The Introduction of Macro-prudential Policy

A speech delivered to Otago University in Dunedin

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New Zealand's economy is now one of the most rapidly growing among the advanced economies. Growth is likely to remain strong and become more broadly based over the next two years, particularly as construction activity in Christchurch, Auckland and elsewhere gathers momentum and provides further stimulus to the manufacturing sector. Our forecasts in the June 2013 *Monetary Policy Statement*, which are currently being reviewed for the next Statement in September, suggested that in 12 months' time the economy could be growing at just over a 3 percent annual rate, with the unemployment rate declining towards 5 percent and annual CPI inflation back within the 1 to 3 percent target range.

These summary indicators, however, disguise the nature and complexity of the adjustments taking place in New Zealand. Included among them are the impact of the monetary and liquidity policies of major central banks, domestic economic policy settings, the powerful long-term global structural changes affecting our economy, and the effects of natural events such as earthquakes and drought[1]. Just as firms and households develop strategies to adjust to these forces, the Reserve Bank also needs to respond to them in meeting its goals of price stability and financial stability. I will turn to two of the largest forces influencing our economy – our over-valued exchange rate and the over-valued housing market.

i) The over-valued exchange rate

Our exchange rate is over-valued relative to what would be sustainable long-term in the absence of sizeable increases in our terms of trade and productivity. Against many of the

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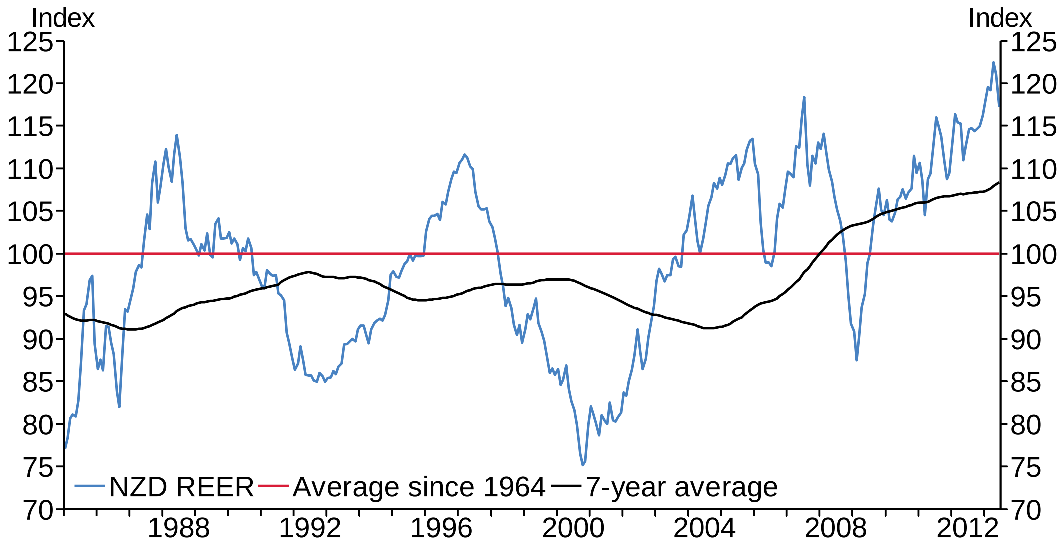
[1] These were referred to in a recent address delivered to the Institute of Directors in Auckland on 30 May 2013: *Forces Affecting the New Zealand Economy and Policy Challenges Around the Exchange Rate and the Housing Market*.

world's major currencies, the New Zealand dollar is positioned in the top decile relative to its historic experience. At these levels, the exchange rate is a considerable headwind for New Zealand's exporters and those that compete with imports, although it has benefited purchasers of imported goods and services and contributed significantly to the current low level of inflation.

Figure 1: New Zealand's real effective exchange rate



Source: Bank for International Settlements.

Note: BIS real effective exchange rate for New Zealand, narrow measure incorporating bilateral rates with 27 economies.

Our real exchange rate is about 16 percent above its 15 year average[2]. It is important to look at both long-standing structural and more recent cyclical factors when considering the reasons for New Zealand's high real exchange rate – although at any time the relative strength of these factors can change.

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[2] The real effective exchange rate provides a more accurate picture of competitiveness than the nominal effective exchange rate as it corrects for differences in relative inflation rates (or relative unit labour costs movements) between New Zealand and its major trading partners.

Some of the appreciation in the real exchange rate over the past decade is due to the improvement in our terms of trade (or the ratio of export prices to import prices), which are now 20 percent higher than the average for the 1990s. This reflects the rapid growth of the East Asian economies, and especially China, and the rising global demand for protein. Another factor exerting upward pressure on the real exchange rate is New Zealand's low level of savings (relative to our business and residential investment needs) and our consequent dependence on foreign savings to achieve these needs. Our low propensity to save means that higher interest rates than elsewhere are needed to achieve similar inflation outcomes and these higher real interest rates result in upward pressure on the real exchange rate.

In recent years some important cyclical factors have also been important drivers. These factors have made the returns on New Zealand financial assets more attractive when compared to the returns available in many advanced countries experiencing lower growth rates and adopting more stimulatory monetary policies.

Monetary policy in the advanced countries has been highly accommodating with countries representing two thirds of global output having policy interest rates between zero and 1 percent[3]. In addition, the Federal Reserve, European Central Bank, Bank of England and the Bank of Japan have cumulatively conducted around USD 6 trillion of additional monetary stimulus through quantitative easing. These liquidity injections, often involving the purchase of longer maturity government securities, have been designed to boost domestic asset prices, stimulate spending and, in some instances, depreciate the exchange rate.

[3] These countries comprise the United States, Japan, UK, Canada, the 17 Euro zone countries, Sweden and Switzerland.

The combination of historically low policy rates and quantitative easing has lowered bond yields globally and the increased investor demand for riskier and higher yielding assets has compressed spreads. New Zealand government bonds, with their relatively high yields compared to other advanced economies, remain attractive to foreign investors who own 68 percent of government bonds on issue.

The magnitude of the policy challenges that led central banks in the US, Europe, and Japan to have policy rates at or close to the lower bound of zero, and to resort to large scale quantitative easing, are much greater than those facing New Zealand.

For example, the US experienced a huge decline in household wealth. The Federal Reserve reports that median real net household wealth fell 39 percent from 2007 to 2010 to levels seen in 1992. In 2011, the median real level of US household income dropped to its lowest level since 1995. Partly due to the Federal Reserve's highly accommodating monetary policy that helped to stimulate employment and a recovery in the housing and equity markets, real levels of wealth have now returned to their 2007 level, although not for the median and lower income groups.

Deleveraging in the euro area, especially in the financial sector, is proceeding more slowly than in the US and the euro area economy has just emerged from an 18 month recession. The unemployment rate for the euro area is around 12 percent, and 15 percent if Germany is excluded. Several countries face major adjustments. For example, unemployment rates exceed 25 percent in Spain and Greece, Italy's real per capita income is back at 1996 levels, and annual labour productivity growth in France and Italy has lagged that of Germany by 1.5 and 2.1 percentage points respectively since 2000.

Japan has suffered bouts of stop/start growth and deflation for the past two decades. Its general level of prices is now back at 1992 levels and general government net debt is around 145 percent of GDP. In April 2013, the Bank of Japan announced its intention to double Japan's monetary base by the end of 2014 in an attempt to achieve an annual inflation goal of 2 percent.

New Zealand is likely to continue to attract offshore portfolio flows, especially since the larger advanced countries are unlikely to raise short-term policy rates for a considerable time. Investors also seem to be differentiating more between Australia and New Zealand. Australia's exchange rate has fallen by 13 percent on a trade weighted basis since April 2013 and market expectations are for a further easing in policy rates. This upward pressure on the cross rate is of concern, as Australia is the destination for around a third of New Zealand's manufactured exports and these are more labour intensive than exports of commodities and dairy products.

ii) The over-valued housing market

Housing plays a critical role in our economy. It represents almost three quarters of household assets and mortgage credit accounts for over half of banking system lending. Consequently, housing is a major source of value and of risk to the household sector and the banking system.

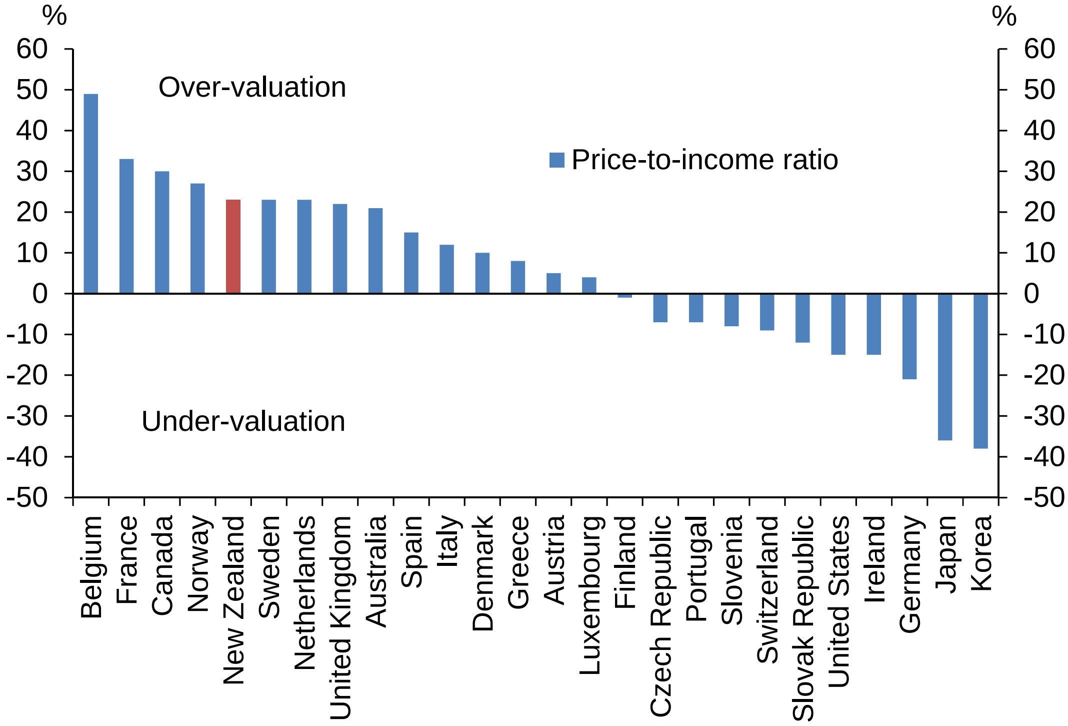
The Reserve Bank focuses on the housing market for three main reasons. First, housing and the construction sector can be a source of inflationary pressure if construction costs and rents increase and the 'wealth effects' of rising house prices feed through into additional spending or borrowing to finance consumer goods. Second, the possibility of a significant fall in house prices can have important implications for financial stability and on the ability and willingness of banks to lend to support a recovery. Finally, declining house prices can have significant impacts on output and employment, especially when the associated de-leveraging of household and corporate balance sheets continues for several years.

At present, rising construction costs are not a major concern for monetary policy. Construction costs in Christchurch are up 12 percent over the past year and they have recently been rising in Auckland. Changes in relative prices are needed to attract additional workers and resources into the construction sector, but the Reserve Bank will continue assessing the risk of any spill-over of these prices into more generalised inflationary pressures.

Our main concern is the rate at which house prices are increasing and the potential risks this poses to the financial system and the broader economy. Rapidly increasing house prices increase the likelihood and the potential impact of a significant fall in house prices at some point in the future. This is particularly the case in a market that is already widely considered to be over-valued.

The Reserve Bank is not alone in expressing these concerns. Over the past several months the IMF, OECD, and the three major international rating agencies have pointed to the economic and financial stability risks associated with New Zealand's inflated housing market. In April this year, the IMF suggested that New Zealand house prices were over-valued by around 25 percent, and the OECD has expressed similar views[4].

Figure 2: House price to income across OECD countries
(deviations from historical average)



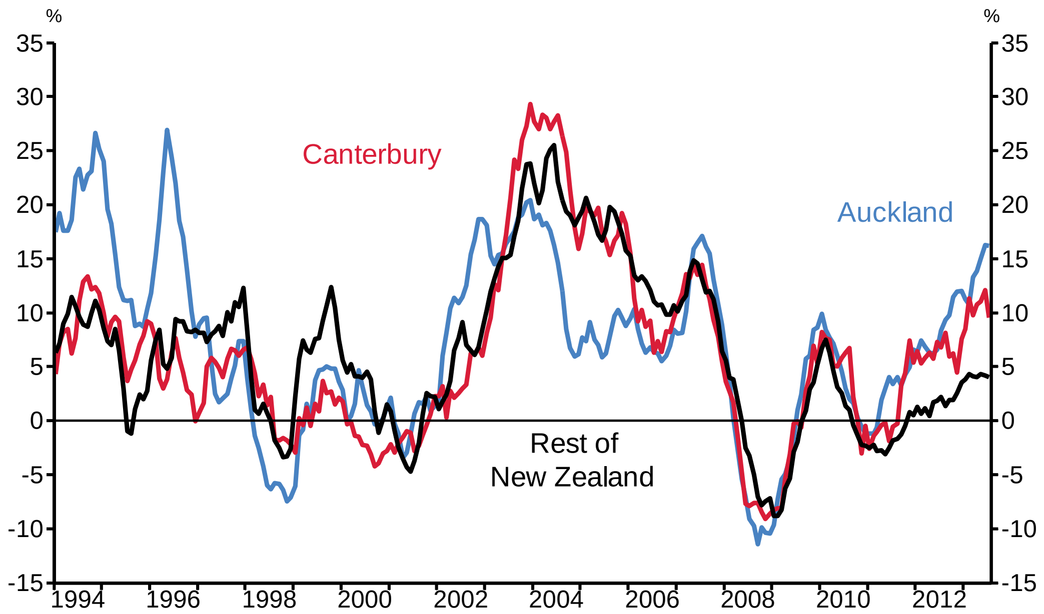
Source: OECD

House prices increased by 16 percent and 10 percent respectively in Auckland and Christchurch over the past year (three-month moving average to July 2013 over the same period in 2012). They increased by 4 percent over the rest of New Zealand overall, with considerable variability among regions. House prices are high by international standards when compared to household disposable income and rents. Household debt, at 145 percent of household income, is also high and, despite dipping during the recession, the percentage is rising again. Furthermore, the growth of house prices is occurring after

[4] IMF, (2013), '*New Zealand – Staff Report for the 2013 Article IV Consultations*', April. OECD, (2013), 'OECD Economic Outlook', May.

only a small correction following the house price boom of 2003-2007 that saw New Zealand's house prices increase more rapidly than in any other OECD country.

Figure 3: House price inflation by region



Source: REINZ

Rising house prices in Auckland and Christchurch are mainly a result of supply shortages, although demand-side pressures are also a factor due to pent up demand, the lowest mortgage rates in 50 years, and aggressive competition among banks for new borrowers, including borrowers with low deposits.

Auckland's Council suggests that Auckland's current housing shortage is 20,000 - 30,000 houses with 13,000 houses needing to be built each year to meet future demand. Christchurch's shortfall is around 10,000 houses. Strikingly, for a city with geographical boundaries equivalent in size to Greater London, and a population of 1.5 million (a sixth of Greater London), Auckland has only produced an average of 4300 new houses annually over the past three years.

Initiatives such as the Auckland Accord, and measures to increase the availability of land zoned for residential housing, and to raise productivity and lower costs in the building sector, are important for increasing housing supply. However, it is likely to take considerable time for the supply/demand imbalance in the housing market to correct through supply-side measures alone. In the absence of demand measures, house prices might continue to rise rapidly and pose an increasing risk to financial stability.

The conventional mechanism to help restrain housing demand while working on the supply response would be to raise the Official Cash Rate (OCR), which would feed through directly into higher mortgage rates. However, while higher policy rates may well be needed next year as expanding domestic demand starts to generate overall inflation pressures, this is not the case at present. Consumer Price Index (CPI) inflation currently remains below our 1 to 3 percent inflation target. Furthermore, with policy rates remaining very low in the major economies, and falling in Australia, any OCR increases in the near term would risk causing the New Zealand dollar to appreciate sharply, putting further pressure on New Zealand's export and import competing industries.

In the current situation, where escalating house prices are presenting a threat to financial stability but not yet to general inflation, macro-prudential policy offers the most appropriate response.

iii) The role of macro-prudential policies

One of the major insights from the Global Financial Crisis (GFC) was how rapidly macro instability could develop even though an economy might be growing close to its potential, and be experiencing sound fiscal policy and price stability. Economic and financial risks can build up for several reasons, including over-investment in particular sectors such as housing, a rapid increase in leverage in the banking and shadow banking sectors, and excessive household indebtedness. The output losses and increased human distress from the massive adjustments in the balance sheets of households, corporates, banks, and governments are still being felt in many countries five years after the initial impact of the GFC.

The fallout from the GFC triggered a renewed interest in macro-prudential policy in several countries. While micro-prudential policy settings (e.g., capital ratios and risk weights) are fixed on a through-the-cycle basis, macro-prudential policy measures provide an overlay to mitigate significant but transitory risks (such as credit and asset price cycles) that can endanger the economy and the financial system.

In May 2013, the Minister of Finance and the Reserve Bank signed a *Memorandum of Understanding* outlining the purpose of macro-prudential policy, the range of policy instruments, and governance arrangements relating to their possible deployment. The macro-prudential policy framework seeks to build additional resilience in the domestic financial system during periods of rapid credit growth, rising leverage, or abundant liquidity. The instruments can also help to dampen growth in asset prices that pose risks to financial stability.

The macro-prudential measures may require banks to hold additional capital buffers, have higher proportions of stable funding, or limit the share of high loan-to-value ratio (LVR) residential lending. Instruments such as the counter-cyclical capital buffer and sectoral capital overlays require banks to hold additional capital against potential shocks in asset markets or particular sectors. A temporary increase in the core funding ratio would make banks more resilient to liquidity shocks and, like capital buffers, serve mainly to increase the resilience of bank balance sheets rather than have a significant dampening effect on asset cycles.

LVR restrictions have the added benefit of dampening asset prices more directly, by affecting the supply and cost of high LVR lending as well as reducing the riskiness of bank loan portfolios.

High LVR lending, as reflected in mortgage lending to borrowers with less than a 20 percent deposit, has constituted around 30 percent of new mortgage lending in recent months – up from 23 percent in late 2011. This high LVR lending is a significant factor behind the buoyant housing demand in some regions.

Over recent months, the Reserve Bank has been consulting with the banks on the use of macro-prudential instruments and on how LVR restrictions could be implemented in New Zealand. Today we are announcing the introduction of speed limits on high LVR lending with an implementation date of 1 October 2013. These are designed to help slow the rate of housing-related credit growth and house price inflation, thereby reducing the risk of a substantial downward correction in house prices that would damage the financial sector and the broader economy.

Under the LVR ‘speed limit’, banks will be required to restrict new residential mortgage lending at LVRs of over 80 percent to no more than 10 percent of the dollar value of their new housing lending flows. However, some loans will not count towards the banks’ use of the speed limit. These include Housing New Zealand’s Welcome Home Loans, bridging loans, refinancing of existing loans and high–LVR loans to existing borrowers who are moving home but not increasing their loan amount. Allowing for these exemptions, we estimate that the 10 percent speed limit will effectively limit the banks' high-LVR lending flows to about 15 percent of their new residential lending.

Banks commonly issue mortgage borrowers with pre-approvals, which represent a firm commitment to provide housing finance and may be valid for up to six months. Banks raised the issue of these pipeline approvals in responding to the Reserve Bank's consultative document so, as an initial transitory step, we are allowing banks to meet the 10 percent speed limit on high LVR lending measured as an average rate over a six month period. Thereafter, the speed limit for banks with lending in excess of $100 million per month will apply to the average rate over rolling three-month windows, as originally proposed. However, we would expect the banks to modify their approach to issuing pre-approvals, in order to ensure that they fall within the 10 percent 'speed limit' on an ongoing basis.

Banks with mortgage lending below $100 million per month will be required to meet the speed limit on the basis of high-LVR lending rates over rolling six-month windows, to reflect the greater volatility seen in the high-LVR lending of the smaller banks.

When LVR measures have been introduced overseas they often represent a strict moratorium on high LVR lending[5]. The speed limits we have set will enable some growth in high LVR lending and should have the effect of slowing the rate of growth in house prices.

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[5] For example, Israel currently limits loans to first home buyers to a maximum LVR of 75 percent with LVRs for refinancing and investors limited to 70 percent and 50 percent respectively. In Hong Kong, LVRs are capped at 70 percent for most borrowers with even tighter restrictions targeted at certain parts of the residential market.

In this way, LVR restrictions will support monetary policy. While the primary purpose of the restrictions is financial stability, they will also provide the Reserve Bank with more degrees of freedom in conducting monetary policy. In particular, they will provide the Bank with greater flexibility in considering the timing and magnitude of any future increases in the OCR. This flexibility around the need for interest rate adjustments is especially useful in light of the over-valued New Zealand dollar and the international monetary conditions currently facing New Zealand.

Like any other form of regulation, speed limits on high LVR lending will create incentives for lenders to introduce lending products designed to circumvent the regulation. We are concerned to ensure that specially designed lending products are not developed with the purpose of avoiding or undermining the LVR restrictions. This is why our framework for implementation will state that banks should not enter into any arrangements to avoid the LVR restrictions, and we are providing guidance as to the types of measures that the Reserve Bank would be concerned about if used to circumvent the LVR restrictions.

The Reserve Bank expects bank senior management and bank boards to respect the spirit and intent of the LVR restrictions and to closely monitor the level of high LVR lending.

An important issue is how long LVR restrictions might be imposed. This largely depends on the effectiveness of the measures in restraining the growth in housing lending and house price inflation. The measures will be removed if there is evidence of a better balance in the housing market and we are confident that their removal would not lead to a resurgence of housing credit and demand. We will monitor closely the impact of the restrictions, and report on that in our *Financial Stability Reports*. If the measures are not considered to be effective (and cannot be made effective through altering the details of the policy) they will be removed, but in this case their removal might necessitate higher interest rates than otherwise, or the imposition of alternative macro-prudential requirements.

Concluding Comments

The outlook for the New Zealand economy over the next two years is for GDP growth to increase and the recovery to become more broadly based. Investment in Canterbury reconstruction is not expected to peak until 2015 and 2016. By this time the residential building programme in Auckland should be well advanced, and the additional supply in Auckland and Christchurch should bring greater balance to the housing market.

But many of the challenges discussed today will be with us for a considerable time, particularly as New Zealand is likely to continue to be one of the most rapidly growing advanced economies over the next two years. The challenges we face with an over-valued exchange rate and over-valued housing market are not likely to dissipate quickly given the extent of the supply/demand imbalance in the housing market and the likely continued attractiveness of New Zealand assets to foreign investors.

It is critical that priority be given to implementing the measures needed to alleviate the shortage of housing and land supply, which is the dominant cause of the increase in house prices in Auckland and Christchurch.

But the LVR restrictions announced today have a useful role to play alongside the supply measures. Both can help reduce the risk of a house price boom ending in a severe housing downturn that causes substantial damage to the financial sector and the economy.

Provided loan-to-value restrictions help to dampen house price inflation, they will also assist monetary policy. As such, they increase the flexibility available to the Reserve Bank in determining the timing and magnitude of future adjustments to interest rates. This is not the primary reason for the policy, but could be valuable given the ongoing highly accommodating monetary conditions in international financial markets.