A USER'S GUIDE TO DISCRETIONARY FISCAL POLICY

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EXECUTIVE SUMMARY

This paper asks whether discretionary fiscal policy can be used for stabilisation purposes, by examining the preconditions and design issues that must be addressed before measures are likely to generate value. The goal of discretionary fiscal policy for the purposes of this paper is to facilitate the maintenance of strong and sustainable economic growth. However, past attempts at 'fine-tuning' the economy with fiscal policy have been unsuccessful for sound theoretical and practical reasons. Before using discretionary fiscal policy, these theoretical and practical limitations need to be overcome by developing a sound rationale for fiscal adjustment.

The basic finding of this paper is that while such 'fine tuning' is a practical impossibility, there are circumstances in which it makes sense to use discretionary fiscal policy to overcome a downturn/overheating in activity, provided due attention is paid to design and implementation issues. These circumstances include: when the likelihood of a significant imbalance in the domestic economy is sufficiently large that discretionary fiscal policy will clearly provide a net economic benefit; when the imbalance stems from the demand side of the economy; when monetary policy alone is unable to achieve macroeconomic stability; and when policy options can reasonably be expected to provide large, timely impacts.

Whatever policy options are chosen should be tailored to suit the nature and size of imbalances in the domestic economy. Narrow and sector-based discretionary fiscal policy can be considered when a particular sector faces significant idle capacity or resource constraints, whereas broader-based discretionary measures may be more appropriate in the face of economy-wide excess capacity or overheating.

The paper's findings are illustrated by examining a number of case studies including the *First Home Owners' Scheme*, the *One Nation* investment package and the *One-Off Payment to the Aged.*

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INTRODUCTION

For a number of years, discretionary fiscal policy has been out of favour as a tool of stabilisation policy:

"There is now widespread agreement in the economics profession that deliberate 'countercyclical' discretionary fiscal policy has not contributed to economic stability and may have actually been destabilizing at particular times in the past".[1]

Indeed, calls for the use of fiscal policy have been met with objections regarding the impossibility of fine-tuning and the impotence of policy in the face of forward-looking taxpayers. However, weakness in the global economy at the beginning of the 2000s, combined with the failure of prolonged loose monetary policy settings in Japan and the United States to quickly spur a recovery, have seen fiscal policy re-emerge as a possible tool for macroeconomic stabilisation. Indeed, Japan, the United States and many euro-area countries have implemented significant fiscal stimulus following periods of low or negative economic growth. This re-emergence of fiscal activism and Australia's sound fiscal position means that it is again possible to implement discretionary fiscal measures in this country if and when they are deemed necessary. This paper aims to investigate the viability of such a strategy.

There are two broad ways in which fiscal policy can contribute to macroeconomic stability. The first is through the so-called 'automatic stabilisers' - those components of government expenditure and taxation which, by design, are linked directly with the economic cycle. These components help to flatten the economic cycle by altering the ratio of public expenditure and revenue to GDP without an explicit change in the government's fiscal policy.

The second way fiscal policy can impact on macroeconomic stability is through discretionary fiscal policy – deliberate (i.e. non-automatic) changes to expenditure or revenue in order to stimulate or dampen economic activity. This type of stabilisation driven discretionary fiscal activism, as opposed to discretionary fiscal action motivated

by other objectives (such as political, distribution or equity objectives), is a lever that, at least in theory, governments can access to smooth fluctuations in the business cycle. For this reason, discretionary fiscal policy and its effectiveness is the primary focus of this paper.

Essentially, the paper considers the circumstances under which discretionary fiscal policy could be valuable. Section 1 provides background on the use of fiscal policy as a stabilisation tool, including a brief history of the use of discretionary fiscal policy in Australia. Section 2 outlines some of the theory behind arguments for and against the use of discretionary fiscal policy for stabilisation purposes. Section 3 investigates some of the practical issues associated with discretionary fiscal policy, and provides a checklist of factors that should be taken into account when deciding when and how to implement such a strategy. Finally, in order to draw out the lessons of this discussion, Section 4 looks at some recent case studies where discretionary fiscal measures were adopted in Australia. The case studies used include the *First Home Owners' Scheme* introduced in July 2000, the *One Nation* investment package in the early-1990s and the *One-off Payment to the Aged* in 2001.

1. Fiscal Policy as a Stabilisation Tool

There are two main instruments of macroeconomic stabilisation – namely monetary policy and fiscal policy. Generally speaking, monetary policy takes a lead role in macroeconomic stabilisation (see Box 1 below). The literature on stabilisation policy reveals a general consensus that, in 'normal' circumstances, discretionary fiscal policy is less effective for demand management purposes when compared to monetary policy.[2] This is particularly the case for a small, open economy such as Australia. However, there are circumstances in which monetary policy might be a less effective stabilisation tool than fiscal policy.

[1] Feldstein (2002b).

[2] See, for example, Taylor (2000), Auerbach (2002), Comley *et al* (2002) and Feldstein (2002).

Box 1: Monetary Policy – The First Option

The general consensus from the literature is that monetary policy should be the first policy option when trying to achieve broader economic stabilisation for a developed, small, open economy.[3]

Monetary policy can be implemented relatively quickly when needed, compared with many forms of fiscal policy, although there is a significant lag between implementation and effect on the real economy. Similarly, in the situation where a policy mistake has been made, the decision can be reversed with little delay.

Monetary policy is generally a more effective instrument than fiscal policy for a small open economy. Whereas fiscal policy can be 'crowded out' via several different channels, including through market interest rates and exchange rates, these same variables tend to accommodate shifts in the stance of monetary policy. For example, the exchange rate response to a monetary policy easing is likely to be a depreciation, complimentary to the policy action. In contrast, the effect of a fiscal easing on the exchange rate is likely to be a currency appreciation, leading to crowding out of the fiscal stimulus. This is discussed further in Section 2.

Monetary policy also has the advantage of being directed solely at macroeconomic stabilisation, and as such is able to focus tightly on achieving this goal. This is in contrast with fiscal policy, which combines a number of aims including stabilisation, sustainability, efficiency and distribution. A necessary consequence of these multiple aims is that fiscal policy can at times be less flexible than monetary policy in its stabilisation role. The greater flexibility of monetary policy means it is usually more suitable as the primary tool for macroeconomic stabilisation, however fiscal policy is still able to compliment it in managing demand. In other words, when the stance of monetary policy is loose in order to stimulate a slowing economy, fiscal policy should not counteract that effect by being too tight.

[3] See, for example, Taylor (2000), Auerbach (2002) and Feldstein (2002).

One such case is that of the so-called liquidity trap. Nominal interest rates are limited in how far they can fall – that is they are zero-bound. As such, there are times when the economy might warrant further stimulus, but as nominal interest rates are approaching zero there is little scope for further interest rate reductions. In this instance, with monetary policy incapable of stimulating activity, the effectiveness of discretionary fiscal policy is worth exploring. Japan provides a contemporary example of such a situation.

1.1 Fiscal Policy and Stabilisation

Fiscal policy (the set of expenditure and taxation policies) can contribute to stabilisation objectives in a number of ways, including through the operation of the so called 'automatic stabilisers', and through changes in taxation revenue or expenditure shares of GDP, that can be regarded as a 'discretionary' policy choice by the government.

1.1.1 Automatic Stabilisers

Broadly speaking, the 'automatic stabilisers' are those components of government expenditure and taxation which, by design, are linked directly with the economic cycle and which may help to alleviate the cycle (see Box 2). For example, during a period of economic weakness, unemployment rises and hence government expenditure on welfare increases. At the same time, because the economy is growing less rapidly, income tax receipts fall. The overall effect is that the government faces higher expenditure and lower revenue than would otherwise be the case, without an explicit change in economic policy. Similarly, in a period when the economy is growing more rapidly, welfare payments fall along with unemployment, and tax receipts rise along with incomes, thus restraining corporate and household spending.

Box 2: Automatic Stabilisers

As discussed in the context of the United Kingdom by *HM Treasury* in a 2003 Working Paper, *Fiscal Stabilisation and the EMU*, the effects of automatic stabilisers depend upon the structure of the tax and welfare systems in the economy.

The more progressive the tax system is, the larger the effect on the economy of automatic stabilisers. This is because the more progressive the tax system, the greater the budget sensitivity to the economic cycle. Looking at the most extreme example, a purely non-progressive income tax structure (i.e. a flat income tax rate for all levels of income) will not have as great an effect on government receipts in a period of increasing economic growth, compared with a highly progressive income tax structure. This is because each extra dollar of income for each individual will generate the same amount of tax revenue, regardless of the individual's income level. Conversely, with a progressive income tax structure, as an individual's income rises, so does the percentage of each extra dollar earned that is paid in tax, as the individual's income changes tax brackets. In other words, as income rises, the marginal tax rate also rises, increasing the budgetary impact of the higher income.

The welfare system of the economy also influences automatic stabilisers. In an economy that has a generous and comprehensive unemployment welfare system, the effects of the economic cycle on the budget will be more significant. For example, in an economic downturn, with more people out of work and receiving welfare payments, expenditure will increase greatly. On the other hand, in the absence of an unemployment benefits program during a downturn, there will be limited budget impact, and hence a limited effect on the cyclical downturn.

In terms of the size of the automatic stabilisers in Australia, Treasury research has shown that in response to a 1 per cent change in GDP, the Australian general government budget may rise by as much as 0.30 per cent of GDP in the first financial year and 0.38 per cent of GDP in the second financial year. As noted by Chris Richardson of *Access Economics*, the effects of the automatic stabilisers in Australia are "clearly inadequate - and as such there remains a need for counter-cyclical policy".[4]

[4] Richardson (2001).

1.1.2 Discretionary Fiscal Policy

In contrast, discretionary fiscal policy requires government to actively alter the taxation/expenditure mix for the purposes of demand management. Broadly speaking, discretionary fiscal action involves changing rates of taxation, altering levels of government expenditure, or some combination of these. By spending more, or less, of each revenue dollar, the government can in turn influence economic activity to attempt to smooth the business cycle.

According to the literature, there is broad consensus that it is impossible to use discretionary fiscal policy to fine-tune aggregate demand in order to achieve macroeconomic stabilisation. This is because the use of discretionary fiscal policy in this way requires detailed knowledge on the part of policymakers regarding the state of the business cycle, and a capacity to bring stimulus on line at a precise point in time. Economics, as an imperfect science, is not able to accommodate such detailed requirements. These issues are discussed in more detail below. First, however, there will be a brief discussion of the Australian experience with discretionary fiscal policy.

1.2 Fiscal Policy in Australia

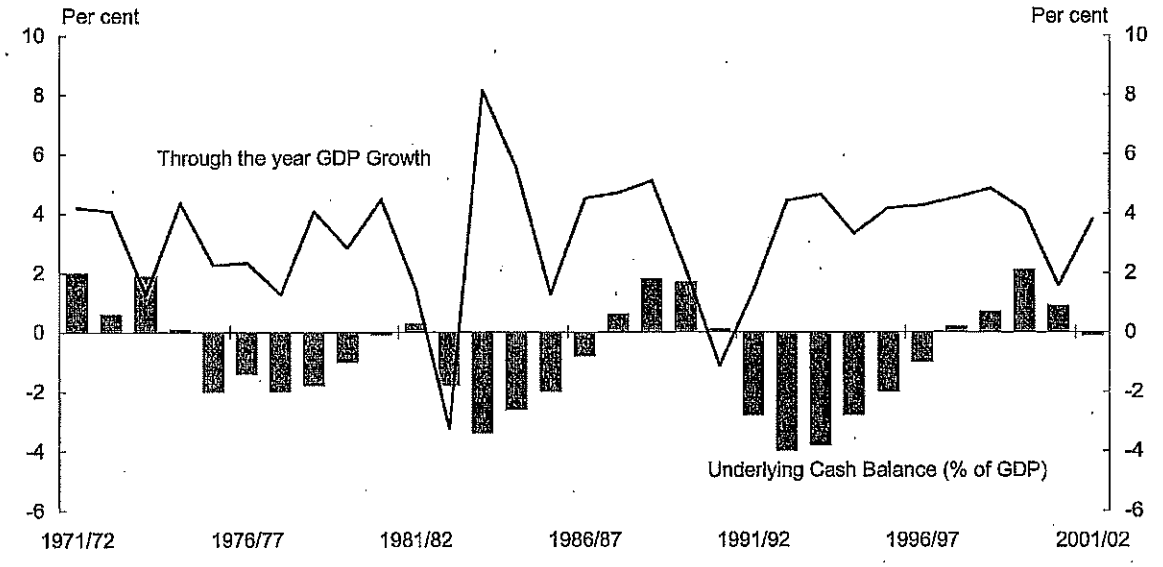
In Australia during the 1950s and 1960s, discretionary fiscal policy dominated short term demand management practices.[5] However, the fiscal deterioration that occurred under the Whitlam Government, coupled with a number of supply-side shocks and the progressive opening of the Australian economy, saw discretionary fiscal policy fall out of favour. However, episodes of discretionary fiscal easing took place at the beginning of the 1980s, 1990s and 2000s as successive governments attempted to mitigate economic downturns. Meanwhile, episodes of discretionary tightening occurred in the mid- to late-1980s and 1990s.

1.2.1 1970s

The early 1970s saw the Whitlam Government undertake a large discretionary fiscal easing, predominately for distributional purposes (see Chart 1). The fact that this policy easing coincided with the first OPEC oil shock in 1973 meant that for the rest of

the decade it was necessary to restore the structural integrity of the budget in order to minimise inflationary pressures. As such, fiscal policy was dedicated to reigning in activity at a time of contracting supply.

Chart 1:Budget Balance and Real GDP Growth



Source: 2003-04 Budget Paper No.1; RBA Bulletin Statistical Table G.10.

1.2.2 1980s

In the early 1980s a global economic slowdown precipitated a decline in inflation expectations. With the Australian economy in recession, fiscal settings were loosened in order to stimulate economic activity by mid-1983. However by the time the fiscal stimulus impacted on activity, the economy was in recovery, and as a result experienced unsustainably high real GDP growth of 8 per cent in the 1983-84 fiscal year.

At the same time, with the deregulation of the economy and the floating of the Australian dollar, the effectiveness of fiscal policy was called into question, particularly as burgeoning budget deficits were contributing to unprecedented current account deficits, as predicted by the 'twin deficits theory' which came into vogue at that time.

[5] See Fraser (2001).

As such, fiscal policy shifted to a medium term tightening focus in the 1985-86 Budget with the Hawke Government's 'trilogy' promises:

- not to increase tax revenue as a proportion of GDP;
- to reduce Commonwealth Government expenditure as a proportion of the total economy; and
- to reduce the size of the budget deficit.

1.2.3 1990s to Present

The early 1990s saw the deepest recession in the post-war period. At the same time, senior bureaucrats were downplaying the ability of fiscal policy to restore economic prosperity. As such, the Hawke-Keating Governments were slow to respond with fiscal policy stimulus, and when they finally did, the economy had already begun to recover. This saw a structural weakening in the budget, as successive budget deficits precipitated a rapid accumulation of general government net debt of around 15 per cent of GDP. This experience was noted by Professor Barry Hughes of Credit Suisse:

The classic example [of poorly executed fiscal stabilisation] *is the* One Nation *infrastructure program of the early 1990s. Conceived at a time of widespread idle resources, the resulting expenditures mainly came on stream years later in the strong expansion of the mid 1990s. Of course there was no ready shelf, for that had been dismantled more than a decade earlier. Instead, policy-makers were compelled to execute ideas that had to be cobbled together urgently and, absent political pressure, held little attraction for them. That the results were botched is scarcely surprising given the parents. That the resounding chorus of "I told you so" can be taken any more seriously than as superficial debating points is less defensible.*[6]

The election of the Howard Government in 1996 saw the adoption of the medium-term fiscal strategy of balanced budgets, on average, over the cycle. A structural tightening saw the budget position improved from a deficit of 2 per cent of GDP in 1995-96 to a surplus of around 2 per cent of GDP in 1999-2000.

[6] Hughes (2001).

Since 2000 there have been a number of minor episodes of discretionary fiscal easing, not more than ½ per cent of GDP at a time. The most significant of these was the introduction of the *First Home Owners' Scheme*, a grant to assist people buying their first home, in order to offset the expected downturn in the housing market coinciding with the introduction of *The New Tax System* in July 2000.

2. THEORY OF DISCRETIONARY FISCAL POLICY EFFICACY

The textbooks tell us that there are a number of different schools of thought regarding the use of fiscal policy to stimulate the economy. The traditional Keynesian approach suggests that fiscal activism can help return the economy to potential, whereas the New Classical approach suggests that fiscal policy should not respond to temporary economic imbalances, as it will only result in generating inflation.

2.1 The Keynesian Approach

Broadly speaking, the Keynesian approach to fiscal policy suggests that discretionary measures can and should be used for macroeconomic stabilisation purposes. In other words, this approach advocates running deficits in economic downturns and surpluses when the economy is at or above potential,[7] achieved through a combination of automatic stabilisers and discretionary fiscal policy.

2.1.1 The IS-LM-BP Model

The conventional framework used to examine the impact of Keynesian fiscal policy for an open economy is the Mundell-Fleming IS-LM-BP model.[8] With flexible exchange rates and some degree of capital mobility, any rise in interest rates caused by a fiscal stimulus would attract a capital inflow, which in turn would cause an appreciation of the exchange rate. However, with fixed prices, the exchange rate appreciation reduces the domestic price of imports as well as the competitiveness of exports, resulting in a deterioration of the trade balance and a lowering of output. With partial capital

[7] See Lam and Scarth (2002)
[8] See Mundell (1963) and Fleming (1962).

mobility, the fiscal stimulus should result in a combination of higher interest rates and higher exchange rates, crowding out most of the initial fiscal expansion by lowering net exports and interest sensitive expenditures. Under the condition of full capital mobility, the fiscal expansion would be completely crowded out by the deteriorating trade balance, and output levels would be unaffected by the stimulus.[9]

If prices are perfectly flexible in this type of environment, the crowding out of fiscal stimulus would be instantaneous as real interest rate and real exchange rate movements ensure that output would not rise, only prices.

The Keynesian framework has been criticised for its lack of attention to microeconomic and supply-side effects. These issues are at the forefront of other approaches.

2.2 The New Classical Approach

A key contribution of New Classical thinking is to introduce forward-looking behaviour through the expectations of economic agents. In the context of discretionary fiscal policy, this means that measures will be more or less effective, depending on the degree to which economic agents demonstrate forward-looking behaviour.

2.2.1 Consumption Smoothing

If market participants base their decisions on expectations of their permanent income, then the success of a fiscal stimulus package depends on the extent to which private sector recipients smooth their consumption over time. As such, some of the impact of the package will not take place immediately, but will be spread over time. To be effective for stabilisation purposes it is necessary for policy to impact earlier. However, different measures are likely to be more or less effective at this. For instance, in some circumstances temporary changes have higher offsets, as individuals realise that any change in income is not permanent.

[9] Under a fixed exchange rate regime, instead of allowing the currency to appreciate following a capital inflow, the central bank will sell domestic currency and buy foreign exchange, which increases the money supply, an accommodating monetary effect that reinforces the initial fiscal stimulus.

2.2.2 Ricardian Equivalence

Alternatively, forward-looking taxpayers realise that new discretionary measures will have to be funded by higher taxes in the future, and so will save to meet this future liability ('Ricardian equivalence').

Perfect (or full) Ricardian equivalence relies on a very strict set of assumptions including that individuals' consumption choices fit a life cycle model of consumption; that they are forward looking; and that consumers effectively 'live forever' through a bequest motive inspired by each generation's concern about the welfare of the next generation.

While the full set of assumptions required for full Ricardian equivalence is unrealistic, the key issue for the effectiveness of fiscal policy is not necessarily whether all these assumptions hold, but rather whether there is some offsetting savings behaviour that may reduce the demand impacts of fiscal policy. For instance, research suggests that the household saving offset in Australia is between one third and one half of new discretionary government policy.[10]

2.3 The Supply Side

The discussion so far has focussed on the demand side effects of fiscal policy. There are, however, supply side effects that are largely overlooked in the traditional Keynesian and New Classical approaches to fiscal policy.

A fiscal expansion that is directed at stimulating output via aggregate demand will potentially be inflationary when there is no output gap – when output is at or around potential. However, if the fiscal stimulus is designed to target the supply side by increasing efficiency and therefore the economy's growth capacity, it can have significant long-term effects.

A fiscal stimulus designed to improve the efficiency of the economy could raise long-term growth potential. For instance, Dowrick[11] suggests that improving the level of

[10] Comley, *et al* (2002).
[11] (2003).

education in an economy can improve the long-term growth of the economy's productivity rate, and hence the economy's future potential output level. Gretton, Gali and Parham[12] point to another example, examining the effects that information and communication technologies can have on the growth rate of the economy. Fiscal policies that encourage the take up of these technologies can have positive long run effects on output.

3. PRACTICAL ISSUES

This section provides a 'checklist' for thinking through if/when discretionary fiscal policy can be successfully implemented, with a view to raising prospects for the maintenance of strong and stable economic growth and job creation over time. The checklist considers the following aspects:

- the structure of the economy;
- the source of idle capacity or overheating;
- the stance of macroeconomic policy settings;
- the stage in the business cycle; and
- design issues to achieve value for money on time.

3.1 The Structure of the Economy

When evaluating the likely effectiveness of discretionary fiscal policy it is necessary to consider the structure characteristics of the economy for which policy measures are proposed – including the size and openness of the economy, the sophistication of the financial sector, the strength of the budget processes and the overall fiscal position. Each of these factors bears on the success or failure of discretionary fiscal policy.

For instance, Australia is a small, open economy with a floating exchange rate system, which, as we have seen, may limit the effectiveness of fiscal measures at least in theory.

[12] (2003).

However, the reality is that international financial markets provide a dependable source of cheap finance for countries like the Australia. Indeed, *Moody's* and *Standard & Poors* currently apply their highest sovereign rating to Australia. This is due to the Australian Government's sound macroeconomic framework and vigilance in terms of maintaining the structural integrity and transparency of financial infrastructure, capacity to deliver timely and accurate budget information flows and overall low level of general government net debt.

3.2 The Source of Idle Capacity or Overheating

For the purposes of conducting macroeconomic stabilisation policy it is necessary to identify the source of idle capacity or overheating to decide if discretionary fiscal policy is an appropriate policy response. For instance, in the case of a slump in aggregate demand caused by a shock to investor confidence or consumer spending, a discretionary policy response may be appropriate. However, if a slowdown stems from a supply-side shock, any attempt to use fiscal capacity to eliminate idle capacity would only mean that fiscal policy would be fully crowded out by rising prices.

3.3 The Existing Stance of Macroeconomic Policy Settings

Before implementing a fiscal package aimed at demand management, it is prudent to look at current policy settings, and evaluate the overall macroeconomic position. Ideally speaking, the fiscal position should compliment monetary policy, so that the two main tools of macroeconomic stabilisation work together and not in opposite directions. In Australia, this policy coordination is enhanced by the inclusion of the Secretary to the Treasury on the Board of the Reserve Bank. Broadly speaking, a rule-of-thumb with regard to fiscal policy activism is that monetary policy should be first cab off the rank, and should be supported by activist fiscal policy in the circumstances discussed below.

3.4 The Stage of the Business Cycle

In order to implement appropriate discretionary fiscal measures, policymakers must be reasonably convinced of the economy's position in the cycle, and prospects for the short to medium term. This is not as simple as it might sound.

3.4.1 Risk of Forecasting Error

Reasons why it is difficult to judge the position of the economy cycle include recognition lags and data limitations.

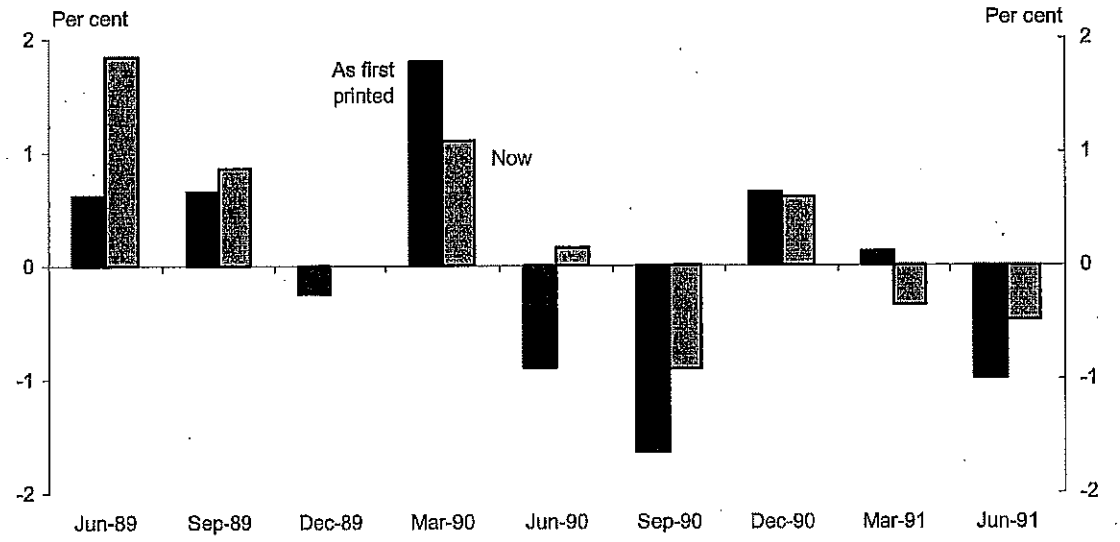
Recognition lags due to the backward-looking nature of economic data means that the economy might be well away from trend levels of growth before policymakers realise there is a problem – and by then it might be too late to avoid a significant downturn. Alternatively, the economy may be returning to trend of its own accord, making any policy response pro-cyclical. The likelihood of pro-cyclical responses was noted by the NBER's Martin Feldstein:[13]

In 1983, as the economy was pulling out of the recession and Congress was pressing for a fiscal stimulus, I testified as CEA chairman that a congressional call for a fiscal stimulus might be one of the best coincident indicators of an economic upturn.

Economic data are also subject to revisions, meaning that the information available at a particular point in time might be quite misleading. The importance of these recognition lags can be seen when looking at the first reported growth figures in the period around the early-1990s recession and comparing them with the revised figures as they stand now (see Chart 2). The growth data as it was first printed was misleading in that it painted a significantly different picture to that indicated by the revised data.

Chart 2: Quarterly Real Time GDP Growth in the Early-1990s

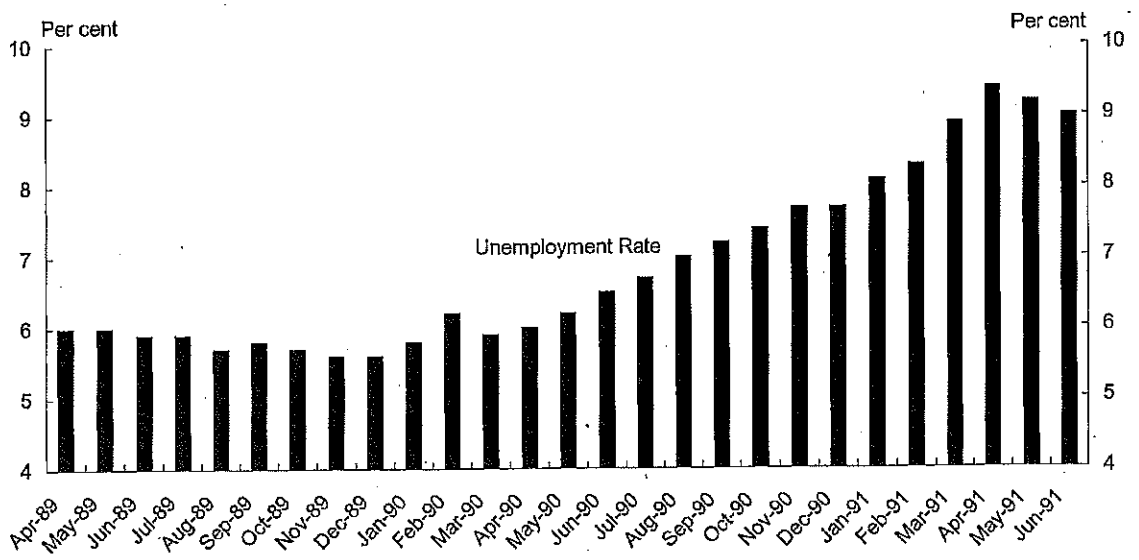
[13] (2002).



Source: ABS Cat. No. 5206.

There are also significant lags between economic activity and the publication of the data. Most notably, the initial data for the March quarter 1990 (printed in June 1990) may have at the time led some to conclude that the economy was recovering extremely strongly. In fact, GDP growth for that quarter has been revised down by nearly half, and at the time the initial data was printed the economy was about to enter the September quarter, which turned out to be very weak. Unemployment data for the period shows the unemployment rate rising in February before falling again in March 1990, another sign which indicated at the time that the downturn would be short and sharp as presented in Chart 3. The unemployment rate did not increase significantly until around June 1990 and this fact was not reported until the economy was already in the midst of a downturn in the September quarter in 1990.

Chart 3: Monthly Unemployment Rate in the Early-1990s



Source: RBA Bulletin Statistical Table G.07.

From this example, it is clear that at any given point in time it is extremely difficult to know exactly where the economy is in terms of its position in the cycle. As such, before government commits to expensive new measures, policymakers need to make an informed judgement that there is indeed a significant deviation of activity from 'normal' levels.

3.4.2 Erring on the Side of Caution

When doubts arise over the quality of forecasts, it is prudent to give relative weights to the risks of making a policy mistake in either direction, acknowledging that not implementing a fiscal package still involves making a policy decision. Policymakers should err on the side of caution by maintaining a bias in favour of growth and employment, which experience teaches is the best way to ensure rising living standards over time.

3.4.3 Size of Expected Imbalances

Broadly speaking, fiscal activism should only be used when best judgement suggests either significant idle capacity or overheating in the economy due to a lack of effective demand. Because of the effects of lags and the associated uncertainty that surrounds the efficacy of fiscal stabilisation, attempts to 'fine-tune' the economy are likely to be

ineffective. As such, in the case of an economy-wide imbalance, fiscal activism should be limited to times when output is expected to deviate significantly from trend, perhaps by more than 1 per cent of GDP, and when it is expected that this imbalance will continue for a sustained period. Otherwise, any fiscal stimulus is likely to be pro-cyclical. In the case of sector-specific concerns, the size of the imbalance must be significant given the context of the size of the sector.

3.5 Policy Design and Implementation Issues

This section considers those factors that policymakers must consider to ensure a policy delivers value, on time, without undermining the structural integrity of the budget.

The main fiscal instruments are government investment and consumption expenditure, personal and indirect taxes and benefit payments.

- Broadly speaking, changes in government investment and consumption expenditure affect economic activity directly by changing the demand for goods and services and the derived demand for factors of productions, labour and capital.

- Changes in personal income tax rates, transfer payments and indirect taxes influence economic activity indirectly by changing the level of real disposable income by households.

There are a number of relevant criteria for assessing the merits of alternative fiscal instruments which are considered below.

3.5.1 Achieving Value for Money

Policy design and implementation is crucial to achieving the stabilisation goal. There is an extensive list of questions that need to be considered in the basic stage of policy design.

- Are measures practicable and able to be implemented?

- Will they produce a net economic benefit?

- How will they impact on demand for imported goods and services?
- Are they reversible?
- Do they minimise administrative costs?
- Do they target activities rather then providers?
- Are they a recipe for ongoing, rather than one-off government action?
- Do they make sense in their own right?

Only if these micro considerations have been addressed is it worth considering the broader dimensions of policy design, as in done below.

3.5.2 Maximising Policy Multipliers

To the extent that policy design has solid micro foundations and is undertaken at the appropriate stage of the business cycle, discretionary measures should achieve maximum policy multipliers as potential crowding-out will be minimised. For instance, in the case of a discretionary easing during a significant downturn, interest and exchange rate effects and price changes are unlikely to occur in the face of a slack economy. Clever design can also minimise any direct feedback between policy measures and imports. Alternatively, if attention is not paid to detail, it is possible to achieve negative multipliers, as noted by the IMF.[14]

Importantly, the likely impact of fiscal policy on activity still hinges on private sector responses to the change in government policy. The private sector may choose either to save/spend in the face of a discretionary easing/tightening, offsetting the impact of policy measures. As such it is necessary to design and implement policy in ways which minimise the likely savings offsets by considering the following aspects.

Behavioral Change.

Behavioural change is the key to successful discretionary fiscal policy. Essentially, the aim of such a policy is to encourage people to do something that they would not

[14] See Heller (2002).

otherwise have done at that particular point in time (or encourage them *not* to do something they would otherwise have done). By definition, discretionary fiscal policy cannot be successful without encouraging behavioural change to some extent.

Behavioural change can be achieved largely through incentive effects. The most effective way to achieve a fiscal easing is through some form of a financial reward for undertaking a specific activity. This ensures that, even if the fiscal stimulus itself is saved, higher activity will still be generated through the multipliers associated with the required activity.

Policy Duration

Saving behaviour will be effected by the expected duration of the policy, i.e. whether it is likely to be a temporary or permanent measure. For instance, temporary tax cuts are likely to have little influence on the spending patterns of forward-looking consumers because they are likely to have a very small impact on lifetime earnings, whereas permanent tax cuts should have a much larger effect. Alternatively, when measures are aimed at changing spending behaviour, for example through the provision of a financial reward for undertaking specific activities, a 'sunset clause' for the policy may even heighten its effectiveness, as it means people know that they have to undertake the targeted activity within a certain timeframe in order to receive the reward. Announcing a specific cut-off date can also be important for the longer-term sustainability of fiscal policy.

Essentially, the decision on policy duration involves a trade-off between the relative costs and benefits of temporary and permanent measures.

- Temporary or transitional measures uphold the structural integrity of the budget and do not interfere with the ability of the automatic stabilisers to return the budget to surplus once the downturn is over.

- Permanent measures (such as permanent tax cuts) are more likely to impact growth rates and are desirable provided they are credible in terms of their expected budgetary impacts over the out years.

The Role of Expectations

The saving behaviour of consumers is also likely to be influenced by the confidence they have in government. For instance, if government has a poor track record of economic management then it is likely that the private sector will be more inclined to consider the long-term ramifications of current government policy.

Direct Spending Channels

Changes in government investment and consumption expenditure affect economic activity directly by changing the demand for goods and services and the derived demand for factors of productions, labour and capital. As such they are likely to provide bigger first round multipliers than changes in personal income tax rates, transfer payments and indirect taxes that influence economic activity indirectly by changing the level of real disposable income by households.

However, there are other issues to consider when deciding between policy options, including the so-called 'outside lags' of policy.

3.5.3 Timing Issues

Regardless of how effective the policy is in terms of stimulating or dampening economic activity, if its effects are felt too late it is likely to do more harm than good. As well as the recognition lags (or 'inside lags') discussed previously, there are other timing issues which need to be addressed in the policy design process. These include the implementation and impact lags.

Implementation Lags

Implementation lags represent the time it takes between recognising that there is a problem, and actually putting a policy in place to fix that problem. There may be delays for a given policy due to design, administrative or legislative complications, whereas other polices might be simpler and faster to effectuate.

Impact Lags and Policy Options

Impact lags represent the time taken for the policy to filter through to activity in the economy. The major influences on likely impact lags is the type of policy that is chosen, and the sector at which it is targeted.

Public consumption and investment expenditures can have a large and immediate impact on the economy with a modest budgetary impact in certain circumstances. However, the scope to implement changes to government investment on the scale desired both quickly and symmetrically about the cycle is limited. Public consumption spending appears to offer more scope to impact on the economy with relatively short implementation lags, although there may be some constraints to implementing changes symmetrically over the economic cycle due to reversibility concerns.

Changes to personal income tax rates have the advantage of potentially having very short implementation lags and greater potential for symmetrical application over the business cycle greater than some other instruments. However, they have a smaller impact multiplier than spending items, as they are an indirect form of stimulus that feed into disposable income, a proportion of which is saved by taxpayers. As such they can involve very large expenditures for relatively little return. Also, the long and staggered impact of these instruments could make the operation of a well-timed counter cyclical fiscal policy more difficult. Their broad application also means that small tax cuts can have a large budgetary impact, raising questions over fiscal sustainability.

Benefit payments are likely to have a larger and more timely multiplier effect on economic activity than changes to personal income tax rates of a comparable size relative to GDP, particularly if targeted to low income households. However, the ability to implement adjustments to benefit payments symmetrically about the

economic cycle, and the scope to implement large changes in benefit payments relative to GDP, may both be limited.

3.5.4 Policy Side-Effects

A policy's desirability cannot be measured purely with regard to its stabilisation effects, as there may be other consequences of the fiscal action. For example, the distributional effects of the policy should be taken into account, as well as efficiency aspects.

3.5.5 Sustainability

In the face of a downturn, even if policy multipliers are large and timely it may still be necessary to spend significant amounts of money, possibly of the order of 1 ½ to 2 per cent of GDP, to have significant economy-wide impacts on the level of activity. What effect will this have on the budget position over time? If a policy is seen to place unsustainable pressure on the government's fiscal position, it is likely to be less effective in the short-term and create structural budget issues in the long-term.

Fortunately, Australia's current strong structural budget position means that it would require significant and sustained fiscal easing to raise sustainability concerns. Nonetheless, there are a number of long term fiscal pressures associated with population ageing, national security and environmental concerns that may limit the ability of policy makers to undertake discretionary fiscal easing.

As mentioned above, reversibility is one area where policy design can help to make the fiscal intervention more effective as well as enhancing the sustainability of fiscal policy. A policy that is designed with a specific 'sunset clause' may therefore be more beneficial in both the short-and long-term. However, it is possible to get a large impact for little expenditure if policies target particular sectors that have large flow-on effects for the rest of the economy. These are unlikely to raise sustainability concerns.

3.5.6 Sectoral Considerations

Different sectors of the economy may be in different stages of the cycle at any given time. Policy may be required to address softening/overheating in a particular sector

even when overall activity is running close to trend, if the demand imbalance in the relevant sector has broader economy-wide implications down the track. The policy chosen to address a shortfall/excess of activity also must be consistent with the sectoral conditions prevailing at that point in time – which means that a given policy that has proved successful in the past may no longer be appropriate.

3.5.7 Marketability Aspects

Discretionary fiscal policies must be acceptable to the Australian public and fall within a government's policy parameters to be effective. This is more likely given the following circumstances.

- If economic times are tough or extremely uncertain.
- Where policy is seen to be sustainable and structurally sound.
- Where policy is easily understood.
- Where measures are likely to be well received in the media.

3.6 The Checklist

To bring together all the issues outlined previously, below is a checklist of questions that need to be considered as part of the decision of whether to implement a discretionary fiscal package.

Policy Evaluation Checklist:	Yes/No
- Is the shortfall/excess activity demand driven?	
- Are policymakers sufficiently confident in their forecasts?	
- Does the level of activity warrant a policy response?	
- Is the basic structure of the economy suited to fiscal intervention?	

- Do current macroeconomic settings support discretionary fiscal action?	
- Is the policy designed to maximise its impact on the economy?	
- Will this impact occur in a timely fashion?	
- Is the policy targeted at appropriate sectors?	
- Will the policy encourage behavioural change?	
- Does the policy endanger long-term fiscal sustainability?	
- Is the policy likely to be acceptable to the public and the Government?	

So far the paper has discussed the theory behind fiscal intervention and some practical issues regarding its effective implementation. These themes are carried on into the next section, which discusses various episodes of discretionary fiscal policy undertaken in Australia in recent years in the context of the 'checklist' approach.

4. CASE STUDIES

4.1 The First Home Owners' Scheme

Commencing in July 2000 to coincide with the introduction of *The New Tax System*, the *First Home Owners Scheme* (FHOS) was extremely effective in helping to ward off a slump in the housing sector, and helped to support broader activity, during a significant global economic downturn.

4.1.1 The Policy

The introduction of *The New Tax System* meant that the construction and sale of new homes was subject to the GST, and as such the cost of housing increased. In order to maintain housing affordability, and to smooth a potential policy induced slump in

housing construction activity, the Government introduced the FHOS, which involved a $7,000 payment to first home buyers.

Because the anticipated rise in new house prices was expected to (and did) flow through to the price of established houses, the FHOS was made available for both new housing construction and established housing.

In order to further boost construction activity during a period of more general economic weakness, an additional FHOS grant was introduced in March 2001. The additional grant effectively doubled the total assistance available to $14,000 for the construction or purchase of eligible new homes.

The additional grant was phased out over 2002, as strength had returned to the broader economy and the construction sector in particular. The original scheme, however, continues to provide the $7,000 grant to eligible first home buyers, although the proportional effect of these grants is diminishing over time as house prices rise.

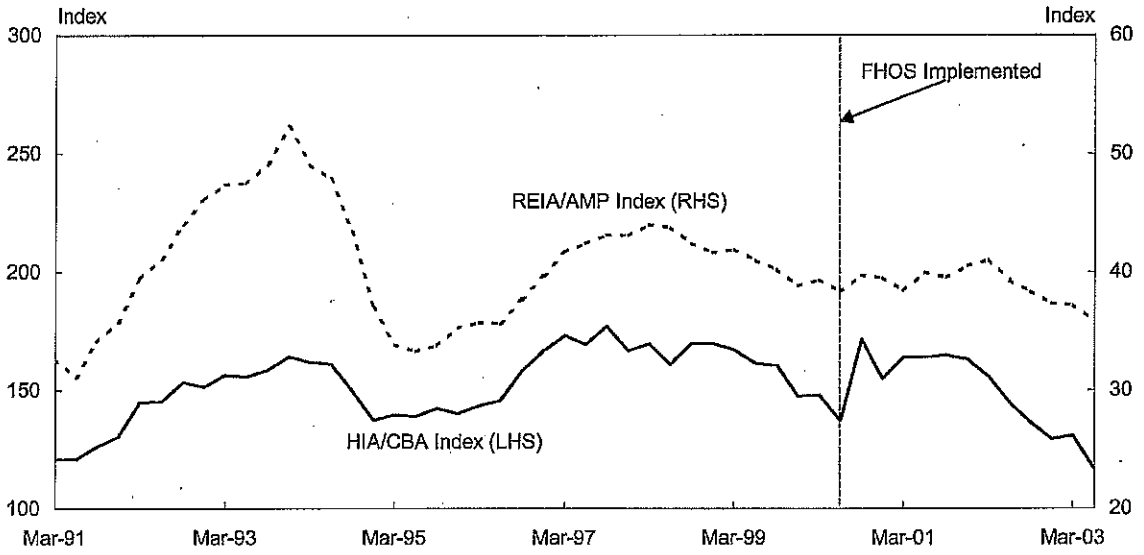
4.1.2 Effects of the policy

Affordability

The HIA/Commonwealth Bank Housing Report released on 22 November, 2000, showed that the housing affordability index rose 25 per cent in the September quarter, 2000, and that the FHOS was a major factor in this affordability increase.

The AMP/REIA series measuring housing affordability, however, rose only slightly (Chart 4). The difference between the two indices relates to measurement methodology, particularly the fact that the HIA/CBA index measures accessibility to home ownership for an average first home buyer, whereas the AMP/REIA index measures the affordability of new home loans, including first home buyers and those purchasing second homes or investment properties. This means that a significant proportion of the population captured in the AMP/REIA index would not have had access to the FHOS grant.

Chart 4: Housing Affordability



Source: Housing Industry Association/Commonwealth Bank; Real Estate Institute of Australia/AMP

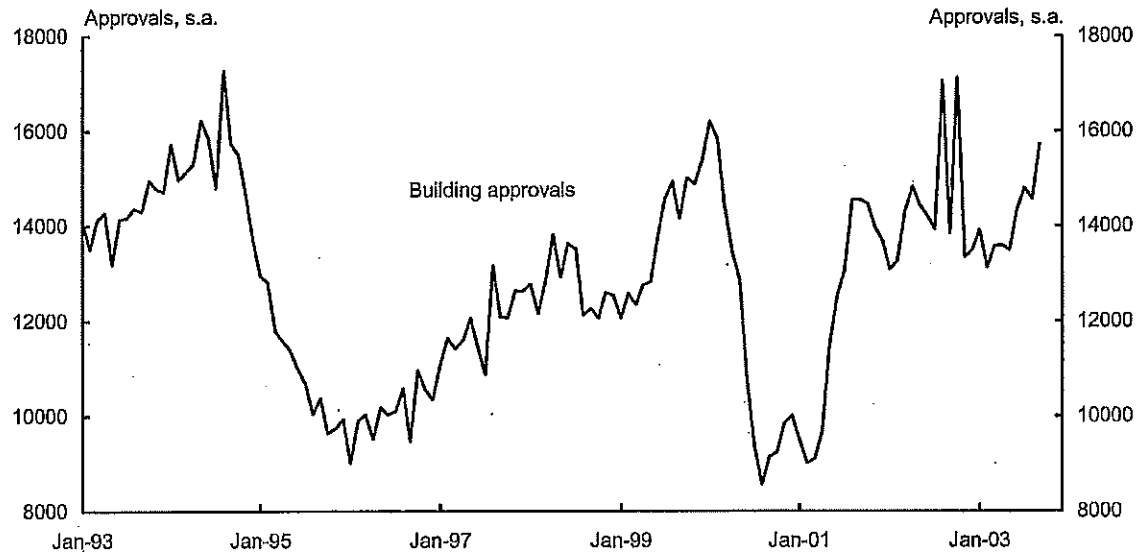
Dwelling Approvals

Between the June quarter and the September quarter 2000, private dwelling approvals fell by around 25 per cent. Because the FHOS grant could be accessed for the purchase of both new and established homes, the effect on building approvals may have been muted. Similarly, approvals may have been lower due to a more general slowdown in the economy,[15] and may also have been affected by business cycle factors (see Chart 5).

However, building approvals picked up significantly following the introduction of the additional FHOS grant. In the first two quarters after the additional grant was introduced, private dwelling approvals rose by more than 50 per cent. Since the additional grant was phased out, private dwelling approvals have experienced some volatility, but nevertheless remain well above the levels seen prior to the additional grant's introduction.

Chart 5: Building Approvals

[15] In through the year terms, growth fell from around 4 per cent in the June quarter 2000 to less than 1 per cent in the December quarter. In quarterly terms, output rose by more than 1 per cent in the June quarter, but fell by more than ½ per cent in the December quarter.

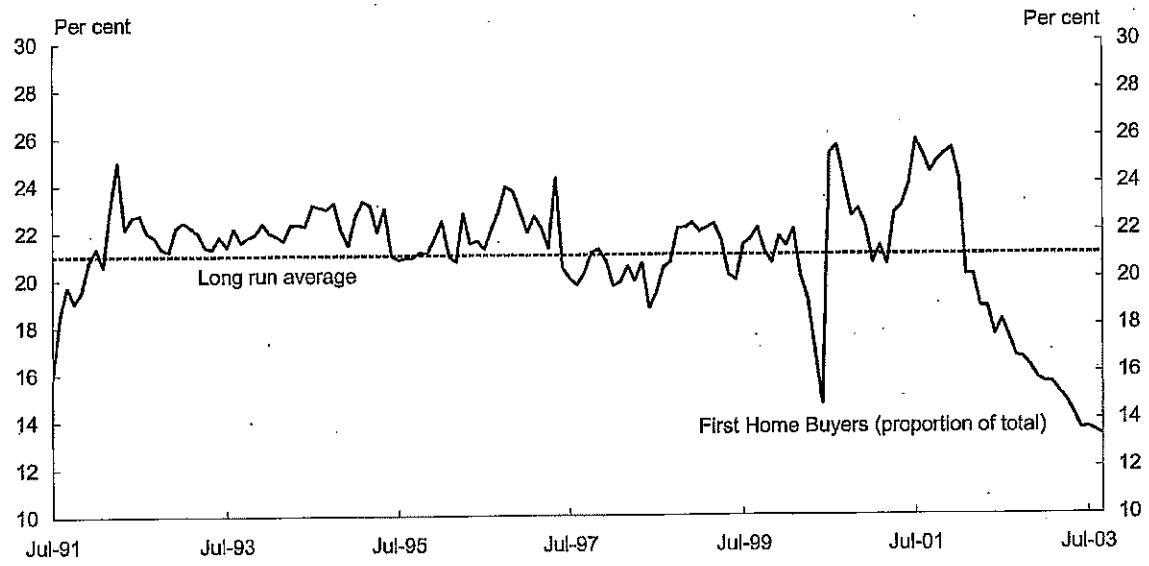


Source: ABS Table 8731-01A

Proportion of First Home Buyers

Finally, the proportion of loans going to first home buyers fell initially prior to the introduction of the FHOS and the GST, as the announcement of the policy well before it took effect altered the timing of purchase for some first home buyers. However, this sharp fall was more than reversed in July 2000 when the proportion of loans going to first home buyers rose significantly above its long term average (see Chart 6).

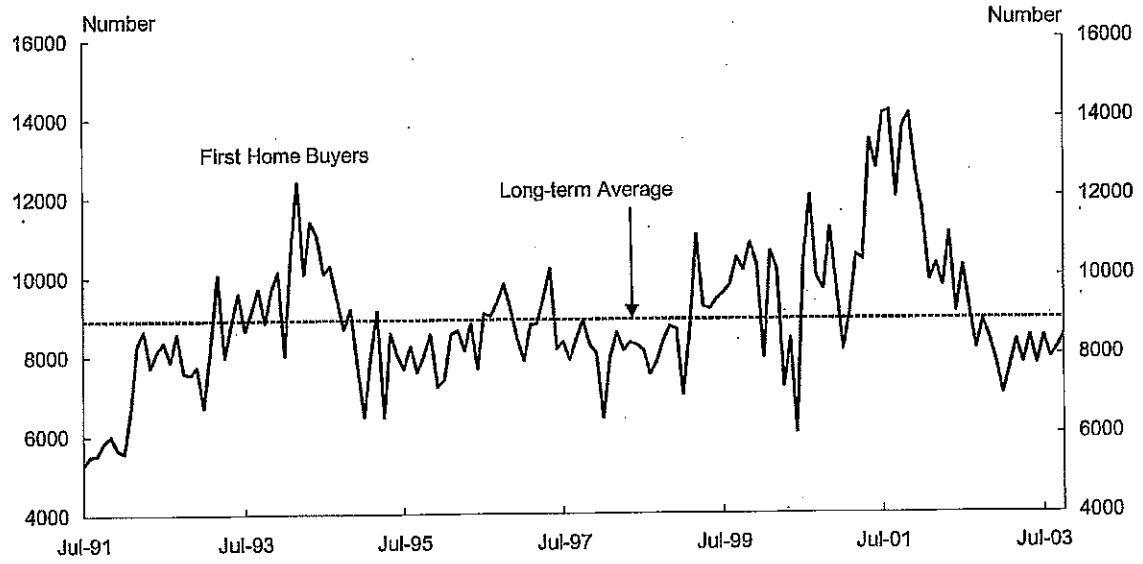
Chart 6: First Home Buyers



Source: ABS Table No. 5609-09.

The proportion again fell gradually over the next few months to around its longer term average, until the introduction of the additional grant in March 2001 at which time it again rose sharply. Since 2002 when the additional grant began to be phased out, the proportion of first home buyers has again fallen significantly, and this statistic is currently well below its long-term average. This suggests both that the FHOS grant, along with the additional grant, brought forward a significant amount of construction in the housing sector, and that general activity in the housing sector has picked up significantly, given that the number of first home buyers has returned to levels similar to those seen prior to the grants' introduction (Chart 7).

Chart 7: Number of First Home Buyers



Source: ABS Table No. 5609-09.

4.1.3 House Price Inflation

Since the introduction of the FHOS, house prices have risen significantly. Much of the increase occurred after the introduction of the additional FHOS grant. Through the year to June 2002, the ABS' house price index for established houses rose nearly 19 per cent.[16]

Chart 6 above shows that the proportion of first homebuyers in the market has fallen sharply, especially since the phasing out of the additional grant. This suggests that the grant is no longer adequate compensation for higher house prices, and that first home buyers may be being priced out of the market. However, as mentioned, this may be merely a reflection of the fact that the housing sector overall continues to experience strong growth, as the number of first homebuyers has returned to levels similar to those seen prior to the introduction of the FHOS. In October 2003, 8,461 first homebuyers received housing finance, down from the peak of 14,156 in August 2001, but similar to the 8,410 level seen in May 2000. Nevertheless, in terms of what the policy was designed to achieve (i.e. a short term stimulus to the housing sector), it was unambiguously effective.

[16] ABS Table 6416-01.

4.1.4 Why was the policy effective?

This section will discuss the reasons behind the policy's success, with reference to the checklist. The structure of the economy is taken as given.

Existing Policy Conditions

The policy was introduced during a period of very low and very stable interest rates. This helped potential homebuyers to have the confidence to buy a home, taking advantage of the FHOS incentive. If the policy had been introduced at a time of high and/or volatile interest rates, it is less likely to have been as successful.

Timing and Targeting

The policy's introduction coincided with a foreseeable, largely artificial downturn in the housing sector, and therefore many of the timing difficulties usually associated with discretionary fiscal policy were avoided.

Because the Government knew several years in advance that the introduction of the GST could result in a dampening in the construction sector, the design and implementation lags normally associated with discretionary fiscal policy were irrelevant, as they occurred well before the policy was implemented.

To some extent impact lags were also irrelevant. The policy was announced well in advance of it taking effect, and as such potential homebuyers were able to plan their purchase decision around the introduction of the GST knowing that they would be, on average, largely unaffected. This somewhat smoothed housing consumption over the period of transition, rather than the large bring-forward that might otherwise have occurred prior to the GST introduction.

The artificial nature of the downturn also made it relatively easy to target the exact sector where the shock was expected. Because the Government knew years in advance that the housing sector in particular would be significantly affected by the GST, they had time to specifically tailor a discretionary fiscal intervention package.

4.1.5 Policy Multipliers

The nature of the scheme ensured that all of the grant was spent, and was spent as part of a larger consumption decision.

Crowding Out Effects

As the FHOS scheme was part of a larger package, *The New Tax System*, which was expected to reduce public debt (already at very low levels historically), crowding out effects were minimised. The fiscal impact of the policy was too small to affect interest rates and exchange rates, so crowding out was not an issue.

Behavioural change

Because the scheme required recipients to enter into a contract to buy or build their first (owner-occupied) house, even if they saved the grant this requirement had encouraged activity in the housing sector, so the policy had achieved its aim. There was no clause in the scheme which said recipients had to use the grant to pay for the house – and in fact one individual in South Australia went straight to the casino and lost the lot – however there was little incentive to save the grant as participants would eventually have to pay for the house.

The nature of the FHOS meant that it brought about significant behavioural change by prospective homebuyers. By offering a small but significant financial incentive, the policy encouraged potential homebuyers to purchase their home sooner rather than later.

This ensured that the boost to the economy was much greater than the actual fiscal stimulus – not only was the entire value of the grant spent, but it was spent on purchasing an item of much greater value than the grant itself. To the extent that this purchase would not have taken place until later, or that activity was brought forward, the policy was successful in boosting the targeted sector in particular and the economy in general.

4.1.6 Would a FHOS-type policy work again in the current environment?

There is little doubt that if there was at some time in the future a foreseeable downturn in the housing sector, the FHOS may again become a useful stimulatory policy. There may be a need, however, for the policy to be focussed slightly differently. If the housing market were strong, with dwelling prices rising consistently for some time, then further stimulus from a FHOS-type policy may fuel an unsustainable housing market, and limit the ability of monetary policy to focus on the broader domestic economy.

Targeting other sectors such as the automobile sector or tourism might be another option, or merely adjusting the FHOS slightly to focus it on alterations and additions – this might avoid over-stimulating an strong property market.

4.2 One-Off Payment to the Aged

4.2.1 The Policy

This policy, announced in the 2001-02 Budget, consisted of an age-related payment. In June 2001, a payment of $300 was made automatically by *Centrelink* to more than 1.8 million eligible people on income support payments. This involved administered expenditure of more than $540 million.

People receiving income support payments from the Department of Veteran's Affairs received their payment from that department. Approximately 350,000 people received the payment through the Department of Veteran's Affairs at a cost of more than $100 million.

4.2.2 Effects of the policy

The one-off payment to the aged was not primarily motivated by economic factors. As such it was not targeted specifically at aggregate demand. There is little or no discernible impact on household consumption expenditure in the periods following June 2001, when the vast bulk of the payments were made. Household final consumption expenditure growth fell in the June quarter 2001, and again in the

following quarter. Domestic final demand growth also fell in the June quarter 2001, as did retail sales growth.

It might in fact be the case that some of the spending initiated by the payment began before it was implemented. If pensioners had been saving part of their income in order to pay a large upcoming bill, or in order to smooth their consumption, the announcement of the policy (a month prior to the payment) might have led them to increase their spending before they received the payment. The effects of this should be minimal, however, assuming that most eligible aged pensioners are liquidity constrained and would have to wait until the payment came through before they could increase their expenditure. Either way, the consumption data covers the whole of the June quarter, in which both the announcement and the payment were made, and shows minimal impact from the policy.

4.2.3 Why was the policy ineffective?

Policy Design

The policy might have had limited success in boosting expenditure due to its relatively small size and limited availability. At a macro level, the approximately $650 million spent on the program accounts for around 0.6 per cent of quarterly household final consumption expenditure, which might be too small a stimulus to have a meaningful effect on total expenditure data. At a more micro level, a one-off $300 payment is unlikely to be a sufficient amount to encourage a major purchase by someone on an aged pension.

Multipliers

Ordinarily it would be reasonable to expect that people receiving aged income support would be likely to spend any additional income, even if it was a temporary increase. The marginal propensity to consume of people receiving aged income support is high relative to most other demographics. Having said that, people receiving aged income support might be expected to live day-to-day with respect to their expenditure (consistent with their high propensity to consume). The nature of the policy, being a one-off payment, may have encouraged the recipients to save rather than spend their income supplement, or at least to smooth their consumption of it over several months.

If consumption of the payment was spread out over a few months, its effect on the macroeconomy would be negligible. It is likely that the multiplier effect from the *One-Off Payment to the Aged* expenditure is relatively small. Once you take into account the fact that some of the amount was used to reduce debts and help with cash flow, the size of the payment and the proportion spent on imports, the overall stimulus to the economy is likely to have been minimal.

Behavioural Change

To the extent that the policy might have been expected to stimulate some activity, its effectiveness in economic terms was most likely limited due to the fact that it failed to bring about a significant change in behaviour. The $300 one-off payment is unlikely to have encouraged any large purchases that would not otherwise have been made at that time – this is supported by the anecdotal evidence. Also, the recipients did not have to change behaviour in order to receive the payment, it was given automatically to everyone already receiving aged income support. It is unclear what effect the policy might have had if the payment had been larger, or if it had been linked to a change in behaviour.

Timing Issues

With respect to the other problems usually found with discretionary fiscal policy, there were no timing issues involved, and very few administration costs, as the payments were made directly through *Centrelink* accounts. The legislation required was minimal, and passed through Parliament quickly (the bill was introduced to the House on 22 May 2001, and was passed by the Senate 2 days later). As mentioned above, the policy was not economically motivated, and was never meant to address a slump in aggregate demand – meaning that the concept of formulation lags and pass-through lags are effectively meaningless in this case.

4.3 The One Nation Public Investment Programs

4.3.1 The Policy

The *One Nation Public Investment Programs* were announced as part of the *One Nation* Statement in February 1992, and were aimed directly at stimulating economic activity.

The programs were intended to cost approximately $1.4 billion over four years, with the majority of expenditure occurring over 1992-93.

The bulk of the funds were directed towards improving road and rail networks, and increasing competition in the aviation and electricity industries. The remaining funds were directed toward a range of areas such as higher education infrastructure, the development of the sewerage system in Western Australia and assistance for the restoration of heritage buildings.

Table 1: Public Investment Programs Announced in the One Nation Statement ($m)

	1991-92	1992-93	1993-94	1994-95	1995-96	Total
Higher Education Infrastructure Spending	0	20	0	0	0	20
Sewerage System Development WA	2	12	6	0	0	20
Assistance of Restoration of Heritage Buildings	20	0	0	0	0	20
Investment in a National Rail Network	0	283	171	0	0	454
Upgrade Rail Workshops	0	8	3	0	0	11
Transport Infrastructure Development in WA	0	14	0	0	0	14
Transport Infrastructure Development in Qld	0	20	0	0	0	20
Increase in Black Spot Road Funding	25	45	0	0	0	70
National Roads Upgrading and Maintenance	0	223	32	0	0	255
National Arterial Projects	0	80	60	0	0	140
National Highway of Interstate Routes	0	90	48	0	0	138
Aerodrome Local Ownership Program	17	10	-7	0	0	20
Domestic Airport Common User Term Facilities	0	0	65	48	0	113
Newcastle Economic Development Initiative	1	4	5	1	0	11
National Electricity Grid	0	50	50	0	0	100
Total	65	859	433	49	0	1406

4.3.2 Effects of the Policy

The difference between actual expenditure and announced expenditure on the *One Nation Public Investment Programs* is given in Table 2. Where there were difficulties in obtaining data on actual expenditure, the data used are based on when the funds were appropriated to the various projects.

Table 2: The Difference between Actual and Announced Expenditure on One Nation Public Investment Programs

Investment Programs ($m)	1991-92	1992-93	1993-94	1994-95	1995-96	Tota
Total Actual Programs	63	619	273	179	31	1165
Total Announced Programs	65	858	432	49	0	1404
Difference	-2	-239	-159	130	31	-239

The actual expenditure on *One Nation* public investment programs differed from the announced expenditure for a number of reasons. First, the timing of some of the expenditure items differed, with less expenditure actually taking place in 1991-92, 1992-93 and 1993-94 and more expenditure taking place in 1994-95 and 1995-96 than planned initially. The programs where this occurred include investment in the national rail network, the upgrade of rail workshops and the sewerage system development in Western Australia (WA).

Funding for public investment in the National Electricity Grid and the Domestic Airport Common User Facilities was effectively cancelled in terms of the *One Nation* time frame. The funding for Common User Terminals (CUTs) was withdrawn in the 1993-94 Budget because of the collapse of Compass 2. Funding for the National Electricity Grid was put on hold because it was considered unlikely that the States would put forward final grid upgrading proposals in the *One Nation* time frame.

The delays occurred generally for very good reasons. Two of the components were postponed because suitable investment projects did not materialise. Other delays in the

rail area were due to the need to secure agreement with State Governments and unions to ensure that investment was undertaken efficiently.

4.3.3 Why was the Policy Ineffective?

Implementation and Design

The *One Nation* public investment projects were implemented hastily, and without due consideration being paid to policy design. As such, there were significant delays involved in the implementation of the programs, caused by a lack of preparedness and a need to negotiate implementation of the programs with State Governments and other potential stakeholders.

There is an inherent trade-off between undertaking public investment for counter-cyclical purposes, and ensuring that investment undertaken is efficient. To ensure that efficient investment projects are ready to commence immediately when required for counter-cyclical purposes, such projects need to be identified but then delayed during the period when the economy is operating at or near capacity.

Timing Issues

The widely recognised issues regarding public investment programs and the trade-off that exists between getting public investment projects up and running and ensuring that such projects represent an efficient use of resources was exacerbated in this case, as the *One Nation* programs were plagued by delays. These delays impeded the programs' ability to achieve stabilisation, as by the time a number of these projects were coming on-line the economy was already in recovery.

Crowding Out

Another issue is whether the *One Nation* investment programs necessarily led to equivalent increases in overall public investment levels. Federal Government expenditure on infrastructure was clearly increased, however, where funds were handed over to the States with responsibility for programs, it is possible that the States may have offset this funding by reduced levels of investment elsewhere. To the extent that this occurred, the policy multipliers would have been reduced due to the crowding out of State Government investment expenditure.

BIBLIOGRAPHY

Auerbach, A. (2002), "Is There a Role for Discretionary Fiscal Policy?", NBER Working Paper 9306.

Comley, B., Anthony, S. & Ferguson, B. (2002), "The Effectiveness of Fiscal Policy In Australia – Selected Issues", Commonwealth Treasury of Australia Economic Roundup, Winter 2002, pp.45-72.

Davis, G. & Anthony, S. (2002), "Using Transparency to Achieve Sustainability: Australia's Medium-Term Fiscal Strategy", a paper presented to the International Forum on National Budget Systems, December 5-6, 2002.

Dowrick, S. (2003), "Ideas and Education: Level or Growth Effects?", NBER Working Paper WP 9709.

Feldstein, M. (2002), "The Role for Discretionary Fiscal Policy in a Low Interest Rate Environment", NBER Working Paper 9203.

Fleming, M (1962), "Domestic Financial Policies under Fixed and under Floating Exchange Rates," *IMF Staff Papers*, November 1962.

Fraser, B. (2001), "Fiscal Policy and Economic Growth", *ACOSS* Paper 116, p.11-14.

Fraser, B. (1994), "Managing the Recovery", *RBA Bulletin*, April 1994, p.20-28.

Gretton, P., Gali, J. and Parham, D., (2003), "The Effects of ICTs and Complementary Innovations on Australian Productivity Growth", The Productivity Commission, http://www.pc.gov.au.

Heller, P. (2002), "Considering the IMF's Perspective on a 'Sound Fiscal Policy'", IMF Policy Discussion Paper PDP/02/8.

Hemming, R., Kell, M. & Mahfouz, S. (2002), "The Effectiveness of Fiscal Policy in Stimulating Economic Activity – A Review of the Literature" IMF Working Paper WP/02/08

HM Treasury (2003), "Fiscal Stabilisation and EMU" HM Treasury Discussion Paper.

Hughes, B. (2001), "Can the 'Ready-shelf' be Restored to the Shelf", *ACOSS* Paper 116, p.29-34.

Lam, J. & Scarth, W. (2002), "Alternative Public Spending Rules and Output Volatility", Bank of Canada Working Paper 2002-37.

Mundell, R. (1963), "Capital Mobility and Stabilisation Policy under Fixed and Flexible Exchange Rates," *Canadian Journal of Economics*, November 1963.

OECD Economic Outlook (2002).

Richardson, C. (2001) "Fiscal Policy and the Business Cycle", *ACOSS* Paper 116, p.25-28

Shergold, P. (2003), "A Foundation of Ruined Hopes? Delivering Government Policy", Address to the Public Service Commission SES Breakfast Briefing, 15 October 2003.

Simes, R. (2003), "Fiscal Policy Rules in Australia", paper prepared for the Chifley Research Centre, *http://www.chifley.org.au/index.php*

Taylor, J. (2000), "Reassessing Discretionary Fiscal Policy", Journal of Economic Perspectives, 14(3) pp.21-36.