

# Neutral about neutral

## The new interest rate landscape: Influence on the OCR

- There are lots of moving parts in guestimating a neutral cash rate
- It is too simplistic to just subtract the increase in bank funding costs since the GFC to calculate the new neutral
- Rising inflation expectations and lower bank margins provide a counter
- The new neutral is possibly around 6%

There has been much hullabaloo around what the neutral Official Cash Rate may now be. Other market economists estimate the new neutral to be around 5%, 1 to 1.25% lower than what they think prevailed pre global financial crisis (GFC). The RBNZ has been a lot more circumspect; the RBNZ Governor has said "it's possible that the neutral rate required to reach a neutral level (of lending rates) is lower than it used to be". We are more akin to the RBNZ: it's possible the neutral OCR is lower (although we are not sure from where), but we think that it is not nearly as low as other economists are asserting.

For most borrowers, this issue will not matter one jot. They are concerned about what their borrowing costs are, not the level of the official cash rate that might deliver it. None-the-less, for the trainspotters, market geeks, and monetary mandarins amongst our readership we'll give our thoughts on "the new neutral".<sup>1</sup>

### What is a neutral interest rate?

A neutral interest rate is one of the Yeti's of monetary policy: unobservable but believed by some to be lurking in the background. But it gets worse – there is not just one type of unobservable Yeti that people are looking for.

First up, it is common to lop inflation expectations off interest rates so that we are talking 'real' rates. The mythical neutral real interest rate (NRR) is supposedly one where monetary policy is neither contractionary nor expansionary. But this means different things to different people. Is it neutral short term interest rates in the short, medium, or long run context?<sup>2</sup> Is it effective borrowing rates, 90 day interest rates, or the OCR

being referred to? At heart, it is also an equilibrium concept and in the real world other components of the economy are rarely (OK, never) in equilibrium at the same time (e.g., exchange rate, fiscal balance, labour market, external accounts).

For this article, we take neutral to refer to the level of the real OCR that would deliver stable inflation and inflation expectations at the inflation target, and an output gap at zero and expected to remain zero over the medium run (i.e., the economy is operating at its full potential). This is where the Yeti meets Nessie. We now have two unobservables: neutral interest rates and the output gap. We can only infer the size of this Yeti's footprint and Nessie's tail from other data. And this comes down to an educated guess.

### In search of big foot

The general approach taken by other economists to find the 'new neutral' has been to estimate what the neutral cash rate was pre GFC (purportedly somewhere in the vicinity of 6%), and take off the increase in bank funding costs that have resulted from the GFC (around 1%) to give a new neutral cash rate circa 5%.

Of course 5% could prove to be correct, because after all we are discussing who has the better imaginary friend. But there are a surprising number of aspects where the imaginary friends can look different.

1. **Neutral rate in base period.** It is not at all clear to us that the neutral rate in the base period (pre GFC) was circa 6%. The cash rate averaged 6.3% since its introduction in 1999 through to 2008Q3 (i.e., just prior to the GFC), and 6.6% in the period 2003 through 2007. However, 2003 through 2007 was as much an aberrant period (but in mirror image) as what we have now. It was characterised by excessive risk taking, dizzying credit growth and rampant asset price

<sup>1</sup> This is a re-presentation of the feature article from our April *Economic Overview*. We think it is a natural fit for our bulletin series "The new interest rate landscape".

<sup>2</sup> For a comprehensive discussion of these issues, see Archibald and Hunter, "What is the neutral interest rate and how can we use it?", RBNZ Bulletin Vol. 64 No. 3, 2001.

For further information, questions or comments contact Brendan O'Donovan, telephone (04) 470 8250, email [brendan\\_odonovan@westpac.co.nz](mailto:brendan_odonovan@westpac.co.nz)

For all clients: Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141, incorporated in Australia ("Westpac"). The information contained in this report: does not constitute an offer, or a solicitation of an offer, to subscribe for or purchase any securities or other financial instrument; does not constitute an offer, inducement or solicitation to enter a legally binding contract; and is not to be construed as an indication or prediction of future results. The information is general and preliminary information only and while Westpac has made every effort to ensure that information is free from error, Westpac does not warrant the accuracy, adequacy or completeness of the Information. The Information may contain material provided directly by third parties and while such material is published with necessary permission, Westpac accepts no responsibility for the accuracy or completeness of any such material. In preparing the Information, Westpac has not taken into consideration the financial situation, investment objectives or particular needs of any particular investor and recommends that investors seek independent advice before acting on the Information. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. Except where contrary to law, Westpac intends by this notice to exclude liability for the information. The information is subject to change without notice. Westpac expressly prohibits you from passing on this document to any third party. Westpac Banking Corporation is regulated for the conduct of investment business in the United Kingdom by the Financial Services Authority. © 2010

For Australian clients: WARNING – This document is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

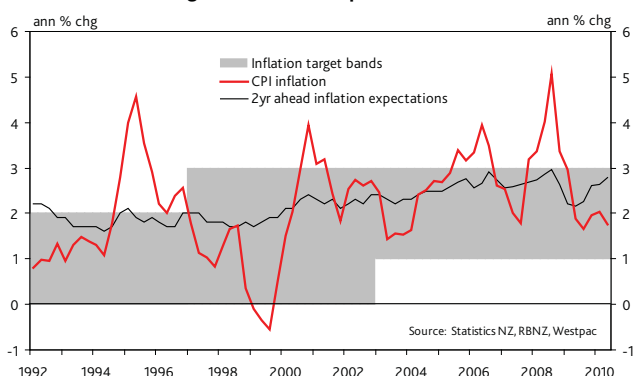
appreciation. Inflation averaging 3.0%<sup>3</sup> was well above the mid point of the target band, as were inflation expectations at 2.5%. The current account deficit reached an unsustainable 9% of GDP, credit growth was in excess of 2 times growth in nominal GDP, and property prices almost doubled. Counter to this, the real exchange rate (oops, another unobservable monetary leprechaun has just put in an appearance) was acting as a constraining influence, averaging around 18% above its long run level.<sup>4</sup> A cash rate averaging 6.6% clearly did not deliver sustainable or equilibrium outcomes, and it could easily be argued (with the benefit of hindsight) that it should have been closer to 7.5%.

**2. Inflating expectations.** To get away from comparing to the equally aberrant period of 2003 – 2007, we can cast our eyes further back. Over a longer sweep of time (i.e., back to 1992, when inflation stability was achieved) the neutral cash rate has not been constant in reality or perception.<sup>5</sup> For example, in 2001 the RBNZ calibrated an NRR for 90 day interest rates of 4.5% into their baseline economic model while in recent years the working assumption has been 4.0%.<sup>6</sup>

Even if the NRR had been constant, the nominal neutral rate most certainly wasn't. Between 1992 and 2002 there were 3 significant changes to the Policy Targets Agreement by which the RBNZ operates. At the beginning of the period, annual inflation in the range of 0 to 2 per cent was taken to represent the achievement of price stability. This was broadened to 0-3% in December 1996, and further raised to 1-3% in September 2002. All these changes led to an inexorable rise in inflation expectations as did an apparent change in RBNZ policy approach from targeting the mid-point of the inflation range pre-2002, to the upper half of the range post 2002. Inflation expectations increased by a full percentage point between the early days of inflation targeting to just before the GFC. Half of that rise in inflation expectations was delivered during the period 2003 - 2007.

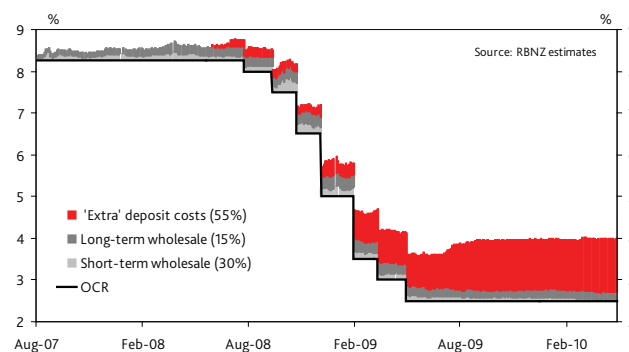
Even if the NRR were constant over the past 18 years, the effect of inflation expectations alone would have pushed the neutral nominal rate up by 1%. It is worth noting that 2-year-ahead inflation expectations are currently high at 2.8%, despite the economy only gradually emerging from a very deep and protracted recession.

Figure 1: Inflation expectations



**3. Funding costs.** The RBNZ has estimated that bank funding costs are currently around 150bps<sup>7</sup> above the OCR, whereas prior to the GFC they were about 30bp above the OCR. However, applying the full 120bps difference as a change in the NRR could potentially suffer from a couple of problems: the funding premium may be temporary, persistent, or permanent; the funding premium may vary with the economic cycle<sup>8</sup>; funding costs may influence the neutral lending rate more than they affect the neutral OCR; and there may be the same base period comparison problems as discussed in point 1 above. We think the funding premium will prove relatively persistent over the next few years, so monetary policy should look to accommodate some of it. However, as the NRR was not being revised up when funding costs were abnormally low during 2003 – 2007, we do not think it appropriate to revise down the NRR by the full 120bps of increase in funding costs now.

Figure 2: Indicative marginal funding costs relative to the OCR



**4. Banking at the margin.** The analysis of others tends to focus predominantly on the change in bank funding costs. But similarly important has been the decline in bank margins over a long period. Bank margins are roughly 1ppt lower now than they were in the early 1990s. For the major banks, average net interest margins are currently 0.5ppt below their average of 2003 – 2007. When comparing NRR's, declining bank margins provide a substantial offset to higher funding costs over a broader sweep of history.

<sup>3</sup> Reported inflation outcomes are taken as an 18 month lag on interest rates, to reflect the lags in the influence of monetary policy.

<sup>4</sup> The Terms of Trade was also around 10% above its long-run level during this period, mitigating the degree of exchange rate 'overvaluation'.

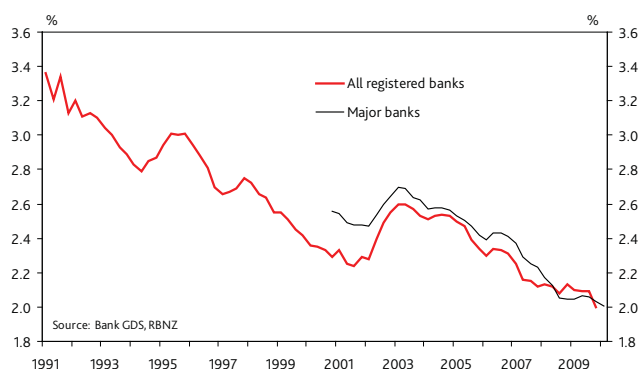
<sup>5</sup> Hunter and Archibald note that the neutral real rate can shift over time in response to temporary shocks to the economy, and in response to long lived changes such as demographics, technological change, industrial organisation, international relationships, and long-term government policies for health, education, social welfare etc.

<sup>6</sup> The RBNZ NRR refers to the 90 day interest rate, which averages around 25bps above the OCR although this wedge varies with the monetary policy cycle.

<sup>7</sup> See our bulletin "Before and After", 9 August 2010, for a detailed explanation of why funding costs are higher. Basically it is due to a repricing of risk by investors, and banks doing more of their funding through term wholesale markets and retail deposits which are now more expensive.

<sup>8</sup> See our bulletin "A Matter of Interest", 12 August 2010, for an exposition of how the new funding environment means for mortgage rates, business lending rates, deposit rates, and the OCR.

Figure 3: Net interest margins contracting



Let's be clear, we are not saying the OCR should be near neutral now: there is a yawning amount of spare capacity in the economy and the OCR should continue to be low for a while. But whatever neutral is or isn't, we are a long way from it.

**Brendan O'Donovan**, Chief Economist, Ph: (64-4) 470 8250

**Dominick Stephens**, Senior Economist, Ph: (64-4) 381 1414

### Will the real NRR please stand up

We are not heroic enough to categorically state what the new neutral OCR is (oh alright, our measure of the footprint in the snow is 6%). For starters we don't know what shocks are going to beset the economy over the next few years, which themselves will influence the neutral rate. Relative caution on the part of (property) investors may persist for a few years, but this may reduce the magnitude of the next OCR cycle rather than the neutral rate.

What we can say is that there are multiple moving parts in estimating a neutral rate and it is dangerous to focus on only one. First, we don't think the 'old neutral' was around 6%. An OCR averaging 6.4% in the 2000s up to the GFC was clearly too low to deal with the shocks that were hitting the economy. Secondly, inflation expectations have been on a trend rise, and bank margins in trend decline. Both of these factors would serve to raise the neutral rate. Thirdly, we would be very reticent to apply the full 120 bp increase in bank funding costs since pre-GFC to a decline in the neutral cash rate. The pre-GFC period was aberrantly low in terms of funding costs, and the increase in funding costs may not be constant.

As an exercise, let's do a hypothetical on all the hypotheticals. What if the RBNZ was right in 2001 that the NRR for the 90 day rate was then 4.5% (or roughly equivalent to 4.25% on the OCR). Let's pretend the only changes since have been a rise in bank funding costs (let's say the funding premium will persist at a 120bps wedge for a few years and – we think unrealistically – that it will all show up as a fall in the OCR rather than a rise in retail rates), a decline in bank margins of 50bps, and inflation expectations moving from 2.2% to 2.8% (again generously assuming higher GST and emission trading scheme costs do not infect inflation expectations in coming years). Adding up all those changes would imply a neutral cash rate of 6.5% in 2001 and, surprisingly, a virtually unchanged neutral cash rate of 6.4% now. So the new neutral would be equal to the old old neutral! Of course, other things have been changing in the economy which could independently have been impacting on neutral short rates but we don't think the collective impact is anywhere near the extent that would get neutral rates down to where other economists are suggesting.