
Testing stabilisation policy limits in a small open economy: Editors' summary of a macroeconomic policy forum

Bob Buckle, The Treasury and Aaron Drew, Reserve Bank of New Zealand¹

1 Macroeconomic issues motivating the conference

New Zealand has been one of the faster growing OECD economies since the early 1990s, driven by both strong employment and labour productivity gains. During the last five years, however, this growth was accompanied by the emergence of macroeconomic imbalances. While some of these imbalances are in common with several other relatively fast growing economies, including Australia and the United States, this does not mitigate concerns that the eventual process of adjustment might be both painful and prolonged.

The so-called imbalances have manifested themselves in a number of areas: CPI inflation has increased beyond the top end of the Reserve Bank's target band; the balance of payments Current Account Deficit (CAD) increased to over 9 per cent of GDP (one of the largest amongst developed economies); asset prices (notably house prices) increased rapidly; and household debt levels rose to historic highs.

While the term "imbalances" is commonly used to describe these macroeconomic outcomes, the term could in some instances be regarded as pejorative. For example, in an inter-temporal context, a CAD can be viewed as the consequence of a reshuffling of demand across time, which results in differences in the levels of contemporaneous domestic demand and supply. Hence, while a CAD is sometimes described as a situation in which a country is "living beyond its means," in an inter-temporal sense a CAD is not necessarily inconsistent with life-time "means." Nevertheless, there are several legitimate reasons why these recent developments could be a concern.

One concern is that the economy may experience a "hard landing" if a normal cyclical downturn is amplified by a significant fall in asset prices. For example, the size of the

CAD may have increased the likelihood of a sudden and disruptive exchange-rate adjustment to levels uncomfortably below historical averages. From a monetary policy point of view, this would be particularly unwelcome at the present juncture where inflation is already high. Alternatively, the sharp rise in household debt levels may have increased the vulnerability of the household sector to a fall in house prices, particularly if accompanied by a significant increase in unemployment levels. If large enough, in combination these shocks could potentially pose a systematic risk to the banking system, given the banks' reliance on foreign capital and their exposure to the household sector.

Another concern is that the imbalances may adversely impact productivity growth. New Zealand business cycles are characterised by variations in the relative growth of the tradable and non-tradable production sectors. The current cycle has been sustained by strong non-tradables growth, particularly in residential investment (a pattern that has been accentuated by large cyclical net migration swings). In contrast, growth in the tradables sector has been much weaker, even though this sector tends to have higher trend productivity growth. Associated with this pattern, the New Zealand economy also experiences large exchange-rate swings over the cycle. These large swings may have adverse effects on investment and productivity, again particularly in the tradables sector.

One explanation for the large increase in New Zealand's CAD is that it reflects an unusual international distribution of savings. High excess savings in East Asia are flowing to economies where yields are higher, in part financing the growth in business and housing investment in New Zealand (and similarly Australia and the US). The redistribution of these savings through global financial markets has caused yields on long-term securities to converge across countries. This has reduced the level of real interest rates that New Zealand residents may have otherwise faced and has therefore contributed to domestic investment and consumption spending staying higher for longer.

¹ Bob Buckle is a Principal Advisor at The Treasury and Adjunct Professor of Economics, Victoria University of Wellington. Aaron Drew manages the research division in the Economics Department, Reserve Bank of New Zealand. The views expressed herein do not necessarily fully represent those of the Treasury or Reserve Bank of New Zealand.

This process of internationalisation of financial markets has given rise to a third concern, namely that the Reserve Bank of New Zealand now has less leverage over longer-term interest rates. In order to influence domestic inflation, the Bank may therefore have to rely more on short-term interest rate movements and, as a consequence, the exchange-rate channel. In these circumstances, more of the burden of adjustment may fall on the tradable goods sector, with the potential ramifications for productivity growth expressed above.

A final and closely related issue is that the imbalances reflect excess demand pressures in the economy more generally, and these could indicate that macro economic policy (encompassing both monetary and fiscal policy) settings have not been very effective over recent times in preventing the build up of these imbalances, therefore contributing to the risk of a costly adjustment phase.

In June 2006, The Treasury and the Reserve Bank of New Zealand co-hosted a Macroeconomic Policy Forum that brought together international and domestic experts to examine the policy issues relating to these recent New Zealand macroeconomic developments.

The overall assessment of the invited speakers and discussants at the Forum was that the essential elements of New Zealand's macroeconomic policy institutions are sound and remain appropriate. They also emphasised that changes in real exchange-rates and fluctuations in current account balances are often an essential part of the processes of adjusting to domestic and international shocks. Further, some expressed the view that recent international developments and the way they have impacted on New Zealand may have been unique. Hence, there was a general tone that there is no reason for New Zealand policy makers to panic. Participants at the Forum did not go so far to suggest, however, that policy makers in New Zealand can be complacent about the economic outlook, or that there are no policy areas that warrant further scrutiny.

The following section provides a high-level snapshot of the papers in this volume that were presented at the Forum in June. This snapshot focuses on some (but by no means all) of the policy suggestions that arose. This is followed by

a summary of the panellists' comments. Finally, we offer our thoughts on policy areas that may warrant further attention.

2 Summary of papers

Macroeconomic policy challenges:

monetary policy

Authored by Stephen Grenville (Lowy Institute),
discussion by Christopher Allsopp (University of Oxford)

It is widely accepted that New Zealand's inflation targeting approach has become more 'flexible' as low inflation and inflation expectations have become embedded in the economy. Stephen Grenville reflects that the concerns over the stress placed on the externally exposed sectors of the economy in the recent cycle could be regarded as an extension of a flexible approach. However, he is doubtful whether monetary policy alone, with a conventional single instrument (the OCR), can reasonably be expected to address cyclical strains caused by sectoral imbalances. This would be especially so if recent international and financial developments have significantly shifted the transmission channel of monetary policy further towards the exchange-rate. This view is endorsed by Christopher Allsopp, who suggests that if, in principle, policy instruments or interventions can be found that are better targeted to the source of a sectoral shock, then institutional responsibility for this in almost all circumstances should lie with The Treasury. In his view, monetary policy should remain primarily focused on its price stability objective.

There are several policy areas, however, where Grenville thinks there may be scope to modestly reduce sectoral stresses. First, he suggests the RBNZ should be even more forthcoming in pointing out to the public when it thinks asset prices (e.g. the exchange-rate and house prices) are misaligned. Regarding currency misalignments, he proposes that the RBNZ should use foreign exchange intervention more systematically, in the spirit of the Reserve Bank of Australia's approach, to "lop the peaks and fill the troughs" of movements in the currency. This view is predicated on there being systematic arbitrage opportunities over the

currency cycle, an assertion that Grenville makes but many other participants of the Forum disagreed with. Indeed, many considered that the RBNZ should not entertain intervening in currency markets at all.

In relation to the risks posed by a booming housing market, Grenville proposes that much more comprehensive data on housing loan exposures should be collected and given widespread and critical public coverage. Two specific policy suggestions are also offered. First, that the mortgage levy idea raised (and largely dismissed) in the recent SSI report produced by the RBNZ and New Zealand Treasury deserves further attention given its potential to curtail a housing led boom.² Second, that insurance for loans with loan-to-value ratios above 80% should be required (which is encouraged in Australia by the application of a higher capital requirement if this insurance is not in place). These suggestions on housing market measures merge into the arena of prudential policy. He sees these policies as modest measures to improve the chances that banks remain efficient financial intermediaries throughout the cycle, and in the face of low-probability events such as a “sudden stop” of foreign funding sources. Further, more “speculative” prudential policy options are also offered.

Stabilisation policy in New Zealand: Counting your blessings, one by one

Authored by Willem Buiter (London School of Economics), *discussion by Pierre Siklos* (Wilfrid Laurier University)

Willem Buiter’s main conclusions are that New Zealand’s monetary and fiscal policy frameworks are fundamentally sound, and top of the international class. He nevertheless considers that some of New Zealand’s inflation, business cycle and structural characteristics imply there is scope to improve the macroeconomic policy framework.

In the monetary policy area, Buiter is not convinced that recent international financial developments have reduced the effectiveness of monetary policy. His argument is that what is crucial is how changes in the OCR impact on long-term

inflation expectations. He notes these expectations have remained relatively low, albeit with some sign of modest upward drift in the current cycle. Nevertheless, he suggests the effectiveness of monetary policy might be enhanced through several changes to the current framework. First, he advocates replacing the inflation target band with a point target. This suggestion, in some guise, found favour with many of the Forum participants. Second, he favours replacing the single-decision maker arrangement with a Monetary Policy Committee, along the lines of the Bank of England.³ Third, Buiter advocates taking the “flexible” out of “flexible inflation targeting” and replacing it with lexicographic inflation targeting. Finally, Buiter is very critical of the Bank’s foreign exchange intervention framework. He is sceptical that intervention can work to reduce exchange-rate volatility and suggests it raises the temptation to try and target both inflation and the nominal exchange-rate, a policy well known to be infeasible. All these suggestions are broadly endorsed by Pierre Siklos, who further claims that intervention decisions linked to whether the exchange-rate departs excessively from fundamentals is confusing because of the lack of reliable evidence of the factors that determine “fundamentals.”

In the fiscal policy area, Buiter thinks there is scope for policy to make a larger contribution to cyclical stabilisation, both by increasing the effectiveness of the automatic fiscal stabilisers and, somewhat more speculatively, by more active use of discretionary fiscal policy. Regarding the former, Buiter proposes (a) broadening the GST base⁴, (b) taxing capital gains at the same rate as other income, and (c) index-linking income, corporate and capital gains taxes. To enable active discretionary fiscal policy, Buiter suggests the GST rate could be adjusted by raising during a boom and lowering in a downturn. He suggests designing a policy rule to guide variations in the GST rate and delegating this policy to an operationally independent GST Committee. Siklos is not in favour of this idea due to the “daunting” technical issues

² Reserve Bank of New Zealand and The Treasury (2006), “Supplementary Stabilisation Instruments,” April. Wellington. <http://www.treasury.govt.nz/ssip/>.

³ This recommendation is not based on any particular concern with historical policy. Rather, he sees a Committee structure as reducing the risk of getting a “bad draw” for a Governor.

⁴ By eliminating the exemptions for financial services and housing rentals, including the imputed consumption of housing services by owner-occupiers.

associated with implementing an effective counter-cyclical GST policy. Nor is he in favour of Buiter's other proposals to enhance automatic fiscal stabilisers on the grounds that, while all these ideas may have some economic merit, they are not likely to be politically acceptable.

New Zealand's monetary and exchange-rate policy in international comparison

Authored by Klaus Schmidt-Hebbel (Central Bank of Chile), *discussion by John Edwards* (HSBC)

Klaus Schmidt-Hebbel utilises a range of cross-country empirical techniques to examine New Zealand's macroeconomic outcomes and policy performance. The empirical work suggests that the strength and nature of the monetary policy transmission process in New Zealand is not significantly different to the group of comparable economies (Australia, Canada, Norway, Sweden and Chile). He also finds that the RBNZ has, on average, better met its inflation target objective than most, and performance has improved between 1990-97 and 1998-2005. Nevertheless, he advocates a change in the PTA to incorporate a more precise horizon for the achievement of the inflation target. While John Edwards thinks policy makers can take considerable comfort from these findings, he raises the point that the results pertain to longer term average outcomes and do not negate the real difficulties faced by the RBNZ in the recent period and that the transmission mechanism did seem to take longer than usual. Edwards also notes that the improvement in performance that Schmidt-Hebbel identifies coincides with changes in the PTAs that permit the Bank more flexibility over the horizon in which it brings inflation back to the target range.

A concern often heard in New Zealand, as discussed in Section 1, is that its exchange-rate cycles are damaging for growth. Schmidt-Hebbel confronts this concern, first by reviewing the theoretical and empirical literature. This presents a mixed picture, with conclusions depending on modelling techniques and data samples (with the notable exception of "currency crisis" episodes). Second, he empirically examines whether New Zealand currency cycles have negatively impacted growth. The methodology is based on a recent study that shows currency misalignments

can impact growth in an asymmetric way (i.e. significant over or under valuations retard growth, while mild under-valuations improve growth). Schmidt-Hebbel finds that currency misalignments in New Zealand have rarely entered and do not stay long in the "danger territory," while mild pro-growth under-valuations are apparent. He concludes that real exchange-rate misalignments in New Zealand have not negatively impacted growth.

While not critical of the Bank's foreign exchange intervention framework, Schmidt-Hebbel is sceptical that foreign exchange-rate intervention can do much to moderate the exchange-rate cycle. Moreover, his empirical analysis weakens the case for intervention even if it were effective. To assist monetary policy in the case of domestic-sourced shocks, he instead thinks policy makers should consider evaluating the scope for fiscal policy and financial policy instruments to play more prominent short-run stabilisation roles. His suggestions include: a Chilean-styled structural balance rule; pro-cyclical tax rates or specific counter-cyclical spending measures; investing public savings abroad in assets that are negatively correlated to the New Zealand cycle; and issuing public debt indexed to commodity prices as insurance against "sudden stops."

External imbalances in New Zealand

Authored by Sebastian Edwards (UCLA), *discussion by William Cline* (Institute for International Economics)

The primary purpose of Sebastian Edwards's paper is to analyse the potential consequences of New Zealand's balance of payments position. Specifically, he investigates the probability that New Zealand will undergo a costly adjustment, the proverbial hard landing, in the form of a "sudden stop" in capital flows and an abrupt and large reversal in the CAD.

Edwards identifies a number of characteristics of New Zealand's external position that sets it apart from most other advanced countries. Notably, that the CAD is presently one of the largest in the OECD, and the most important contribution to the CAD tends to be the deficit on net investment income. This in turn reflects the fact that New Zealand's net international investment position (NIIP)

is one of the most negative amongst advanced countries (at around 90% of GDP). Given New Zealand's close economic relationship with Australia, Edwards investigates how the trans-Tasman relationship affects New Zealand's external balances. He shows that when trans-Tasman transactions are excluded, external balances are not as large. However, even after making the trans-Tasman adjustment, New Zealand's present CAD is still almost double the size of what Edwards estimates to be sustainable. William Cline uses a similar approach to support the conclusion that the present position is unsustainable.

Do these facts imply New Zealand is at risk of a sudden stop? One perspective Edwards uses to address this question is the inter-temporal present value model of the current account, which posits that fluctuations in the current account are due to rational consumption-smoothing behaviours in the presence of macroeconomic shocks. Recent research estimating this type of model on the New Zealand data does not reject consumption-smoothing behaviours. Edwards notes, however, that the recent deterioration in the external trade account is not consistent with the long-term solvency condition in these models, perhaps still implying that the external balance will have to go through a significant correction. Cline is more sceptical that recent behaviours represent optimal consumption smoothing, arguing that the rise in New Zealand's CAD has been associated with a decline in household saving rather than with a surge in private investment, or as he puts it, a case of "absorption roughing." Cline argues that New Zealanders are transferring absorption from the future to the present. In doing so, they are imposing an undue welfare burden on future generations and may therefore be politically unsustainable. In this respect, the large CAD and NIIP are a problem.

To quantify the risk of a sudden stop, Edwards utilises a cross-country data set to estimate a probit model of the determinants of the probability that a country will experience an abrupt current account reversal (defined as a reduction in the current account deficit of at least 3% of GDP in a one year period). The model is then applied to New Zealand for the early 2000s and then for 2005-06 when the CAD was larger. Edwards finds that abrupt reversal probabilities

have increased, but remain modest. He concludes that the present external balances should not be a cause for great concern - the adjustment to the current account, when it does come, will likely be benign. William Cline is not so sanguine, largely basing his arguments on the implications of the simple arithmetic of sustainable external debt.

While Edwards proffers some suggestions for improving the conduct of monetary policy, Cline is sceptical that monetary policy can effectively change the savings and current account situation, principally because the impact of changes in the interest rate on the current account are likely to be ambiguous. Rather, Cline considers that policy should focus on maintaining or increasing the fiscal surplus and on policy-settings that affect incentives to both invest in and supply residential property, fund residential property through foreign investment, and incentives that impact on the willingness of foreigners to invest in New Zealand financial instruments. He also suggests that New Zealand policy makers agree on a ceiling NIIP and integrate a serious intention of staying within that limit.

3 Panellists comments

Val Koromzay (OECD)

Val Koromzay stresses that New Zealand's policy frameworks are sound and stand out favourably in international comparisons. He warns that in asking whether they could be adjusted to reduce volatility, such adjustment could come at the expense of losing what New Zealand presently has.

Koromzay agrees with Buiters' and Allsopp's views that among the tasks assigned to monetary policy, inflation control should have priority. He is not in favour of systematic intervention in currency markets, arguing it poses a serious risk to being able to sustain a clear, effective and credible communication strategy for monetary policy. Koromzay therefore sees little need to change the present monetary policy framework, and thinks there is little that monetary policy can do to moderate exchange-rate swings. Instead, to minimise the potential costs of volatility he advocates focusing on maximising the flexibility of product and labour markets.

Koromzay regards New Zealand's present financial supervision and regulatory framework as sound, and considers financial market supervision to be too important a matter to subject it to secondary, so called "macro-financial" considerations. He also sees few opportunities for fiscal policy to lean more strongly against macro fluctuations. In his view discretionary fiscal policy is not to be recommended; and stronger "automatic fiscal stabilisers" can only effectively be achieved by raising tax and spending, and these are decisions that should not be made on the basis of smoothing cycles. Koromzay does think, however, there is merit in considering an ex ante fiscal rule based on "normal" terms of trade that specifies how the budget will deal with revenue windfalls and shortfalls.

With regard to structural policies that may help lift national saving and reduce potential external vulnerability, Koromzay rejects suggestions to make foreign credit more expensive. Nor does he think the international evidence supports tax incentives as an effective means of raising aggregate savings. Koromzay does agree with Buiters that increasing property taxes has merit, although the political-economy of such moves is daunting and would require "extra-ordinary political leadership."

Steve Dunaway (IMF)

Steve Dunaway suggests, like Koromzay, that some of the factors that lead to the large macroeconomic imbalances in New Zealand over the last five years are likely to have been one-off factors. Specifically, the strong inflow of foreign savings and possibly also the degree to which the New Zealand cycle was out of synch with the international cycle. He acknowledges international financial integration may mean that the way monetary policy impacts has changed, and policy makers will need to be alert to this change, but it does not mean that monetary policy is ineffective.

Dunaway is not persuaded by the arguments for greater emphasis on discretionary counter-cyclical fiscal policy. He does, however, think there is merit in some form of counter-cyclical fiscal rule of the types discussed by Klaus Schmidt-Hebbel and Val Koromzay. He argues a similar, though

less explicit, approach is in fact already being practiced in New Zealand. Citing the example of the experience of the US during the late 1990s, unlike Koromzay, Dunaway thinks there is a place for financial regulatory and supervision policy to play a role in preventing excesses in the financial sector during economic expansions.

John McDermott (Victoria University of Wellington)

John McDermott sees no obvious missing instrument that would improve monetary policy performance. He does, however, agree that there may be scope for some marginal improvements and that is where the focus should be. He raises several specific issues.

McDermott disagrees with Buiters's analysis that plays-down the importance of external terms-of-trade shocks to New Zealand. He suggests these are important given New Zealand's economic structure, and this structure means that the business cycle will be sensitive to changes in the terms of trade, as research has shown.

The structure of the New Zealand economy is, in McDermott's view, also relevant to the debate about foreign exchange intervention. He argues that empirical evidence suggests that the large real exchange-rate swings are fundamentally broadly determined by commodity price swings, in which case the exchange-rate plays a buffering role. Like others, he is concerned that direct intervention risks distracting attention from the core role of monetary policy.

McDermott is not in favour of introducing prudential instruments to complement monetary policy. He suggests the information required to do this efficiently is not adequate and it will introduce distortions to the credit market. Nor does he regard the CAD as a problem. Even though some of the recent growth in the deficit is due to consumption growth, a significant proportion is durables consumption which he suggests is a form of investment in a future stream of household services. That is, some of Cline's so-called "absorption roughing" is a form of investment.

4 Possible areas of future policy research

The key policy issues that arose in the Forum can be summarised under four broad topics: the role and conduct of monetary policy; the stabilisation role of fiscal policy; exchange-rate volatility and implications for the economy; and structural policies (including taxation structures) that may be impacting on housing demand and household savings. In what follows we suggest possible areas for future policy research under each of these topics.

The role and conduct of monetary policy

A number of speakers at the Forum raised questions about monetary policy. There are five broad areas of investigation in this sphere:

- What has been the recent impact of monetary policy on the business cycle, and on exchange-rates?
- Inflation expectations have risen over the recent cycle. Is this simply a cyclical increase or is there evidence that inflation expectations have adjusted to a higher trend rate of expected inflation?
- Does the recent experience suggest there is a need to change any of the PTA parameters? Examples to consider might include:
 - (i) sharper specification of the medium-term time frame for targeting inflation;
 - (ii) the attention given, within an hierarchical structure, to the exchange-rate, interest rates and GDP volatility; and
 - (iii) consideration of whether the target inflation rate remains a band or instead is re-specified as a point target.
- Does the decision making structure for monetary policy matter in practice?
- Is there scope to more effectively communicate New Zealand economic conditions and monetary policy to international financial markets?

The stabilisation role of fiscal policy

A debate running through the Forum revolved around the merits of more active fiscal stabilisation to complement the inflation targeting role of monetary policy. There are three issues for analysis under this theme:

- What has been the macroeconomic impact of fiscal policy over the business cycle? Has fiscal policy exacerbated or ameliorated cycles in GDP, interest rates, the exchange-rate and the current account?
- What are the merits and implications of a more active stabilisation role for fiscal policy, over and above the effect of automatic stabilisers? How should these short-run objectives be weighed up against long term sustainability and economic growth objectives?
- If there is evidence that fiscal policy has exacerbated the business cycle, or if there is a case for more activist fiscal policy, what type of institutional arrangements should be considered?

Exchange-rate volatility

A popular assumption is that exchange-rate volatility is costly and should be managed although, as Klaus Schmidt-Hebbel discusses, the economic case for this is far from obvious. Four broad areas of analysis could be undertaken to shed more clarity in this area:

- What do the stylised facts tell us about New Zealand exchange-rates and factors influencing the exchange-rates? What is the contribution of domestic policy (monetary and fiscal policy) versus other “suspects” such as commodity prices, growth differentials, and swings in international investor sentiment?
- Does the New Zealand exchange-rate buffer or amplify shocks? Are there any factors influencing the exchange-rate that systematically “amplify” movements in the exchange-rate, and if so, can policy do anything about this?

- What are the implications of exchange-rate cycles and volatility for longer-term productivity growth and the structure of the New Zealand economy? Are the effects asymmetric? Can costs be found at the micro-firm level if not in aggregate?
- Are there gaps in the range of financial market products available to New Zealand firms that may help them hedge against currency volatility? If so, is there a role for policy to help create a market for these types of products?

Structural policy issues relating to residential investment

Although the brief of the Forum participants was to focus on policy options for smoothing the economic cycle, a number highlighted that the New Zealand cycle may be affected by underlying structural policies that give rise to low household savings rates and (possibly) a concentration of wealth in housing assets. Policy issues that may warrant further attention here include:

- To what extent are New Zealanders “overweight” in housing? Can taxation structures be altered to reduce any biases?
- Do the potential distortions in the structure of household balance sheets increase the vulnerability of households and the financial sector to adverse shifts in investor sentiment, interest rates and the exchange-rate? If so, are there any implications for prudential policies?
- Do flows in net migration exacerbate the residential investment cycle? Is it possible to improve the stability and/or predictability of migration flows? Can regulatory structures be improved to reduce the cost and timeliness of supply of residential property?
- Do taxation structures contribute to the ‘amplifier’ effects of housing demand over the cycle, generating a propensity for New Zealand households to pay relatively high real interest rates?

5. Concluding remarks

The recent business cycle in New Zealand has tested macroeconomic policy stabilisation limits. In part, this may have reflected an unusual confluence of shocks. Rising international commodity prices, including New Zealand’s agriculturally-based basket, are not normally seen in an environment of weak growth in the G7 economies. Long-term interest rates do not normally stay at historic lows when policy rates are rising. House prices do not usually increase at rates of plus 15 per cent per annum over a sustained period. However, the recent experience bears some resemblance to the cycle in the mid-1990s, where the exchange-rate also rose to levels well beyond its “fundamentals” as monetary policy leaned against similar domestically-sourced inflation pressures. And similar stresses were placed on the externally exposed sectors of the economy.

The purpose of the policy forum at which the papers in this volume were presented was to test the robustness of New Zealand’s macroeconomic policy frameworks and to evaluate opportunities to improve those frameworks. Although the overall conclusion that emerged from this forum was that the essential elements of New Zealand’s macroeconomic policy frameworks are fundamentally sound, there were also many questions asked and ideas raised that may warrant deeper investigation.

The complex issues involved imply many of these questions have no straight forward answers. Trade-offs that are difficult to quantify with any degree of precision are inherent, for example, in policy suggestions to modify savings incentives or use fiscal policy more actively to stabilise the cycle. In addition, the implementation of many of the suggestions would require careful consideration of their impact on existing institutional frameworks. Given these difficulties, perhaps the most scope for advancing understanding of the issues will derive from applying an inter-disciplinary approach to the questions, potentially involving several arms of Government.