The Economic Impact of Increased National Saving

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CONTENTS

Executive Summary

Key Findings

The second stage of The National Savings Project commissioned by IFSA involves estimating the impact of an increase in national saving on the Australian economy. The key results of Econtech modeling of a significant increase in national saving equivalent to about 2 per cent of GDP are as follows.

- By saving more today, individuals are able to enjoy a higher standard of living during retirement without placing an undue burden on later generations, giving an improvement in intergenerational equity.
- Higher domestic saving makes Australia less dependent on foreign funding of domestic investment. In the long run, Australia's foreign liabilities are 15 per cent of GDP lower than would be the case without the gain in national saving.
- During the transition phase, the gain in national saving peaks at 3 per cent of GDP in 2011/12. Part of this finances a reduction in the current account deficit of 2.4 per cent of GDP, while the remainder finances a gain in domestic investment of 0.6 per cent.
- In the short term, the moderation in consumption growth needed for individuals to build on their saving dampens demand-side inflationary pressures. By the second year of the higher saving scenario, short-term interest rates are 85 basis points lower than otherwise, while consumer prices are also lower than otherwise.
- By 2013/14, higher investment has added 2.4 per cent to the stock of business capital, including a 2.8 per cent (or $3 billion in 2005/06 dollars) boost above the baseline to the capital stock in the key infrastructure industry of Transport.
- This report also investigates the economic implications of other higher saving scenarios in which there is a bigger boost to national saving and where part of the gain in national saving is targeted at additional infrastructure investment.

Introduction

In late January 2008, the Prime Minister nominated increasing public saving and private saving as two of the five points in the Government's plan to contain inflationary pressures. Other reasons have also been advanced for increasing national saving. For example, ensuring that individuals from the baby boomer generation will be able to maintain an acceptable standard of living during retirement without placing undue burden on the welfare system is likely to require higher national saving. Further, one likely consequence of increasing national saving is a smaller current account deficit.

The Investment & Financial Services Association (IFSA) has begun conducting research on Australia's national saving. The project is known as The National Savings Project and aims to drive national debate and policy development surrounding national saving. The first stage of the project was released on 2 August 2007 and investigated the various trends in Australia's national saving levels and their implications for the future. IFSA has commissioned Econtech to complete the second stage of the project which involves estimating the impact of an increase in the national saving level on the Australian economy.

Background

As already noted, increasing national saving is part of the Rudd Government's five point plan[1] to combat mounting inflationary pressures. The strategy involves:

- increasing public saving by targeting a budget surplus of 1.5 per cent of Gross Domestic Product (GDP);
- addressing the skills shortage;
- improving infrastructure bottlenecks;
- increasing workforce participation rates; and
- lifting the level of private saving.

The rationale behind the push for higher public and private saving in the first and last points of the plan is that this entails curbing consumption spending by both the private and public sector, thus alleviating some of the demand-side pressure on inflation. Higher national saving also makes it possible to increase infrastructure investment without adding to the current account deficit. Despite national saving becoming a major issue in the government policy arena, there has been little research on quantifying the impact of an increase in national saving on the Australian economy. It is this research gap that this report aims to address.

Modelling Approach

To model the impact of higher national saving, Econtech's Murphy Model (MM2) is used. MM2's well defined long run economic properties and long horizon are particularly important for this project as the more important benefits stemming from increased saving, particularly through wealth accumulation, will only be felt in the longer term. Further, the comprehensive modelling of the economic cycle in MM2 provides robust estimates of the short-term implications of higher national saving for interest rates and inflation.

One baseline and three alternative saving scenarios are modelled. Each saving scenario uses the MM2 model to test the sensitivity of the economic outlook to various national saving levels. The three alternative saving scenarios are compared to the baseline scenario.

- The **baseline** (or "business as usual / no change") **scenario** is based on existing policy arrangements.
- A **"significant" scenario,** models the impact of Australia raising national saving by approximately two per cent of GDP relative to the baseline scenario.
- A "**top 10" scenario** models the impact of Australia becoming one of the top 10 OECD countries in terms of the level of national saving. In this scenario, national saving is raised by 5 per cent of GDP above the baseline scenario. This increase would place Australia in the top 10 of OECD nations in terms of national saving.
- A **"targeted investment" scenario** makes the same assumptions about national saving goals as the "top 10" scenario, but more of the additional saving is channelled into investment in the key infrastructure industries of Transport and Communications.

[1] ALP, 21 January 2008, Press Conference, http://www.alp.org.au/media/0108/pcinfrpm210.php

In each of the alternative scenarios, the increase in national saving is achieved through an increase in household saving. As noted in the first stage of the National Saving Project, it is household saving which has fallen over the last decade, whereas government saving has been fairly strong in recent years. The weakness in household saving has placed Australia 17th relative to other OECD nations[2] in terms of national saving in 2006.

Although the national saving of other OECD countries is a useful benchmark, national saving varies widely between countries. Public saving is dependent on the fiscal strategy of each government, which can vary over time. In addition, institutional differences between countries and the age composition of the population have a significant impact on household saving[3]. For example, the level of household saving partly depends on whether retirement incomes are funded by government or by individuals.

The increase in the level of household saving in each of the alternative scenarios is brought about by an increase in the thriftiness of individuals. This implies a behavioural change in which they increase their valuation of future consumption relative to current consumption. The results from this behavioural change provide some guide to the likely economy-wide effects of a policy that successfully lifts household saving, but the precise effects will depend on the exact nature of the policy. The economic implications of an increase in national saving are now discussed.

Economic Implications of an Increase in National Saving

The results of our modelling show that the main economic argument for increasing national saving continues to be from an intergenerational equity perspective. An increase in the current level of national saving allows for higher living standards during retirement, where living standards are measured by consumption levels. Saving is a way for individuals to defer consumption from the present to the future. By increasing their saving levels, individuals are putting away more money now in order to fund a higher level of consumption in the future.

This shifting of consumption from the present into the future is seen in the modelling results. Consumption, while still growing, is clearly below the baseline trajectory for the first decade of the scenario. During this decade, households accumulate additional wealth. This allows them to then finance a higher level of consumption in the future. Baby boomers are then able to enjoy a higher standard of living in their retirement without placing an undue burden on later generations. The higher wealth of Australians means there is less dependence on foreign financing of domestic capital, so that in the long run foreign liabilities are 15 per cent of GDP lower than in the baseline scenario.

During the transition phase towards this higher domestic asset position there are important economic consequences. Under the "significant" scenario, the gain in national saving relative to the baseline scenario averages around two per cent of GDP in the medium term. The majority of the gain in national saving finances a reduction in the current account deficit, while the remainder finances a gain in investment. For example, in 2011/12 the gain in national saving peaks at 3 per cent of GDP and finances a reduction in the current account

[2] OECD, June 2008, *Economic Outlook - Complete Statistical Annex*, http://www.oecd.org/document/61/0,3343,en_2649_37443_2483901_1_1_1_37443,00.html
[3] OECD, 2007, *Factbook - Economic, Environmental and Social Statistics*, http://fiordiliji.sourceoecd.org/vl=1844530/cl=18/nw=1/rpsv/factbook/02-02-02.htm

deficit of 2.4 per cent of GDP and a gain in investment of 0.6 per cent of GDP. The ongoing reduction in the current account deficit leads to the mounting reduction in foreign liabilities discussed above.

The gain in national investment under the "significant" scenario extends to infrastructure investment, including the key area of Transport infrastructure. A prolonged period of higher infrastructure investment leads to mounting gains in the infrastructure capital stock. For example, in 2013/14, the capital stock of the transport industry is 2.8 per cent above baseline or a gain of $3 billion in 2005/06 dollars over the baseline. This is similar to the gain for business capital stock as a whole of 2.4 per cent.

These gains in capital stocks support gains in GDP. For example, in 2013/14 GDP is 1.4 per cent above baseline, supported by gains in business capital and employment of 2.4 per cent and 0.7 per cent respectively. The lower reliance on foreign investment in this scenario could lower the risk premium for investment in Australia, so that gains in business capital are sustained in the longer term. Reflecting the conservative nature of the modelling, this risk premium effect is not included, so that the gains in investment are medium term rather than long term in nature.

Although there are signs that the Australian economy has begun to slow, the RBA believes that there is still a great degree of uncertainty surrounding the outlook for demand and inflation. The "significant" scenario shows that higher national saving, if well timed at the peak of the economic cycle, can take pressure off monetary policy in fighting inflation. Consumption growth slows as individuals concentrate on saving, easing demand-side inflationary pressures. This sharper moderation in consumption growth may convince the RBA that domestic demand has indeed eased sufficiently to contain inflationary pressures. So higher national saving can help ease current inflationary pressures, while also allowing for a substantial reduction in interest rates. In particular, short term interest rates are 85 basis points below baseline in the second year of the "significant" scenario, while at the same time inflation is also below baseline.

A more ambitious saving scenario was also modelled involving a larger gain of around 5 per cent of GDP in national saving, compared with the gain of 2 per cent of GDP in the "significant" scenario. This larger gain would clearly lift Australia into the "top 10" of OECD countries for national saving rates. Comparing the two scenarios shows that the "top 10" scenario involves a larger gain in saving which has proportionally larger economic effects.

Economic Implications of Targeted Investment

In another alternative scenario, the "top 10" scenario was varied under a government policy in which a larger part of the gain in national saving flows to national investment. This "targeted investment" scenario means a smaller part of the gain in national saving flows to a reduction in the current account deficit.

The extra investment is assumed to be directed to the key infrastructure industries of Transport and Communications. This higher rate of infrastructure investment leads to cumulative gains in infrastructure capital stocks. By 2013/14, capital stocks in the Transport and Communications industries are 6.7 per cent and 4.8 per cent respectively above the "top 10" scenario levels, leading to an gain in the total business capital stock of 0.7 per cent.

The directing of investment involved in this scenario boosts the gain in investment from 1.0 per cent of GDP in the "top 10" scenario to 1.3 per cent of GDP. This gain in investment of 0.3 per cent of GDP is financed by a similar reduction in the improvement in the current account deficit.

1. Introduction

In late January 2008, the Prime Minister nominated increasing public saving and private saving as two of the five points in the Government's plan to contain inflationary pressures. Other reasons have also been advanced for increasing national saving. For example, ensuring that individuals from the baby boomer generation will be able to maintain an acceptable standard of living during retirement without placing undue burden on the welfare system is likely to require higher national saving. Further, one likely consequence of increasing national saving is a lower current account deficit.

National saving includes both public and private saving. Public saving is expected to increase in 2008/09 with the Government delivering a Budget surplus of 1.9 per cent of GDP.[4] The Government is also determined to provide incentives to lift private saving. This strategy is underway with the First Home Saver Account due to start on 1 October 2008[5]. In this initiative, individuals saving for their first home will be eligible for a government contribution equivalent to 17 per cent of the first $5,000 contributed annually. The accounts are expected to hold approximately $6.5 billion in savings after four years.

To assist in the policy debate regarding the development of national saving, the Investment and Financial Services Association (IFSA) is conducting a research project into national saving, known as the National Savings Project. The first stage of the project, conducted by The Allen Consulting Group, investigated various trends in national saving and their implications for Australia's future. The second stage of the project is to quantify the economic benefits of increased national saving. IFSA has commissioned Econtech to complete the second stage of the National Savings Project. Specifically, this report outlines the key economic impacts of higher national saving.

This report is structured as follows.

- Section 2 presents a background to current debate regarding increasing national saving.
- Section 3 outlines the approach used to model the impact of increased national saving on the Australian economy.
- Section 4 presents the modelling results under the baseline scenario.
- Section 5 presents the key implications for the economy of an increase in national saving in national saving.
- Section 6 presents the key implications for the economy of an increase in national saving and where part of the increase in national saving is targeted towards investment in key infrastructure areas.
- Section 7 presents the main conclusions of the report.

While all care, skill and consideration has been used in the preparation of this report, the findings refer to the terms of reference of IFSA and are designed to be used only for the specific purpose set out below.

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[4] Budget Strategy and Outlook 2008/09, May 2008, Budget Paper No 1, Statement 1, Table 2.

[5] Treasurer of the Commonwealth of Australia, 13 May 2008, Press Release, http://www.treasurer.gov.au/DisplayDocs.aspx?doc=pressreleases/2008/040.htm&pageID=003&min=wms&Year=&DocType=0

The specific purpose of this report is to estimate the impact of increased national saving on key economic variables.

The findings in this report are subject to unavoidable statistical variation. While all care has been taken to ensure that the statistical variation is kept to a minimum, care should be taken whenever using this information. This report only takes into account information available to Econtech up to the date of this report and so its findings may be affected by new information. Should you require clarification of any material, please contact us.

2. Background

National saving consists of private and public saving. Private saving includes saving by households and businesses. Public saving are those of the government which are achieved through their budget surpluses. There have been several studies conducted into the economic and social benefits of increased national saving for Australia. This section discusses some of these studies and provides background to the key issues in the current debate on national saving.

Over the past few years the debate on national saving has centred on the issue of the ageing Australian population. The main concern is whether current saving levels are sufficient to provide for the retirement of the baby boomer generation and the following generation, generation X. A recent AMP Superannuation Income Adequacy Index Report shows that 3.5 million Australians will need to boost their saving level if they are to achieve their own targeted standard of living during retirement[6].

On 2 August 2007, IFSA released the report *Australia's National Saving Revisited: Where do we stand now?* produced by The Allen Consulting Group. The report found that saving by households has fallen dramatically. In fact, since 2002/03 households have been spending more than they are earning from their current disposable income. In 2003/04 household savings reached a low -1.8 per cent of GDP. There have been improvements in household savings during recent years, in 2006/07 household saving was approximately 0.14 per cent of GDP[7]. The increase in household spending has been funded by debt accumulation. The issue of whether current saving levels are adequate for retirement is intensified if debt is not fully paid before people leave the workforce. Debt servicing payments reduce retirement incomes by diminishing individual's accumulated superannuation contributions.

More recently, the discussion on national saving has focused on the issue of increasing the level of national saving as a way of dampening mounting inflationary pressures. Inflation in the year to March 2008 reached 4.2 per cent[8], which is well above the upper limit of the Reserve Bank of Australia's (RBA) target band of 2 to 3 per cent. The RBA expects that inflation will remain relatively high over the short term[9].

This debate began when Prime Minister Kevin Rudd nominated increasing public and private saving, as part of a five point plan to reduce inflationary pressures in the economy. The five point plan involves[11]:

- targeting a budget surplus of 1.5 per cent of Gross Domestic Product (GDP);
- addressing the skills shortage;
- improving infrastructure bottlenecks;
- increasing workforce participation rates; and
- lifting the level of private saving.

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[6] Access Economics 2007, *The AMP Superannuation Income Adequacy Index Report*
[7] ABS, Australian National Accounts: National Income, Expenditure and Product, Catalogue No. 5206.0
[8] ABS, Consumer Price Index, Catalogue No. 6401.0
[9] RBA, Statement on Monetary Policy, 1 June 2008.
[11] ALP, 21 January 2008, Press Conference, http://www.alp.org.au/media/0108/pcinfrpm210.php

In the international arena, Australia is not the first country to have its government call for an increase in national saving. Cathy Minehan, President of the Federal Reserve Bank of Boston, has urged for growth in the United States' national saving to contain the ballooning US current account deficit since 2005[12]. This call is also echoed by eminent US economist Dr. N. Gregory Mankiw[13].

Despite national saving becoming a major issue, there has been little research on quantifying the impact of an increase in national saving on the Australian economy. It is this research gap that this report aims to address. Before discussing the impact of higher national saving, the following section outlines the modelling approach used to estimate these impacts.

[12] Cathy E. Minehan, 1 April 2005, 'The US Economy: 2005 and Beyond'. http://www.bos.frb.org/news/speeches/cem/2005/040105.htm

[13] Dr. N. Gregory Mankiw, 18 January 2005, 'Speech to the Council on Foreign Relations, Social Security Reform: National Saving and Macroeconomic Performance in the Global Economy', http://www.whitehouse.gov/cea/20050118-Mankiw--CFR.pdf

3. Modelling Methodology

To model the impact of higher national saving, Econtech's Murphy Model (MM2) is used. MM2's well defined long run economic properties and long horizon is particularly important in this project as the majority of benefits stemming from increased saving, particularly from wealth accumulation, will only be felt in the longer term. Further, the comprehensive modelling of the economic cycle in MM2 provides robust estimates of the short-term implications of higher national saving for interest rates and inflation.

One baseline and three alternative scenarios are modelled. Each saving scenario uses the MM2 model to test the sensitivity of the economic outlook to various national saving levels. The three alternative saving scenarios are compared to the baseline scenario. The key economy-wide effects of the four scenarios are discussed in sections 4, 5 and 6. To understand the results, the MM2 model and saving scenarios are explained in this section.

3.1 Murphy Model 2

The economic impact of changes to Australia's national saving on the economy was estimated using Econtech's MM2 (Murphy Model 2). MM2 is a fully integrated macro-industry econometric model which can be used to fully capture both the direct and indirect impacts of increases in the level of national saving on the Australian economy over time. MM2 is designed for macroeconomic forecasting and policy analysis and it also contains broad industry detail.

MM2 has the following important features that make it well suited for the analysis in this report.

- MM2 is a macro Computable General Equilibrium (CGE) model that fully recognises the interrelationships between the supply and demand sides of the economy. The model recognises that the demand side is important in influencing economic activity in the short term, but at the same time it converges to the long run of a CGE model.
- The MM2 has been developed to be consistent with Australian data. Equation dynamics were developed by applying the general to specific approach in an error correction framework. The equations were subjected to a battery of diagnostic testing.
- For consistency with economic theory, the MM2 has long-run properties of steady state growth, profit maximisation, external balance, fiscal balance, and equilibrium rates of inflation and unemployment. The theory-related dynamic properties of the MM2 include rational expectations in financial markets, and a hierarchical adjustment process featuring a Keynesian short run, a classical medium run, and a neoclassical long run.
- The supply side of the MM2 is just as important as its demand side. Thus, Gross Domestic Product (GDP) on the production side is modelled in some detail, as well as the expenditure side. In fact, the modelling of production complements, and fully integrates, with the modelling of expenditure. GDP on the production side is disaggregated into the 18 broad Australian and New Zealand Standard Industry Classifications (ANZSIC) industries, linked together through an input-output table.

MM2 is based on the common view that while demand shocks may affect economic activity in the short term, in the long term economic activity is supply driven. Specifically, in long-run equilibrium:

- the unemployment rate converges to a NAIRU (non-accelerating inflation rate of unemployment);
- economic growth is steady and balanced; and
- the exchange rate appreciates/depreciates at a steady rate, allowing domestic inflation to be permanently below/above foreign inflation.

More information about MM2 is presented in Attachment A.

3.2 Scenarios Modelled

One baseline and three alternative saving scenarios are modelled for this report.

The **baseline** (or "business as usual / no change") **scenario** is based on existing policy arrangements. The baseline forecasts provide a picture of the current and future demographic and economic conditions. Under the baseline, national saving reaches 24.5 per cent of GDP by 2013/14.

Three additional scenarios have been modelled to see the effect of national saving that are above the level forecast in the baseline scenario. In each of the alternative scenarios, the increase in national saving is achieved through an increase in the level of household saving. As noted in the first stage of the National Saving Project, it is household saving which has fallen over the last decade. On the other hand, government saving in Australia has been fairly strong in recent years. The weakness in household saving has placed Australia 17th relative to other OECD nations[14] in terms of national saving. The complete list of rankings can be found in Attachment B.

The first scenario simulates a modest increase in the national saving level. The "**significant" scenario** models the impact of Australia increasing the level of national saving by approximately 2 per cent above baseline. Under this assumption, between 2008/09 and 2013/14, Australia's national saving increase is on average two percentage points above baseline. The scenario is modelled using Murphy Model 2 (MM2).

The second scenario is the "**top 10" scenario,** which models the impact of Australia becoming one of the top 10 OECD countries in terms of the level of national saving. In this scenario, national saving is raised by 5 per cent of GDP above the baseline scenario. This increase would place Australia in the top 10 of OECD nations in terms of national saving. This scenario is also modelled using MM2.

Although the national saving of other OECD countries is a useful benchmark, national saving varies widely between countries. Public saving is dependent on the fiscal strategy of each government. As pointed out in the first stage of the National Savings Project, the Australian, Canadian and New Zealand governments have consolidated their budgets in recent years. In contrast, the United Kingdom and United States governments have run

[14] OECD, June 2008, *Economic Outlook - Complete Statistical Annex*, http://www.oecd.org/document/61/0,3343,en_2649_37443_2483901_1_1_1_37443,00.html

budget deficits over the same period. In addition, institutional differences between countries and the age composition of the population have a significant impact on household saving[15]. For example, the level of household saving partly depends on whether retirement incomes are funded by government or by individuals.

Finally, a **"targeted investment" scenario** was modelled. This saving scenario makes the same assumptions about national saving goals as the "top 10" scenario, but more of the additional saving is channelled into investment in the key infrastructure industries of Transport and Communications.

A boost to national saving under the "significant" and "top 10" scenarios leads to higher investment. This gain is consistent with profit maximising behaviour by firms, a standard economic assumption. Firms choose their stock of capital in order to maximise profit given their production technology, the actual rate of return of capital in that industry and the required rate of return of capital in that industry. The required rate of return of capital in a particular industry is determined by the risk free rate of interest and a risk premium. The risk premium compensates investors for holding an asset with variable returns. The higher is the actual rate of return from a particular investment relative to its required rate of return, the more attractive is that investment

Under the "targeted investment" scenario, it is assumed that there is a government policy in which a larger part of the gain in national saving flows to infrastructure investment. This is modelled via a reduction in the risk premium for the Transport and Communications industries. The reduction in the risk premium then encourages higher investment in these industries relative to the "top 10" scenario where no particular industry is targeted.

3.3 Modelling Approach

The increase in national saving modelled in the alternative scenarios comes entirely from an increase in household saving. This is modelled via a reduction in the level of consumption in the economy compared with the baseline scenario. The reduction in consumption reflects the Australian population becoming thriftier.

In reality, this reduction in consumption can be brought about due to a range of behavioural reasons. One possible behavioural reason is that Australians increase their valuation of future consumption relative to current consumption. That is, Australians reduce the rate by which they discount future consumption. This encourages them to defer consumption from the present to the future by saving. Individuals save now in order to consume more in the future.

Another possible reason for the reduction in consumption is that Australians intensify their bequest motive. They place higher importance on leaving a sizeable amount of wealth to their descendants. To facilitate an increase in the amount of wealth Australians would like to leave to their children, they must save a higher proportion of their income throughout their working life.

[15] OECD, 2007, *Factbook - Economic, Environmental and Social Statistics*, http://fiordiliji.sourceoecd.org/vl=1844530/cl=18/nw=1/rpsv/factbook/02-02-02.htm

The results from this behavioural change provide some guide to the likely economy-wide effects of a policy that successfully lifts household saving, but the precise effects will depend on the precise nature of the policy. This will be an important point when interpreting the results of the scenarios. The most likely scenario in which the results of the simulations are applicable is if the current government is successful in engendering a "saving culture among young people"[16] without recourse to grants or favourable tax incentives. This can be achieved through personal financial management education such as the "Understanding Money"[17] initiative administered by the Financial Literacy Foundation.

[16] Samantha Maiden, 29 February 2008, 'Rudd's report card on first 100 days', http://www.theaustralian.news.com.au/story/0,25197,23295945-601,00.html

[17] http://www.understandingmoney.gov.au/Content/

4. Baseline

As explained in the methodology section, MM2 is used in this report to generate four scenarios. These are a "baseline" scenario, a "significant" scenario, a "top 10" scenario and a "targeted investment" scenario.

The baseline (or "business as usual / no change") scenario is based on existing policy arrangements. The baseline forecast provides a picture of the current and future economic conditions of the Australian economy if there is no increase in national saving. The baseline scenario serves as a point of reference for the alternative scenarios — the results of these scenarios are expressed as deviations from the "baseline" scenario.

The results of the alternative scenarios are not forecasts of the future. The alternative scenarios model the impact of different policy choices on the economy, in particular the impact of increasing household saving. The magnitude of the results, expressed as deviations from "baseline", reflect the size of the policy shock and the coefficients of the model's equations.

To explain the findings of the baseline scenario, this section begins with an explanation of the state of the economy at the aggregate macro level (subsection 4.1). This is followed by an analysis of the economy at the industry level (subsection 4.2).

4.1 State of the Economy

To gain a firm understanding of the impact of increased national saving on the economy, it is important to understand the current economic climate. This is because much of the present discussion regarding increasing national saving has been fuelled by the current environment of high inflation. These developments have placed inflation on the forefront of the government's economic agenda[18].

Inflation is measured as the percentage change in the Consumer Price Index (CPI). In the year to March 2008 inflation hit a record 4.2 per cent, driven by increases in the cost of housing, food and fuel. As previously mentioned, this means that inflation is well above the upper threshold of the Reserve Bank of Australia's (RBA) target band of 2 to 3 per cent.

The threat of inflation moving above the target level has seen the RBA increase the cash rate on two occasions in early 2008, by 0.25 percentage points each time, to reach the current cash rate of 7.25 per cent. In addition, global financial instability triggered by the US sub-prime crisis has tightened international credit conditions. As a result, Australian banks have increased their loan rates above the official cash rate rises in an attempt to pass on increased wholesale funding costs to consumers. The March increase in the official cash rate of 25 basis points has been translated to a 29 to 35 basis point increase in standard variable home loan rates by major Australian banks.

Since March the RBA has left the cash rate unchanged at 7.25 per cent as leading indicators now point to a slowdown in domestic demand. The latest indicators of household spending have recorded more modest results whilst credit approvals to both households and businesses

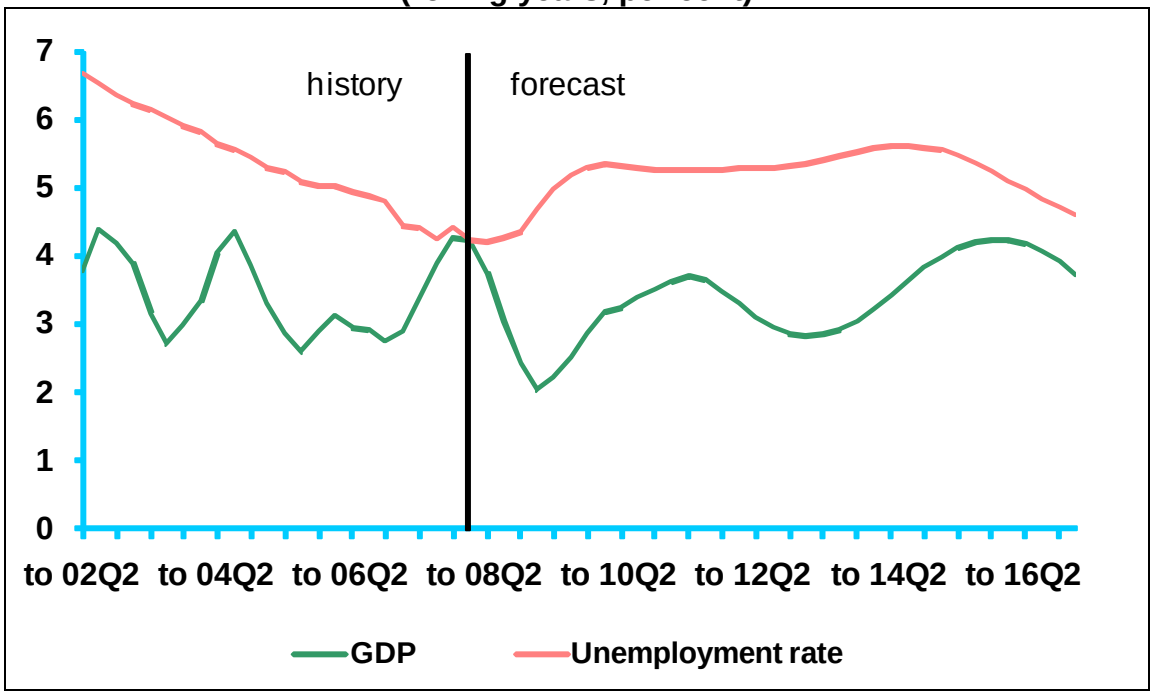
[18] ABC, 8 Feb 2008, 'Fixing inflation more important than tax cuts: Rudd', http://abc.com.au/news/stories/2008/02/08/2157754.htm

have weakened. On the other hand, Australia's terms of trade has received another boost with recent contract negotiations securing higher than expected export prices for coal and iron ore. This increase in the terms of trade along with the substantial personal income tax cuts outlined in the 2008/09 Budget will increase household's disposable income. Hence the RBA believes that there continues to be considerable uncertainty around the outlook for demand and inflation. The RBA has warned of further increases in the cash rate if demand does not slow as expected or if high inflation expectations begin to affect wage and price setting.

Taking into account these recent economic developments, Econtech forecasts a slowdown in economic growth between 2008/09 and 2009/10 as growth in consumer demand and business investment are reined in. The record profitability and low cost of borrowing that have driven the boom in business investment are coming to an end. Profitability is expected to ease as a result of some moderation in commodity prices beyond 2008/09, while the sub-prime crisis has brought an end to cheap debt. Economic growth is forecast to slow to 2.2 per cent in 2008/09 compared to a high 3.7 per cent estimated for 2007/08.

As a result of the forecast economic slowdown, the unemployment rate is expected to increase from a low of 4.3 per cent in May 2008 to above 5 per cent in the medium term. In the longer term unemployment will start to converge towards its sustainable rate of 5.25 per cent. These movements in economic growth and the unemployment rate can be seen in Chart 4.1.

Chart 4.1
Economic Growth (GDP) and Unemployment Rate
(rolling years, per cent)

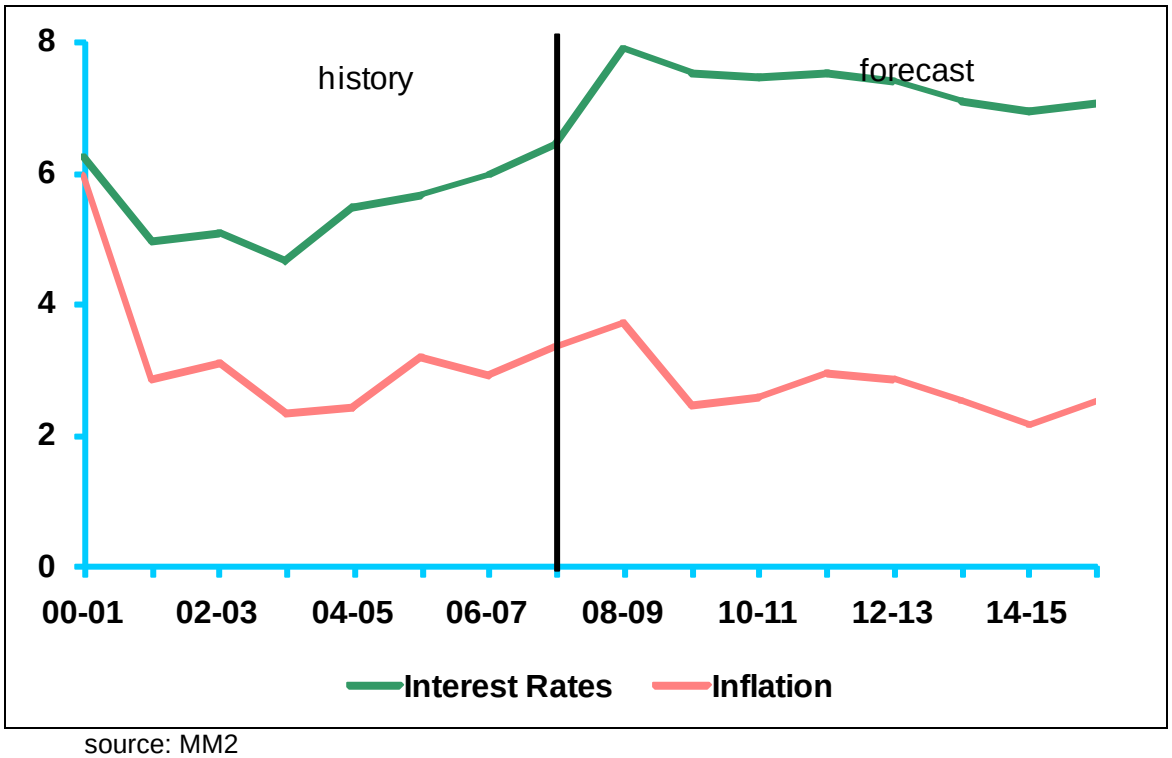


source: MM2

The current relatively high level of interest rate is forecast to remain through to the end of 2009/10, before the RBA slowly eases monetary policy from 2010/11 onwards in response to falling inflation. As a result of the contractionary stance of monetary policy, inflation is

forecast to return to the RBA's 2 to 3 per cent target band in the medium term. The profile of inflation and interest rates through the forecast period can be seen in Chart 4.2 below.

Chart 4.2
Inflation and Interest Rates
(per cent)

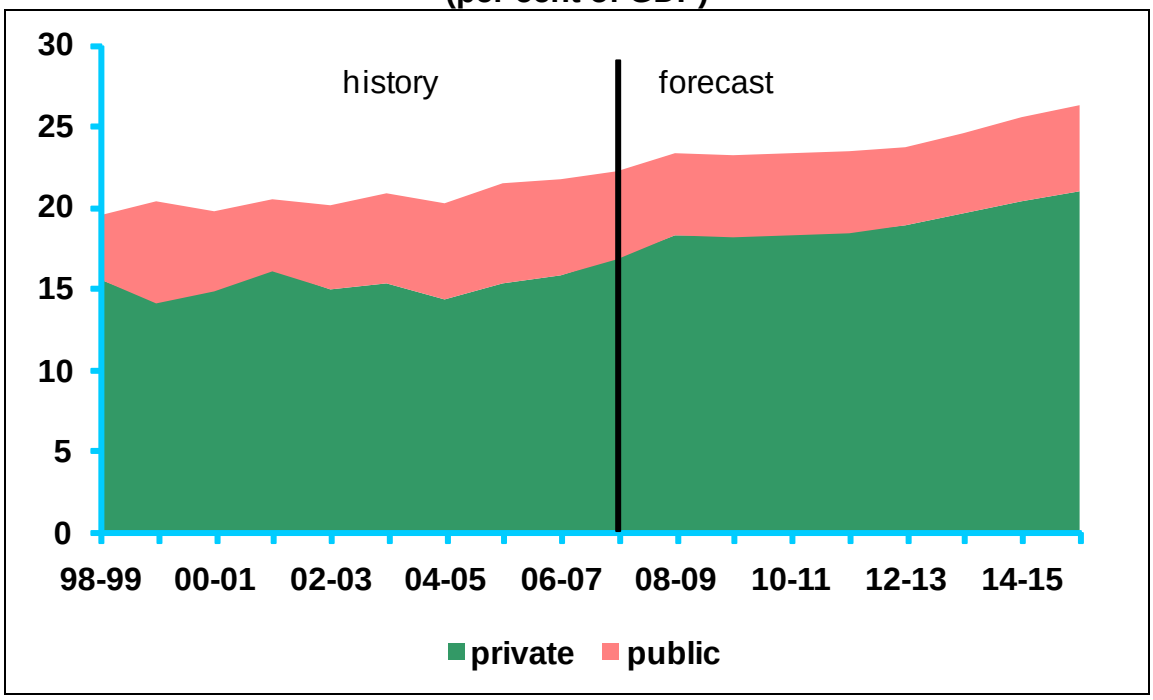


source: MM2

Saving is one avenue through which individuals smooth out their consumption profile. During times of slow economic growth and lower income individuals draw down their saving in order to dampen the impact of lower income on consumption. In contrast, during more prosperous economic times, individuals earn higher incomes and put aside more of their income as saving. For example, the forecast slowdown in economic growth over the short term is expected to cause national saving to fall temporarily in 2009/10 from 2008/09 levels. However, this will be followed by a recovery period of stable growth in national saving levels.

Overall, given the forecast economic conditions under the baseline scenario, national saving is expected to increase from 22 per cent of GDP in 2007/08 to 24.5 per cent by 2013/14. The split between private saving and public saving is quite stable throughout the forecast period, with private saving making up approximately 80 per cent of national saving. The movement of national saving throughout the forecast period can be seen in Chart 4.3 below.

Chart 4.3
National Saving
(per cent of GDP)



source: MM2

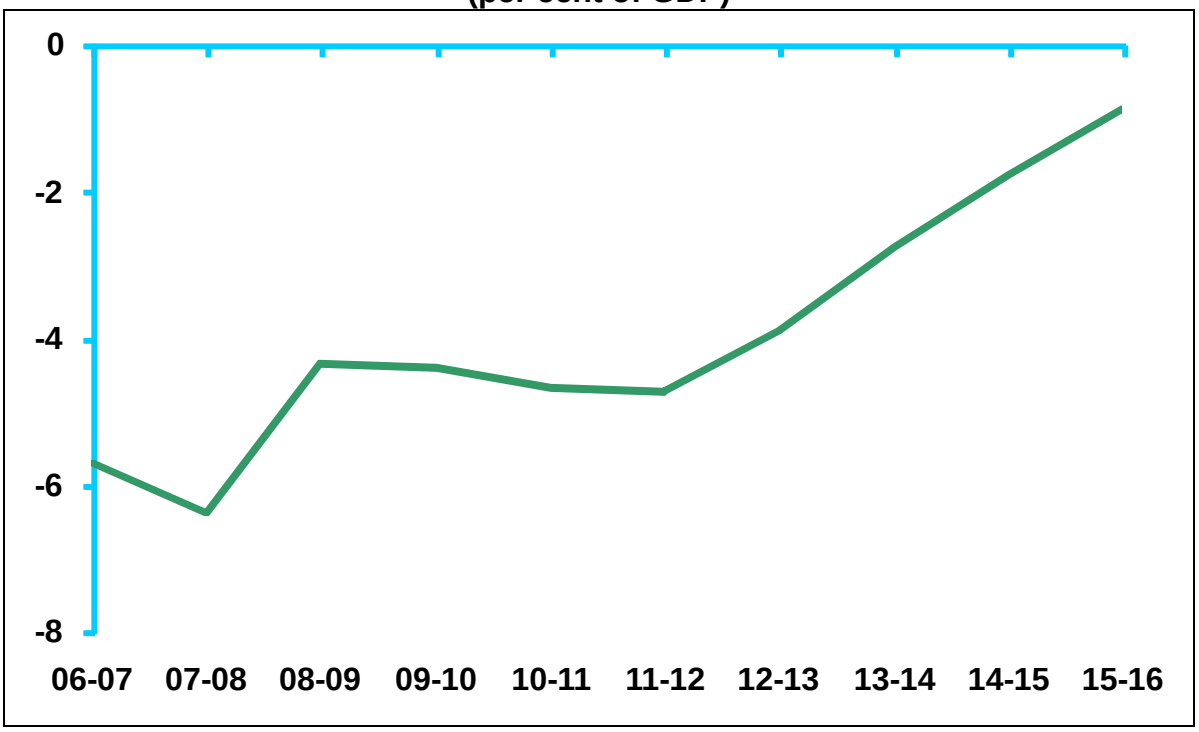
An increase in national saving will improve Australia's current account balance. The current account balance is comprised of the goods and services balance, the net income balance and the transfer balance[19]. Historically, the net income deficit is the largest component of Australia's current account deficit.

The capital and financial account balance is the sum of net capital transfers and net acquisition of both financial and non-financial assets. Due to the double entry accounting framework underlying the construction of the balance of payments, the current account balance can also be thought of as the negative of our capital and financial account balance. A current account deficit corresponds to a capital account surplus and a current account surplus corresponds to a capital account deficit.

So another way to interpret the current account deficit is as the shortfall between domestic saving and investment which must be met by funds from abroad flowing into Australia. The current account deficit is funded by borrowing from overseas. Foreign residents receive Australian assets in return for funding Australian domestic investment. Hence, when Australia's capital account is in surplus, the value of Australian assets held by foreigners is greater than the value of foreign assets held by Australians. An increase in saving will necessarily improve Australia's current account balance as the gap between domestic saving and investment tightens.

[19] The goods and services balance is defined as the difference in the value of exports relative to the value of imports. The net income balance is defined as income earned by Australian residents on their overseas investments, such as dividends and interest less the income earned by overseas residents on their Australian investment. The transfer balance is a relatively small component, comprised of the counterparts to one sided transactions such as foreign aid

Chart 4.4
Current Account Balance
(per cent of GDP)



source: MM2

Chart 4.4 above shows Econtech's forecast of the current account balance. In 2007/08 the current account deficit is estimated to widen to 6.2 per cent of GDP from 5.7 per cent of GDP in 2006/07. However an improvement in the current account deficit is expected from 2008/09 onwards due to strong growth in exports driven by Mining and Agriculture. At the same time, the slowdown in consumption growth will moderate the growth in imports.

4.2 State of the Industries

Chart 4.5 below depicts the average annual growth in gross product of 16[20] ANZSIC[21] industries between 2007/08 and 2015/16. The industries experiencing the strongest growth are listed below.

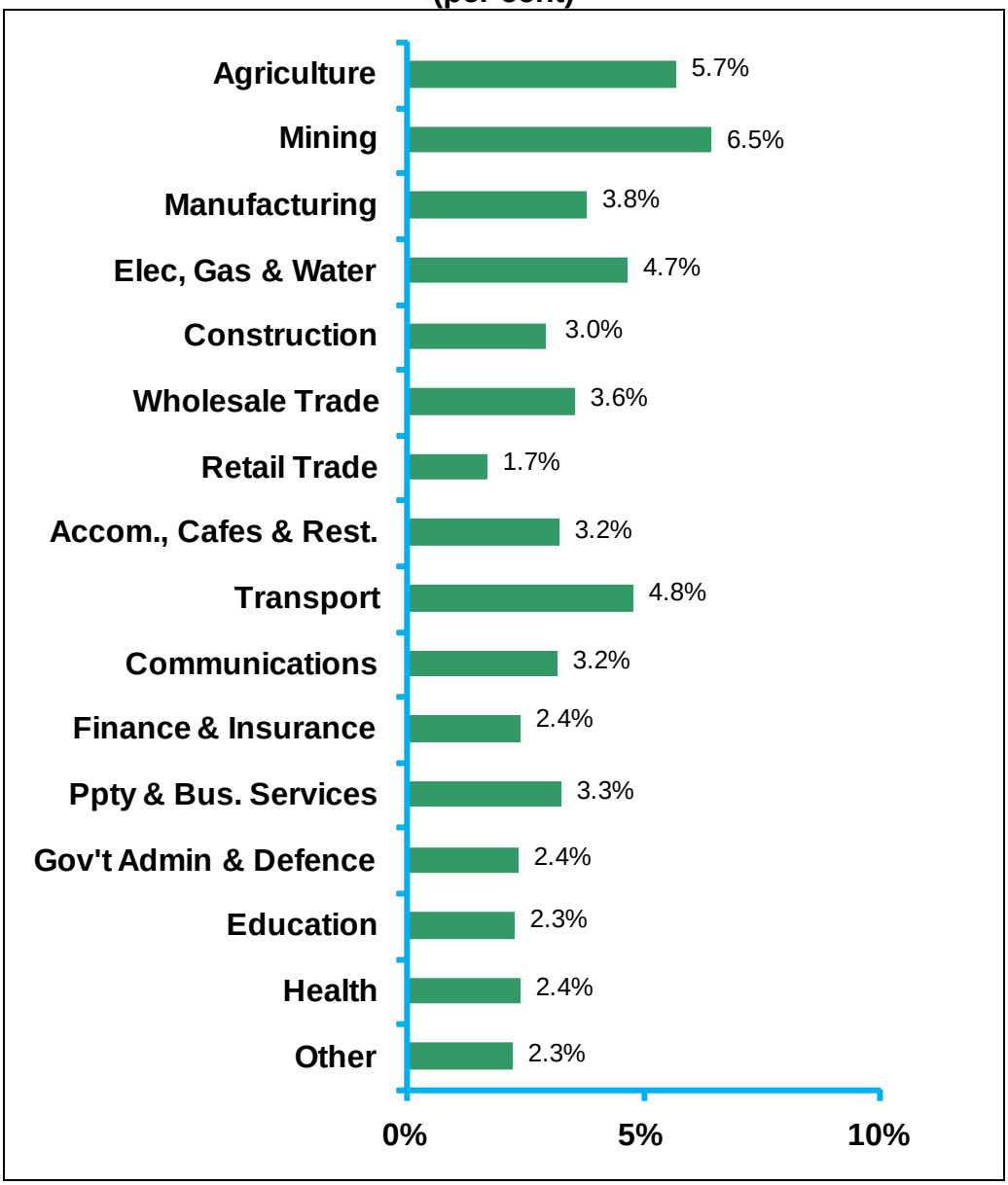
- Agriculture
- Mining
- Electricity, Gas and Water
- Transport

Gross Product in the Agriculture industry is forecast to grow at a solid 16.5 per cent this financial year, before reverting to more stable growth rates for the remainder of the forecast period. This stellar growth is driven mainly by strong agriculture commodity demand from overseas, particularly for wheat. In addition, more favourable weather conditions are

[20] The smaller Personal and Other industry and Culture and Recreation Services industry are combined in one "Other" industry.
[21] Australian and New Zealand Standard Industry Classification.

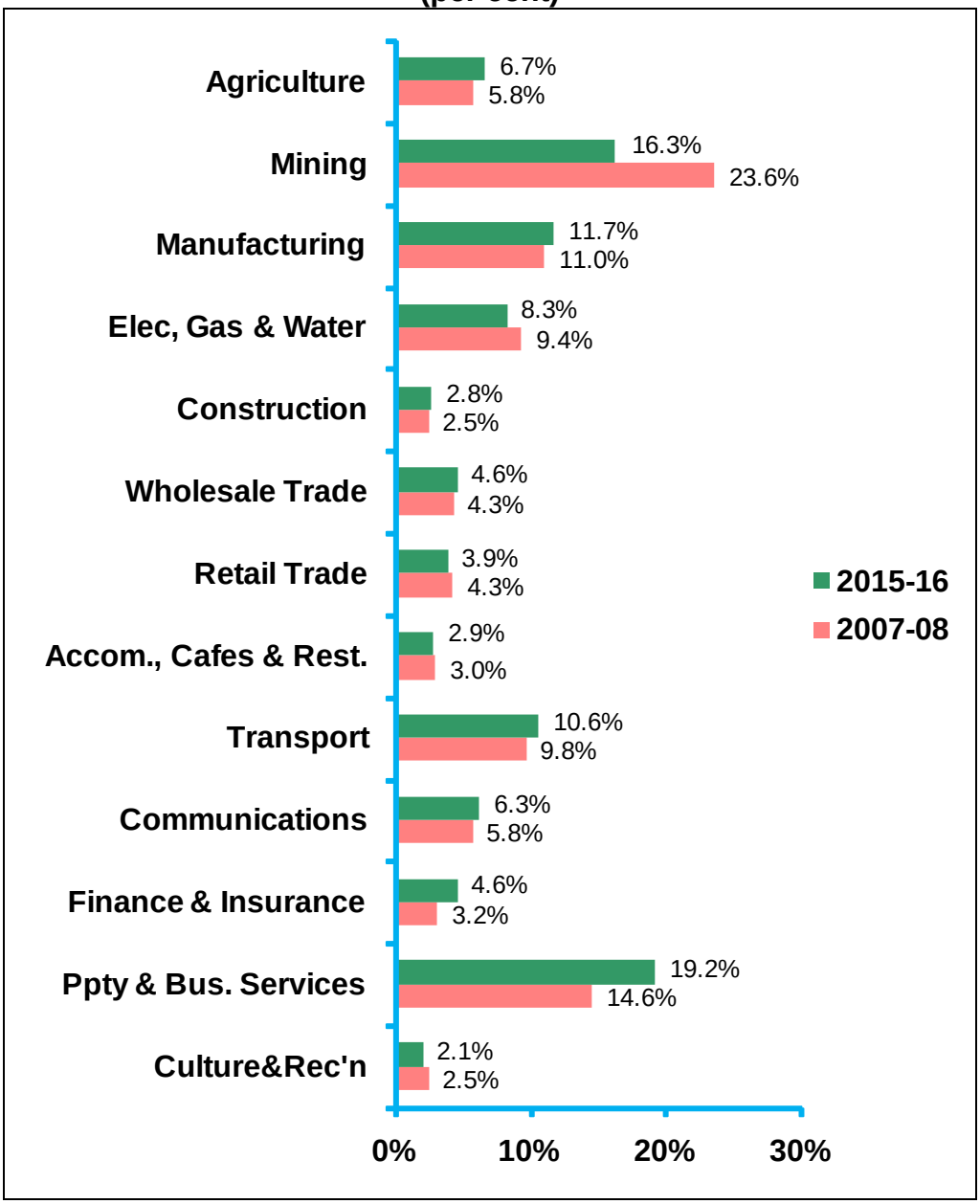
expected in some parts of Australia. The Electricity, Gas and Water industry and the Transport industry are benefitting from Government initiatives focussing on improving infrastructure bottlenecks. The Mining industry continues to capitalise on record commodity prices, particularly for coal and iron ore. Past investments in this industry will be realised over the forecast period, leading to strong growth in output. Annual average growth in gross product for the Mining industry is forecast to average 6.5 per cent per annum between 2007/08 and 2015/16.

Chart 4.5
Gross Product, Average Annual Growth between 2007/08 and 2015/16 (per cent)



source: MM2
note: 'Other' includes the Culture and Recreation Services industry and the Personal and Other Services industry.

Chart 4.6
Industry Share of Total Investment, 2007/08 and 2015/16
(per cent)



source: MM2

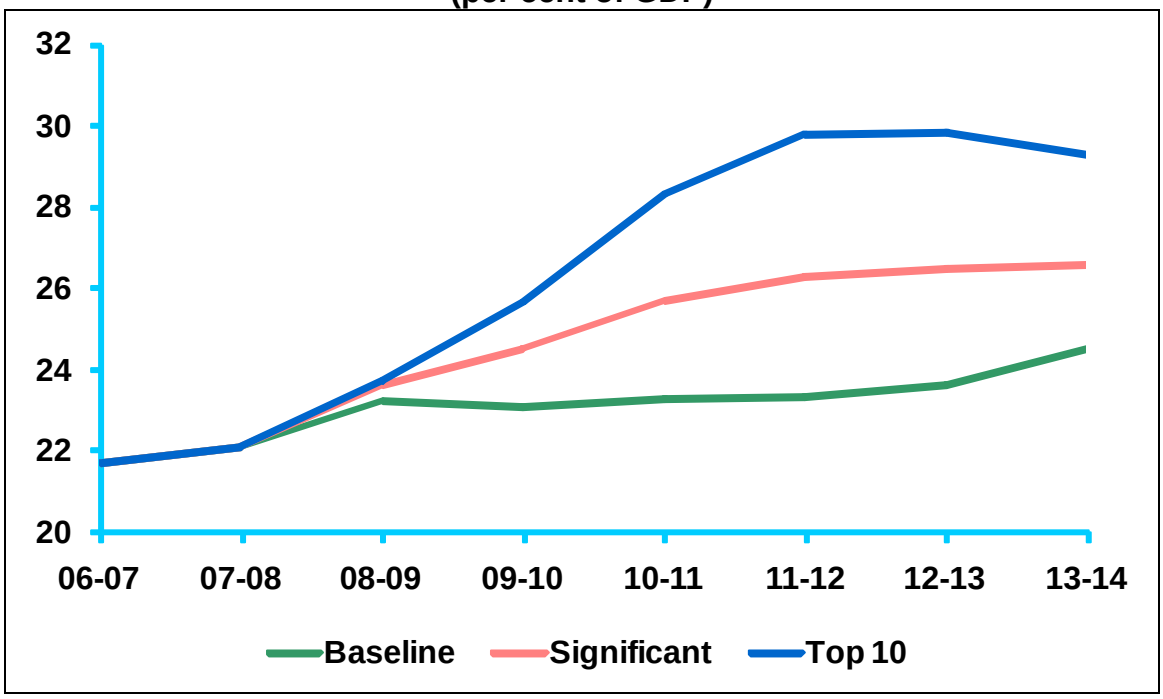
A similar pattern to gross product is seen across industry investment flows as shown in Chart 4.6. During the forecast period most industries roughly maintain their share of total investment. However, investment in the Mining industry as a share of total investment falls from 23.6 per cent in 2007/08 to 16.3 per cent in 2015/16. This is mainly because the Mining industry has experienced stellar investment levels recently as a result of increased profitability due to historically high commodity prices. Over the forecast period, investment growth is expected to stabilise. The Transport industry is also expected to increase their share of total investment by 2015/16. As mentioned previously, this is largely due to high levels of government investment in this industry. The share of total investment flowing to the Property and Business Services industry also increase, fuelled by a recovery in the housing market and growth in engineering and commercial construction activity.

The following two sections will discuss the impact of increased national saving on the Australian economy. Firstly, the impact on the economy of increased national saving is discussed. This is followed by a discussion of the effects of higher national saving when key infrastructure areas are targeted.

5. Economic Implications of an Increase in National Saving

Section 3 outlined the methodology behind the modelling and the alternative saving scenarios. This section discusses the economic implications of an increase in national saving. As previously discussed, the "significant" scenario looks at the impact on the economy of a gain in national saving, averaging 2 per cent of GDP above baseline between 2008/09 and 2013/14. The "top 10" scenario models the impact of a more ambitious gain in national saving, averaging 5.0 per cent of GDP above baseline between 2009/10 and 2013/14.

Chart 5.1
National Saving
(per cent of GDP)



source: MM2

Chart 5.1 above depicts the profile of national saving between 2007/08 through to 2013/14. As shown clearly in the chart, the difference in national saving between the "top 10" scenario and the "significant" scenario is mainly in terms of magnitude. The trajectory of national saving is similar under both scenarios. Thus the economic effects of higher national saving under the "top 10" scenario are proportionally larger than those under the "significant" scenario.

5.1 Consumption

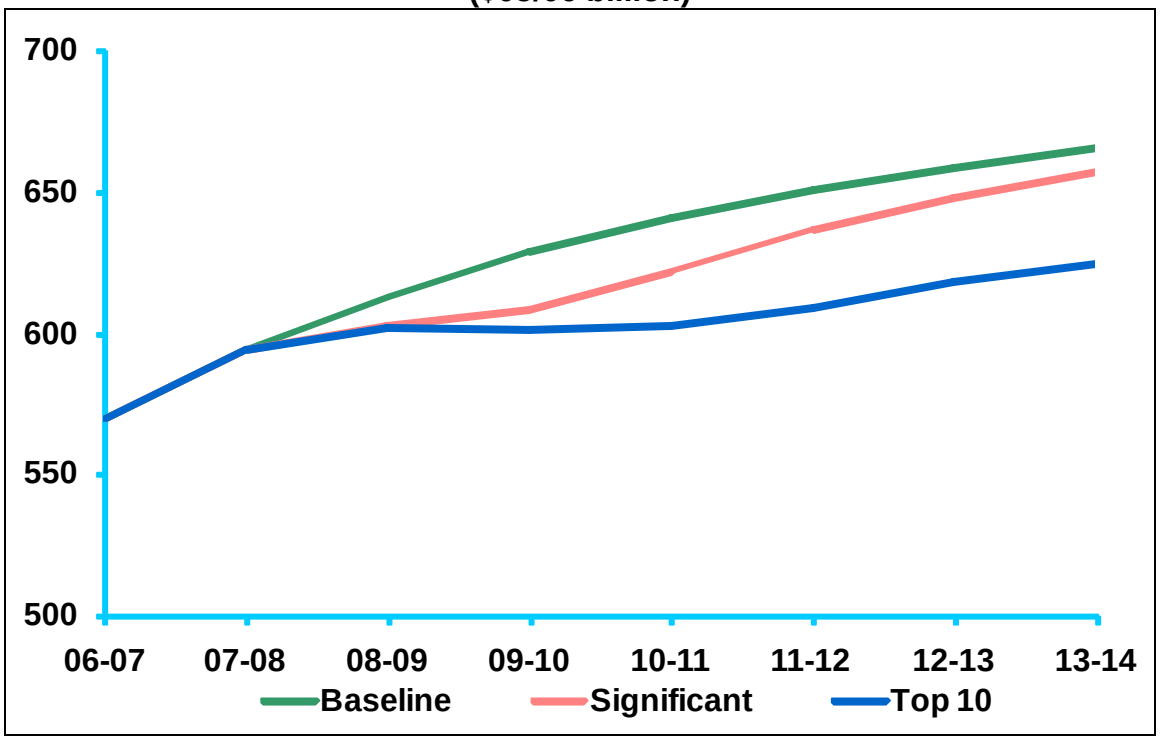
The results of our modelling show that the main economic argument for increasing national saving continues to be from an intergenerational equity perspective. An increase in the current level of national saving allows for higher living standards during retirement, where living standards are measured from consumption levels. Saving is a way for individuals to defer consumption from the present to the future.

The key driver of the pick-up in consumption is an increase in wealth. Saving can also be thought of as the change in the wealth level or the change in assets held by individuals less the change in liabilities. As saving levels increase, so does the stock of wealth. This

increase in the stock of wealth means that individuals are able to finance a higher level of consumption than before.

This shifting of consumption from the present into the future is seen in the modelling results. Chart 5.2 below shows the path of consumption under the baseline scenario and the "significant" scenario. Consumption, while still growing, is clearly below the baseline trajectory as households accumulate additional wealth. In the long term this additional wealth allows them to then finance a higher level of consumption. Baby boomers are then able to enjoy a higher standard of living in their retirement without placing an undue burden on later generations.

Chart 5.2
Consumption
($05/06 billion)

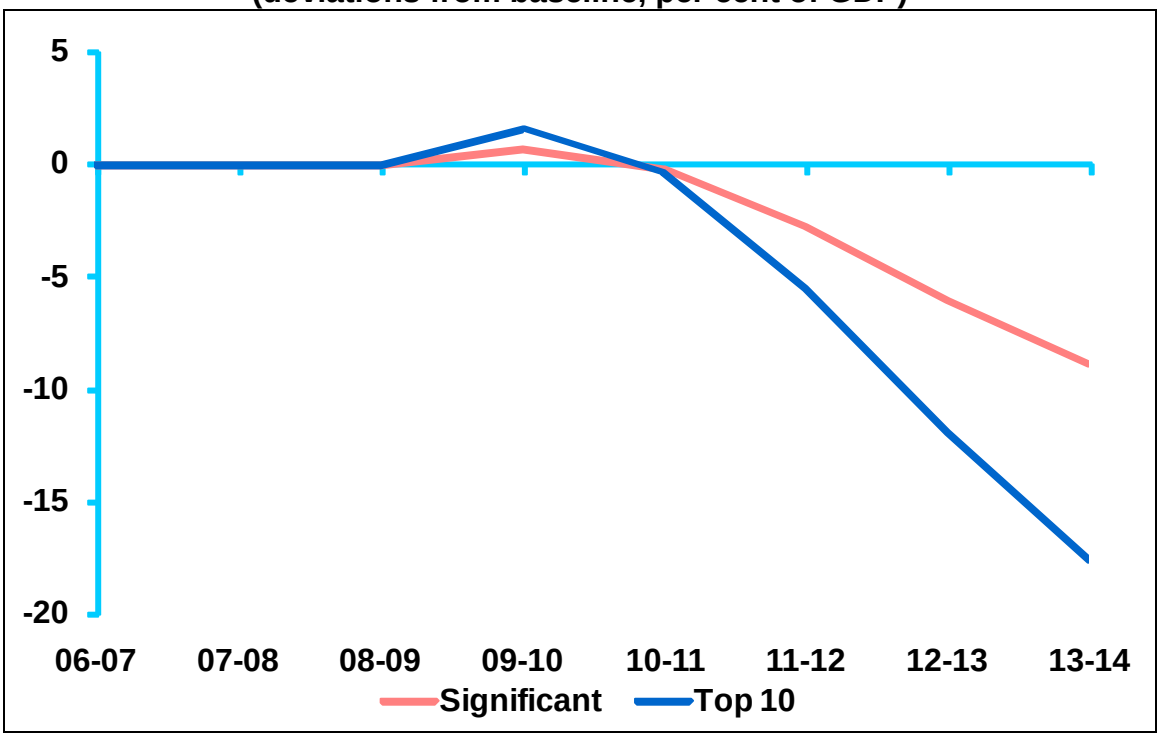


source: MM2

5.2 Foreign Debt

The higher wealth of Australians, as a result of the increase in national saving rates, leads to less dependence on foreign financing of domestic capital. In the long run foreign liabilities are 15 per cent of GDP lower under the "significant" scenario than in the baseline scenario and they are 50 per cent of GDP lower under the "top 10" scenario. Chart 5.3 below shows the foreign debt deviation from baseline between 2007/08 and 2013/14.

Chart 5.3
Foreign Debt
(deviations from baseline, per cent of GDP)



source: MM2

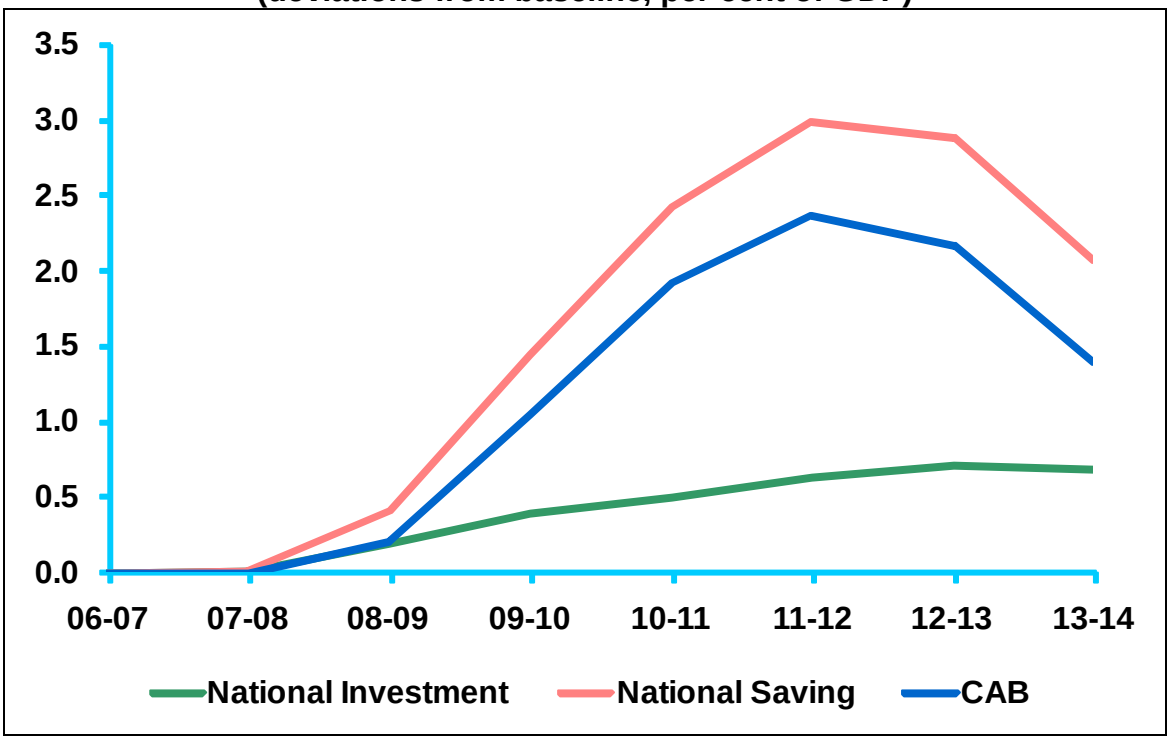
5.3 Transition Phase

During the transition phase towards this higher domestic asset position there are important economic consequences. Under the "significant" scenario and the "top 10" scenario, the gain in national saving relative to the baseline scenario averages around two per cent of GDP and five per cent of GDP respectively, in the medium term.

An increase in national saving closes the gap between domestic saving and investment. As discussed in Section 4.1, this leads to an improvement in the current account balance. A higher level of domestic saving allows for a higher level of Australian investment to be financed domestically, rather than from overseas. The ongoing reduction in the current account deficit leads to the mounting reduction in foreign liabilities discussed above.

The majority of the gain in national saving finances a reduction in the current account deficit, while the remainder finances a gain in investment. This can be seen in Chart 5.4 below for the "significant" scenario. For example, in 2011/12 the gain in national saving peaks at 3 per cent of GDP and finances a reduction in the current account deficit of 2.4 per cent of GDP and a gain in investment of 0.6 per cent of GDP.

Chart 5.4
Saving, Investment and Current Account Balance
"Significant" Scenario
(deviations from baseline, per cent of GDP)



source: MM2

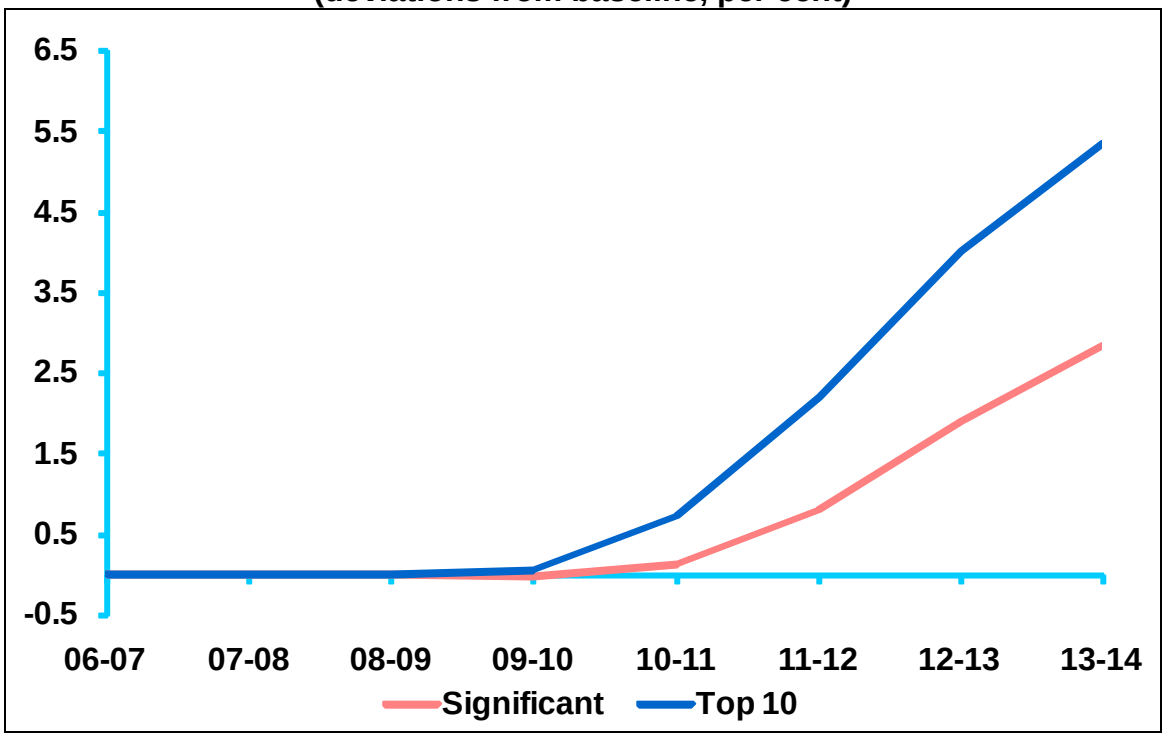
As expected, stronger results are seen in the "top 10" scenario. Under this scenario, the gain in national saving peaks at 6.5 per cent of GDP in 2011/12. This finances a gain in national investment of 1.2 per cent and an improvement in the current account deficit of 5.3 per cent.

Historically, the deterioration of Australia's current account deficit largely reflects the strong investment opportunities in Australia. Thus, Australia's dependence on overseas borrowing is not a pressing issue during times when financial markets are stable and there is positive sentiment towards Australian investments. The risk premium levied on Australia's borrowing costs has been quite modest. Recently however, the global financial markets have been destabilised by the sub-prime mortgage collapse in the United States. Running large current account deficits leads to escalating foreign debt levels. This increases the sensitivity of the Australian economy to international economic shocks which have the potential to affect foreign investor sentiment towards investing in Australia, such as the sub-prime crisis. A higher level of national saving would help insulate Australia against adverse global financial shocks by reducing Australia's level of foreign debt.

The gain in national investment under the "significant" scenario extends to infrastructure investment, including the key area of Transport infrastructure. A prolonged period of higher infrastructure investment leads to mounting gains in the infrastructure capital stock. For example, in 2013/14, the capital stock of the transport industry peaks at 2.8 per cent above baseline or a gain of $3 billion in 2005/06 dollars over the baseline. This is similar to the gain for business capital stock as a whole of 2.4 per cent. This gain in infrastructure investment is also seen under the "top 10" scenario. In 2013/14, the capital stock of the transport industry is 5.4 per cent above baseline. Business capital stock is 4 per cent above

baseline in the same year. The gains in capital stock within the Transport industry under the two alternative scenarios are illustrated in Chart 5.5 below.

Chart 5.5
Capital Stock in the Transport industry
(deviations from baseline, per cent)



source: MM2

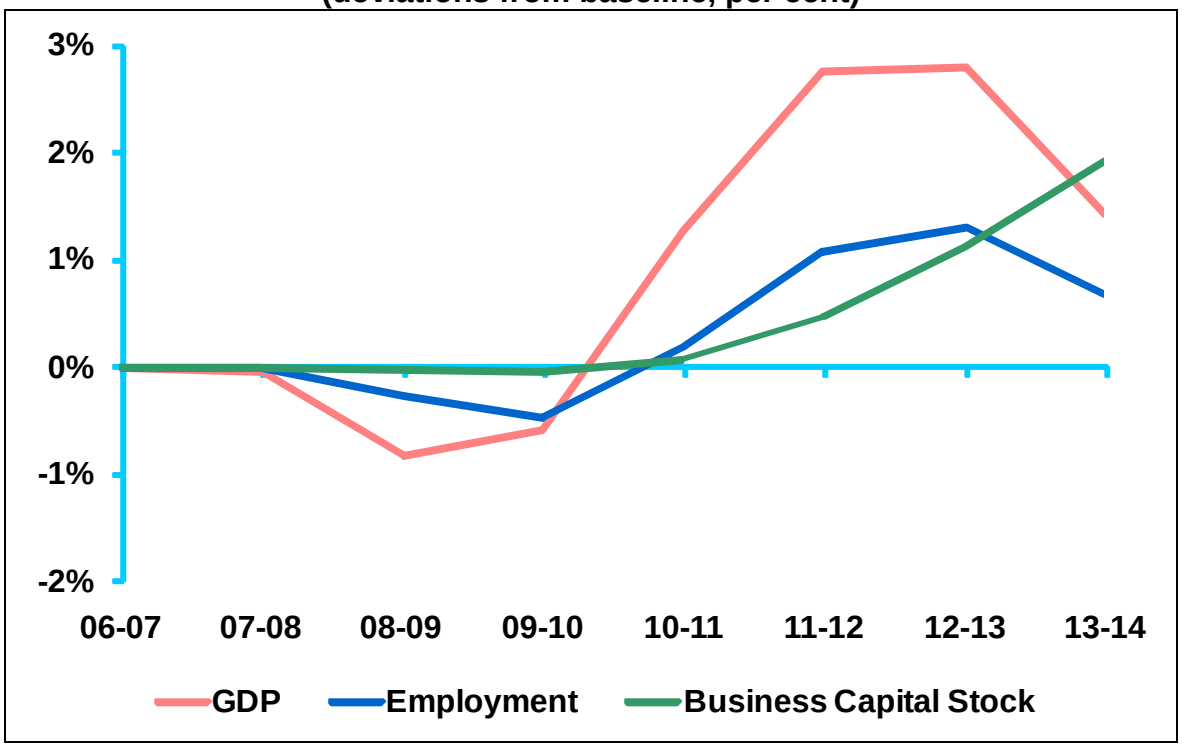
These gains in capital stocks across the industries support gains in GDP. The increase in the capital stock expands the economy's productive capacity over the medium term. However, in the first few years of the alternative scenario, GDP is below baseline as individuals moderate their consumption growth. The increase in output acts as a stimulus on employment, increasing employment above baseline. The pattern in employment generally follows the pattern in output with a lag. This is shown in Chart 5.6 below.

Under the "significant" scenario, GDP is 1.4 per cent above baseline in 2013/14, supported by gains in business capital and employment of 2.4 per cent and 0.7 per cent respectively. Similarly, under the "top 10" scenario, GDP is 3.5 per cent above baseline in 2012/13, supported by gains in business capital and employment of 2.2 per cent and 1.4 per cent respectively.

The gains in GDP are not maintained over the longer term. Over time GDP returns to baseline levels in dampened oscillations. This is because the gain in capital stock, which is driving the gain in GDP, is not maintained over the longer term. In the long term, with full employment, the level of capital is determined by the required rate of return on investment and the depreciation rate of the capital stock. The assumption that Australia is a small open economy with no impediments to international capital flow means that the required rate of return is set exogenously, outside of Australia's control, on a global basis. Since there is also no reason to believe that the depreciation rate has altered, an increase in national saving does not change the economy's long run level of capital.

The assumption that Australia is not able to change the required rate of return applied to domestic investment reflects the conservative nature of the modelling. As previously mentioned, an increase in national saving reduces the level of Australia's foreign liabilities. This could potentially lower the risk premium applied by international investors to investment in Australia. It is possible that by lowering the risk premium, and hence the required rate of return, the gains in business capital are sustained in the longer term. Under this assumption the increase in productive capacity stimulated by the increase in national saving is maintained over the long term.

Chart 5.6
GDP, Employment and Business Capital Stock
"Significant" Scenario
(deviations from baseline, per cent)

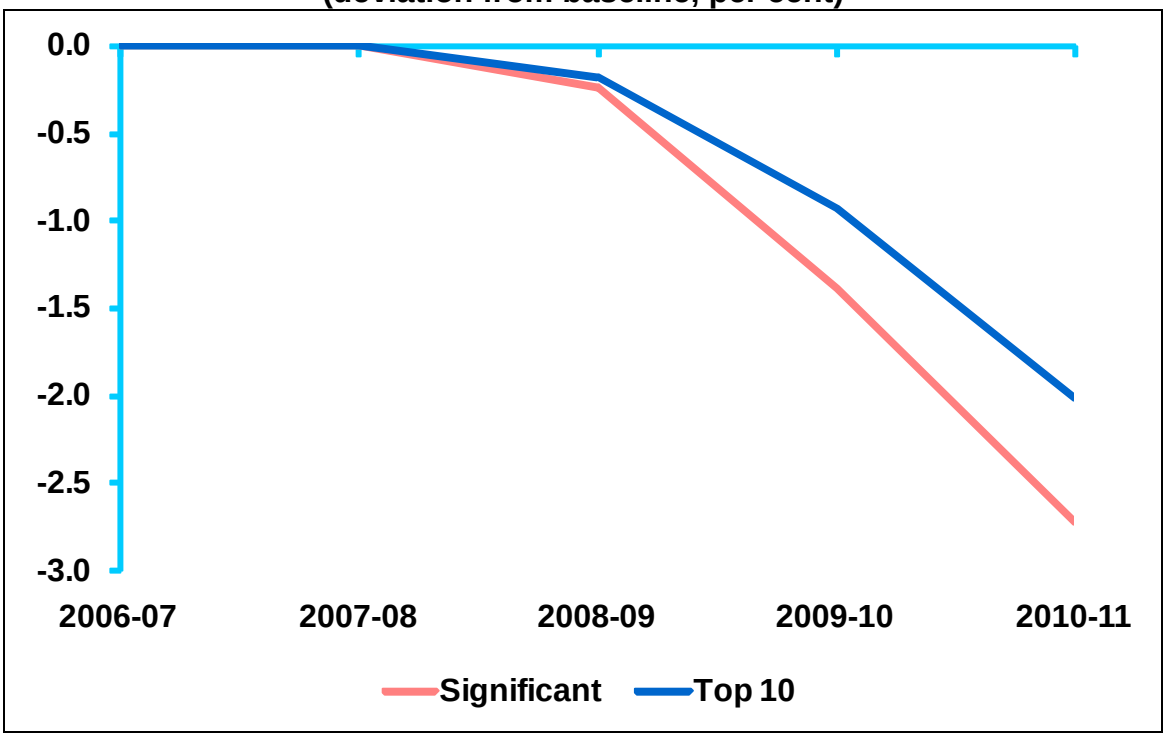


source: MM2

5.4 Cyclical Benefits

Although there are signs that the Australian economy has begun to slow, the RBA believes that there is still a great degree of uncertainty surrounding the outlook for demand and inflation. Both the "significant" scenario and the "top 10" scenario shows that higher national saving, if well timed at the peak of the economic cycle, can take pressure off monetary policy in fighting inflation. Consumption growth slows as individuals concentrate on saving, easing demand-side inflationary pressures. This sharper moderation in consumption growth may convince the RBA that domestic demand has indeed eased sufficiently to contain inflationary pressures. The deviation in consumer prices from baseline can be seen in Chart 5.7 below. Consumer prices are 1.4 per cent below baseline in the second year of the "significant" scenario.

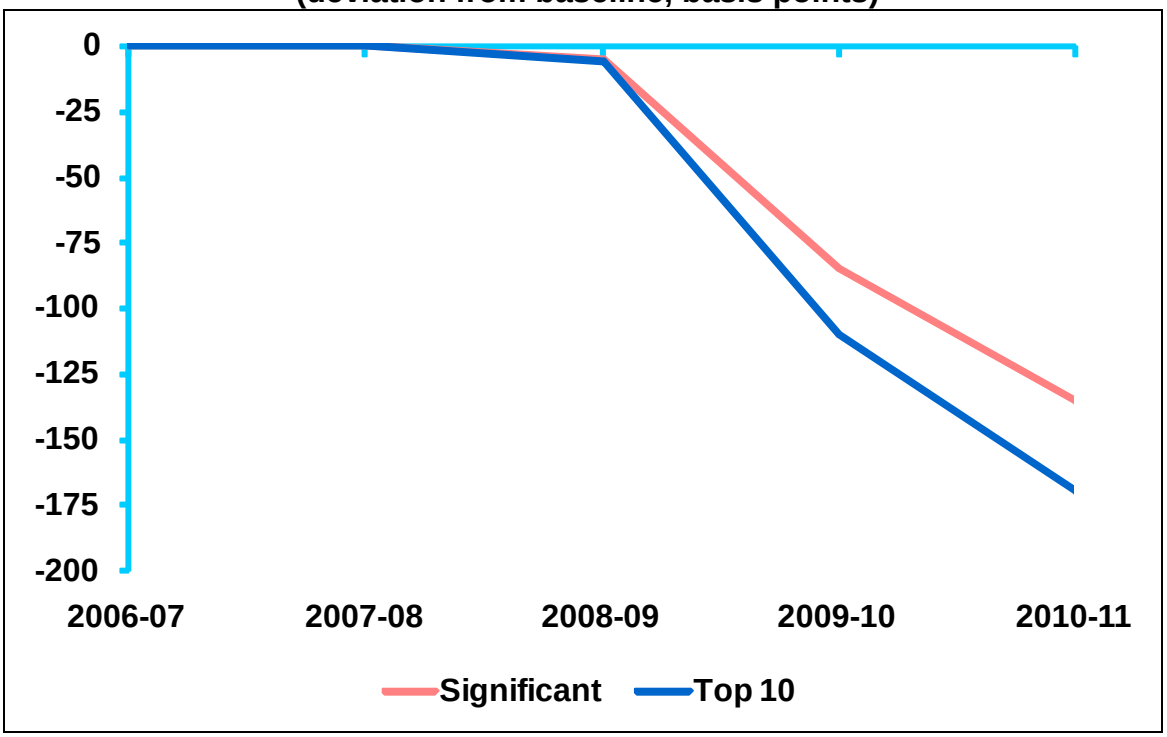
Chart 5.7
Consumer Price Index
(deviation from baseline, per cent)



source: MM2

The more moderate outlook for prices leads to a more neutral stance for monetary policy. In particular, short term interest rates are 85 basis points and 110 basis points below baseline in the second year of the "significant" scenario and the "top 10" scenario respectively. Chart 5.8 below shows the profile of interest rates under the "significant" scenario compared with baseline. So higher national saving can help ease inflationary pressures, while also allowing for a substantial reduction interest rates.

Chart 5.8
Interest Rate (90-day Bill Rate)
(deviation from baseline, basis points)



source: MM2

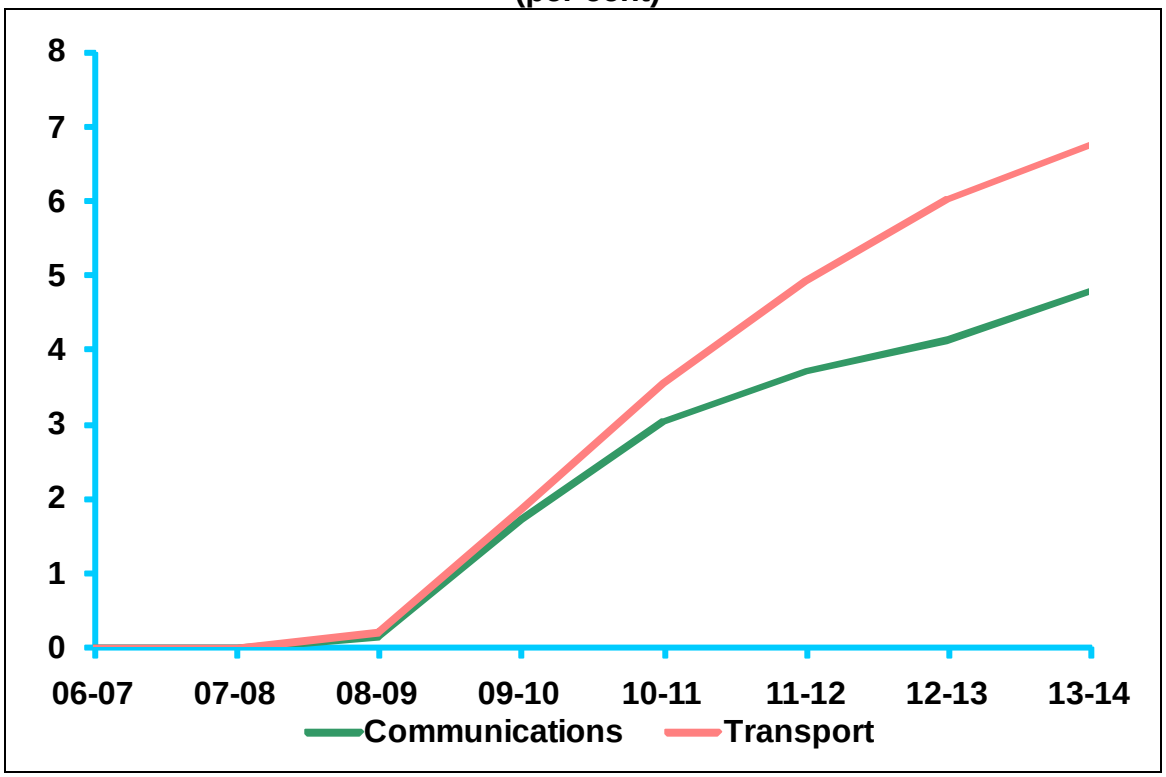
6. Economic Implications of Targeted Investment

Section 3 outlined the methodology behind the modelling and the alternative savings scenarios. The economic implications of a gain in national saving of approximately two and five per cent of GDP in the medium term is highlighted in Section 5 (the "significant" and "top 10" scenarios, respectively). This section discusses the additional economic effects of an increase in national saving when a larger part of the gain in national saving flows to national investment.

In the "targeted investment scenario", national saving is increased by the same amount and along the same path as the "top 10" scenario. The difference is that a larger part of the gain in national saving is directed towards national investment. The extra investment is assumed to be directed to the key infrastructure industries of Transport and Communications. These two industries are chosen because they are the two key industries which support production across a wide range of other industries within the economy.

This higher rate of infrastructure investment leads to cumulative gains in infrastructure capital stocks. By 2013/14, the capital stocks in the Transport and Communications industries are 6.7 per cent and 4.8 per cent respectively above the "top 10" scenario levels, leading to a gain in the total business capital stock of 0.7 per cent. The deviation of capital stock in the Transport and Communications industries from the "top 10" scenario is shown in Chart 6.1 below.

Chart 6.1
Capital Stock in Transport and Communications
Deviations from "top 10" scenario
(per cent)

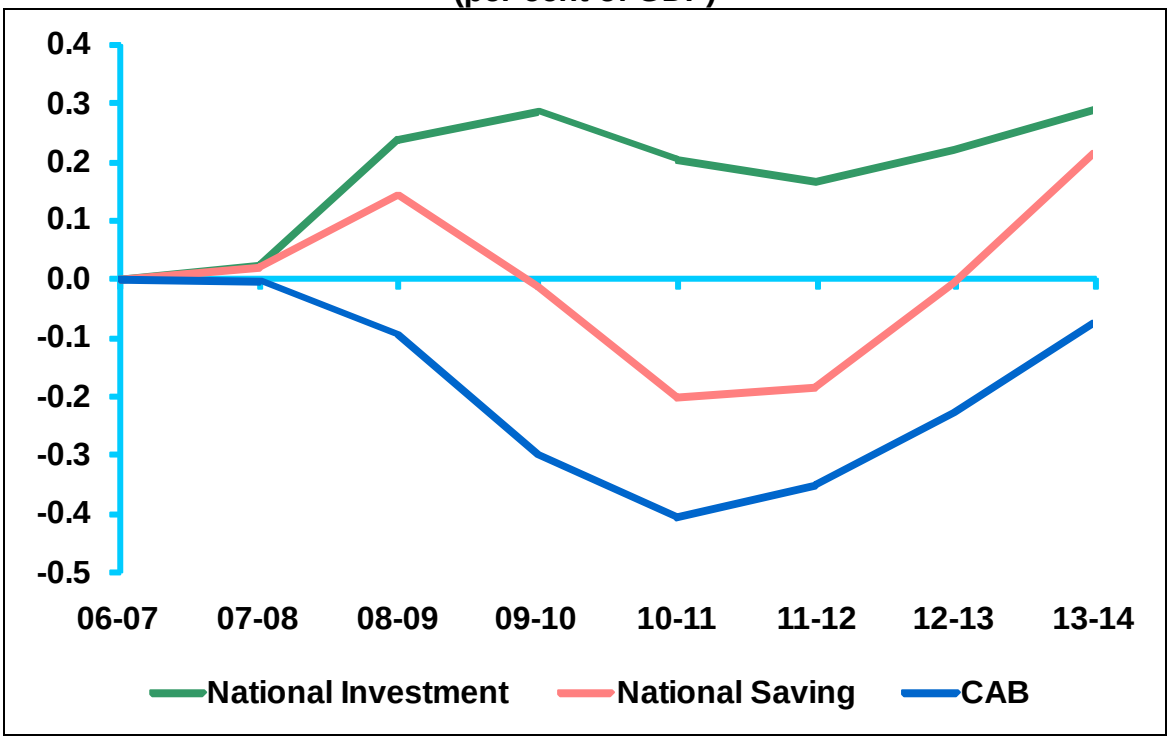


source: MM2

This "targeted investment" scenario means a smaller part of the gain in national saving flows to a reduction in the current account deficit. For example in 2013/14, the directing of investment involved in this scenario boosts the gain in investment from 1.0 per cent of GDP in the "top 10" scenario to 1.3 per cent of GDP. This gain in investment of 0.3 per cent of GDP is financed by a similar reduction in the improvement in the current account deficit.

The trade off between an additional gain in national investment and improving the current account deficit is clearly shown in Chart 6.2 below. Chart 6.2 shows the deviation of national saving, national investment and the current account balance under the "targeted investment" scenario from the "top 10" scenario. The same national saving gain is pursued under the "top 10" and "targeted investment" scenarios; hence the deviations in national saving between the two alternative saving scenarios are minimal. However, any gain in national investment compared with the "top 10" scenario means a smaller improvement of the current account balance

Chart 6.2
National Investment, National Saving and Current Account Balance
Deviations from "top 10" scenario
(per cent of GDP)

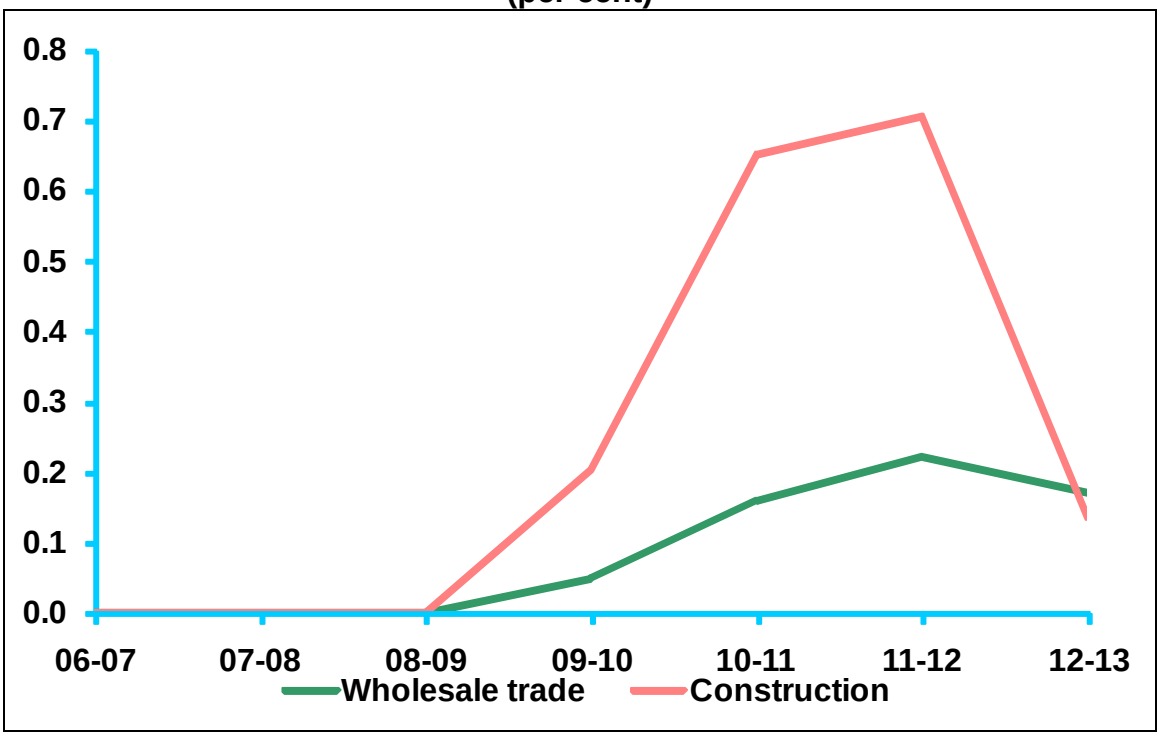


source: MM2

Although only the two above-mentioned industries are targeted, the interrelationships between the industries result in a change in investment flows for other industries. For example, investment in the Wholesale Trade industry is higher under the "targeted investment" scenario compared to the "top 10" scenario. More than 90 per cent of Wholesale Trade activity involves the distribution of manufactured goods. Thus, increased investment in the Transport industry has positive flow-on effects for the Wholesale Trade industry. The improvement in profitability of the Wholesale Trade industry encourages more investment in this industry. There is a similar relationship for investment in the Construction industry. Increased investment in infrastructure means greater output for the

Construction industry. Chart 6.3 below shows the profile of capital stock for the Wholesale Trade and Construction industries as deviations from the "top 10" scenario.

Chart 6.3
Capital Stock in Wholesale Trade and Construction
Deviations from "top 10" scenario
(per cent)



source: MM2

7. Conclusion

The results of our modelling show that the main economic argument for increasing national saving continues to be from an intergenerational equity perspective. An increase in the current level of national saving allows for higher living standards during retirement, where living standards are measured from consumption levels. By increasing their saving levels, individuals are putting away more money now in order to fund a higher level of consumption in the future. Baby boomers are then able to enjoy a higher standard of living in their retirement without placing an undue burden on later generations.

A gain in national saving increases the wealth of Australians. The higher wealth of Australians means there is less dependence on foreign financing of domestic capital. The modelling shows that a 2 per cent of GDP gain in national saving over the medium term (the "significant" scenario) leads to a reduction in foreign liabilities by 15 per cent of GDP than otherwise would have been the case.

The lower reliance on foreign investment in this scenario could lower the risk premium for investment in Australia, so that gains in business capital are sustained in the longer term. Reflecting the conservative nature of the modelling, this risk premium effect is not included, so that the gains in investment are medium term rather than long term in nature.

During the transition phase towards this higher domestic asset position there are important economic consequences. The majority of the gain in national saving finances a reduction in the current account deficit, while the remainder finances a gain in investment. The ongoing reduction in the current account deficit leads to the mounting reduction in foreign liabilities discussed above. In addition, a prolonged period of higher investment leads to mounting gains in the capital stock. These gains in capital stocks support gains in GDP.

In the scenario where a larger part of the gain in national saving flows to national investment, this extra investment is assumed to be directed to the key infrastructure industries of Transport and Communications. Under this scenario, there is a trade off between the gain in national investment and an improvement in the current account balance. A smaller part of the gain in national saving flows to a reduction in the current account deficit.

Although there are signs that the Australian economy has begun to slow, the RBA believes that there is still a great degree of uncertainty surrounding the outlook for demand and inflation. Both the "significant" scenario and the "top 10" scenario shows that higher national saving, if well-timed at the peak of the economic cycle, can take pressure off monetary policy in fighting inflation. Consumption growth slows as individuals concentrate on saving, easing demand-side inflationary pressures. This sharper moderation in consumption growth may convince the RBA that domestic demand has indeed eased sufficiently to contain inflationary pressures.

The moderation in consumption growth necessary for individuals to accumulate higher savings may convince the RBA that domestic demand has indeed eased sufficiently to contain inflationary pressures. The lower outlook for inflation leads to a more neutral stance for monetary policy. In particular, short term interest rates are 85 basis points below baseline in the second year of the "significant" scenario, while at the same time inflation is

also below baseline. So higher national saving can help ease inflationary pressures, while also allowing for a substantial reduction in interest rates.

A more ambitious saving scenario was also modelled involving a larger gain of around 5 per cent of GDP in national saving, compared with the gain of 2 per cent of GDP. This larger gain would lift Australia into the "top 10" of OECD countries for national saving rates. Comparing the two scenarios shows that the "top 10" scenario involves a larger gain in saving which has proportionally larger economic effects.

Attachment A – Murphy Model 2 (MM2)

Econtech's forecasting tool, Murphy Model 2 (MM2), is Australia's leading national, industry and state forecasting model. It has a highly respected forecasting track record and is used by Federal and State Governments, industry associations, financial institutions and major companies. Subscriptions to forecasting reports and Windows-based forecasting software are available.

Development

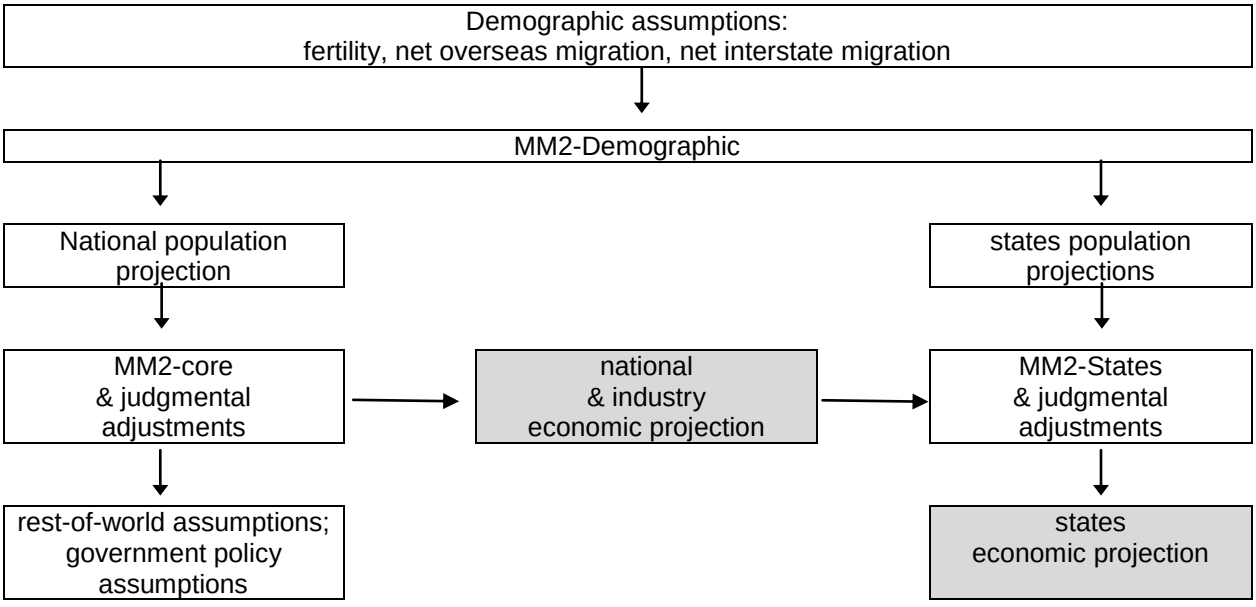
The original Murphy Model was developed by Chris Murphy, after ten years of experience in macroeconometric modelling at the Australian Treasury, Economic Planning Advisory Council, and the Australian National University. In 1988, Chris published the first version of the Murphy Model in Australian Economic Papers, and it was soon recognised as Australia's leading macro model.

In 1994, the first major redevelopment of the model was undertaken to distinguish 12 industry sectors. This marked the introduction of the Murphy Model 2 (MM2), a fully integrated macro and industry model.

In 1995, under contract to two state treasuries, the MM2-States was developed as an extension to MM2. The MM2-States allocates a number of MM2's key outputs across the eight Australian States and Territories.

In the same year, the current version of MM2-Demographic was developed under contract to the Australian Bureau of Immigration Research. Using assumptions for fertility, mortality, overseas and interstate migration, it generates consistent state and national population scenarios.

In 1996, the MM2 was further developed to expand the sectoral detail from 12 sectors to the 18 sectors corresponding to the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry divisions. The linkages between the three models are illustrated below.



Features

MM2 is a state-of-the-art, fully-integrated macro-industry model with the following features:

- produces quarter-by-quarter nine-year-ahead forecasts;
- forward-looking financial sector for realism;
- Keynesian short-run for forecasting; and
- neoclassical long-run for policy analysis.

Documentation

Powell, A.A. and Murphy, C.W. (1997), *Inside a Modern Macroeconometric Model - A Guide to the Murphy Model*, *Springer*, Berlin, 2nd ed., 455pp.

Attachment B – 2006 OECD National Saving (% of GDP)

	National Saving	Rank
Norway	39.0	1
Switzerland	39.0	2
Korea	31.2	3
Netherlands	27.4	4
Finland	26.8	5
Sweden	26.7	6
Japan	26.6	7
Belgium	25.2	8
Denmark	25.2	9
Austria	24.4	10
Canada	24.3	11
Czech Republic	23.8	12
Ireland	23.6	13
Germany	23.0	14
Mexico	21.8	15
Spain	21.8	16
Australia	*21.6*	*17*
Slovak Republic	21.2	18
Turkey	20.4	19
Italy	19.6	20
France	19.1	21
New Zealand	15.1	22
United Kingdom	14.9	23
United States	13.7	24
Portugal	11.8	25
Greece	11.3	26
Iceland	9.5	27
Poland	5.3	28

Source: OECD Statistics, IMF