STATEMENT 4: OPPORTUNITIES AND CHALLENGES OF AN ECONOMY IN TRANSITION

The statement discusses the opportunities and challenges of an economy in transition, particularly those flowing from the shifting weight of the global economy towards Asia. The statement draws policy lessons from an analysis of how the Australian economy has changed over the longer term and in the more recent past. It concludes that the policy settings for managing this transition — particularly whether we embrace changes in the global economy — will be a critical determinant of Australia's future economic success.

STATEMENT 4: OPPORTUNITIES AND CHALLENGES OF AN ECONOMY IN TRANSITION

INTRODUCTION

Over time Australia has undergone major changes in the structure of its economy, converting its natural advantages into an economy built primarily on the skills, effort and innovation of its people and businesses. This transformation into a knowledge-based, diversified and service-oriented economy will underpin Australia's long-term prosperity.

The current shift in the global economy towards Asia will also have a profound influence on this evolution.

For Australia, this change in the world's economic geography is evident in the high terms of trade and the gathering pace of the mining boom, which are being underpinned by strong demand for our mineral resources. Australia has been able to take advantage of high commodity prices, including through the shift of resources to the booming industries and states. These developments have resulted in challenging times for other trade-exposed industries — reflecting a prolonged shift in comparative advantage.

But the implications will not stop at the mining boom. Asia's re-emergence will have other major and lasting effects on how Australia does business in the 21st century. As incomes in Asia rise and as more people are brought into the global middle class, consumption patterns will continue to shift towards higher order goods and services. The rise in the Asian middle class will drive global consumer markets and lead to broader economic opportunities for Australia.

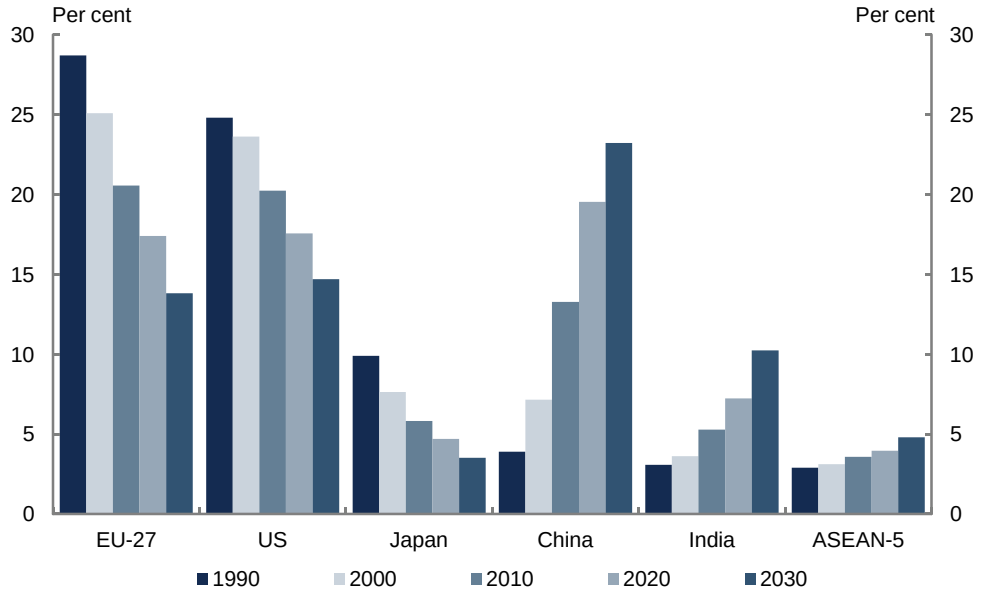
To maximise the opportunities that will flow from the continued rise of Asia, Australia needs to continue to change and innovate — as it has done in the past. We need policy settings and institutions that harness the talents of our people and allow them to make the most productive use of those talents and respond to a changing world. Australia will also need to manage some of the short term challenges from the current mining boom. Managing this transition successfully will allow Australia to convert opportunities into lasting prosperity.

The need to lay the groundwork for transition reinforces the importance of policies, including those in this Budget, to provide for macroeconomic stability, flexibility and appropriate incentives — including a price on carbon — for individuals and firms, and that develop peoples' skills to make full use of their talents. Doing so will allow for an improvement in material living standards across the community, notwithstanding the pressures from other long-term drivers affecting Australia.

THE ASIAN CENTURY AND THE CHANGING STRUCTURE OF AUSTRALIA'S ECONOMY

The continuing economic re-emergence of Asia has lifted global economic growth and is leading to a shift in the world's economic activity from west to east. Together, China and India accounted for less than a tenth of world gross domestic product (GDP) in 1990 and almost a fifth in 2010 (Chart 1). In 2020 they are projected to account for more than a quarter of world GDP — which will be equivalent to the combined share of US, Japan and ASEAN-5. In 2030 they are projected to account for a third of world GDP.

Chart 1: World GDP projections



Note: Purchasing power parity adjusted GDP. ASEAN-5 comprises Indonesia, Malaysia, The Philippines, Thailand and Vietnam.
Source: The Conference Board Total Economy Database, Maddison (2007), IMF World Economic Outlook Database, World Bank, OECD, United Nations Population Database and Treasury.

Asia's rise will bring great economic opportunities closer to Australia's doorstep. It will also require the economy to make a major transition, of a magnitude akin to those that have been traversed in the past.

While robust economic conditions in Australia's region are driving strong demand for Australia's mineral resources, the current transition that Australia faces is much broader than the mining boom. The growing cities of Asia will be populated by an increasingly wealthy and upwardly mobile middle class, and this will bring a broader range of opportunities and challenges for Australia that will become increasingly evident.

To take advantage of this global transition in economic geography, to be able to respond to inevitable shocks in the future and to ensure that the prosperity we enjoy

today outlasts the current surge in the terms of trade, Australia needs to manage a transition in economic structure and build flexibility while providing the basis for future growth.

This is not the first time in our history when we have had to make major transitions. For Australia, change has been the norm rather than the exception. The critical determinant for success, past and future, is whether we embrace the need for change or attempt to resist the economic forces at work.

The movement towards a service-based knowledge economy

While mining and agriculture continue to play a valuable role, Australia has become more than just a commodity economy. Over time, a wide variety of forces has seen Australia convert its natural advantages into a knowledge-based, diversified and service-oriented economy, and this transition has continued throughout the mining boom.

In the 19th century, pastoral and agricultural industries were the dominant contributors to economic growth in Australia. They established their dominance by taking advantage of a combination of factors, including developments in Europe, Australia's rich natural resource endowments and a number of 'learning by doing' innovations to improve productivity — including innovations that are today taken for granted, such as fencing (Sinclair 1976). At one point in the mid-1830s, pastoral production alone may have contributed more than a quarter of Australian GDP (Butlin 1985).

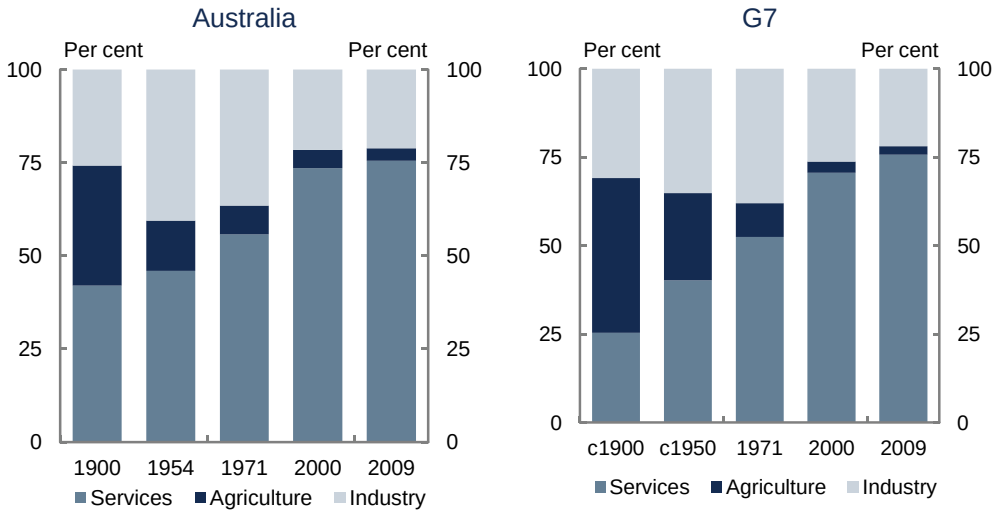
Consistent with the experience of other advanced countries, agriculture's share of economic activity has declined. Through adopting new technologies and using scarce resources better, productivity growth in agriculture has been strong — producing more food and other basic rural goods that people demand while drawing on less labour.

Gradual industrialisation, arguably beginning in the middle of the 19th century, saw manufacturing grow in importance. As labour productivity and incomes grew, consumer tastes shifted towards new types of manufactured goods (like consumer durables) that were being brought onto the marketplace. The World Wars also provided further impetus for domestic industrial production.

A period of relative decline in the industrial base, as a share of both GDP and employment, has since followed and is continuing today — also a common phenomenon across developed countries. This relative decline has occurred as global barriers to trade fell and as the service industries expanded, reflecting consumer and business demand for an increasingly diverse range of services — including in the areas of recreation, education, professional services, finance, health and information and communication.

Over the past century or so, Australia's economic evolution has therefore followed an overall pattern similar to the world's most advanced economies (Chart 2), notwithstanding Australia's relatively large mining sector. Rather than standing still as an agrarian society dependent on the land for its economic outcomes, or as an economy characterised by low-skilled jobs, Australia's economic development has seen the benefits of a rich natural resource endowment being transformed into a diverse economy that is service-oriented yet maintains a core of technologically advanced sectors engaged in agricultural, mining and other industrial production.

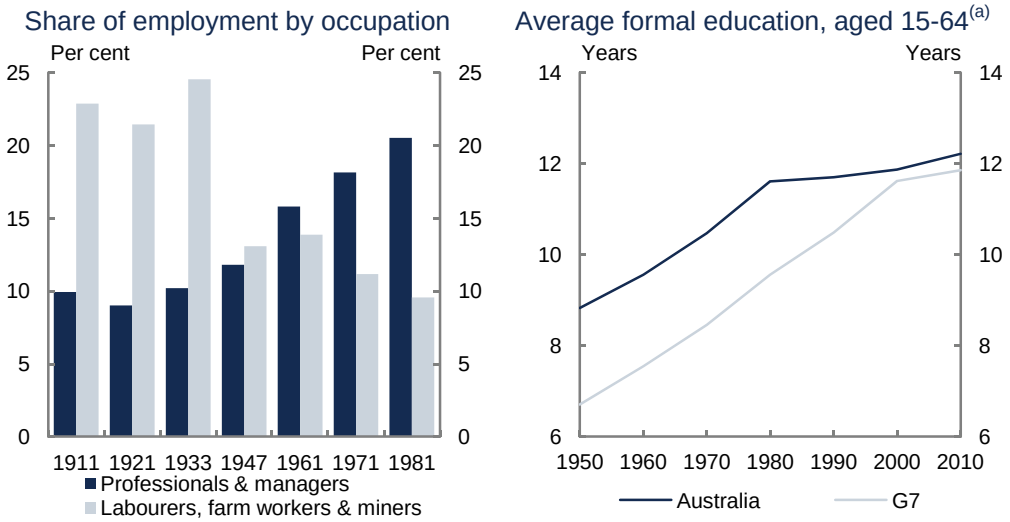
Chart 2: Employment share by activity



Note: Identifies broad changes and does not fully account for definitional or technical changes in data. Industry includes mining, manufacturing, construction, gas, electricity and water. Agriculture includes forestry and fishery. See also Withers et al. (1985) for similar historical estimates for Australia. Withers et al. (1985) estimated that Australian employment in agriculture and industry in 1900 was around a quarter and third respectively.
Source: Feinstein (1999), OECD Statistics and Treasury.

The relative decline in low-skilled jobs has been accompanied by a shift towards a better educated workforce and higher skilled occupations (Chart 3). As in other economies, the educational outcomes of the labour force improved significantly over the latter half of the 20th century. Retention rates to Year 12 in Australia, for example, have more than trebled between 1968 and 2010 — from 23 to 78 per cent (ABS 2001 and 2010a).

Chart 3: Occupations and education in Australia



(a) Years of primary, secondary and tertiary education for all people aged 15-64.
Source: Withers et al. (1985), World Bank EdStats, Barro and Lee (2010) and Treasury.

Australia has also avoided the levels of inequality seen in some other advanced countries (OECD 2008), achieving a better spread of the gains of economic progress. Australia has high levels of intergenerational income mobility that have not changed significantly in recent decades (Leigh 2007), a reflection of the relatively high standard of minimum education outcomes in Australia (Wilkie 2007).

Recent patterns: developments over the first phase of the mining boom

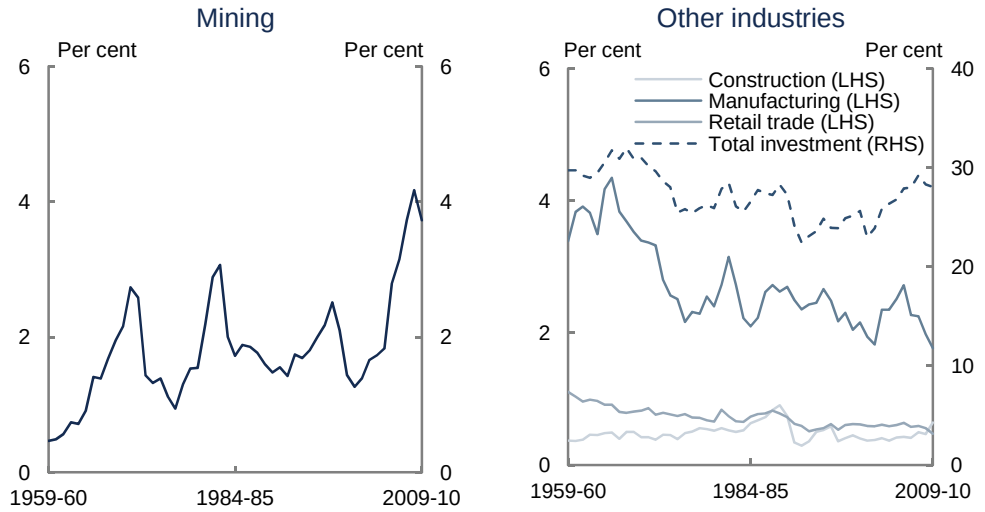
Mining boom mark I, which began in 2003-04 and continued until the global financial crisis, gave rise to an unprecedented and ongoing rise in mining investment. But despite the growth of the mining sector, the overall long-term trend of an ongoing shift towards service industries and stronger relative growth in skilled over unskilled jobs has continued.

The period of the mining boom to date has also demonstrated the flexibility of the Australian economy in dealing with significant structural change.

A mining investment boom

Strong demand for Australia's mineral commodities has led to strong growth in mining investment over the last decade (Chart 4), reaching its highest level in history (RBA 2010a). At its peak in 2008-09, mining investment was above 4 per cent of GDP — around eight times its share 50 years ago and matching levels of manufacturing investment in the 1960s.

Chart 4: Investment as a share of GDP



Source: ABS 5204.0 and Treasury.

Investment in the other sectors as a share of GDP, however, has broadly remained flat. While manufacturing investment has experienced a gradual decline over the longer term — reflecting the declining output share of manufacturing common to developed countries — it has remained broadly stable as a share of GDP in the 2000s. The boom in mining investment, together with a lift in general government investment, has been a key driver behind the lift in total investment. In 2009-10, total investment as a share of GDP had risen to match the high levels seen in the 1960s and 1980s.

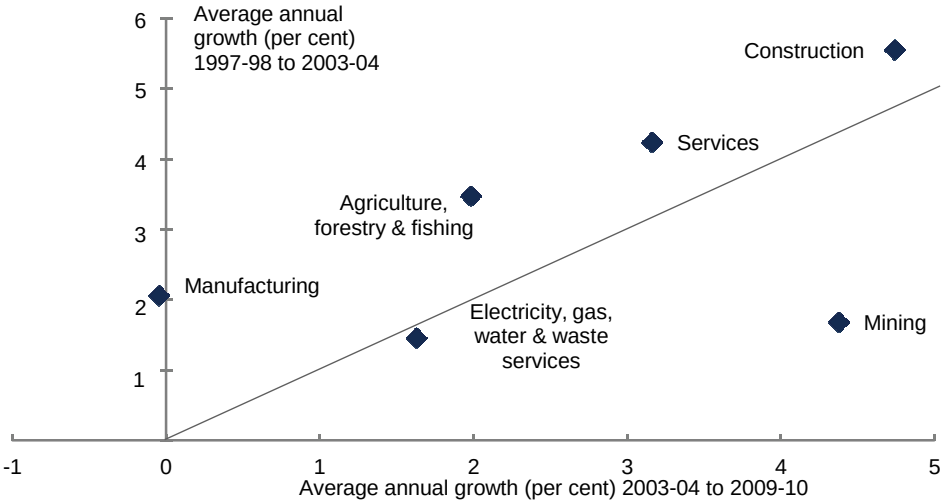
Trends in industry production have continued

The strong terms of trade has placed pressure on manufacturing and other trade-exposed sectors through a strong appreciation in the real exchange rate.

The expected result of an appreciation in the real exchange rate is for output in mining industries to grow faster than other sectors that face foreign competition but which are not enjoying the benefits of the high terms of trade. Sectors not exposed to international trade, such as some parts of services, would be expected to grow at a rate somewhere in between.

While Australia has also been faced with other significant economic events since the mining boom began, such as persistent periods of drought and the global financial crisis, the long-term trends towards services and the relative decline of manufacturing have continued (Chart 5). Unlike mining and construction, manufacturing did not experience real output growth during the boom — despite an average growth rate of 2 per cent per annum in the six-year period prior to mining boom mark I.

Chart 5: Growth by industry, before and during the mining boom



Note: Gross value added, 2008-09 dollars. Services exclude construction and utilities. A point close to the diagonal line indicates that the industry grew during the boom at a similar rate to the six years prior to the boom. A point north (south) of the diagonal indicates that the industry grew slower (faster) during the boom. The further a point is away from the origin, the faster the rate of growth or contraction.
Source: ABS 5206.0 and Treasury.

There has been a long-term shift away from the parts of manufacturing characterised by low profit margins and low-skilled jobs paying relatively low wages. However, broad industry level trends are not givens for underlying sub-industries and firms. While the relative decline in some sub-industries (such as textiles and clothing) accelerated, others linked to the mining sector (such as metal and mineral products and to a lesser degree machinery and equipment) have fared better.

A responsive, diversified and increasingly skilled labour market

Labour market developments over the mining boom to date demonstrated the economy's flexibility and continued the shift to a diversified, highly skilled workforce.

Responsiveness of earnings growth

As non-rural commodity export prices have risen sharply, the prices received for mining outputs have grown at a much faster rate than the returns to those working in the mining sector.

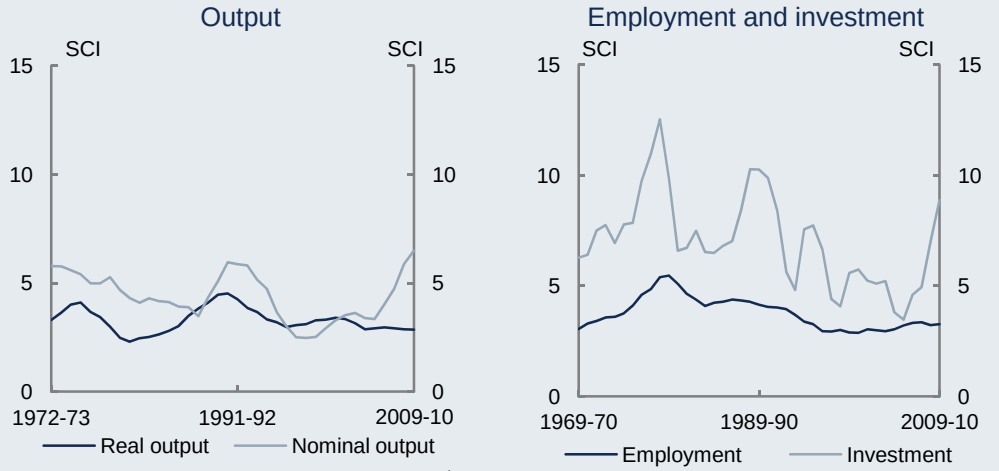
Box 1: How fast is the composition of the economy changing?

The composition of the economy is constantly changing, with around 300,000 businesses entering and exiting and half a million workers changing industries in a typical year (ABS 2010b and 2010c). The recent pace of change, in some respects, is as big a change in the industry composition of the economy as seen in recent history. While there is no all encompassing measure available, structural change indices (SCIs) show the rate at which the economy's composition changes. While index construction methods differ (and hence their volatility and magnitudes), SCIs generally point to common themes.

Past periods of rapid structural change have broadly coincided with the rise of services, the relative decline of agriculture and manufacturing, downturns in the economic cycle and major reforms. The rate of structural change in recent years, using nominal output and investment shares, has been at historically high levels (Chart 6). These highs reflect a mining investment boom driven by high export prices. The pace of compositional change in investment can be expected to pick up further in light of the strong mining investment outlook.

The pace of compositional change in terms of real output and employment has been more in line with recent history. This reflects the capital intensity of the mining sector and lags in production constraining the pace of change in the composition of real output.

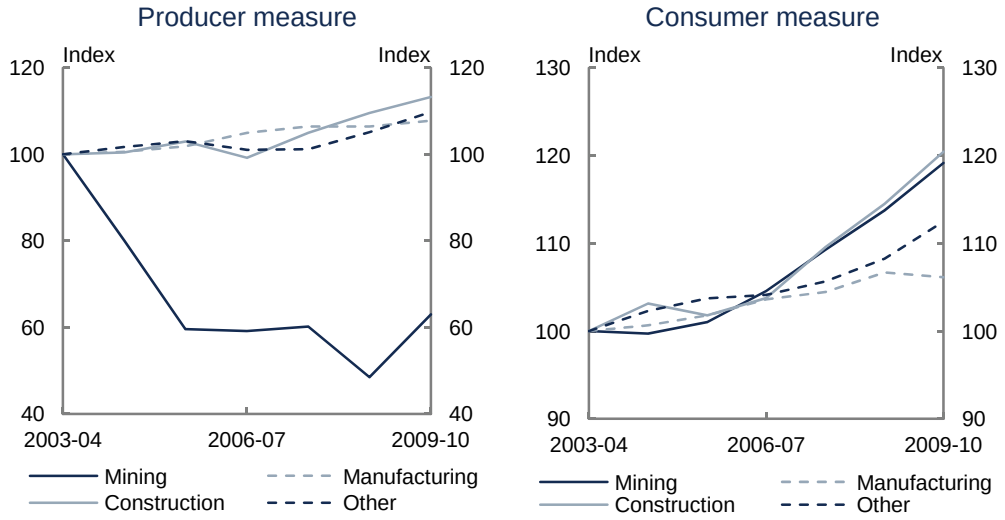
Chart 6: Structural change between industries



Note: SCI = $1/2\sum 100\left|x_{i,t}-x_{i,t-5}\right|$ where $x_{i,t}$ is the i^{th} industry group's average share of output, employment or investment in 5-years to time t for 9 industry groupings. The SCI shows the rate at which the economy's composition changes. SCIs take values between 0 and 100. For example, where the share of one industry group increases by one percentage point over a five year period, with a corresponding decrease in other groups, the SCI would have a value of 1. A large number represents a sharp change in industry composition. Real output in 2008-09 dollars. See also RBA (2010b) and Productivity Commission (1998).
Source: ABS 5204.0, 5206.0 and 6291.0, RBA, Butlin (1985), Withers et al. (1985) and Treasury.

Hence, the real producer measure of average earnings in the mining sector (labour costs relative to producer prices) has declined sharply, halving during the mining boom (Chart 7).[1] This is in effect the price signal to mining firms to hire more labour, driving strong employment growth in the mining sector. In contrast, the relative wage costs for firms in other industries like manufacturing have increased.

Chart 7: Real average earnings by industry
Index 2003-04=100



Source: ABS 6302.0, 6401.0, 6291.0.55.001, 5206.0 and Treasury.

Yet for workers, the incentives they face and their standard of living depend on how their earnings have fared relative to consumer prices, not producer prices. Average earnings in both nominal and real consumer terms (that is, the consumption power of earnings) have broadly risen across the board — albeit much more quickly in the mining and related sectors since the mid-2000s.

Relatively strong growth in earnings in the booming sectors is a sign of the economy's flexibility. This reflects positively on past labour market reforms which have helped moderate across the board wage inflation pressures.

The rise in the consumer purchasing power of earnings can also be seen in the growth in real incomes across households. From 2000-01 to 2007-08, real disposable household incomes (including transfers and adjusted for household size) rose by 42 per cent for all households and rose by 36 per cent for the low income earner group — that is, those in the second and third income deciles (ABS 2010d).

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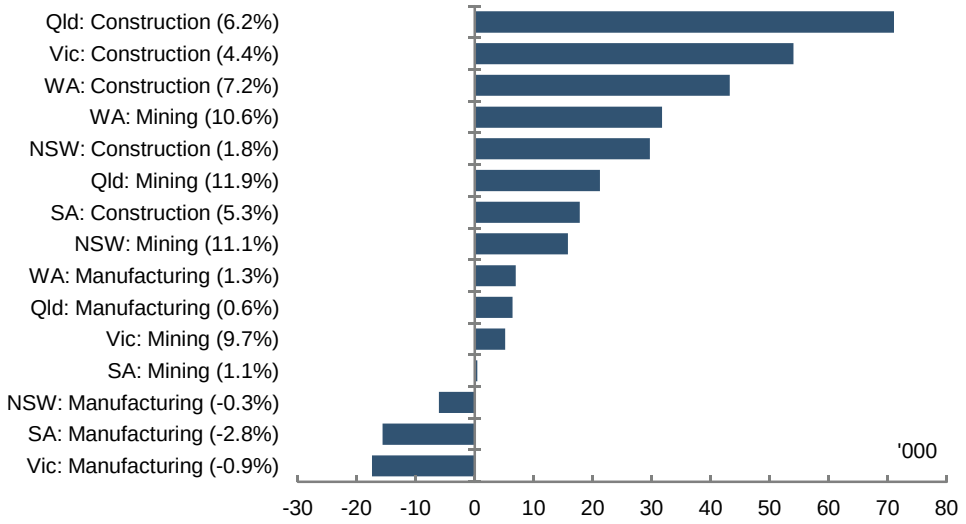
1 The real producer wage is given much attention in trade theory, in particular the Stolper-Samuelson theorem which suggests that an increase in commodity export prices will drive down the real producer wage in the capital intensive commodities sector — not just in absolute terms but also relative to returns to capital services (which rise).

Broad-based, skill-focused employment growth

Since the beginning of the boom, strong incentives to work in the mining and construction industries have contributed to strong growth in employment in those industries in states with large mining sectors (Chart 8). Employment growth in the construction sector across states has also benefited from general government investment.

Chart 8: Employment change by selected State and industry, 2003-04 to 2009-10



Note: Average annual growth in parentheses.
Source: ABS 6291.0.55.003 and Treasury.

Between 2003-04 and 2009-10, the geographic distribution of manufacturing employment growth has been mixed. Employment in manufacturing in New South Wales, Victoria and South Australia — states where traditional manufacturing is dominant — has fallen. By contrast, Western Australia and Queensland — where metal product manufacturing is a greater share of the manufacturing sector — have seen moderate increases in employment in manufacturing. While these state differences are illustrative of shifts in activity across states, local or regional outcomes have not become more disparate (Box 2).

Overlaying these mining and investment boom related trends is continued strong growth in service sector employment, reflecting the ongoing diversity of the Australian workforce. Despite strong annual rate of employment growth of around 10 per cent, mining only contributed around 77,000 of the 1.5 million increase in total employment between 2003-04 and 2009-10 (Chart 10).

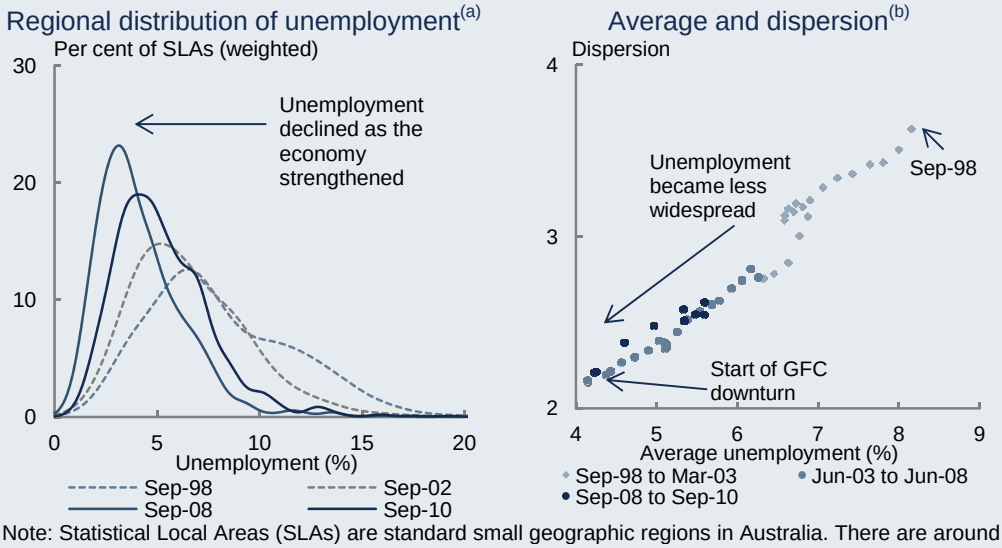
Box 2: Regional unemployment disparities in recent years

Since at least 1998, regional disparities in unemployment rates have declined as unemployment in aggregate declined (Chart 9). The onset of the mining boom has not yet changed this relationship — although areas of disadvantage remain. When the economy has strengthened, the regional distribution of unemployment has become more compressed — with a smaller proportion of regions experiencing high unemployment.

Around half of the (unweighted) standard small local areas (Statistical Local Areas or SLAs) had unemployment rates of less than 5 per cent in September 2010. Around 90 per cent faced unemployment rates of less than 10 per cent. Twelve years before, in September 1998, less than 15 per cent had unemployment rates less than 5 per cent and around 70 per cent had unemployment rates of less than 10 per cent.

The fall in the regional dispersion of unemployment as the national unemployment rate falls is evidence that to date, despite different rates of growth in some industries and regions, the material gains of the nation's economic success are being spread broadly to people across Australia through (among other mechanisms) improved labour market outcomes.

Chart 9: Regional unemployment over time



Note: Statistical Local Areas (SLAs) are standard small geographic regions in Australia. There are around 1,400 SLAs under current classifications. As the size of the labour force for SLAs varies from less than 100 to around 100,000, figures in the chart use employment outcomes weighted by labour force size.

(a) Regional distributions are smoothed using Gaussian kernel density estimation (see for example Wand and Jones 1995). For presentational clarity, distributions were deliberately over-smoothed with windows of 1, 1, ½ and ½ selected for Sep-1998, Sep-2002, Sep-2008 and Sep-2010 respectively.

(b) Each point on the scatter plot represents the weighted average and weighted standard deviation of regional unemployment for a particular quarter between Sep-1998 and Sep-2010. The weighted average unemployment rates for all SLAs differ slightly from those estimated in ABS 6202.0.

Source: DEEWR Small Area Labour Market database and Treasury.

Box 2: Regional unemployment disparities in recent years (continued)

Looking at standard intermediate-sized regions (Statistical Subdivisions or SSDs, which are one level of aggregation above SLAs), between the September 2003 and September 2010 quarters, two-thirds of all SSDs experienced a decline in unemployment rates. This includes all SSDs in Tasmania and the Northern Territory and around 80 per cent of Queensland regions.

However, outcomes remain patchy for some regions (Table 1). Unemployment rates in some regions rose over the period — including regions in Western Australia and Victoria, outer areas of Melbourne, Far North Queensland and Central Western Sydney. Many of these regions had unemployment rates in September 2010 well above the national average despite being below average in September 2003.

This highlights the importance of policy to manage the regional effects of transition.

Table 1: Change in unemployment rate since September quarter 2003 by selected region

Statistical Subdivisions (SSD)(a)	State	Change from Sep-03 to Sep-10	Unemployment rates (per cent)	
			Sep-10	Sep-03
Whyalla	SA	-7.3	5.2	12.5
Hervey Bay City Part A	QLD	-6.6	8.3	14.9
Bundaberg	QLD	-6.6	7.0	13.6
Pirie	SA	-5.7	4.6	10.3
East Arnhem(b)	NT	-5.7	4.3	10.0
Wide Bay-Burnett (Statistical Division Balance)(c)	QLD	-5.5	6.4	11.9
Central NT	NT	-4.7	4.7	9.4
Townsville City Part A	QLD	-4.5	4.4	8.9
Hunter (Statistical Division Balance)(b)(c)	NSW	-4.2	3.0	7.2
Lismore	NSW	-4.2	6.1	10.3
West Mallee(b)	VIC	2.2	4.9	2.7
Central Western Sydney	NSW	2.2	8.1	5.9
North Goulburn	VIC	2.3	6.1	3.8
Mildura Rural City Part A	VIC	2.4	8.8	6.4
Murray Mallee	SA	2.8	7.9	5.1
Greater Shepparton City Part A	VIC	2.9	9.1	6.2
Cairns City Part A	QLD	3.3	9.3	6.0
Hume City	VIC	3.5	10.0	6.5
Lefroy	WA	4.7	7.9	3.2
Far North (Statistical Division Balance)(c)	QLD	4.8	11.1	6.3
All SSDs (weighted average)(d)		**-0.9**	**5.3**	**6.2**

Note: Table 1 presents the top and bottom 10 Statistical Subdivisions (SSDs), with a labour force size greater than 5,000 in September quarter 2010, ranked by the size of the change in the unemployment rate between the September 2003 and September 2010 quarters. There are around 200 SSDs.

(a) SSDs are standard intermediate sized geographic regions, one level of aggregation above SLAs. SSDs are defined under Australian Standard Geographical Classification (ASGC) 2001 unless otherwise stated. Where possible, adjustments have been made to accommodate AGSC changes.

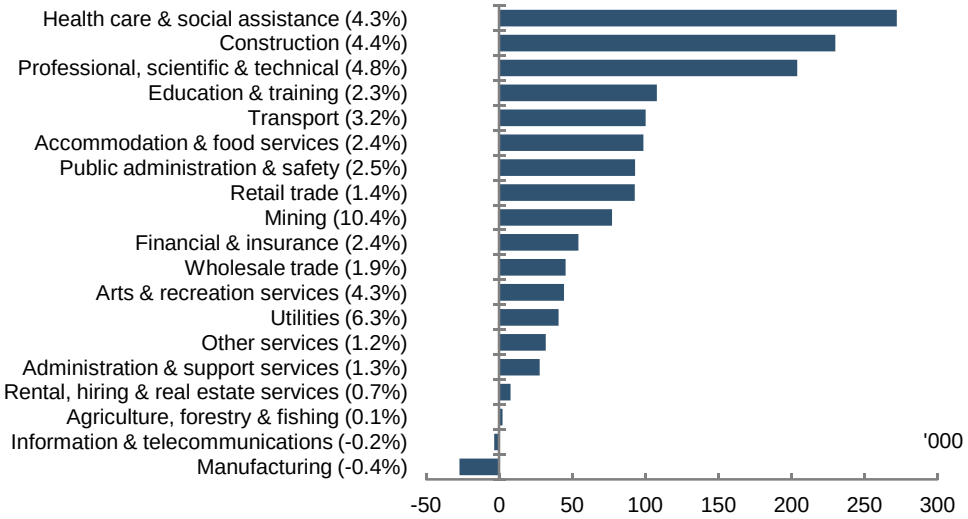
(b) September quarter 2010 unemployment figures relate to the ASGC 2006 definition of these SSDs.

(c) Statistical Divisions are a level of aggregation above SSDs. For example, the Far North Statistical Division comprises two SSDs: Far North (Statistical Division Balance) and Cairns City Part A.

(d) Weighted average unemployment rates for SSDs differ slightly from those estimated in ABS 6202.0.

Source: DEEWR Small Area Labour Market database and Treasury.

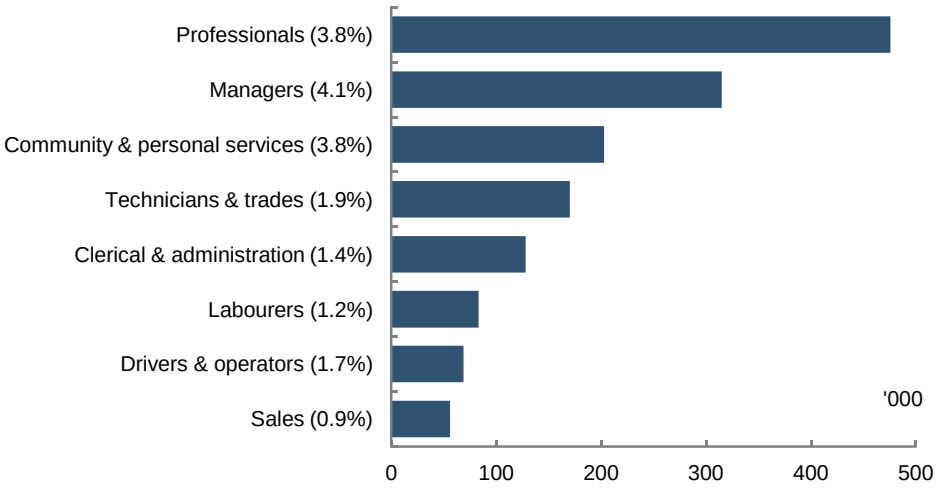
Chart 10: Employment change by industry, 2003-04 to 2009-10



Note: Average annual growth in parentheses.
Source: ABS 6291.0.55.003 and Treasury.

Sectors like health and social services, construction, and professional services have recorded more moderate rates of employment growth of between 4 and 5 per cent. However, given their size, together they have contributed around an additional 700,000 jobs to total employment. Large labour force growth in the services sectors reflects longer term general trends towards services and higher skilled occupations, driven by income growth, technological and demographic change and other factors. The general trend can also be seen in employment growth by occupation (Chart 11).

Chart 11: Employment change by occupation, 2003-04 to 2009-10



Note: Average annual growth of total in parentheses.
Source: ABS 6291.0.55.003 and Treasury.

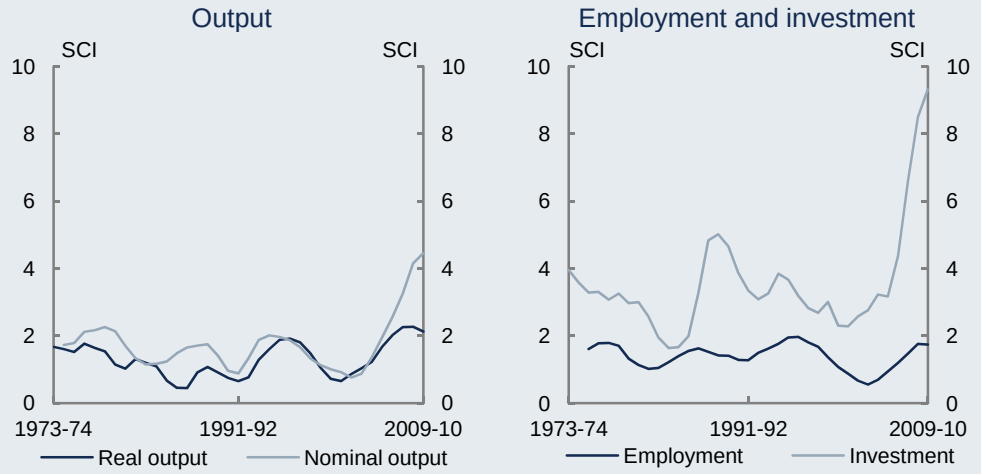
The number of high skill white collar professionals and managers (some of whom work in the mining and construction sectors) has increased by more than 800,000. The number of high skilled blue collar technicians and trades jobs has also increased significantly — by 170,000.

Box 3: How fast is Australia's economic geography changing?

Since the mining boom commenced, the pace of change in the distribution of economic activity between the different states and territories has been unprecedented in recent history, and even more marked than the pace of change in industry structure (Box 1).

The pace of the recent shift in the share of investment between states has been the biggest in the last four decades (Chart 12). The same can be said of nominal output. In terms of real output, and to a lesser extent employment, the recent pace of change has been among the fastest in recent history. In large part, the rapid increases in the relative economic power of some states reflect the increase in the value of mineral products from resource rich states and flow-on effects for other activity in those states.

Chart 12: Structural change between states and territories



Note: SCI = $1/2\sum 100|x_{i,t}-x_{i,t-5}|$ where $x_{i,t}$ is the i^{th} state or territory's average share of output, employment or investment in the 5 years to time t. The SCI shows the rate at which the economy's composition changes. SCIs take values between 0 and 100. For example, where the share of one state increases by one percentage point over a five year period, with a corresponding decrease in others, the SCI would have a value of 1. A large number represents a sharp change in composition. Real output in 2008-09 dollars. See Box 1, RBA (2010b) and Productivity Commission (1998).
Source: ABS 6204.0.55.001, 5220.0, Donovan (1981), Harris and Harris (1992) and Treasury.

Together, the number of professionals, managers, technicians and tradespeople has increased by around one million over this time. That is, two-thirds of the 1.5 million added to total employment over 2003-04 to 2009-10 are highly skilled. In mining, employment has grown across all of its major occupations groups. In particular, more

than half of the increase in mining employment was for highly skilled technicians, tradespeople, professionals and managers.

THINGS TO COME: THE MINING BOOM AND BEYOND

The next phase in Australia's economic evolution will be profoundly influenced by the continuing shift of global economic activity towards Asia. The rapid industrialisation and urbanisation of Asia have driven global demand for Australia's mineral and energy resources. Australia's natural advantages, relative proximity, and the skills and capabilities of the workforce, have given it a head start in capitalising on opportunities that will flow from this transition.

Yet the implications of the rise of Asia will not be limited to demand for Australia's resources. The mining boom is just the first manifestation for Australia of this change in the world's economic geography.

At some point in the coming decades, the majority of the global middle class will be living in the Asia-Pacific region — especially in China and India. Their re-emergence will have a major and lasting effect on how Australia does business in the 21st century — well beyond the current mining boom. As China and India continue to develop, the growing cities which are now driving high demand for Australia's mineral resources will be populated by an increasingly wealthy and upwardly mobile middle class. Like the mining boom, these developments will have a profound influence on the shape of the Australian economy into the future.

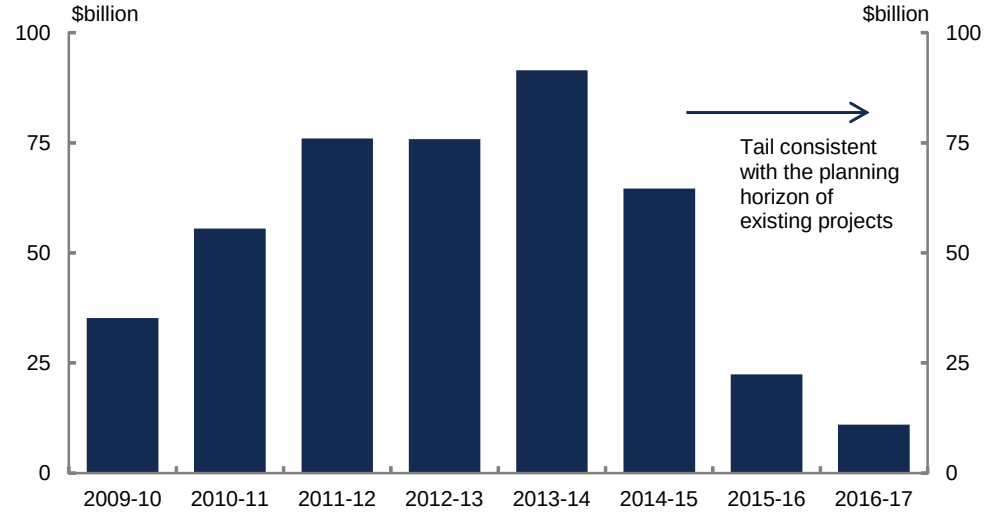
Mining boom mark II

The current phase of the mining boom shares many of the characteristics of mining boom mark I. However, there are a number of features which will set the next phase of the mining boom apart (Statement 2). These differences mean that some of the challenges associated with mining boom mark II will play out differently.

The terms of trade, and so mining activity, are expected to remain at historically high levels for an extended period. However, this time around, the magnitude of business investment is set to be even more impressive.

Driven by the mining sector, new business investment is expected to attain 50-year highs as a share of GDP. This investment boom will be underpinned by a massive pipeline of resources projects planned for the next five years and beyond (Chart 13). The capital expenditure survey of the ABS suggests planned mining investment will reach a record $76 billion in 2011-12 (ABS 2010e). ABARES estimates that this high level of investment is set to continue, with an estimated pipeline of resource investment of over $380 billion (ABARES 2010).

Chart 13: Indicative profile of mining projects (planned or under construction)

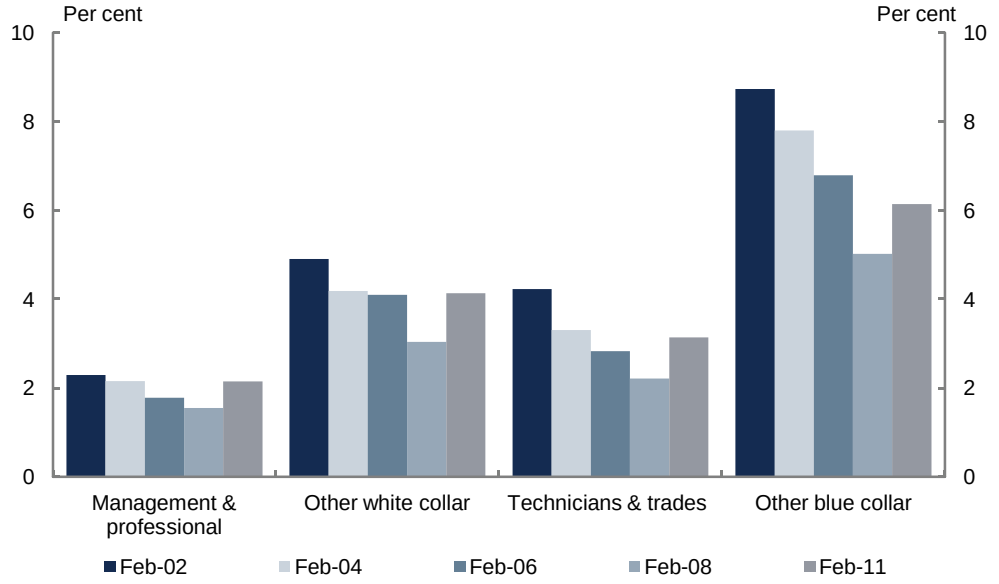


Note: Value of projects and investment profiles are based on publicly available information and information received from mining companies through the Treasury's Business Liaison Program. Projects are classified as under construction/committed ($149 billion) and under consideration ($232 billion). Where no information is available on timing, the profile of a 'typical' resource project is assumed — beginning in 2011-12, with 5 per cent of investment in the first year, followed by 15 per cent, 25 per cent, 35 per cent and 20 per cent in subsequent years. These estimates may fluctuate as profiles change, new projects come under consideration and/or existing projects are cancelled.
Source: ABS 5625.0, ABARES (2010) and Treasury.

Despite its capital intensity, labour and other inputs will continue to be drawn to the mining sector to support increasing levels of activity. Together with the long-term expansion of the sizable labour-intensive services industries, demand for large numbers of highly skilled workers is likely to strengthen.

As was the case at the start of mining boom mark I, there is some existing capacity to meet the growing labour market demands (Chart 14), albeit to a lesser extent given the lower rate of unemployment and the higher rates of participation in this phase of the boom.

Chart 14: Ratio of short-term unemployment to total employment, by occupation



Note: Excludes those unemployed for more than two years and those who have never worked for more than two weeks. 'Other white collar' includes workers in community and personal services, clerical and administration and sales. 'Other blue collar' includes machinery operators, drivers and labourers.
Source: ABS 6291.0.55.003 and Treasury.

While pressures associated with approaching capacity constraints are again expected to increase as unemployment continues to fall, another difference is the higher exchange rate. At the beginning of the first phase of the mining boom in 2003, the real exchange rate (in terms of the trade-weighted index) was at a level comparable to its average since the floating of the Australian dollar. In contrast, it is now around 40 per cent above its post-float average.

The stronger starting point for the dollar may mean that the effect on other trade-exposed sectors of the economy is more pronounced and may also affect the nature and pace of the rise in skills shortages in particular areas of the economy. In addition, with the terms of trade expected to remain at historically high levels for an extended period, these implications are likely to be played out well into the foreseeable future — reflecting a prolonged shift in Australia's comparative advantage.

Given the adverse effect a high exchange rate can have on other trade-exposed sectors, there are understandable concerns about the possibility of the mining boom leading to long-term economic underperformance — a phenomenon often called 'Dutch disease'.

If the high exchange rate proves to be long-lived, there can be concerns over a loss to the economy of skills, value-adding and expertise that would otherwise have provided spillover benefits to other industries. Another concern associated with Dutch disease is that if a spike in the real exchange rate proves to be temporary, other tradable sectors that have suffered will not simply rebound to previous levels.

However, international evidence suggests that these concerns around Dutch disease are overstated and tend not to apply to advanced countries, which typically have policy and institutional settings conducive to the accumulation and development of investment, skills and expertise, and there is no evidence that Dutch disease reduces overall economic growth (see IMF 2010, Davis 1995, Larsen 2003 and 2006, Gylfason 2006, Statement 4 in Budget 2010-11 and Box 4). These countries have capitalised on the expertise gained in their resources sectors and converted them into new economic opportunities.

Resource sectors in advanced economies tend to be highly skilled and generate their own spillovers — stimulating other industries as well as driving opportunities for long term economic growth.

In the case of Norway's oil boom, for example, Larsen (2006) finds little loss in spillovers since the 1970s, with any losses being substituted by gains in offshore oil extraction technologies. Norway has managed to maintain a well functioning non-oil traded goods sector (Larsen 2006) and Norwegian manufacturing has benefited from the impact of higher oil revenues (Bjørnland 1998). For Finland, despite being a country rich in forestry resources, its share in forestry-related machinery and equipment in world markets is larger than its share in wood, paper and pulp (Gylfason 1999).

For Australia, there is evidence of similar developments. Despite mining being 9 per cent of GDP in 2008-09 (ABS 2010f), mining's share of total business expenditure on research and development (R&D) was at around 25 per cent (ABS 2010g) — suggesting that Australian mining is highly intensive in the development and use of knowledge, expertise and innovation.

Australia's mining technology services and equipment sector is also recognised as a leading supplier to miners globally (Tedesco and Haseltine 2010). In 2008-09 it employed over 30,000 people and generated $8.7 billion (0.7 per cent of GDP) in revenue, with about 30 per cent of this coming from exports. These firms have a wide range of capabilities — many of which have applications beyond mining — including software design, technical consulting, equipment and machinery, automation systems, drilling, metallurgy, surveying, research and mining engineering services.

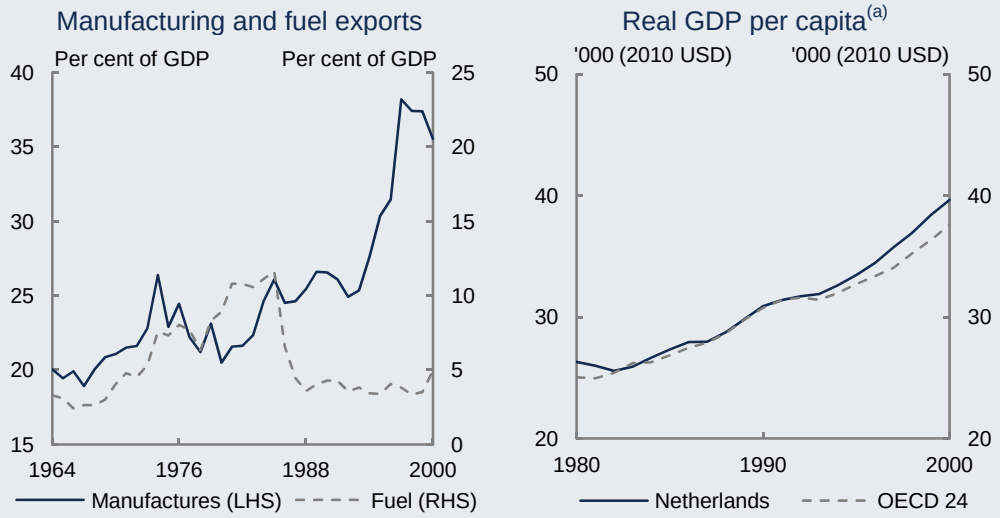
Box 4: Did the Dutch suffer from Dutch disease?

The potential for a commodity boom to have implications for other industries through the real exchange rate was first formalised and pointed out by Australian economist Bob Gregory in the 1970s (Gregory 1976 and Corden 2006). This effect was subsequently called 'Dutch disease'. While Australia's terms of trade can be expected to remain at historically high levels for some time, one concern around Dutch disease is that if a commodity boom proves to be temporary then those trade-exposed sectors that have been negatively affected will not simply reappear or rebound, negatively affecting long-term growth.

International evidence suggests that these concerns around Dutch disease tend not to apply to advanced countries. It is possible for these countries, with the right institutions and policy settings, experiencing a temporary surge in their resources sector to reverse boom induced structural adjustments.

This was the case even in the Netherlands (Chart 15). Dutch manufacturing declined during an intense period of energy resource extraction. This period of intense resource production ended in the early- to mid-1980s, coinciding with an international economic downturn. Subsequently, Dutch manufacturing exports rebounded, both as a share of GDP and as a share of total exports. Manufacturing exports continued its resurgence in the 20 years following the Dutch disease period — reaching nearly 40 per cent of GDP and around 70 per cent of total exports in 1997. This period was also matched by solid long-term per capita GDP growth — matching and, for long periods, exceeding average growth in the OECD.

Chart 15: The Netherlands, real GDP, manufacturing and fuel exports



(a) Purchasing power parity adjusted GDP.
Source: World Bank World Tables, Conference Board Total Economy Database and Treasury.

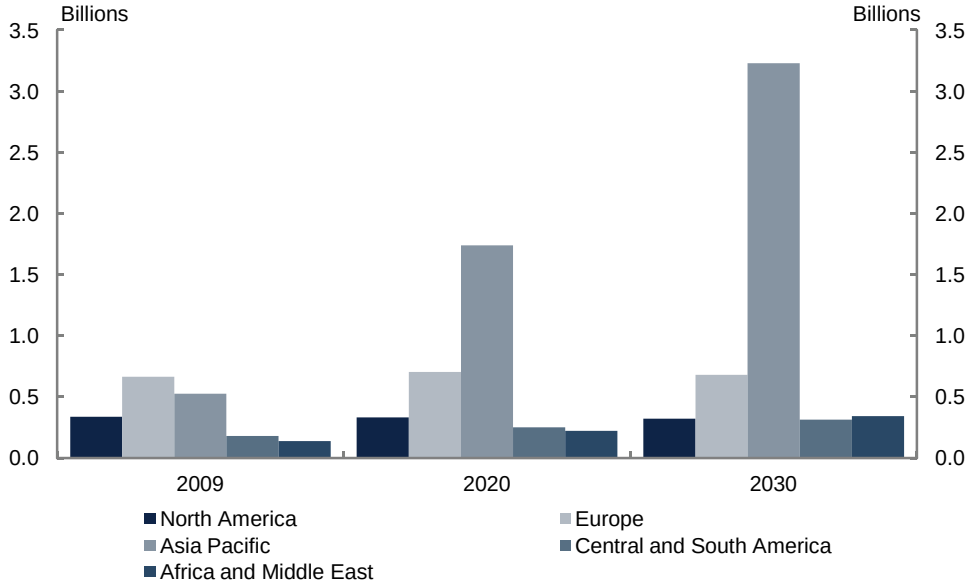
The burgeoning global middle class

The mining boom is an early manifestation for Australia of the shift in the world's economic geography from west to east. As China and India continue to develop, the growing cities now driving demand for Australia's mineral resources will be populated by an increasingly wealthy and upwardly mobile middle class, with incomes and tastes to match. Increasing consumer purchasing power and changing spending patterns will open up new, often unforeseen, opportunities for Australia — well beyond those flowing from the current mining boom. However, this will also bring a new set of challenges.

While recent studies differ on exactly how to define, measure and forecast the global middle class, the common thread is the sheer magnitude of the income shifts in Asia which have occurred and will continue to occur.

Using the average poverty line in Portugal and Italy as the lower bound for its measure of the global middle class, one prominent study (Kharas and Gertz 2010) estimated that the number of middle class consumers in Asia could increase by more than 1.2 billion people by 2020. If borne out, these projections would mean that by the end of this decade Asia would have more middle class consumers than the rest of the world combined (Chart 16), with China surpassing the US as the world's single largest middle class market in dollar terms. By 2030, with India following China's lead, the world could have gone from mostly poor to mostly middle class, with two-thirds of the world's middle class consumers living in the Asia-Pacific region.

Chart 16: Projection of the global middle class by region, persons



Source: Kharas and Gertz (2010).

These projections inevitably rest on assumptions about future productivity and population growth, and the trends they suggest are not assured. In China and other emerging economies, the process of structural reform to facilitate progress will not be easy. Change will take place over decades rather than years, and there will be setbacks along the way. However, near-term growth paths suggest that the continued sharp rise in the Asian middle class is the most likely scenario.

Consumption patterns change as incomes rise

Looking at the ratio of consumption to GDP over time can provide insights into how consumer spending patterns evolve as an economy develops (Chart 17).

In poorer countries, spending on basic goods typically accounts for a higher share of income, with household incomes barely covering spending on the necessities of life. However, in the early stages of development and incomes growth, the ratio of consumption to GDP can fall quite sharply, especially if there is a surge in investment.

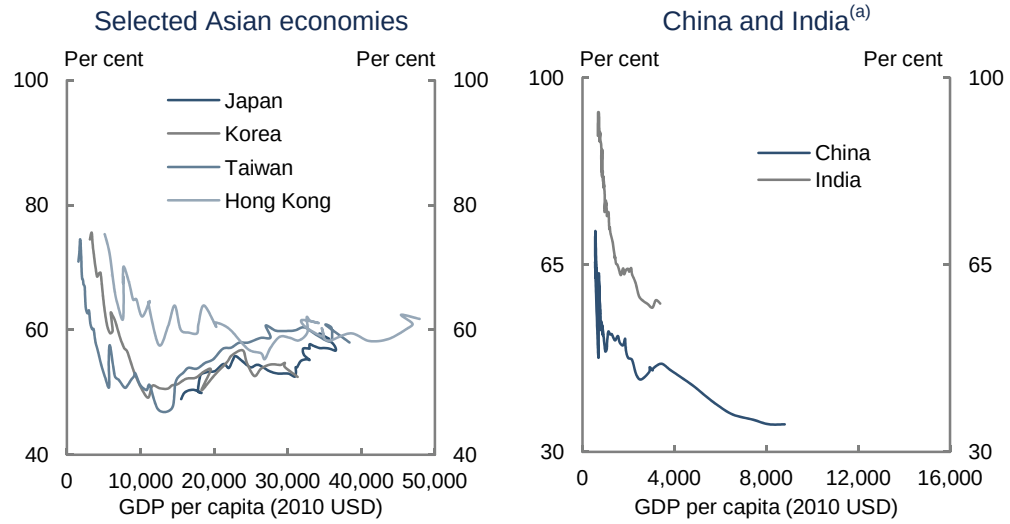
In time, with continued income growth, a larger middle class devotes more money to purchasing luxury goods and services, both in absolute terms and as a share of their total spending. As a result, the ratio of consumption to GDP typically tends to increase as economies reach, and surpass, middle income status.

This process has been evident in the recent experience of Japan, Korea and other major Asian economic success stories of the past half century. The ratio of consumption to GDP declined as incomes grew at lower levels before picking up again as these economies grew towards high income status.

In contrast, China's consumption to GDP ratio has declined markedly over recent decades during the early, investment-led stages of its economic re-emergence, reaching a low of only 35 per cent of GDP in 2009. However, China is fast approaching income levels where consumption often turns, and the Chinese government is focused on reforms to foster higher incomes growth and rebalance the economy towards domestic demand. There is considerable scope for a strong rise in the ratio of consumption to GDP in the medium term.

This shift in consumption patterns also manifests in the composition of household consumption. For the earlier industrialisers like Japan and Korea, the composition of consumer spending has evolved in tandem with its increasing size, with consumers devoting relatively more of their growing incomes towards services and consumer durables in recent decades.

Chart 17: Private consumption as a share of GDP



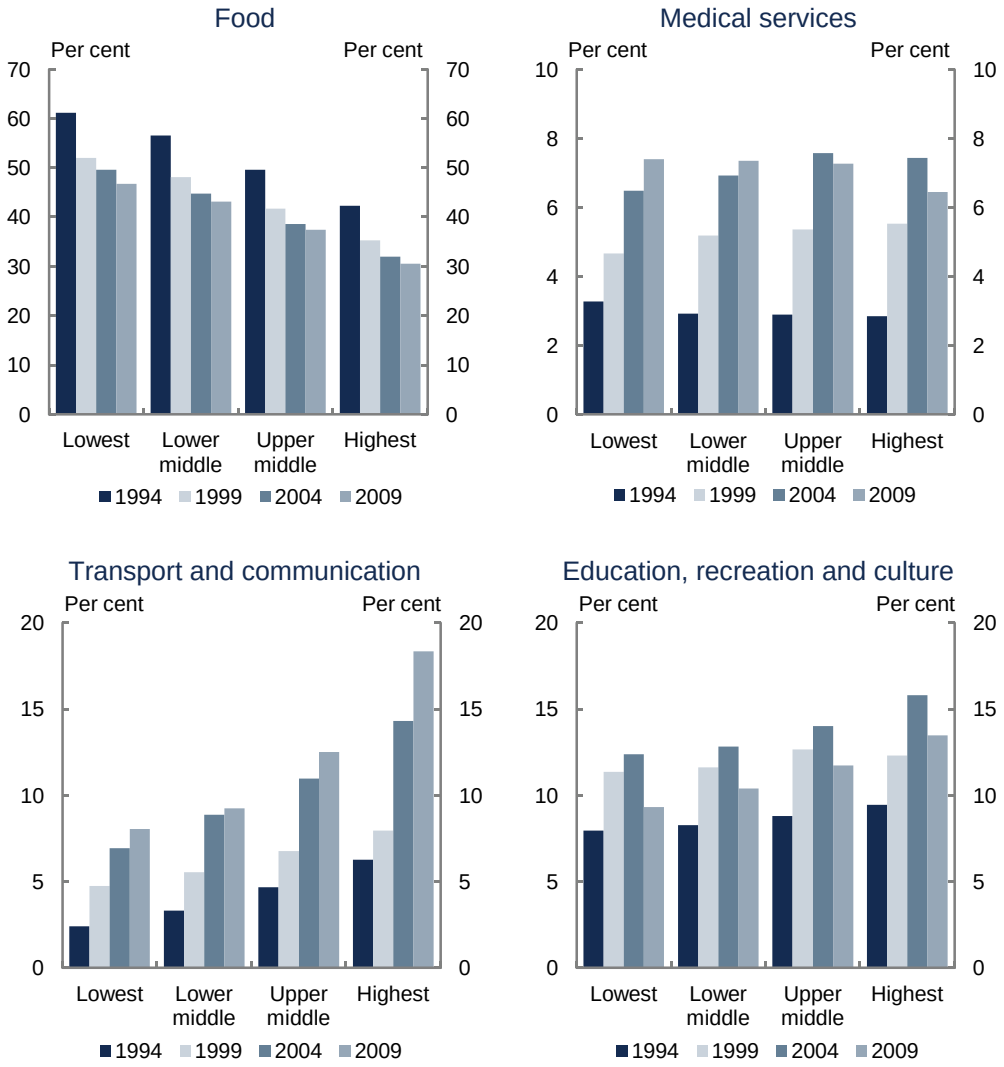
(a) Data for India is for financial years.
Note: Purchasing power parity adjusted GDP.
Source: National statistical agencies, World Bank, Conference Board Total Economy Database and Treasury.

More recently, the early stages of a similar shift in the pattern of consumer spending are already evident in China (Chart 18). Since the early 1990s, growing incomes and overall consumption across each of the urban income groupings have been accompanied by shifts away from basic goods and towards the goods and services associated with higher income levels.

In the poorest urban households in China, between 1994 and 2009, the portion of per capita spending devoted to food fell from 61 per cent to 47 per cent. For the wealthiest households, the share of spending on food fell from 42 to 31 per cent. Similar falls were evident across the middle income groupings. The share of spending for clothing, like food, also fell across the board.

Correspondingly, across each group, China's urban consumers have generally dedicated a greater share of total spending over time to residences, medical services, transport and communication, and educational, recreational and cultural services. The largest shifts towards the latter two categories have occurred in the higher income groups.

Chart 18: China's urban consumption structure by income groupings



Note: Figures based on per capita consumption expenditure data for eight urban household income groupings.
Source: CEIC China database and Treasury.

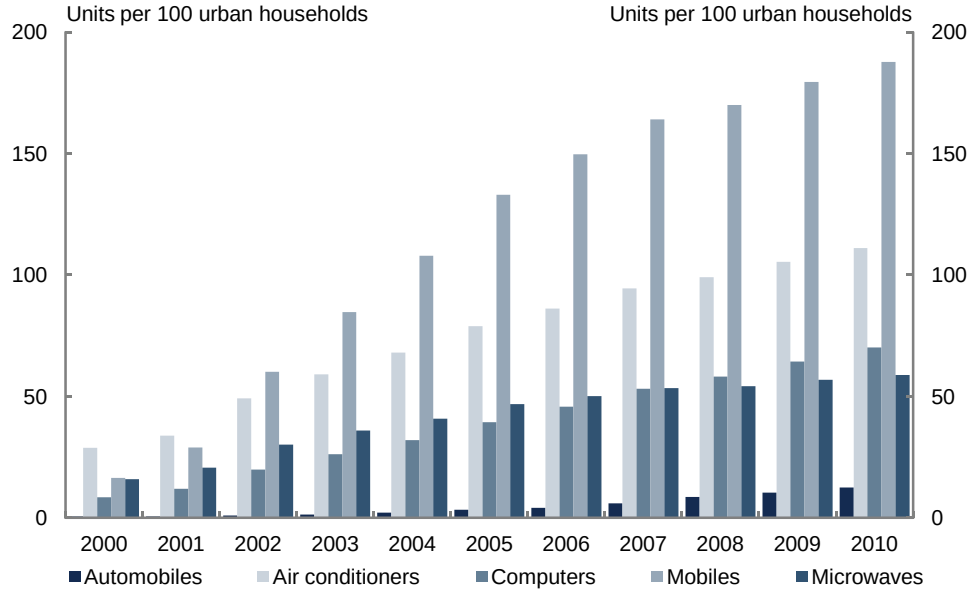
Asia's rise will generate opportunities as well as challenges

The path of development taken by Japan, Korea and a number of other Asian economies has already had a distinct impact on Australia's pattern of trade. A key difference which sets the current and future phases of the rise of the Asian middle class apart is the size of the Chinese and Indian populations. The growth in China's middle class is still in its early stages and India remains some way behind China by almost all indicators. Yet as these giants continue to grow and as the preferences of their people change — in favour of goods and services associated with higher income

levels like consumer durables, culture, tourism and advanced education — the potential size and depth of global consumer markets is vast.

An appreciation of the potential scale of these emerging consumer markets can be gained from the rapid rise in the ownership of consumer durable goods in Chinese urban households — a sizable and growing proportion of the 400 million households in China (Chart 19). Between 2000 and 2010, the number of automobiles per 100 urban households in China is estimated to have risen from less than one to more than 12; the number of mobile phones from 16 to 188; computers from eight to 70 and the number of microwave ovens from 16 to 58. While rates of growth between different consumer durables vary, similar patterns are evident across a whole range of goods — with growth especially strong for 'new technology' goods.

Chart 19: Number of consumer durable goods for urban households, China



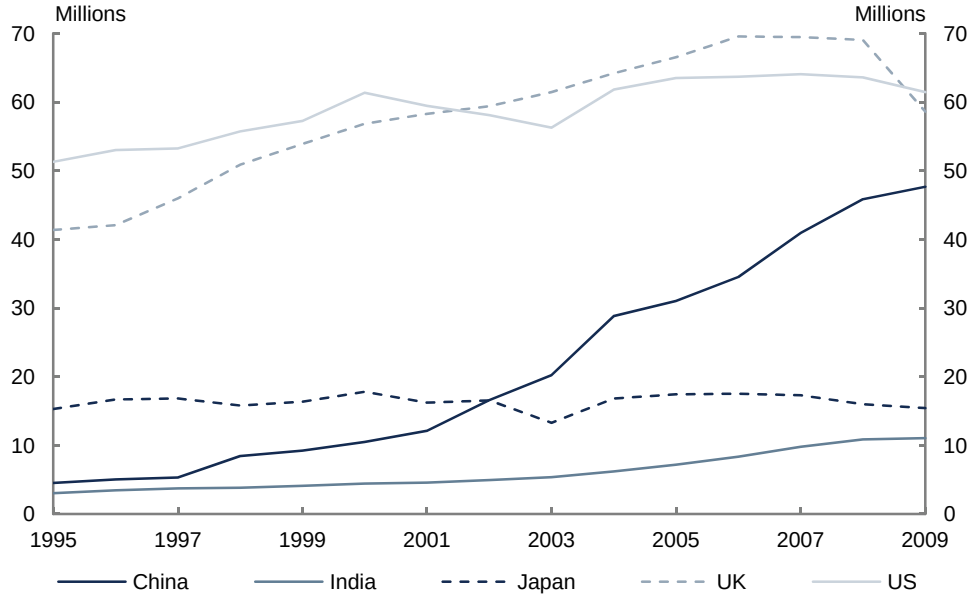
Source: CEIC China database.

This potential scale can also be seen in China's and India's sizable and increasing share of world outbound tourism over the past 15 years (Chart 20). While countries like the US, UK and Japan have been the more traditional sources for outbound tourism, the number of people departing from China and India for international travel and tourism has risen dramatically. In 1995, around 4.5 million residents from mainland China and 3 million from India travelled abroad for business and leisure. By 2009, outbound tourism from China had increased tenfold (to 48 million) and was close to catching up with the US and UK, while India had experienced a three- to four-fold increase (to 11 million).

The emergence of a large global middle class will generate demand for a sizable array of goods and services. Nevertheless, it is not possible to forecast the exact mix of goods

and services that will be demanded in the future, let alone the shape of the global economy that will best service these demands. Technological advances are also likely to lead to major, often unforeseeable, shifts in consumer spending — as seen in the rapid rise in spending on newer technologies.

Chart 20: Outbound tourism, resident departures by country of origin



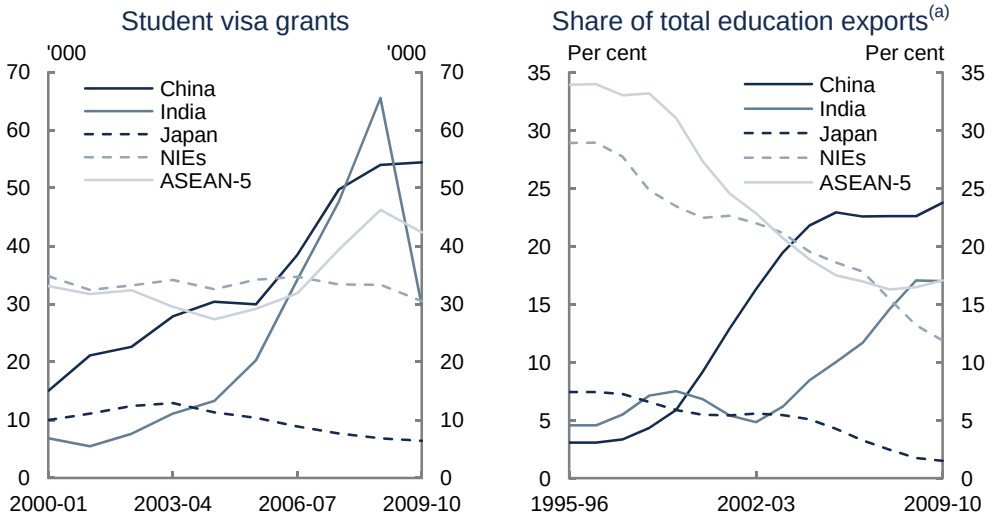
Note: Figures for China include travel to Hong Kong, Macau and Taiwan.
Source: United Nations World Tourism Organisation.

Some non-mining benefits are already evident

While not all opportunities from these emerging markets necessarily fall within areas of Australia's comparative advantage, some of the benefits from the rise in the Asian middle class are already evident.

Education is the largest of Australia's services exports. The number of international students studying in Australia from Asia, in particular from China, India and the ASEAN-5, has grown strongly (Chart 21). As a result, education exports to China and India as a share of total education exports have risen sharply. A similar pattern can be seen for Australia's wine exports, where China's share is now five times larger than it was five years ago.

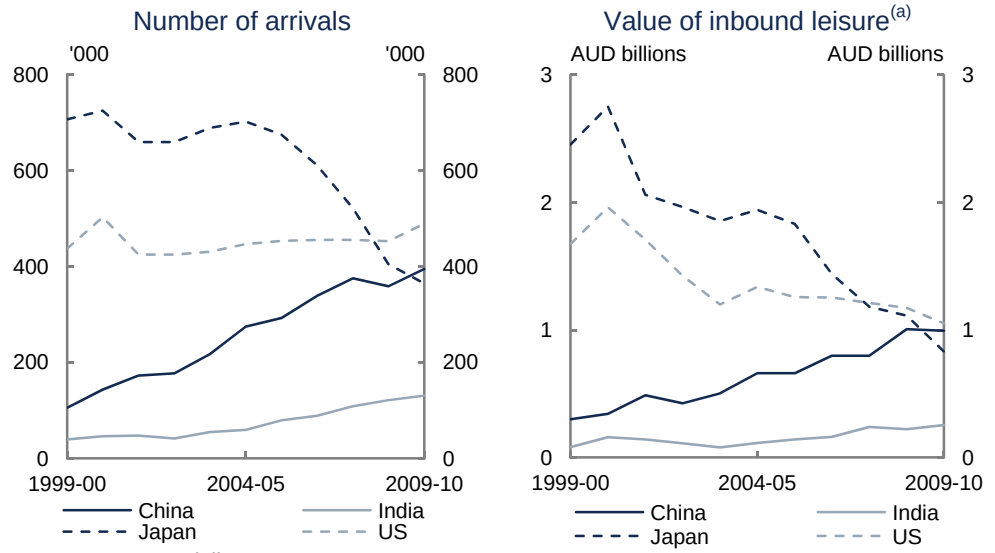
Chart 21: Australia's education exports



(a) 'Education related travel services' by country (which include fees and other spending from international students studying onshore) as a share of total education related services exports.
Note: NIEs include Hong Kong, Korea, Singapore and Taiwan. ASEAN-5 consists of Indonesia, Malaysia, The Philippines, Thailand and Vietnam.
Source: DIAC, ABS 5368.0.55.003 and Treasury.

Additionally, China and India already make up an increasing share of international tourism in Australia (Chart 22).

Chart 22: International arrivals to Australia by country



(a) June quarter 2010 dollars.
Source: Tourism Research Australia (2010).

While the number of tourists from traditional markets like Japan has declined substantially over the last decade, those from China and India have grown. Arrivals from China have more than trebled, overtaking Japan in 2008-09 and are now close to

catching up with those from the US. Despite the strong Australian dollar, growth in arrivals from China and India is likely to continue given the strong income growth in these emerging markets (Tourism Research Australia 2010).

To maximise the opportunities that will flow from the rise of the global middle class, Australia needs to continue to change and innovate in order to compete on the global stage. Notwithstanding the recent strong performance in education, tourism and a range of other exports to these emerging consumer markets, competition will be fierce. As China and India grow and develop, and as they catch up to the global technological frontier, the size and quality of their domestic education sectors is also likely to improve. Their reliance on foreign education providers may therefore ease, with a greater proportion of their education spending shifting to domestic sources.

Similarly, as emerging countries improve their tourism infrastructure, they will provide fierce competition for global tourism spending. Australia has a highly developed tourism sector characterised by rich natural endowments, excellent infrastructure and institutional stability. Yet other countries, often in addition to a rich natural and cultural heritage, are typically abundant in labour as well and are able to deliver high quality tourism services at relatively low cost.

LAYING THE GROUNDWORK FOR TRANSITION WHILE MANAGING THE BOOM

The right policy settings are needed for Australia to take advantage of the opportunities and challenges presented by the rise of Asia, and to lay the foundations for future growth.

Critically, the Government's strict fiscal strategy built on a return to budget surplus in 2012-13 will ensure that it does not compound price pressures that are likely to re-emerge as the investment boom gathers pace. The Government's fiscal strategy will also support the strengthening of the Government's finances over time. A strong government balance sheet affords the necessary ongoing flexibility for the budget position to vary in line with economic conditions and to respond to unforseen events — promoting macroeconomic stability.

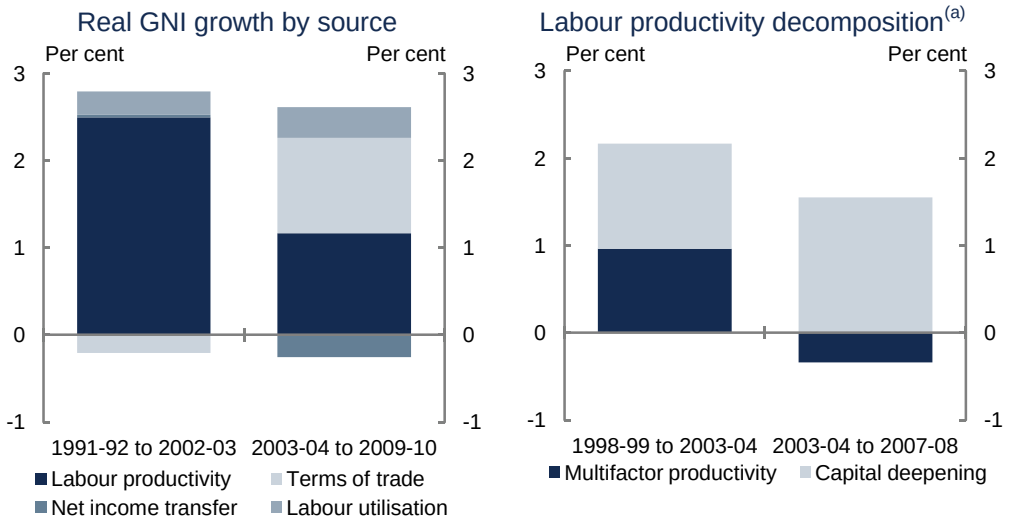
The Government's reform agenda will assist in laying the groundwork for managing the current boom and spreading the benefits to more Australians. In particular, investments in skills, infrastructure and innovation will support productivity growth and the flexibility of the economy. The participation package in this Budget will further support labour force participation and social inclusion. By doing so, these reforms build capacity to take advantage of current global demands while providing opportunities across diverse industries and regions. These policies are designed to accommodate transition, not resist the economic forces at work.

Such policies benefit the economy at the local and macroeconomic level. There are many examples of local communities successfully making such shifts, facing challenges of adjustment and maintaining a vibrant society. This has been the case even where large local employers have relocated or closed down. Rather than resisting change, these communities have overcome short-term adversity by sharpening their natural advantages and reviving their fortunes (Box 5).

Building flexibility and productive capacity

Australia's strong terms of trade — reflecting an increase in prices paid by foreigners for what we produce — has led to improvements in the purchasing power and living standards of Australians in recent times. Since the start of the mining boom in 2003-04, improvements in Australia's terms of trade have provided nearly half of national income growth (Chart 23).

Chart 23: Gross national income (GNI) and labour productivity growth



(a) The time periods for the labour productivity decomposition reflect the productivity growth cycles selected by the ABS.

Source: ABS 5206.0, 6202.0, 3101.0, 5260.0.55.002 and Treasury.

However, Australia's productivity growth — our ability to produce more per hour worked — has been weaker during the mining boom than in the 1990s, when previous economic reforms delivered strong growth. Underlying the decline in productivity performance has been a decline in multifactor productivity growth (the efficiency with which labour and capital inputs are used). Indeed, between 2003-04 and 2007-08 multifactor productivity growth was negative. One-off factors such as lags between investment and production can explain only a part of the decline.

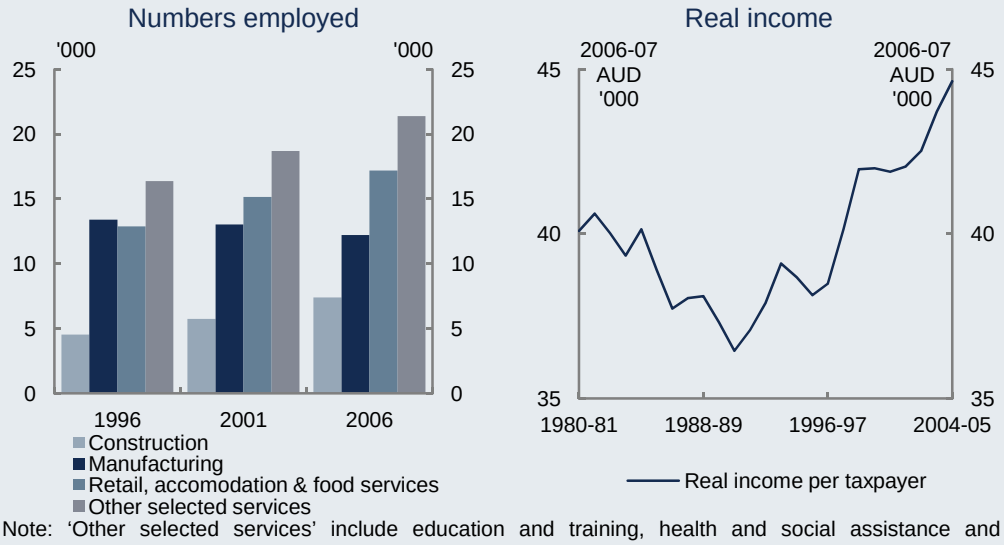
Box 5: Case study of a community adapting to change — Geelong

Founded in the 1830s, Geelong became one of Australia's premier port towns. In the second half of the 19th century, it shipped the agricultural exports of western Victoria around the world. In the 20th century, rapid advances in technology and the advent of mass production techniques provided a new economic opportunity for Geelong. A strong manufacturing sector emerged, providing work for Geelong's growing population. Large firms, such as Ford, also spawned a wide range of related and supporting industries.

In the early 1990s, the recession and the collapse of the Pyramid Building Society hit the Geelong region hard. Mirroring events in the broader economy, jobs were also lost in textiles, clothing, footwear and leather manufacturing. The population declined and the region was under pressure. Some firms opted to relocate or close. Developments in technology also meant that certain occupations became redundant.

Yet new technologies and a competitive economic environment provided new opportunities and generated improved living standards (Chart 24). Many manufacturing firms abandoned traditional, labour-intensive modes of production. Firms, including those in the growing biotech industry, switched to capital-intensive and knowledge-intensive approaches. These firms focused on research and development and required workers with design, engineering and science skills. While manufacturing is still a large employer in Geelong, employment in services (across a range of areas) has grown considerably over the past decade (DPCD 2010a and 2010b).

Chart 24: Employment by industry and income, Greater Geelong



Note: 'Other selected services' include education and training, health and social assistance and professional, science and technical services.
Source: ABS 2003.0 and BITRE taxable income database.

With the terms of trade projected to decline over time as the global supply of mineral resources responds to high commodity prices, movements in the terms of trade can be expected to eventually detract from national income growth even while the boom continues to boost investment and real output.

In the long-run, it is labour force participation and productivity growth, rather than continually rising export prices, that determines Australian living standards.

Supporting workforce participation across the community

Reducing disincentives to work and providing well-targeted assistance for those not employed will encourage labour force participation. This will strengthen the economy and also ensure that the benefits of transition reach more individuals in the community, including groups with typically low participation in the workforce.

The Building Australia's Future Workforce package in this Budget is an example of this approach. It focuses on providing appropriate incentives and support for families on income support, younger people, the long-term unemployed and people with disability who are capable of working — balancing increased participation requirements with additional services and support such as training, childcare and employment services and better rewards for workers and employers.

The Government's productivity agenda

Boosting productivity does not mean working harder and longer. Rather it means firms and people working more efficiently by having the infrastructure, investments, skills, resources and flexibility to produce more with less. Improving productivity frees up resources to respond to changes in the economy's structure and move to higher value uses as well as allowing people more freedom in the choices they make about work and leisure.

Improving productivity is not just about more physical investments and more skills. It is also about fostering an environment that encourages innovation and where people and resources can move to where they are most valuable. Burdening individuals and firms with unnecessary and restrictive regulations runs counter to innovation and productivity. Unleashing these positive contributors to future prosperity requires barriers to the efficient functioning of markets to be removed, along with proactive measures to address market failures such as the absence of a market price on carbon.

The Australian Government has a broad ranging and extensive productivity agenda that is built around three broad aims:

(a) achieving continued macroeconomic stability — to deliver strong, and sustainable, growth with low inflation;

(b) providing flexibility — with the right incentives to ensure we are getting the most out of time spent at work and other resources; and

(c) investing in capability — with well-targeted investments in skills and human capital, public and private infrastructure and innovation.

In carrying out this agenda, managing the necessary transformation to a low carbon emissions economy in an economically responsible way will be particularly important for continued productivity growth. Moving quickly to put a price on carbon will be crucial in this regard.

Another priority is ensuring the timely and efficient implementation of existing initiatives such as the National Broadband Network and the remaining Seamless National Economy deregulation, competition and related reforms being undertaken with the states. These will build on investments being made in skills, infrastructure and innovation, and reforms in areas such as higher education.

Tax reform and infrastructure

The Government is ensuring that the benefits of the mining boom are made available to the broader community and are used to generate long-run benefits. Implementation of the Minerals Resource Rent Tax provides the basis for cutting the company income tax rate, which will help broaden the benefits of the mining boom. By helping to meet the fiscal cost of improved superannuation arrangements (including a gradual increase in the superannuation guarantee rate from 9 to 12 per cent) and infrastructure investment in regional Australia (through the Regional Investment Fund), it also helps extend the benefits of the mining boom into the future.

Building on the initial response to the Australia's Future Tax System review, the Government will further improve the tax system by reforming poorly targeted concessions. In particular, the Government is removing the connection between the statutory value of car fringe benefits and kilometres travelled — addressing the perverse incentive to travel more, thereby contributing to environmental damage. The Government is also ending the poorly targeted Entrepreneurs Tax Offset. Instead it is helping all small businesses through simpler and more generous depreciation arrangements for motor vehicles and other assets, and reduced company income tax for small businesses operating as companies.

In this Budget the Government has also announced measures to improve the tax treatment of losses for designated infrastructure projects of national significance. Accessibility of tax losses will be maintained in the event of ownership changes and the value of accumulated losses will also be maintained over time. The operation of Infrastructure Australia will also be enhanced.

Responsive labour and education markets

Since well functioning education and training systems are a key means of increasing the supply of workers with appropriate skills, the Budget includes measures to reform current arrangements.

Current rigidities in the vocational education and training (VET) sector represent a critical medium- to long-term failing in the flexibility of the labour and education markets (Box 6), and the system requires structural reform. To help meet longer term labour demands, particularly in service industries such as health care and social assistance, the Government is taking a new approach to VET to achieve higher quality and responsiveness.

The Government will establish a National Workforce Development Fund to invest in training projects for key sectors such as mining and construction and for priority occupations in partnership with industry. The new approach will improve the quality of training places delivered, and will help ensure the training meets the needs of industry. A more responsive training system will support employers, and improve the likelihood of students securing quality employment at the end of their course. The Fund will be managed by a National Workforce and Productivity Agency to work with industry to identify critical skill needs and develop sector skill plans, with a regional and training focus.

This Budget also includes measures to continue the modernising and reform of apprenticeships. These will provide for a better targeting of incentives, enhancements to competency based progression, mentoring support, and support for better training choices.

To help drive longer-term reform of the training system, the Government will set new reform standards for its $7 billion over five years investment in the Skills and Workforce Development National Agreement. A review of the National Agreement by the Council of Australian Governments will allow the Commonwealth and States to partner in a strengthened training system. The Commonwealth will also offer $1.75 billion over five years (from 2012-13) to states and territories who are prepared to partner with the Commonwealth on more ambitious reform for VET.

The Government will also make a modest increase to the 2011-12 Migration Program — with an emphasis on attracting skilled migrants to live and work in regional areas. The Government will for the first time specify 16,000 places to the Regional Sponsored Migration Scheme and introduce Regional Migration Agreements to better meet location specific needs.

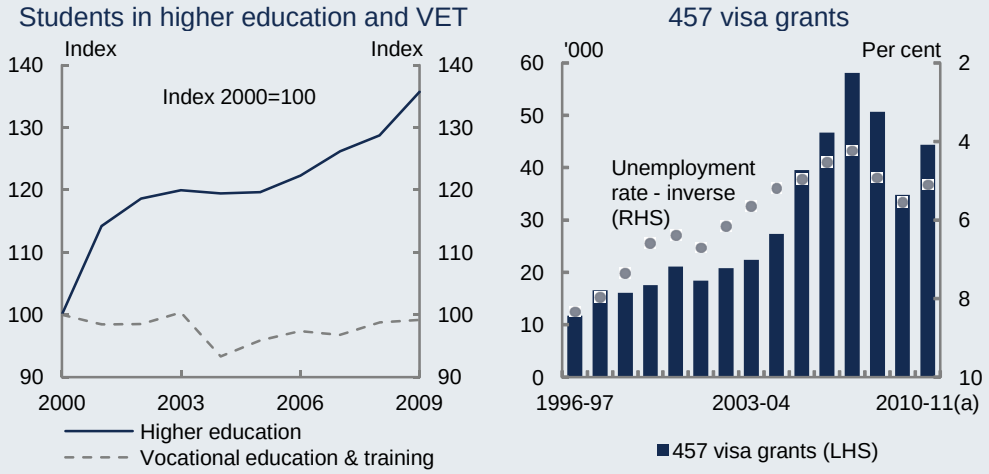
Box 6: Building responsive labour and education markets

Flexible labour markets require that relative wages can adjust to attract workers to areas of higher value; that information flows are effective so people are aware of employment opportunities; that they are free to change occupations, industries or regions in response to market signals; and that education and training markets are responsive to economic change. Well functioning education and training systems are the key means of increasing the supply of workers with appropriate skills.

However, the publicly-funded vocational education and training (VET) system has not responded to demand for VET qualifications over the past decade (Chart 25). Student numbers have been stagnating at around 1.7 million students per year. The Productivity Commission recently found clear deficiencies in the VET sector, including in meeting changing contemporary skills needs (Productivity Commission 2011). The Government's reforms to the VET sector are aimed at improving the quality of training and making the system more responsive to the needs of individuals and businesses (Statement 1). By contrast, despite inflexibilities of its own, the higher education sector has responded to demand for higher level qualifications, with student numbers increasing from around 600,000 in 2000 to around 800,000 in 2009. The Government's action to uncap student places from 2012 will allow universities to respond even more effectively.

However, time lags in the acquisition of education and skills, both through training and then on-the-job experience, can be an obstacle to meeting short-run demands. Appropriately targeted skilled migration assists in addressing these time lags. The Temporary Business Long Stay (subclass 457) visa program, which allows employers to access skilled workers not otherwise available to them in the domestic labour market, is highly responsive to the business cycle.

Chart 25: Students in tertiary education and employer sponsored workers



Source: DIAC, ABS 6202.0, DEEWR, National Centre for Vocational Education Research, and Treasury.

CONCLUSION

The Australian economy has always faced continuous changes, but perhaps few periods as dramatic as the current mining boom.

The unrelenting shift in the economic centre of gravity towards Asia will continue to create both opportunities and challenges. Australia, because of our advantages, has been given a head start in capitalising on the opportunities generated by Asia's economic rise and now needs to demonstrate an ability to reap those gains and lock-in our future prosperity.

The mining boom will continue to play out for some time — leading to further major changes in Australia's economic structure. The extent of other opportunities from Asia's rise, and the changes required to benefit from them, are only beginning to be appreciated. A rising Asia will contain the majority of the world's increasingly wealthy middle class. Their rising consumer purchasing power and changes in their spending patterns will lead to a global consumer market with unprecedented scale and diversity.

It is not possible to fully anticipate the exact form that these other, potentially more important, opportunities will take — let alone the exact shape of the Australian economy that will best service them. However, what is clear is that these opportunities will not just fall into our lap — taking advantage of them will also require a significant change in the structure and, perhaps more importantly, mindset of Australian businesses and will require greater innovation and flexibility in how the skills of Australian workers are used.

The key to future success, and converting opportunity into prosperity that outlasts the mining boom, is to lay sound foundations for the economy's continued adaption and transformation. Australia will need to continue to build productive capacity and ensure that the economy remains flexible and open to the changes required to take advantage of changing global demands. Doing so will provide opportunities across industries and regions, and provide the means to improve the living standards of all Australians. This will be particularly important in the face of other long-term challenges such as demographic change and the need to transform our economy to reduce carbon pollution.

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