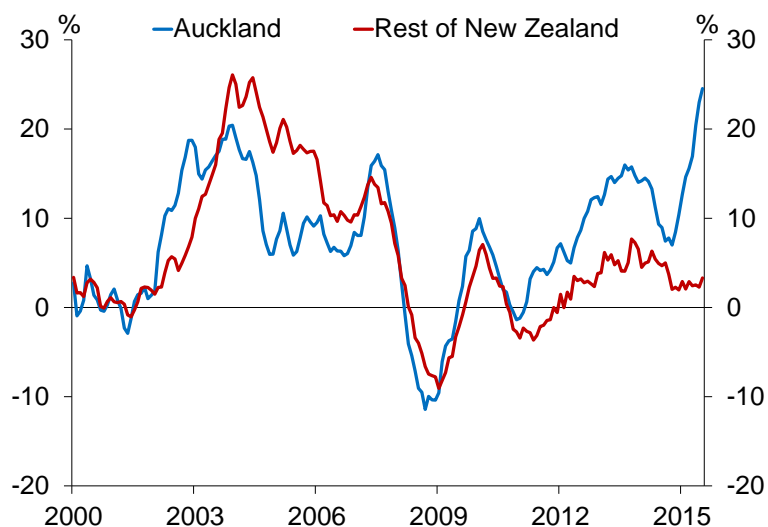
In October 2013 the Reserve Bank placed a temporary ‘speed limit’ on high loan-to-value ratio (LVR) residential mortgage lending, restricting banks’ new lending at LVRs over 80 percent to no more than 10 percent of total residential mortgage lending. This policy was implemented to reduce financial stability risks associated with the housing market, against the backdrop of elevated household debt, high and rapidly rising house prices, and a large share of new lending going to borrowers with low deposits. The policy had an immediate dampening effect on housing market activity and house price inflation, and facilitated a strengthening in bank balance sheets. However, since late 2014, upward pressure on the housing market has re-emerged, predominantly in Auckland, posing renewed risks to financial stability (figures 1 and 2).

Figure 1: Annual house sales by region



Source: REINZ.

Figure 2: House price growth by region
(annual 3-month moving average)



Source: REINZ.

This paper provides an up-to-date analysis of recent trends in the housing market, using unit-record data from CoreLogic on housing and mortgage transactions in New Zealand, supplemented by data from the Reserve Bank's statistical collections. The CoreLogic dataset contains a wealth of information, including the address details of residential properties which have sold or had a mortgage registered against them in a particular month, price information, buyer classifications (defined in table 1), and which financial institution (if any) holds a mortgage registered against each property. These data permit an in-depth examination of the drivers of recent housing market strength, and thus offer a useful overlay to the aggregate activity and price data available from REINZ.

Table 1: Summary of buyer classifications

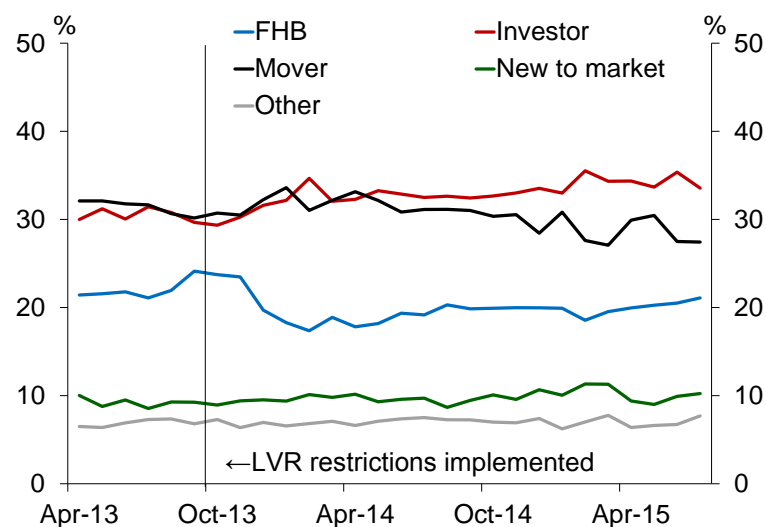
| Classification | Description |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First home buyer (FHB) | Purchasing a single house with mortgage finance and buyer names have not previously appeared on a residential property title. Genuine FHBs purchasing with cash will appear as new to market cash buyers. |
| Multi-property owner (MPO, 'investor') | Adding to an existing portfolio of at least one property, with the exception of those classified as new to market (see below). Includes purchases where the intent is to owner occupy. |
| Mover | Buying a single house having recently sold (or subsequently selling within a short timeframe) existing property. Movers will be labelled 'investors' for short periods if there is a lag between settlement and the sale of existing property. |
| New to market (NTM) | Purchasing a house with cash (or purchasing multiple properties on the same day) having not previously appeared on a residential property title nationwide, or purchasing a house in a region where buyer names have not previously appeared on a residential property title. |
| Re-entry | Buying a single house following an extended period of absence from the housing market (buyer names have previously appeared on a residential property title). Grouped with 'other' for purposes of chart readability. |
| Other | Classification is unknown. Less common in the classification of buyers relative to sellers (see footnote 3). |

The remainder of the paper proceeds as follows. Section 2 provides an overview of recent market trends, including an examination of changes following the imposition of the speed limit on high-LVR lending. Section 3 then takes a deeper look at trends in investor activity over this period, while section 4 offers some insights into cash buyers. Section 5 provides concluding remarks.

2 OVERVIEW OF MARKET TRENDS

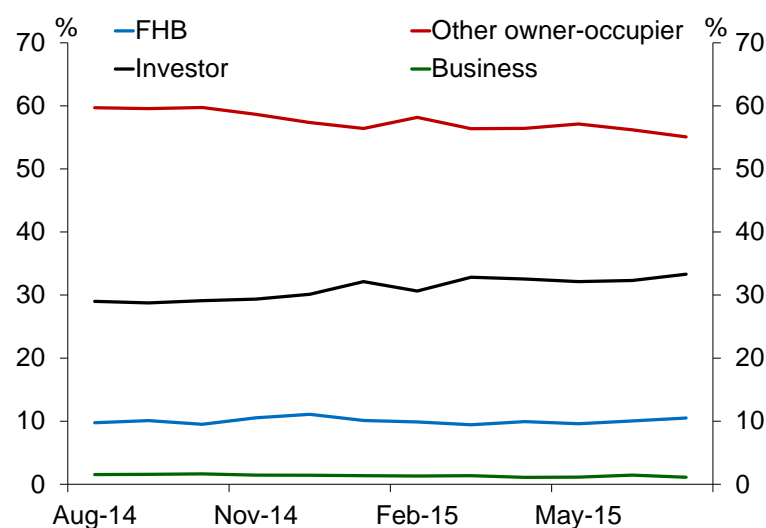
Following the implementation of the LVR restrictions in October 2013, there were some notable changes in the composition of property purchasers. Of particular note, the investor share of house purchases increased materially, rising from around 30 percent to 34 percent currently (figure 3). Consistent with this, the share of new mortgage credit going to investors has increased strongly over the past year, reaching one-third of all commitments as at July 2015 (figure 4). Initially, the increased investor purchase share was primarily attributable to a fall in market sales alongside relatively constant investor activity. More recently, the rising share has been a result of a strengthening in investor demand, with monthly sales to investors now approximately 20 percent above their pre-restriction levels. The first-home buyer (FHB) share dropped immediately after the LVR policy came into effect. However, the share increased materially in the period prior to the introduction of the speed limit, exacerbating the decline, and is now back near levels seen in early-to-mid 2013.

Figure 3: Property purchases by buyer type – New Zealand
(share of market sales)



Source: CoreLogic NZ.

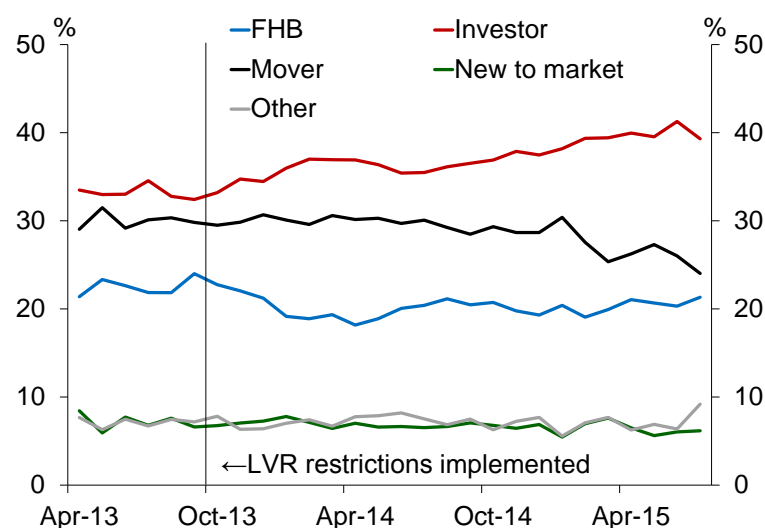
Figure 4: New residential mortgage commitments by borrower type
(share of new commitments)



Source: RBNZ *New Residential Mortgage Commitments Survey*.

As might be expected with Auckland house price growth outpacing that of New Zealand as a whole over the last two years, the distribution of buyers in Auckland has become relatively more skewed towards investors (figure 5). As of July, investors represented 39 percent of all Auckland market sales, up approximately 7 percentage points since the LVR restrictions were implemented. Much of this increase has been matched by a fall in movers' purchase share, particularly in recent months, while the share of FHBs has increased slightly since early 2014. This might suggest that existing home owners have been less willing and/or less able to trade up within Auckland in the current market environment, or that movers are holding onto their existing property as rentals (and therefore being classified as investors). However, end-points should be interpreted with caution given that some 'investors' will be reclassified as movers in the coming months (see table 1).

Figure 5: Property purchases by buyer type – Auckland
(share of market sales)



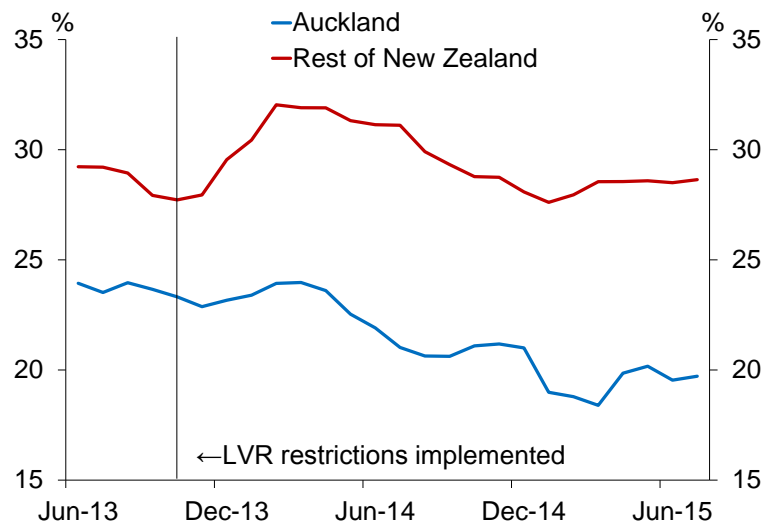
Source: CoreLogic NZ.

As cash buyers are not affected by the LVR policy, there was a possibility that the share of cash buyers in the market could increase. However, the available evidence suggests that this has not been the case, with the share of cash purchases falling in Auckland and remaining fairly flat in the rest of New Zealand since October 2013 (figure 6). It also appears as though a large proportion of these cash buyers are domestic residents, with movers accounting for around 40 percent of cash sales.¹ Although decreasing affordability may be one driver of this trend, the broad-based reduction in the cash buyer share across all purchaser types suggests that there are other contributing factors at play (see section 4).²

¹ We do not have information on resident versus non-resident purchases, and a large proportion of cash buyers will be domestic residents.

² Increasing house prices would typically increase the capacity of multiple property owners to purchase additional properties with cash. In contrast, potential buyers not currently in the market and existing home owners wishing to trade up would find it increasingly difficult to purchase with cash.

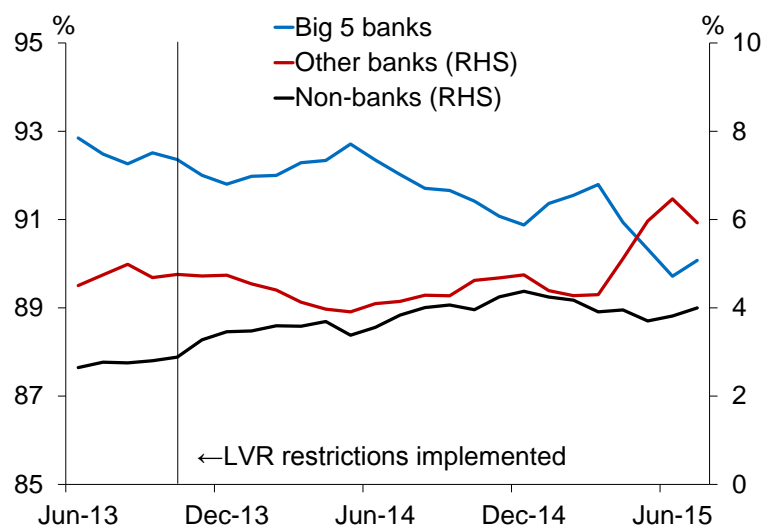
Figure 6: Cash sales by region

(3-month moving average, share of regional market sales)

Source: CoreLogic NZ.

A concern when LVR restrictions was introduced was that borrowers could circumvent the restrictions by borrowing from institutions outside of the regulatory net. CoreLogic data serve as a useful supplement to the Reserve Bank's data on lending volumes by providing another lens through which to assess the extent to which this is occurring. Figure 7 shows that the share of mortgage transactions involving non-banks has increased gradually since the LVR restrictions came into effect, but this increase has been modest. This is consistent with the slight pick-up in housing credit growth among non-bank lenders over the same time period.

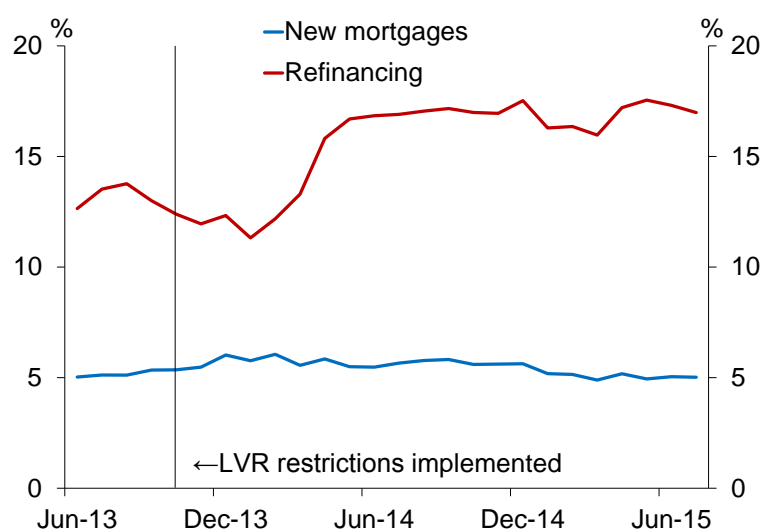
Figure 7: Mortgages by institution type

(3-month moving average, share of transactions involving mortgages)

Source: CoreLogic NZ.

Finally, we have not seen a pick-up in re-mortgaging activity in the period following the introduction of LVR restrictions, with new mortgages on previously mortgage-free properties accounting for a fairly constant share of total transactions (figure 8). However, the refinancing share of total transactions increased from around 12 percent in October 2013 to 17 percent currently. This is consistent with borrowers taking advantage of the reductions in new fixed mortgage rates on offer over this period.

Figure 8: Refinancing and new mortgages – New Zealand
(3-month moving average, share of total transactions)



Source: CoreLogic NZ.

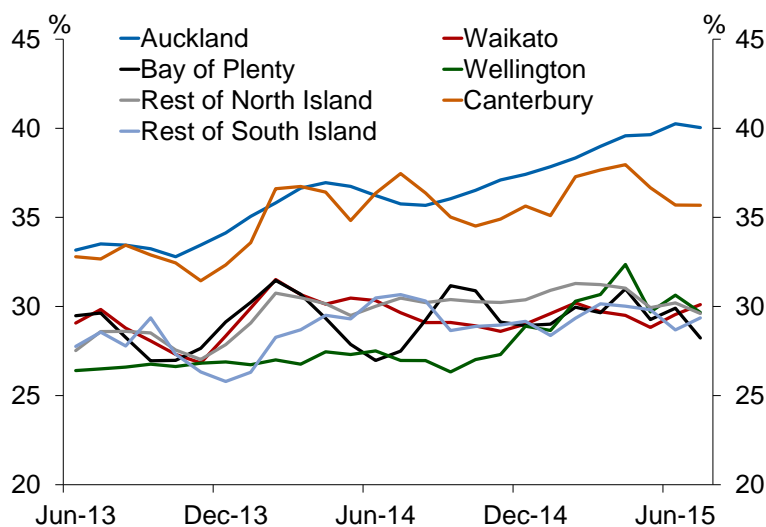
Note: 'New mortgages' refers to mortgages on properties that were previously mortgage-free.

3 A CLOSER LOOK AT INVESTORS

With investor activity picking up nationwide, having an understanding of the nature of investor purchases is becoming increasingly important. This section therefore provides some more detailed insights into investor purchases by region, portfolio size, and price bracket.

Investor shares have largely trended upwards in all regions since October 2013 (figure 9). This has been most pronounced in the main centres (Auckland, Wellington, and Canterbury), which have experienced increases two to four times as large as other regions. In Auckland, much of this is likely due to a pricing out of other buyers against the backdrop of rapid house price growth. However, given that Wellington has experienced relatively little price growth over this period, some of the nationwide increase may be a result of LVR restrictions delaying purchases by non-investors.

Figure 9: Investor purchases by region – disaggregated
(3-month moving average, share of regional market sales)

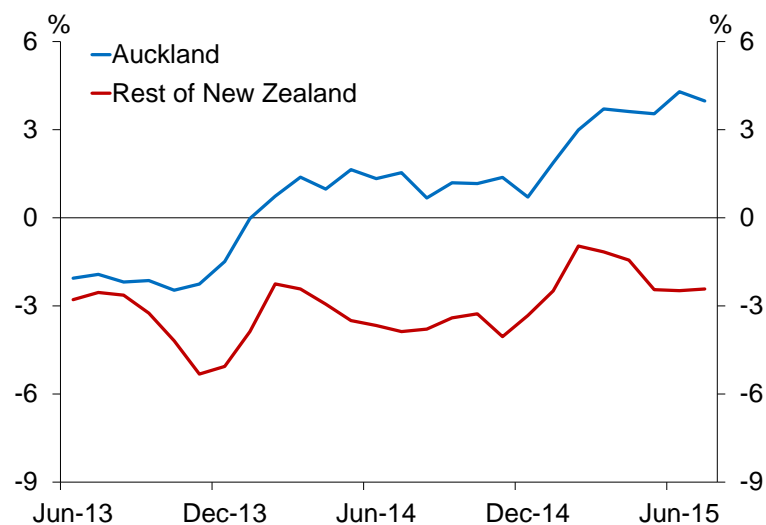


Source: CoreLogic NZ.

Investor net purchases (i.e. their purchases less sales) allow us to assess the extent to which investors are, in net terms, accruing or disposing of properties (figure 10). Although we would be hesitant about placing too much emphasis on absolute levels, trends in the net purchase share might serve as an indicator of changing investor sentiment in regional housing markets.³ Since October 2013, net purchase shares have trended up alongside rising gross purchase shares, particularly in Auckland, on the back of broadly constant sales shares. This suggests that investors have in fact been accruing additional properties in recent months, as opposed to simply trading a greater share of properties between themselves.

³ For the purpose of figure 10, all purchases (sales) where the buyer (seller) type is unknown are excluded from calculations. This has a significant effect on reported net shares as transactions with an unknown buyer type are much less prevalent than those with an unknown seller type (2 percent versus 20 percent of transactions).

Figure 10: Investor net purchases by region
(3-month moving average, share of regional market sales)



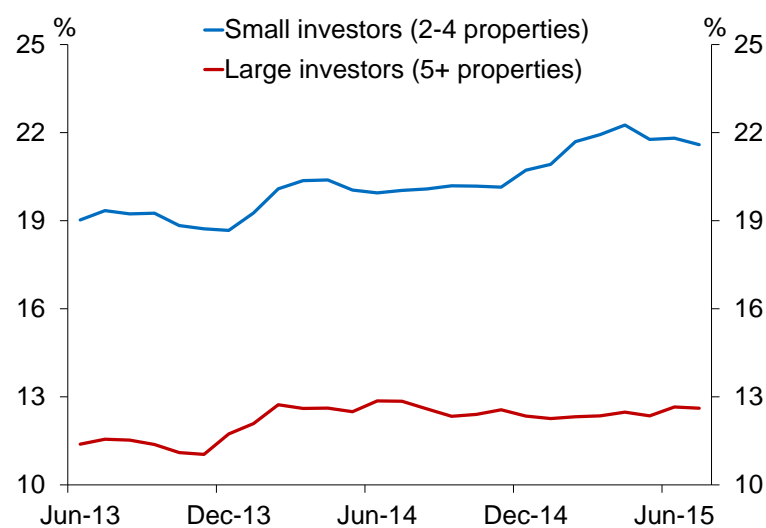
Source: CoreLogic NZ.

The primary driver of rising investor activity since October 2013 has been an increase in purchases by smaller investors (those with between two and four properties), as opposed to portfolio expansion by larger investors (figures 11 and 12). This is particularly the case in Auckland, and suggests that smaller investors have been leveraging up in pursuit of capital gains.⁴ Given that the LVR policy is likely to be more binding within this relatively over-represented group, the incoming changes to the LVR restrictions might be expected to have a significant dampening effect on Auckland housing market activity and house price inflation.⁵

⁴ This is consistent with the RBNZ *New Residential Mortgage Commitments Survey* which shows that the dollar value of new lending to investors grew 40 percent nationally over the last year, compared to 28 percent for all borrowers.

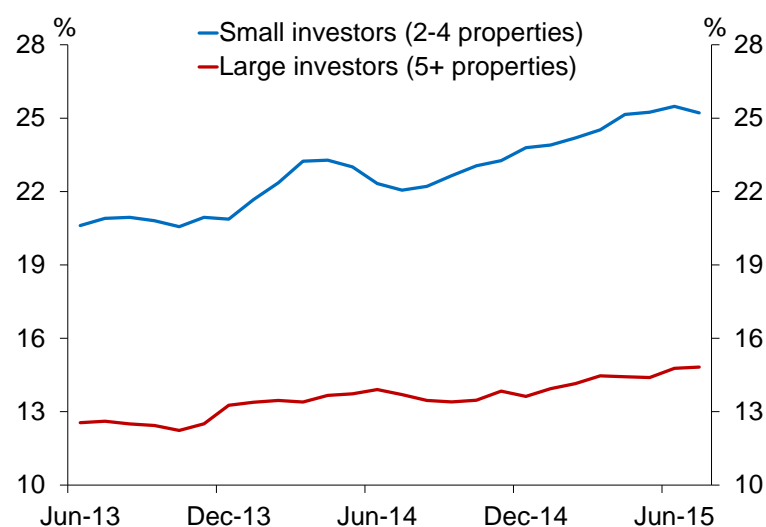
⁵ Any given LVR represents less 'stretch' relative to income for a smaller property portfolio, so smaller investors can typically obtain higher average LVRs.

Figure 11: Investor purchases by portfolio size – New Zealand
(3-month moving average, share of market sales)



Source: CoreLogic NZ.

Figure 12: Investor purchases by portfolio size – Auckland
(3-month moving average, share of market sales)

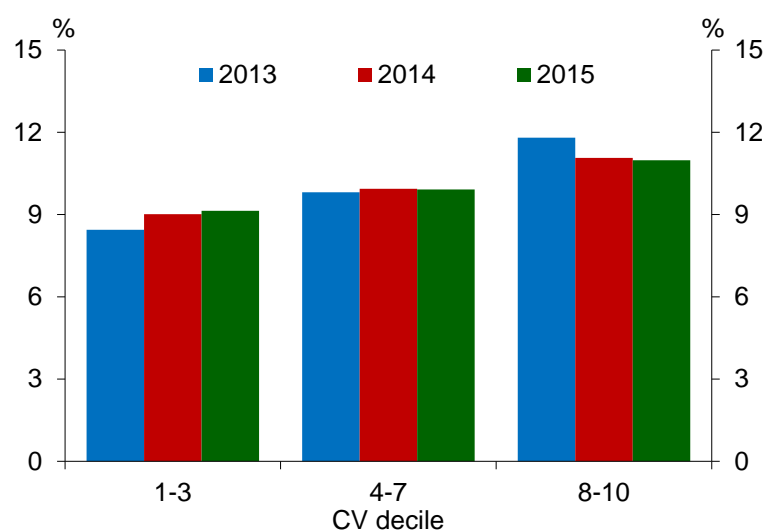


Source: CoreLogic NZ.

Breaking down investor purchases by price shows that investors purchase relatively expensive properties more frequently than cheap properties (figure 13). Although this may seem somewhat surprising, turnover at the bottom end of the market is much lower than average, so shares for all buyer types are naturally skewed away from the lower capital

value (CV) deciles.⁶ More interestingly, investors have been gradually shifting away from the tail of expensive properties, with the distribution of purchases by CV decile becoming much flatter between 2013 and 2015. This appears to reflect a genuine trend, possibly due in part to more binding collateral constraints under the LVR policy, with the changing composition of investors and seasonal patterns seemingly unable to account for the flattening profile.

Figure 13: Investor purchases by CV decile – New Zealand
(share of investor market sales, average)



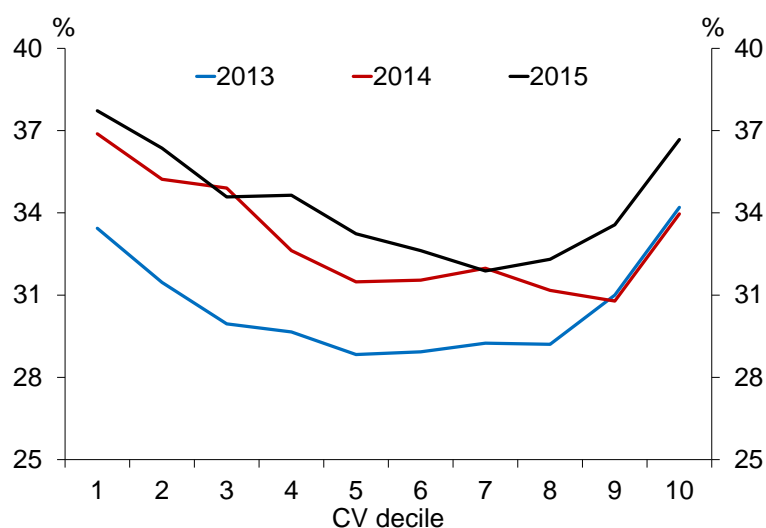
Source: CoreLogic NZ.

Note: Shares are averages across both the year and across deciles within each bucket.

Figure 14, which displays a U-shaped profile for the investor share of purchases across deciles, implies that investor purchases are also more concentrated at the extremes of the price spectrum relative to other market participants. After examining a sample of unit records, it appears that multi-unit dwellings and properties with development potential account for a relatively large share of these high-end purchases. Some of these dwellings will also have been purchased for owner occupation, although we are unable to accurately quantify the relative magnitude of purchases for this purpose.

⁶ CV deciles are calculated at the territorial authority (TA) level. Within each TA, the 10 percent of properties with the lowest CV comprise the first decile, while the 10 percent of properties with the highest CV comprise the tenth decile.

Figure 14: Investor purchases by CV decile – New Zealand
(share of market sales within decile)



Source: CoreLogic NZ.

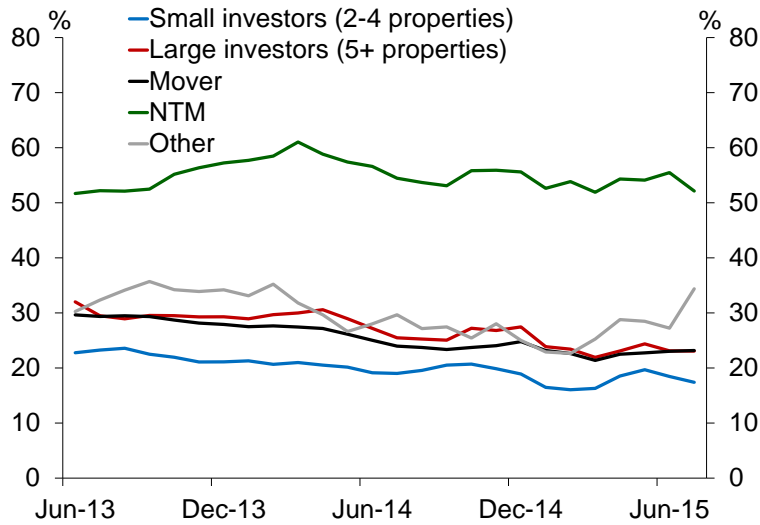
4 SOME INSIGHTS INTO CASH BUYERS

As highlighted in section 2, the cash buyer share has declined considerably in Auckland and has remained approximately flat in the rest of New Zealand since the LVR policy came into effect in October 2013. Given that house prices have risen markedly in Auckland over this period, but have increased modestly by comparison in the rest of New Zealand, these trends appear consistent with a hypothesis that decreasing affordability has reduced the ability of potential buyers to fund their house purchases out of equity. This section examines the available data to assess the plausibility of this hypothesis.

To assess whether rising house prices are a likely driver of the falling Auckland cash buyer share, we look at cash buyer shares by buyer class (figure 15).⁷ Evidently, the fall in cash share has been broad-based, with a reduction in cash purchases across most buyer types. Surprisingly, the largest decline has occurred among owners of relatively large property portfolios, with their cash purchase share declining from 32 percent in June 2013 to around 23 percent currently. Given that these buyers should have benefitted to the greatest extent from the price appreciation experienced over this period, this suggests that there are likely other factors at play over and above decreasing affordability. For example, this pattern would be expected if multiple property owners were becoming increasingly levered on the expectation that prices will continue to rise rapidly going forward.

⁷ FHBs have a cash buyer share of zero due to the way in which they are defined in the dataset (see table 1).

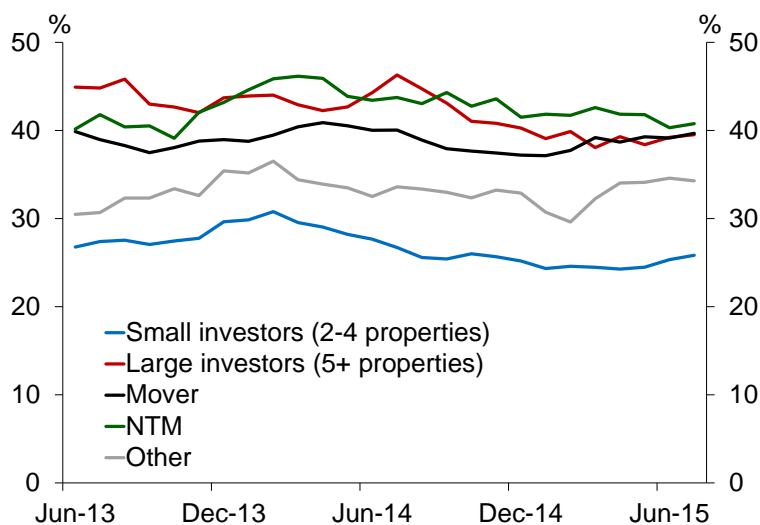
Figure 15: Cash sales by buyer type – Auckland
(3-month moving average, share of market sales)



Source: CoreLogic NZ.

Similarly to Auckland, cash shares have fallen in the rest of New Zealand for both small and large investors (figure 16), although these declines have been more modest than those seen in Auckland. However, of particular interest is the fact that cash shares have actually increased marginally among other buyer types over the same period. This provides further evidence that investors are becoming increasingly levered nationwide, especially relative to the level that would be consistent with the change in nominal prices.

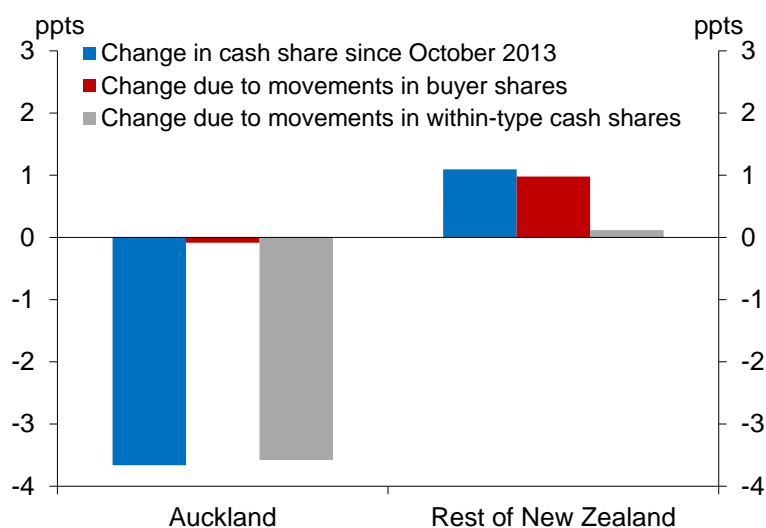
Figure 16: Cash sales by buyer type – Rest of New Zealand
(3-month moving average, share of market sales)



Source: CoreLogic NZ.

The overall cash share is also dependent on movements in buyer shares, in addition to within-type cash shares discussed above. For example, if cash shares remain constant for each buyer type, but the share of new-to-market (NTM) buyers increases (which typically have the highest cash shares), then the overall cash share would rise. Figure 17 decomposes the change in cash buyer shares between October 2013 and July 2015 into these two components to examine their relative importance over this period. In Auckland, almost the entire decline in cash buyer share has reflected a decline in buyer-type cash shares, rather than changes in buyer composition. By contrast, the slight increase in cash shares in the rest of New Zealand has been almost entirely due to changing buyer composition (specifically a reduction in FHB shares).

Figure 17: Decomposition of the change in cash sales share
(3-month moving average, share of regional market sales)



Source: CoreLogic NZ.

5 CONCLUSION

Using unit record data from CoreLogic, supplemented by data from the Reserve Bank's statistical collections, we provide a detailed overview of housing market conditions and examine how things have changed following the imposition of the speed limit on high-LVR lending. Increased housing market activity in recent months has been driven by strong investor demand, both within and outside of Auckland, as reflected in increased investor purchases and significant growth in investor-related mortgage credit. The primary driver of their increased market share has been a rising incidence of small investors (that are heavily reliant on credit) in the market, as opposed to greater activity among larger investors. This

suggests that the incoming changes to the LVR restrictions could have a significant dampening effect on Auckland housing market activity and house price inflation.

There is little evidence to suggest that cash buyers have become more active in the market. There has also only been a modest increase in the share of transactions involving non-banks since October 2013, who are not subject to the LVR restriction.