

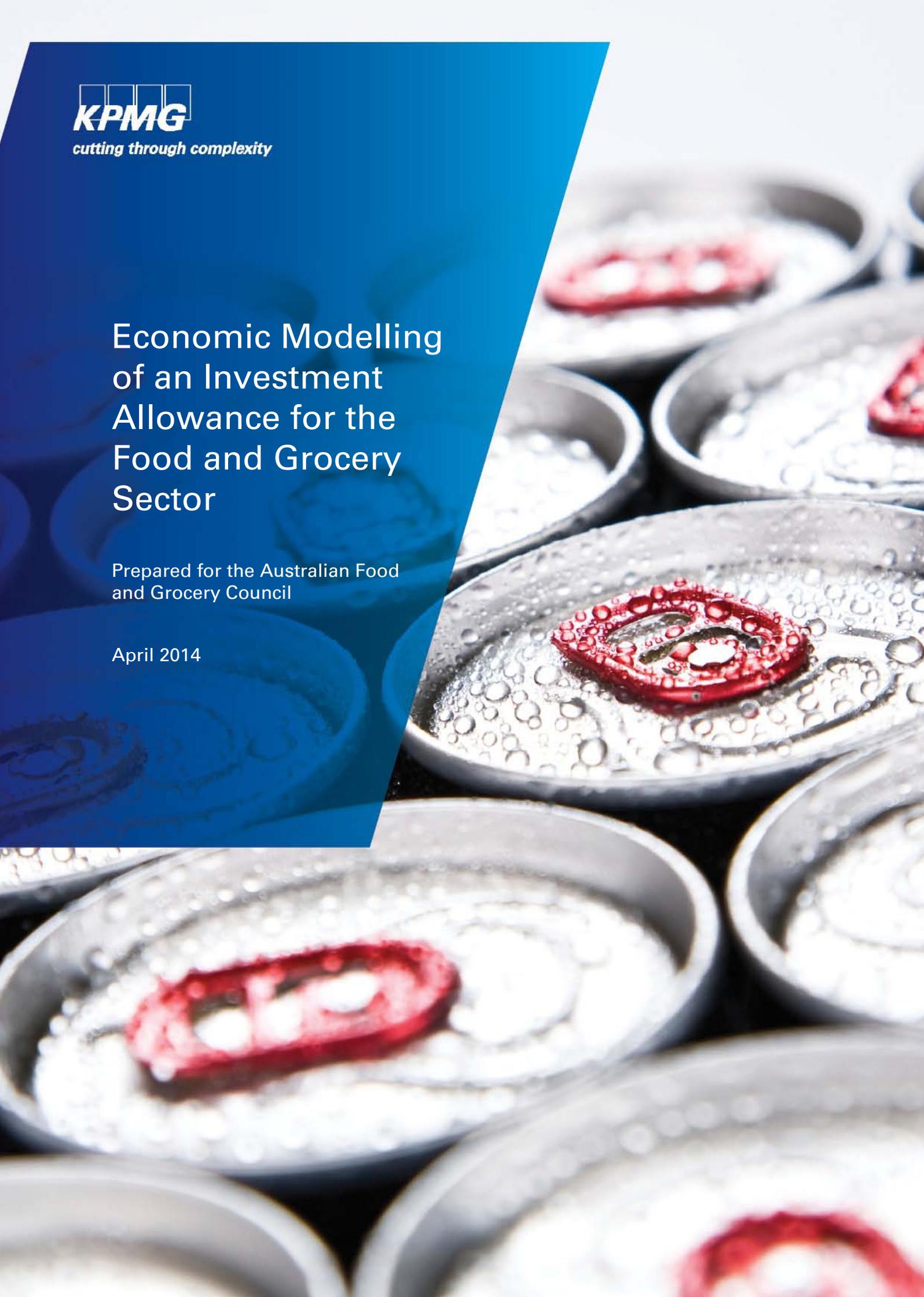


cutting through complexity

Economic Modelling of an Investment Allowance for the Food and Grocery Sector

Prepared for the Australian Food
and Grocery Council

April 2014



Disclaimer

Inherent Limitations

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KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

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Tax Policy

This report does not provide any opinion, recommendation or advice on whether a particular tax incentive is preferred over any other tax incentive or credit or whether a particular tax incentive (however described) should be chosen by the Australian Food and Grocery Council or its members to the exclusion of another.

Rather, this report models the likely economic impact on a particular tax incentive selected by the Australian Food and Grocery Council and members. This incentive is an "Investment Allowance". The meaning of this term, and the basis on which this tax incentive was selected, is included in the body of the report.

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Executive Summary

Background

The Australian economy has been exceptionally stable and resilient during recent tough global conditions. This has been due to a number of factors including strong investment activity in the minerals and energy sectors.

However, the sluggishness of the global economy, high labour and capital costs, and the strong exchange rate (created by the investment boom in resources sectors) have caused a drag on (particularly) the trade-exposed sectors of the domestic economy. It is likely that it will take some time before these pressures moderate, and until then, Australia will suffer to some extent from being a high-cost location from which to produce and export, and in which to compete with imports.

On the other hand, growth in the global middle class will bring unprecedented opportunity for Australian trade in the future. As developing economies transition into industrialisation and urbanisation, construction and energy will grow as shares of total expenditure, as will the sectors that supply them. Employment will shift into these sectors and out of more traditional uses in agriculture particularly. This structural change, coupled with changing diets and lifestyle, will increase the need for developing economies to import agricultural products and manufactured foods.

An important factor in Australia's future strategy will be to seek growth in our trade of consumption goods and services to match this global change. As wealthier trading partners substantially change their patterns of demand, Australia is well placed to supply many of these goods, including food and groceries.

A challenge for policy makers is to assess what can be done in the short term to stimulate investments that maximise the prospect of realising these opportunities and mitigate the risk of the opportunities being lost to competing trading nations

Stimulation of Investment in Food and Grocery Manufacturing – An Investment Allowance

The food and grocery manufacturing sectors will be an important component of Australia's engagement with its trading partners. Opportunities to significantly expand trade volumes will emerge in this sector, but it is likely that recent difficulties – due to a combination of strong exchange rates, sluggish domestic demand, and increasing domestic cost factors and the effects of retail price discounting (all affecting profitability and investment/expansion) - will hamper these sectors' ability to take advantage of these opportunities in the short to medium term.

The sector is exploring options to capitalise on these opportunities. Tax incentives (allowances) may be one way to achieve such an objective.

While industry allowances are not a long-term solution to economic pressures, there is a case for temporary investment incentives to ensure that short-term economic conditions do not adversely impact future growth opportunities.

Further, an investment allowance (or other incentive) could simultaneously encourage *additional investment in the Australian food and grocery manufacturing sector* which may currently be on hold or not yet economically viable. It could also encourage companies that are considering moving operations offshore (for example to countries with a lower cost base and significant tax incentives, such as in parts of South East Asia) to retain and strengthen their Australian operations.

In considering alternative approaches to stimulating investment in the manufacturing sector, the Australian Food and Grocery Council (AFGC) is mindful of current fiscal pressures and is not seeking handouts by way of additional direct government support funding.

After considering various options, the AFGC has developed and proposed a 30 per cent investment tax allowance to stimulate investment in property, plant and equipment in the Australian food and grocery manufacturing industry. In addition to this rate, the investment allowance will also have a number of design features (for example, a finite life) to ensure it is a targeted and effective approach to stimulating investment.

It is important to note at the outset that the selection of an investment allowance for modelling purposes does not preclude other types of tax incentives or credits being considered or supported by the AFGC in the future. This will be highlighted a number of times throughout the discussion.

Economic Modelling

Given the intent of the AFGC's tax incentive proposal to stimulate investment in both the Australian food and grocery sector and the economy more widely, the AFGC has engaged KPMG to calculate the potential economic impact of its proposal.

This report finds that a tax incentive can be designed to stimulate investment, value-added and employment in the food and grocery manufacturing industry. This leads to a bigger economy and therefore to a gain in taxation revenue. The relationship then between the size of government and the size of the economy will drive the net fiscal impact.

Given this finding, along with empirical evidence to date that food and grocery manufacturing businesses would view an investment allowance as a compelling reason to increase (or accelerate) investment, it is intended that this paper will form the basis of initial discussion with Government.

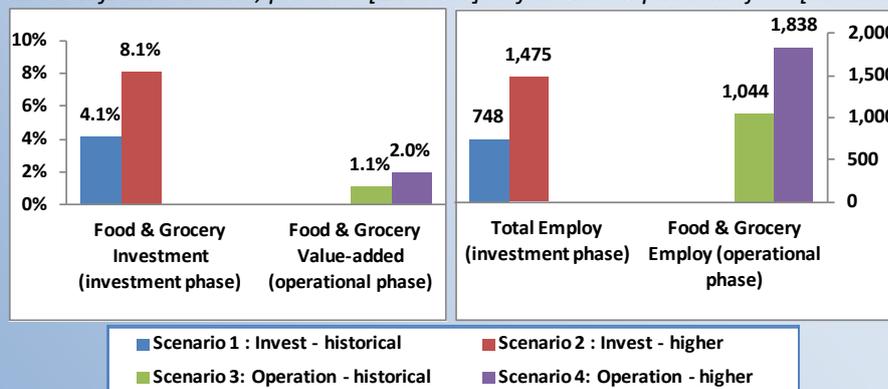
Specifically, the discussion will be used to commence dialogue on the possible introduction of an investment allowance (or similar) to stimulate additional investment and growth in the economy.

Key findings

The key results from our modelling of the potential impacts of a food and grocery manufacturing investment allowance of 30 per cent, applied over 3 years, are outlined below. The main conclusion is that there would be a positive impact on food and grocery manufacturing investment, value-added and employment at a cost of a temporary deferral of a modest amount of government revenue.

- There will be additional activity in the food and grocery manufacturing sector as a result of the investment tax allowance.
 - A 4.1 to 8.1 per cent (or \$250m to \$490m, in 2009-10 terms) boost in food and grocery manufacturing investment in each of the three years of application, supporting additional activity across the economy including between 750 and 1,475 additional FTE jobs. A key assumption implicit in the magnitude of the result is the degree to which investment is responsive to rates of return. **The lower bound is conservatively based on a business as usual responsiveness of food and grocery investment, the higher bound assumes food and grocery investment is twice as responsive as in the business as usual scenario.**
 - Once the new investment is operational, there will be higher value-added in the food and grocery manufacturing sector of between 1.1 per cent and 2.0 per cent (or \$340m to \$600m on average, each year, in 2009-10 terms) and higher food and grocery manufacturing employment of between 1,045 and 1,840 jobs (compared to a baseline without the allowance). Two assumptions are important in interpreting this result: firstly, the assumptions about investment and rates of return made above hold; secondly, additional output is absorbed in export demand without directly deteriorating the terms of trade (i.e. additional exports of these products are absorbed by foreign customers without requiring a fall in their prices).
- An indication of the annual net cost to taxation revenue could be up to \$140m in each of the three years of application (2009-10 terms). Once the new investment is operational, there is a positive boost to taxation revenue of \$425m to \$750m each year (2009-10 terms), flowing directly from a larger economy. The relationship between the size of government and the size of the economy is key to the net fiscal impact. If the size of government is assumed fixed, the fiscal impact is equivalent to the tax gain. If the share of government spending in nominal GDP is constant, the fiscal impact is an annual loss of \$44m to \$81m.
- There is a modest change in total Australian activity – with GDP between 0.02 per cent and 0.03 per cent higher once the new investment is operational.

Figure 1: Impact on the food and grocery manufacturing sector and total employment/GDP (deviation from baseline, per cent [LH chart] or full-time equivalent jobs [RH chart])



Source: KPMG analysis

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1. Introduction

1.1 Background

Australia has faced a challenging domestic and global economic environment over recent years. Although performing strongly at the macroeconomic level by global standards, the sectoral story has been one of significant variation in industry performance.

With weak global demand, strong domestic wages and energy price growth, and a strong dollar, sectors of the Australian economy that are labour-intensive and trade exposed have found this environment particularly challenging. Furthermore, with investment-intensive industries such as construction performing strongly, competition for capital has been fierce. An emerging theme in this environment is the reduction in investment across a number of sectors in the economy.

This theme is reflected in recent data from the Australian Bureau of Statistics, which shows a 5.2 per cent fall in total new capital expenditure in the December quarter – taking it to its lowest level since the global financial crisis.¹ The ABS data also shows that investment by business in 2014-15 is expected to be around 17.4 per cent lower than the first estimate for 2013-14.

To stimulate investment and growth in the food and grocery manufacturing sector, at a time when domestic economic and retail market conditions risk losing opportunities, the AFGC considers there is a need for a package of taxation measures with the following elements:

- (i) R&D/ innovation allowance – consideration of which will be in the R&D tax review (refer to Coalition Manufacturing Policy);
- (ii) Investment tax allowance in capital works, plant and equipment – which is the subject of this paper; and
- (iii) Reduced taxes on input costs – consideration of which will likely be in the Tax White Paper.

To assist in the development of a tax allowance proposal to Government, the AFGC has commissioned KPMG to prepare this report, which:

- summarises the current economic environment and its impact on the food and grocery manufacturing industry; and
- analyses the potential economic impacts of a targeted investment allowance.

The AFGC will use the appropriate consultation process of the above reviews (eg the Coalition Manufacturing Policy and the Tax White Paper) to separately comment on the other taxation issues that are beyond the scope of this report.

¹ <http://finance.ninemsn.com.au/newsbusiness/aap/8806444/aust-capex-fell-5-2-in-dec-qtr>

1.2 Objectives

The AFGC, and its members, will continue to build their reputation as key contributors to the economic success of Australia's economy. Accordingly, throughout this process, the AFGC has decided to self-impose the following guidelines across its evaluation criteria and processes.

- Any submission put forward by the AFGC should ensure that members are viewed as a *fair and active contributor to the Australian economy*. That is, that members are seen to be pulling their weight in the success of Australia's growth. For this reason, the AFGC will not be seeking additional funding (i.e. cash-payments) from the Government over and above those schemes already offered at State and Federal levels.
- When approaching Government, the AFGC must be able to demonstrate that its suggested tax incentive has positive impacts to the Australian economy. This may be financial (eg GDP) as well as indirect (eg increase in regional employment, promotion of export competitiveness of Australian processed food and groceries).
- A commitment to Government that, if an incentive were introduced:
 - the AFGC (through its members) would provide evidence of where and how it is being used to provide transparency and empirical evidence on the targeted nature of the spend;
 - it would apply for a finite period of time to ensure the benefits flowed immediately and that the broader taxpayer community did not feel as though there were "funding expansion" indefinitely.

1.3 Scope

The scope of this report is as follows:

- discuss the Australian economic backdrop with a focus on the Australian macro-economy and the key factors influencing the economic performance and prospects for the nation;
- examine the implications of domestic and global economic factors for the food and grocery manufacturing sector;
- provide some examples of tax incentives that have been used (or are currently in use) by Australia and overseas to stimulate additional investment. The examples are not exhaustive and other tax incentives may be investigated and modelled in the future; and
- use KPMG's in-house CGE modelling framework to analyse the potential economic impacts - at the macro and sectoral level - of the AFGC's selected tax policy options.

1.4 Report structure

The remainder of this report is structured as follows:

- Section 2 provides an outline of the Australian economy and the challenges that it is facing;
- Section 3 examines the challenges faced by the food and grocery manufacturing sector, and discusses the implications for this sector of global structural change;
- Section 4 describes some of the current government policies likely to impact manufacturing in general, and/or food and grocery manufacturing in particular;
- Section 5 provides a more detailed examination of policy levers that have been implemented in Australia and abroad - outlining how they work and providing some key observations around their implementation and design; and
- Section 6 examines the potential economic impacts of the introduction of an investment allowance for the food and grocery manufacturing industry.

2. Australian economic backdrop

Australia is a small open economy. And so the fortunes of the whole economy are also dependent on activity in the outside world. This world economy is changing rapidly by historical standards, and this will likely provide both opportunities and challenges for Australian industries.

Opportunities will emerge for the Australian food and grocery manufacturing sector through access to emerging Asian food markets. However, recent challenges within the Australian economy have potentially impacted this sectors ability to react in time to access these opportunities.

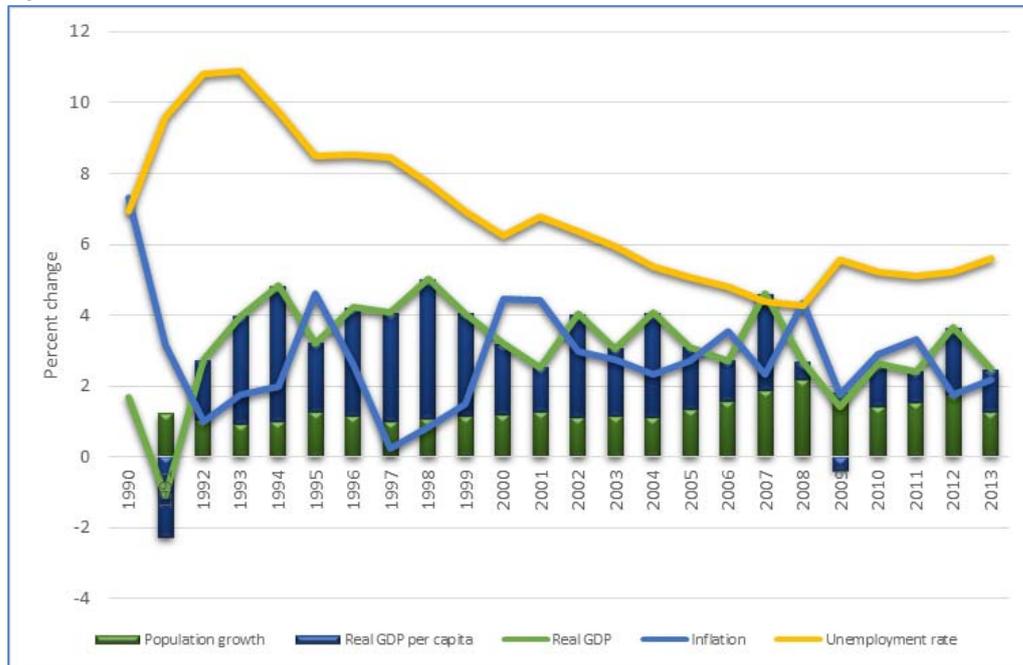
This section provides an overview of some of the key challenges and opportunities for Australia. This is followed by a discussion of the implications for the food and grocery manufacturing sector.

A key challenge in the food and grocery manufacturing sector is the impact of economic conditions over the last decade on its ability to invest. By encouraging investment, a tax allowance may allow the food and grocery sector to “catch-up” and enhance its ability to access the opportunities emerging in the global economy. This is also discussed in more detail in the following sections.

2.1 Macroeconomy

The Australian economy has recorded an unbroken 22 year period of economic growth. The Australian economy and policy institutions have exhibited exceptional stability and resilience in the face of the most severe global economic contraction (2008/09) since the Great Depression.

Figure 2-1: Headline macroeconomic indicators



Source: IMF World Economic Outlook database, October 2013

This period of unbroken *aggregate* economic expansion is unmatched by any other advanced economy over the same period. Of the 34 advanced economies for which IMF data is available for the entire period 1991 to 2012, Australia is the only economy to not record a period of real economic contraction. Furthermore, it is one of only three economies to record real aggregate

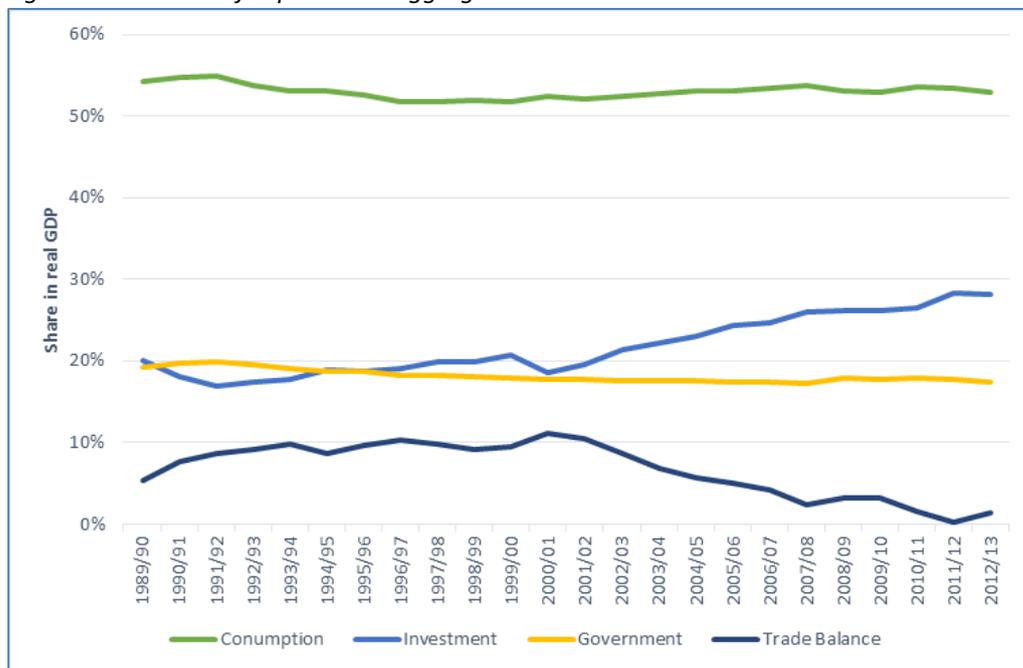
economic growth in 2009 as the full weight of the global recession was brought to bear on key sectors of the economy, and it outperformed the other two² in that year. More recently, the Australian economy's performance has been less impressive, but by global standards is still outperforming most of the world's advanced economies.

The global economy of the early 21st century is a highly (and increasingly) inter-connected economic system. The potential for international contagion from a major economic contraction in the world's largest economies poses a significant threat to small-to-medium open economies, and particularly those with a history of accumulating net foreign liabilities (i.e. a reliance on foreign capital), like Australia. Yet, Australia's economy weathered a global economic crisis with resilience that only a handful of other developed nations could claim.

Delving more deeply into the macroeconomic record of this period is illuminating.

Examining the expenditure-side components of real GDP, we see a steady household consumption share, a steady government consumption share, and a clear link between investment and the net export balance. The investment-trade balance relationship is easily explained: a surge in investment spending like that witnessed over the last 10 years in Australia must be accommodated in some way, and Figure 2-2 below makes clear that booming investment expenditure was not coming (immediately, at least) at the expense of household or government demand, but rather through a net deterioration of the trade balance. A stable share of private and public consumption in real GDP tells us that the national saving share in GDP was also stable (in real terms), and so the increase in investment spending needed to be financed by foreign savings, and capital constructed with imported capital goods and domestic output otherwise destined for overseas (that is, declining export volumes).

Figure 2-2: Shares of expenditure aggregates in real GDP



Source: Australian Bureau of Statistics

² Israel and South Korea.

That Australia recorded a *declining* trade balance in real terms might be surprising, given the popular belief that mining exports have driven economic prosperity. The fact is that export volumes did decline as a share of GDP during the period, and that the *trade* boom is better characterised as a *terms of trade* boom – that is, Australia sold less units of exports at significantly higher prices relative to the prices of the goods and services it imports.

That an investment surge resulted in a dip in export volumes should not be seen as a bad result. The Australian economy made an important investment in its future productive capacity through this period. The payoff will start flowing though in the next few years as (initially) iron ore and (subsequently) LNG export volumes increase as these projects come on line. It is *always* the case that capital creation must come at the expense of other expenditure aggregates in the period in which it occurs, but it adds a lasting increase in the ability of the economy to produce and create income and wealth.

The terms of trade, along with productivity, is a fundamental driver of national income. The terms of trade index has risen rapidly to near historic highs as a result of enormous growth in the global demand for mineral and energy commodities, generated mainly by emerging nations. The surge in foreign demand has outpaced domestic (and global) production capacity, pushing up export prices, and resulting in high rates of return on capital in these sectors. This all led to the key driver of economic growth over the period - an investment boom. An investment boom of this magnitude – a rise in aggregate real investment from 19 per cent to 28 per cent of real GDP - would have required an unprecedented (and unrealistically large) spike in savings (about 10 percentage-points of GDP) to finance internally.

The importance of the link between Australia's economic performance during the period and access to foreign capital should not be understated. Indeed, Australia's long history of current account deficits speaks to the important role that access to foreign savings has played in the nation's economic development, and will continue to do so. The current account balance reflects the gap between investment activity in Australia and the supply of domestic savings, and this gap must be filled with foreign savings. If it were not, the productive capital would not be constructed – and the domestic employment, supply chain activity and direct and indirect tax flows that it stimulated once operational would not have occurred.

Foreign investment also results in the accumulation of foreign liabilities. Obviously, if Australia sources equity or debt financing funded by foreign savers, in supplying those funds foreign investors acquire a claim over domestic assets. Net foreign liabilities need to be serviced, and the income flows that do so (dividend and interest payments) create a net outflow of what is called "primary income" in the balance of payments.

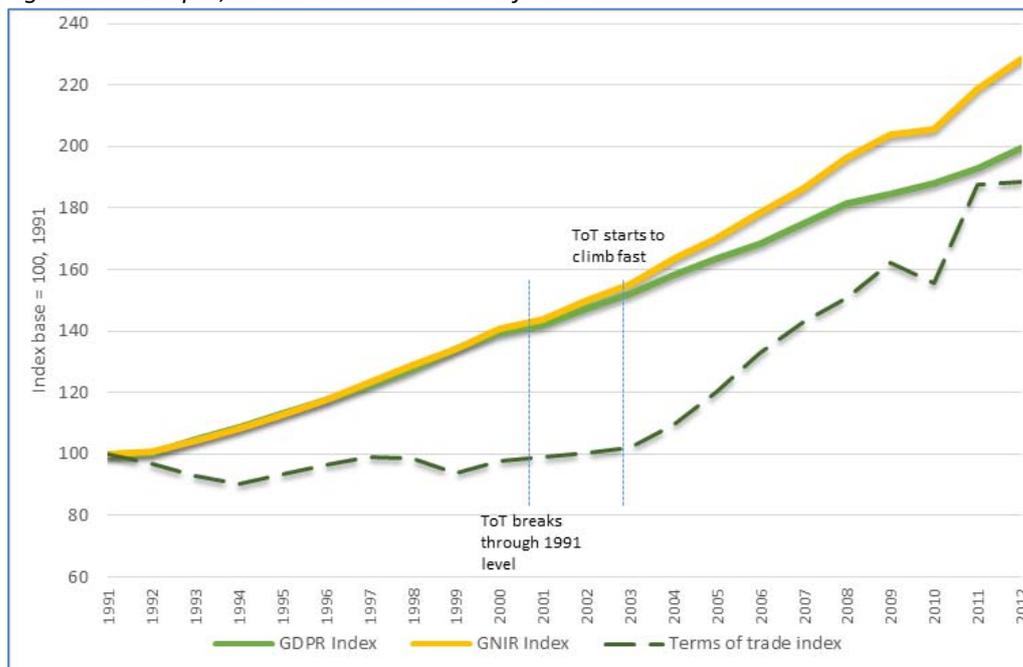
As Australia has been a net importer of capital for much of the last 50 years, it would normally be safe to expect that the level of GDP would be higher than Gross National Income (GNI) in Australia: this would have been a safe assumption until recently.

GDP is a measure of output produced by the domestic economy, and can be measured in terms of how the income that is generated is earned or how it is spent. However, GDP does not account for the nationality of the claimant on that income. From the income-side perspective, GDP captures the payments to factors of production employed on Australian soil (i.e. income due to labour, capital, land and other fixed factors) along with indirect tax revenues (along with the direct taxes implicit in the primary factor payments, tax income to government) regardless of their nationality or the nationality of their owners. GNI, by comparison, is a measure of the incomes earned by Australian citizens regardless of their geographical location – that is, comparatively, GDP adjusted for net primary income flows.

Historically, as Australia has had a significant primary income deficit (higher outflows than inflows), the level of GDP has been higher than GNI. Recently, things changed. By rebasing two index series

for real GDP and GNI in 1991 to highlight their relative growth since that time, Figure 2-3 clearly shows the break in the relative growth rates of GDP and GNI as the terms of trade breaches the baseline (=100) in 2001-02.

Figure 2-3: Output, incomes and the terms of trade



Source: Australian Bureau of Statistics

What happened? The booming terms of trade closed the GDP-GNI gap even as current account deficits grew as a share of GDP. The link between the terms of trade and income growth in Australia over the last decade is empirically clear.

GNI is a better measure of economic welfare than GDP, and Australia’s economic performance looks even better when measured in these terms. However, this income-side prosperity has been driven by terms of trade growth, and further significant growth in the terms of trade is unlikely to occur. In fact, a significant downside risk for the Australian economy going forward is the impact on national income as the terms of trade return to a more sustainable level, a process that is already underway. This adjustment could take as much as 5 per cent out of GNI - the productivity puzzle needs to be solved to take up the slack, but more on that later.

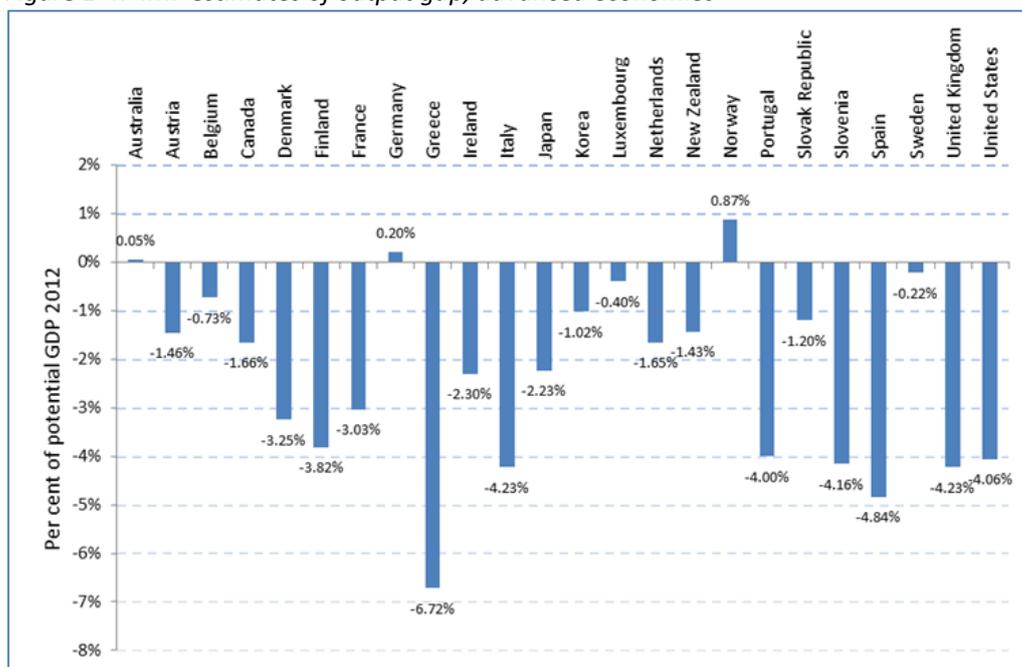
Unemployment has trended down over the past two decades, with moderate upticks during two periods of slowing growth, one in 2001 (concurrent to the bursting of the dot.com bubble and 9/11), the other late in the GFC in 2009.

As Figure 2-1 indicates, from a post-recessionary high of over 10 per cent in 1993 there has been a clear and sustained downward trend in the rate of unemployment. The downward trending unemployment rate is a testament to the effectiveness of labour market reform programs pursued by successive federal governments, starting with the move to enterprise bargaining during Hawke/Keating period. This period of declining trend unemployment coincided with a period of sustained economic growth. The cyclical adjustment back toward “normal” unemployment rates after the 1991 recession probably took until 1994 or 1995, but the downward trend persisted right through to the GFC. The unemployment rate is currently sitting at just over 6 per cent, and has crept up from close to “full-employment” levels seen in recent years.

Full-employment is consistent with an economy operating at its potential sustainable output level. Economists refer to this as an economy operating on its “frontier” – its production possibilities frontier (or PPF) – determined by full and efficient allocation of inputs and an exhaustion of its current productivity potential. The IMF calculates estimates of the “output gap” for many of the world’s economies, defined as the difference between actual and potential output expressed as a share of GDP.

As shown in Figure 2-4, in 2012, along with Norway and Germany, Australia was operating on its output frontier. In the last year or two, however, Australia has moved off its frontier for several reasons, and we are witnessing a slow but steady increase in unemployment rates that is likely to continue until mid-to-late 2014 and result in a peak of around 6.5 per cent unemployment³.

Figure 2-4: IMF estimates of output gap, advanced economies



Source: IMF World Economic Outlook database, October 2012

This movement away from Australia’s output frontier is due to current global and domestic pressures. The continued sluggishness of the global economy (in particular, slowing growth in our major trading partners), and the high labour and capital costs and strong exchange rate created by the investment boom in resources sectors are creating drag on the domestic economy, which has resulted in the move away from our output frontier.

To gain an international perspective on Australia’s current competitive environment, a useful resource is the World Economic Forum’s “Global Competitiveness Report 2013-14”. This report shows Australia’s overall Global Competitiveness ranking as 21st (out of a sample of 148 countries). The top 10 ranked countries are Switzerland, Singapore, Finland, Germany, United States, Sweden, Hong Kong SAR, the Netherlands, Japan, and the United Kingdom.

³ Similar to Treasury forecasts of 6.25% unemployment in 2014-15 (Treasury, *MYEFO*, 2013-14).

Australia's performance varied significantly across the different individual measures identified in the report. In particular, Australia ranked 128th in terms of the 'burden of government regulation', 1st in terms of '% change in inflation', 80th in terms of the 'effect of taxation on incentives to invest' and 23rd in terms of 'capacity for innovation'.

"This edition marks the first time that Australia (21st, down one) exits the top 20 and is overtaken by New Zealand (18th), which jumps five places. Australia delivers a consistent — and essentially unchanged — performance across the board, the highlight of which is its 7th rank in the financial market development pillar, the only pillar where it features in the top 10. The country also earns very good marks for higher education and training, placing 15th.

Australia's favourable macroeconomic situation is improving further (25th, up one place). Its budget deficit was reduced in 2012 and inflation brought to under 2 percent, while the public debt-to-GDP ratio, though on the rise, is the third lowest among advanced economies, behind only Estonia and Luxembourg.

The main area of concern for Australia is the rigidity of its labor market (54th, down 12), where the situation has deteriorated further. Australia ranks 137th for the rigidity of the hiring and firing practices and 135th for the rigidity of wage setting.

The quality of Australia's public institutions is excellent except when it comes to the burden of government regulation, where the country ranks a poor 128th. Indeed, the business community cites labor regulations and bureaucratic red tape as being, respectively, the first and second most problematic factor for doing business in their country."

World Economic Forum, Insight Report – The Global Competitiveness Report 2013-2014, pp31, 2013

As the Australian economy returns to a more "business-as-usual" footing, albeit with a larger resources sector, it will take some time for high (and sticky) labour costs and other cost-pressure factors to moderate, and for the over-valued currency to re-equilibrate to a more sustainable level. Until that occurs, Australia will suffer to some extent from being a high-cost location from which to produce and export, and in which to compete with imports. This will continue to impact many industries over the coming years, potentially affecting their ability to access global opportunities.

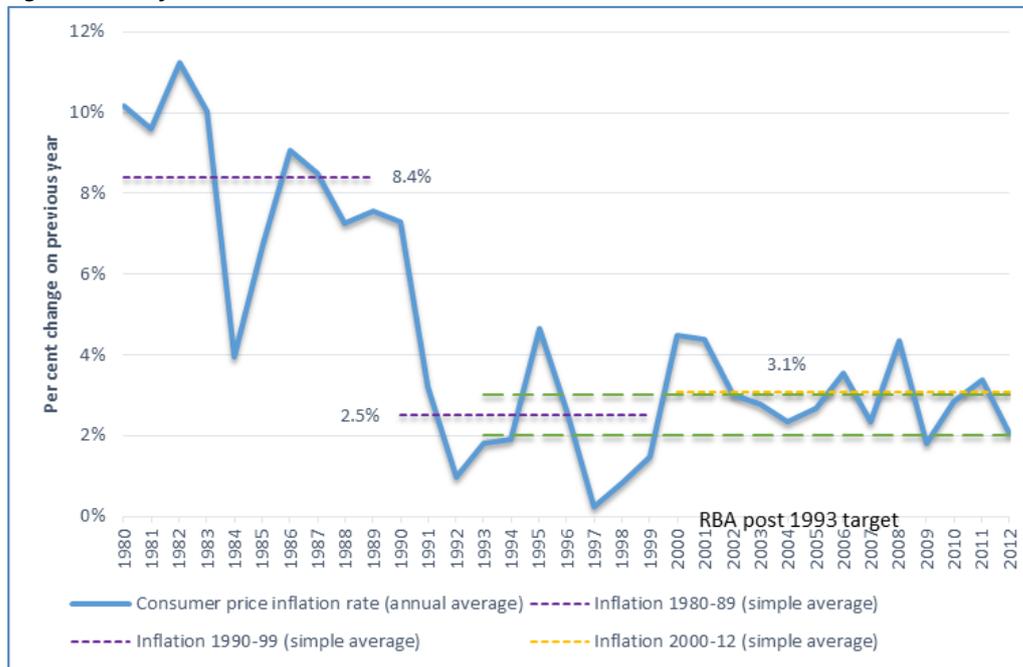
2.2 Macroeconomic policy performance

Australia's pursuit of sound medium-term macroeconomic policy settings, and of microeconomic policy settings that support efficient markets and resource allocation, have strengthened the economy and promoted its resilience. With these now internalised in policy and institutional frameworks and norms, Australia can rightly consider its good policy settings as "policy endowments", but must be vigilant in maintaining their integrity.

Sound fiscal management is most effective when sound monetary management is in place, and vice versa. Australian policy making institutions have an enviable track record on both fronts.

The Reserve Bank of Australia (RBA) has been a highly successful macroeconomic manager over the last 20 years by any international standards. Since moving to an inflation targeting regime in 1993, inflation management by the RBA has been consistently effective, and particularly so in the context of the two decades that preceded it during which inflation averaged over 9 per cent.

Figure 2-5: Inflation in Australia 1980 to 2012



Source: IMF World Economic Outlook database, October 2012

After a period in which (like many central banks around the world) it unsuccessfully pursued a monetary targeting experiment⁴, in 1993 the RBA moved to an inflation-targeting policy regime, adopting a target in the 2-3 per cent band. Since then, it has succeeded in reducing and controlling inflation and inflationary expectations, creating a monetary environment of great stability with an average consumer-price inflation rate for the period 1990-2010 of less than 3 per cent. This has occurred during a period of rapid growth in output and labour costs, and declining multifactor productivity – quite a feat.

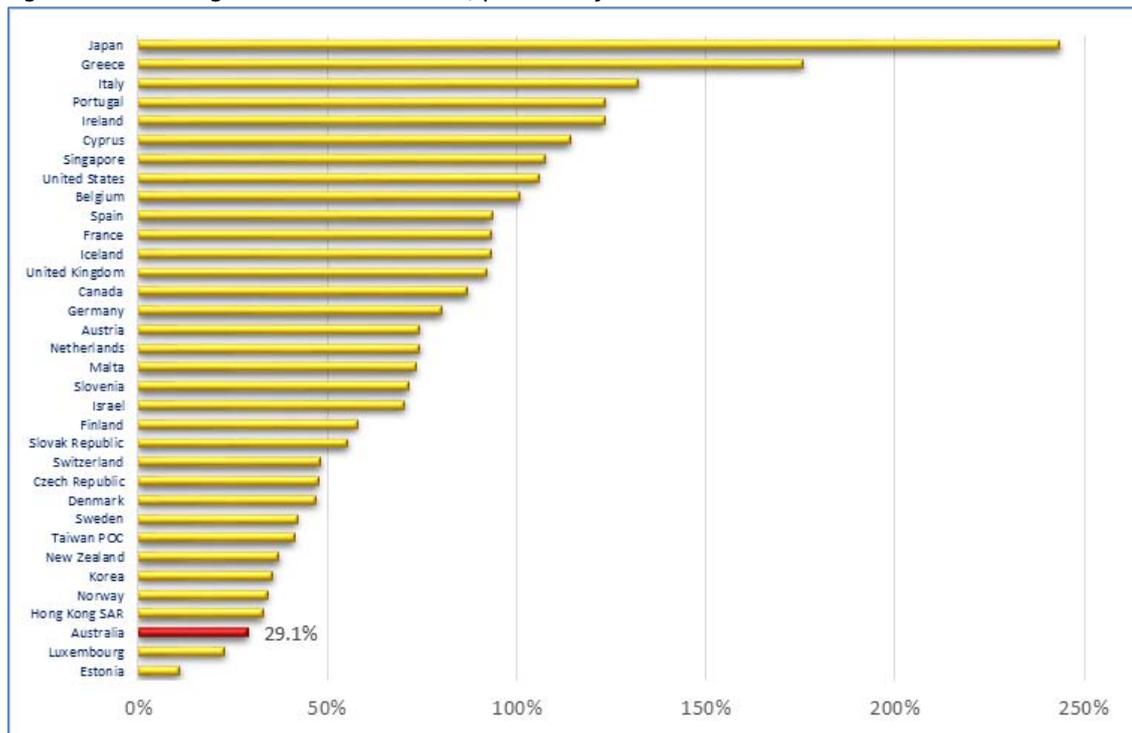
As is evident in Figure 2-5, not only has the average rate of inflation decreased significantly since the 1980s, but so too has the year-to-year volatility. Outside of periods of unexpected economic turmoil, the increasing level of accuracy with which the RBA has pursued the target band during the last 12 years is clear.

Inflation is important for “dynamic” factors, such as investment decisions. Investment is a key driver of economic growth, and investors need to look into the future and feel reasonably confident that they can plan with some degree of confidence. When inflation is high and/or volatile, future prices are difficult to predict and uncertainty increases. Expectations of high inflation make investors require high rates of return on their investments to cover risk, rendering the cost of capital ultimately more expensive and reducing the level of investment and economic growth.

⁴ Central banks in many industrialized economies were influenced by monetarist thought during the mid-1970s. The RBA was one of them, and pursued (along with many other central banks) an ultimately unsuccessful program of targeting the money supply using a particular measure of money and credit called “M3” from 1976 to 1985. With high inflation and price volatility stimulated initially by the OPEC oil-price shock, a period of financial market deregulation driving rapid transformation in the nature of money and credit, and until 1983 a managed exchange rate, the targets were ultimately impossible to hit. Growth in the money supply exceeded government-set targets from 1978 to 1983, sometimes by substantial margins, and was accompanied by sustained high levels of inflation and unemployment. Economists raised on a heady diet of Phillips’s Curve⁴ economics were at a loss.

In Australia over the last 20 years, whether investors were foreign or domestic, they have had little cause for concern about inflation risk. With a credible, effective central bank and price stability, a floating exchange rate and a stable public sector financial position, Australian policy makers have had the freedom to respond to changing economic conditions with a full range of policy levers. On top of these practical benefits, increasing international notoriety for a well-managed Australian economy has positive impacts on investment and trade prospects, reducing sovereign risk and the return required by investors, and increasing the willingness of investors to make long-run commitments of capital.

Figure 2-6: Gross government debt 2013, per cent of GDP



Source: IMF World Economic Outlook database, October 2013

A stand-out in good macroeconomic policy management has been in public sector finance. Following some large deficits during and immediately following the 1991 recession, successive federal governments and the Treasury managed to sustain an unbroken 11 year stint in primary surplus⁵ from 1997. This has resulted in Australia having one of the lowest public sector debt levels in the developed world measured in terms of both gross and net balances.

This fiscal health is not guaranteed forever, however. A recent slowing in GDP growth and a declining tax base (as a share of GDP) is leading to expanding deficits. There is a rising expectation that the deficit for the current fiscal year could approach \$50 billion. This is not an immediate problem - a fiscal deficit of around 3.5 percent is still manageable by global standards – but what is emerging is an ongoing decline in the tax base coupled with increasing pressure on the expenditure-side of the budget. Australia will find it increasingly difficult to avoid fiscal deficits unless fundamental reform is brought to bear on both sides of the ledger.

⁵ The primary budget balance excludes interest on existing debt, and basically records the balance on operating budget.

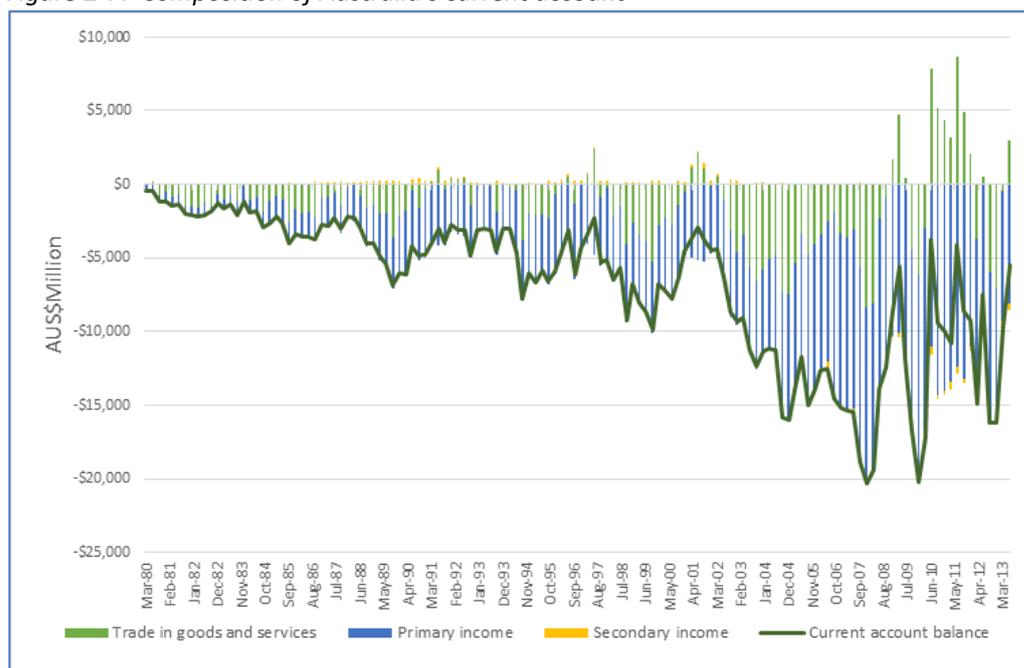
The tax base needs to be addressed with a bottom-up rethinking of the taxation system that recognises 21st Century realities (such as the international mobility of capital and the global trend to move away from direct taxation), and this is something well understood by both the federal government and the Treasury. Indeed, the Treasury has held concerns for the tax base for some time, going back to before the Henry Tax Review. The announcement of the tax reform process by the new federal government reflects these concerns, and has been widely welcomed.

On the expenditure side, the very nature of government will need to be examined. With unstoppable momentum in expenditure-side spending (coming from areas like the average ageing of the population and health costs) the role of government in society will need to be discussed and quite possibly altered in significant ways. These public conversations are likely to be difficult, but will only get harder the longer they are delayed, and there is perhaps no other major policy area currently that is in as urgent need of leadership and bi-partisan consensus.

2.3 Savings, investment and the current account

Surging demand for commodities on global markets has driven investment to historical highs. Although gross national saving (in nominal terms) has grown from 18.4 per cent of GDP in 1992 to almost 25 per cent in 2012, this has not been enough to match the level of investment demand. As a result, the gap has been filled by foreign funding. The repatriation of profits and interest on foreign sourced capital leads to a net income deficit and hence current account deficit.

Figure 2-7: Composition of Australia's current account



Source: Australian Bureau of Statistics

Australia has recorded an unbroken string of current account deficits since 1973. Australia has not historically been a high-saving country: that being said, the persistence of current account deficits, and the larger recent deficits, reflects relatively high levels of foreign investment (and net indebtedness) more so than low savings.

As Figure 2-7 illustrates, Australia runs comparatively small trade deficits (and occasionally even trade surpluses), with the current account deficit being driven by a deficit on primary income payments. The primary income account captures interest and dividend payments to foreigners

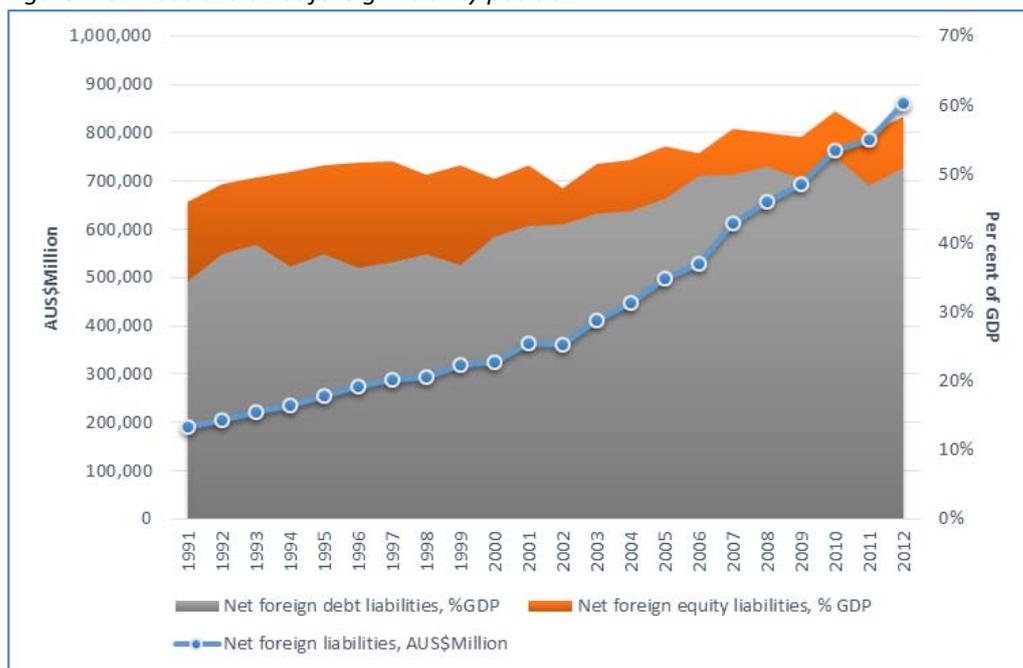
that own Australian bonds and equities, along with the income streams to Australians who own foreign assets. The Australian national balance sheet carries net foreign liabilities, and so the primary income account is in deficit and is largely responsible for the current account being in deficit.

The net stock of foreign liabilities – the value of foreign-owned Australian bonds and equities *minus* the stock of Australian-owned foreign bonds and equities – is the accumulation of net foreign investment flows, which are captured in the capital and financial accounts in the balance of payments. The income payments to these asset holders are recorded in the current account. The accumulation of net foreign liabilities generated by 40 years of sustained net-borrowing from foreigners has driven the increase in the primary income deficit in the current account evident in Figure 2-7.

The current account deficit has increased in absolute terms and as a per cent of GDP over the last 12 years. Gross national savings has increased significantly during this time, so the huge investment surge generated by the resources sector, and the income due to the foreign owners of this capital, is the key factor driving the current account balance.

As of 2012, Australia had accumulated net foreign liabilities equivalent to 58.4 per cent of GDP, a figure that is reasonably high by international standards for advanced-economies.

Figure 2-8: Australia's net foreign liability position



Source: Australian Bureau of Statistics

Figure 2-9 illustrates how foreign funds flows responded to the investment surge in the early part of the new century. Credible estimates of foreign ownership at the detailed sectoral level are difficult to access, but (for example) some estimates have the foreign share of new investment in the mining sector as high as 80 per cent. Ready access to foreign capital is a sign of a healthy economy, and the wages, demand for locally produced goods and services, and tax revenues generated by that investment would not have been possible without foreigners investing their savings in Australia (or lending them to Australians).

Figure 2-9: Investment, and financial account liabilities in the balance of payments



Source: Australian Bureau of Statistics

Significant structural change has resulted from this investment surge. Fast growth in the global demand for energy products and inputs to steel production from emerging nations has driven the prices of commodities like metal ores, coal and natural gas to record levels on global markets. These high prices lead to resources being drawn into investment in mining and away from other sectors. Some sectors (e.g., the heavy civil and engineering construction sectors) indirectly benefit as they play a key role in building the capital or supplying the intermediate goods that mining needs to expand its output. Other trade exposed sectors, as well as those competing domestically for resources used in mining and construction, have fared less well.

2.4 Structural change

The Australian economy is going through a period of structural change largely as a result of higher world prices and global demand for mining output, and loose monetary policy in the US and Europe, which have contributed to a strengthened nominal exchange rate. Competition for resources has pushed up domestic wages and prices for inputs like energy, which has increased domestic production costs and driven the real exchange rate higher.

With a higher Australian dollar, domestic and foreign demand for Australian goods has fallen and led to an increase in consumption of foreign (imported) goods; the higher exchange rate has made imports cheaper for Australians, and export-dependent non-mining sectors have seen the foreign currency prices of their goods increase (and therefore demand from foreigners falling). Labour-intensive trade exposed sectors (like many in manufacturing and services) have been hit particularly hard. On the other hand, local producers who sell most of their output domestically, face little import competition, use relatively large shares of imported inputs and have low labour cost shares have fared better than most. This is a process of market-driven structural change at work, which has also been affected by other factors such as accelerating emerging market investment in manufacturing, particularly in Asia. While structural change is not new to Australia –

nor to any country, for that matter – this recent period of adjustment has been large enough and fast enough to make it notable in the historical record.

All of this readjustment in response to an appreciating real exchange rate is known as the Gregory Effect (or sometimes “Dutch disease”)⁶. As long as markets are able to reallocate resources quickly and efficiently, the end result of the restructuring process is a rise in average Australian living standards.

In practise, the process of transition can be slow and costly. The potential gains remain, but the risk is that the stimulus for the adjustment is temporary. If the negatively-impacted sectors of the economy are significantly diminished when the “normal” state of the world returns, then the second round of readjustment could be much more challenging. For instance, the second adjustment may occur in a global environment in which pre-investment-boom markets have been lost to producers from other nations.

In contrast to the economic rationalism of the 1980s and early 1990s, many economists would now admit to concern over what happens after the terms of trade return to normal levels, and whether there is a need to intervene. The risk for Australia is not that this growing global demand is likely to wane anytime soon, but rather that additional global sources of supply come online and cause global prices to moderate through an expansion in aggregate global output in these mining commodities. Countries like Brazil and Mongolia have large endowments of minerals and energy that have not been fully exploited, and these countries are embarking on an investment and construction phase similar to Australia, and some cases exceeding it in scope. If wage (and other cost factor) growth is not addressed, Australia’s ability to compete in global markets will be impacted.

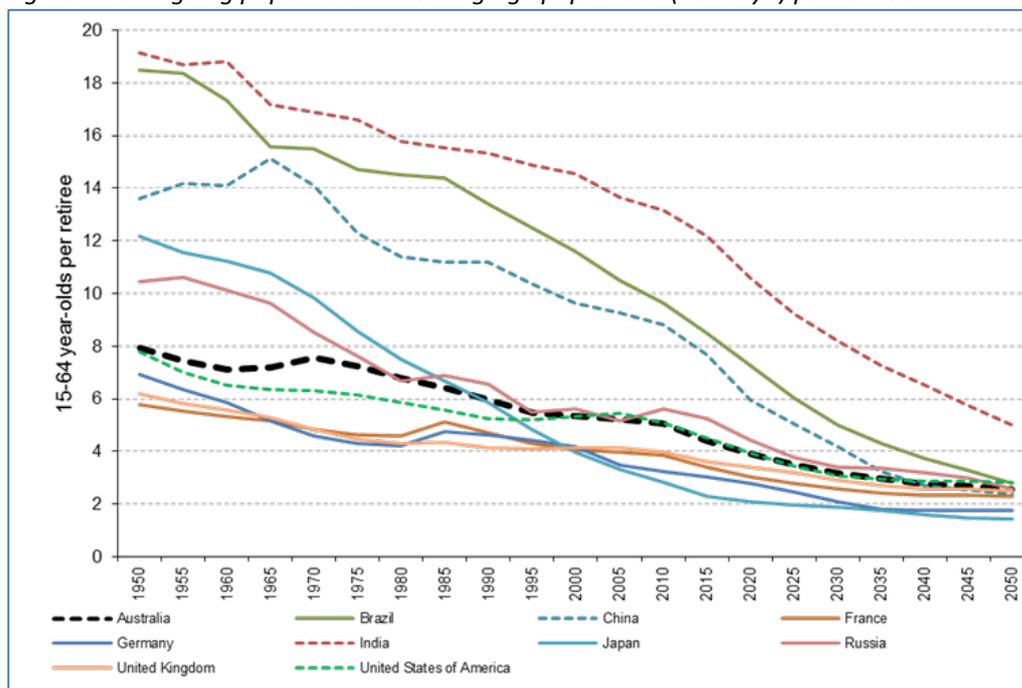
2.5 An ageing population

As the Intergenerational Report (IGR) has made clear, there are looming fiscal pressures flowing from ageing-related demographic trends that Australia must confront. The IGR projects that public financing of health, pensions and other age-related spending will grow from around a quarter of total government spending today to closer to one half in 2050. Put those figures in the context of Treasury projections that government expenditure will increase as share of nominal GDP to just over 27 per cent in 2050, and that the average primary fiscal balance (excluding interest on accumulated debt) will be -2.75 per cent of GDP (i.e. about 10 per cent as a share of expenditure). Fiscal sustainability is an issue closely tied to ageing.

The overall dependency ratio in Australia – the number of workers per non-working-age person (i.e. children and retirees) – has been quite stable over the last 40 years (as shown in in Figure 2-10). But hidden within this are the trends in its components: as Australians have lived longer after retirement, falling fertility rates have almost offset the impact of more retirees. Given the fiscal and productivity impacts, an aging population will likely constrain economic growth in Australia.

⁶ Named for eminent Australian economist Bob Gregory.

Figure 2-10: Ageing populations: Working age population (15-64 yo) per retiree



Source: World Bank Projections

The demographic issue is a global concern, and further impacts on Australia's economic sustainability via its trading relationships. Figure 2-10 suggest that emerging economies such as China, India and Brazil are also facing rapidly changing demographics that are leading to a convergence of dependency ratios with the advanced economies of the world. The relatively rapid fall in the number of workers per retiree in many of these nations can be explained by the link between economic development and falling fertility rates. The achievement of a high standard of living is both conducive to longer life and allows for savings to accumulate for a period of retirement later in life that would otherwise need to be worked to survive. In any case, as these countries become a larger share of world GDP and world trade, Australia's fortunes will become increasingly exposed to the challenges created by ageing populations in other countries.

2.6 Drivers of national income

Curiously, while eye-watering sums of money were injected into capacity expansion in Australia's resource sector and macroeconomic growth outstripped all but a handful of our global economic peers, Australia experienced a stark slowing in the rate of productivity growth. In fact, the data suggests that multi-factor productivity actually declined for significant periods of the last decade, and that capital productivity was *significantly* in decline. An historic investment boom, in the presence of apparently collapsing capital productivity? Curious indeed.

For mature, developed economies like Australia, technologically-lead productivity growth is the key driver of economic prosperity over the long term, and in the context of global structural change and ageing populations, it is understandable that concerns have been raised

From a national income perspective, two factors are key to growth: the rate at which you can transform inputs into output (i.e. productivity), and the terms on which you can trade these outputs (for a nation, the terms of trade).

The term-of-trade index is a ratio of the price of exports to the price of imports, and therefore it cannot grow forever. An improvement in one country's terms of trade is a worsening of the

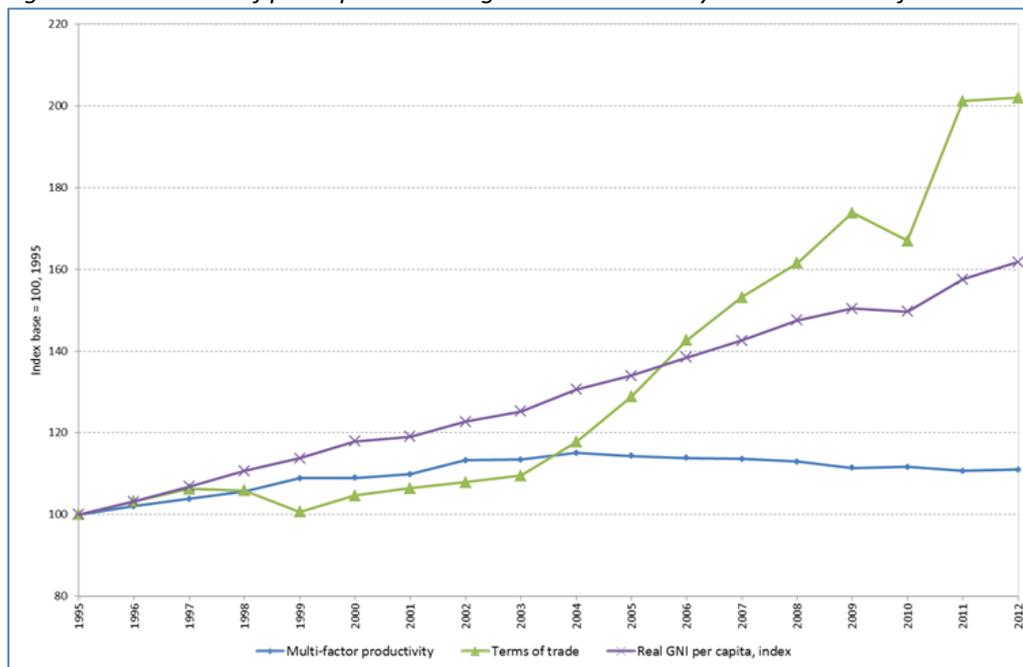
(average) terms of trade for its trading partners, and market forces tend to make corrections to such things when they stray too far from sustainable levels. The terms of trade tend to cycle around a flat long-run trend that can turn up or down for reasons that are mostly beyond the ability of a single nation to influence.

So, the terms of trade cannot grow forever, and a nation’s ability to influence them are minimal at best. That leaves productivity as a key long-run driver of national income.

2.6.1 Terms of trade

The productivity “boom” of the 1990s petered-out early in the new millennium but (apparently to Australia’s good fortune) was replaced by a rapid improvement in the terms of trade.

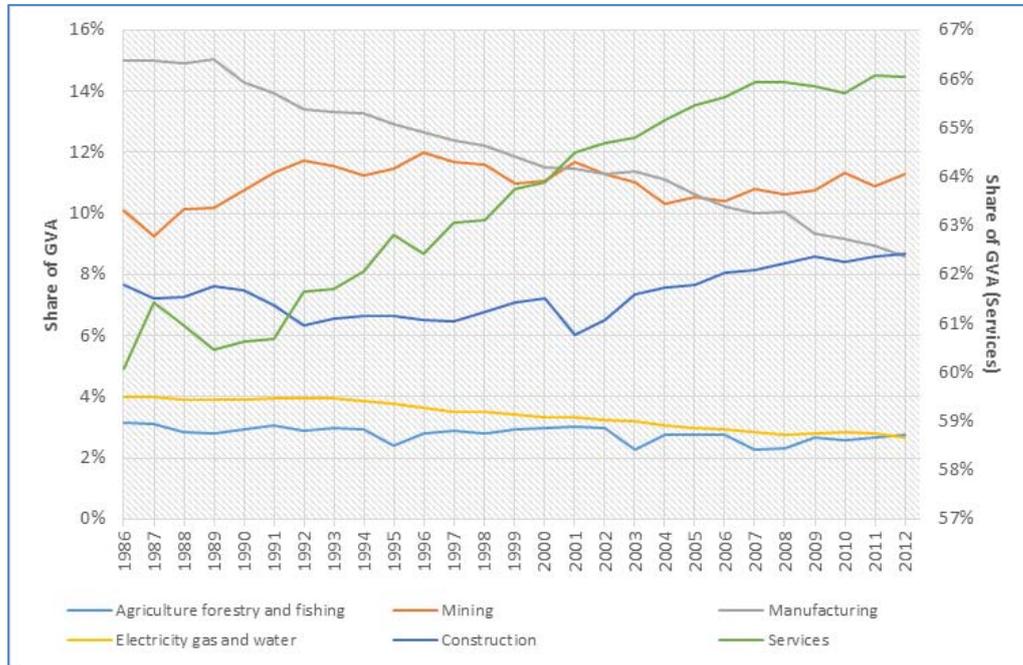
Figure 2-11: Drivers of per capita income growth: Productivity and the terms of trade



Source: Australian Bureau of Statistics

Figure 2-11 illustrates that Australia enjoyed an accelerating terms of trade just as productivity growth plateaued. A question worth considering is: does this data indicate that it was indeed good fortune, or does it instead indicate two related but distinct results of a third driving force? The answer to this is question is the latter, and in fact, it is reasonable to say that the terms of trade boom led to the worsening of productivity growth for a time. How can this happen?

Figure 2-12: Sector shares in aggregate gross value added



Source: Australian Bureau of Statistics

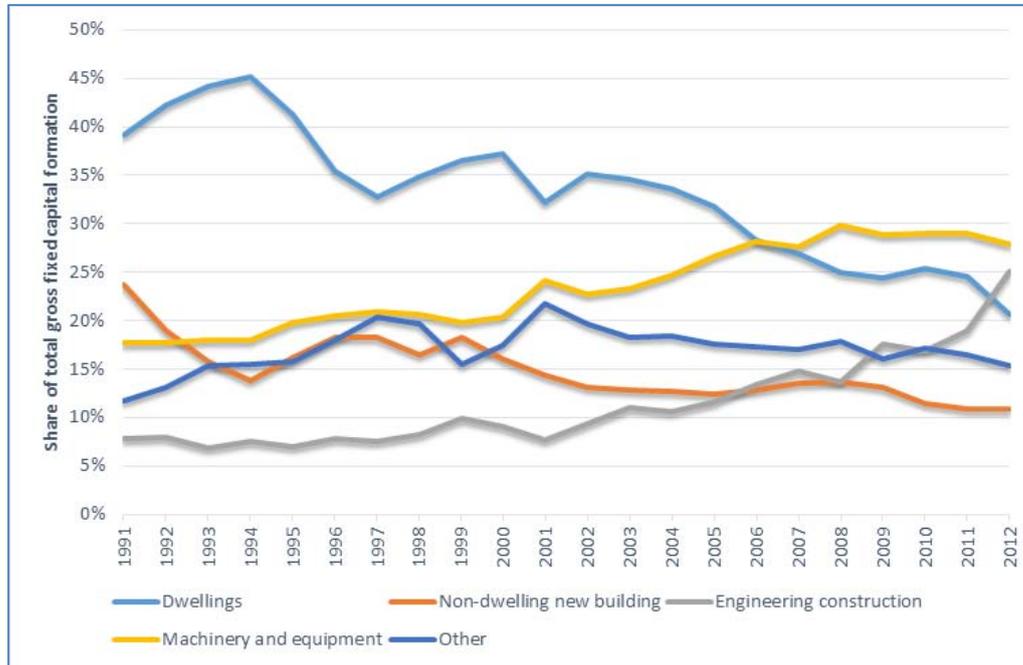
In all advanced nations – and Australia is no different – there has been a steady decline in the share of manufactures, and an increase in the share of services in GVA and GDP. This process began in Australia in the 1970s, and, as Figure 2-12 shows, it continues unabated. Despite this general trend it should be noted that there is considerable variability among more narrowly defined subsets of manufacturing; for example food and beverage GVA increased by 3.2 per cent in 2011-12 (which is higher than GDP growth for the same period).

The resources sector construction boom has no doubt played a marginal role in manufacturing’s performance, but the facts dictate that this influence is better explained as temporarily accelerating an underlying structural change *rather than* as a proximate and singular cause of that change. More affluent consumers demand more services as a share of their expenditure, and higher levels of education tend to be associated with production in services sectors. Recent studies have suggested that there is more to the manufacturing story, and that the decline in its GDP share is happening concomitantly with a change in *what* Australia manufactures. This change in the nature of manufacturing will become an important driver of output levels and trade volumes over the coming decades, as Australia has the opportunity to supply billions of newly middle-class consumers in Asia with things like high valued-added food manufactures and high quality semi-processed agricultural products.

2.6.2 Productivity

Figure 2-12 also supports the contention that the mining boom has really been an investment-led construction boom. Stimulated by rising commodity prices flowing from surging demand for metals, coal and gas in emerging economies, the resources sector committed to large scale capacity expansion. This capacity increase required the services of the construction sector, and particularly the engineering construction sector.

Figure 2-13: Share of total investment - gross fixed capital formation by type



Source: Australian Bureau of Statistics

Engineering construction investment rose from about 8 per cent of total investment in 2001 to around 25 per cent in 2012 (Figure 2-13).

Construction of heavy industrial plant and transportation infrastructure (like rail and shipping facilities to transport mining output from remote locations to distributional hubs) is a multi-year undertaking. During the construction phase, capital is not active and so is not generating a return, but *is* consuming resources. Economists refer to this as a “gestation lag”.

In the resources sector, high global commodity prices created profit expectations that stimulated investment. Once the profits are generated they will add to GDP (via an increase in gross operating surplus), but while under construction no return is generated. While investment is a key driver of economic growth because it eventually expands the productive capacity of the economy, the actual construction phase of capital creation is really a diversion of a given pool of output (current domestic output or imports) away from other demand sources such as consumption, government spending and exports, into an activity that enhances future output.

Therefore, part of the story behind the decline in productivity is structural change: the consequences of large-scale investment projects in the fast growing resource sector where capacity expansion is characterised by long lead times.

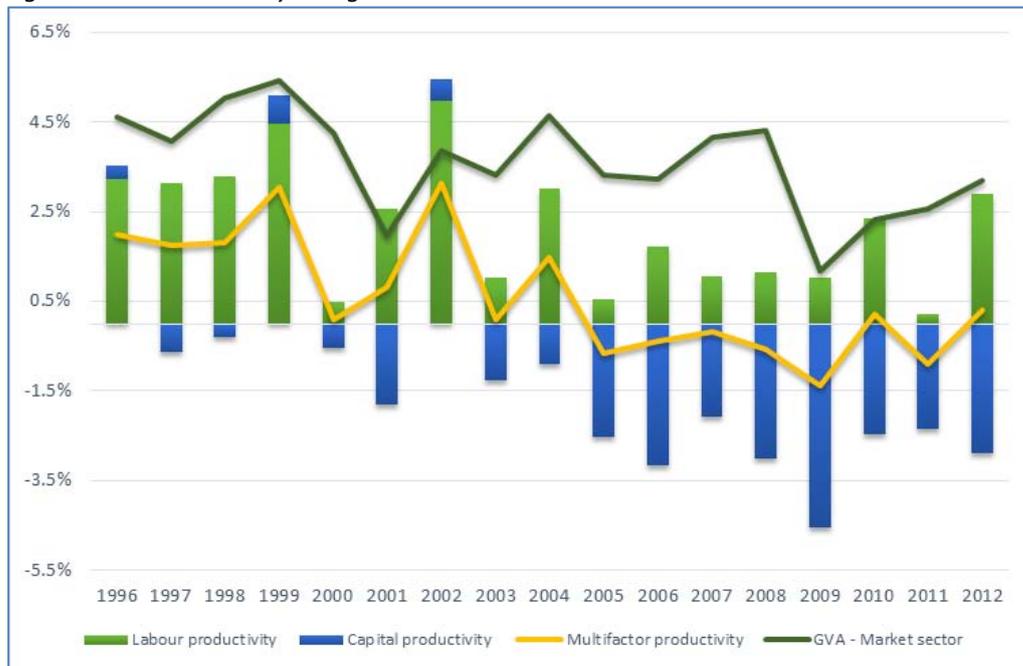
But it is not the whole story. Australia made significant gains through the 1980s and 1990s in microeconomic and labour market policy reform, and this led to a period of sustained high productivity growth. This, however, was really a process of picking the “low-hanging fruit” (as has been well-argued by former Productivity Commission Chairman, Gary Banks). Long-term productivity growth is not about market reorganisation or policy adjustment – it is about physical and human capital accumulation and technological progress. To have sustained growth in per capita incomes, it is necessary to generate sustained growth in productivity, and gains from accessing the “extensive growth” gains from policy and market structure are finite. Innovation, research and development, technological progress – these things are the drivers of long-term

prosperity, and more than any other set of factors are levers in the hands of Australian producers in the global game of evolving comparative advantage.

As was to be expected, productivity has started to rebound in Australia in the last year or so. This should be taken in the context of the preceding decade of sluggish growth and decline, but nonetheless is happening just when we might have expected it to, based on the resources sector investment story – when the construction phase is winding down and the transition to the operational phase has begun. A good deal of this productivity recovery is being seen in sectors that have been doing it hard, like manufacturing, but that have now been subdued for almost a decade while global markets have become more competitive.

Transitional support for sectors hurt by a transitory phenomenon is not an anathema to economic theory. In a world with capital that is internationally mobile, where business is characterised by global supply chains and vertical integration, and falling trade margins are reducing geographical advantage, competition is fierce and first-mover advantage can be significant. For sectors that face transitory factors that negate long-run competitiveness while great global structural change is occurring, the case for short-term, targeted and finite assistance can be credible.

Figure 2-14: Productivity and gross value added



Source: Australian Bureau of Statistics

Figure 2-14 plots changes in various primary factor and multi-factor productivity indexes along with growth in gross value added (GVA) for the period 1996 to 2012. It is apparent that multi-factor productivity grew strongly through most of the 1990s, but then stalled and fell into a declining trend from around 2003. Also apparent is that the decline in multi-factor productivity growth is largely driven by falling capital productivity growth: capital productivity has been declining in all but 3 years since 1996, and starkly so since 2002. Labour productivity growth has also been lower than levels seen in the 1990s, but has remained positive throughout the period in question, actually at about its long run average.

GDP, if measured from an income perspective, is the sum of incomes to primary factors (GVA) and indirect taxes. The growth in GVA (and to a large extent, therefore, GDP) through the 1990s was

built on productivity, while the (albeit, slower) GVA growth throughout the last decade has been driven by an increased use of inputs, and particularly what is sometimes called “capital deepening” – the deepening of the share of capital services in production. In fact, *negative* multi-factor productivity growth for six of the last eight years indicates that output growth slowed behind input use. This has been a period in which costs have implicitly increased while investment continued to accelerate. These trends indicate something unusual is happening behind the data. The explanation, as outlined above, is the gestation-lag story in mining investment.

2.7 International trade

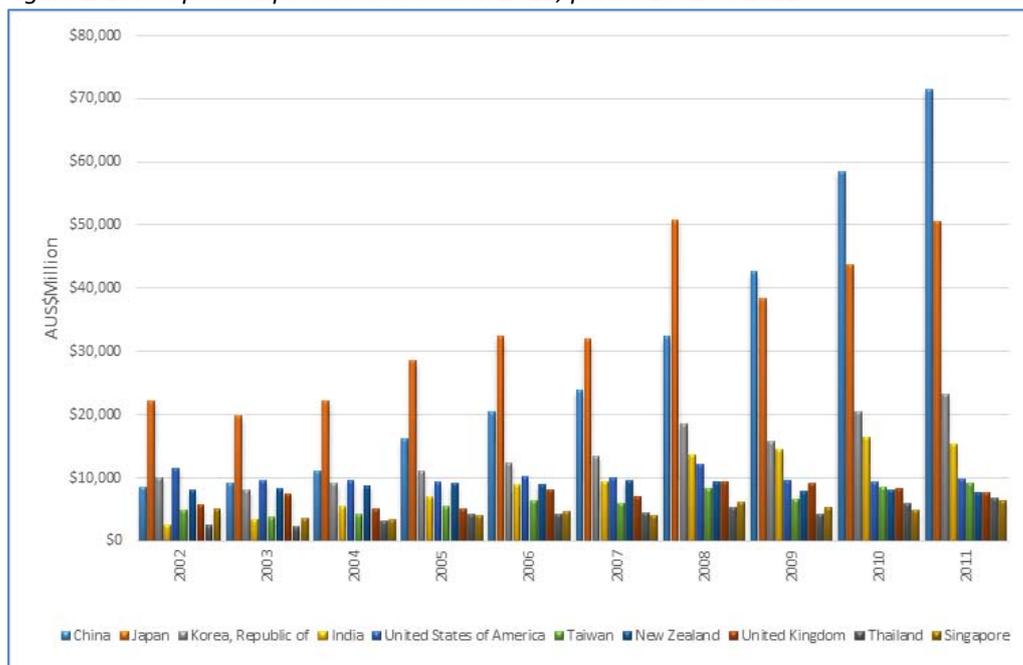
Growth in the global middle class will bring unprecedented opportunity for Australian trade, but will occur within a much more competitive international environment.

Compared to subsistence consumers, middle class consumers favour – and are able to afford - high valued-added manufactures, agricultural products, “luxury” manufactured foods, tourism and education services, and will have an increasing demand for energy. They also demand improved housing and infrastructure, primarily investment driven activities that require raw materials, capital goods, energy and skills. Accumulation of physical and human capital is historically correlated with middle income status, and Australia’s exporters of commodities, plant and equipment, education, health and other services will have the opportunity to extend their reach in these markets.

Furthermore, as their economies transition into industrialisation and urbanisation, construction and energy production will grow rapidly as shares of activity, as will the sectors that supply them. Employment will shift into these sectors and out of more traditional uses in agriculture particularly, and the need to import agricultural products and manufactured foods will rise.

The composition of Australia’s trade balance is already changing dramatically. Figure 2-15 plots the top ten export destinations for Australian exports in 2011 over the past decade. Even over this period of 10 years the size and structure of Australian export sales has changed significantly.

Figure 2-15: Top ten export destinations in 2011, period 2002 to 2011

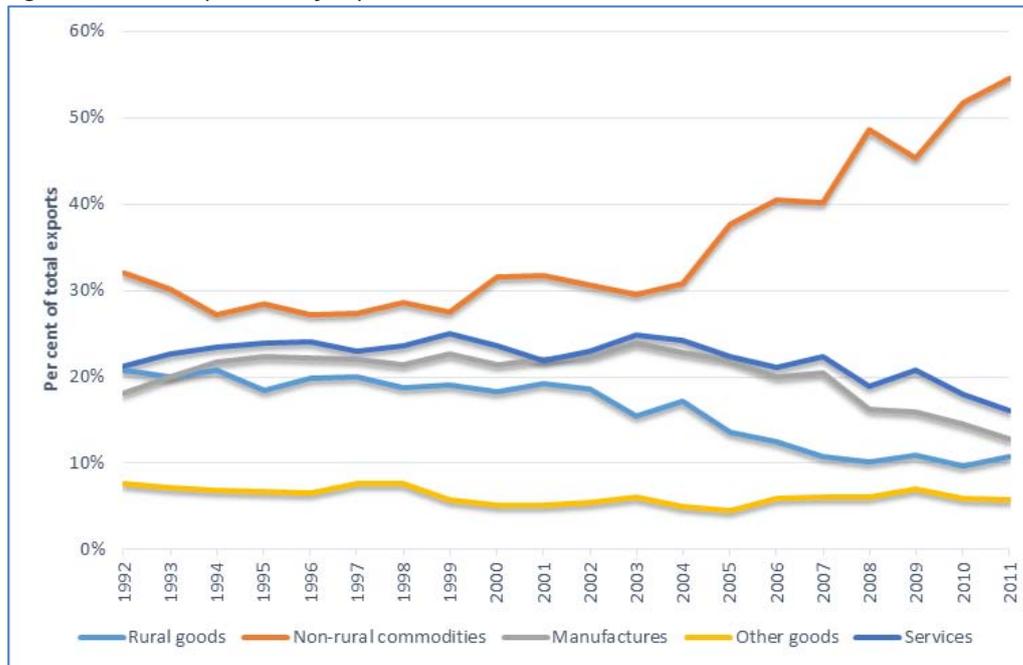


Source: Australian Bureau of Statistics

In 2011 China, Japan, South Korea and India combined absorbed 61.3 per cent of total Australian exports, while in 2002 they accounted for 36.1 per cent. The “top ten” as a group comprised 79.4 per cent of the total in 2011, but only 67.2 per cent in 2002. Particularly at the top of the list, this is a significant change in the structure of trade in only a decade. The rate at which China’s economic engagement with Australia has grown is evident, as is the fact that India, with over 1 billion people, is only just starting down this path. In 2025, the OECD and World Bank estimate that China and India will comprise over 35 percent of the global population.

Total exports increased by 119 per cent in nominal value terms over this decade, during a period in which nominal GDP rose 85.9 per cent. In real (volume) terms, GDP increased 30.8 per cent and exports by 24.4 per cent, and the export price index rose by 61.3 per cent while the Consumer Price Index (CPI) increased by 29.3 per cent. The message is that the volume of exports as a share of real GDP has fallen, but surging prices for these goods on global markets has more than offset this in revenue terms. In the absence of immediate capacity to supply them, demand for Australian output has driven their prices to record highs on global markets. The gains that accrue from expanding trade volumes are yet to materialise, but clearly will be significant.

Figure 2-16: Composition of exports - shares in total

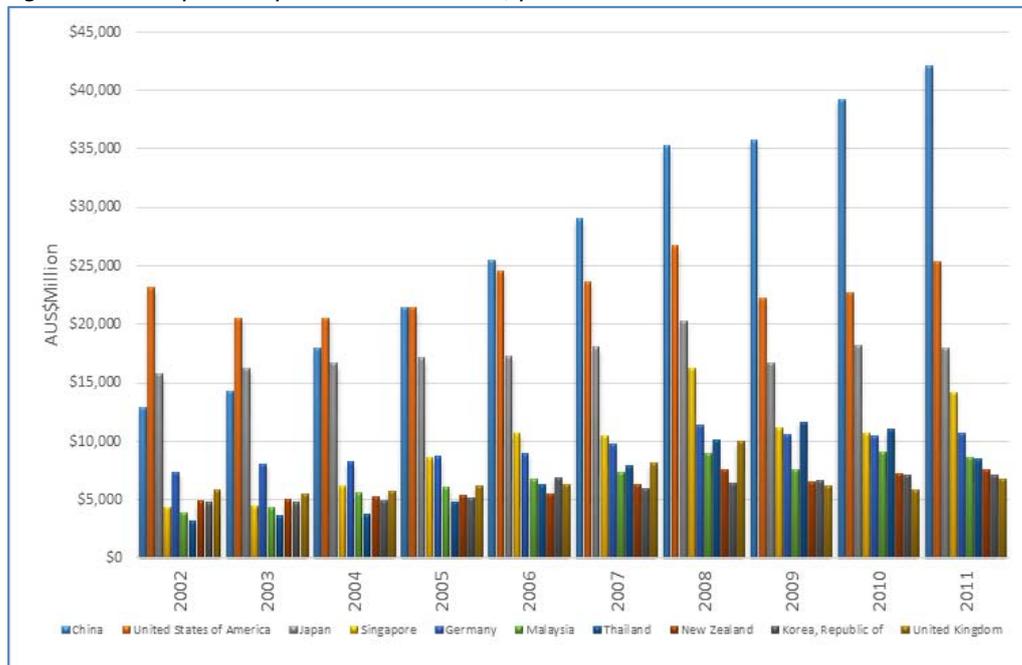


Source: Australian Bureau of Statistics

The change in the composition of Australia’s exports is dominated by the surge in non-rural commodities, which are comprised mainly of minerals, metal ores and energy goods. Between 2004 and 2011 non-rural commodities exports increased from 30.6 per cent to 54.6 per cent. Note that charting these data as shares of total exports obscures the fact that total export sales in nominal terms increased by 200.2 per cent across the same period, and diminishes the visual impact of price relativities.

Australia has experienced a degree of structural change in imports, but not to the extent seen in exports.

Figure 2-17: Top ten import sources in 2011, period 2002 to 2011



Source: Australian Bureau of Statistics

The top four import sources in 2011 (China, the US, Japan and Singapore) accounted for 43.9 per cent of total imports, while the top ten accounted for 65.5 per cent. In 2002, the 2011 top four comprised 43.9 per cent – as they did in 2011 – and the top ten 67.3 per cent. The story here is compositional change, with China-sourced goods and services growing from 10.1 per cent of total imports in 2002 to 18.8 per cent in 2011.

The import price index fell by 14.4 per cent between 2002 and 2011, almost entirely explained by the nominal exchange rate appreciation of around 17.6 per cent over the same period: Australia is a small open economy in its import markets, having limited ability to move world prices for imported goods. Taken together, the export and import price indexes suggest a terms of trade increase of around 88 per cent – that is, the terms of trade (at its peak) had almost doubled in a decade.

More recently, though, there have been some signs of international factors impinging on a rosy outlook for trade with Asia, at least in the short term.

For example, in late 2012 China's State Council announced a policy shift toward greater energy efficiency and reduced greenhouse gas emissions. China has pursued energy efficiency increasingly over the last decade, albeit within the confines of a country with very low per capita income and therefore limited ability to take advantage of first-world energy technologies (leading to a reliance on the cheap energy available from the combustion of coal). However, China's government and people have become increasingly concerned about environmental and social sustainability, and have invested heavily in areas such as solar energy research. China has set caps for energy use for 2015 and beyond that, among other things, imply slowing growth in the demand growth for coal and gas. As China produces most of its own coal domestically (about 90 per cent), the stalling domestic demand growth is likely to be felt more keenly by foreign suppliers – like Australia.

Falling demand for Australia's energy products is likely also to imply stalling export growth in iron ore: coupled with additional international sources of supply for coal, gas and iron ore coming on-line, and the additional capacity due to come on-line in Australia as the operational phase of

Australia's resource expansion occurs, there is an emerging risk to short- to medium-term income growth in Australia via declining terms of trade. This type of risk is the flip-side of the benefits of Asian growth for the Australian economy: it is of great benefit while Asian demand expands, but leaves Australia exposed to relatively large shocks when centrally-controlled economies make policy choices that can have big impacts on the pattern of demand.

The lessons for Australia include the need to take advantage of opportunities like high commodities prices when they arise, but also to be nimble in the face of growing volatility in the global economy and international markets. Being "nimble" is enhanced by economic diversification, and by longer-run growth strategies that allow structural change to reflect a world that is coming rather than one that has been and gone.

An important factor, though, will be to seek growth in our trade of consumption goods and services. Wealthier trading partners will substantially change their patterns of demand, and Australia is well placed to supply many of the goods for which demand growth will outstrip GDP growth in these countries. The manufacturing and services sectors, having experienced a difficult period of facing a strong exchange rate and increasing domestic cost factors, will be an important component of the Australian engagement with its trading partners going forward. The opportunities to significantly expand trade volumes will emerge, but it is likely that domestic cost factors will hamper these sectors' ability to take advantage of these opportunities in the short to medium term, with the effect of losing market share to competitor nations.

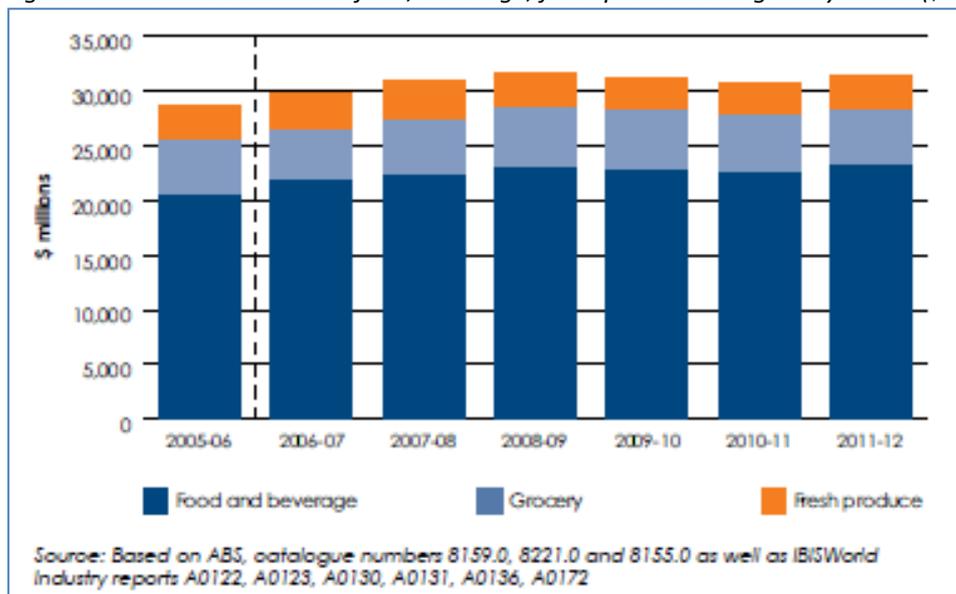
3. What this all means for the food and grocery manufacturing sector

This section provides some background to the food and grocery manufacturing sector within the Australian economy. This is then followed by a more detailed analysis of the issues discussed in the previous section, and how these might particularly impact the food and grocery manufacturing sector.

3.1 The food and grocery manufacturing sector in Australia

The food and grocery manufacturing sector is the largest manufacturing sector in the Australian economy, contributing around 30 per cent of total manufacturing value-added. Fresh produce, food and beverage manufacturing and grocery manufacturing contributed almost \$32 billion in value-added (or about 2.3 per cent of national value-added) in 2011-12.⁷

Figure 3-1: Value-added in the food, beverage, fresh produce and grocery sector (\$2011-12)



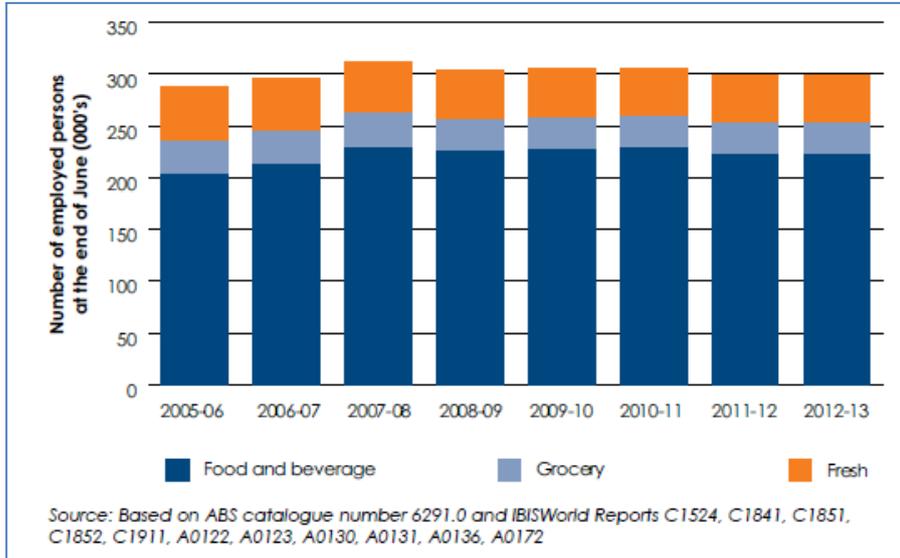
Source: extract from Australian Food and Grocery Council and KPMG | State of the Industry 2013

The food, beverage, fresh produce and grocery manufacturing sector employed almost 300,000 people in 2012-13 (or about 2.6 per cent of total employment). Around half of this employment was in rural and regional areas. The industry's wage contribution was about \$12.0 billion in 2012-13 (equivalent to 1.9 per cent of the total wage and salary employee compensation).⁸

⁷ Sources: Australian Food and Grocery Council and KPMG, *State of the Industry 2013*, October 2013; Australian Bureau of Statistics, Australian National Accounts, catalogue number 5206.

⁸ Source: Australian Food and Grocery Council and KPMG, *State of the Industry 2013*, October 2013.

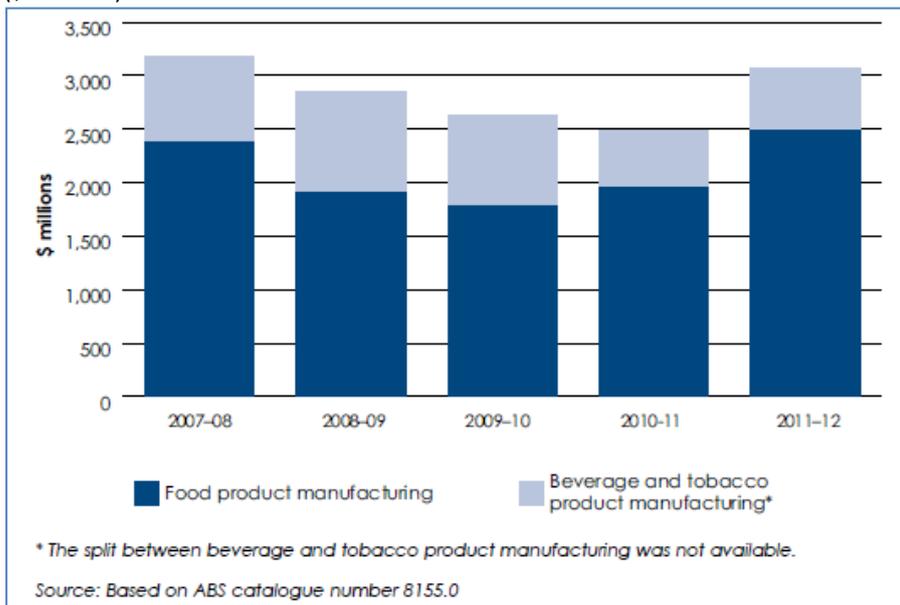
Figure 3-2: Employment in the food, beverage and grocery sector (2012-13)



Source: extract from Australian Food and Grocery Council and KPMG | State of the Industry 2013

The food, beverage and tobacco manufacturing sector invested around \$3.1 billion in capital formation in 2011-12 (or around 1.5 per cent of total capital formation across all industries except finance and insurance services in that year).⁹ The majority of this investment was in food product manufacturing, which increased by 26.5 per cent from \$2.0 billion in 2010-11 to \$2.5 billion in 2011-12. While this was a large increase, it was a regaining of ground lost after the global financial crisis. Anecdotally, investments have been focussed on automation and other cost reduction programs due to pressures in the domestic retail market.

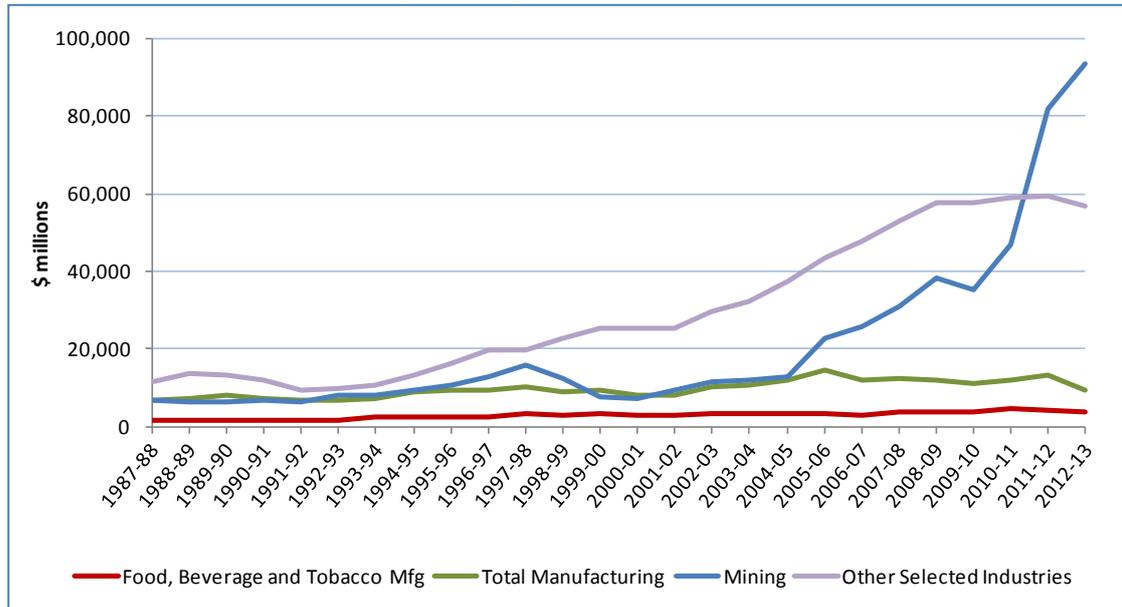
Figure 3-3: Gross Fixed Capital Formation in the food, beverage and tobacco manufacturing sectors (\$2011-12)



Source: extract from Australian Food and Grocery Council and KPMG | State of the Industry 2013

⁹ Source: Australian Food and Grocery Council and KPMG, *State of the Industry 2013*, October 2013.

Figure 3-4: Investment by Industry (\$2011-12)



Source: Australian Bureau of Statistics, *Private New Capital Expenditure and Expected Expenditure, Australia, Dec 2013*, Catalogue no. 5625, March 2014; and KPMG estimates.

Note: the ABS defines Other Selected Industries as all other industries except finance and insurance services.

Figure 3-4 shows that total investment (i.e. fixed plus financial capital) in the food, beverage and tobacco manufacturing sector has been relatively flat over the past 10 years, with the amount spent on investment in 2012-13 at an almost identical level as that spent in 2002-03. The level of annual investment in this industry has fallen from a high of \$4.5 billion in 2010-11 to \$3.6 billion in 2012-13 (which is a similar level as in each of the years between 2004-05 and 2008-09).

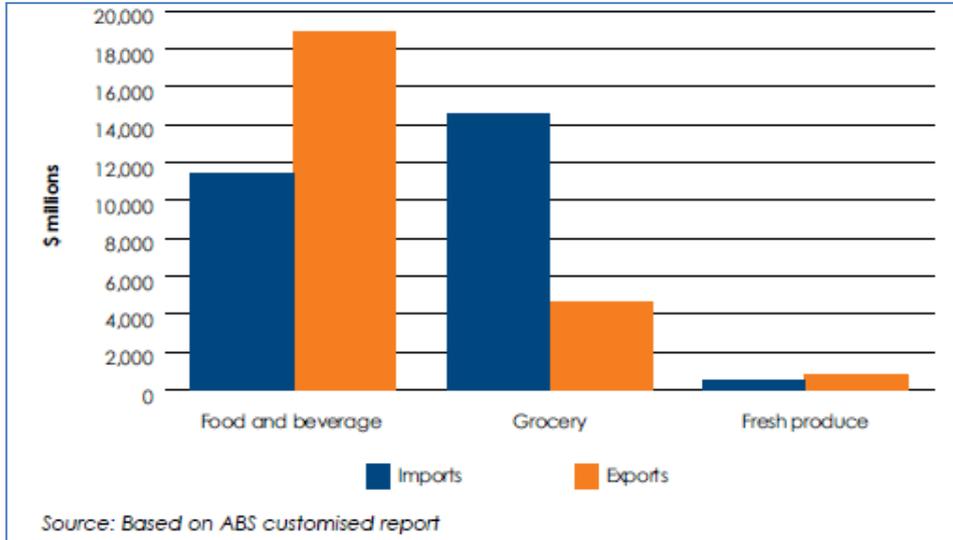
In stark contrast, the level of mining investment has increased in nearly every year since 2002-03 (with the exception of 2009-10), with the level of mining investment in 2012-13 at eight times (or 800%) its 2002-03 level.

Interestingly, the level of annual manufacturing investment and mining investment were at very similar levels in each year between 1987-88 and 2004-05 (apart from a small spike in mining investment between 1996-97 and 1998-99). However, since 2004-05, manufacturing investment has remained relatively flat, while mining investment has expanded rapidly. The level of mining investment in 2012-13 was ten times the level of investment in manufacturing.

Finally, other sectors in the economy (as a group) have also increased their level of annual investment; with investment in these sectors in 2012-13 triple that of the early 1990s.

Looking at trade exposure, the food and grocery manufacturing industry is quite trade exposed. In 2011-12, turnover in the industry was \$111 billion, with \$24 billion (or 22 per cent) of this made up of exported goods. In the same year, imports of \$26.5 billion made up around 23 per cent of domestic sales.

Figure 3-5: Trade in the food and beverage, grocery and fresh produce sector (\$2011-12)



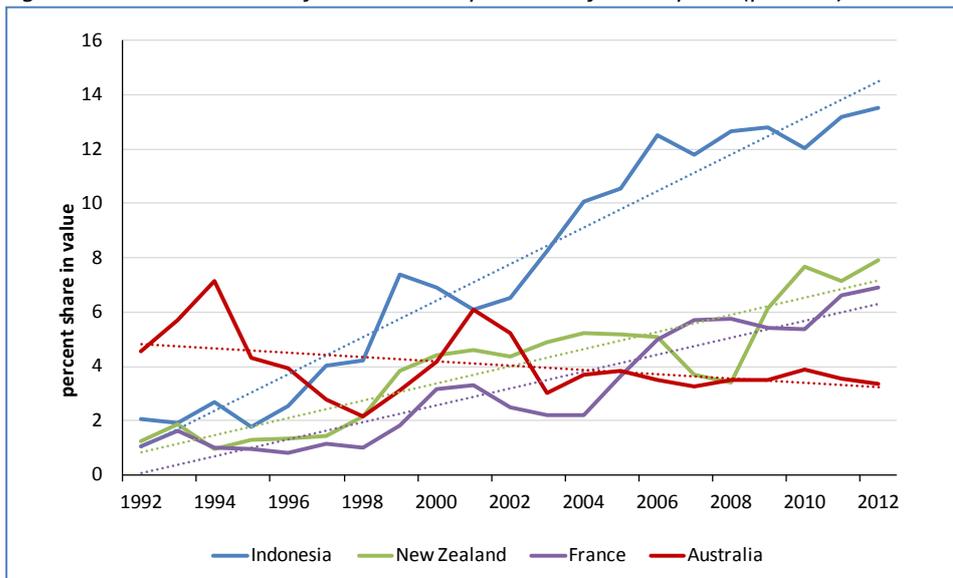
Source: extract from Australian Food and Grocery Council and KPMG | State of the Industry 2013

The recent high value of the Australian dollar has had an impact on trade exposed sectors like food and grocery manufacturing (with both a high export share of sales and significant import competition in the domestic market).

Manufacturing has also faced its share of cost pressures in recent times and this has affected its ability to compete in world markets. Key drivers of these high costs in Australia are wages and energy costs.

As an illustration, the two charts below show the change in Australia’s market share of total processed foods in both in China and Indonesia.

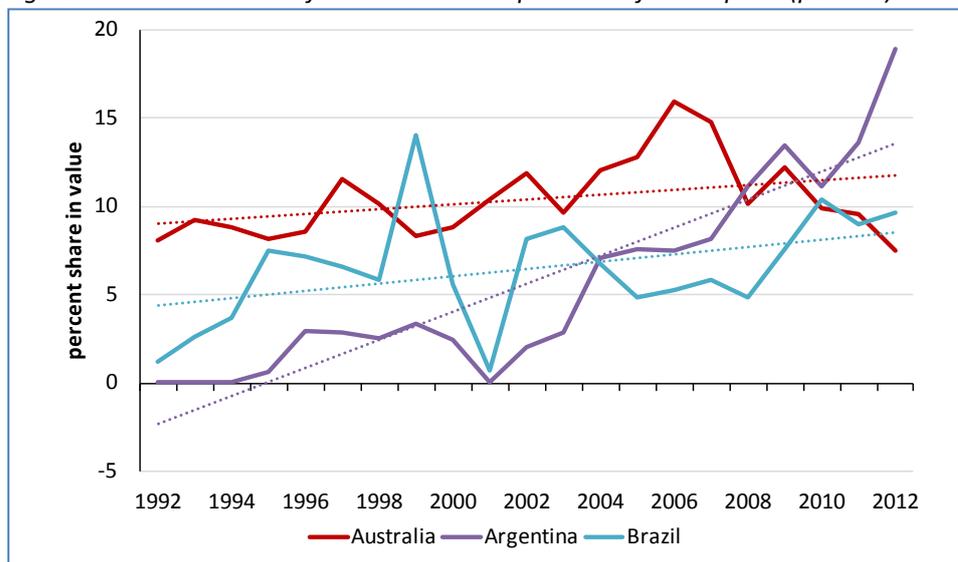
Figure 3-6: Market share of China’s total processed food imports (percent)



Source: United Nations Statistical Division, 2013.

In China, Australia has lost market share to Indonesia, New Zealand and France. In Indonesia, while Australia's current market share is similar to its 1992 level, it has dropped from a peak of over 15 per cent in 2006, with both Argentina and Brazil both overtaking Australia in recent years.

Figure 3-7: Market share of Indonesia's total processed food imports (percent)



Source: United Nations Statistical Division, 2013.

3.2 Market Pressures

The food and grocery manufacturing sector has faced a number of challenges on the home front.

- The structure of the Australian retail market has meant that there is significant pressure on the industry's margins from retailers, backed by increased competition from imports;
- A high Australian dollar has also impacted on the sector's ability to compete on the international stage. A high Australian dollar makes domestic production relatively more expensive compared to imports. In addition, a high Australian dollar makes Australian exports relatively more expensive in international markets.
- While revenues have been squeezed, production costs have been rising. With a tight labour market in recent years, wages in Australia have risen significantly. Energy costs have also risen significantly over recent years. On the flip-side, the high Australian dollar should have brought some relief to those who use imports in their production processes.

To better understand the industry's key issues, AFGC engaged KPMG to undertake a fact-based study on the performance of the \$110 billion food and grocery manufacturing industry in Australia. The findings in the *Competitiveness and Sustainable Growth* report provide a stark reminder that the viability and competitiveness of the Australian food and grocery manufacturing sector - Australia's largest manufacturing sector - is under significant and increasing pressure from rising input costs, subdued consumer confidence and retail price deflation caused by the competitive nature of the supermarket retailing sector.

This study represents the largest and most comprehensive of its type into Australia’s food, beverage and grocery manufacturing industry. It involved the collection and detailed analysis of data provided by 18 AFGC member organisations, which represent approximately 18 percent of Australia’s food and grocery manufacturing industry turnover. It provides indicative insights into the pressures on Australia’s largest manufacturing sector and some of the key drivers of financial performance and profitability.

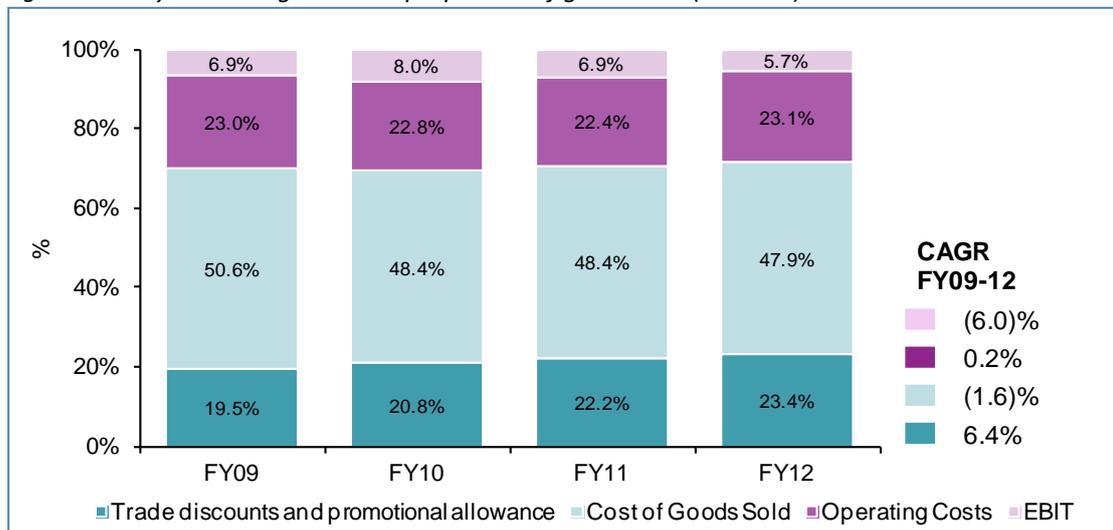
The study found that the industry has focused its efforts on cost reduction, productivity improvements and business re-engineering. A significant increase in trade spend (6.4 per cent annual growth) to fund retail price discounting has not increased sales volume but has come at the expense of profitability (6 per cent annual decline) and suppliers’ marketing and R & D spend which may have a long term impact on growth, sustainability and innovation.

Despite somewhat subdued consumer confidence the retail sector and in particular the supermarket retail sector remained resilient and continued to grow at 4.5 per cent per annum between 2008 and 2012.

However, this did not flow through to the food and grocery manufacturing industry, which declined by 2.2 per cent between 2009 and 2011.

Across the surveyed companies, cost reduction initiatives have enabled companies to contain operating costs and reduce the cost of goods sold. However a significant increase in trade spend from 19.5 per cent of gross sales in FY09 to 23.4 per cent in FY12 has contributed to a decline in profitability. EBIT has dropped from 8.0 per cent of gross sales in FY10 to 5.7 per cent in FY12 (a fall of 28 per cent) driven by a decline in gross sales accelerated by an increase in trade spend.

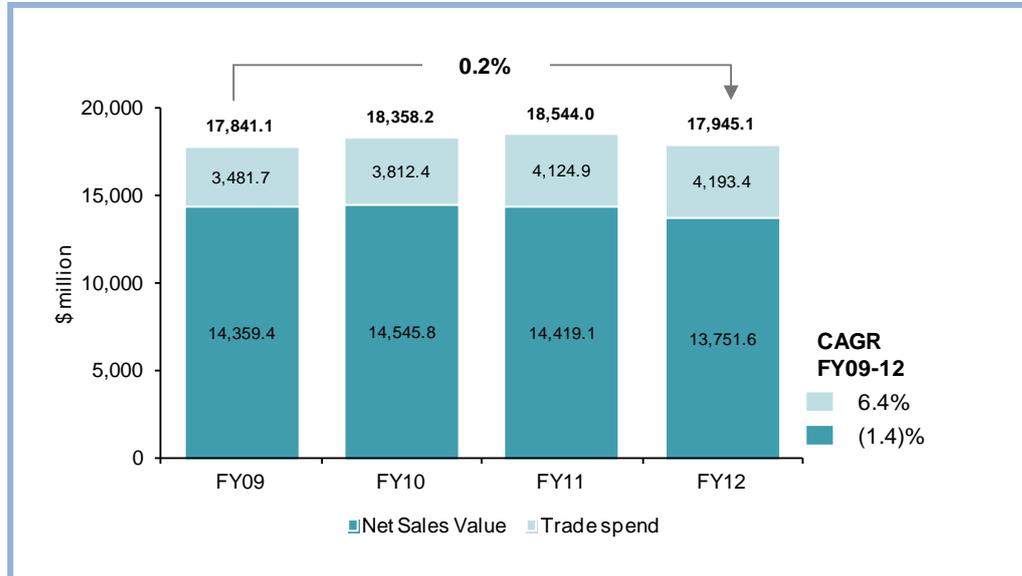
Figure 3-8: Key cost categories as a proportion of gross sales (FY09-12)



Source: extract from Australian Food and Grocery Council and KPMG | Competitiveness and Sustainable Growth Report 2013

Trade spend of the suppliers increased from 19.5 per cent of gross sales to 23.4 per cent but did not result in increased volumes. As a result, Net Sales declined at 1.4% CAGR.

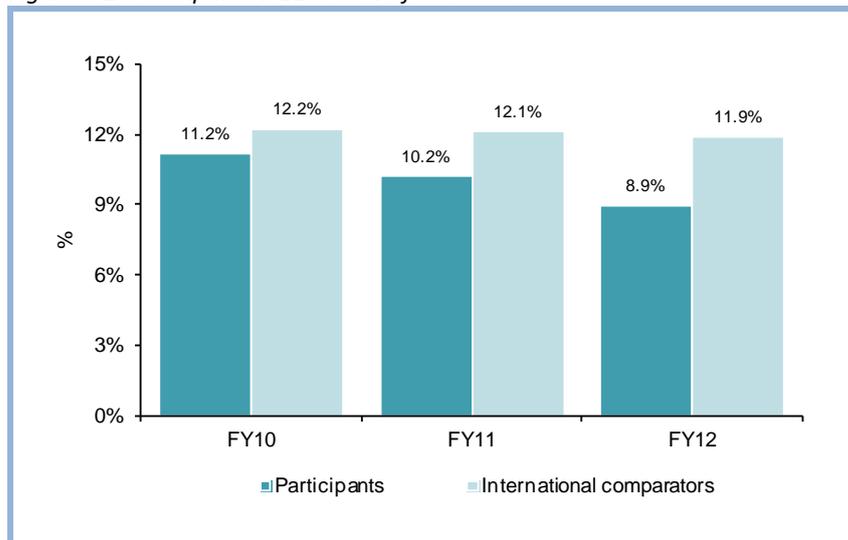
Figure 3-9: Trade spend and Net Sales (FY09-12) (\$m)



Source: extract from Australian Food and Grocery Council and KPMG | Competitiveness and Sustainable Growth Report 2013

Profitability of Australian food and grocery manufacturers is now significantly lower than international comparators. Comparison of EBIT as a percentage of net sales shows the gap between Australia and international comparators widening unfavourably from 1 per cent in FY10 to 3 per cent in FY12.

Figure 3-10: Comparison EBIT as % of net sales



Source: extract from Australian Food and Grocery Council and KPMG | Competitiveness and Sustainable Growth Report 2013

The food and grocery manufacturing industry is facing continued pressure to remain competitive and grow. Manufacturers are taking measures to contain costs and preserve margins, including capacity rationalisation and exploring new channels to market. However the combination of rising input costs, stagnant or falling prices in retail markets (in part due to an increase in lower cost

imports) has negatively impacted profitability, reducing the attractiveness for further investment in the value added food and grocery manufacturing sector in Australia.

3.3 Global challenges and opportunities

The pace of structural change in the global economy is striking. During this century, economic and diplomatic power will shift between regions of the world, global trading and financial systems will continue to integrate and evolve, and international political and legal institutions are likely to develop and grow in legitimacy and credibility. How Australia chooses to participate in these evolving systems will largely determine its 21st century prospects.

The change that has already occurred is remarkable. Economic and technological convergence is lifting billions of people out of poverty. The industrial revolution vastly increased the variation in labour productivity across different areas of the world, and a key economic story of this century is likely to be acceleration in the convergence in technology that will reverse that trend.

There is a long economic road to travel before the emerging nations of the world converge to first-world living standards per-capita, but the sheer weight of numbers in these populations is driving rapid global economic structural change. The rising prosperity and power of Asia will be the driving force in the 21st century.

In the last 20 years, the developing and newly industrialized economies of Asia have increased in size as a share of global GDP (valued in PPP terms) from 14.4 per cent to 29.8 per cent. The G7, by contrast, has fallen from around 51.3 per cent of global GDP to 37.8 per cent.

The UN estimates that the aggregate population of the Asian continent was approximately 4.3 billion as of mid-2012, which accounts for almost 60 per cent of the world's people. Of this group, around 3.9 billion people live in eastern, southern and south-eastern Asia, with direct sea (and then road and rail) and air transportation routes to Australia. In 2012, global merchant shipping transported 9 billion metric tonnes of freight (75 percent of the total by weight), compared to 16 percent by rail and road, 9 percent by pipeline and 0.3 percent by air. In value terms, 60 percent of international trade flows occurring in 2012 (US\$9 trillion out of US\$15 trillion) was moved by sea, equal to about 14 percent of global GDP in that year. Proximity to trading partners via sea routes is not a factor to be underestimated, and the growth of these developing nations will drive the 21st century global economy.

Using IMF projections for GDP (valued at PPP¹⁰), the emerging economies¹¹ will generate two-thirds of world growth between 2013 and 2017. In 2012, emerging economies generated 49.8 per cent of global GDP compared with 50.2 per cent for advanced nations. At IMF projected annual growth rates, about 7.9 per cent for emerging nations (around 9.5 per cent for developing Asia) and 4.3 per cent for advanced economies (3.3 for the Euro area), the global GDP shares move to 54.2 percent for the developing world and 45.8 per cent for advanced economies. This is a movement of 8.8 per cent of global value-added to the developing world in *four years*, or a reallocation of global economic activity equivalent to almost half of the 2012 US economy. In our region, emerging Asia will be responsible for about two thirds of this net change.

This is good news overall for the global economy, and particularly for Asia. However, there will be some teething pains. An increasing share of global GDP by emerging economies is likely to create a

¹⁰ Purchasing power parity

¹¹ The list of IMF defined emerging market and developing economies can be found at: <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/groups.htm#oem> and includes many Asian countries such as China, Indonesia and Malaysia.

more volatile global economy. Countries passing through phases of industrialisation and urbanisation tend to be less economically stable, as the fundamental underlying processes that drive this transition are inherently volatile. Therefore, it is simple arithmetic that suggests that an increasing emerging-economy share of global GDP raises the average volatility of the global economic system.

On the other side of the ledger, as this phase of industrialisation and urbanisation proceeds across the region over the next century, we will witness – and potentially reap enormous benefit from – a continuation of changing consumption patterns and greater wealth accumulation in these countries. To a large degree, the change that has already occurred is responsible for the commodity price boom that has driven the terms of trade and investment boom in the Australian resources sector, but we have only seen the tip of the iceberg so far.

OECD projections estimate that the size of the global middle class will increase from 1.8 billion in 2009 to 3.2 billion in 2020, and then to 4.9 billion in 2030; increases of 1.6 billion and 1.7 billion per decade. This is equivalent to shifting something like 46 per cent of the current global population into the global middle class in the next 20 years. Focusing on Asia, the story is even more dramatic; in 2009, Asia comprised 28 per cent of the global middle class population and 23 per cent of global middle class consumption, and by 2030 these shares are expected to rise to 66 per cent and 59 per cent respectively.

Australia's proximity to Asia combined with this growth in the Asian population, particularly the middle class, present significant export opportunities for the Australian food and grocery manufacturing industry. For example, the ANZ reports that the export potential for semi-processed agribusiness food products and niche, higher value-added products could at least double Australia's agrifood exports, earning more than \$700 billion additional export revenue over the next 40 years.¹²

The National Food Plan also recognised the ability for Australia to supply staple and high value food products and set a goal of increasing the value of Australia's agricultural and food related exports by 45 per cent in real terms by 2025.

To achieve significant increases in export, the Australian agribusiness and food manufacturing sectors will require a step-change in investment, in the same way that there was significant investment in the Australian resources sector to expand the industry's export capacity and capability.

3.4 Summary

The emergence of a large market base in our local region is likely to provide significant opportunity for Australian food and grocery manufacturers. As economies near to us become more affluent, their tastes and preferences will also likely change towards higher value added products and away from subsistence items. Australia's reputation as a supplier of high quality food products should also help bring this business to our shores.

However, as discussed in the previous sections, despite these opportunities, cost and profitability pressures (including rising input costs, retail price discounting and an increase in low cost imports) risk impacting on the food and grocery manufacturing sector's ability to access these opportunities. The combination of these pressures reduces the attractiveness for further investment in the food and grocery manufacturing sector in Australia. This is reflected in the fact that investment in this

¹² ANZ *Greener Pastures: the global soft commodity opportunity for Australia and New Zealand*, 2012.

sector has been stagnant (and not kept pace with investment in other industries), and this sector has already lost market share in many emerging Asian markets.

Many of the challenges that this industry has faced have been the result of a transitioning economy – with structural change occurring both domestically and at a global level. A credible case can be made for short-term, targeted and finite assistance for sectors that face temporary factors that affect their long-run competitiveness.

The Minister for Trade and Investment, the Hon Andrew Robb, recognises the challenges and opportunities discussed above. He recently stated that “Exporting to Asia is highly competitive and the opportunities won't just fall into our lap; we need to be innovative and be responsive to emerging demands, but we are certainly up for the challenge. We are a high-cost country and consequently we are best served focusing at the quality, high-gross margin, end of the market”. The following section looks further at Government policies in this space.

4. Australian policy context

While industry incentives are generally not a long-term solution to economic pressures, there is a strong argument for a temporary investment incentive to ensure short-term economic and retail market conditions do not adversely impact future growth opportunities. To provide an understanding of potential policy levers, this section outlines two of the government's policy frameworks in the manufacturing and agriculture industries. This section is designed to inform the AFGC's thinking, by providing some observations, but does not attempt to draw any conclusions or provide advice on policy design.

4.1 Government's Manufacturing Industry Policy

An environment of significant structural change, concern around Australian productivity and the effects of a strong Australian currency has meant that the Australian Government is looking at ways to more uniformly strengthen our economy. This includes discussions around supporting growth in industries that may have been inadvertently hurt by current market pressures (e.g. the strong Australian currency), such as manufacturing and tourism.

The general themes in the Government's *Policy to Boost the Competitiveness of Australian Manufacturing* (Aug 2013) are around stimulating investment, transitioning to a more competitive industry and opening up new markets. In particular, the policy document states that:

"...a strong manufacturing sector requires a government that promotes investment and jobs growth in the sector rather than slugs it with unnecessary additional costs and regulations"

The Coalition, 2013, Policy to Boost the Competitiveness of Australian Manufacturing, page 2.

Each of the three themes – stimulating investment, competitive industry and new markets – are addressed, in turn, below.

4.1.1 Stimulating Investment

The Government's *Policy to Boost the Competitiveness of Australian Manufacturing* included three items directly relating to stimulating investment.

The first, that of appointing a Minister for Trade and Investment, has been to establish a role in government that is focussed on "selling" Australia as an investment destination. The Hon Andrew Robb has been appointed to this newly created role and recently initiated a "Trade and Investment Ministers Meeting", which brought together representatives from all states and territories to agree on priority areas of national investment. The investment priorities endorsed by the ministers included: food and agribusiness; resources and energy; economic infrastructure; tourism and education; and advanced services, manufacturing and technologies.¹³

This, along with a policy of implementing Strategic Growth Agendas (to encourage investment in high-growth manufacturing) and the removal of manufacturing industry cost barriers (which should improve the returns on investment in Australia) provide a platform from which the Government hopes to stimulate manufacturing investment in Australia.

¹³ http://www.trademinister.gov.au/releases/2014/ar_mr_140214.html. Accessed 5 March 2014.

4.1.2 Competitive industry

The Government's policy platform (from its pre-election release) also identified a number of items to address the need for a more competitive industry. One was that, in addition to helping to attract investment, it is likely that the reductions in cost barriers (discussed above) would help make the industry more competitive.

In addition to reducing costs, the Government's policy statement also contained a number of other incentives designed to encourage a more competitive industry. These included establishing a manufacturing transition grant programme to help transition manufacturing (and the accompanying communities, businesses and stakeholders) from the traditional heavy industry to higher value-added competitive (or niche) manufacturing industries. Reform in access and application of research and development incentives also continues to be an area of focus to promote private sector involvement in boosting Australia's competitiveness.

To also assist in building a more competitive manufacturing industry, the Government's policy aims to "implement a level-playing field". This means that the Government will review areas of policy that affect Australia's ability to either compete on the world stage, or compete with imports on home soil. Areas of review include strengthening the anti-dumping laws; assessing the need for further reform to Australia's competition laws and frameworks; ensure manufacturing is properly represented in free-trade-agreement negotiations; aim to achieve workers/business balance in the workplace; set the Department of Industry's core focus to facilitate private sector investment, innovation and export growth; and assess how to best provide necessary infrastructure – through better direction of public funding and the leveraging of other funding into projects.

4.1.3 New Markets

The final key area of focus in the Government's manufacturing policy statement was that of assisting manufacturing build markets. In particular, the Government recently announced an increase in funding for the Export Market Development Grants programme to help Australian manufacturing to access and grow into new and emerging markets. The appointment of a manufacturing representative on free-trade-agreement negotiations also aims to make sure these agreements do not inadvertently lead to Australian manufacturers missing out on export opportunities. Finally, as mentioned above, the refocus of the Department of Industry includes helping to facilitate export growth.

The new Minister for Trade and Investment has also stressed the importance of providing the necessary support to allow Australian exporters to access the opportunities that are arising on the international stage. In particular the Minister has outlined support for market development grants, trade missions and other Austrade assistance, along with making "*our exporters more cost competitive by abolishing unnecessary taxes.*"¹⁴

¹⁴ http://www.trademinister.gov.au/articles/2013/ar_ar_131126.html, accessed 5 March 2014.

4.2 Agriculture White Paper

The Australian Government is preparing an Agriculture Competitiveness White Paper with the aim of improving agriculture's productivity and profitability, including improving competitiveness throughout the value chain. The issues paper was released in early February 2014, with submissions sought by mid-April 2014.

The issues paper identifies a number of matters that influence competitiveness in the agriculture industry. Of particular note, in the context of this study, are the following matters.

- **enhancing access to finance** – in this part of the issues paper, the Government identifies the need for agriculture to access adequate financing, including foreign investment. In addition to providing capital, this investment is seen as a potential way to improve productivity (technology and techniques) and market access.
- **competitiveness through the value chain** – an issue for farmers, like food manufacturers is the market power of those further along the supply chain. The Government is concerned that imbalances in negotiating power along the supply chain may impact on the fairness of both returns to businesses and prices paid by consumers. This is a well recognised concern, with a number of reviews in this area currently in progress or planning - such as the Australian Competition and Consumer Commission (ACCC) review into supermarket activity; the Government's review of competition laws, policy and framework; and the AFGC's establishment of a code of conduct between supermarkets and their suppliers.
- **inputs along the supply chain** – The Government identifies a number of factors that impact the agriculture supply chain costs, with many of these also carried across the food and grocery sector. In addition to the cost pressures passed on through their purchase of agricultural products, food and grocery manufacturers have also faced the recent high fuel and electricity costs and wage pressures.
- **reducing inefficient regulation** – the issues paper identifies the reduction of ineffective and inefficient regulation as one of the key policy objectives of the government, committing to reduce red and green tape by \$1 billion a year. As an example, ABARES have identified inconsistency between jurisdictions in the regulation of food and have recommended further action to "complement state and territory government efforts to reduce unnecessary regulatory burdens".
- **enhancing exports** – the issues paper also re-iterates the general expectation of increased demand from Asian markets. The paper explains that ABARES expects that the real value of food consumption in Asia will double between 2007 and 2050, and much of this will need to be sourced from outside Asia. With a movement to more people in middle and higher income brackets, the issues paper agrees that there is likely to be an opportunity for high quality exports of Australian food and fibre products.
- **effectiveness of incentives for investment and job creation** – The issues paper expects that the expansion of industry will be dependent on access to new capital and labour. There is an expectation that industry and Government will both need to work together to provide incentives and programmes to encourage investment and attracting labour. The paper does recognise that any incentives would need to be effective and value for money.

The viability of Australia's agriculture sector is fundamentally linked to Australia's food manufacturing sector, including agribusinesses involved in early stage processing as well as businesses that manufacture substantially transformed products. It is clear from the matters identified in the issues paper that there are many similarities across these sectors. The challenge across both will be to identify ways to access the opportunities that the global economy is presenting, in an environment of recent cost and competitive pressures.

4.3 Other policy and reviews

There are a number of other Government reviews and policy matters that are likely to also impact the food and grocery manufacturing sector.

The upcoming reviews of taxation and R&D will examine some of the issues that affect many industries including corporate and payroll taxes, depreciation allowances, imputation credits and R&D tax incentives. This will be the forum in which to address broader issue of tax reform.

Further, existing reviews such as the ACCC review into supermarket activity; the Government's Review of Competition Laws; and the Energy White Paper show that there is recognition that a variety of cost pressure points for the food and grocery manufacturing sector deserve further examination.

The remainder of this report discusses in more detail tax policy design frameworks, and the impact of a specific policy that aims to increase investment in the food and grocery manufacturing sector. The policy is in line with the government's aim to improve investment and access to emerging export markets.

5. Tax Policy Design

Throughout its economic history, Australia has used a wide variety of tax incentives to respond to, and/or influence, economic outcomes and objectives. It would be onerous to list the array of tax incentives, rebates, offsets, etc used by Australian policy makers in the past, due to the breadth of taxes employed and the various permutations that lie within each incentive.

Likewise, it would be impossible to list all conceivable tax incentives that could be considered by AFGC in the course of this project.

Rather, it is considered more valuable to start with selected “baseline” examples of company tax policy design that will often be considered by countries at one time or another. These tax incentives are not exhaustive, nor will they be used by all countries in their economic development. However, they are commonly recognised as fundamental tax policy design indicia that many developed countries consider when evaluating *how to stimulate investment into tangible items* (such as manufacturing plant & machinery).¹⁵ Accordingly, it is a suitable place to start in the Australian policy context.

5.1 Baseline Tax Incentives

Type of Incentive	Broad Operation	Observations
Tax Holiday	<ul style="list-style-type: none"> A period of time for the taxpayer (or specific category of business activity) to be exempt from tax, or to be taxed at a substantially reduced rate) 	<ul style="list-style-type: none"> Generally introduced in developing or transition countries (and not generally in developed countries) Most commonly used for new business and not existing operations Can be particularly susceptible to tax planning (e.g. entities can actively transfer activities to benefit from zero taxes).
Investment Allowances	<ul style="list-style-type: none"> This represents a tax benefit over and above depreciation (recent example in Australia was the 30% and 10% stimulus package) Reduces taxable income 	<ul style="list-style-type: none"> Australian-based examples include the investment allowance in 1976 to 1988 and 2008 to 2010 (10% to 30%) Key issues include: <ul style="list-style-type: none"> Clearly defining “eligible expenditure” Determining the appropriate rate Agreeing the number of years the benefit should be available.

¹⁵ This economic modelling is limited to *company taxation* and does not cover indirect taxes, stamp duties, customs etc

Type of Incentive	Broad Operation	Observations
Tax Credits on investment	<ul style="list-style-type: none"> • These represent a tax benefit over and above depreciation • Tax credits reduce tax payable (and not taxable income) 	<ul style="list-style-type: none"> • Key issues include: <ul style="list-style-type: none"> • Clearly defining “eligible expenditure” • Determining the appropriate rate • How to treat excess credits (e.g. carry forward or forfeit)
Accelerated Depreciation	<ul style="list-style-type: none"> • This incentive represents the same amount of depreciation, written off over a shorter (“quicker”) period of time • Accelerated depreciation can be in the form of (i) a shorter effective life or (ii) special (accelerated) deduction in the first year. 	<ul style="list-style-type: none"> • Accelerated depreciation is a fixture of the Australian tax policy landscape • Where the deductions occur sooner this is viewed (effectively) as an interest-free loan from the Government • As with earlier incentives, key issues include: <ul style="list-style-type: none"> • the rate • period of time • whether excess deductions can be used to offset other income, or whether the deductions should be quarantined against income from that particular investment
Tax Rate Reductions	<ul style="list-style-type: none"> • For example, a country can provide a 10 percent corporate tax rate for income from manufacturing. 	<ul style="list-style-type: none"> • An example could be the introduction of the ‘patent box rules’ in the UK
Grants	<ul style="list-style-type: none"> • Government funded assistance • Funding is usually provided with milestone acquittals 	<ul style="list-style-type: none"> • Grants are viewed as relatively common in Australia • However, of recent times, may not necessarily be viewed as favourable (eg motor vehicle industry).

As highlighted throughout the Report, the purpose of this project is not to independently analyse or assess the economic merits of each incentive. Nor is the purpose to model all incentives (and their permutations) for AFGC members.

Rather, the purpose of this report is to model the economic outputs of a selected tax incentive. As will be seen, this tax incentive will be in the form of an investment allowance.

5.2 Selection of a Tax Incentive

5.2.1 Tax Policy Considerations

As part of roundtable discussions, the AFGC and members agreed that there were a number of tax policy design features that should be taken into account when selecting an appropriate tax incentive to model.

This initial discussion recognised that, in any communication with Treasury, the AFGC and members need to be aware (and address) the various policy design features that can impact the Government's decision making process.

The agreed design features are:

- the need for a “moderate rate”. That is, a rate that is considered too high is unlikely to be palatable to Government. Further, a high incentive rate can lead to excessive investment and the concept of ‘gold-plating’ and the AFGC were cognisant of how this would be viewed by Government;
- the incentive needs to be *targeted* to the spend being stimulated. That is, the tax incentive will need to clearly guide money into the intended area of investment;
- the ongoing integrity of a tax incentive. This means definitions will need to be clear with minimal room for ambiguity and limited interpretational issues across different taxpayers;
- the incentive should be achieved *within existing* tax legislation with minimal changes required to current statute. This design feature recognised that legislative draftsmen will want to minimise changes to the Tax Act to protect its integrity and stability with other tax measures; and
- the need to have a ‘finite end’ to the incentive. A designated period will be more palatable to Government (including future Governments) and will demonstrate direct targeted spend and minimise deadweight losses.

5.2.2 Process undertaken by AFGC

Workshop

The AFGC commissioned a workshop for a small group of selected members. The members were based in Melbourne and Sydney and comprised a combination of privately owned and internationally owned companies.

In debating the incentive to be modelled, consideration and robust discussion was had to each of the factors listed above. In addition to those tax policy considerations, the members also discussed the following in identifying an effective tax incentive:

- Which incentive had the propensity to genuinely impact their investment decision to undertake and/or accelerate investment into manufacturing;
- Which incentive was likely to be readily understood by Treasury and could be embedded into existing legislation (eg Division 40, Division 41 and/or Division 43) of the Income Tax Assessment Act;
- How long (in years) should the lead-time be (before the incentive takes effect) to allow genuine investment to be contemplated and planned by members. For example, a one-year investment allowance may not provide sufficient time to commission a substantial manufacturing facility;
- The commencement date of any incentive. Members highlighted that it would not just be a case of ‘turning on the investment tap’. A lead time (of at least 6 months before the incentive

begins) would be required for commercial teams to evaluate and review which expenditure they may bring forward; and

- Whether there should be a maximum or minimum spending requirement (limit) on application of the incentive.

Other material

Throughout the discussions, the members also referred to:

Examples of tax incentives previously used by Australia.

A non-exhaustive list of examples is listed at Appendix C. These were used to initiate discussion and introduce ideas and concepts to the workshop discussion.

Examples of overseas tax incentives

Economies around the world have faced significant challenges over recent years. Many have introduced tax reform and fiscal stimulus in an attempt to reduce the impact of world events on home economies.

The European Commission's annual report on EU taxation has identified a trend in member states to increase their overall taxation burdens to realign their fiscal sustainability. As a result, many member states increased their personal income taxation and/or VAT burdens.

In contrast, some member states reduced the corporate tax burden in an attempt to stimulate business competitiveness. Some states also provided stimulus or incentives for business investment. However, the European Commission does provide some cautionary remarks around the use of R&D incentives.

“Concerns about decreasing competitiveness led many Member States to introduce tax changes aimed at softening the impact of the crisis, particularly on small companies, and at stimulating private sector investment...targeted tax incentives should be designed with care to reduce deadweight losses and promote cost-effectiveness.”

European Commission - Tax Reform Working Paper (8 October, 2013)

Accordingly, members were interested in whether other developed (or developing) countries had recently introduced tax incentives to stimulate investment in manufacturing, and what these incentives looked like.

Members acknowledged that such incentives could not simply be duplicated in Australia but, rather, it would add a further dimension to the discussion and 'brainstorming' on possible tax policy design features. For example:

Canada (extracts)¹⁶

- Economic Action Plan 2013 was released 18 June 2013
- An extension of 2 years was announced for the temporary accelerated capital cost allowance
- Incentives were targeted to new investments in machinery and equipment by Canadian **manufacturers**

¹⁶ The Government of Canada, *Canada's Economic Action Plan 2013*, 21 March, 2013.

South Africa (extracts)¹⁷

- Investment in domestic manufacturing encouraged through:
 - Providing an additional allowance in PPE, and
 - Additional training allowance
- The spend must be for the manufacture of goods in South Africa with certain goods specifically prohibited
- There is a framework of approval by the Minister of Trade through a 10-point scoring system
- Divided into Greenfield (wholly new project or assets) and Brownfield (expansion or upgrade)
- Existence of a 35% - 55% additional investment allowance in first-year
- Maximum spend limits
- Brownfield: cost of existing manufacturing assets must be increased by at least 25% (with caps)
- For both Greenfield and Brownfield - more than 50% of assets acquired must be brought into use within 4-years

Malaysia (extracts)¹⁸

- **Manufacturing** (and others) eligible for the following incentives:
 - Pioneer Status: Full or partial tax exemption for 5 years. Factory must be occupied in Malaysia
 - Investment Tax Allowance: 60 per cent (or 80 per cent for certain regions) for expenditure incurred within 5-years. Must be approved by Ministry of Finance
 - Accelerated Capital Allowance
 - Investment allowance – 20% in first year (appears to be all industries)
- Losses carried forward indefinitely but only against future income from same business source
- Capital allowances in respect of one business cannot be offset against income of another business. Therefore, if business ceases, benefits will be lost
- Manufacturing incentives (above) defined/approved by Ministry of International Trade and Industry (3 key requirements) and/or Ministry of Finance

5.2.3 Selection of an Investment Allowance

Having regard to:

- the above policy and design factors;
- the exclusions and parameters outlined at the start of this Report (eg R&D);
- the intention to stimulate investment in the food and grocery manufacturing sector through investment in tangible items (with this concept being wide-reaching to also include any specially designed buildings required to house the manufacturing plant); and
- members experience on which incentive has the potential to genuinely stimulate investment within their organisation,

the AFGC decided to pursue an investment allowance as its preferred tax incentive.

AFGC members consider that an investment allowance is more likely to stimulate investment in projects such as capacity expansion and efficiency improvements than other tax mechanisms, primarily on the basis that it assists in targeting specific projects.

¹⁷ International Bureau of Fiscal Documentation, *IBFD Tax Research Platform – Country Analyses and Country Surveys for South Africa*, accessed November 2013.

¹⁸ The Malaysian Investment Development Authority, *Invest in Malaysia (Part 2 – other incentives for September 2013)*, 2013.

The fact that an investment allowance directly offsets project costs means that it can improve the project's internal rate of return and improve the prospects of passing the company's hurdle rate. This is particularly important at the current time when businesses are more risk averse due to the negative effect of domestic and global economic conditions and retail market conditions on profitability and cash flow.

The AFGC proposes that an investment allowance be set at the rate of 30 percent, the same as the allowance given as part of the economic stimulus package in 2008-10.

Further, AFGC members indicated that, to be truly effective at stimulating investment, an investment allowance would need to apply to all parts of a project, including buildings especially designed to house the plant and equipment. If an allowance were limited purely to the baseline plant and equipment, without taking into account the additional technology and infrastructure to support the equipment, then it may not have the desired take up rate.

Take for example, a business considering installing a new production line, which requires the construction of a new building, or expansion of an existing building, to house the new machinery.

When the project is presented to the company board for approval, it would be the rate of return for the entire project that would be assessed against the company's internal hurdle rate. Limiting an allowance to only the new plant and equipment ignores the fact that there are significant other costs that need to be incurred and therefore may not have sufficient impact on the project's rate of return to stimulate investment in the overall project.

AFGC recognises that the intention of an allowance would be to stimulate new investment or bring forward investments that have otherwise been held back. The AFGC therefore recognises that an allowance would need a "lag period" of at least 6 months between its announcement and introduction to avoid being viewed as a rebate against *planned* projects. This approach not only allows time for companies to identify new projects, but should also overcome a negative perception that may have existed with the previous economic stimulus package from 2008-2010 where some taxpayers may have received incentives for projects already underway.

The AFGC also recognises that the allowance should have a reasonably high minimum spend, such as \$100,000, to indicate the intention to use the allowance to stimulate significant investments.

Finally, the AFGC recognises that there would be a need to set a time limit on an allowance, and considers three years appropriate. Commercially, this would give business time to plan and implement large scale projects. A period shorter than three years would reduce the effect of the allowance in stimulating significant investment in new capacity or efficiency improvements as these projects can take several years to plan, secure approval and implement.

To summarise, AFGC proposes an investment allowance with the following features:

- a 30 percent investment allowance, which allows companies to claim 30 percent of their expenditure on plant and equipment (widely defined) as a reduction in their taxable income for that year,
- the allowance would be in addition to existing depreciation allowances,
- companies must have a minimum spend of \$100,000 to claim the allowance in any year, and
- the allowance would be limited to three years.

6. Impacts of Investment Allowance

6.1 Economic Modelling

This part of the report considers the possible impact of the investment allowance (discussed in the previous section) to the Australian economy, including the effects on activity across the whole economy and at the industry level, and the impacts on Government taxation revenue.

The AFGC recognises that economic modelling will be a key consideration by Government in assessing the introduction of any new tax incentive. Accordingly, the AFGC have commissioned this analysis in preparation for its initial and ongoing discussion with stakeholders.

6.2 Proposed AFGC Policy Design

The tax incentive proposed by the AFGC will have the following design features:

Figure 6-1: Policy Design

Type of incentive:	Investment Allowance for Food and Grocery Manufacturing
Duration:	3 years
Rate:	30%
Exemptions:	None

Source: Australian Food and Grocery Council.

Note: 1. Food and grocery manufacturing includes the manufacture of meat products, processed seafood, dairy products, fruit and vegetable products, grains and other cereal products, bakery products, sugar and confectionary products, other food products, soft drink and cordials, paper products, human pharmaceuticals, cleaning products and toiletries and polymers.

6.3 Economic Scenarios

The introduction of an investment allowance is expected to stimulate investment in the food and grocery manufacturing sector. This increase in investment will have a two-fold effect on the economy. First, the initial investment activity will stimulate additional activity in industries that supply this investment – including construction, equipment manufacturing - and will stimulate imports in part due to the need to import capital goods (shown in scenarios 1 and 2). Second, the use of the new capital will boost production capacity in the economy and stimulate activity in the sectors accessing that new capital (shown in scenarios 3 and 4).



This analysis estimates the impact of an investment allowance during (both) the investment phase and once the new capital is operational. Impact estimates are presented as deviations from the baseline (in which the allowance-stimulated investment does not occur).

While the baseline reflects the current contribution of the food and grocery manufacturing sector to the economy, it should be noted that in the absence of an investment allowance in the baseline there could actually be a reduction in the contribution of the sector to the economy compared to current activity. That is, an allowance may act not only to stimulate investment, but also to future proof current activities by encouraging companies that are considering moving offshore (to countries with significant investment tax incentives, such as in parts of South East Asia) to retain and strengthen their presence in the Australian market. To the extent this assumption holds true, then the impact of the investment allowance may actually be greater than shown in the following modelling results.

The modelling framework makes use of several data sources including the latest available ABS input-output table in its database. This table relates to the 2009-10 financial year. As such, when the results in this analysis are presented in levels (rather than percentage changes), these are in 2009-10 terms.

6.4 Model Inputs

The AFGC requested that an analysis be undertaken of the potential impacts of a 30 per cent investment allowance. This means that food manufacturers can claim 30 per cent of their investment expenditure as a reduction against their taxable income. Essentially, this leads to an increase in the rate of return on new capital, and therefore to a larger capital stock.

The modelling examines the effect of this policy if it is available to businesses over a three year period.

Figure 6-2: Model inputs

Industry	Scenarios 1 and 2: investment allowance (3yrs)	change in capital stock	
		Scenario 3 : historical investment response	Scenario 4 : higher investment response
14 MeatProducts	30%	1.8%	3.5%
15 ProcSeafood	30%	1.8%	3.6%
16 DairyProduct	30%	1.8%	3.5%
17 FruitVegProd	30%	1.7%	3.3%
18 OilsFats	30%	1.7%	3.2%
19 GrainCerProd	30%	1.7%	3.2%
20 BakeryProd	30%	1.8%	3.6%
21 SugarConfec	30%	1.7%	3.3%
22 OtherFood	30%	1.7%	3.4%
23 SoftDrinkCor	30%	1.8%	3.5%
35 PaperProds	30%	1.6%	3.2%
38 HumanPharma	30%	1.6%	3.1%
41 CleanToilet	30%	1.6%	3.2%
42 Polymers	30%	1.6%	3.3%

Sources: 1) Investment allowance rate and timeframe - Australian Food and Grocery Council;
2) Change in capital stock - KPMG estimates based on the change in investment in Scenarios 1 and 2.

Figure 6-2 shows the industries within the model that had a three-year investment tax allowance applied to their investments. The investment allowance has been applied to KPMG’s CGE model to estimate the change in investment over the three years of implementation (Scenarios 1 and 2).

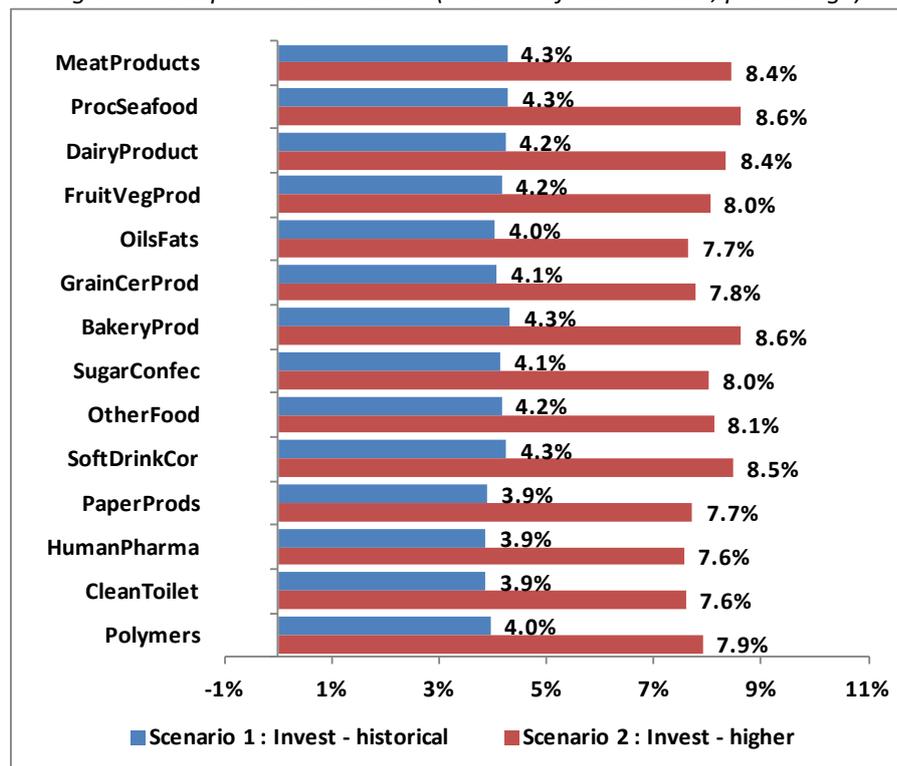
Figure 6-2 also shows the estimated change in capital stocks in the longer term that have been used as inputs in Scenarios 3 and 4. The change in capital stock is calculated from the additional investment results from first two scenarios. A key assumption implicit in the magnitude of the result is the degree to which investment is responsive to rates of return. **Scenarios 1 and 3 are conservatively based on a business as usual responsiveness of food and grocery investment to changes in rates of return. In Scenarios 2 and 4, food and grocery investment is assumed to be twice as responsive to changes in rates of return compared to the business as usual scenario.**

6.5 Economic Impacts

6.5.1 Investment impacts

The improved rate of return on capital makes investment in the food and grocery manufacturing industries more attractive. Figure 6-3 shows the impact of a 30 per cent allowance on investment in these industries.

Figure 6-3: Impact on investment (deviation from baseline, percentage)



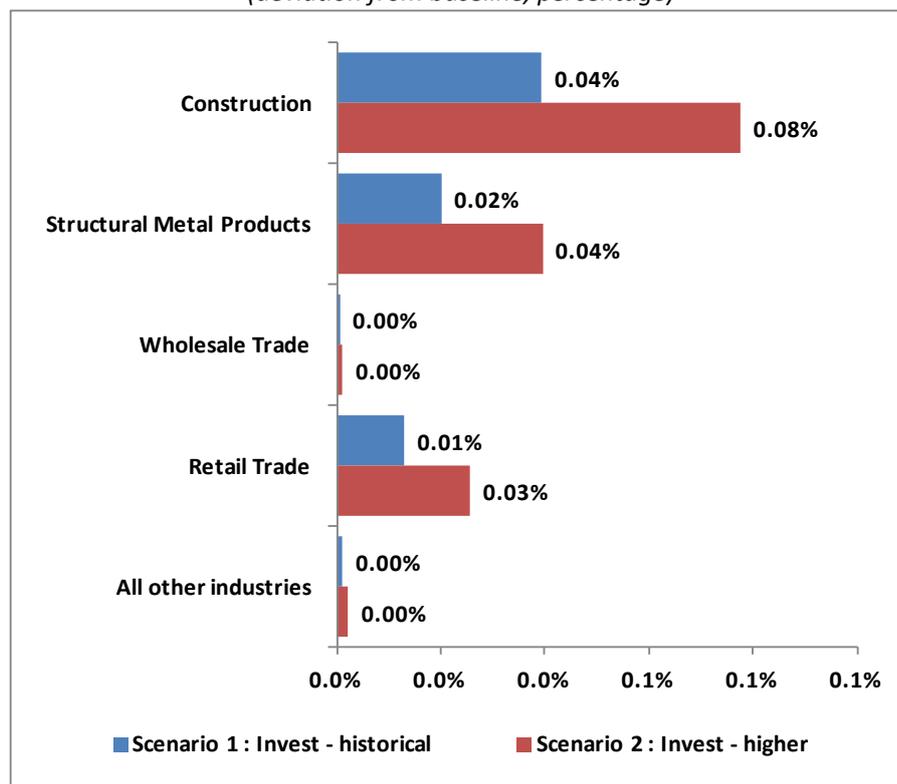
Source: KPMG CGE modelling.

If a 30 per cent investment allowance were available, investment in each of the food and grocery manufacturing industries would be between 3.9 per cent and 8.6 per cent higher than it would be without the allowance.

6.5.2 Industry impacts

The increase in investment in food and grocery manufacturing has a flow-on effect to stimulate activity in sectors that provide goods and services to investment activities – such as construction and metal product manufacturing. With additional activity in the economy, industries that support business (such as wholesale trade and financial services) and consumption (such as health and retail) also benefit.

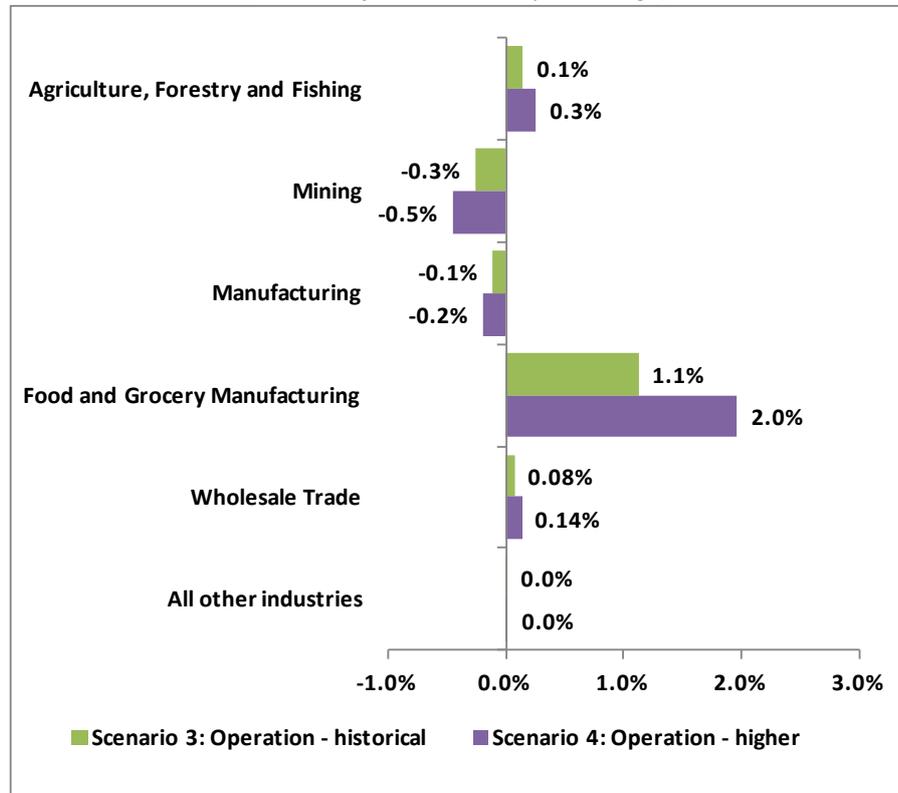
Figure 6-4: Impact on Industry Value-added – investment phase
(deviation from baseline, percentage)



Source: KPMG CGE modelling.

In the longer term, the additional investment will become operational capital. The food and grocery manufacturing industries that have invested in this capital will have additional production capacity. As there is more “new” capital in the sector, this is assumed to raise the average productivity of the overall capital stock in the sector.

Figure 6-5: Impact on Industry Value-added – operational phase
(deviation from baseline, percentage)



Source: KPMG CGE modelling.

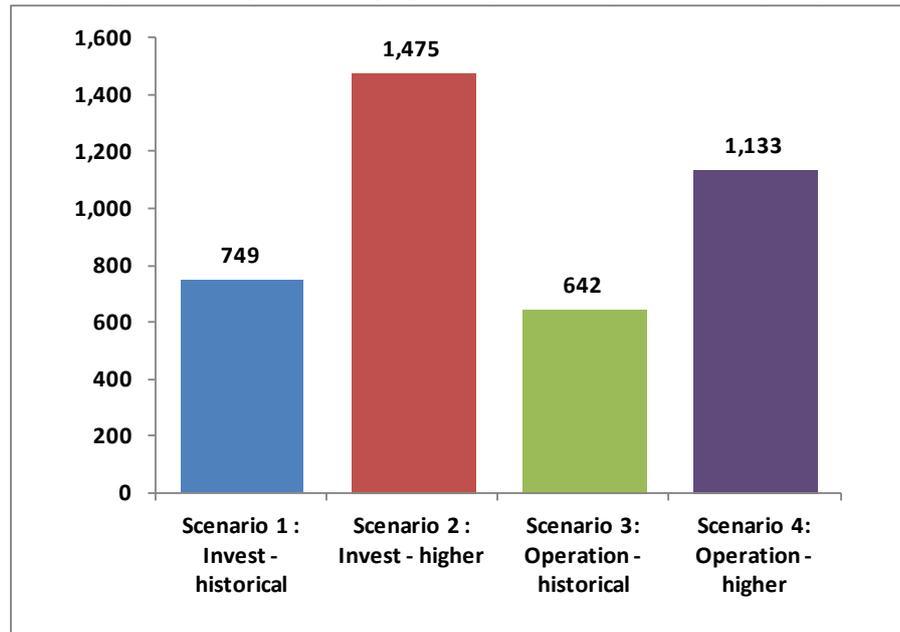
Food and grocery manufacturing industries will demand additional inputs from upstream sectors (such as agriculture), which will lead to higher activity along the supply chain. These sectors will also demand additional workers to support increased production, driving wages higher than they would have been in the baseline. This will have a slight negative impact on other industries as they compete for labour and other inputs, although at the macroeconomic level any change in real wages will be small.

A small appreciation of the exchange rate has a dampening effect on activity in trade exposed industries, leading to comparatively lower activity in industries that are either export-oriented (mining and tourism) or competing with imports (manufacturing). While agriculture is an export-oriented industry, the additional demand for its inputs from the food and grocery manufacturing industry offsets the impact of a higher \$A.

6.5.3 Employment Impacts

In addition to boosting aggregate value-added through the stimulation of construction and other investment-related activities, an increase in investment is also expected to lead to slightly higher employment in the economy compared to the baseline. It is estimated that, during the investment phase, there would be 750 to 1,475 more full-time equivalent (FTE) jobs compared to baseline employment levels in **each** year without the investment allowance.¹⁹

Figure 6-6: Impact on Employment (deviation from baseline, FTE)



Source: KPMG CGE modelling.

The majority of the employment impacts flowing from the initial capital expenditure are concentrated in the construction sector, which is also relatively labour-intensive in its input mix. The construction activity also stimulates activity in other sectors upstream and downstream of the construction sector, and, in response, these sectors will also generate higher employment as a result of the projects.

In the longer-run, the additional activity in the food and grocery sector is expected to boost employment in that industry.

¹⁹ Note that employment is a stock and, thus, employment impacts are not cumulative. For example, it can be thought of as the same additional job in each of the outer years, rather than one additional job each year compared to the previous year.

6.5.4 Tax Revenue Impacts

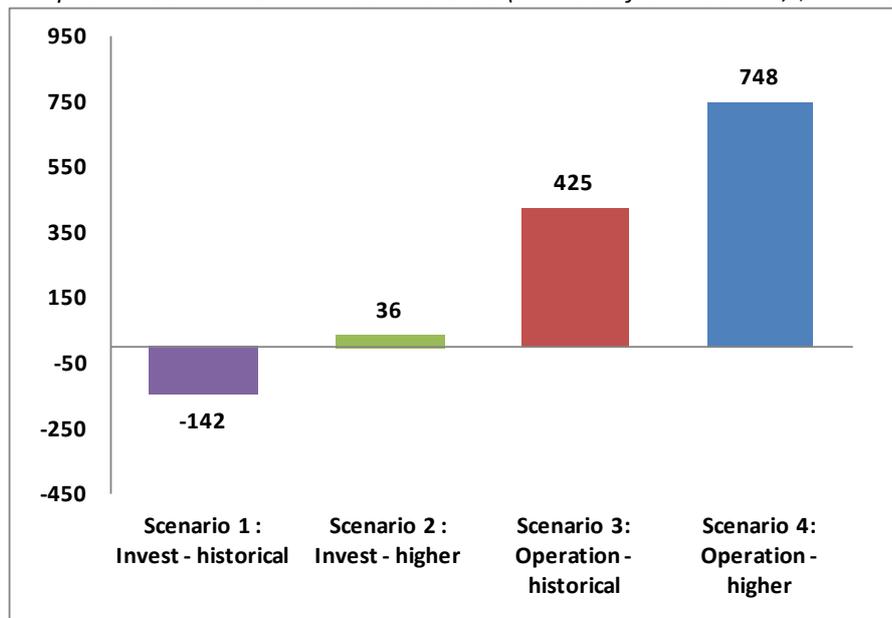
The investment allowance is designed to stimulate additional food and grocery manufacturing activity. The discussion above showed that the higher activity in this industry (compared to the baseline) will lead to additional activity across the economy. This activity is expected to contribute to higher tax collections, which will offset some of the direct cost of the investment allowance.

The investment allowance leads to a reduction in the taxable income of those companies to which it is applied, resulting in lower business income tax collections while this allowance is available.

In the longer term, additional capital in the food and grocery manufacturing sector leads to some switching in activity away from trade-oriented industries (such as other manufacturing), towards food and grocery manufacturing and supporting industries. As more capital is available in total to the economy, this flows through to increased business tax revenues over the longer-term.

Higher activity in the economy (compared to a baseline without the investment allowance) will also lead to increased prices (including wages). The increase in activity and price levels combine to provide higher tax collections across many other tax revenue streams.

Figure 6-7: Impact on Government Taxation Revenue (deviation from baseline, \$ million, 2009-10)



Source: KPMG CGE modelling.

The figure above shows that the additional activity and the higher prices across the economy, as a result of the investment incentive (assuming there is a market for the resulting additional production), may result in an ongoing net gain in taxation revenue. In the short term, during the investment phase of the investment allowance, the impact to taxation revenues would be in the range of an annual loss of \$140 million to a net gain of \$35 million for each of the three years of the allowance, depending on the level of response to the allowance. Once new investments are operational, there would be an ongoing positive boost to taxation revenue of between \$425 million and \$750 million per annum.

It should be noted that Government expenditure is assumed to be fixed in the short-term. This means that, as GDP increases, consumption increases by more than it would if it was assumed that government spending moved in line with GDP or consumption.

The government taxation revenue gain in the long-term simulations results from a bigger economy (more capital leads to more production). The relationship then between the size of government and the size of the economy is key to the net fiscal impact.

- If the size of government is assumed to not change at all, the fiscal impact is an annual gain of between \$425 million and \$748 million (equivalent to between 0.13 and 0.22 per cent of total 2009-10 government taxation revenues). This is not realistic – the share of government spending in GDP changes very slowly.
- If it is assumed that the share of government spending in nominal GDP is constant, the fiscal impact is an annual loss of between \$44 million and \$81 million. This is also not realistic – as this would assume that the share of government spending in nominal GDP responds lock-step with the marginal impact of policy changes on nominal GDP.

The relationship between government spending and GDP is a longer run relationship determined by growth factors, rather than the marginal impacts of policy. The path of government spending into the future is essentially driven by policy and institutional factors, and so an economic model needs to make broad assumptions about the size of government in the long-run.

The “no change in government” scenario implies a small reduction in the share of government spending in nominal GDP, while the second scenario above involves a constant share. The reality is likely to be somewhere in between, particularly in light of a global move in favour of increased fiscal austerity.

Whatever the case, it should be remembered that the impacts on the fiscal balance of these simulations are the result of a larger economy, and therefore higher economic welfare for the average citizen. Questions of the balance between public and private absorption are beyond the scope of this analysis and do not negate the positive impacts on living standards implied by this analysis.

Appendix A: Economic Modelling

This attachment discusses and presents the economic modelling approach used to estimate the economic impact of an investment allowance for the food and grocery manufacturing sector on the Australian economy and on Government taxation revenues.

To estimate these impacts, this study employed a comparative static, computable general equilibrium (CGE) model, described below.

KPMG's latest CGE model, FLAGSHIP, has been developed by Dr Ashley Winston, KPMG Chief Economist and Director for the KPMG Institute of Economic Modelling, with expert assistance from the Institute's senior economic modelling team. FLAGSHIP brings together 80 years of combined modelling experience (gained with the world's pre-eminent economic modelling institutions, and in economic policy advice and research roles with several international governments), the latest theoretical developments in the field and a database constructed from the latest available data. The model embodies an array of features that enhance its utility in policy and economic modelling, including sophisticated economic and behavioural assumptions (discussed below).

A1. Modelling economic impacts

To model the economic impacts beyond those that directly relate to the food and grocery manufacturing sector, it is necessary to employ a modelling technique that makes use of information about the linkages of the sector within the broader economic context. Input-output (IO) tables published by the ABS provide detailed information on the upstream and downstream linkages of each industry in the economy.

- **Upstream linkages** refer to the sources of inputs to the food manufacturing sector. These linkages may be in the form of the use of intermediate inputs produced by other domestic industries, imported intermediate inputs, labour and other factors of production. For example, food and grocery manufacturing would use inputs such as labour, unprocessed fruit and vegetables, metal cylinders, fuel, and services such as those provided by the transport industry. This can be thought of as information regarding the cost-side of the food and grocery manufacturing sector.
- **Downstream linkages** refer to those of economic agents that purchase the food and grocery manufacturing sector's output. For example, the restaurants sector might purchase manufactured food as part of its operations. Consequently, downstream linkages include sales to other industries that use the output of the food and grocery manufacturing sector as an intermediate input to their own production process or final users of the product like households, the government or foreigners. This can be thought of as information regarding the sales-side of the food and grocery manufacturing sector.

An IO table is a useful tool as a snapshot of the economic flows within the economy at the time the data was collected. An input-output table can be used to provide simplified estimates of the sensitivity of the economy (measured by employment, value added or turnover) to small changes (termed 'shocks') within industries. An example of such a shock might be a ten per cent increase in the price of fuel. This would lead to an increase in the costs for all industries that use fuel, particularly impacting on demand for those industries that use a relatively large proportion of fuel. This sort of analysis can be used at the industry-wide level to estimate IO multipliers – that is, the total economy-wide impact on employment or output resulting from a change in one industry, taking into account the change in demand for the outputs of other industries.

An IO table in itself is not an economic model, and IO multipliers are raw and ad hoc in nature. A major limitation of the use of IO multipliers when used to conduct impact analysis is that the relationship between industry inputs and outputs (the coefficients) are fixed, implying that industry structure remains unchanged by the shock to the industry (for example, a change in demand or prices). Furthermore, IO analysis imposes no resource constraints and so industries (and indeed the entire economy) can access unlimited supplies of inputs at fixed costs.

In reality, scarcity of inputs (e.g. skilled labour, land etc) mean that these inputs are affected by and respond to changes in prices (e.g. wages) driven by supply and demand adjustments. For example, higher prices/wages driven by the increase in demand for labour to expand food and grocery manufacturing will, at the margin, increase costs in other sectors and reduce demand for labour by some other parts of the economy.

In IO analysis, where all adjustments relate only to quantities produced, this type of feedback response does not occur, and sectors can access infinite amounts of inputs at fixed costs. Consequently, an IO model can result in an overstatement of the impacts on the economy. For these reasons, while the ABS did for some time publish IO multipliers, it has ceased publishing these estimates in recent years over concerns about their validity.

A computable general equilibrium (CGE) model makes use of an IO table in the construction of its database, but is extended to make more sophisticated economic and behavioural assumptions including:

- recognising resource constraints and responses of businesses, workers through adjusting prices/wages – this is particularly important for this study given the resource constraints and limitations that have been prevalent in the economy;
- capturing employment/capital (and other factors inputs) substitution for example, by responding to higher wages by increasing the use of capital;
- capturing a much wider set of economic impacts such as behavioural responses to price changes of consumers, investors, foreigners etc; and
- can include the effects of such things as technological change and shifts in consumer preferences.

By introducing these additional economic variables and constraints, CGE models are able to model beyond the first round impact of an event or policy, account for scarcity and understand behavioural response to economic variables. This added sophistication means that a CGE model allows for feedback responses by producers, consumers, investors and foreigners and so the results are less likely to be overstated particularly over the medium to long run.

Appendix B: Detailed Results

Figure B-1: Impact of 30% tax allowance on value-added by sector
(deviation from baseline, \$ million, 2009-10)

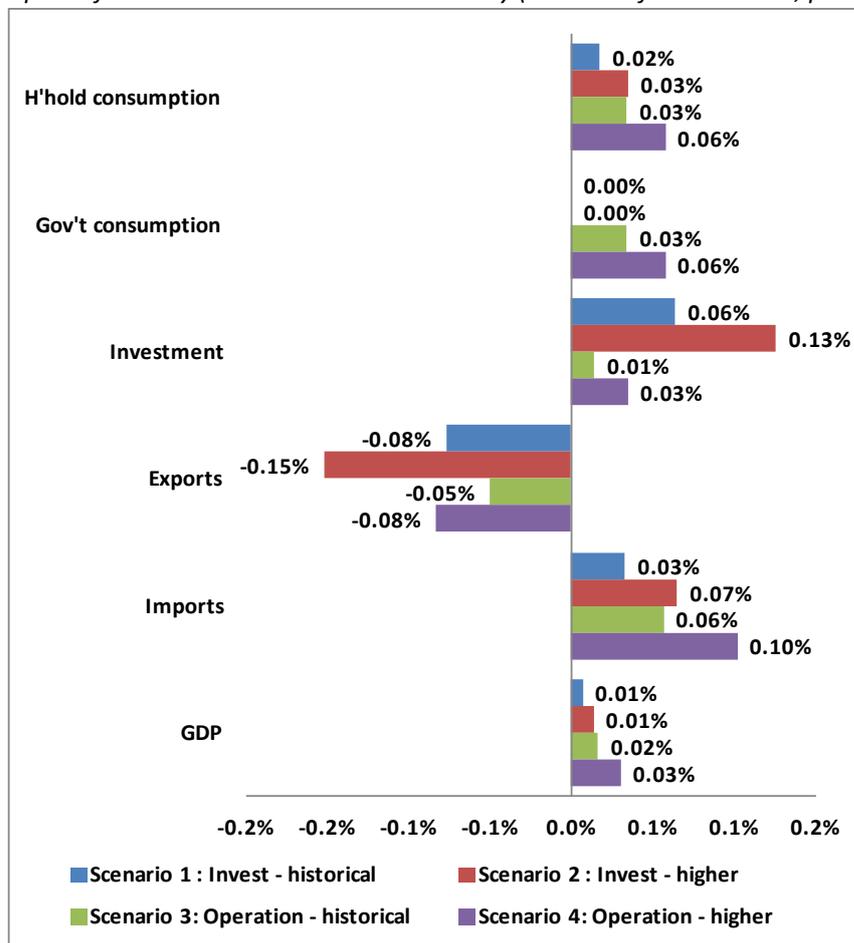
	value-add (\$m, 2009-10)			
	Scenario 1 : Invest - historical	Scenario 2 : Invest - higher	Scenario 3: Operation - historical	Scenario 4: Operation - higher
Agriculture, Forestry and Fishing	-3	-6	41	72
Mining	-8	-16	-249	-432
Manufacturing	-5	-9	-85	-145
Food and Grocery Manufacturing	-4	-8	341	596
Structural Metal Products	1	2	-4	-6
Electricity, Gas, Water and Waste	3	6	5	10
Construction	37	74	1	9
Wholesale Trade	0	1	43	77
Retail Trade	7	15	26	44
Accommodation and Food Services	1	2	-2	-3
Transport, Postal and Warehousing	-2	-4	10	18
Information Media and Telecommunication	2	3	7	13
Finance and Insurance	10	20	5	9
Rental, Hiring and Real Estate	1	2	2	3
Professional, Scientific and Technical	9	19	-13	-20
Admin and Support Services	1	2	4	8
Public Admin and Safety	1	2	19	32
Education	-4	-8	-15	-28
Health care and social Assistance	5	10	18	30
Arts and Recreation	1	2	1	1
Other Services	3	6	4	7
Ownership of Dwellings	0	0	17	32
	58	113	178	329

Figure B-2: Impact of 30% tax allowance on investment by sector
(deviation from baseline, \$ million, 2009-10)

	investment (\$m, 2009-10)			
	Scenario 1 : Invest - historical	Scenario 2 : Invest - higher	Scenario 3: Operation - historical	Scenario 4: Operation - higher
Agriculture, Forestry and Fishing	-4	-7	35	62
Mining	-47	-92	-138	-239
Manufacturing	-12	-24	-15	-26
Food and Grocery Manufacturing	248	489	103	204
Structural Metal Products	1	1	0	0
Electricity, Gas, Water and Waste	6	12	8	15
Construction	15	29	3	6
Wholesale Trade	-1	-3	7	12
Retail Trade	2	3	4	7
Accommodation and Food Services	-1	-2	0	0
Transport, Postal and Warehousing	-5	-9	10	19
Information Media and Telecommunicati	6	11	4	8
Finance and Insurance	5	9	1	3
Rental, Hiring and Real Estate	0	0	5	9
Professional, Scientific and Technical	5	11	0	1
Admin and Support Services	0	0	1	2
Public Admin and Safety	-1	-2	8	15
Education	-1	-3	0	0
Health care and social Assistance	0	1	3	6
Arts and Recreation	1	1	1	1
Other Services	1	2	1	2
Ownership of Dwellings	18	35	16	29
	234	461	56	133

The higher activity associated with investment (in the first phase) or the operation of new capital (in the second phase) will lead to slightly higher GDP across the economy.

Figure B-3: Impact of 30% tax allowance on the economy (deviation from baseline, percentage)



Source: KPMG CGE modelling

There is no significant impact on GDP in the short-run as there are “gestation” lags involved in investment projects. Until the new capital comes on-line, resources are being diverted into construction that does not immediately increase productive capacity for the economy. The economy (i.e. GDP) is very slightly larger even in the construction phase as the investment allowance lowers the average tax burden on a unit of economic activity.

Investment must be financed by savings, and without an increase in the national propensity to save, an increase in national investment will be financed, at the margin and in the aggregate, by foreign saving. This leads to a small increase in the current account deficit and an increase in the terms of trade.

Once the capital is operational (scenarios 3 and 4), the additional productive capacity leads to an increase in GDP²⁰.

²⁰ It is assumed that the additional investment allows companies to supply currently unmet or unattainable export demand.

Appendix C: Australian Tax Incentive Experience (selected examples)

Type of Incentive	Industry	Incentive	Time Period	Comments
Accelerated Depreciation	Australian ship owners depreciate over 10-years	Depreciate over 10-years	1 July 2012 - current	Encourage investment in domestic shipping owners Also includes balancing adjustment roll-over relief
	Grapevines/ Horticultural	4-years (Grapevine)	Long-standing and current	Clear connection to wine industry Substantial distortion led to vine-pulling scheme
	Water facilities – Primary Production	1/3 capital expenditure each year (Dams, irrigation, channels, bores)	1980 - current	Agriculture, farming, viticulture seen as important to Australia’s ‘brand’. ‘Farming’ iconic to Australia Landcare operation 100%
	Manufacturing	Write-off over 5-years for capital expenditure in certain circumstances in <u>new manufacturing plant</u> that was <u>owned and used in Australia</u>	1962 – 1971 Restored in 1972 to 1973	For operations for metals and minerals treatment.
	Specified Industries	4% versus 2.5%	1983 to current	Hotels, short-term accommodation, manufacturing, refining petroleum, milling, timber, pasteurising milk, canning and bottling

Type of Incentive	Industry	Incentive	Time Period	Comments
Accelerated Depreciation (cont)	Carbon Sinks	Immediate Deduction	2007 to 2012 (reverting to 7%)	Focus of Australia's role in Climate Change
	Variety of accelerated depreciation	Oil & Gas Harvesters and Tractors	2002 to 2007	
	Management and investment companies scheme (MIC) - certified small medium enterprises in specified business activities such as manufacturing	'Front-end' concessions in the form of tax deductions for investments in MICs	1983 to 1992	With no more than 100 employees or a net worth exceeding AUD 6 million and projected average sales growth or more than 20% over a 3 year duration.
	Film Industry	150% accelerated deduction (and 50% exemption on profits)	1981 - 2009	Since scaled back to 100% (and no exemption)
Investment Allowance	Comprehensive	Tax Deduction for capital expenditure > \$500 in acquiring or constructing new property.	1976 to 1988	Required investment more than \$500 and not second-hand
	Comprehensive	30% reducing to 10%	2008 to 2010	Required investment more than \$10,000 and not second-hand

Type of Incentive	Industry	Incentive	Time Period	Comments
Investment Credits/Offset	Films	15% to 40% refundable offset for defined	2001 (est) to current	To attract location and production activities to Australia – physical activities to be conducted in Australia
	Heritage Buildings	10% rebate		
	Regional Headquarters	100 deduction in respect of start-up costs (tangible assets excluded)	Current	Encourage multinational corporations to locate regional headquarters in Australia Treasurer generally determines eligibility
	Urban Water and Desalination Plan	Rebate of 10% of eligible up-front capital costs of projects approved by the Minister OR Rebate of 50% of eligible up-front capital costs for stormwater harvesting projects	2008 to 2013	Maximum of \$100m spend (for 10%) Maximum of \$20m spend (for 50%) Offset provided on completion of certain milestones
Other	Ships	Balancing adjustment roll-over relief for Australian ship owners if they cease to hold a vessel and purchase another eligible vessel within two years		
	Film	150% accelerated deduction (and 50% exemption on profits)		

Appendix D: References

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