Deloitte Access Economics

Risks around Australia's fiscal position

Report prepared for the Business Council of Australia

15 January 2013

Deloitte.

Deloitte Access Economics Pty Ltd
ACN: 149 633 116

Level 1, 9 Sydney Ave
Barton ACT 2600
PO Box 6334
Kingston ACT 2604

Tel: +61 2 6175 2000
Fax: +61 2 6175 2001
www.deloitte.com.au

Maria Tarrant
Deputy Chief Executive
Business Council of Australia
Level 42, 120 Collins Street
Melbourne Victoria 3000
Maria.Tarrant@bca.com.au

15 January 2012

Dear Maria,

An analysis of the risks around Australia's fiscal position

This report provides an analysis of Australia's fiscal position, considering:

- risks and vulnerabilities,
- an assessment of recent Budget estimates and outcomes,
- the current fiscal strategy and performance against that strategy, as well as
- the potential for improvements to the current fiscal strategy.

Yours sincerely,

Chris Richardson
Director
Deloitte Access Economics Pty Ltd

Contents

Charts

Glossary

ABS	Australian Bureau of Statistics
AOFM	Australian Office of Financial Management
ATO	Australian Taxation Office
BCA	Business Council of Australia
CAB	Cyclically Adjusted Balance
CGT	Capital Gains Tax
CPI	Consumer Price Index
DAE	Deloitte Access Economics
FBT	Fringe Benefit Tax
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFS	Government Financial Statistics
GST	Goods and Services Tax
IGR	Intergenerational Report
IMF	International Monetary Fund
MRRT	Mineral Resource Rent Tax
MYEFO	Mid-Year Economic and Fiscal Outlook
NBN	National Broadband Network
NDIS	National Disability Insurance Scheme
OECD	Organisation for Economic Co-operation and Development
PRRT	Petroleum Resource Rent Tax
PVBC	Present Value Budget Constraint
RBA	Reserve Bank of Australia
UEFO	Updated Economic and Fiscal Outlook

Executive Summary

Australian fiscal policy – the backdrop

This report assesses how Australian fiscal policy has handled the global financial crisis (GFC) and its aftermath. Note the Budget was in difficulty even before the GFC hit. The International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD) both estimate the 'structural' Budget positions of their members – in effect assessing the Budget position were the economy to be operating at trend levels of activity.

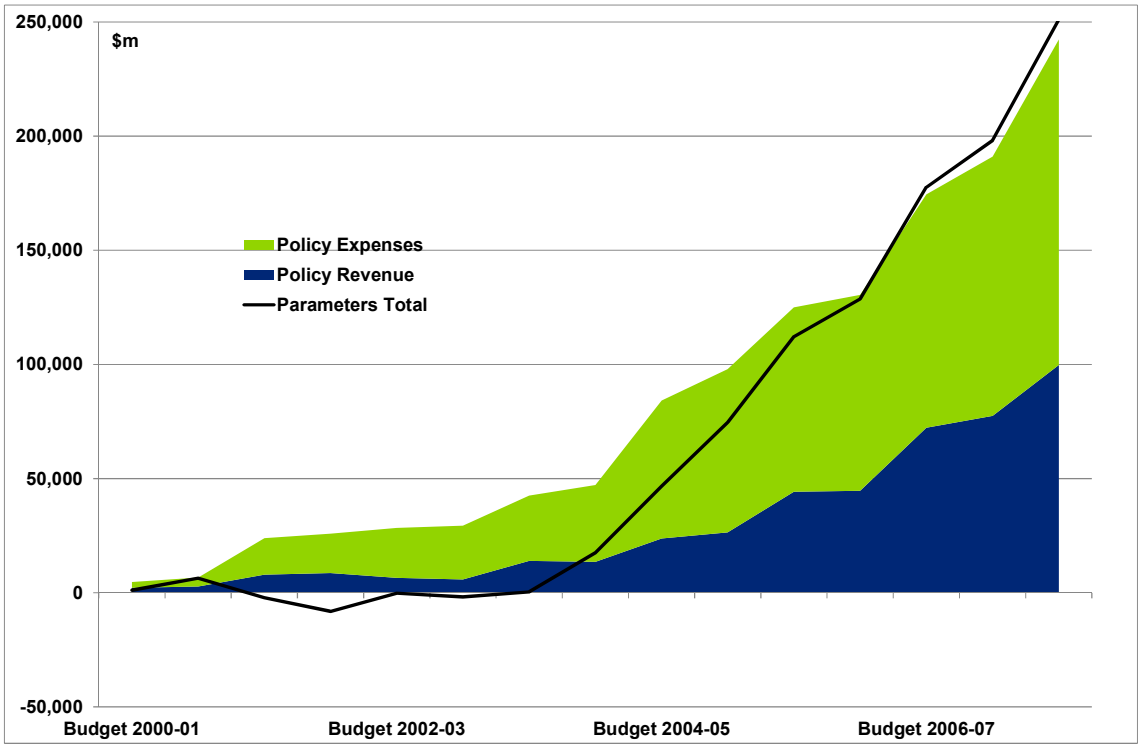
Measured in today's dollars, the IMF's estimate is that the Australian Budget was already in a structural deficit of $12 billion in calendar 2008. The OECD puts it higher still, at $16 billion.

Yet the 2007-08 Budget outcome had seen a surplus just under $20 billion, and when the 2008-09 Budget was released, it forecast a surplus just under $22 billion.

That big gap has a simple explanation. The years ahead of the GFC saw great strength in Australia's economy as we slipstreamed surging growth in emerging economies such as China. With emerging economies on the charge, commodity prices gained altitude through to 2008, thereby boosting the profits of Australian companies – and hence tax revenues – massively.

The policy response to that cyclical strength was to spend the proceeds, with Budget policy becoming pro-cyclical, boosting an already strong economy. That was a mistake (though, to be fair, justifying large surpluses to a sceptical electorate – even during good times – is difficult).

Chart i: Variations due to policy and parameters – 2000-01 Budget to 2007-08 Budget

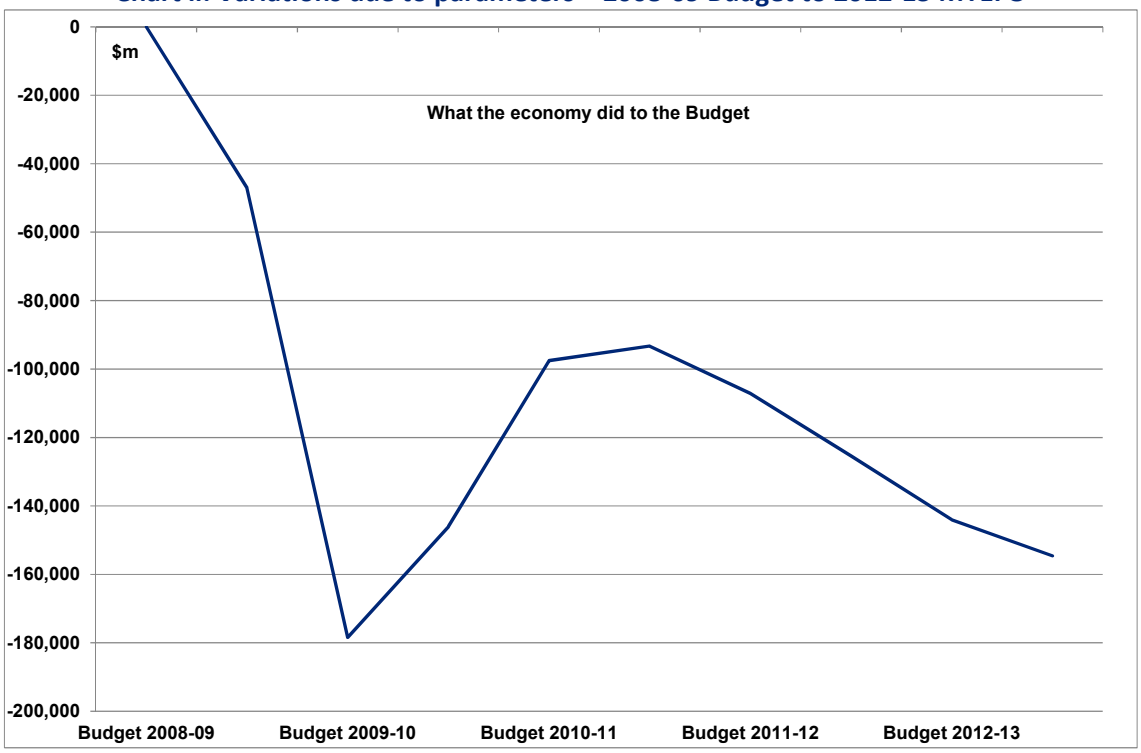


Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Hence the remarkable match in size and timing seen in the chart above. Treasury revised up the Budget outlook due to better than expected economic prospects (the 'parameter' line in the chart), and those windfalls were promptly parcelled out as tax cuts (the blue 'policy revenue' area in the chart) and as spending increases (the green 'policy expenses' area in the chart).

Not surprisingly, the economy took a hit when the GFC arrived, with a big impact on revenues. The chart below shows that, from the starting point of the 2008-09 Budget, Treasury's estimates of "the economy" were then rapidly wound back, with the initial (and sharpest) negatives evident through the immediate aftermath of the GFC.

Chart ii: Variations due to parameters – 2008-09 Budget to 2012-13 MYEFO



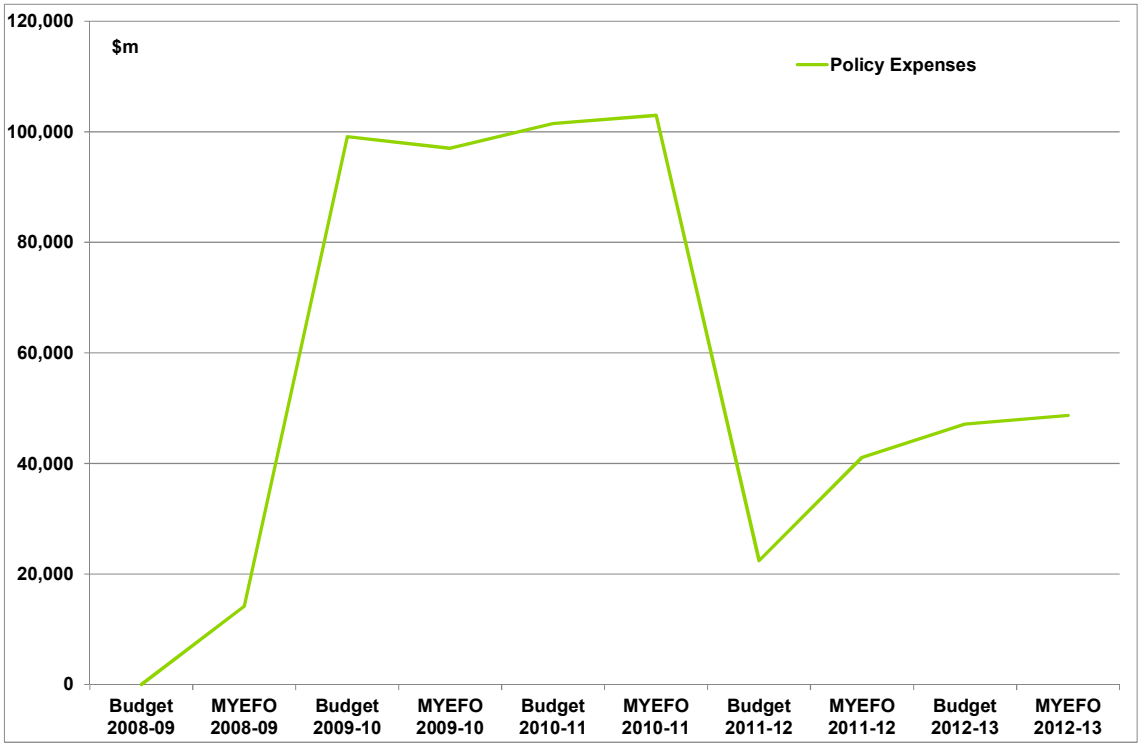
Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

That was followed by a period of upgrades – Australia's economy survived the GFC better than expected, while China's own stimulus led to a massive leap in industrial commodity prices. That boosted Budget prospects for a time, allowing the Government to promise a return to surplus "three years early" (by 2012-13).

However, gathering headwinds (a disappointing recovery in the rich world and a more recent slowdown in emerging economies that cut commodity prices) saw Treasury revert to revenue downgrades. The parameter revisions in the chart are a net cost to the Budget of $155 billion over four years. Or, as the 2012-13 MYEFO noted, there has been a *"write-down in tax receipts of almost $160 billion over the five years since the beginning of the Global Financial Crisis"*.

What has been the policy response to that? The two charts below identify the impact of net policy decisions on expenses and revenues. The two are separated, because – as the first chart shows – almost all of the GFC-related policy response showed up in expenses rather than revenues.

Chart iii: Variations in expenses due to policy decisions – 2008-09 Budget to 2012-13 MYEFO



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

The weakening economy wiped billions off the Budget, while the policy response to that was to support economic activity. That is, Australia's fiscal policy became counter-cyclical, with a surge in spending serving as a defence against the downturn.

So our fiscal policy was to spend in the good times, and then to spend in the bad times.

At the time the GFC hit, the IMF and the Australian Treasury both noted that any measures to support the economy needed to be timely, temporary, and targeted. Yet the above chart shows that policy decisions on spending didn't fully unwind, let alone act to start to rebuild the Budget to give it the firepower to help pay for any future need to defend against a downturn.

Why not? In part the answer is that the stimulus measures themselves did unwind, but other decisions have been made to add to spending as part of revenue-related policies.

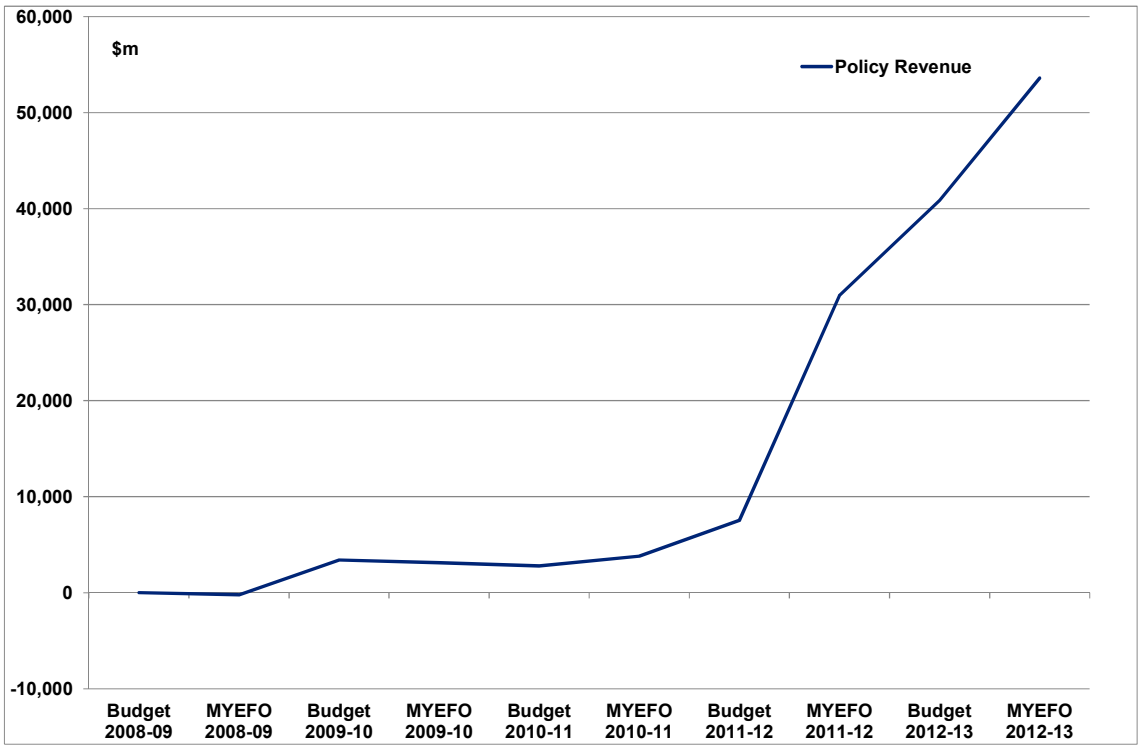
The following chart helps to spell that out. It shows that net policy decisions have added to revenues recently amid some tax increases – notably, the decisions to introduce new mining and carbon taxes. In turn, these mining and carbon 'packages' came with associated spending.

For example, the carbon tax revenue has been split three ways – as tax cuts[1], as money for affected industries, and as a boost to benefits paid to pensioners and others.

[1] These packages also included some offsetting revenue decisions. For example, on introducing the carbon tax, the Government also lifted the tax free threshold, while then clawing much of that cut back on higher income earners by raising the next two marginal tax rates.

The mining tax revenue was initially slated to pay for lower company taxes, an increase in compulsory superannuation from 9 to 12%, and for an infrastructure fund. However, that was subsequently rejigged, initially as the RSPT was replaced with the MRRT, and later when the cut to the corporate tax rate was abandoned and some infrastructure spending deferred. At the same time new decisions, not officially tied to the rejigging of the package, added a Schoolkids bonus and other spending.

Chart iv: Variations in revenues due to policy decisions – 2008-09 Budget to 2012-13 MYEFO



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Yet there is another story here too. Policy since the GFC didn't just (1) see a stimulus that has since unwound and (2) see new taxes introduced with accompanying spending.

It also had to respond to the faltering revenue outlook as Treasury estimates faded in the face of a slowdown. The policy response to the latter development has been further restraint, meaning that fiscal policy is once again became pro-cyclical. Yet while that once meant spending in the good times, in the last 18 months it meant cutting back amid a slowdown.

That latter approach was starting to hurt Australia's economy, so the late 2012 decision to abandon the surge for a 2012-13 surplus was a sensible one. It's true that Federal and State Budgets still need repair work – a lot of it – to get back to genuinely healthy surpluses. However, that should be done with more smarts and less speed.

What are our current fiscal goals?

The above backdrop raises obvious questions – what is fiscal policy trying to do, and how well is it doing it? The Government's current stated medium-term fiscal strategy has remained unchanged since its first Budget in 2008-09. That strategy is to:

- achieve Budget surpluses, on average, over the medium term;
- keep taxation as a share of GDP, on average, below the level for 2007-08 (23.7%); and
- improve the Government's net financial worth over the medium term.

In addition, a number of intermediate goals have been outlined over recent years, including:

- allowing tax receipts to recover naturally as the economy improves, while keeping taxation as a share of GDP below the 2007-08 level on average; and
- build growing surpluses by holding real growth in spending to 2% a year, on average, until the surplus is at least 1% of GDP, and while the economy is growing at or above trend.

How well are we achieving those goals?

The latest official forward estimates point to wafer thin Federal surpluses in the four years to 2015-16, while both keeping tax below 23.7% of national income (see page 351 of MYEFO) and boosting the Government's net financial worth (page 292). This outlook is assisted by keeping real expenditure growth to 1.1% a year in the four years to 2015-16 (page 39), though by 2015-16 the fiscal surplus is still 'only' 0.5% of national income (page 40).

Hence if the official forecasts prove to be correct, that would suggest Australia is broadly on track to meet its fiscal goals.

Forecasting the economy is hard, and forecasting tax revenues is harder still

Yet there is an important caveat here: forecasting the Budget is hard – and it's getting harder, with the latest official forecast already outdated. On 20 December 2012, two months after MYEFO was released, the Treasurer noted *"tax receipts for the first few months of the year are well below our forecasts. …. That's a really big hit to revenue. …. in just four months, we have already seen the full hit to revenue that we were expecting for the whole year. Obviously, dramatically lower tax revenue now makes it unlikely that there will be a surplus in 2012-13."*

Tax revenue, the most volatile part of the Budget, is tied to nominal national income, and the swings in the latter have increased across the last decade amid big increases (and occasional falls) in coal and iron ore prices. Indeed, trends over the past decade point to an increase in the volatility of overall Budget outcomes relative to the plans for those outcomes, while the likelihood and frequency of surprise swings in the overall Budget position has also increased.

Yet at the same time neither the Government nor the public appear to have much tolerance for volatility in the Budget. Hence, for example, promising to deliver a small surplus in a given year will always be particularly risky in the face of economic swings, revenue volatility, and the inherent difficulties of forecasting. We've been setting ourselves up for a fall.

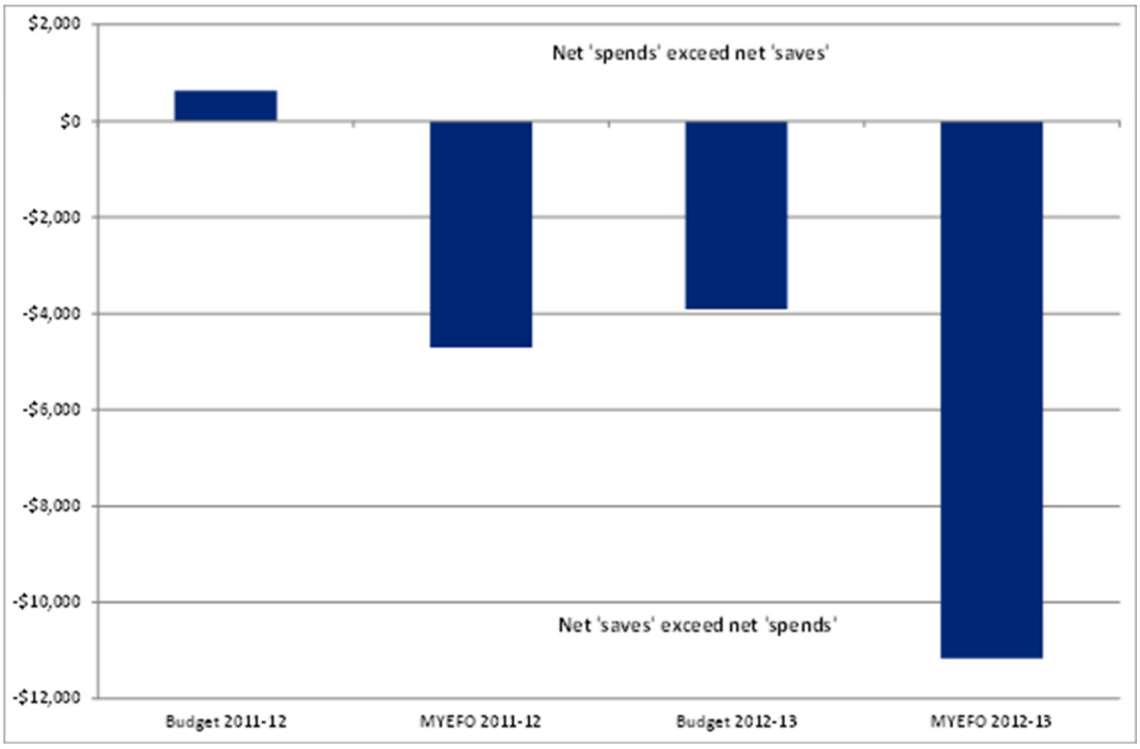
Just how at risk is the Budget to the economy?

And we may have been setting ourselves up for a fall more generally. Budgets used to be staid affairs, but they are now much more volatile, because our 'profit' taxes – most notably, company tax – are highly dependent on commodity prices. DAE explored that issue for the Business Council of Australia (BCA) in 2011. In brief, we found that the Budget has been riding high on a strong cycle in commodity prices, but would be at particular risk were those prices to fall away.

Policy quality has suffered amid the search for a 2012-13 surplus

The increased focus on savings is evident in the chart below. The 2011-12 Budget was still 'expansionary' (that is, policy decisions marginally worsened the Budget bottom line over a four year period). The tide turned slowly, with net savings generated by the 2011-12 MYEFO and the 2012-13 Budget. It wasn't until the 2012-13 MYEFO that net savings became larger.

Chart v: Net policy decisions – 2011-12 Budget to 2012-13 MYEFO



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Yet 'larger' didn't mean 'better'. The sprint back to surplus saw the quality of policy begin to suffer, with not much more than a tenth of the net savings in the 2012-13 MYEFO the result of 'genuine' policy restraint. For example, the cut to the baby bonus and to the indexation of subsidies for private health insurance are good policy – worthy of Parliament's support – but they save just $1.3 billion in the four years to 2015-16, versus overall net saves of $11.1 billion across that period.

The latter figure was dominated by a timing shift for company taxes. Yet timing shifts are exactly that – they only generate one off rather than enduring savings. Measured in terms of their impact over four years, the contribution from timing shifts of late has included:

- $1.1 billion in payments shifted out of 2012-13 and into 2011-12, the result of an acceleration of payments to local governments.
- $2.9 billion from the deferral of Australia's growth target for foreign aid, which had been the driver of substantial increases in aid just one year earlier in the 2011-12 Budget.
- $1.4 billion from deferring the introduction of higher super contribution caps for members aged 50 and over with low balances. This policy was originally announced the previous year as part of the 2011-12 Budget.

- $8.3 billion from the company tax timing change, and
- $1.0 billion due to getting unclaimed super and bank accounts earlier,

Moreover, the above list ignore various 'special dividends' and the like.

The recent reliance on timing shifts to plug fiscal 'holes' highlights the deterioration in the quality of policy measures designed to assist the surplus push. Timing shifts aren't reform, and they provide no lingering benefit to the nation's fiscal finances.

Known challenges ahead

There are risks – including potentially large risks – to the Budget even if policy doesn't change. In particular, there are three important caveats to the fiscal outlook:

- **Policy challenges: Some key policies have been announced but not yet funded** – the NDIS is a good example.
- **Economic challenges: The return to budgetary health depends on where world prices for the likes of coal and iron ore eventually settle**. As Martin Wolf of the Financial Times recently said, *"If I were running the Australian economy . . . I'd try to run it on the assumption that the commodity prices might halve"*.[2]
- **Demographic challenges:** Although a short term return to health is possible, that still leaves a longer term hole to fill. **Treasury's *Intergenerational Reports* indicate fiscal pressure from an ageing population and relatively faster cost inflation in health care**. In addition, DAE research for the BCA found the States will face a fiscal shortfall similar in size to that facing the Commonwealth in coming decades. So the challenges ahead aren't just short term, such as how to fund the NDIS and other policies on the 'wish list'. They will be massive and ongoing, and pose problems for the States as well as for the Commonwealth.

Shortcomings of recent fiscal strategies

The inadequacies evident in recent fiscal outcomes suggest where improvements could have been made to the fiscal strategy in place in recent times. These include issues as to **the structural health of the Budget – the time bomb risks**:

- Policymakers have promised costly new policy actions without credible funding details.
- The Australian economy is in transition and has experienced record terms of trade, yet our fiscal targets have not been adjusted accordingly.
- Treasury's *Intergenerational Reports* haven't yet been converted into an explicit fiscal rule and government savings are lagging as a result – an explicit surplus reserving policy may be needed to address both the cyclical readiness of fiscal policy and intergenerational equity.

[2] See http://www.afr.com/p/national/economy/time_for_fiscal_restraint_in_australia_hgq18LT7D67MEujghPYjXK.

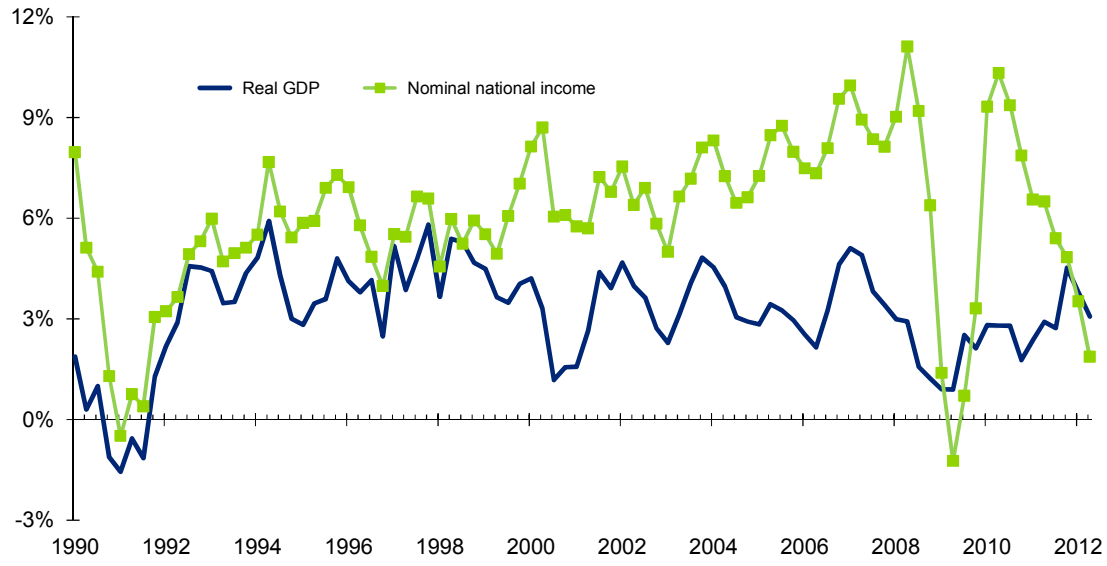
And they include issues as to **the fiscal framework – the fiscal rule risks**:

- Fiscal policy has been pro-cyclical, boosting the economy when it was already strong (prior to the GFC) and weighing on it when it was slowing (as has been true more recently, with pursuit of a surplus in 2012-13).
- A pro-spending bias remains in evidence, grounded in the political imbalance between benefits to some groups and costs to others, as well as the sway of interest groups and 'sticky' spending. Good procedures are not an adequate defence against these pressures, with clear rules necessary to give substance to principles for budgetary soundness.
- Fiscal discipline on the size of government has slipped, with the tax share of national income rising by over a percentage point in the last 15 years – transparency and credibility need to be improved to ensure national decisions on the size of government are deliberate and considered rather than made by default.
- The fiscal targets adopted by governments are generally 'soft' constraints, with political leaders free to make their own fiscal choices, albeit in a relatively open manner.

Finally, they include issues as to **Budget governance and processes – the risk to quality**:

- Much new spending over the past decade fails the test of whether it is improving either 'fairness' or 'prosperity' in Australia, with requirements for regulation impact statements and cost/benefit analyses often avoided for policies deemed too contentious or important to be subjected to such analysis.
- Frequent changes to the tax and superannuation systems have undermined predictability and led to greater uncertainty for individuals and businesses alike.

Chart vi: Growth in real GDP and growth in nominal GDP



Source: Australian Bureau of Statistics

In turn, the above list implies that there are some ways to improve the fiscal goals we've set ourselves as a nation. For example, Australia's current 'fiscal rules' say nothing about a return to surplus **in 2012-13**. Rather, the latter timing is driven in large part by the promise to *"build growing surpluses … while the economy is growing at or above trend"*.

Growth in real GDP – production, seen in Chart vi above – is forecast to be close to its longer term trend in 2012-13. (The latter averaged 3.0% a year in the past decade and 3.5% a year in the past two decades, versus the Treasury forecast for 2012-13 of 3.0% in MYEFO.)

That's what the Government points to in explaining the surge for surplus in 2012-13. However, Treasury forecasts nominal GDP growth to be 4.0% in 2012-13. That is down from the forecast of 5.0% in the 2012-13 Budget released in May 2012, and is well shy of the 6.9% annual growth it averaged in the past decade (and the 6.4% a year in the past two decades). It is also well above the 1.9% recorded over the past year (as shown in Chart vi).

That is important. Tax collections respond to growth in nominal income rather than the real economy, with the gap between the two mostly due to swings in coal and iron ore prices. Hence the recent slowdown in China and the knock on impact of that to coal and iron ore prices have made it harder to return to surplus. Yet the current fiscal rules ignore that.

They shouldn't. In effect, 'the economy' recently made a return to surplus rather more difficult. The 'fiscal rules' should allow for that. **We recommend that, if it is to be kept, this rule be interpreted as referring to 'nominal economic growth'.**

Certainly there is a case to update and improve Australia's fiscal rules in the wake of the abandonment of the push for a surplus in 2012-13. Otherwise there is a risk that, in an election year, both sides of politics will lose much needed discipline.

After all, as we noted earlier, the Federal Budget still needs repair. However, that should be done with more smarts and less speed – as would be the case if this particular rule were to be interpreted as referring to nominal rather than real economic growth.

What *should* our fiscal policy be aiming for?

Yet merely fiddling with the detail of today's fiscal rules risks missing some bigger picture points.

What *should* fiscal policy do? There are only two aims of any society: prosperity (the size of 'the pie') and fairness (how the pie is sliced up). Australia's fiscal policy – in effect, our national social compact with ourselves – needs to assist with these twin aims.

The fiscal rules to achieve those aims must be anchored to the achievement of the following five interlinked fundamental fiscal objectives:

- **Affordable**: ensuring fiscal sustainability;
- **Prepared**: ensuring readiness for countercyclical action for any major shock;
- **Future-proofed**: ensuring readiness for intergenerational pressure;
- **Disciplined**: enforcing discipline on the size of government; and
- **Effective**: ensuring value for money.

Australia's fiscal rules need to be reassessed with those objectives in mind.

Deloitte Access Economics
15 January 2013

1 Background

The BCA has asked Deloitte Access Economics to analyse Australia's fiscal position, considering:

- risks and vulnerabilities,
- an assessment of recent Budget estimates and outcomes,
- the current fiscal strategy and performance against that strategy, as well as
- the potential for improvements to the current fiscal strategy.

At the heart of the analysis is an assessment of the government's fiscal policy framework, and its performance against that framework in recent years.

Chapter 2 considers Australia's current fiscal strategy, including the stimulus during the global financial crisis, as well as the current return to surplus.

Chapter 3 examines sources of variations in Budget figuring over the past decade, including volatility in revenues and outlays and the effect of the terms of trade on the Budget. In so doing, it examines relevant risks and vulnerabilities.

Chapter 4 assesses Australia's current fiscal position, including an estimate of the structural Budget balance (and, related to that, the longer term underlying health of the Budget).

Chapter 5 considers the effect of recent policy changes and expected short term pressures from proposed policy changes.

Chapter 6 sets out Australia's current 'fiscal rules', and presents an assessment of how we are performing against those rules. It also considers some of the shortcomings of the current rules and weighs up alternative fiscal strategies, asking what an ideal fiscal strategy might look like, and whether that would that have changed outcomes. Finally, it champions the need to refocus on spending 'quality'.

2 Current fiscal strategy

2.1 Why having a fiscal strategy makes sense

A coherent medium term fiscal strategy – setting out a framework of fiscal policy goals over time – is important to Australia's future prosperity.

Such a strategy helps to set expectations for both private and public sector decision makers, and it helps to restrain siren calls for higher government spending and tax cuts.

By its nature, a fiscal strategy is often designed around a set of 'fiscal rules' or guidelines to assist in the development of more specific Budget measures over time.

Yet rules can pose problems too. The nature of medium term fiscal strategy makes tying down a simple set of specific rules difficult. In its 2010 paper entitled *Strategies for Fiscal Consolidation in the Post-Crisis World*, the IMF noted that:

> *While many countries articulate medium-term fiscal objectives or rules, their effectiveness as a guide for fiscal policy-making is often limited by ambiguities regarding precise target values or time horizons. Furthermore, these objectives are not always supported by the kind of comprehensive and binding medium-term budget frameworks needed to translate those objectives into detailed plans for the future evolution of revenue and expenditure. Finally, independent validation of the macroeconomic assumptions and fiscal judgments underpinning the government's fiscal strategy remains the exception in advanced countries and emerging countries.*

While that criticism is not directed at the case of the Australian Government, the IMF clearly considers such fiscal 'rules' to be less than perfect – and we would tend to agree.

Even so, having specific medium term goals for fiscal policy is rather better than having none.

The primary fiscal objective that Australia adopted in 1998 (with the *Charter of Budget Honesty*) was "to maintain budget balance, on average, over the course of the economic cycle".

However, the specifics of the nation's fiscal objectives have varied in the years since.

The Government's current stated medium-term fiscal strategy, as outlined in the 2012-13 MYEFO, has remained essentially unchanged since the 2008-09 Budget. That strategy is to:

- achieve budget surpluses, on average, over the medium term;
- keep taxation as a share of GDP, on average, below the level for 2007-08 (23.7%); and
- improve the Government's net financial worth over the medium term.

The first of these goals aims not merely to maintain the government's financial position over time (as the earlier 'balance over the cycle' goal sought to do), but to 'achieve budget surpluses over time'. That is, the current fiscal framework aims to see government not merely 'live within its means', but actively seeks to improve the government's net asset position.

While it may be tempting in the current political debate to see this goal as aimed at paying down debt, current fiscal goals only mention improvements in net financial worth – leaving the question of the ideal level of that net worth open.

In addition to the fiscal strategy above, a number of intermediate goals have been outlined over recent years. These include the most recent goals stated in the 2012-13 MYEFO of:

- allowing tax receipts to recover naturally as the economy improves, while maintaining a commitment to keep taxation as a share of GDP below the 2007-08 level on average; and
- building growing surpluses by holding real spending growth to 2% a year, on average, until the surplus is at least 1% of GDP, and while the economy is growing at or above trend.

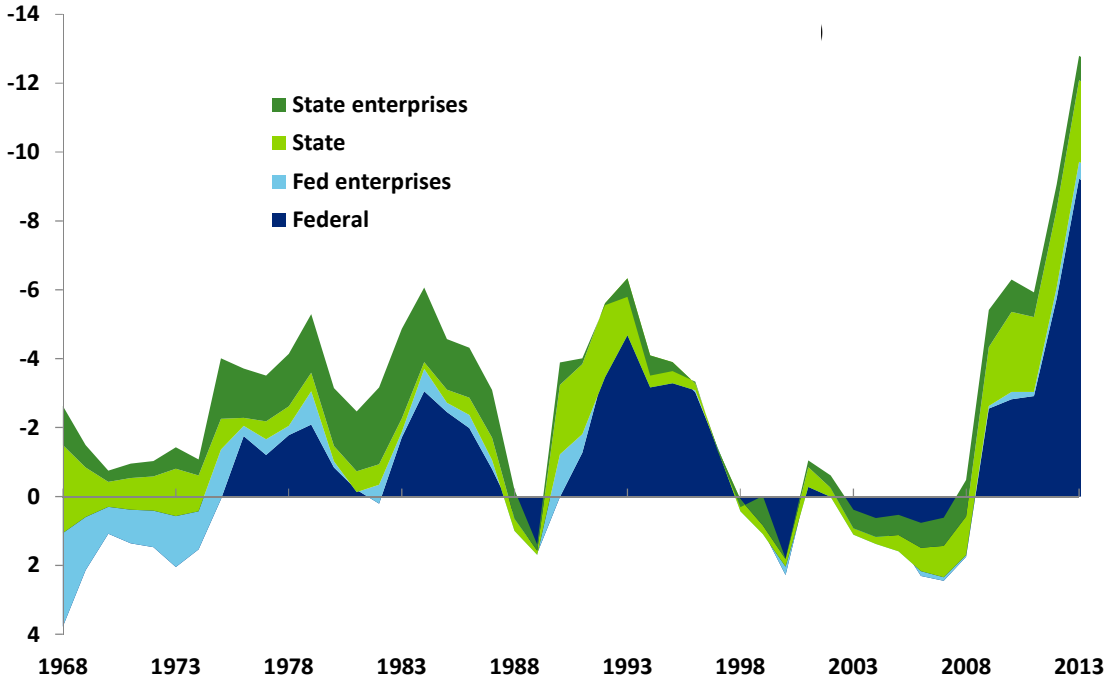
There have been minor changes in the latter goals over time, largely reflecting variations in the underlying economic backdrop to the Budget. Of these intermediate goals, the latter represents both the most prescriptive 'fiscal rule' and the most contentious.

To understand the importance of this approach, it is necessary to explore the background to the current fiscal position, discussed in the remainder of this chapter. At the same time, both the level of spending restraint required to meet this goal and the conditions under which that restraint is intended to operate are important in assessing the current fiscal framework too.

2.2 The short term return to surplus

The Budget deficit and public debt have jumped since the GFC. In response, the Government now faces the challenge of fiscal repair – complicated by an economy facing a complex set of pressures from a rapidly shifting commodity boom.

Chart 2.1: Net government debt, % of national income



Source: ABS Government Financial Statements, Deloitte Access Economics

The Government was committed to the self-imposed deadline of returning the Budget to surplus in 2012-13. However, in late 2012 the Treasurer noted that a shortfall in revenues versus forecasts for them meant that *"Obviously, dramatically lower tax revenue now makes it unlikely that there will be a surplus in 2012-13"*.

We would agree, for reasons we'll spell out in Chapter 6 – where we'll also explain why one of the Government's own fiscal rules was making life unnecessarily hard for itself.

However, there is a risk that we fail to learn from the search for a surplus. In this chapter we examine how appropriate that earlier commitment to a surplus in 2012-13 was from an economic standpoint.

The first and most obvious point is that there are big advantages of Budget repair.

In the medium term modest surpluses can assist in keeping inflation low and the incentives for businesses to invest high. That combination can help to underpin continuing economic growth.

And, as the Business Council of Australia and Mercer (in work for the BCA) have pointed out, it provides a buffer to respond to any future bad news by maintaining the capacity for the Budget to pitch in to help the Reserve Bank if that is needed at some time in the future (such as when recession threatens).

There are also longer term costs to consider, with the need to prepare the Budget for the impact of an ageing population on the one hand and the rising relative cost of health care on the other. These issues are discussed further in Chapter 4 below.

Yet while return to surplus is a good idea, the question of when to return to surplus is also important. After all, just as the stimulus supported the economy during the GFC, tightening fiscal policy will act as a drag on the economy during the return to surplus.

This is a vital debate, and it is worth sorting through the arguments on both sides – the good arguments and the bad ones.

2.2.2 Further fiscal tightening: the good case 'for'

More tightening needn't be a change in policy – it may just change the policy mix: If the Federal Government were to have tightened further, that doesn't necessarily mean the economy would have felt extra pain. The Reserve Bank could cut interest rates to offset further fiscal tightening, with those lower interest rates also reducing the level of the $A (by cutting into the 'carry trade' in favour of the $A on interest rate differentials). Hence the tightening effects of further cuts to public spending and increases in taxes could be offset by lower interest and exchange rates.

A change in the policy mix may have handy side effects: The resources boom boosted Australia's interest and exchange rates. A rebalancing of policy (tighter Budget, lower interest and exchange rates) could therefore have the added benefit of reducing some of the pressure on the sectors and States hardest hit by Australia's 'two speed troubles'.

And there may be a positive expectations effect: Although there's no difference between a deficit of a dollar and a surplus of a dollar, markets would be more impressed by the latter.

We have to 'fix' the Budget at some time anyway: As Deloitte Access Economics often notes, the Budget remains in structural deficit. Australia sits in the rarest of positions, both relative to its own history and relative to the rest of the developed world, in that we have a Government that sees political benefits in achieving Budget savings, and an Opposition also looking to achieve a surplus. These opportunities come rarely, and may be more important than they now seem given the challenges that lie ahead.

2.2.3 Further fiscal tightening: the bad case 'for'

"We'll be the next Greece unless we show greater commitment": No, we won't. Greece spent but didn't tax. Its public sector debts and deficits are stunning. Australia's aren't. This argument aims to cut through the political debate with simple language, but it is not accurate.

We had to get a surplus in 2012-13 or we'd lose our AAA rating: No, we wouldn't have. Foreign markets are well aware of how well placed Australia's Budget is relative to its global peers. Besides, credit ratings aren't the appropriate test of whether something is good policy or not – the ratings are aimed solely at informing bondholders of risks.

Tightening the Budget further would have actually boost the economy rather than hurt it: There's an argument that the willingness to take tough decisions can improve sentiment so much that it makes both families and businesses more willing to spend rather than less by boosting their confidence. That could be true for countries in the grip of fiscal crisis – such as Greece. However, even then it is far from a convincing argument. In Australia's case it doesn't apply at all – contractionary policy is indeed contractionary, not expansionary.

2.2.4 Further fiscal tightening: the good case 'against'

Tightening into a downturn: The pursuit of a surplus in 2012-13 increasingly risked running counter to sensible fiscal policy – the Budget was becoming pro-cyclical, with the government taking money out of an economy where national income growth (the key barometer of economic health) has been slowing notably, and has now dipped well below trend. With the global outlook uncertain, and the RBA already fighting a slowdown by putting money in to the economy, the surplus goal risked adding to the pressures faced by the Australian economy. That was the wrong response: the mirror image of the mistakes made in the last term of the Howard/Costello Government as it poured tax cuts on to a booming economy.

Turning the supertanker: Tightening into a downturn was doubtful policy in part because if developments in China or Europe had become more of a problem, our fiscal policies would have been firmly pointed in the wrong direction. That would be unfortunate: changes to fiscal policy come slowly, not fast, even in a crisis. So the more we had tightened Budget policy, the less well positioned we would have been to jump the other way if the unexpected were to happen in China or Europe. That was all the more true given variable mortgage interest rates are comfortably below their longer term trend – monetary policy is already working very hard. So if the globe stumbled, the Reserve could have cut the cash rate further, but not a lot further.

Fiscal tightening was already happening anyway: Although comparing the change in Budget balances between years is a poor way to judge policy (especially now, when much of the 2011-12 deficit was due to payments very late in the year), that measure shows Budget policy is already tightening by almost 3% of national income in 2012-13. That's a lot. Deloitte Access Economics agrees the Budget needs tightening over time. But there's was no great need to

sprint to surplus by 2012-13. That timing was a line drawn in the sand by politicians, not by economists. To be clear, the debate wasn't whether the Budget should be under repair or not. The turnaround in the next twelve months is huge anyway. The debate was whether the Budget needs to improve by (say) $40 billion or $44 billion in 2012-13 relative to 2011-12. Only the latter would have delivered a surplus.

Feel the quality: Because this has been a sprint to surplus, the quality of the measures in the Mid-Year Review released in late 2011 wasn't world beating. We cheer the genuinely tough and admirable decisions made in MYEFO – most notably, the cut to the baby bonus and to the indexation of subsidies for private health insurance. However, the other decisions were rather less able to be called 'reform' (see Chapter 5). Importantly, any easing in the urgency of the search for surplus is not the same thing as a "do nothing" policy. It's eminently possible to continue to improve Budget 'quality' even if the 'quantity' – overall policy settings and the Budget balance – is dealt with a little more slowly. Australia can and should keep working on the 'quality' via genuine policy reform. Fiscal reform is vital, and Australians deserve better policies than they've been getting. But the overall balance of spending and taxes may need to be repaired more slowly now that the headwinds facing Australia's economy are so significant.

2.2.5 Where does that leave us?

While the Budget needs further repair (indeed it may be in more trouble than official forecasts suggest), moves to fill that Budget hole should come slowly rather than fast.

Those two thoughts aren't contradictory. One goes to the size of the problem, and the other to the pace of addressing it.

In effect, recent developments revealed the Budget repair task was bigger than the Government realised. That is a task that shouldn't be shirked. Yet neither should it be rushed.

Governments do need to pay their way over time, but a surplus in 2012-13 was always a political target rather than an economic necessity.

Indeed, the recent decision to abandon the push for surplus in 2012-13 is in part an implicit admission that a slower return to surplus is a more sensible approach.

3 Sources of variation in Budget figures

3.1 Australia's 'prosperity equation'

A bit of background is handy here. The two big aims of any society are prosperity (the size of the pie) and fairness (how the pie is sliced up).

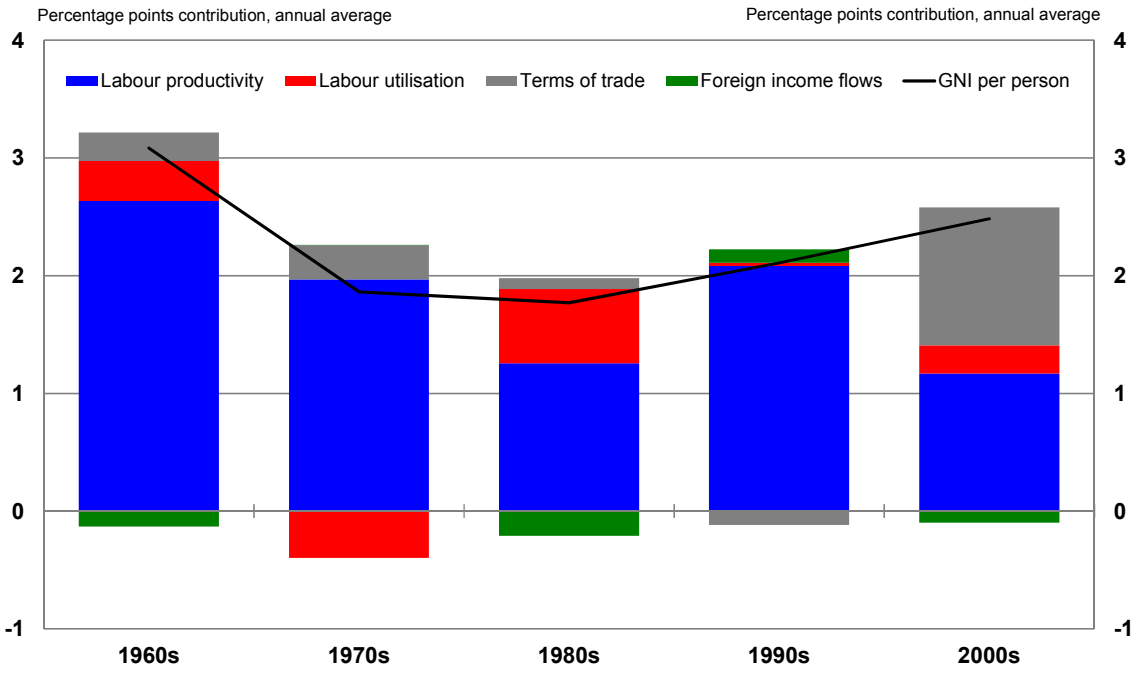
Over the past decade, Treasury's *Intergenerational Reports* (IGRs) identified the production potential of any economy as coming via its '3Ps' of population, participation and productivity.

In effect, an economy produces more when it gets more workers, and / or more productive workers. Yet production is one thing – prosperity is another. And the latter needs to take account a '4th P' as well – relative price (in effect, the terms of trade).

Chart 3.1 is taken from Federal Treasury analysis. It spells out the components of Australia's 'prosperity equation'. In the past decade our national income performance has gone from being dominated by productivity gains to being dominated by gains in the terms of trade.

The red components of that chart indicate the extent to which national income has benefited from changes in the extent to which we are relying on 'more workers' to drive prosperity. Those contributions are important, but they are also smaller than those of some other factors.

Chart 3.1: Contributions to growth in average incomes by decade



Source: Federal Treasury

For the decades analysed in Chart 3.1, the most important consistent driver of added prosperity has been productivity growth. That was particularly true during the 1990s, as the impact of new technologies and of a range of reforms – that began in the 1980s and continued into the 1990s – made our workforce more effective.

However, productivity growth fell away last decade. Workers in the US, for example, saw their effectiveness grow faster than Australian workers. That is seen in Chart 3.2, also drawn from Federal Treasury analysis.

Chart 3.2: Australian labour productivity (index, average US productivity = 100)

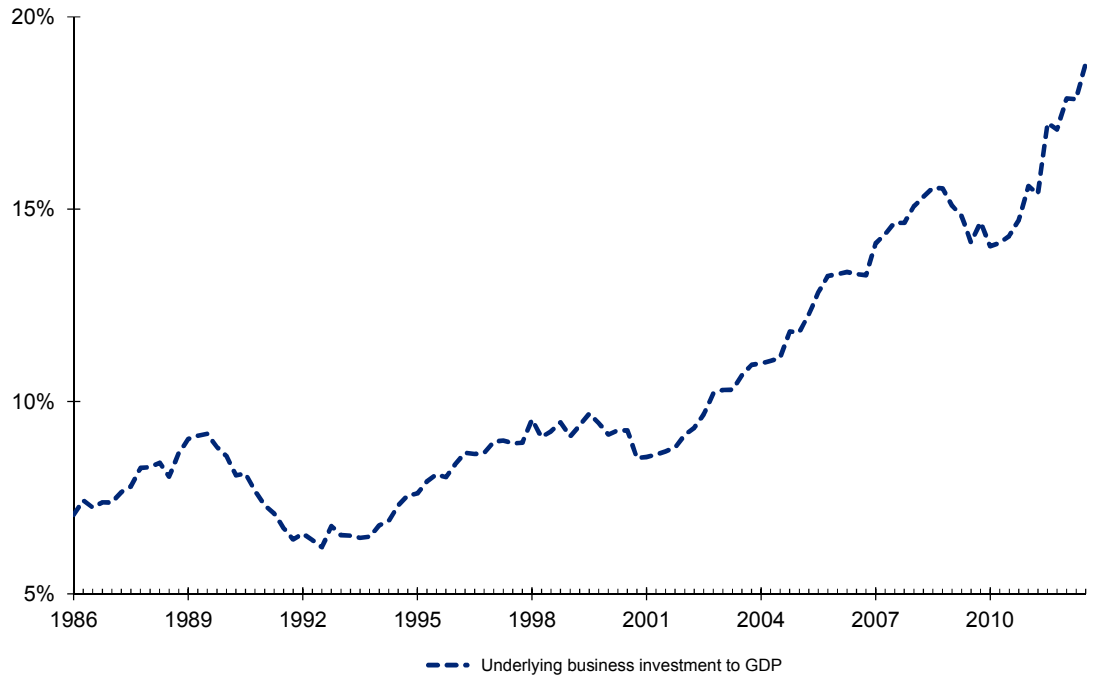
Source: Federal Treasury

Labour productivity has two parts – workers become more effective when they get more and better equipment to work with ('capital deepening').

The remainder of the improvement in labour productivity ('multi-factor productivity') is the gain in efficiency that isn't due to more and better machines.

Accordingly, it is particularly frustrating that Australia's productivity performance has lagged even though the last decade saw business spend at a record rate on new mines, ports, roads, shopping malls, office blocks, equipment and computers (see Chart 3.3).

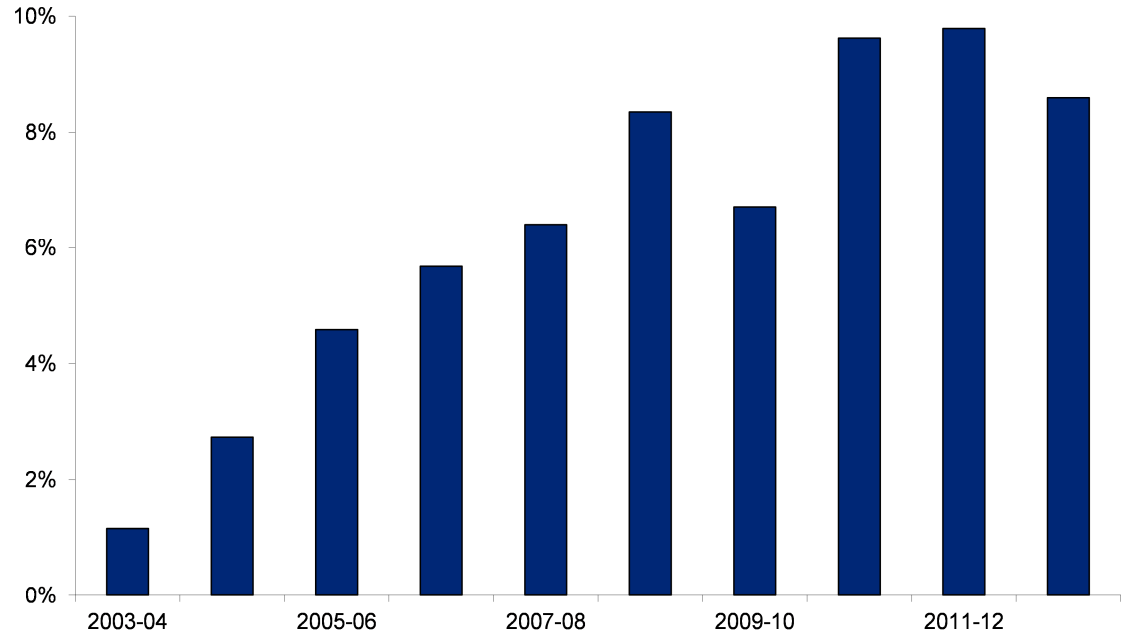
Chart 3.3: Real business investment spending as a share of the economy



Source: Deloitte Access Economics, Australian Bureau of Statistics

Yet our poor productivity performance didn't stop Australian prosperity continuing to improve in the first decade of this century. However, the driver was different.

Chart 3.4: Boost to annual national income from change in commodity prices since 2002-03



Source: Deloitte Access Economics

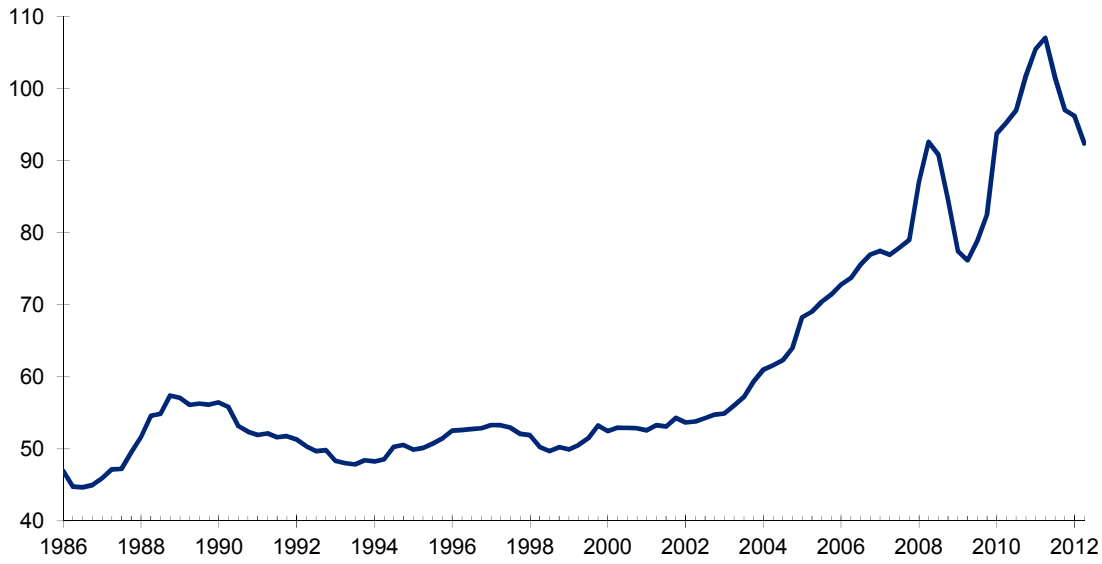
As Chart 3.1 showed, our prosperity growth has become dependent on the terms of trade – in effect, our prosperity has been rising because the world gave us a pay rise.

You can measure the boost to national income from the terms of trade in a number of ways. Chart 3.4 uses Deloitte Access Economics' own measure, suggesting that the surge in world prices for Australian exports such as coal and iron ore added about 10% to annual income in 2011-12.

The Reserve Bank estimates are larger still, and the Bank has helped dramatize that by noting that a ship load of iron ore exports could pay for 2,200 flat screen TVs in 2005, but that grew to a whopping 38,000 TV sets at its peak in 2011, before dropping to 28,000 today.

The sheer exuberance of that gain in the terms of trade may be seen in Chart 3.5 below.

Chart 3.5: The terms of trade (index, 2010-11 = 100)



Source: Australian Bureau of Statistics

Yet now even this latter source of prosperity is also entering tougher times. And that's a problem.

As the Treasurer has put it, the "easy yards" in benefiting from China's boom may already be behind us.

Australia needs a new driver of its prosperity.

3.2 The effect of the terms of trade on the Budget

The past decade of ups and downs for the terms of trade was important for Australia's economy – but it was downright vital for Australia's Budget. Indeed, it was in the years ahead of the GFC, when the so-called 'Rivers of Gold' boosted Federal tax revenues, that some of today's troubles began.

As a small open economy, Australia has always been a price taker on global markets. The difference has been that, over much of the past decade, the prices offered by the rest of the world have been playing directly to Australia's economic strengths.

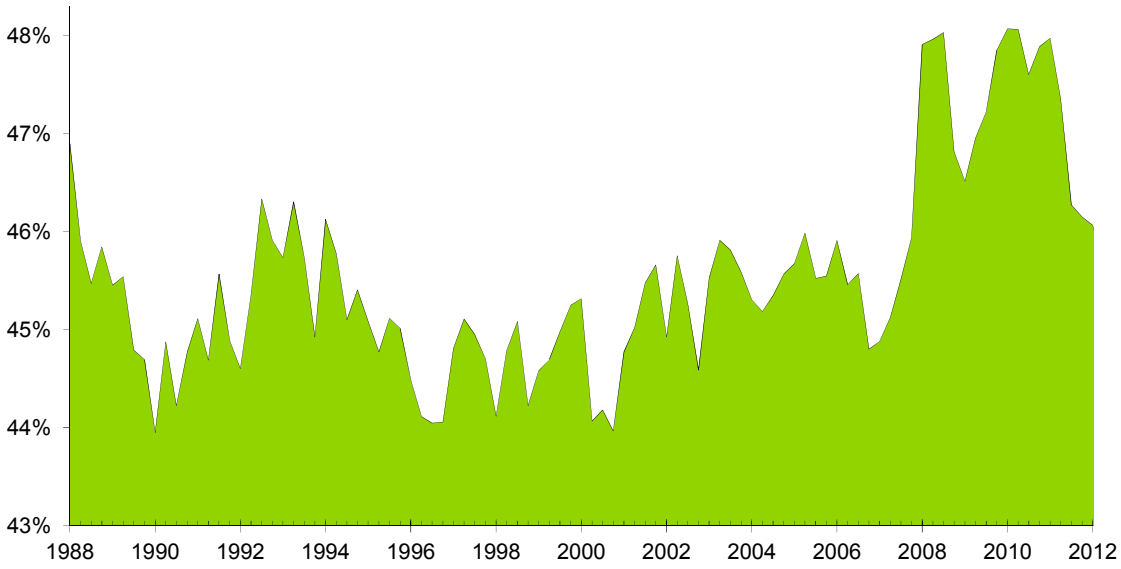
Industrial commodity prices leapt. They did so because half the globe was – and is – experiencing an industrial revolution. Even allowing for the impact of the GFC, emerging economy growth is seeing its most sustained surge ever.

As a result of rising commodity prices and falling prices for imported goods, Australia was being handed a significant pay rise by the rest of the world.

That shift in relative prices fed through to the strong gains in national income over the last decade, as seen in Chart 3.1 above. Much of that increase in income flowed directly into profits – as the likes of the miners saw gains in revenues running ahead of matching costs.

The broadest measure of profits – gross operating surplus – therefore benefited considerably. That may be seen in Chart 3.6.

Chart 3.6: Gross operating surplus as a share of national income



Source: Australian Bureau of Statistics, Deloitte Access Economics

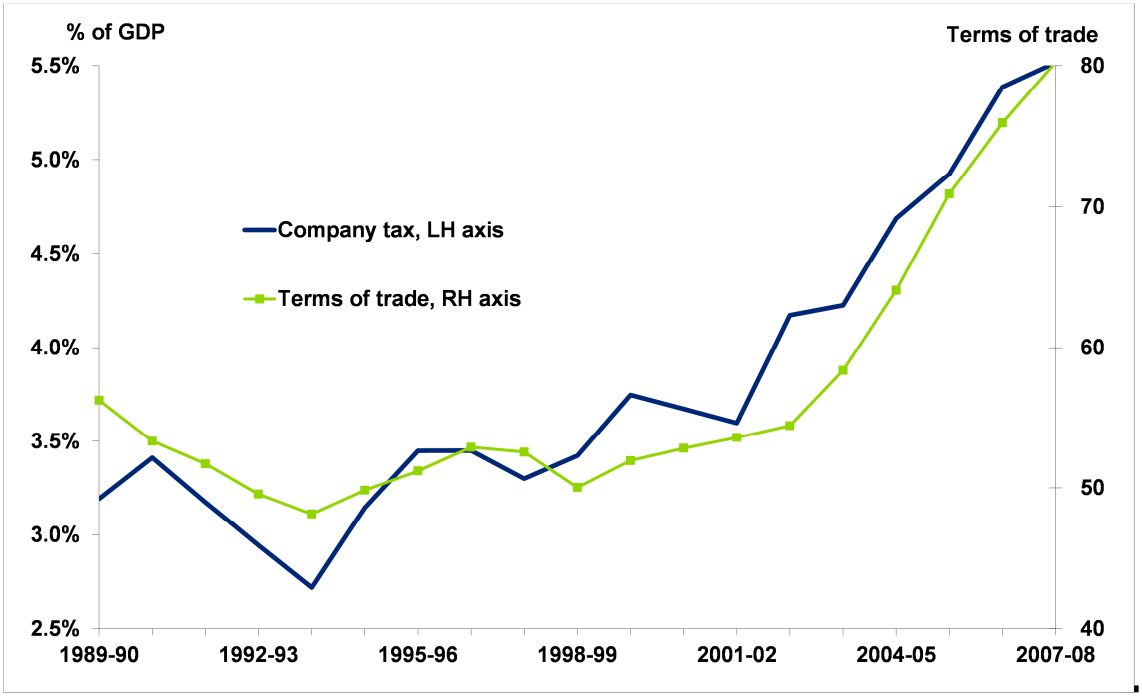
Note that it has not all been the profits of the miners. For example, the profits of retailers also benefited from a lift in commodity prices via a variety of channels:

- Higher commodity prices raised the $A, making the likes of big TVs cheaper to buy.
- Higher commodity prices boosted the Australian sharemarket, adding to wealth and hence again to consumer spending.
- Higher commodity prices boosted profits, and a profit boom is a job boom, with the latter also lifting consumer demand.
- Higher commodity prices boosted the Federal tax take, which was then handed back as tax cuts and family benefits, again boosting consumer spending.

Or, in other words, the lift in commodity prices spread prosperity through the economy in a number of ways. However, the single most common theme has been a lift in profits.

It was this substantial surge in profits which was the key driver of higher company tax revenues. As Chart 3.7 shows, revenue from company taxes rose strongly in line with increases in the terms of trade prior to the onset of the GFC.

Chart 3.7: Company taxes and the terms of trade – the 'Rivers of Gold'



Source: Federal Treasury, Deloitte Access Economics

That lift in profits also helped to support a range of other tax revenues by boosting asset values in sharemarkets and elsewhere, resulting in higher revenue from capital gains tax and superannuation funds.

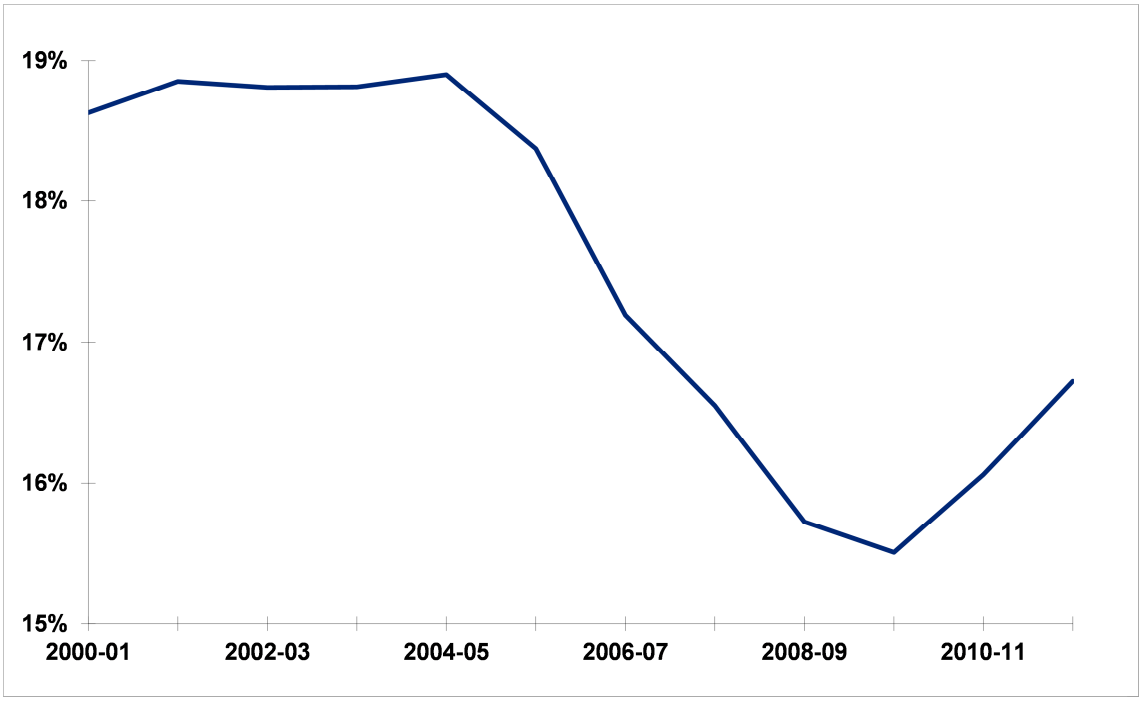
That fiscal windfall was then used to fund a series of personal income tax cuts, effectively transferring some of the gains resulting from higher commodity prices from businesses to families. Chart 3.8 shows how taxes paid by individuals fell sharply relative to wage and salary income.

At the same time, spending on a range of family payments rose notably.

Almost all of the fiscal benefits of the boom were spent (by governments on both sides of the political divide) on the implicit assumption that the benefits of the boom would continue.

By spending the benefits of the boom years, governments effectively tied spending programs and personal income tax rates to the 'high water mark' for revenues – leaving the Budget exposed to any future falls in the terms of trade.

Chart 3.8: Income taxes on individuals as a share of wages, salaries and supplements



Source: Federal Treasury, Deloitte Access Economics

Further, the recent introduction of the MRRT served to 'double down' on the terms of trade by further strengthening the ties between commodity prices and Federal tax revenues.

That thereby makes an assessment of the likely future of the commodity price boom central to any assessment of the health of Australia's fiscal finances.

From a longer term viewpoint there is a commodity supercycle underway. Yet that is likely to be in commodity demand rather than in commodity prices.

Global commodity demand is higher because the demand most relevant to commodity prices is that in the emerging industrial giants of the world, as they are the ones who drive most of the growth in industrial production.

However, although greater demand for industrial commodities is here to stay, that does not mean prices will remain near their 2011 highs in the future.

That is because demand is only ever half of the story. The supply (production) of industrial commodities will eventually catch up to fast charging demand.

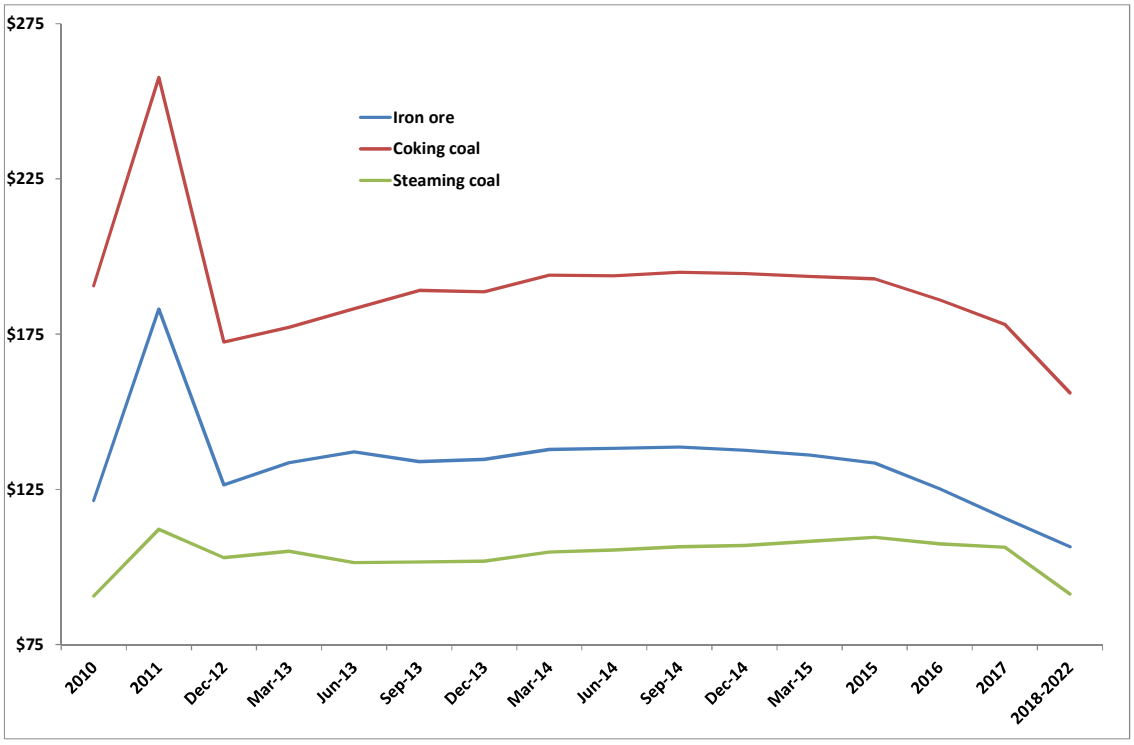
Economics points to an iron triangle connecting demand, supply and price. At any given time two of those three can boom – but not all three.

For much of the past decade the boom in demand has been matched by a boom in price.

However, it is likely that the longer term impact of the Asian century will be a boom in both demand and supply, with prices reverting to those levels generating more 'normal' or 'sustainable' levels of profit.

Interestingly, consensus forecasts have prices for Australia's key commodity exports of coal and iron ore as still being above their real long term averages – implying that the correction in world commodity prices seen in 2012 is not the end of the story.

Chart 3.9: Consensus forecasts of key commodity prices



Source: Consensus Economics

Or, in other words, a degree of fiscal pain resulting from falls in the terms of trade will continue over coming years.

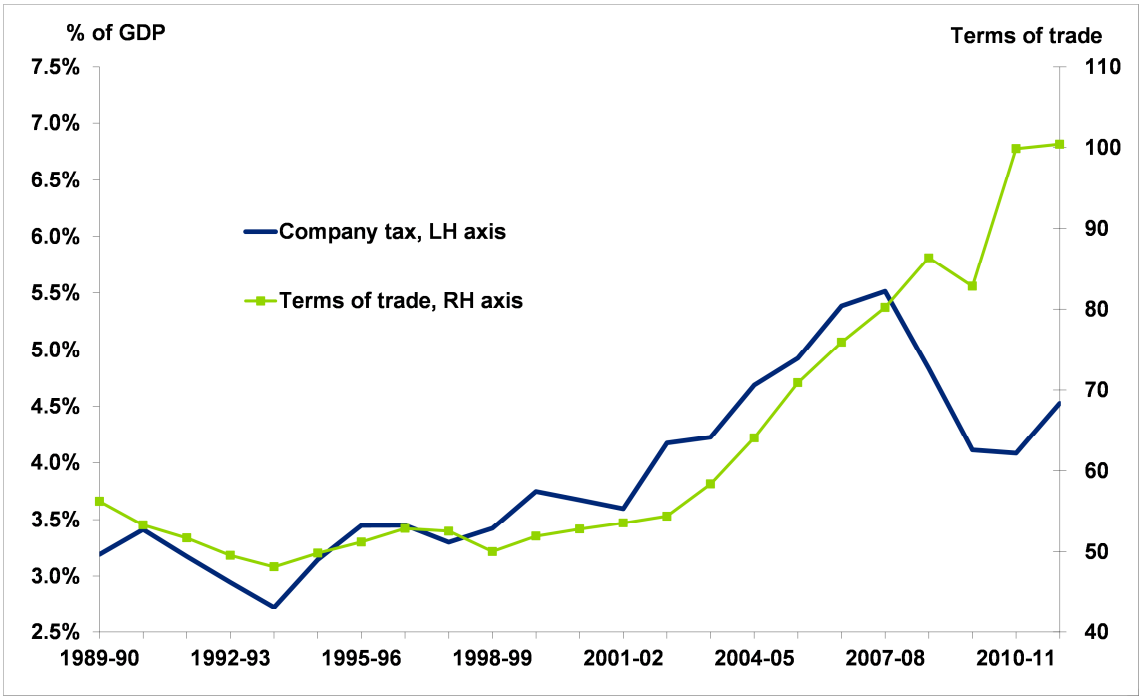
3.3 The tax system is struggling

Frustratingly, however, the problem is larger than just having spent too much of a terms of trade boom that may now be faltering.

Chart 3.10 provides some extra years onto Chart 3.7 seen previously. It shows that a gap has opened up between the terms of trade on the one hand, and the key component of the 'Rivers of Gold' – company taxes – on the other.

That is part of a wider story. In effect, Australia's economy now generates relatively less tax than it used to. The economic recovery since the GFC hasn't seen a matching recovery in revenues, for two main reasons.

Chart 3.10: Company taxes and the terms of trade – the gap opens



Source: Federal Treasury, Deloitte Access Economics

First, before the GFC, families were spending up. And when families spend, they generate more tax: such as increased collections of the GST, petrol and beer excises, and customs duty.

Yet now spending is dominated by companies as they invest a fortune in new capacity. And whereas extra spending by families adds to the tax take, extra spending by businesses reduces it.

By the way, that isn't a criticism of the tax system. The tax system is broadly right to tax the spending of families, and eminently correct to allow deductions for the spending of business.

What it really means is the composition of spending in Australia's economy has gone from being very tax friendly ahead of the global financial crisis to being rather less tax friendly today.

Second, ahead of the GFC the sharemarket was riding high, and so were housing prices. That pumped up capital gains – by a lot – because we tax wealth as well as income and spending. But the glory days of capital gains are long gone. Australia's sharemarket remains well below where it was ahead of the GFC, while housing prices are only just beginning to lift once more.

So the 'tax equation' has changed: the same size of the economy is now delivering less tax.

That's part of what Treasury Secretary Martin Parkinson has been noting when he says "the revenue base has dramatically hollowed" since the mid-2000s.

3.4 Economic and policy variations in recent years

It is all too easy to attribute movements in the Budget bottom line directly to governments. Indeed, Budget outcomes have been seen by some as a key indicator of sound 'economic management' in recent political debate in Australia.

The truth is more complex, with governments responsible for some changes, while broader economic influences also play a major role.

Fortunately, the Treasury provides regular information on the source of movements in the bottom line between updates of the official numbers.

In each Budget and Mid-Year Economic and Fiscal Outlook, Treasury provides a reconciliation of changes in fiscal balance estimates (for example, as seen in Table 3.10 on page 52 of the 2012-13 Mid-Year Economic and Fiscal Outlook).

This table breaks changes in the fiscal balance down into the effects of policy decisions (changes due to 'the government') on the one hand, and the effects of parameter variations (changes in 'the economy') on the other.

Some of the variations in the Budget balance between one set of official forecasts and the next have little to do with government policy, but are instead a consequence of 'surprise' movements in the economy.

When forecasting economic movements becomes more difficult, these variations in the Budget bottom line become larger, as has been evident in recent times.

Indeed, the role of the forecaster has become increasingly difficult in recent years. This is due to a number of significant events taking place, including the global financial crisis, the Eurozone debt crisis and the rapid rise of Asia. These developments are leading to increased economic volatility and substantial structural change both domestically and internationally.

As highlighted in the recent RBA research discussion paper, *Estimates of uncertainty around the RBA's Forecasts* (Tulip and Wallace, 2012), it is not possible to exactly predict the future.

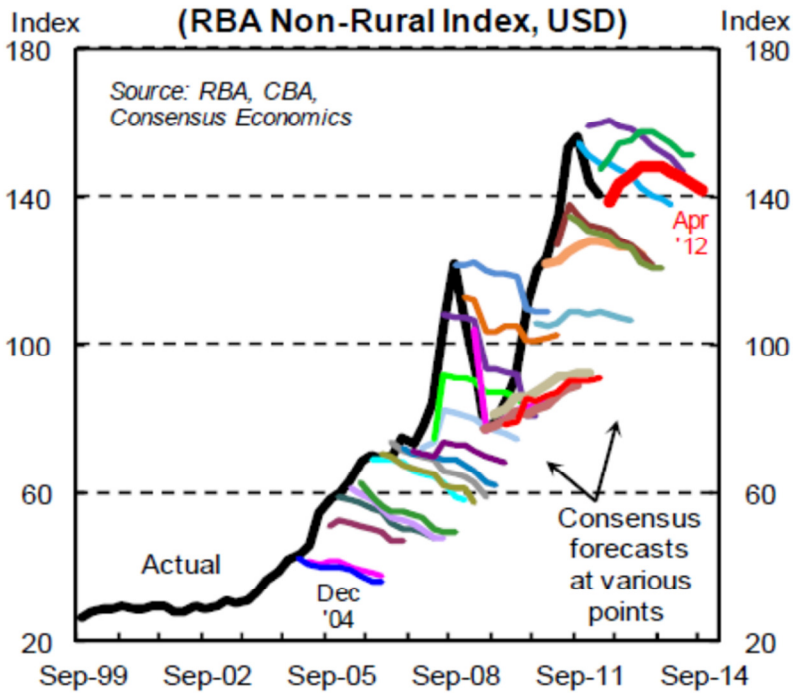
The key variable needed to predict Budget outcomes is now the level of industrial commodity prices, especially the world prices for coal and iron ore. These can be much more difficult to predict – particularly over a four year timeframe – than more traditional measures of the economic cycle such as unemployment or economic growth.

This increased uncertainty around the key driver of the outlook has dominated the Budget process over the past decade. As Chart 3.11 below shows, commodity prices have consistently confounded forecasters over recent years.

Importantly, the direction of unexpected movements in commodity prices has seen four distinct phases:

- Prior to the GFC, commodity prices consistently outperformed forecasters' expectations, resulting in upward revisions to these forecasts over time.
- When the GFC hit, this trend was reversed, with forecasters over-estimating future commodity prices, and then having to revise their forecasts downward.
- As the combination of a tentative global recovery and the massive stimulus in China took hold, forecasters once again rushed to catch up to soaring prices.
- More recently, as commodity prices have fallen, forecasters were once again over-estimating commodity prices.

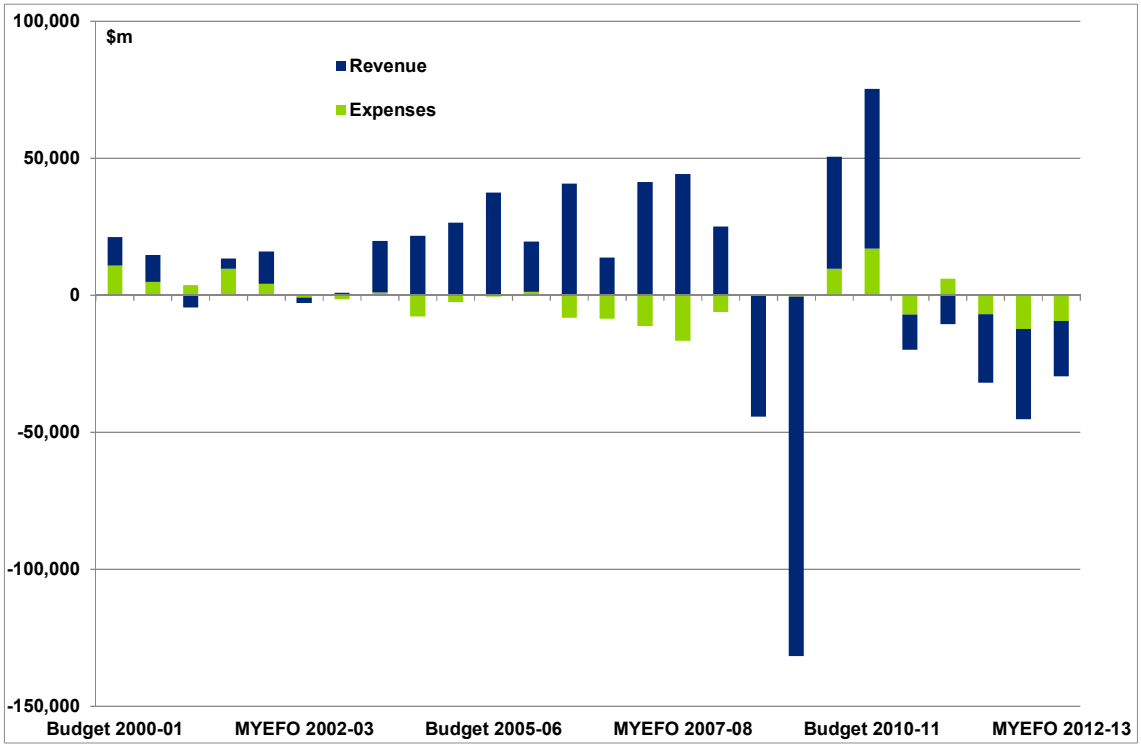
Chart 3.11: Commodity price forecasts over time



Source: Commonwealth Bank

Those same swings in commodity price forecasts have been driving much of the variation in Budget estimates over this period, because each time the Treasury changes its forecast for the terms of trade, that in turn results in rather different forecasts of the Budget balance.

Chart 3.12: Breakdown of variations in fiscal balance due to parameter revisions



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

It is therefore no surprise that the economic variations in the Budget bottom line over the last decade follow a very similar pattern.

That pattern is evident in Chart 3.12 above, which shows the total variations in the Budget balance over four years (the Budget year and three forward estimate years) over time.

It is noteworthy that the Budget surprises coming from revisions to economic parameters have flowed largely through changes to revenue, rather than changes in the level of spending. Indeed, total spending has surprised on the high side over much of this period, despite solid gains in incomes and low unemployment.

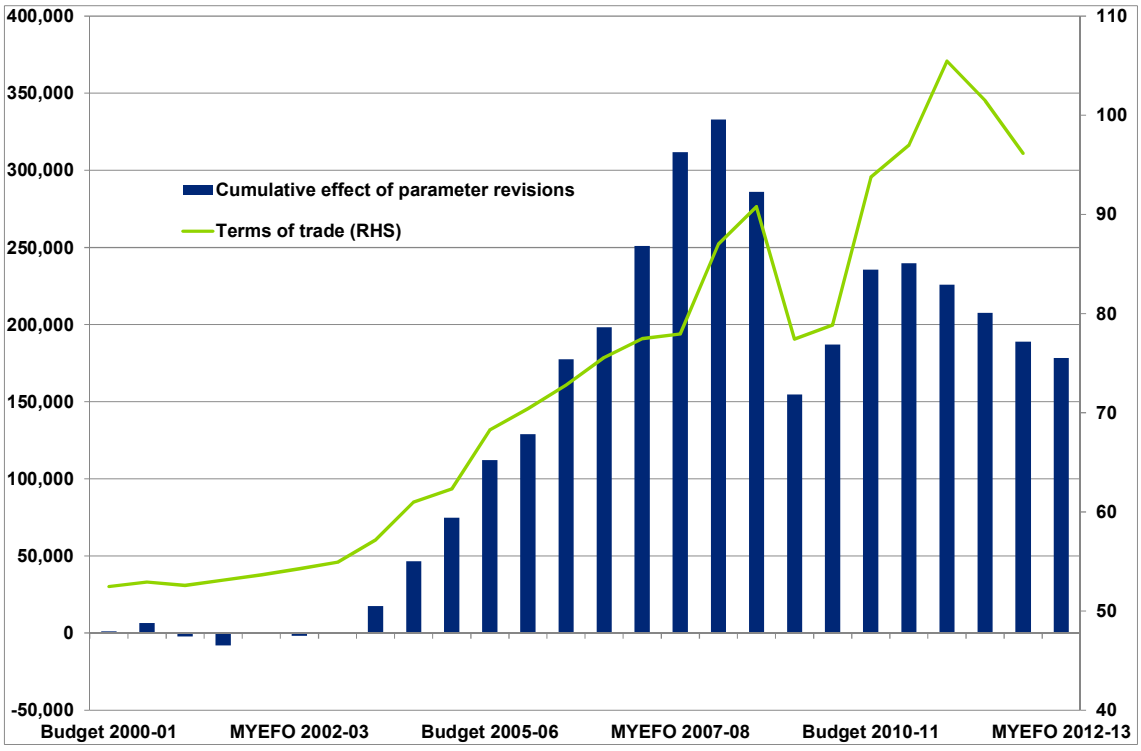
Again, that is not surprising, since while most Government spending is not dependent on movements in the economy, taxes on both households and businesses are closely tied to movements in national income.

As noted in Section 3.2 above, the unexpected swings in tax revenues over the last decade owed much to movements in key commodity prices – which boosted corporate profits, and hence the company tax take.

Indeed, prior to the GFC, the pattern of movements in the Budget due to the economy mimics that of the terms of trade with remarkable accuracy, as seen in Chart 3.13. In effect, the developments in world prices for Australian exports showered revenue onto Canberra.

Of course, the substantial disruption caused by the GFC has since seen company tax revisions fail to keep pace with further gains in the terms of trade, reflecting the significant lag between economic recovery and increases in company tax revenues.

Chart 3.13: Budget revisions and the terms of trade



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Or, in other words, there was relatively rather better news for revenues from the terms of trade and the wider economic backdrop ahead of the GFC than there is now.

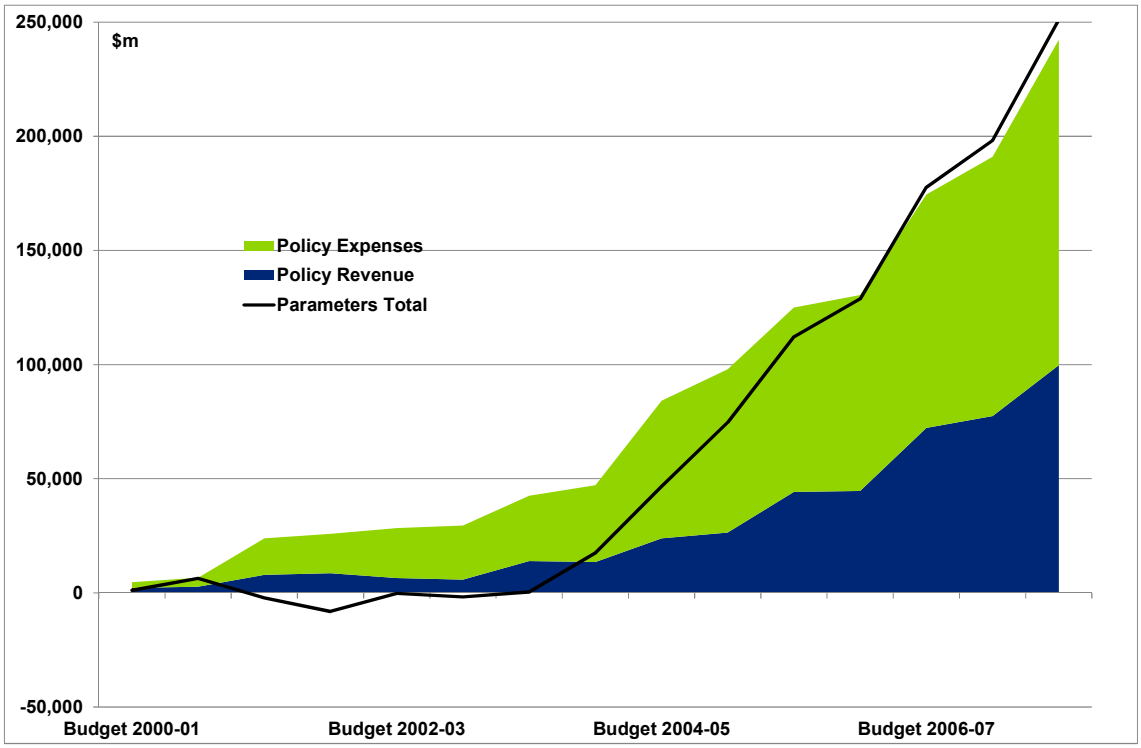
Budget estimates also spell out variations due to policy change – the net result of the Government's efforts to save money and decisions to spend money.

While the Government of the day is keen to claim credit for 'savings' when it suits (and often gets the headlines to match), it is the net figure which is the key when it comes to the overall fiscal balance. Unlike the impact of parameter variations, which is largely outside of the Government's control, the net cost of policy decisions is a more or less accurate reflection of the government's fiscal effort.

It deserves much more attention than it gets from both the media and from analysts.

Prior to the GFC, it was also an accurate reflection of the Budget response to the unexpected improvements in the revenue outlook. That relationship may be seen in Chart 3.14.

Chart 3.14: Variations due to policy and parameters – 2000-01 Budget to 2007-08-Budget



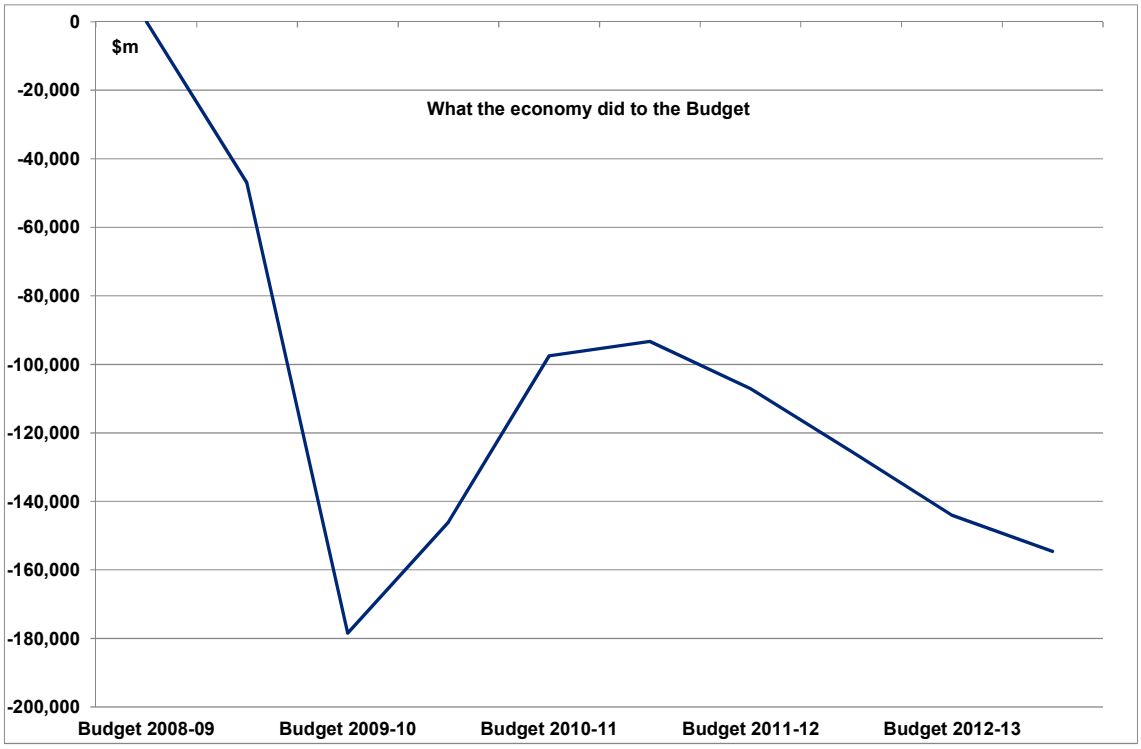
Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

During the pre-GFC period of the mining boom, the then Government effectively handed back the revenue from that boom to households via a mix of tax cuts and spending increases. Hence the remarkable match in size and timing seen in Chart 3.14 – Treasury revised up the Budget outlook due to better than expected economic prospects (the 'parameter' line in the chart), and those windfalls were promptly parcelled out as tax cuts (the blue 'policy revenue' area in the chart) and as spending increases the green 'policy expenses' area in the chart).

Then the next phase began as the GFC hit. The weakening economy wiped many billions off the Budget, as seen in Chart 3.15. That chart shows that, from the starting point of the

2008-09 Budget, Treasury's estimates of the impact of "the economy" on the Budget were then rapidly wound back, with the initial (and sharpest) negatives evident through the immediate aftermath of the GFC.

Chart 3.15: Budget revisions due to the economy – 2008-09 Budget to date



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

That was followed by a period of upgrades – Australia's economy survived the GFC better than expected, while China's own stimulus led to a massive leap in industrial commodity prices. That boosted Budget prospects for a time, allowing the Government to promise a return to surplus "three years early" (by 2012-13).

However, gathering headwinds (including a disappointing recovery in the rich world and a more recent slowdown in emerging economies that ate into commodity prices) has seen Treasury revert to revenue downgrades.

By the way, note that drop from the peak parameter impact seen in Chart 3.15 to its current level is a net cost to the Budget of $155 billion over a four year period. Or, as page 1 of the 2012-13 MYEFO noted, there has been a *"write-down in tax receipts of almost $160 billion over the five years since the beginning of the Global Financial Crisis"*.

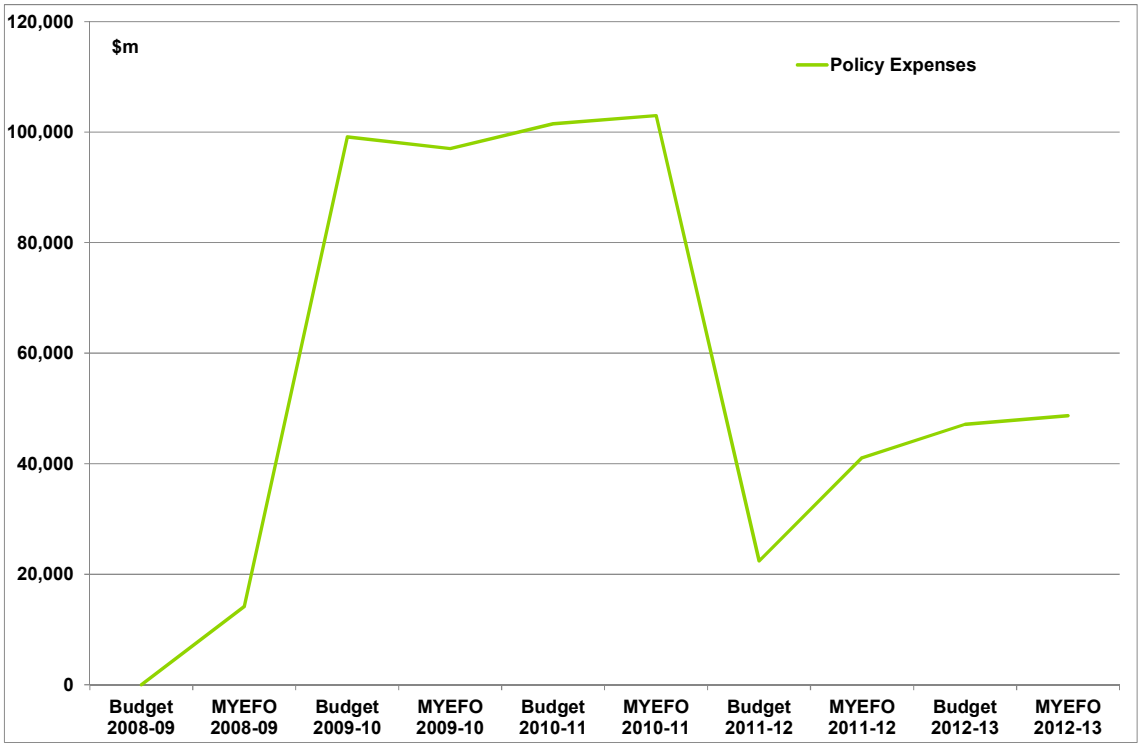
The policy response to the onset of the GFC was to support economic activity. The two charts below separately identify the impact of net policy decisions on expenses and revenues. The two are separated, because – as the Chart 3.16[3] shows – almost all of the GFC-related policy response showed up in expenses rather than revenues.

[3] Note that, for the purposes of Chart 3.16, we stripped out the ongoing effects of spending decisions taken between the 2008-09 Budget and the 2008-09 MYEFO – at the height of the GFC – four years on. That essentially represents the end of a range of stimulus spending.

That chart, which covers the onset of the GFC and its aftermath, shows that Australia's fiscal policy became counter-cyclical, serving as a defence against the downturn.

(Ironically, it also means that our Australia's fiscal policy was to spend during the good times, and then to spend during the bad times.)

Chart 3.16: Expenditure revisions due to policy – 2008-09 Budget to date



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

For the most part, that stimulus program successfully helped to protect the Australian economy from the worst of the global downturn[4].

At the time the GFC hit, the IMF and the Australian Treasury both noted that any measures to support the economy needed to be timely, temporary, and targeted. Yet the above chart shows that policy decisions on spending didn't fully unwind, let alone act to start to rebuild the Budget to give it the firepower to help pay for any future need to defend against a downturn.

Rather, a sizeable increase in spending remains evident in Chart 3.16 following the end of the stimulus measures. Indeed, close to half of the total lift in spending recorded at the height of the GFC remains part of the most recent Budget bottom line.

Why not? In part the answer is that the stimulus measures themselves did unwind, but other decisions have been made to add to spending as part of revenue-related policies.

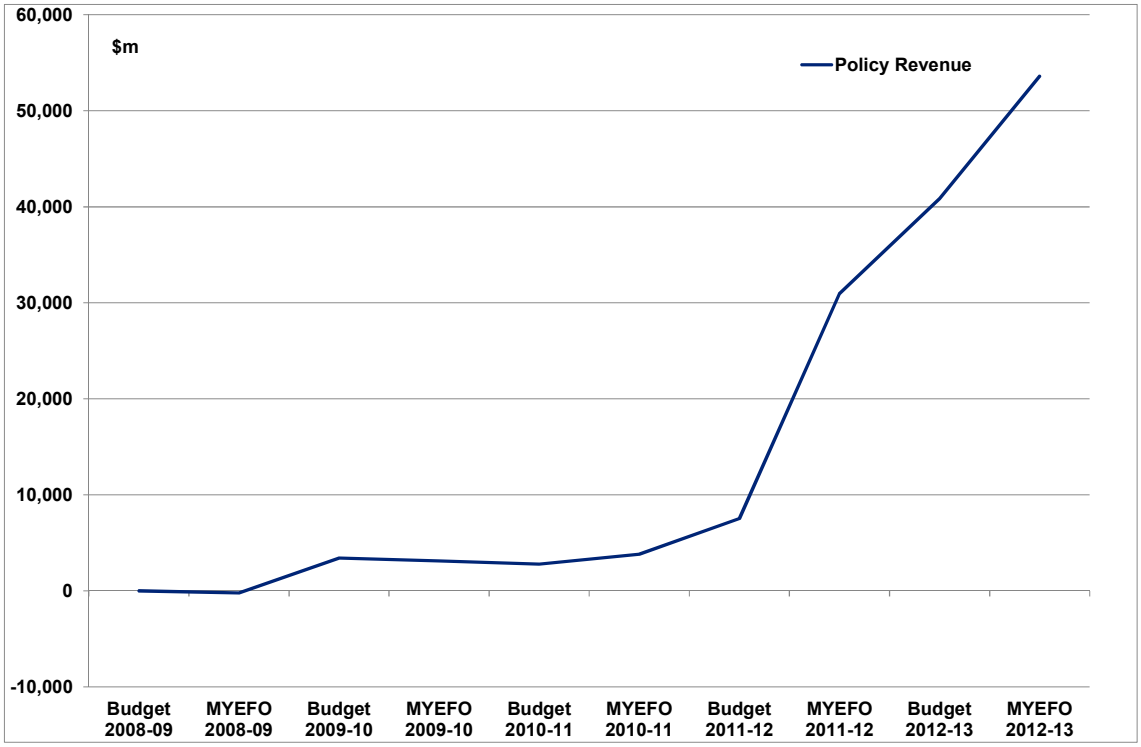
Rather than a continuation of the stimulus spending, these increases reflect a combination of other measures, including:

[4] For a more detailed discussion of Deloitte Access Economics' views on stimulus in general, and the Government's largely successful effort to counter the GFC in particular, see issue #82 of our *Budget Monitor* publication.

- Carbon tax compensation paid to households in the form of increased pensions and benefits, and to affected workers and industries through adjustment assistance.
- Increases to family payments, including the replacements of the education tax refund with the more generous Schoolkids Bonus, and higher payment rates for older dependents under Family Tax Benefit A.
- Other new spending in a range of areas, including on infrastructure projects and Australia's Defence commitments in Afghanistan.

Against that increase in spending, policy changes designed to increase revenues have been ramping up of late, as seen in Chart 3.17 below.

Chart 3.17: Variations in revenues due to policy – 2008-09 Budget to 2012-13 MYEFO

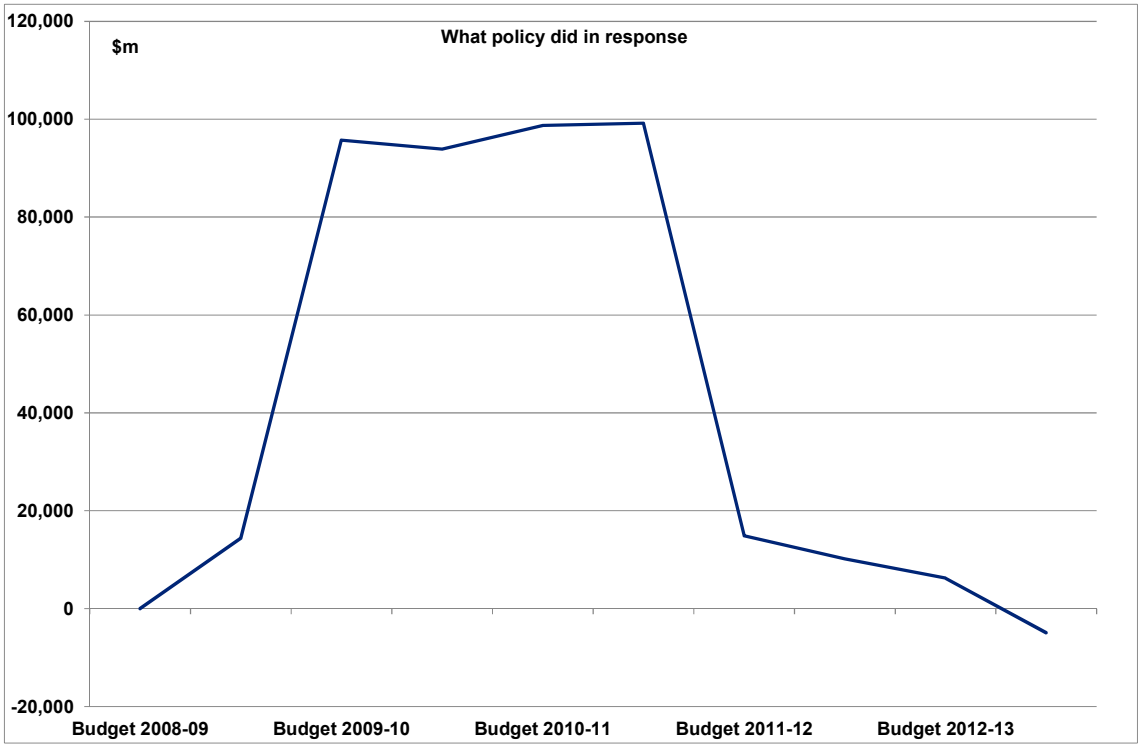


Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Policy decisions on revenues have seen the latter move substantially higher more recently amid tax increases – notably the decisions to introduce new mining and carbon taxes.

Those new taxes were accompanied by broadly matching increases in spending, meaning the net effect of policy decisions, seen in Chart 3.18 below, has yet to make a major impact on the accumulated decisions of past Budgets – highlighting that there is still a long way to go to achieve meaningful Budget repair.

Chart 3.18: Variations due to policy – 2008-09 Budget to date



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Note that the Government's stated fiscal objectives mean the target in the above chart is not zero – it should instead be looking to move the impact of policy change into negative territory over coming years. That is because the Budget needs repair, while at the same time downward revisions to the economic outlook mean that repair task is getting harder.

3.5 Volatility in revenues

The discussion above is a reminder that Australian Budget revenues are quite volatile. Hence, for example, promising a wafer thin Budget surplus of around ¼% of total Budget revenue will always tend to be risky.

However, that begs some wider questions around tax volatility. Here, we present estimates of the volatility of existing heads of revenue since 1990-91.

The ten heads of tax revenue examined:

1. net PAYG income tax (including the Medicare levy),
2. other individuals income tax (including Medicare),
3. company income tax,
4. superannuation funds income tax,
5. PRRT,
6. fringe benefits tax (FBT),
7. sales taxes (combining GST, wholesale sales tax, and other indirect taxes),

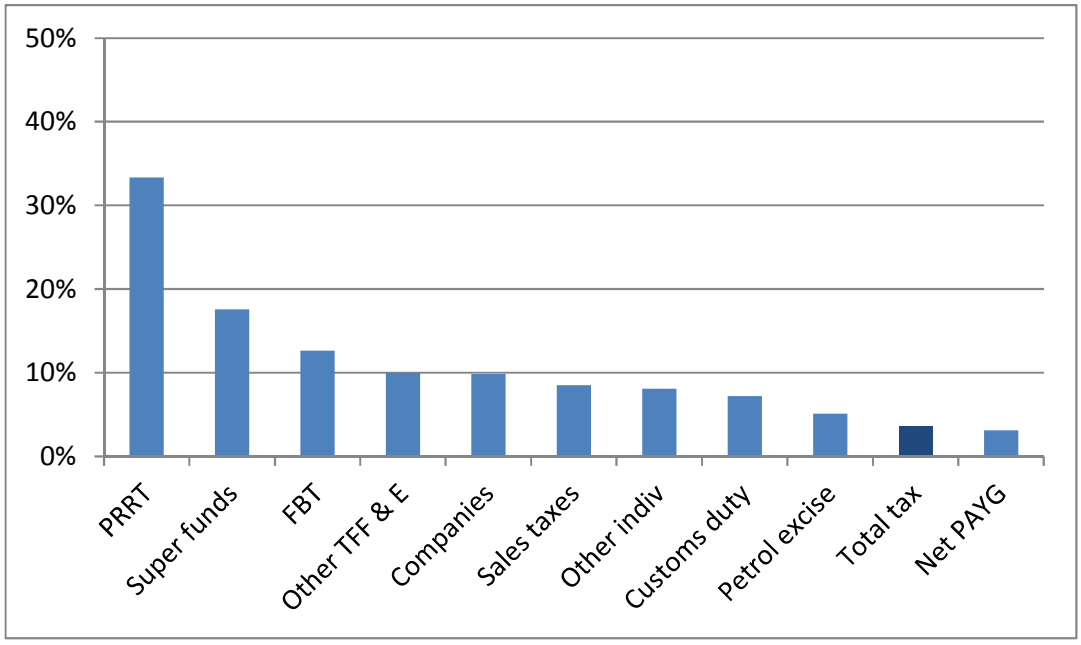
8. petrol excise,
9. customs duty, and
10. all other taxes, fees, fines & excises.

Allowance has been made for commencement and cessation of taxes within the 20 year period, but there has otherwise been no allowance for volatility arising from policy decisions.

This latter simplifying assumption is also conservative, because policy changes will typically have added to volatility. For example, grossing up rules were introduced for the 1994-95 FBT year to restore equity between the provision of wages and the provision of fringe benefits to employees. That effectively doubled measured FBT revenues in that year, meaning including that change would add to the measured volatility of that head of revenue in this analysis.

Chart 3.19 below summarises the resultant volatility indexes for the ten heads of tax revenue over the last 20 years or so. The PRRT shows the highest average percentage deviation from trend among the existing heads of tax revenue at 33%, while net PAYG shows the lowest average percentage deviation from trend at 3%.

Chart 3.19: Average annual percentage deviations from trend existing heads of taxation revenue



Source: Commonwealth Budget papers, DAE estimates

Chart 3.19 highlights that profit based taxes, notably company tax, which have been a key source of recent swings in Budget forecasts, are more volatile than overall revenue.

Of particular note is the high level of volatility in the 'resource rent' based PRRT – a tax which shares a number of features with the recently introduced MRRT.

In other words, while the bulk of commonwealth revenues come from PAYG income taxes, the change in revenue over recent years has increasingly been driven by much more volatile sources of revenue.

3.5.2 The implications of tax revenue volatility

Does volatility matter?

Reading the history of the last decade of Budget policy in Australia, you could be forgiven for concluding that Governments were lulled into a false sense of Budget security by a long boom in revenues, but when the downturn finally came – and the underlying volatility was revealed – it had left lingering problems in its wake.

We'd spent the lot – or, as it turned out, we ended up spending more than what may be the enduring budget legacy of the Asian century, actually hurting the structural position of the Budget.

Then again, volatility isn't necessarily a bad thing. Indeed, it is often a good thing. In fact the volatility in taxes, including both personal and corporate income taxes, has long been recognised as an important component of the Budget's counter-cyclical 'automatic stabilisers'.

In addition, there is nothing particularly wrong with less volatile measures being funded by volatile ones. For **Budget sustainability**, it is long run averages which count, not short term swings.

However, even if volatility shouldn't matter for long term sustainability, the risk averse nature of the political process means that Governments and Oppositions can act as though it does.

Moreover, volatile taxes suffer from an additional problem. Not merely are volatile taxes often used to fund less volatile costs, but the very nature of these taxes mean that their long term averages are notably open to question.

That said, Budget sustainability isn't the only matter at issue here in considering whether 'volatility matters'.

For **Budget planning – and the expectations of the Government and the public related to announced plans** – it is important to remember the implications of:

- the unreliability of forward estimates of volatile heads of revenue, and
- the resultant difficulty in achieving particular Budget targets in any given year.

And these difficulties are compounded by the complication that taxes tend to 'go bad' at much the same time as each other.

By extension, that points to an increase in the volatility of overall Budget outcomes relative to the plans for those outcomes. It also increases the likelihood and frequency of surprise swings in the overall Budget position.

That combination has important implications both for the medium term management of fiscal policy and for the management of the public's short term expectations of the Budget position.

After all, if the Government of the day and the public don't have much tolerance for volatility in the Budget bottom line, then there needs to be a recognition that the latter just increased.

3.6 How at risk is the Budget to the economy?

So just how big are the risks to Australia's fiscal position?

Deloitte Access Economics explored that issue for the Business Council of Australia (BCA) in 2011.[5] We found that the Budget has been riding high on a strong cycle in commodity prices – but is therefore at particular risk if and when those prices fall away.

We considered a scenario where a fall in commodity prices in response to global weakness came at the same time as a slowdown in the Australian economy. Under that scenario, our analysis suggests the Budget would face a $36 billion hole in the Budget by 2013-14.

That further highlights the degree to which Australia's Budget strength remains reliant on the assumption that global commodity prices stay close to current levels.

Note that both history and economics suggest commodity supply will eventually catch up to demand, and the range of plausible risks – including for permanent impacts on the Budget's bottom line – goes quite high.

Other things equal, that suggests a clear case for caution on Budget settings.

Deloitte Access Economics has been saying this for a while now, and some of these same concerns were recently noted by Martin Wolf of the Financial Times. As he said to an Australian Financial Review conference, *"If I were running the Australian economy . . . I'd try to run it on the assumption that the commodity prices might halve",* with that move aided by a *"colossal amount of investment"* in new supply that is already underway. With Chinese demand for commodities likely to shift dramatically lower in the coming decade, Treasurer Wayne Swan should base future spending plans *"to a significant degree on the tail risk"* of a plunge in prices, he said.[6]

[5] See http://www.bca.com.au/Content/101791.aspx.

[6] See http://www.afr.com/p/national/economy/time_for_fiscal_restraint_in_australia_hgq18LT7D67MEujghPYjXK.

4 Assessing Australia's fiscal health

There's too much of an emphasis in the current fiscal rules on how fast Australia is growing. As we explain in Chapter 6, we think that the measure of growth the Government is relying on (real rather than nominal) is wrong headed.

Yet there's a more fundamental issue here: the Budget balance is a level. So to answer the question *how healthy is the Budget?* you need to separate the cyclical froth from the long term fundamentals, determining the structural position (that is, where the Budget would be if the economy were running at trend levels of activity: trend *levels* not trend *growth* rates).

The first part of this chapter attempts to address that very question by trying to identify the structural Budget balance. Many, including the Federal Treasury, have highlighted the difficulties of attempting to measure the structural Budget position. Yet while we agree that these measures are far from perfect, they help to fill a vital gap in the current fiscal framework by indicating where the Budget sits after accounting for economic cycles.

That said, even if you do identify the structural balance, the next question is what time period that covers. For example, to say that the Budget is healthy today does not imply that you can get away with a 'do nothing' policy given the known impact of an ageing population on the one hand, and relatively faster cost growth in health care on the other.

This chapter canvasses these issues.

4.1 Identifying the structural Budget balance

In a very important sense we simply don't know how healthy our Budget is – or isn't.

Up until 2003, unemployment was a handy proxy for the underlying strength of the Budget. If, for example, we ran a deficit even when unemployment was low, that pointed to underlying structural weakness in the Budget. Or if we ran a surplus even when unemployment was higher than usual, that pointed to structural strength in this nation's social contract with itself.

Accordingly, modellers used the unemployment rate or related statistics such as 'output gaps' to identify the structural health of Australia's economy. These types of relationships continue to underpin most published analysis of the structural health of Australia's Federal Budget.

Yet there is an immediate question mark over estimates which rely on unemployment or output gaps as their key driver. Most notably, payments of unemployment benefits are a very small component of overall public spending. Even more importantly, and as discussed in the previous chapter, the key volatility through the cycle is not in spending, but rather in revenue. Indeed the only reason why the unemployment rate was a proxy of the structural health of Australia's fiscal finances through to 2003 was that unemployment was as handy proxy for the strength of the wider economy – when it went up, tax revenues went down.

The problem for Budget modellers is that, since 2003, the revenue side of Australia's Federal Budget has shown little linkage to shifts in the unemployment rate. Across the period since

2003 there has been a striking lift in national prosperity off the back of a lift in the terms of trade – in particular, higher coal and iron ore prices.

That shift in China-driven coal and iron ore prices – the dominant driver of the terms of trade – has led to a fundamental improvement in revenues via many channels, with higher coal and iron ore prices doing everything from raising employment and retail sales, as well as underpinning a sharp upswing in share markets and housing prices.

Or, in short, the best proxy for the underlying health of Australia's Federal Budget is no longer unemployment – it is now coal and iron ore prices.

The difficulty is that, although economists argue over the structural unemployment rate, the boundaries of that argument are not very wide. However, now that our fiscal finances are very much dependent on coal and iron ore prices, and their associated flow on effects to Australia's economy and asset markets, the range of reasonable estimates becomes rather wider. Assessing where coal and iron ore prices stand today versus where they will be in the longer term opens up a rather wider field of dispute.

Hopefully recent developments are a reminder of the risks.

In times past, Treasury's assessment of the Budget could be pegged more securely against the yardstick of where unemployment might settle over the longer term. Today's equivalent assumption requires estimating where coal and iron ore prices settle over the longer term.

That means the Federal Budget is built on rather shakier foundations than most policymakers realise. One implication of the increased volatility – greater risk – that implies is the case for taking out more insurance.

We have long argued in favour of that case – that there were reasons to be cautious in the extent to which we have handed out tax cuts and spending increases in recent years.

However, that didn't happen, and as a result, Australia's social contract with ourselves is rather more vulnerable (although until recently that vulnerability has been hidden – well hidden – by China's prosperity and the impact of that on the rivers of gold flowing to the Federal taxman).

4.1.1 Structural and cyclical Budget balances

The Budget balance at any given time is a function of two factors:

- **The changing fortunes of the economic cycle**. These give rise to movements in the cyclical Budget balance. They include, for example, the impact of stronger than trend job levels on personal income tax receipts, or of higher than trend profit levels on tax receipts such as company taxes.
- **All other influences**. These mainly reflect discretionary moves taken by the Government of the day, such as spending on programs, or cutting tax rates. Other influences are more subtle. For example, if inflation is running fast, then so too is fiscal drag ('bracket creep'). The year-to-year gain from this is taken to represent an improvement in the Budget's structural balance (a net increase in revenue). But any discretionary tax 'cut' (as the Government hands back the effect of inflation) is a net structural worsening. A similarly subtle influence would be if the Tax Office became more or less firm in applying the law.

4.1.2 Headline and underlying Budget cash balances

The analysis here concentrates on the underlying structural cash balance of the Budget. If this is in balance, then the Federal Government is (in trend terms) neither increasing nor decreasing its net indebtedness, and the actual underlying Federal Budget balance reflects merely the impact of the economic cycle.

When looking at the cyclical properties of the overall budget balance, it is usual to split it into just two components: the cyclical balance and the cyclically-adjusted ('structural') balance.

Changes in the cyclical balance give an estimate of the budgetary impact of aggregate fluctuations through the induced (or automatic) changes in tax bases and social welfare spending. By construction, the cyclical balance is zero when the economy is 'at trend', and its variations are thought to be outside the immediate control of the fiscal authorities.

The cyclically-adjusted balance (CAB) is the hypothetical overall balance that would be observed if output was at trend levels. The CAB is simply calculated by subtracting the estimated effect on the fiscal accounts of the business cycle.

Cyclical adjustment offers an intuitive way of dealing with the fact that tax revenue and government spending move automatically with the business cycle. The idea is that, once they are cyclically adjusted, changes in fiscal variables reflect policymakers' actual decisions to change tax rates and spending levels.

Changes in the CAB are generally interpreted as resulting mostly from policy decisions.

To complicate matters, however, the CAB is a reflection of two sets of fiscal costs.

The first is the effect of policy decisions systematically related to changes in the actual or expected cyclical conditions of the economy. For instance, governments wishing to actively pursue a countercyclical policy could cut taxes or increase spending whenever the economy is in a recession. Or it may reflect extraordinary fiscal stimulus efforts such as those adopted in response to the GFC. Equally, when the economy begins to improve after a recessionary episode (and fiscal stimulus), stimulus measure are withdrawn or ceased.

The second source of variations in CABs arises from budgetary changes associated with that are not the result of the response of fiscal authorities to the business cycle. This "exogenous" CAB can either reflect fiscal impulses associated with the pursuit of objectives other than stabilisation or the impact of "cycles" out of sync with output or aggregate demand cycles.

As a consequence, the problems with the standard cyclical adjustment are twofold. First, some variables affecting fiscal balances are not perfectly correlated with output fluctuations. For example, exceptional declines in asset prices may reduce revenues by more than could be explained by looking at output gap changes.

Several effects are worth considering.

- **Share prices**: Recent swings in sharemarkets were more pronounced than in past business cycles, and would, thus, not be fully included in the above estimates. The fall in revenues could come through several channels, including declines in capital gains taxation, a fall in

wealth, consumption, and consumption tax revenue, and the impact on company tax revenue associated with a dip in financial sector profits.

- **Housing prices**: Similar comments apply to the swings in housing prices.
- **Commodity prices**: The effect on fiscal revenues of swings in commodity prices is large.
- **Exchange rates**: The appreciation of the $A has squeezed the profits of exporters and those who compete with imports, with consequences for company tax revenue.

Overall, these other non-discretionary effects were sizeable in the GFC and its aftermath.

The main problem is that cyclical-adjustment methods may be insufficient to remove from the fiscal data any swings in tax revenue associated with asset price or commodity price movements – though we have tried hard to address the latter concern.

The usual cyclical adjustment may throw little light on the extent of any structural deficit arising as a consequence of asymmetrical and uncertain asset or commodity price 'cycles' separate from the usual output or aggregate demand cycle.

Second, where counter-cyclical (stimulus) policies have been adopted, a shrinking of a negative CAB could reflect the fiscal benefits of improving cyclical conditions rather than true fiscal consolidation measures initiated by the Government. Likewise, the existence of a negative CAB at a particular point in time is not of itself evidence that there is a "structural problem" with the Budget. That is only evident when economic conditions are normal or close to trend.

The traditional approach seems most useful when counter-cyclical policies are not adopted (and stabilisation is left almost entirely to automatic stabilisers).

On this basis, usual methods may well understate the cyclical component of the Budget, so the cyclically-adjusted balance (as measured) is a poor ex ante indicator of a structural deficit.

When discretionary fiscal stimulus measures have been adopted, what the usual cyclical adjustment fails to indicate is the extent to which deliberate fiscal consolidation is required to avoid emergence of a structural deficit. The present cyclical adjustment framework largely presupposes that all stimulus measures are permanent in nature, and need to be deliberated reversed or terminated by policy decision.

Stimulus measures that do not have a time limit or involve recurrent cost implications are most at risk of having a permanent effect on the deficit, and a cumulative one on net debt.

However:

- Temporary stimulus measures have a temporary effect on the deficit, although a permanent one on net debt levels. This is true of most stimulus measures involving increased operating outlays that are designed to expire after a certain period.
- Any self-reversing stimulus measures have a temporary effect on both the deficit and net debt. Few measures are truly self-reversing (such as bringing forward some investment spending).

Structural deficits are most likely to arise as a consequence of stimulus measures that may end up not being temporary or reversible.

To eliminate any Budget deficit, discretionary consolidation (or savings) measures are only needed to address the fiscal cost of:

- stimulus measures that are not temporary or reversible, and
- any asset price or commodity price falls that may not return to 'normal' in a reasonable period of time.

If the impact of stimulus measures on net debt is to be reversed, an element of 'fiscal drag' is also needed – involving automatic stabilisers being symmetrical in effect – to put the budget into surplus during the above-trend part of the business cycle. Additional measures may be desirable to the extent that budget surpluses need to be run even if the economy is on trend in order both:

- to pay down net debt that has accumulated – due to the financing of stimulus measures – to above medium- to long term prudent levels, and
- to build up fiscal space to respond to future cyclical crises.

Cyclical adjustment to deficits is at its most useful when it is capable of adequately addressing these issues.

In simple terms, short term Budget forecasts are generally a function of demand, while long term forecasts are a function of supply. The idea of a structural Budget is to bridge this gap as much as possible – by removing the distortions to revenues caused by excess demand (or alternatively, by a lack of demand).

4.1.3 Structural level versus the structural change

It is important to use caution when making conclusions from the structural Budget model. In general, year-to-year changes in the structural balance are more useful and accurate than the actual level at any particular time. This greater reliability of changes than levels is a consequence that follows on from the choice of smoothing period for creating the structural economy that underlies the structural Budget. In general, the cyclical component of the Budget at the years at the start and end of that smoothing period will be fairly close to zero, as all components of output in the actual and structural economies at these points are assumed to be equal (by definition).

In a sense the end-points of the cycle used to smooth the economy act so as to peg the cyclical component of the Budget balance. Thus the structural deficit/surplus level may not be an accurate indication of the actual situation. However, the change in the structural balance from year-to-year is a fairly accurate measure of changes in the true situation.

4.1.4 The results

The results are in the charts below. The Budget was in structural surplus in the late 1980s, but the recession of the early 1990s brought an end to that as the Government threw money at a deteriorating economic and political outlook.

The structural balance then improved thanks to the tough Budgets of 1993 and (particularly) 1996, and the structural Budget surplus reached a new peak in 1999-00. But both the structural and cyclical sides of the Budget lost ground thereafter, battling both (1) a series of tax cuts and a huge dollop of family benefits and baby bonuses, followed by (2) a striking surge

in stimulus spending. Yet despite that series of negatives since 2003-04, Australia also saw a big gain in commodity prices and hence revenues across that period too.

Continuing tax cuts plus the billions in stimulus packages since then led to striking structural deficits. The structural deficit is estimated to have peaked at $56 billion in 2010-11, weighed down by stimulus costs, as well as by the impact of the long series of personal income tax cuts in recent years.

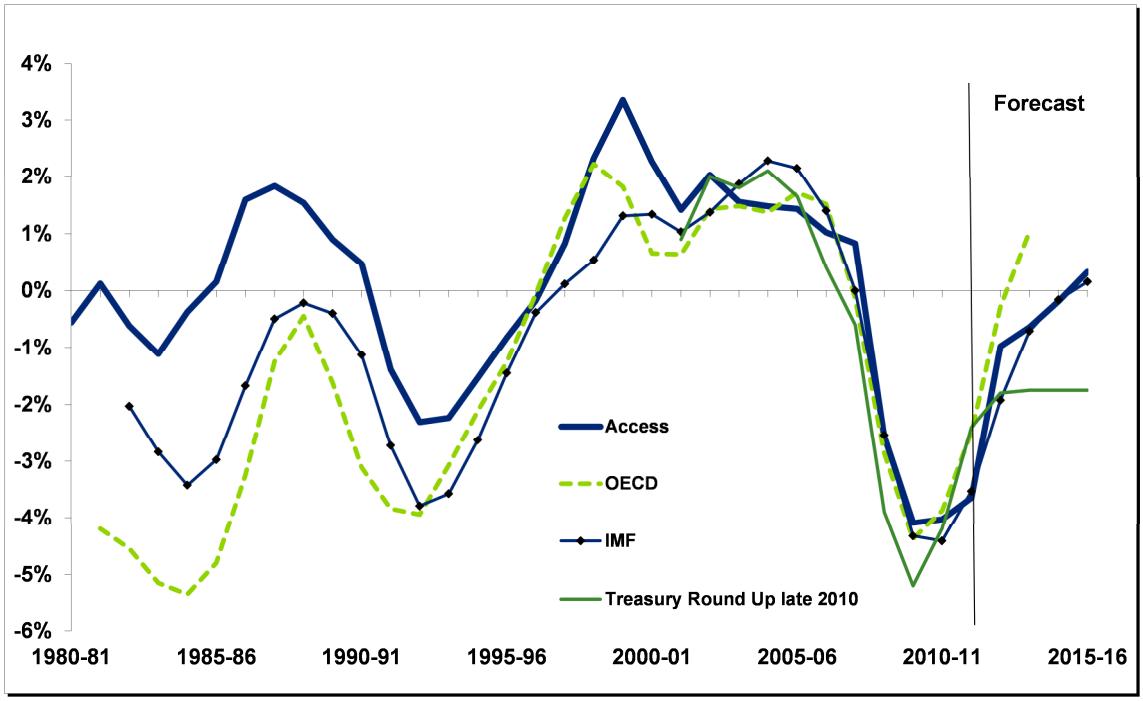
Thereafter the structural Budget balance gets better. Outside of the carbon compensation cuts in 2012-13, no further tax cuts are promised and the impact of stimulus will continue to taper off. The structural Budget balance may have improved to a deficit of $54 billion in 2011-12 and then to $15 billion in 2012-13, $10 billion in 2013-14 and $3 billion in 2014-15, before a return to structural surplus in 2015-16.

Why is there an improvement? Fiscal drag helps. So too do some of the genuine 'structural saves' achieved in recent years. In addition, there is a swing of several billions of dollars arising from the fact that this methodology doesn't capture the 'rainshadow effect' of the GFC on revenue collections, particularly capital gains taxes. Accordingly, the latter are assumed to be structural improvements in this methodology, thereby helping the return to structural health in Budget aggregates over the next four years. (Correspondingly, periods of CGT negatives – such as now – will tend to exaggerate structural deficits.)

4.1.5 OECD, IMF and Treasury estimates

Structural balance estimates are made by Deloitte Access Economics, the IMF, the OECD and researchers at Federal Treasury. Those estimates are shown in Chart 4.1 below.

Chart 4.1: Estimates of the structural underlying cash balance



Source: Deloitte Access Economics

We argued in Section 3.2 that the outlook for commodity prices is central to the outlook for the Budget. Similarly, the OECD's 2006 *Economic Survey of Australia* noted that "The three major OECD commodity producers – Australia, Canada and Norway – are the only OECD countries for which there is a statistically significant (at the 5% level) positive correlation between the terms of trade and the corporate tax share over the last 3 decades."[7]

Chart 4.1 tells a fascinating story. In essence, it says that all major agencies have a similar – and very depressing – view of the underlying health of the Australian Federal Budget, but that all of them look for it to improve notably as stimulus runs its course and (2012-13 aside) with no further tax cuts to sap structural strength, allowing fiscal drag to help close the deficit.

4.2 The longer term health of the Budget

Yet the above are only medium term estimates.

Were this analysis of structural Budget balances to push out further, it would have to allow for the long term upside risks to expenses and downside risks to revenue associated with ageing, health care, environmental costs, and the Defence White Paper.

Or, in other words, it would have to do a lot of what Federal Treasury's *Intergenerational Reports* (IGRs) are meant to do – though the latter concentrate just on spending.

In brief, every nation taxes its workers and its businesses so as to pay for subsidies to the young and the old, the sick and the poor. Yet in many parts of the world, including here in Australia, that social compact will be under pressure in coming decades.

That pressure will come from two key trends – an ageing population on the one hand, and relatively faster cost growth in health care on the other.

To date the vast majority of the work in this area has been the Commonwealth Treasury's *Intergenerational Reports* (IGRs) of 2002, 2007 and 2010. A report we've done for the Business Council[8] adds a matching look at State Budgets to the latest Commonwealth IGR. Although pressures on the States are not quite as notable as those on the Commonwealth Government, they are considerable – and they have not been widely recognised. The States, for example, bear a considerable load on the health care cost front, even after allowing for recent proposed changes in State arrangements in this area.

That means the problems for Australian fiscal finances in coming decades are greater than is usually realised. Moreover, there are additional complexities here:

- First, our Federation has evolved into a system whereby the States spend more than they earn (and vice versa for the Commonwealth), leaving the national government providing subsidies to the States.
- Second, despite the relative efficiency of the GST (a Federal tax distributed to the States) and the potential efficiency of payroll taxes (if they were not as subject to exemptions as they are), State taxes as a group are rather less efficient than their Commonwealth counterparts.

[7] See www.oecd.org/australia/economicsurveyofaustralia2006.htm.

[8] See http://www.bca.com.au/Content/99520.aspx.

That means the pressures on the States – and the age old question of 'who pays' that those pressures raise – becomes worse still in light of the small size of the State tax base and inefficient nature of many State taxes. In turn, as key trends add to spending needs at the Commonwealth and State levels, the tax system will need to be able to cope.

The 2010 Commonwealth IGR pointed to a shortfall on 'primary balance' of 2¾% of GDP by 2050 – and that is only projected to be achieved after expenditure savings are assumed to save an initial 1% of GDP by 2020.

The modelling in our report for the BCA indicates that the States will see a shortfall of much the same size: almost 2½% of GDP by 2050, meaning that the total shortfall in national fiscal finances by 2050 would be just over 5% of GDP.

What can this nation do about that? There really are three choices about how we go about affording this. Either we:

- Try to fund the spending challenge by retaining the current tax system architecture, but scale it up to meet these costs. This would imply the need for significantly higher marginal tax rates on personal income and a high company tax rate (and even higher rates if we are not prepared as a nation to revisit the GST); or
- Retain the current tax architecture (with current rates and the like) but cut entitlements through greater use of co-payments and user pays arrangements for health and aged care, provide less generous government pensions, and reduce other spending; or
- Maintain the safety net and major entitlements and have a reasonable redistribution of income, but fund this through an improved, robust tax system architecture focused on a small number of broad revenue bases with competitive rates.

It is this latter approach which would seem to make the most sense.

Yet – as the frog slowly boils – there is no guarantee that such good sense will hold sway.

By the way, you may think that there is a missing option in the above. However, 'doing nothing' is not an option. Australia's governments have enviable fiscal positions. Indeed, that served us well through the recent global financial crisis, leaving us better positioned to defend against the downturn through stimulus spending.

However, running rising fiscal deficits across four decades – the 'do nothing' outcome – would not be a viable option. Current events serve as a reminder of the vulnerabilities that nations risk if they do not pay their way over long periods, and that is particularly true for small economies reliant on foreign lenders, of which Australia is a prime example.

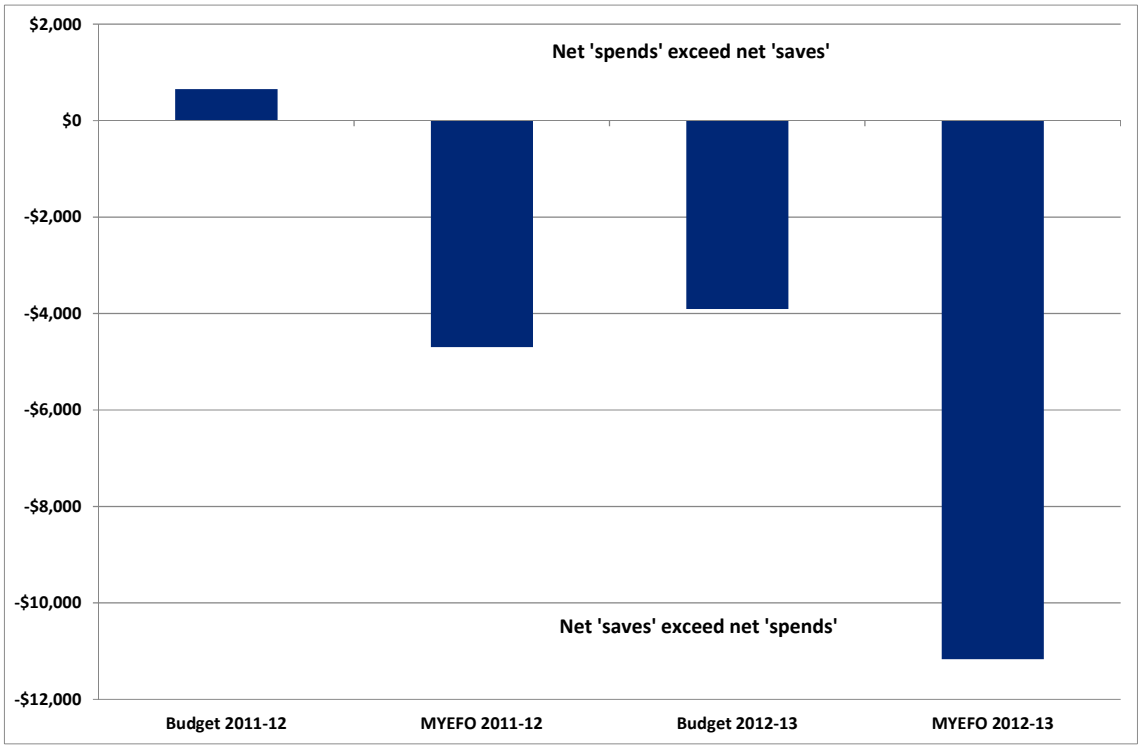
And, to draw the obvious conclusion, the earlier and more sensibly that Australia addresses these challenges, the better our chances of meeting them without major dislocation.

5 Recent / proposed policy changes

5.1 Recent policy changes

The increased focus on savings is evident in Chart 5.1. The latter doesn't use revenues and expenses. Rather, it uses 'spends' (decisions which hurt the Budget bottom line) and 'saves' (those which helped it).

Chart 5.1: Net policy decisions – 2011-12 Budget to 2012-13 MYEFO



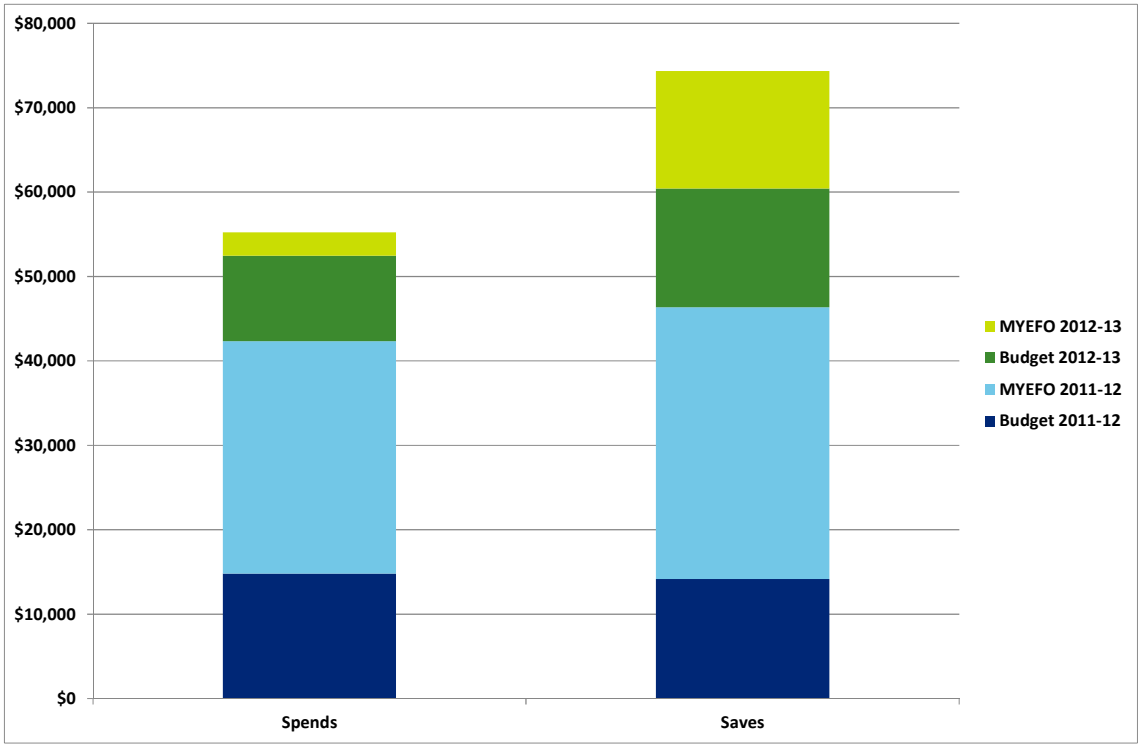
Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

In brief, the 2011-12 Budget was still marginally 'expansionary' (that is, 'spends' exceeded 'saves' and so policy decisions worsened the Budget bottom line over a four year period).

The tide turned slowly, with net savings generated by the 2011-12 MYEFO and the 2012-13 Budget.

It is also worth noting that the net effects identified in Chart 5.1 actually reflected rather larger gross flows, as seen in Chart 5.2

Chart 5.2: Gross policy decisions – 2011-12 Budget to 2012-13 MYEFO



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

However, it wasn't until the 2012-13 MYEFO that net savings became larger.

Yet 'larger' didn't mean 'better'. The sprint back to surplus saw the quality of policy begin to suffer, with not much more than a tenth of the net savings in the 2012-13 MYEFO the result of 'genuine' policy restraint.

We cheer the genuinely tough and admirable decisions made in MYEFO – most notably, the cut to the baby bonus and to the indexation of subsidies for private health insurance.

However, a number of other decisions in the rush to surplus were rather less able to be called 'reform'.

It is worth looking at the major components of policy changes to the Budget bottom line in recent times.

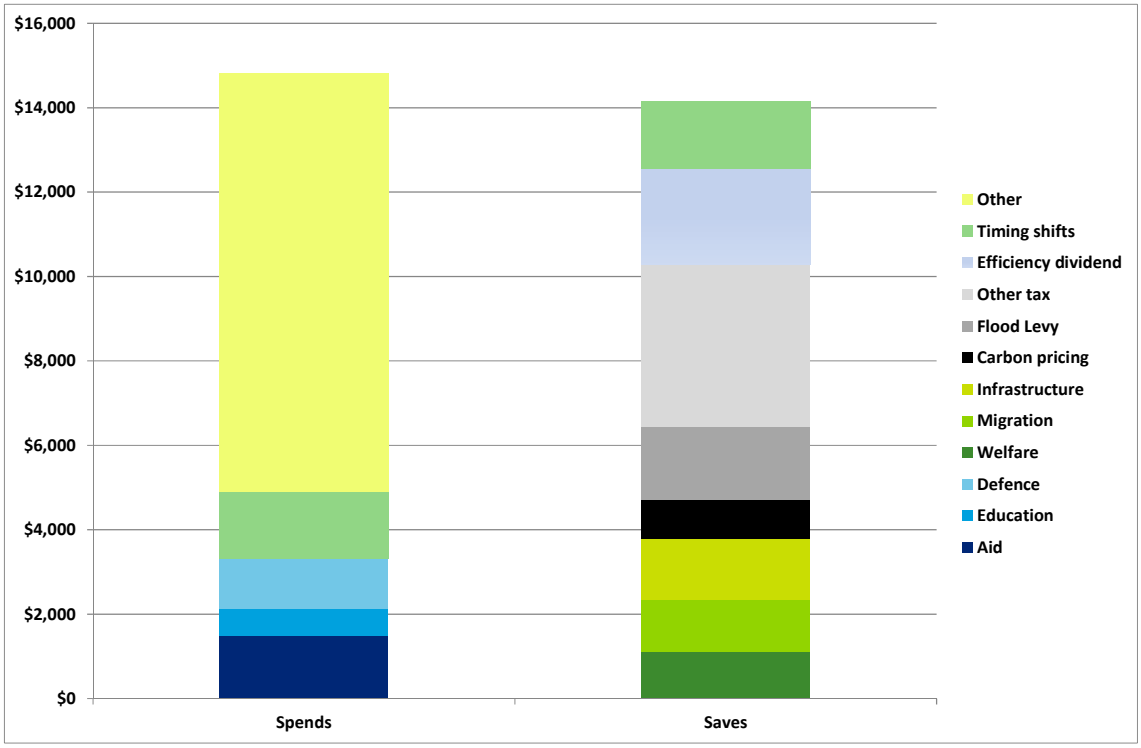
Here, we take a look at the make-up of policy decisions affecting the bottom line, beginning with the 2011-12 Budget, as seen in Chart 5.3.

It shows four year totals for saving and spending measures, which we have allocated into broad groups according to their policy aims.

This involves a high degree of judgement, and represents a form of 'rough justice' where the individual measures involved are complex or address more than one policy purpose.

Even so, the measures outlined in the chart illustrate the nature of the spending and saving decisions taken.

Chart 5.3: Gross policy decisions – 2011-12 Budget



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

On the spending side, the 2011-12 Budget contained a large number of smaller measures aimed at a wide variety of programs, with the most notable additional spending on foreign aid, education and defence.

With the exception of the re-phasing of local government grants and new tax arrangements for alternative fuels (shown as 'timing changes' in the chart) which resulted in matching savings, these spending decisions largely represent genuine and deliberate changes to the funding of government policy.

On the saving side, there are also a number of genuine changes – particularly the removal of the entrepreneur's tax offset and dependant spouse tax offset, and reforms to the fringe benefit rules around cars (all of which fall within the 'other tax' item in the chart), as well as changes designed to better target family payments.

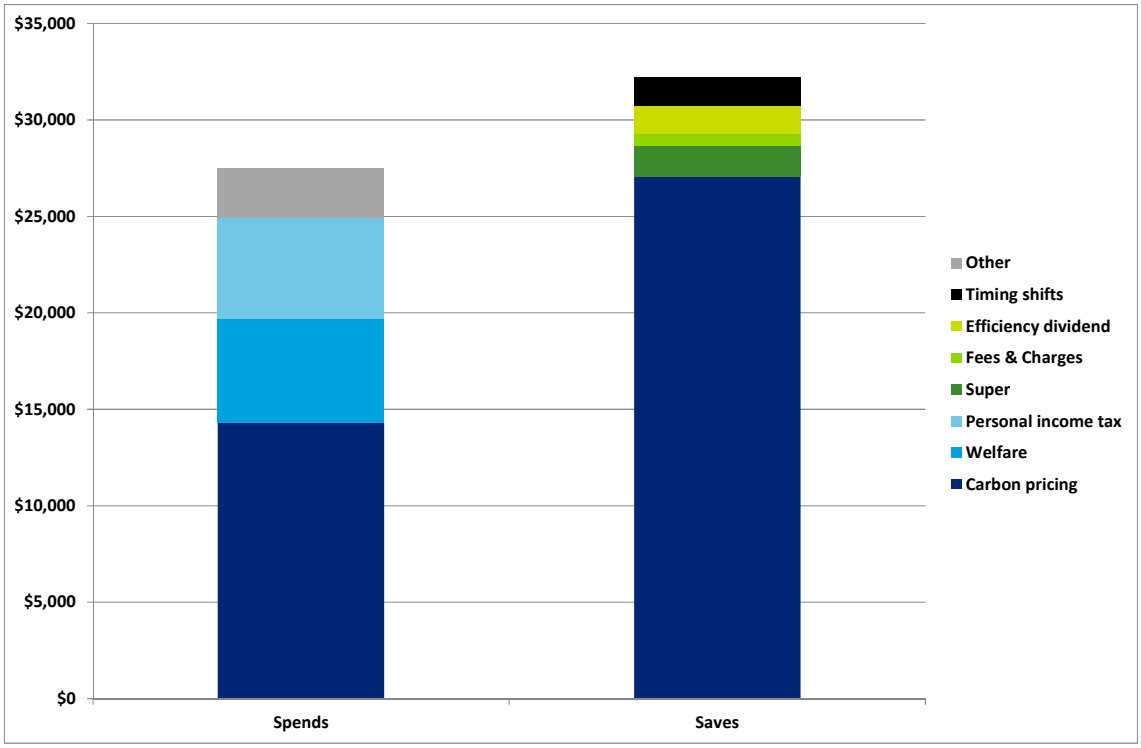
However, a number of notable temporary measures also contributed to the total savings achieved in the 2011-12 Budget. They include:

- A temporary 'flood levy' to fund assistance provided in the wake of the devastating floods in Queensland and Victoria in early 2011.
- The deferral of funding for a number of major infrastructure projects (shown as the 'infrastructure' item in Chart 5.3).
- A one-off increase in the 'efficiency dividend' applied to government departments. This dividend is intended to ensure that efficiencies achieved over time by public servants flow through to savings for taxpayers, rather than to larger departments. By increasing the dividend, the Government placed additional Budget pressure on its own departments to do 'more with less', but left it to departments themselves to find the required savings.

That is, the savings measures included in the 2011-12 Budget were focused on shorter term outcomes than the spending measures they were designed to offset.

Policy changes in the 2011-12 MYEFO were focused on the implementation of the Government's carbon pricing package, as seen in Chart 5.4. Accordingly, Budget savings were dominated by new revenues from the carbon pricing scheme.

Chart 5.4: Gross policy decisions – 2011-12 MYEFO



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

Spending measures as a result of the carbon price package are also evident, with a combination of tax cuts (the 'personal income tax' item in the chart), pension increases (the 'welfare' item in the chart) and industry assistance (which dominates the 'carbon pricing' spend in the chart). These made up the bulk of total spending decisions, and accounted for most of the additional revenue from carbon pricing.

Beyond the impact of the carbon package, the savings included in the 2011-12 MYEFO were quite modest.

On the other hand, the $1.6 billion in savings from cuts to superannuation co-contributions and better targeting of new low income tax incentives in super were genuine structural savings which dovetailed well with the introduction of a new low income superannuation contribution.

Once again, however, a number of measures of more questionable quality also contributed to the total savings achieved. They included:

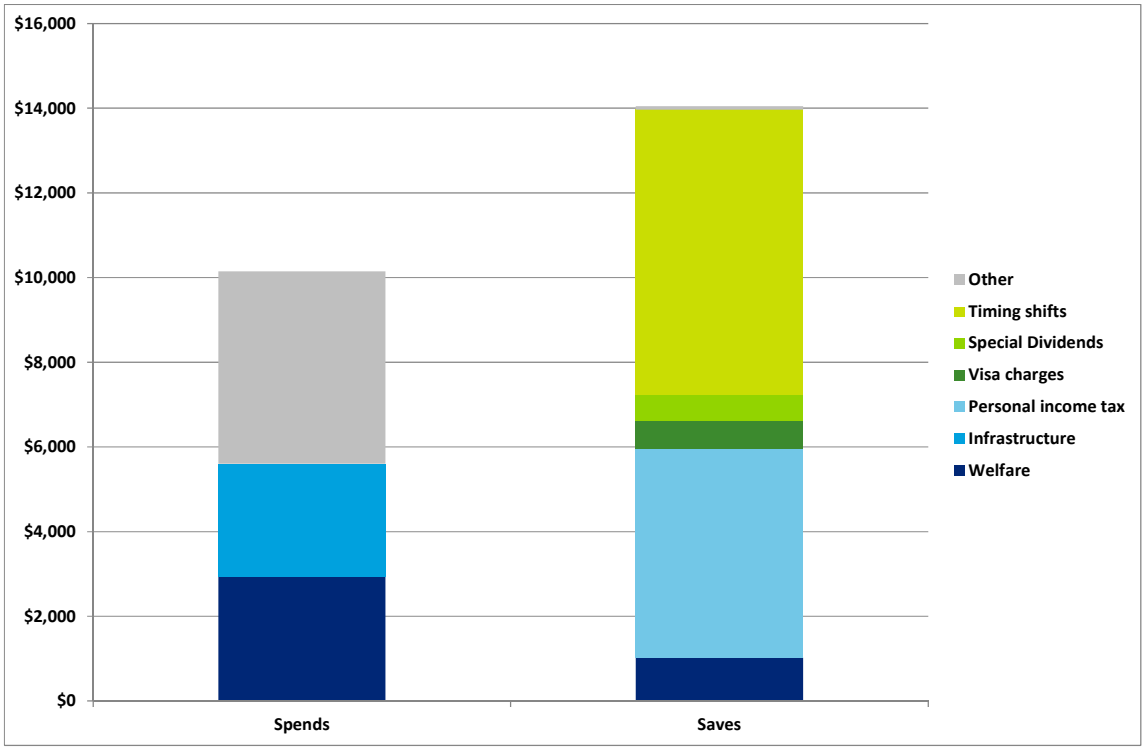
- Around $1.5 billion from the deferral of the standard tax deduction for work-related expenses recommended by the Henry Review of taxation, along with a number of business taxation initiatives. These were largely shifts in the timing of existing initiatives, rather than genuine structural savings.

- Increases to fees and charges for visa applicants predicted to result in $613 million in increased revenue. While the aim of these changes was to improve cost recovery in line with international practice, the matching need for reform of cost recovery arrangements for government services to Australian citizens have not received similar attention.
- A further temporary increase in the 'efficiency dividend', once again transferring responsibility for finding savings to public service department heads.

On the whole, that combination of decisions in the 2011-12 MYEFO suggests something of a missed opportunity to address the need for fiscal repair, which is somewhat at odds with the then planned return to surplus in 2012-13.

By the time of the 2012-13 Budget, the race for surplus was accelerating. Not only did 'saves' more notably outweigh 'spends', but several decisions saw their net costs apply after 2012-13.

Chart 5.5: Gross policy decisions – 2012-13 Budget



Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

As Chart 5.5 shows, that saw savings measures outweighing new spending.

The new spending announced in the 2012-13 Budget was aimed primarily at households with school age children – both through replacing the Education Tax Refund with the more generous Schoolkids Bonus, and through increases in the rate of family benefits for families with teenage children.

While the former change had an immediate effect on the Budget bottom line, the impact of the latter is scheduled to commence after the 2012-13 financial year.

Also notable was the investment of around $2.7 billion over four years to the upgrade of the Pacific Highway, albeit again with $2.4 billion of that new spending occurring after the 2012-13 financial year.

On the saving side, the most notable policy changes were in personal income tax, including the scrapping of the standard deduction for work expenses, which had been temporarily deferred just six months earlier in the 2011-12 MYEFO.

Also included in this category were the changes to super contribution incentives for very high income earners. This change was a step towards addressing the substantial Budget risks from the generous incentives available to higher income earners within the super system. While the approach taken was not ideal, the policy goals behind these changes were worthy.

However, the substantial contribution to savings from what we have labelled 'timing shifts' highlights the deterioration in the quality of policy measures designed to assist the surplus push.

After all, timing shifts are nothing more than that – they aren't reform, and they provide no lingering benefit to the nation's fiscal finances.

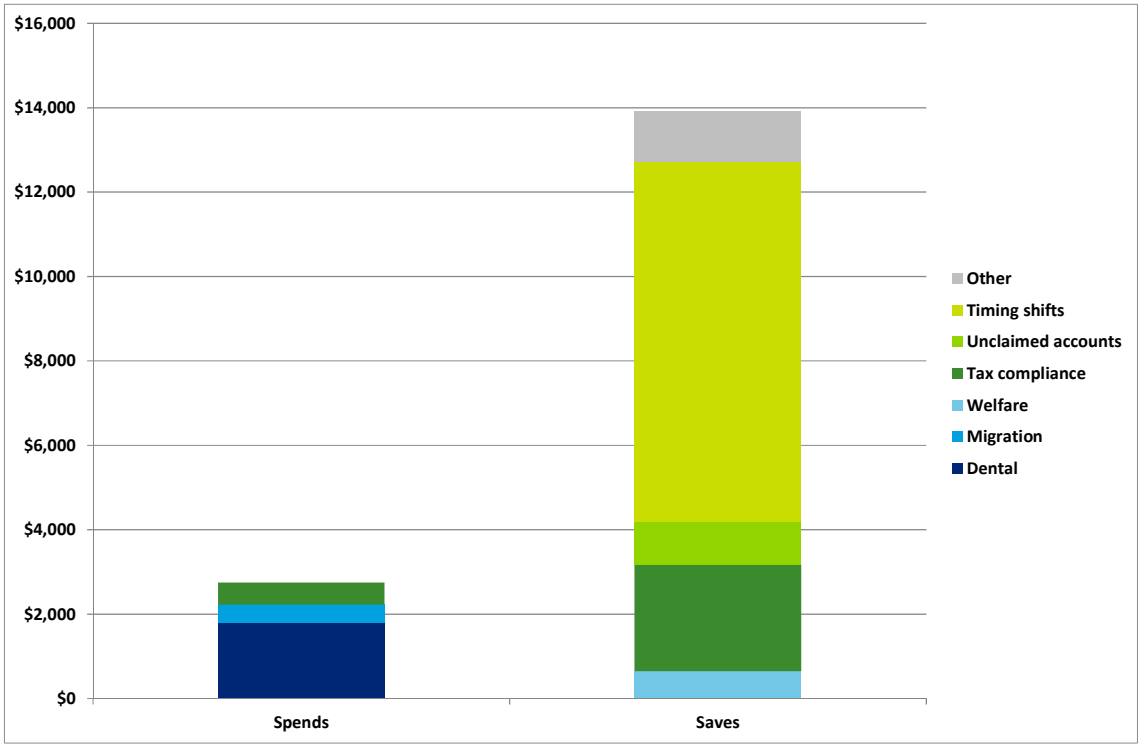
The contribution from timing shifts of late has included:

- $1.1 billion in payments shifted out of 2012-13 and into 2011-12, the result of an acceleration of payments to local governments.
- $2.9 billion from the deferral of Australia's growth target for foreign aid, which had been the driver of substantial increases in aid just one year earlier in the 2011-12 Budget.
- $1.4 billion from deferring the introduction of higher super contribution caps for members aged 50 and over with low balances. This policy was originally announced the previous year as part of the 2011-12 Budget.

Added to that, the 2012-13 Budget bottom line included $300 million in 'special dividends' from the Australian Reinsurance Pool Corporation and the Export Finance and Insurance Corporation. These special dividends alone accounted for 12% of the (then) projected $2.5 billion 2012-13 surplus.

A similar trend away from quality Budget savings continued in the measures included in the 2012-13 MYEFO, which are shown in Chart 5.6.

Chart 5.6: Gross policy decisions – 2012-13 MYEFO



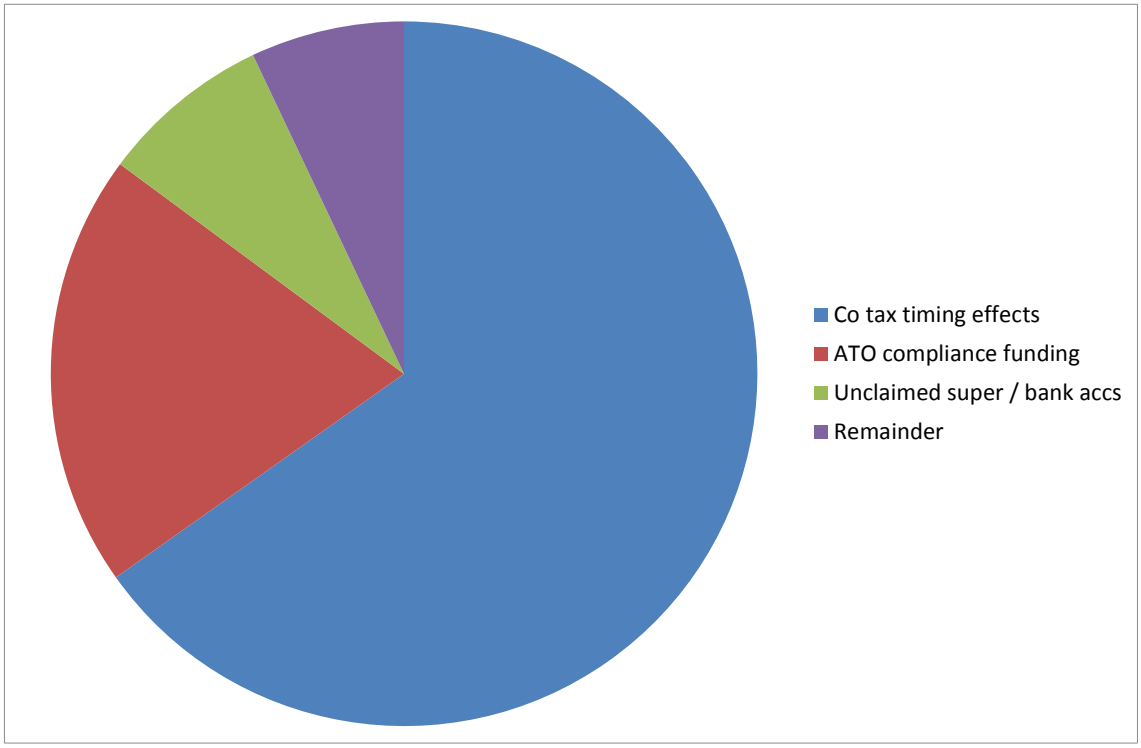
Source: Federal Treasury, Deloitte Access Economics. Chart shows fiscal impacts cumulated over four year periods.

While spending measures were notably absent from the 2012-13 MYEFO, the substantial total savings figure owes little to genuine policy initiatives.

As a simple example, consider the net revenue policy save of $13.0 billion over four years announced in the most recent MYEFO. This figure can (roughly) be divided into:

- 65% of that saving being due to the company tax timing change,
- 8% being due to getting unclaimed super and bank accounts earlier,
- 20% being due to tax compliance measures,
- and about 7% as 'the remainder'.

Chart 5.7: Breakdown of revenue measures contained in the 2012-13 MYEFO



Source: Federal Treasury MYEFO

The first two measures listed here are essentially just timing changes – 'money shuffling'.

Similar fun and games have been afoot in Federal financial relations for some time now, with grants to States and Territories having been repeatedly 're-phased' to support the 2012-13 surplus push. In its recent mid-year Budget update, the Victorian Government provides some insight into the size and impact of these decisions:

> *"Commonwealth grants are expected to reduce by 14.1 per cent in 2012-13 and increase by 14.2 per cent in 2013-14. This pattern largely reflects a series of decisions by the Commonwealth Government since 2011 to re-phase grants out of 2012-13 into other years. This includes, in the period since the 2012-13 Budget, a bring forward of around $500 million in grants for roads, the Housing Affordability Fund and local government from 2012-13 into 2011-12."*[9]

The third measure is based on the expectation that a change in ATO funding will lift revenue in the absence of any change in the tax law – in effect, that existing law will be more harshly enforced so as to raise more revenue.

5.2 Expected short term pressures

The other obvious conclusion from the previous sections is that to say that even if the Budget is healthy today, that does not imply that you can get away with a 'do nothing' policy given the

[9] See http://www.budget.vic.gov.au/CA2579B200132B63/pages/budget-update.

known impact of an ageing population on the one hand, and relatively faster cost growth in health care on the other.

Besides, we already know that policy isn't 'doing nothing'. On the one hand a range of recent policy changes aimed at meeting the 2012-13 surplus target have effectively either added to previous deficits or 'borrowed' Budget savings from future years. More importantly still, there is short term Budget pressure from a range of recent policy announcements and foreshadowed policy pressures which have been announced, but have yet to be fully reflected in the Budget bottom line.

Indeed, while the Budget position outlined in MYEFO is technically up to date, there are a range of known pressures on both revenues and spending as a result of past policy decisions and commitments to new policies in coming years.

On the revenue side, some key developments in commodity prices have yet to be fully reflected in the Budget bottom line.

In particular, MRRT revenue collected in the first three months of the tax's operation was zero, in part due to falls in coal and iron ore prices. MYEFO was released on 22 October 2012 – the same day as the first payment of the MRRT.

That was bad timing, though to be fair, the new MRRT was always going to be hard to estimate – especially in its first year – as it relies on volatile commodity and currency markets, construction cost inflation and State royalties.

So while MYEFO did contain downgrades to MRRT revenue projections, the timing of its release effectively delayed additional revenue downgrades. That points to known downsides for revenue already in next year's Budget – even before any unexpected variations in economic conditions.

On the spending side, the news is worse still, with a range of commitments not included in the current forward estimates.

First, some of the policies announced in previous Budgets will have a growing impact on the bottom line beyond the current forward estimates. That is particularly true of recent announcements, which have sought to avoid adding additional spending in the politically sensitive years surrounding the return to surplus. Some examples of past policy announcements that will add to future spending pressures include:

- **The increase in the Superannuation Guarantee from 9% to 12%**. While existing estimates in MYEFO cover the first year of the transition, the costs of this policy will increase to around $3.6 billion per annum in 2019‑20 after the final increase to 12% occurs.
- **The Living Longer Living Better aged care reform package**, which has an estimated net cost of $292 million in 2016-17 – more than the total net cost of $285 million over the four year forward estimates period. (Incidentally, in gross terms, the matching numbers are $1.5 billion and $2.2 billion, adding to the much-quoted $3.7 billion dollar figure).

Added to those policies which will have an ongoing effect on the Budget is a substantial list of big ticket spending items that are part of government policy, but are yet to be reflected in the Budget estimates to any great degree. These include:

- **The National Disability Insurance Scheme (NDIS)**, which represents the Government response to the recommendations of the Productivity Commission's 2011 report into Disability Care and Support:
  - Current funding allows for limited trials in five States and Territories at a cost to the Federal Budget of around $1 billion over four years.
  - When fully operational in 2018-19 the scheme will require around $22 billion in funding each year, or a net injection of $10.5 billion per year over and above existing programs according to the latest analysis by the Australian Government Actuary. While some of this cost will ultimately fall to the States and Territories, this represents a significant spending commitment which is not reflected in the current Budget position.
  - Besides, where will the States get the money to fund their share? As noted earlier in this chapter, they have their own longer term policy costs to consider.
- **The Gonski reforms to school funding**, which represent the Government response to the final report of the Gonski Review of Funding for Schooling:
  - While legislation has been passed through Parliament, no funding is provided in the Budget. Indeed, the Australian Education Bill 2012 contains an extraordinary Section 10 which states that:

    (1) This Act does not create rights or duties that are legally enforceable in judicial or other proceedings.

    (2) A failure to comply with this Act does not affect the validity of any decision, and is not a ground for the review or challenge of any decision.
  - Total net costs as a result of the move to the new system were estimated at $5 billion for the 2009 school year, but Victoria has indicated that the most recent estimate is closer to $6.5 billion per year. As in the case of the NDIS, some of that cost will fall onto State and Territory governments.
- **New aircraft for the RAAF**. Current defence planning involves the purchase of up to 100 F-35 Lightning II aircraft for the RAAF to replace Australia's retired F-111 and ageing F/A 18 'Classic' Hornet fighters. Of these, only 14 F-35s are locked in, but any decision to reduce or delay the acquisition of these aircraft may need to be replaced by alternatives – such as the purchase of additional F/A 18F Super Hornet aircraft. While such an alternative may prove cost-effective, it does bring forward the profile of purchases meaning more spending sooner, and less in future years.
- **New submarines for the Navy**, to replace the Collins Class. Current plans allow for up to a dozen submarines. Cost estimates produced by the Australian Strategic Policy Institute range from around $6 billion and $7.2 billion for an off the shelf purchase of European submarines up to $36 billion for the option of a newly designed and Australian built bespoke model.[10] Accordingly, the top end of this cost range would place huge pressures on Australia's Budget, meaning that any such policy would require very careful consideration and justification.

Note that in the case of both the NDIS and the Gonski reforms, further negotiation is required with State and Territory Governments on joint funding arrangements.

[10] Assuming a Euro/$A exchange rate of around 80 Euro cents.

That results in both increased uncertainty as to the final structure and cost of these initiatives, and the likelihood that fiscal pressure is pushed onto State and Territory Budgets as well as the Federal Budget.

Indeed, in its 2012-13 mid-year Budget update, the Victorian Government has indicated that these spending announcements are making its future Budgeting task more difficult:

> *"The Commonwealth Government has additionally announced its intention to substantially expand its involvement in other areas of state responsibility, raising service expectations and flagging the need for increased state investment. These include announcements regarding the National Disability Insurance Scheme and the Gonski Review of Funding for Schooling. This generates substantial financial risks for states, and erodes policy and spending autonomy."* [11]

While the political debate around spending is intense at present, it is worth noting that – with the notable exception of the Gonski reforms – the above list of spending priorities is shared by both political parties.

That is, there are some genuine areas of policy need here, meaning that there is a case for finding the funding. However, such is the scale of that challenge – the dollars involved – that it would be likely to stretch the Commonwealth and State Budgets even if there were no other pressures to consider.

At the same time, the National Broadband Network (NBN) has remained off-budget on the basis that it is intended to generate a commercial return. If those returns disappoint, that would represent a significant asset that is not delivering financial returns for taxpayers.

Any benefits from the NBN may therefore come at a net cost to taxpayers – at least at first – something the current accounting treatment may be obfuscating.

Overall, these issues will serve to place additional pressure on the structural Budget position going forward. It is an unfortunate consequence of the four year Budget estimates framework that many of these effects are not accounted for in current Budget planning.

[11] See http://www.budget.vic.gov.au/CA2579B200132B63/pages/budget-update.

6 Alternative fiscal strategies

Fiscal strategies can be specified at two levels – as a broad set of principles, and as quite specific targets or rules:

- **Fiscal principles** establish a structure for ensuring that policy is formulated in a disciplined manner, and are met largely through developing suitable processes.
- **Fiscal targets** quantitatively guide and constrain the setting of fiscal policy.

In the five years or so prior to the global financial crisis (GFC), the primary target of the Coalition Government's medium-term fiscal strategy was:

> *"…to maintain budget balance, on average, over the course of the economic cycle.*
>
> *This helps deliver macroeconomic stability, encourages private investment in a low interest rate environment, entrenches low public debt and ensures that, over time, the current account continues to reflect private, profit-driven, saving and investment decisions."*

The secondary targets nominated included:

- maintaining Budget surpluses over the forward estimates period while growth prospects are sound; and
- not increasing the overall tax burden from 1996-97 levels (22.4% of GDP), so that Budget balance is achieved over the economic cycle through a disciplined approach to spending and not by recourse to increased taxation; and
- improving the Government's net worth position over the medium to longer-term.

Since the Labor Government's first Budget in 2008-09, the medium-term fiscal strategy that has been in place has involved the following targets:

- achieving Budget surpluses, on average, over the medium-term;
- keeping taxation as a share of GDP, on average, below the level for 2007-08 (23.7%); and
- improving the Government's net financial worth over the medium-term.

In the Updated Economic and Fiscal Outlook (UEFO) released in February 2009, the Government also committed to ensure a timely return to surplus and recovery in the fiscal position. As part of this strategy, the Government developed two supplementary and transitional fiscal targets, namely:

- allowing the level of tax receipts to recover naturally as the economy improves, while maintaining the Government's commitment to keep taxation as a share of GDP below the 2007–08 level on average; and
- holding real growth in spending to 2% a year until the Budget returns to surplus.

The latter has since been extended as follows:

- building growing surpluses by holding real growth in spending to 2% a year, on average, until the Budget surplus is at least 1% of GDP, and while the economy is growing at or above trend.

Subsequently, the Government adopted as a short term target (as opposed to a rule) of returning the budget to surplus in 2012-13. Adherence to this target was justified on the grounds that the Australian economy is forecast to grow around trend, the unemployment rate is forecast to remain low and global commodity prices remain high by historical standards.

How well are we achieving those goals?

The latest official forward estimates point to wafer thin Federal surpluses in the four years to 2015-16, while both keeping tax below 23.7% of national income (see page 351 of MYEFO) and boosting the Government's net financial worth (page 292).

This is assisted by keeping real spending growth to 1.1% a year in the four years to 2015-16 (page 39), though by 2015-16 the fiscal surplus is still 'only' 0.5% of national income (page 40).

Hence if official forecasts prove correct, that would suggest Australia is broadly on track to meet its fiscal goals. Yet those official forecasts are already out of date, with the 20 December 2012 statement by the Treasurer conceding that a surplus now appears unlikely in 2012-13.

Shortcomings of recent fiscal strategies

The inadequacies evident in recent fiscal outcomes suggest where improvements could have been made to the fiscal strategy in place in recent times.

These include issues as to **the structural health of the Budget – the time bomb risks**:

- Policymakers have made commitments in relation to medium term policy actions without credible funding details.
- The Australian economy is in transition and has experienced record terms of trade – fiscal targets have not been adjusted accordingly.
- The output from Treasury's *Intergenerational Reports* has not yet been converted into an explicit fiscal rule and government savings are lagging as a result – an explicit surplus reserving policy may be needed to address both the cyclical readiness of fiscal policy and intergenerational equity.

And they include issues as to **the fiscal framework – the fiscal rule risks**:

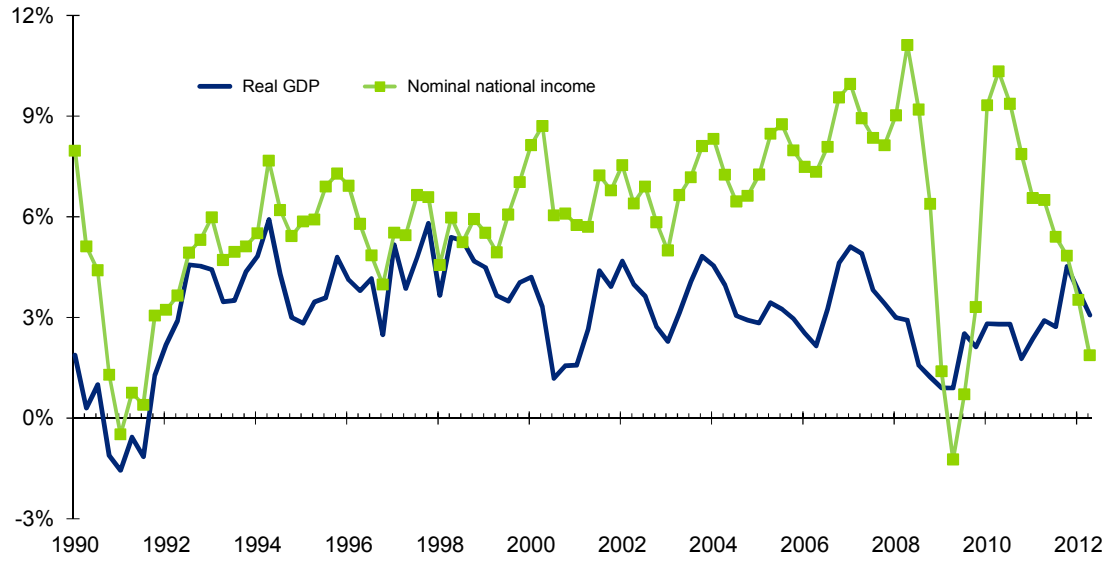
- Fiscal policy has been pro-cyclical, boosting the economy when it was already strong (prior to the GFC) and weighing on it when it was slowing (as has been true more recently, with pursuit of a surplus in 2012-13 seemingly irrespective of economic conditions).
- A pro-spending bias remains in evidence, grounded in the political imbalance between benefits for some groups and costs for others, the sway of interest groups and 'sticky' spending decisions. Good procedures aren't an adequate defence against these pressures, with clear rules necessary to give substance to principles for budgetary soundness.
- Fiscal discipline on the size of government has slipped, with the tax share of national income rising by over a percentage point in the last 15 years – transparency and credibility need to be improved to ensure national decisions on the size of government are deliberate and considered rather than made by default.
- The fiscal targets adopted by governments are generally 'soft' constraints, with political leaders free to make their own fiscal choices, albeit in a relatively open manner.

Finally, they include issues as to **Budget governance and processes – the risk to quality**:

- Much new spending over the past decade fails the test of whether it is improving either 'fairness' or 'prosperity' in Australia, with requirements for regulation impact statements and cost/benefit analyses often avoided for policies deemed too contentious or important to be subjected to such analysis.
- Frequent changes to the tax and superannuation systems have undermined predictability and created uncertainty for individuals and businesses alike.

In turn, the above list implies that there are some ways to improve the fiscal goals we've set ourselves as a nation. For example, you'll note that the above 'fiscal rules' said nothing about a return to surplus **in 2012-13**. Rather, the latter timing was justified in large part by the promise to *"build growing surpluses … while the economy is growing at or above trend"*.

Chart 6.1: Growth in real GDP and growth in nominal GDP



Source: Australian Bureau of Statistics

Growth in real GDP – production, seen in the chart above – is forecast to be close to its longer term trend in 2012-13. (The latter averaged 3.0% a year in the past decade and 3.5% a year in the past two decades, versus the Treasury forecast for 2012-13 of 3.0% in MYEFO).

That's what the Government had pointed to in explaining the surge for surplus in 2012-13.

However, Treasury forecasts nominal GDP growth at 4.0% in 2012-13. That is down from the forecast of 5.0% in the 2012-13 Budget released in May 2012, and is well shy of the 6.9% annual growth it averaged in the past decade (and the 6.4% a year in the past two decades). It is also well above the 1.9% recorded over the past year (as shown in Chart vi).

That is important. Tax collections respond to growth in nominal income rather than the real economy, with the gap between the two mostly due to swings in coal and iron ore prices.

Hence the recent slowdown in China and the knock on impact of that to coal and iron ore prices have made it harder to return to surplus. Yet the current fiscal rules ignore that.

They shouldn't. In effect, 'the economy' recently made a return to surplus rather more difficult. The 'fiscal rules' should allow for that.

Deloitte Access Economics recommends that, if it is to be kept, this rule be changed to refer to 'nominal economic growth'.

Yet fiddling with the detail of today's fiscal rules misses some bigger picture points.

What should we be aiming for?

What should fiscal policy do? Fiscal rules must be anchored in clear long term fiscal objectives.

Broadly speaking, fiscal policy rules should be linked to the achievement of the following five interlinked fundamental fiscal objectives:

- **Affordable**: ensuring fiscal sustainability;
- **Prepared**: ensuring readiness for countercyclical action for any major shock;
- **Future-proofed**: ensuring readiness for intergenerational pressure;
- **Disciplined**: enforcing discipline on the size of government; and
- **Effective**: ensuring value for money.

Detailed fiscal objectives and associated fiscal rules have been canvassed in previous work undertaken for the BCA[12], and Deloitte Access Economics broadly agrees with that approach[13].

[12] See the BCA's 2012-13 Budget Submission

[13] Deloitte Access Economics' own views will appear in the upcoming issue #83 of our *Budget Monitor* publication.

Appendix A: Measuring revenue volatility

The standard measure of the volatility of a time series is its standard deviation (or its square, the variance). This measures the spread of data around the series' mean observation, treating positive and negative deviations around the mean equally.

A time series' standard deviation is measured as follows:

$$\sqrt{\frac{1}{n}\sum_{i=1}^{n}(x_i-\mu)^2}$$

where:

$\mathbf{x_i}$ is the series value in the i[th] period,

$\mathbf{n}$ is the total number of observations (periods) in the series, and

$\boldsymbol{\mu}$ is the series mean.

However, as noted by Robson:

> "… if there is a time trend in the data, the variance [or standard deviation] can be an inappropriate and misleading measure of volatility. A more meaningful way of measuring volatility is to remove whatever trend there is in the series and examine the volatility of the percentage deviations around the trend." [14]

One method of de-trending an annual tax collection series is to express the $ million tax series as a percentage of nominal GDP. We have not used that approach here as it effectively assumes that tax collections exhibit much the same underlying trend as does nominal GDP implying that the resultant de-trended series changes little over time.

The approach we prefer instead is to substitute each period's trend value ($\mathbf{x'_i}$) into the above equation in place of μ (the arithmetic mean), as follows:

$$\sqrt{\frac{1}{n}\sum_{i=1}^{n}(x_i-x_i')^2}$$

where:

$\mathbf{x'}_i$ is the series trend value in the i[th] period.

In this way, the resultant **volatility index** shows the average annual percentage deviation exhibited by the data series around its underlying trend.

[14] Alex Robson, *On the Volatility of Resource Rent Tax Revenue*, MCA background paper, June 2012.

The volatility index values will depend on the method used to estimate the trend. For simplicity we have fitted a trend by applying a 4^{th} order polynomial. This is a conservative approach as it results in lower volatility estimates than does the use of linear or log-linear trends.

Reference List

Au-Yeung, W., McDonald, J., & Sayegh, A. (2006). *Future Fund and fiscal policy*. Accessed December 2012 from http://archive.treasury.gov.au/documents/1156/HTML/docshell.asp?URL=02_Future_Fund.asp

Blythe, M. (2012). *Is the supercycle over?* Accessed December 2012 from http://www.commbank.com.au/corporate/research/publications/economics/economic-issues/australia/2012/170512-Supercycle.pdf

Business Council of Australia. (2011). *Finding a Budget Balance Will Restore Community Confidence and Help Take Pressure off Interest Rates*. Accessed December 2012 from http://www.bca.com.au/Content/101791.aspx

Costello MP, The Hon. P., & Minchin, The Hon. N. (2007). *2007-08 Budget Paper No. 1, Budget Strategy and Outlook*. Accessed December 2012 from http://www.budget.gov.au/2007-08/bp1/download/bp1.pdf

Davies, A (2012) *What price the future submarine?*. Accessed December 2012 from http://www.aspi.org.au/publications/publicationlist.aspx?pubtype=9

Ewing, R., Gruen, D., & Hawkins, J. (2005). *Forecasting the macroeconomy*. Accessed December 2012 from http://archive.treasury.gov.au/documents/987/PDF/03_macroeconomy.pdf

Greber, J. (2012). *Time for fiscal restraint in Australia is now: Wolf*. Accessed December 2012 from http://afr.com/p/national/economy/time_for_fiscal_restraint_in_australia_hgq18LT7D67MEujghPYjXK

McDonald, T., Hong Yan, Y., Ford, B., & Stephan, D. (2010). *Estimating the structural budget balance of the Australian Government*. Accessed December 2012 from http://archive.treasury.gov.au/documents/1881/PDF/04_Structural_Budget_Balance.pdf

Mercer (Australia) Pty Ltd (2011). *Back to Policy Fundamentals*, report prepared for the Business Council of Australia and published in the BCA's Budget Submission 2012-13.

Organisation for Economic Co-operation and Development. (2006). *Economic Survey of Australia*. Accessed December 2012 from http://www.oecd.org/economy/surveys/37201820.pdf

Reinhart, C. and Rogoff, K. (2010). *Growth in a Time of Debt*, NBER Working Paper No. 15639. Accessed December 2012 from http://www.nber.org/papers/w15639

Robson, A. (2012). *On the Volatility of Resource Rent Tax Revenue*. Accessed December 2012 from

http://www.minerals.org.au/file_upload/files/publications/mca_volatility_of_resource_rent_tax_revenue_FINAL.pdf

Schick, A. (2003). *The Role of Fiscal Rules in Budgeting*, OECD Journal of Budgeting.

Simes, R. (2003). *Fiscal Policy Rules in Australia*, report prepared for the Chifley Research Centre.

Spilimbergo, A., Symansky, S., Blanchard, O., & Cottarelli, C. (2008). *Fiscal Policy for the Crisis*. Accessed December 2012 from http://www.imf.org/external/pubs/ft/spn/2008/spn0801.pdf

Stevens, G. (2010). *The Challenge of Prosperity*. Accessed December 2012 from http://www.rba.gov.au/speeches/2010/sp-gov-291110.html

Swan MP, The Hon. W., & Tanner MP, The Hon. T. (2009). *Updated Economic and Fiscal Outlook*. Accessed December 2012 from http://www.budget.gov.au/2008-09/content/uefo/download/UEFO_00_Preliminaries.pdf.

Swan MP, The Hon. W., & Wong, The Hon. P. (2012). *Mid-Year Economic and Fiscal Outlook, 2012-13*. Accessed December 2012 from http://budget.gov.au/2012-13/content/myefo/download/2012-13_MYEFO.pdf

Treasury. (1988). *Charter of Budget Honesty Act 1998*. Accessed December 2012 from http://www.comlaw.gov.au/Details/C2004C00949

Tulip, P., & Wallance, S. (2012). *Estimates of Uncertainty around the RBA's Forecasts*. Accessed December 2012 from http://www.rba.gov.au/publications/rdp/2012/pdf/rdp2012-07.pdf

Velloso, R. et al. (2010). *Strategies for Fiscal Consolidation in the Post-Crisis World*. Accessed December 2012 from http://www.imf.org/external/np/pp/eng/2010/020410a.pdf

Limitation of our work

General use restriction

This report is prepared solely for the Business Council of Australia. This report is not intended to and should not be used or relied upon by anyone else, or quoted without permission except for BCA, and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of analysing the risks to Australia's fiscal position. You should not refer to or use our name or the advice for any other purpose.

Contact us

Deloitte Access Economics
ACN: 49 633 116

Level 1
9 Sydney Avenue
Barton ACT 2600
PO Box 6334
Kingston ACT 2604 Australia

Tel: +61 2 6175 2000
Fax: +61 2 6175 2001

Deloitte Access Economics is Australia's pre-eminent economics advisory practice and a member of Deloitte's global economics group. The Directors and staff of Deloitte Access Economics joined Deloitte in 2011.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity.

About Deloitte

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 170,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms. Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 5,700 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site.