

External Imbalances and Macroeconomic Policy in New Zealand

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Abstract

This paper argues that large external imbalances pose significant macroeconomic risks for New Zealand. While New Zealand has coped well in recent years, the global financial crisis has underlined the vulnerability of deficit countries to financial shocks. New Zealand can draw important lessons from the global crisis by adjusting its macroeconomic policy framework to further mitigate the risks embedded in its international balance sheet.

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1 Introduction

During the 2003-2007 period, there was a substantial increase in the global dispersion of external imbalances (Lane 2010, Lane and Milesi-Ferretti 2011). The rapid expansion in cross-border investing was associated with greater optimism that financial globalisation might have increased risk tolerance and thereby enabled the running of larger external imbalances (Lane and Milesi-Ferretti 2008).

However, the global financial crisis since 2008 has provided renewed evidence that sudden stops in capital flows can generate extremely painful adjustment dynamics in countries running excessive deficits. Those countries running the largest pre-crisis current account deficits have been most likely to experience large declines in domestic output and domestic demand (Lane and Milesi-Ferretti 2011a, 2011b). Large pre-crisis current account deficits also contributed to the emergence of banking crises in several countries. Moreover, in some cases, the sudden reversal in private capital flows has required several deficit countries to seek official assistance (Iceland, Ireland, Latvia, Greece and Portugal among them).

In Europe, these painful lessons from the crisis have resulted in a major reform in the European-level macroeconomic policy framework, with enhanced monitoring of external imbalances and a requirement that countries take steps to correct excessive external deficits. Similarly, there is an active debate among the G20 countries regarding the desirability of placing limits on the scale of external deficits.

While New Zealand has performed well in adjusting to the global financial crisis, it is timely to reconsider its macroeconomic policy framework with an eye to managing the remaining risks in the external position and preparing for the likelihood of future financial shocks. Accordingly, our focus in this paper is to review New Zealand's international balance sheet and lay out how the conduct of macroeconomic policy can mitigate the risks embedded in external imbalances.

This paper is related to Edwards (2006), in that both studies are concerned with the implications of New Zealand's large external imbalances. However, relative to that contribution, this paper focuses more on an analysis of the types of policy interventions than can improve macroeconomic risk management. The connections between external imbalances and macroeconomic policy are also extensively explored in Andre (2011).

The structure of the rest of the paper is as follows. Section 2 reviews New Zealand's external balance sheet. Section 3 assesses the risk factors associated with large external

imbalances and argues that several types of distortions may justify policy interventions. In turn, Section 4 addresses how the macroeconomic policy framework can manage external risks. Finally, Section 5 concludes.

2 New Zealand's External Balance Sheet

Figure 1 shows that New Zealand has run persistent and sizeable current account deficits over the last forty years, fluctuating around a mean of about 5 percent of GDP.¹ In common with the compression of the global distribution of current account balances during 2009-2010, New Zealand's deficit has declined in the last couple of years. However, global projections are that structural external imbalances will re-emerge as the recovery in the world economy takes hold (Blanchard and Milesi-Ferretti 2010, Gagnon 2011).

In terms of the accumulated net liability position, Figure 2 shows that New Zealand has a large net external liability position. While the net position is less negative than in the mid-1990s, it has deteriorated from its local peak in 2000/2001.

Table 2 shows that New Zealand is among the most indebted countries in the set of advanced economies. Many of the other countries in this group have experienced substantial economic distress over the last several years. Furthermore, Table 1 shows that the net foreign asset position for New Zealand has been relatively stable over the last decade, with the euro periphery and emerging Europe catching up with it in the mid-2000s. In contrast, emerging Asia and emerging Latin America have substantially improved their net external positions during this period (Lane and Milesi-Ferretti 2007, Lane and Shambaugh 2010).

Moreover, Figure 3 shows that the composition of the net liability position has shifted. Whereas the net liability position in the mid-1990s was evenly distributed between net equity and net debt, the net equity position is now much smaller and the net debt position is much larger.² In 2009-2010, the net debt position averaged about 66 percent of GDP, which is much more negative than in previous phases. Table 3 shows an expansion in the net debt position between 2002-2010, even if it smaller than the growth or level of the net debt position in the euro periphery and or the growth in emerging Europe. However, it is in sharp contrast to other emerging regions that have have engineered significant

¹Edwards (2006) provides a detailed description of the evolution of New Zealand's external imbalances.

²This analysis is based on the international balance sheet data calculated following Lane and Milesi-Ferretti (2007). The official data for New Zealand have a higher debt-equity ratio in the mid-1990s.

improvements in the equity-debt mix in their international balance sheets.

Probing further the composition of the debt component of the external position, Table 4 shows gross foreign debt liabilities and official reserve assets in comparative perspective. While New Zealand has slightly increased its reserve holdings, the ratio of reserves to external debt liabilities is low relative to other emerging regions.³

In addition to examining net international balances, it is also important to assess the overall extent of international financial integration in terms of gross holdings of foreign assets and foreign liabilities (Lane and Milesi-Ferretti 2001, 2007). Figure 4 shows that New Zealand is far more financially integrated now than was the case in previous decades. This upward trend is similar to that experienced by other advanced economies, even if the level of gross cross-border holdings does not approach the very high levels observed in Western Europe (Lane and Milesi-Ferretti 2007). Table 6 compares New Zealand to other emerging regions.

In terms of the composition of the international balance sheet, Table 5 shows the levels of assets and liabilities for the various foreign equity and foreign debt components. The comparatively low levels of foreign equity liabilities and foreign debt assets are especially striking. As indicated earlier, the low level of equity liabilities is in contrast to many emerging regions which have undertaken reforms to shift the composition of capital inflows towards equity-type instruments (Faria et al 2007).

Finally, it is important to evaluate the size of the international balance sheet in the context of the size of the domestic financial system (Lane and Milesi-Ferretti 2008, Obstfeld et al 2010). A key domestic financial indicator is the level of domestic private credit (Beck et al 2009). Table 7 shows that domestic private credit expanded rapidly in New Zealand between 2002 and 2009. While the level of private credit by 2009 was still substantially below the level reached in the euro periphery, it was far ahead of the levels observed in other emerging regions. Indeed, emerging Asia saw a decline in the private credit ratio between 2002 and 2009.

³The euro periphery hold very little by way of official reserves. As members of a currency union, these countries have access to the liquidity facilities of the European Central Bank and the bulk of their foreign debt liabilities are in euro. Accordingly, there is little need to hold liquid foreign-currency reserves.

3 Risk Assessment

Relative to other countries that entered the global crisis period with a high external deficit, New Zealand has performed relatively well. In part, this can be attributed to the strength of its macroeconomic policy framework. In particular, monetary expansion and currency depreciation provided an important cushion, without a threat to inflation expectations in view of the credibility of the inflation targeting framework. On the fiscal side, the low outstanding level of public debt enabled New Zealand to also engage in fiscal activism, with the fiscal balance switching from an average surplus of 3.8 percent of GDP in 2003-2008 to an average deficit of 2.7 percent in 2009-2010.

However, despite this good performance, New Zealand's external balance sheet still poses several macroeconomic problems. In particular, there are two primary reasons to be concerned about excessively-large external imbalances in net capital flows and accumulated net foreign liabilities.⁴ First, large imbalances may distort the overall structure of the economy, with a possible negative impact on long-term growth prospects. Second, large deficits and high external debt levels leave a country exposed to the risk of a sudden stop in capital flows, which in turn may generate a generalised macroeconomic crisis.

In relation to trend macroeconomic performance, Summers (1988) highlighted that large net capital inflows squeeze the domestic traded sector, with the long-term risk that capacity losses in exporting are difficult to reverse. Blanchard (2007) makes a similar point, arguing that financial constraints mean that a contraction in tradables output during a period of high domestic expenditure may not be easily reversed once the economy needs to make the transition towards greater net exports.⁵

In addition, "learning by doing" effects mean that a period of lower exporting activity may permanently harm productivity levels in the traded sector. Indeed, this is the flip side of the argument that subsidising exports can permanently improve productivity through learning by doing (Korinek and Serven 2011).

The dynamics of large trade imbalances also create problems for the labour market. Blanchard (2007) argues rigidities in nominal wages and prices may mean that there is excessive volatility in employment in response to swings in the level of domestic demand.

⁴See also Blanchard and Milesi-Ferretti (2010, 2011).

⁵See also Mabin (2011) for an analysis of how the exchange rate affects traded-sector production in New Zealand.

During a phase of trade deficits, the high level of domestic spending will drive up output and employment in the nontraded sector. However, once the trade balance swings into surplus, the lower level of domestic demand will map into employment reductions if there is insufficient downward flexibility in nominal wages and prices.

In terms of mechanisms, a high level of net capital inflows can induce real exchange rate appreciation through the expansion in domestic demand for nontradables and domestic goods. In turn, a strong real exchange rate is associated with a reduction in the profitability of exporters and a contraction in the relative size of the traded sector. Figure 6 charts the real exchange rate for New Zealand. It shows very substantial real appreciation between 2002 and 2008, albeit with some partial reversal during the crisis.

In addition, a large outstanding stock of net liabilities can drive up the real interest rate for several reasons. First, the expectation of future real exchange rate depreciation requires a higher domestic real interest rate relative to foreign real interest rates. Second, greater rollover risk and default risk means that the risk premium is increasing in the level of net external debt. Similarly, a large current account deficit should be associated with a higher monetary policy rate to the extent that a current account deficit is associated with greater domestic demand pressures which pose a threat to price stability.

Figure 7 shows a scatter plot of the average long-term real interest rate against the net external debt liability position for a sample of OECD countries over 2002-2009.⁶ The cross-sectional correlation is significantly negative, with highly-indebted countries such as New Zealand displaying substantially higher real interest rates than countries with more positive external positions.⁷

In relation to crisis risk, Blanchard (2007) also highlights that high net inflows may increase the risk of a sudden stop and the attendant risk of financial distress. The empirical literature shows that sudden stop are typically associated with significant output recessions and large drops in domestic demand. Most recently, as is documented in Lane and Milesi-Ferretti (2011a, 2011b), the incidence of the 2008-2009 global financial crisis (which featured a sharp reduction in cross-border capital flows) was most severe in those countries with the

⁶This graph uses net external debt, since the net external equity position may be less directly problematic. Empirically, the interest rate is more correlated with net external debt than with the overall net foreign asset position.

⁷See also Labuschagne and Vowles (2010) and Rose (2010) on the determinants of the real interest rate in New Zealand.

largest external imbalances during the pre-crisis period.

In terms of the New Zealand situation, Section 2 highlighted the high debt component in its external liabilities. A high debt-equity ratio in the structure of external liabilities increases the risks embedded in the external balance sheet. Equity liabilities do not offer a fixed return and the foreign equity investor will receive a time-varying payoff, depending on the performance of the underlying asset. In contrast, debt liabilities carry fixed obligations in terms of interest and principal repayments. Moreover, the fixed maturity of most debt instruments means that these involve rollover risk, which increases the fragility of the external position.

For many countries, external debts are denominated in foreign currencies, such that a high level of external debt also leaves the country exposed to currency movements. In particular, unexpected depreciation of the home currency raises the real value of foreign-currency external debts and the adverse impact on balance sheets can generate macroeconomic and financial-sector problems.

Moreover, these macroeconomic risk factors are not internalised by individual firms and households, such that policy interventions may be required to address such distortions. There is a large literature that provides models of external overborrowing by private-sector entities, due to the externality effect by which individually-rational behaviour aggregates into excessive levels of external debt due to these type of externalities (Korinek 2010 provides one recent example).

Given these possible distortions, New Zealand has taken several important steps to mitigate external risks. First, it seems that New Zealand borrowers hedge much of the foreign-currency risk associated with external debt.⁸ These hedges involve cross-border risk transfers, since the main counterparties are foreign banks. So long as these hedging opportunities are available at a reasonable price, this cross-border currency risk transfer strategy certainly reduces the risk relative to a similar non-hedged level of foreign-currency debt.

However, even if existing debts are hedged, New Zealand still remains exposed to a shift in debt market sentiment that may limit the rollover of existing debt and the availability of new debt flows. Moreover, the ongoing availability of reasonably-priced currency hedges cannot be guaranteed. In particular, if market expectations of future currency depreciation become sufficiently strong, it will become more expensive to obtain protection against

⁸According to Statistics New Zealand, over 90 percent of the external debt is hedged.

downward currency movements. Alternatively, shifts in the global financial sector may reduce the risk tolerance of those institutions currently offering such insurance-type products. Similarly, adverse financial shocks elsewhere in the global system might induce these institutions to pull back from the New Zealand currency hedge market, through the operation of international financial multiplier effects (Krugman 2008, Devereux and Yetman 2010, Dedola and Lombardo 2011).

Similar arguments apply in relation to ownership structure of the New Zealand banking system. The dominant ownership share of Australian banks in the New Zealand system provides important risk-sharing benefits. In particular, in the event of sizeable banking-sector losses, the equity capital provided by the Australian parent banks provides an important buffer and limits the exposure of New Zealand taxpayers. Moreover, concerns about reputational capital mean that parent banks might be more likely to maintain lines of credit to their New Zealand affiliates than would other international creditors.

However, foreign-owned banks also involve some important risk exposures. First, if the parent banks suffered losses in their home markets or elsewhere and/or experienced tighter conditions in funding markets, these negative shocks might impel the parent banks to withdraw capital from overseas operations and limit their capacity to provide funding to New Zealand affiliates. This is of particular concern in view of the common risks facing the Australian and New Zealand economies, such that any financial shocks in Australia might occur at the same time as similar shocks in New Zealand.

Finally, much of the external debt is intermediated through the banking system. These liabilities fund domestic loans. Accordingly, a possible trigger for an external funding crisis would be the emergence of significant loan losses and/or a decline in the quality of the collateral backing these loans. In terms of domestic risk factors facing the banking system, the elevated level of property prices (housing and farms) is a particular concern (see also Andre 2011). Table 9 shows that property prices have declined considerably over 2008-2010 in many countries that ran large current account deficits during the pre-crisis period, even if the adjustment in New Zealand has been very limited so far.

4 Policy Issues

How should the design of New Zealand's policy framework be further adapted to manage these external risks? It is possible to consider four dimensions of macroeconomic policy:

(a) monetary policy; (b) macro-prudential financial regulation; (c) structural economic policies; and (d) fiscal policy.

4.1 Monetary Policy

In relation to monetary policy, the Reserve Bank has several tools at its disposal. Its primary policy instrument is the interest rate. In addition, for a given interest rate path, it may conduct sterilised interventions to temporarily influence the exchange rate. In the event of a financial crisis, it also has an important role in preserving financial stability through its liquidity policies vis-a-vis the banking system and non-orthodox policies such as quantitative easing or asset purchases. This may even extend to the management of foreign-currency liquidity problems through the arrangement of currency swap agreements with other central banks.

In terms of interest rate policy, it is not clear that there is strong case for a preventive role in managing the risk of financial imbalances in the case of a country like New Zealand. In essence, the magnitude of interest rate increases that would be necessary to kill off growth in financial risks would have a predictably large negative impact on output and unemployment while having only an uncertain impact on financial variables (Assenmacher-Wesche and Gerlach 2010, Doyle et al 2011). The strongest argument in favour of modifying interest rate policy to guard against financial imbalances is that a prolonged period of very low interest rates may encourage excessive risk taking (Rajan 2010). However, that concern is not relevant for New Zealand, which has average interest rates substantially higher than most other advanced economies.

Rather, it is appropriate to maintain the inflation-targeting framework in setting interest rates. Importantly, in the event of an incipient financial crisis, this does not prevent the Reserve Bank from adopting an aggressive monetary policy, since an unchecked financial crisis entails significant downside risks for inflation and output.

In relation to sterilized intervention in the currency market, this can play a role in restoring stability if short-term speculative pressures have pushed the currency to an excessively-strong or excessively-weak value, by interrupting self-feeding momentum dynamics (Sarno and Taylor 2001). However, currency intervention has no influence over the medium-term trend for the exchange rate, such that the impact of persistent external imbalances cannot be undone through this type of policy.

Still, in the event of a financial crisis, the Reserve Bank has an extensive tool kit at its disposal. In addition to aggressive conventional monetary policy, it may provide special local-currency liquidity facilities to the banking system and, by arrangement with foreign central banks, also resolve foreign-currency liquidity problems.⁹ It can also draw on the lessons from other countries in terms of the potential value of non-orthodox policies such as asset purchase schemes and quantitative easing.

4.2 Macro-Prudential Financial Regulation

A primary instrument for tackling some of the risks associated with excessive capital inflows is the macro-prudential regulation of the financial sector. Since the banking system is in many cases the main intermediary of foreign capital flows, a regulatory regime that successfully manages macro-prudential risk should address concerns about the vulnerabilities embedded in the international balance sheet.

In particular, a basic financial-system risk is that an external deficit may fuel a domestic credit boom and thereby raise the probability of a banking crisis. This risk can be mitigated by suitable regulatory interventions by the domestic regulator to guard against excessive credit growth, rather than necessarily directly targeting cross-border flows.¹⁰ There are scenarios under which capital controls may also play a part in financial stabilisation (Ostry et al 2010). However, the primary role of capital controls is in relation to surges in short-term capital flows rather than the type of persistent deficits that has characterised the New Zealand experience. Finally, macro-prudential regulation may place an extra risk weighting on foreign-currency debt, regardless of whether the counterparties are foreign or domestic.

Moreover, financial regulation on its own is not sufficient to tackle external imbalances, since corporations, the government and households may also accrue external liabilities directly. Indeed, over-regulation of the domestic financial sector increases the incentives to directly tap sources of foreign capital, via overseas banks, the international bond market and the issue of equity-type liabilities to foreign investors.

⁹The current European crisis underlines the importance of ensuring that the Reserve Bank only provides liquidity support to solvent banks.

¹⁰Ha and Hodgetts (2011) evaluate the role of macro-prudential policy instruments in the New Zealand context.

4.3 Structural Policies

In terms of structural economic policies, there are several sets of issues. First, the sustainability of the external position is the greater, the better is the medium-term trend for economic growth. Accordingly, a given level of external liabilities is less risky, the brighter are the growth prospects for the economy. This provides additional motivation for the government to pursue structural policies that are targeted at improving growth potential. However, since the government already faces strong incentives to implement such policies (since the domestic population is the main beneficiary of pro-growth policies), the additional motivation provided by external stabilisation may be marginal.

Second, in the event of a sudden stop in net capital flows, the resilience of the New Zealand economy in coping with such an adverse shock is improved by having a flexible labour market to facilitate adjustment in real wage levels. In addition, a stable and developed financial system can help domestic firms and households to absorb such shocks.¹¹ Adjustment is further facilitated by a legal system that can efficiently resolve debt overhang problems at the levels of corporates and individuals. Finally, a well-organised resolution regime for failing financial institutions is necessary to avoid excessive costs from financial distress.

It is important to appreciate that the presence of such shock absorbers not only mitigates the impact of a negative shock but also reduces the probability of a shock. In particular, speculative dynamics may turn on projections concerning the perceived fragility of an economy in handling a reversal of capital inflows. If an economy lacks shock absorbers, there is a stronger likelihood that a negative shock may be transformed into a full-blown crisis. In turn, this induces investors to set a lower trigger point at which funding is pulled from the country in question.

As with pro-growth policies, the government should already have strong incentives to establish a robust set of shock absorbers to deal with domestic shocks. Again, the importance of resilience in the face of external financial shocks provides additional motivation to implement such policies, to the extent that the existing institutional environment is incomplete or inadequate.

However, there are some structural policies that are especially important in relation

¹¹One attribute is the capacity of solvent entities to borrow to smooth out temporary income shocks. However, financial policies may also be designed to encourage individuals to maintain a buffer stock of liquid assets to cope with “rainy day” events.

to the international balance sheet. First, Section 2 highlighted the relatively low levels of equity-type instruments in New Zealand’s external liabilities. Financial development policies that improve the attractiveness of New Zealand as a destination for equity investments can help to reduce the riskiness of the external position (Lane and Milesi-Ferretti 2008). Second, its reliance on foreign-currency debt means that New Zealand’s international financial diplomacy should be targeted at ensuring the availability of foreign currency swaps and/or foreign-currency credit lines in the event of a crisis. Third, the sustainability of the external position is improved by export-enhancing policies, such as trade facilitation programmes that lower the costs of exporting and improve the capacity of non-exporters to switch to exporting (Galstyan and Lane 2008).¹² Finally, to the extent that the external deficit in part reflects low private-sector saving in New Zealand, well-designed pro-savings policies may also be helpful.¹³

4.4 Fiscal Policy

Turning to the design and conduct of fiscal policy, it has several potential roles in managing external imbalances. First, fiscal policy can target the external account in order to avoid the emergence of excessive imbalances. Second, if the existing external position is deemed to be non-optimal, fiscal interventions can facilitate the external adjustment process to return the external account to a sustainable level. Third, in the event of a crisis in the external account, fiscal policy can play a central role in crisis management.

4.4.1 Fiscal Policy and the Targeting of External Imbalances

In terms of pre-emptively limiting external imbalances, fiscal policy can operate through several mechanisms. In the standard intertemporal model of the current account, a temporary decline in government spending improves the current account balance, since households do not one-for-one increase private spending in response to a temporary decline in public spending (Sachs 1982, Obstfeld and Rogoff 1995). A similar pattern holds in the baseline “new open economy macroeconomics” model (Obstfeld and Rogoff 1996). A temporary decline in government consumption reduces domestic demand, improving the external balance and depreciation of the real exchange rate.

¹²See also Fabling et al (2009) on the determinants of exporting choices by New Zealand firms.

¹³In relation to New Zealand, see the final report of the Savings Working Group (2011).

In contrast, a permanent decline in government consumption has no impact on the current account in the standard intertemporal model. Moreover, it generates a current account deficit in the baseline “new open economy macroeconomics” model, since the long-term budget constraint means that households upwardly adjust private consumption. However, the impact of permanent shifts in government spending more closely resemble the results for temporary shocks once frictions are introduced into the dynamics of private consumption, due to the role of habits in preferences or some related mechanism.

Blanchard (2007) shows how the timing of government spending on nontradables and tradables may be optimally manipulated to limit the distortions induced by current account imbalances. However, an important message from his analysis is that the fiscal intervention may not necessarily alter the scale of the current account position - rather, the policy focus should be on mitigating the associated distortions. For instance, if there is a temporary surge in domestic consumption, rigidities in prices and wages may lead to an excessive increase in employment in the nontraded sector: this can be offset by a reduction in government spending on nontradables, even if this intervention has no impact on the current account deficit.

Indeed, Blanchard shows that in some cases the optimal fiscal response may actually result in a larger current account deficit. Under conditions in which financial constraints mean that it is damaging to tolerate a contraction in traded-sector output, the optimal policy to a temporary increase in domestic consumption is to reduce government purchases of nontradables and increase government purchases of tradables. This stems the contraction of the tradables sector but does lead to an enlarged current account deficit.

The empirical evidence for an eleven-member panel of EMU countries provided by Benetrix and Lane (2009) is that a reduction in government spending is associated with a reduction in the relative size of the nontraded sector and an improvement in the trade balance. Similar results for the trade balance are also reported by Lane and Perotti (1998) and Beetsma et al (2008).¹⁴

However, if the main distortionary impact of a current account deficit relates to the

¹⁴Corsetti and Muller (2006) provide further empirical analysis of the relation between fiscal policy and the external account for a four-country sample (US, UK, Canada, Australia). However, it is difficult to establish the impact of fiscal policy for these countries, in view of exogenous sources of currency fluctuations. In contrast, country-level exchange rates are “held fixed” for members of EMU, providing a cleaner environment for the empirical analysis of fiscal policy.

enhanced risk of a sudden stop, the optimal fiscal policy indeed involves a reduction in the current account deficit. There is no direct co-movement between the fiscal balance and the external balance under Ricardian Equivalence conditions. However, if the conditions required for Ricardian Equivalence do not hold, a reduction in public debt may be associated with an reduction in external debt.

For instance, Ganelli (2005) and Kumhof and Laxton (2009) provide models in which households have finite horizons, such that a debt-reducing tax increase reduces the wealth of currently-alive cohorts, reducing consumption and generating a current account surplus. Furthermore, Corsetti and Muller (2006) show that the addition of an investment channel reinforces the pass through from a fiscal surplus to an external surplus in the case of persistent surpluses, especially for more open economies.

Kumhof and Laxton (2009) also show qualitatively-similar results apply in relation to a temporary decline in the fiscal deficit even in an infinite-horizon framework if some proportion of households are credit constrained. Under these conditions, a debt-reducing tax increase reduces the current consumption of credit-constrained or hand-to-mouth consumers, leading to a current account surplus.¹⁵

In relation to the connection between public debt and the net foreign asset position is provided by Lane and Milesi-Ferretti (2002). These authors model the long-run evolution of the net foreign asset position as a function of relative output per capita, relative demographic profiles and relative levels of public debt. For a panel of advanced economies, there is a significant association between public debt and the net external debt but the pass through is limited at around 0.11. In contrast, the pass through is much stronger for a panel of developing countries with a coefficient of about 0.66. The more powerful effect in the latter group is in line with theories that emphasise the role of credit constraints in explaining deviations from the Ricardian Equivalence benchmark, in view of the more limited level of financial development in the less-advanced economies.

Lane and Milesi-Ferretti (2011b) provide further evidence of a robust comovement pattern between the fiscal balance and the current account balance. That study provides cross-country panel fixed-effects estimates of the determinants of medium-term current

¹⁵These authors also show that the impact of a permanent reduction in public debt differs across the two approaches. In the finite-horizon model, the long-run stock of net external liabilities declines. In contrast, the reduced savings of non-constrained households fully offsets increased government savings in the long-run in the infinite-horizon model.

account balances over 1969-2008 with a partial coefficient of 0.24 on the fiscal balance.

In terms of the government's financial strategy, there is a risk that the occurrence of a financial crisis may compromise a government's ability to borrow. Beyond setting a prudentially-low target level for the public debt, an alternative approach is to divert some revenues into a dedicated rainy-day fund that would be invested in liquid assets. In turn, such liquidity may prove useful in dealing with the fallout from a banking crisis and/or reduce the risk of a funding crisis by providing assurance to investors.¹⁶ Recent proposals to tax bank profits in order to accumulate an insurance fund are similar in terms of objectives.

In relation to the feasibility of targeting the external account, the persistent nature of current account positions (at least in recent years) means that timing lags do not provide a prohibitive objection. A basic problem is in identifying the episodes in which policy intervention may be warranted, since it is unlikely that a simple rules-based approach can properly differentiate between "desirable" and "undesirable" levels of net capital inflows.

To this end, the current generation of models of equilibrium current account balances and equilibrium real exchange rates provide only a very broad and imprecise guide to the sustainability of a given external balance.¹⁷ However, the main risks are associated with large external deficits and it may be possible to establish threshold indicators, such that fiscal policy responds in a non-linear fashion to the emergence of deficits that enter a "danger zone."

4.4.2 Fiscal Policy and External Adjustment

Regardless of the source of the external imbalance, fiscal policy may have a role to play in facilitating external adjustment. In this section, we first address the role of fiscal policy in contributing to shifts in the real exchange rate and the trade balance.

In order to combine external adjustment with the maintenance of full employment, an economy must re-allocate labour from the nontraded sector to the traded sector. In related fashion, the expansion of the traded sector is facilitated by depreciation of the real exchange rate, which improves the competitiveness of export-orientated and import-competing firms and improves the relative profitability of the traded sector relative to the nontraded sector.

¹⁶Along these lines, Lane (1998) advocated the establishment of a rainy-day fund upon Ireland's entry into EMU in order to provide some pre-funding in the event of a subsequent banking crisis. See also Lane (2011) on the role of the government's reserve fund in managing the Irish banking crisis.

¹⁷The state of the art is represented by Ricci et al (2008).

In addition to currency depreciation, sectoral reallocation can also be facilitated by fiscal policy, along the lines described in the previous subsection. To the extent that government spending is concentrated on nontraded goods, a contraction in public expenditure may be associated with a decline in the relative price of nontradables and a real depreciation. As an example, government wage consumption is a major component in public spending: the government is a major employer and a decline in its demand for labour relieves pressure on the domestic labour market. In turn, this increases the supply of labour to the traded sector and puts downward pressure on wage levels. A similar mechanism applies to government purchases of consumption and investment goods from the domestic private sector.

In this regard, it is noteworthy that the empirical evidence indicates a robust relation between government spending and the real exchange rate. At medium- and long-term horizons, the cointegration analysis of Ricci et al (2008) and Galstyan and Lane (2009) shows that a sustained decline in government consumption (relative to trading partners) is associated with real depreciation.¹⁸ A similar result is obtained in annual data by Lane and Perotti (2003). Furthermore, the evidence for Europe from VAR analyses is that a discretionary negative shock to government spending is associated with real depreciation (Beetsma et al 2008, Benetrix and Lane 2009).¹⁹ ²⁰ Finally, Benetrix and Lane (2009) shows that the impact of government spending on the real exchange rate varies across different expenditure categories, such that the composition of spending matters in assessing the sensitivity of the real exchange rate to a fiscal shock.

Taken together, these studies are suggestive that shifts in the level of government spending can contribute to the external adjustment process by influencing the path for the real

¹⁸Galstyan and Lane (2009a, 2009b) also consider the long-run relation between public investment and the real exchange rate. Since a higher stock of public capital may affect productivity in the traded and nontraded sectors, its impact on the real exchange rate is ambiguous. In the data, there is little robust evidence of a strong link between public investment and the real exchange rate.

¹⁹Beetsma et al (2008) consider an EU14 sample, whereas Benetrix and Lane (2009a) provide evidence for an EMU11 group (the founding members of EMU, with the exception of Luxembourg) and Benetrix and Lane (2009b) report results from a country study for Ireland.

²⁰It is striking that some studies (Monacelli and Perotti 2009, Ravn et al 2009) find the opposite pattern (a decline in government spending being associated with real appreciation) for a sample consisting of the United States, United Kingdom, Canada and Australia. However, Benetrix and Lane (2009b) argue that likely reflects a data pattern for this group of floating-currency countries by which the same type of economic news that induces a government to engage in fiscal expansion also leads to a sell off in the currency market.

exchange rate. Consistent with this pattern, the VAR evidence for Europe provided by Benetrix and Lane (2010) is that a relative decline in government spending is associated with a relative contraction in the size of the nontraded sector and an improvement in the trade balance. Similar results for the trade balance are also reported by Lane and Perotti (1998) and Beetsma et al (2008).

Turning to the financing of the fiscal position, the evidence in the previous section was that, all else being equal, an improvement in the fiscal balance should be associated with a partial improvement in the external balance. Accordingly, a government may also facilitate external adjustment via an improvement in the fiscal balance.

However, the conditions under which an improvement in net exports is required are also often associated with a slump in domestic demand. Under such circumstances, policymakers may face a conflict between the pursuit of external competitiveness and the maintenance of domestic demand. However, a combination of fiscal tightening and monetary expansion can help achieve both internal and external balance, since a loosening in monetary conditions further facilitates external adjustment through currency depreciation.

In addition to the macroeconomic dimensions of fiscal policy, there may also be a role for specific microeconomic interventions in aiding external adjustment. For instance, a reduction in employment taxes contributes to real depreciation by lowering the cost of domestic labour (Calmfors 2003). A further type of microeconomic intervention is to alter the timing of consumption decisions through subsidies to saving schemes, which mimics the impact of a shift in the interest rate.²¹ While such interventions may be hard to implement in relation to minor and transitory imbalances, these may be worth pursuing in tackling larger-scale and persistent deficits.

4.4.3 Fiscal Policy and Crisis Management

In the event of an external adjustment problem that is coupled with a financial crisis, the public balance sheet may be transformed by rescue operations that act to transfer assets and liabilities from the private sector to the government or to increase the contingent liabilities of the government through the provision of guarantees and insurance to private entities

²¹A cyclically-focused scheme would specify a subsidy schedule that was conditioned on cyclical indicators.

(see also Lane 2010, 2011).²² This may be the result of a publicly-financed restructuring of the balance sheets of the banking system, the corporate sector and/or the household sector. In some cases, the costs of such bailouts may feed directly into the fiscal balance; in others, the main costs may remain “off balance sheet.” Under either scenario, the impact on the public balance sheet may affect funding costs for the government and affect choices over public spending and taxation.

In relation to the external position, the assumption of foreign liabilities by the government typically reduces the expected losses to foreign creditors on distressed debt.²³ The long-term horizon of the government means that it may be better able to withstand short-term declines in the market value of assets, although at the cost of increased direct risk to the taxpayer if the ultimate return on these assets fail to meet expectations.

If external liabilities are mainly denominated in foreign currency, the government takes on substantial currency risk if it acquires foreign liabilities from the private sector. This risk can be mitigated by holding foreign-currency liquid assets (whether reserves or in a sovereign rainy-day fund).

4.4.4 Effectiveness of Fiscal Policy

In order for fiscal policy to be helpful in external adjustment or as a preventive measure to forestall unsustainable imbalances, it must be the case that fiscal policy can be effectively deployed. In this regard, there are several concerns.

First, if fiscal policy is to be effective as a stabilisation instrument, the long-term fiscal position must be clearly sustainable. Otherwise, interventions that raise the fiscal deficit may lead to concerns among investors and taxpayers, with an attendant increase in funding risk and the size of the risk premium. This is especially important for countries with substantial external liabilities, such that the “safe” public debt ratio is lower for such countries.

As is shown in Figure 5 and Table 8, New Zealand successfully attained a comparatively

²²See Honohan and Klingbiel (2003) and Honohan (2008) on the factors that determine the fiscal cost of a banking crisis. These studies highlight that the fiscal cost vary widely, depending on the policy choices made by the government.

²³In some cases, the government may also acquire foreign assets. Examples include the nationalisation of a bank with international operations and the establishment of an asset management agency that acquires non-performing (domestic and foreign) loans from the domestic banking system.

low public debt ratio prior to the crisis, bringing the public debt ratio from its 1987 peak of 75.5 percent of GDP to 20.7 percent of GDP in 2008. This allowed it to engage in fiscal expansion during the crisis period without raising concerns about fiscal sustainability. However, the debt ratio has climbed to 31.1 percent of GDP in 2010, such that there is medium-term need to return the public debt ratio to a prudently-low target level.

Reinhart and Rogoff (2009) have shown that public debt ratios can rapidly climb in the wake of a financial crisis. Moreover, the current European fiscal crisis also demonstrates this pattern (Lane 2011). Accordingly, the lesson is that the appropriate target public debt ratio may have downwardly shifted in the wake of the global crisis (Lane 2010).

Second, an important potential limitation is whether fiscal interventions can be timed correctly. Decision lags and implementation lags mean that fiscal policy is not suitable for the management of transitory shocks. However, these concerns are much less relevant in the case of chronic risk factors such as persistently-large current account deficits or a high outstanding stock of external liabilities which call for medium-term fiscal interventions.

Third, various political distortions may act against a stabilising role for fiscal policy. There is considerable evidence that the discretionary component of fiscal policy is procyclical in many countries (see, amongst others, Lane 1998a, 2003 and Alesina et al 2008). If fiscal policy is not stabilising vis-a-vis the domestic business cycle, it may be similarly difficult to implement fiscal measures that seek to “lean against the wind” vis-a-vis the external account.

This pattern raises doubts about whether fiscal policy could indeed be employed to “lean against the wind” in relation to the direction of net capital flows. Furthermore, there is a non-trivial risk of a de-stabilising fiscal response, since inward capital flows may generate a windfall in tax revenues due to upward pressure on domestic asset prices and an increased level of transactions in domestic asset markets. If the political system fails to save these windfall revenues, an increase in government spending or a reduction in taxes may further amplify the shock to the domestic economy.

The importance of asset prices and wealth shocks for tax revenues has been documented for a panel of countries by Eschenbach and Schuknecht (2004). In the Irish case, Addison-Smyth and McQuinn (2009) calculate a substantial tax windfall from the 2002-2007 housing boom in Ireland that was fuelled by capital inflows. More broadly, Benetrix and Lane (2011) show for a large panel of countries that current account deficits place negative pressure on fiscal balances, with public spending growing more quickly than tax revenues.

Finally, Parkyn (2010) shows how asset price and terms of trade shocks affect the cyclical behaviour of fiscal balances in New Zealand.

Fourth, stabilisation of the external account may not receive a large weight in the objective function of policymakers. There are many competing pressures on the allocation of fiscal resources and the determination of overall spending and taxation levels, such that it may be difficult to push fiscal policy in the direction required for external stabilisation.

4.4.5 A Formal Fiscal Framework

Taken together, these considerations reinforce the importance of a well-designed institutional framework for the conduct of fiscal policy.²⁴ Such a framework has two main macroeconomic components: (i) a set of numerical fiscal rules; and (ii) a monitoring role for an independent fiscal council.

The over-riding principle in designing fiscal rules should be to preserve medium-term fiscal sustainability by ensuring that the level of public debt converges on a “safe” low steady-state level and is maintained at the level over the medium term. In addition, fiscal policy can be insulated from pro-cyclical pressures by a set of rules that require the government to achieve a target for the structural balance over the cycle. A through-the-cycle target provides the flexibility to address major recessions or (in the other direction) overheating episodes, which may require extra fiscal measures beyond the automatic stabilisers that are part of the passive cyclical component of the budget.

Fiscal rules are more effective if the setting of fiscal policy incorporates a role for an independent fiscal council that can monitor compliance with the rules. Furthermore, an independent fiscal council can make other contributions. First, such a council can play a role in identifying the cyclical state of the economy and the distribution of macroeconomic risk factors. Second, given the macroeconomic environment, it could make recommendations concerning the overall budgetary stance that would be consistent with medium-term fiscal sustainability. Third, it could make an ex-post evaluation of the conduct of fiscal policy over the preceding year.

However, Calmfors and Wren-Lewis (2011) warn that an independent fiscal council is only sustainable and effective if its role is fully supported by the political system. Otherwise, a government may be tempted to neutralise an independent council (for instance by

²⁴For an extensive analysis that focuses on the New Zealand situation, see Brook (2011).

reducing its budget or replacing its staff) if it dislikes the fiscal opinions that it provides. In addition, the effectiveness of such an independent agency depends on the clarity of its mandate and its capacity to act in an autonomous fashion.

Taken together, these considerations reinforce the importance of a well-designed institutional framework for the conduct of fiscal policy. While the literature on independent fiscal councils has largely focused on output stabilisation, such a council could also assess the appropriate fiscal stance in guarding against risks that may be embedded in the financial system and in the external position (Lane 2010, 2011).

In relation to financial stability, Levine (2011) and Barth et al (2012) advocate a similar-type independent council for the evaluation of financial regulation. Such an agency would be independent of both the political system and financial markets, with its sole responsibility being to provide a critical assessment of financial-sector policies. To be effective, it would have to have the power to obtain any information necessary for evaluating the state of financial regulation.

Accordingly, a dual set of independent agencies to provide rigorous monitoring of fiscal policy and financial regulation may have the potential to help deliver superior policy outcomes. At least for smaller economies where the available expertise is quite limited, an open question is whether these different roles might be successfully performed by a combined, single independent council.

5 Conclusions

This paper has emphasised that New Zealand's external imbalances should influence the design and conduct of its macroeconomic policies. In terms of growth performance, excessive external deficits limit the size of the tradables sector and thereby constrains productivity growth. In terms of stability, a large stock of external liabilities leaves New Zealand exposed to disruptive financial shocks. Although it is hard to attach a probability to these shocks, a prudential approach to policymaking requires putting substantial weight on low-probability but high-impact scenarios.

In terms of policy design, we have highlighted that several dimensions of macroeconomic policy can help to mitigate the negative impact of excessive external deficits. However, our primary emphasis has been on role of fiscal policy in managing these risks. In particular, we have argued that the external risks call for a low medium-target for the public debt

ratio, an activist fiscal approach to limiting the scale of net capital inflows and the use of fiscal instruments to facilitate external adjustment.

Finally, we have argued that the adoption of a formal fiscal framework can also help in managing external risks. An institutional commitment to maintaining a low target public debt and running a counter-cyclical fiscal policy provides reassurance to international investors, while an independent fiscal council can add credibility by monitoring compliance with numerical fiscal rules and providing an independent assessment of the evolving external and domestic macroeconomics risks facing New Zealand.

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Table 1: Evolution of Net Foreign Asset Positions

	2002	2007	2010
New Zealand	-84	-87	-87
Euro Periphery	-48	-77	-101
Emerging Latin America	-47	-24	-21
Emerging Asia	-15	0	16
Emerging Europe	-35	-65	-73

Note: Net foreign asset positions, based on updated version of Lane and Milesi-Ferretti (2007).

Table 2: Major International Debtors, 2009

	NFA/GDP
Hungary	-128
Portugal	-120
Bulgaria	-109
Ireland	-102
New Zealand	-97
Spain	-95
Greece	-89
Latvia	-87
Estonia	-84
Slovak Republic	-73

Note: Net foreign asset positions, based on updated version of Lane and Milesi-Ferretti (2007).

Table 3: Net Foreign Debt and Net Foreign Equity Positions

	Net Debt			Net Equity		
	2002	2007	2010	2002	2007	2010
New Zealand	-55	-60	-63	-28	-27	-23
Euro Periphery	-39	-69	-91	-19	-26	-11
Emerging Latin America	-23	3	4	-24	-27	-25
Emerging Asia	0	27	36	-14	-27	-19
Emerging Europe	-2	-18	-25	-34	-47	-47

Note: This table reports net external debt (international debt assets plus foreign exchange reserves minus international debt liabilities) and net foreign equity (portfolio equity assets plus FDI assets minus sum of portfolio equity liabilities and FDI liabilities), expressed as percentages of GDP. Source: Updated version of dataset reported by Lane and Milesi-Ferretti (2007).

Table 4: Gross Foreign Debt and Official Reserve Assets

	Gross Debt			Foreign Exchange Reserves		
	2002	2007	2010	2002	2007	2010
New Zealand	91	91	96	8	13	12
Euro Periphery	184	315	367	6	0	1
Emerging Latin America	61	34	28	10	13	14
Emerging Asia	46	37	33	29	36	43
Emerging Europe	46	71	84	21	20	20

Note: This table reports gross external debt (international portfolio and other debt liabilities) and official reserve assets, expressed as percentages of GDP. Source: Updated version of dataset reported by Lane and Milesi-Ferretti (2007).

Table 5: International Balance Sheet

	2002	2007	2010
Assets			
Portfolio Equity	15	21	21
FDI	15	12	13
Official Reserves	8	13	12
Portfolio Debt	9	6	8
Other Debt	18	12	12
Liabilities			
Portfolio Equity	9	10	7
FDI	49	51	50
Portfolio Debt	46	45	46
Other Debt	44	47	50

Source: Updated version of dataset reported by Lane and Milesi-Ferretti (2007).

Table 6: International Financial Integration

	2002	2007	2009
New Zealand	227	227	253
Euro Periphery	593	927	1063
Emerging Latin America	142	126	133
Emerging Asia	133	182	192
Emerging Europe	132	214	244

Source: Updated version of dataset reported by Lane and Milesi-Ferretti (2007).

Table 7: Private Domestic Credit

	2002	2007	2009
New Zealand	109	140	153
Euro Periphery	99	149	181
Emerging Latin America	30	33	44
Emerging Asia	78	60	53
Emerging Europe	28	54	75

Note: This table reports private credit by deposit money banks and other financial institutions as a percentage of GDP. Source: Beck et al (2009).

Table 8: Government Debt Ratios

	2002	2007	2009
New Zealand	28	17	26
Euro Periphery	61	55	78
Emerging Latin America	75	46	44
Emerging Asia	47	38	42
Emerging Europe	32	25	35

Note: This table reports gross government debt as a percentage of GDP. Source: IMF.

Table 9: House Price Dynamics, 2008-2010

	2008-2010
New Zealand	-5.6
Australia	14.8
Estonia	-40.9
Spain	-12.5
Greece	-10.1
Hungary	4.0
Ireland	-33.7
Lithuania	-37.6
Latvia	-49.0
United States	-11.5

Note: Percentage change in residential property prices, 2007.12 to 2010.12. Source: BIS Property Price Index.



Figure 1: Current Account Ratio, 1970 to 2010. Source: IMF.

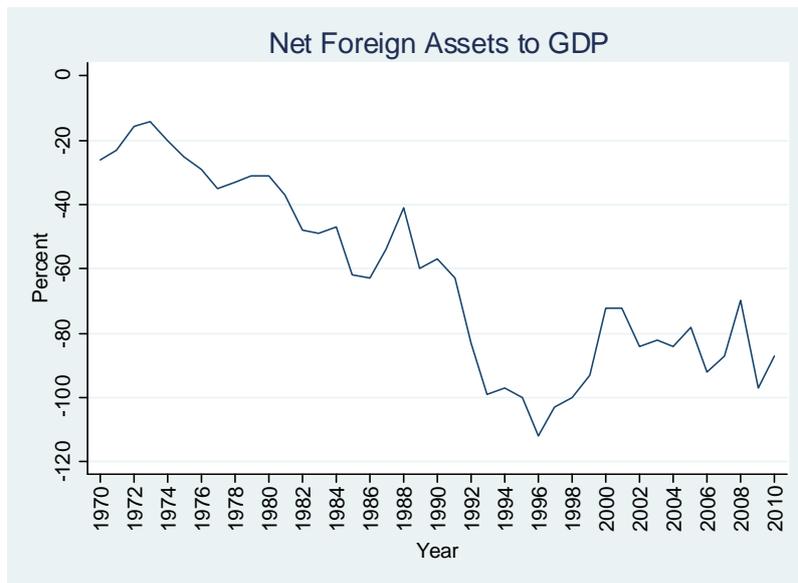


Figure 2: Net Foreign Asset Position. Note: Expressed as a ratio to GDP. Source: Update on dataset reported in Lane and Milesi-Ferretti (2007).

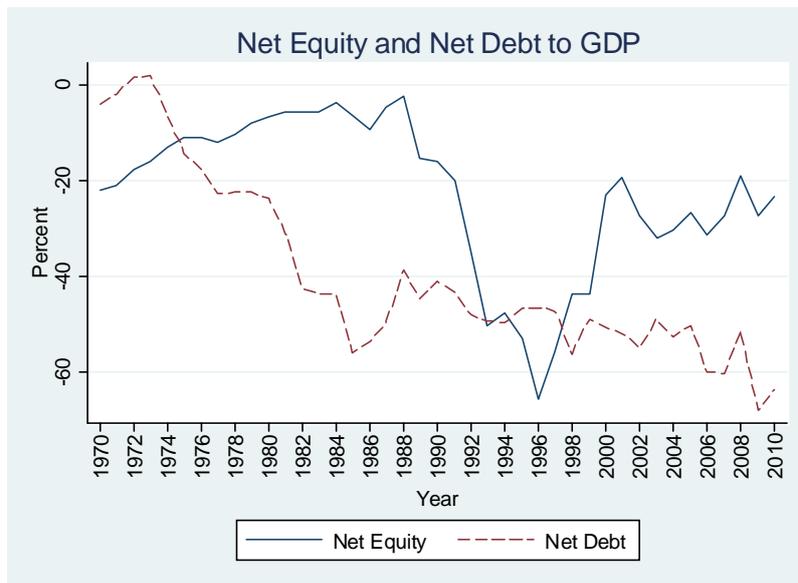


Figure 3: Net Foreign Equity and Net Foreign Debt Positions. Source: Update on dataset reported in Lane and Milesi-Ferretti (2007).

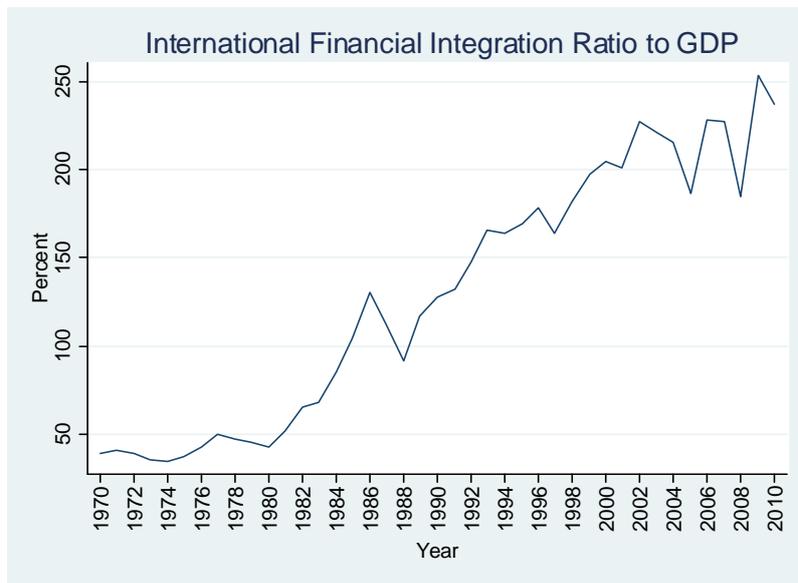


Figure 4: International Financial Integration Ratio. Source: Update on dataset reported in Lane and Milesi-Ferretti (2007).

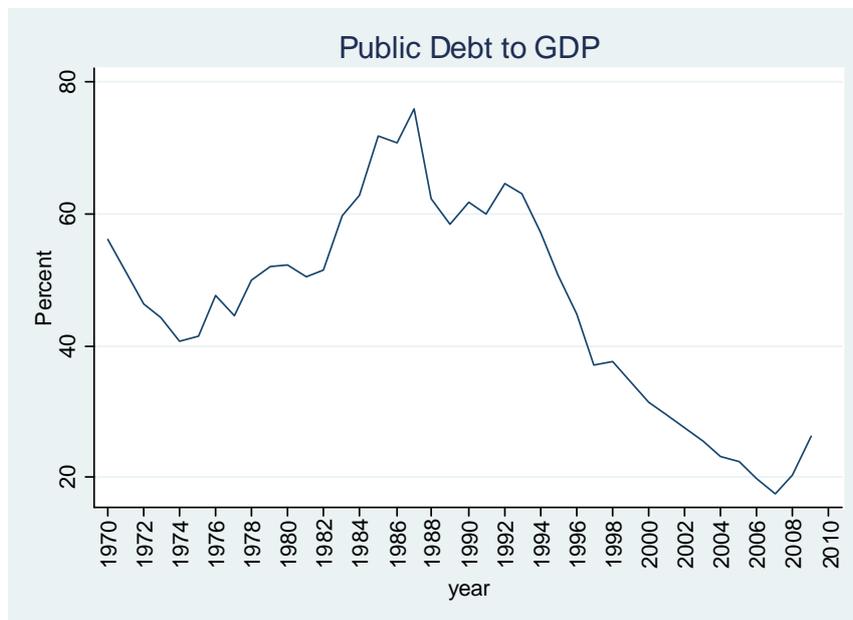


Figure 5: Public Debt, 1970 to 2009. Expressed as a ratio to GDP. Source: IMF.

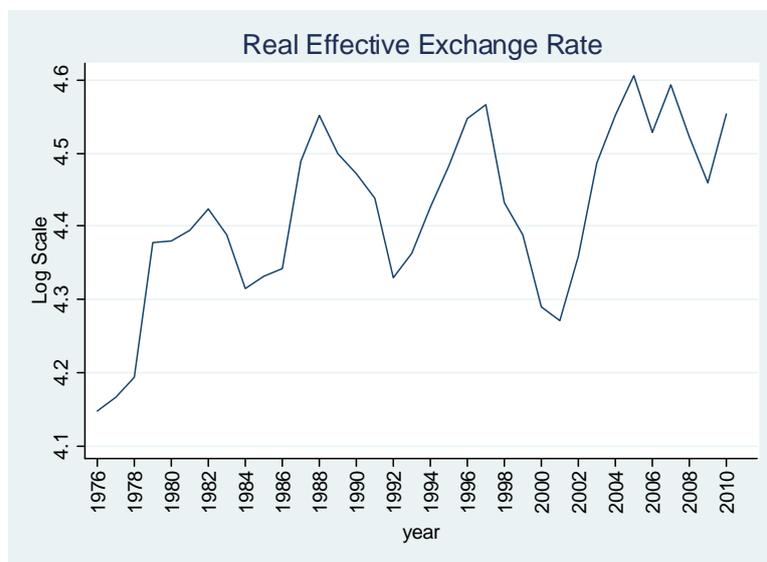


Figure 6: Real Exchange Rate, 1970 to 2010. Source: IMF. Log scale.

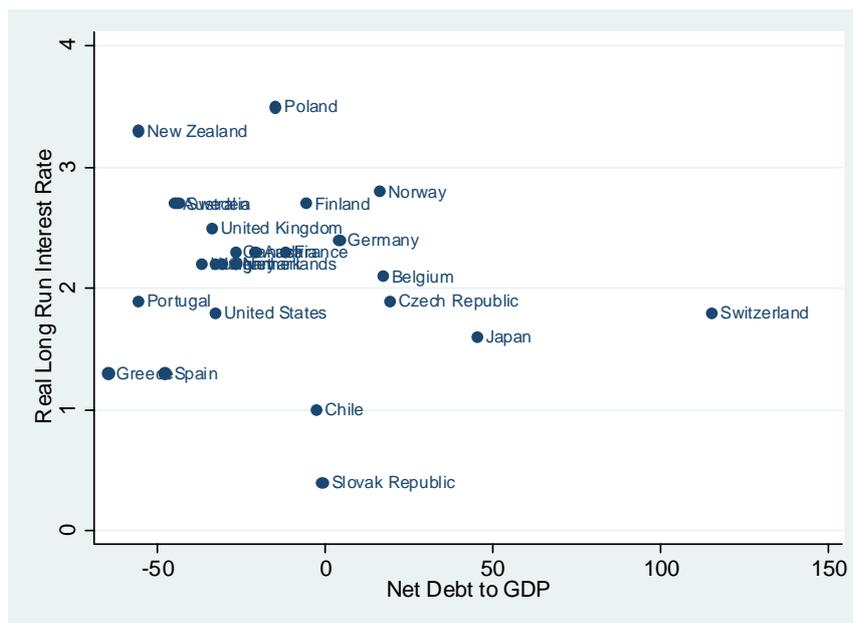


Figure 7: Scatter of Real Interest Rate Against Net External Debt. Source: OECD for interest rates and inflation. Source: Update on dataset reported in Lane and Milesi-Ferretti (2007).