Chapter 4: Outlook for Australia to 2025

- Australia’s comparative advantages
- demographic and environmental challenges
- opportunities arising from Asia’s development
Key points

While our future success is not guaranteed, Australians can look forward to 2025 from a position of strength.

The Australian economy is one of the strongest in the world. Australia has a vibrant multicultural society, a highly skilled creative population and a highly productive economy with world-class institutions.

As the global centre of gravity continues to shift to our region, the tyranny of distance is being replaced by the prospects of proximity.

Australia’s natural and created strengths are a source of comparative advantage and we are a confident and outward-looking society.

The economic and social landscape of Australia will be increasingly shaped by the dramatic transitions underway in Asia and developments in its diverse group of countries.

Economic growth in Asia will continue to drive demand for Australia’s energy and mineral resources. But Asia’s transformation and rising middle-class will also bring unprecedented opportunities for Australia well beyond the mining and energy sectors.

Asia will increasingly demand better quality housing and food; more sophisticated consumer goods; a broader range of services, including tourism, education, health and aged care, entertainment, financial and professional services; and many products not yet invented.

Australia is well positioned to take advantage of these emerging opportunities but our success will be based on choice not chance.

In order to succeed, Australia not only needs to sustain the policy settings that have supported prosperity to date, but we need to sprint to keep up with the rapid changes in our region.

Australia will need to build resilience and lift productivity growth, find new ways to operate in and connect with growing Asian markets, build sustainable security and forge deeper and broader relationships in our region.

This will require a concerted and coordinated effort by governments, business and the broader community over many years.
4.1 Introduction

While our future success is not guaranteed, Australians enter the Asian century in a position of strength.

Australia’s economy has evolved as natural advantages have been converted into an economy built on the skills, effort and innovation of our people and businesses.

Australia has experienced its longest period of economic expansion in a generation—more than 20 consecutive years of growth have substantially boosted Australians’ living standards.

Since the Government came to office, Australia has moved up four places in the world rankings of GDP per person, from 17th in 2007 to 13th in 2011. This demonstrates the Australian community’s hard work and resilience, as well as our sound economic management, during a time of heightened global economic turbulence.

Australia has an enviable combination of solid growth, contained inflation, low unemployment and strong public finances. This stands in stark contrast to the weak and challenging economic conditions faced in many parts of the developed world.

Our nation’s strong economic fundamentals did not come by chance. Because of decisive policy action, the resilience of the community and our history of structural reform, Australia weathered the Global Financial Crisis better than almost every other advanced economy. Australia has also experienced a much smoother adjustment to the recent surge in demand for resources compared to the booms of the past—despite some difficult transitions for parts of our economy and community.

Australia has world-leading institutions, a multicultural and highly skilled workforce and a productive, open and resilient economy—one of the strongest in the world.

Out to 2025 and beyond, three forces will shape the economic and social landscape of Australia.

The first is the staggering scale and pace of the continued transformation of Asia. Economic cycles affecting the region will occur around a rising long-term income trend. By 2025, the economies of Asia are expected to account for almost 50 per cent of global economic output, and the combined GDP of China and India is likely to exceed the total output of the Group of Seven (G7). Average GDP per capita in Asia will almost double by 2025 (Chapter 2). To put this into perspective, it took the United Kingdom over 50 years to double its income per person during the epoch-defining Industrial Revolution.

As they become more prosperous, the shape of the economies and societies in Asia will also transform. While Australia will still be further from world economic activity than some other advanced countries, developments in our region are ameliorating the ‘tyranny of distance’.

The second is the ageing of Australia’s population. The proportion of Australians aged over 65 is expected to rise from 13.5 per cent in 2012 to almost one-quarter by 2050
This reflects factors such as growing prosperity and better health. But it also poses challenges for continued improvements in living standards. An ageing population will impact on labour force participation and create fiscal pressures in areas such as health, aged care and disability services.

The third is environmental sustainability. Australia is a continent rich in environmental assets. Australians derive a large share of wealth from those assets and they need to be managed to ensure the wellbeing of future generations (Chapter 5).

It is impossible to predict precisely how Australia’s economy and society will look in 2025, though there will be significant change.

The choices Australians make today will influence future living standards, in the same way that past decisions have shaped today’s society and economy. Becoming fully part of our region will require economic reforms by all levels of government to unlock the economy’s productive potential, a substantial elevation in our knowledge base, a significant change in the mindset of Australian business and leaders in all parts of society, a change in the structure of Australian business and the public sector, longer-term vision on the part of investors, and sustained improvement in the capabilities of Australian workers.

Rising incomes and higher living standards will not fall into Australia’s lap. But if Australia can succeed in harnessing the opportunities presented by Asia’s re-emergence, the benefits will be enormous.

Consistent with the *Intergenerational report*, Australia’s real income could rise from around $62,000 per person in 2012 to about $70,000 by 2025—based on Australia’s long-term historical productivity performance (referred to in this chapter as ‘business as usual’) (Chart 4.1) (Australian Government 2010).

But if Australia aspires to reach the ambitious national economic goals set out in the White Paper’s roadmap and grasp the opportunities on offer, then Australia’s real income per person could rise to about $73,000 by 2025 (referred to in this chapter as ‘Australia’s 2025 aspiration’).¹

Australia’s living standards would be in the world’s top 10 by 2025.

Against the backdrop of an ageing population and projected decline in the level of the terms of trade in the coming decades, this would require a productivity performance roughly comparable to that experienced in the 1990s—an ambitious undertaking.

But given Australia’s ageing workforce and a projected continuing decline in Australia’s terms of trade over the medium term, if we fail to raise productivity growth from the levels of the first decade of the 21st century, Australia’s income could increase to only about $67,000 per person (the ‘low growth path’).

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¹ Assuming unchanged projections for labour utilisation, net income transfers and the terms of trade.
Two main imperatives arise when discussing the implications for Australia of Asia’s economic transformation.

First, the opportunities for Australia go well beyond mining—even though a robust economic outlook in the region will drive strong demand for energy and mineral resources over the medium term.

While demand for Australia’s commodity exports is likely to remain strong, their prices have probably passed their peak as new global supplies enter the market, as expected. However, the resources boom can be characterised as having three overlapping phases—a price boom, an investment boom and an export production boom. While the peak of the price boom is likely behind us, resource investment is set to remain high for some time. Record investment in the resources sector is already beginning to boost the economic capacity of the economy and will continue to drive higher export production for many years to come.

The opportunities beyond mining are enormous. Australia needs to position itself to take advantage of the next stage of Asia’s development, as the region becomes a more dominant force in the world consumer market (Chapter 2). The growing cities of Asia will be filled by an upwardly mobile population with increasing disposable incomes and more sophisticated demands, bringing a broader range of opportunities for Australia across a diverse range of sectors.

Second, Australia will only prosper if there is a concerted and coordinated effort by government, business and the entire community to take advantage of the opportunities ahead and effectively manage the challenges (chapters 5 through 9).
Governments, businesses and organisations around the world are turning their attention to the opportunities in our region, while economies in Asia will increasingly draw on their own production to meet their growing demand. In education, for example, Australia will be challenged by rapid growth and improvements in the quality of competitor institutions elsewhere in Asia and in the rest of the world; in the tourism sector, we have to build on Australia’s natural advantages, as well as advertise them.

The ability of the Australian economy to flourish in coming decades depends upon our ability to raise productivity, develop a deeper understanding of the changes taking place in our region and build successful long term relationships. It will require new capabilities, new business models, open mindsets, greater investment in skills and education and a higher degree of specialisation in areas where Australia has a distinct comparative advantage.

We will ensure that the policy reforms which have delivered today’s strong economy are not unwound. We need to continue with reforms which increase the flexibility and resilience of the economy and build its productive capacity. This will allow people and businesses to embrace change, adapt and innovate.

Irrespective of how the Asian century unfolds, Australia’s destiny is in our own hands. It is no coincidence that many of the policies needed to sustain the growth in Australia’s living standards during the Asian century are the same as those needed to deal with an ageing population, climate change and other environmental pressures.

Asia’s re-emergence and what it means for Australia

As people in Asia become wealthier and no longer need to spend as much of their income on necessities, such as staple foods and shelter, they will demand a diverse range of durable goods and services, from household goods to health care. Continued urbanisation will sustain demand for resources and energy. With higher discretionary income and more leisure time, consumers will demand better quality food, electronic goods, tourism, education, entertainment, financial services and many products not yet conceived.

Australia is well placed to supply many of those goods and services, with large natural resource endowments that are complementary with the world’s fastest-growing economies. Australia has abundant and high-quality mineral and energy reserves, a diverse climate and a large expanse of land—and our locational disadvantage is fast receding.

Australia’s comparative advantage is not limited to our natural resource endowments. One of Australia’s great strengths is our people—we have a healthy, highly skilled and creative population with deepening connections with the region and demonstrated capability in innovation and complex problem solving. Decades of investment in research and development have created world-leading research infrastructure and highly capable scientific workforces with expertise in areas such as health and medical research, environmental management, remote sensing and other fields that will be
important in coming decades. Australia’s experience in tackling challenges such as low-emissions growth, infrastructure development, urban design, stresses on air quality, soil and water systems and health and aged care will create opportunities to cooperate with our neighbours in these areas.

There will also be opportunities for Australian services firms and manufacturers to become part of the region’s interconnected production networks. Some sectors will be unable to maintain existing industry structures and their business models will need to evolve in order for Australian firms to become increasingly integrated and specialised, offering high-value solutions as part of wider cross-border value chains.

Opportunities are not limited to what Australia can supply Asia. Asia will become an increasingly significant source of new ideas, technologies and leading-edge science for Australia. There will be more opportunities for Australia to use deeper connections with Asia to broaden the flow of ideas. Australia is well positioned to build collaboration with the best and brightest in Asia as these countries develop and skill up.

Australian society reflects our multiculturalism. Australia’s socially cohesive and diverse nation is one of our enduring strengths. Our nation brings the values of fairness and tolerance to all its dealings in the region and the world.

As Asia’s focus on culture and entertainment expands—both as consumers and producers—it will increasingly influence global cultural trends. This will provide new markets for Australian artists, and Australians will have access to a broader range of cultural experiences. These connections can build bridges between the cultures of our region and promote open-mindedness and active engagement.

Australia’s endowments are the foundations of our comparative advantage in the Asian century.

### 4.2 Australia’s outlook

Over the past decade, the most obvious economic display of Asia’s rapid growth for Australia is the rise in the terms of trade, underpinned by strong demand for coal, gas, iron ore and other minerals, and the access to low-cost manufactured goods sourced primarily from Asia. Australia’s terms of trade recently rose to their highest level in 140 years.

While the decline in commodity prices since mid-2012 and the sustained high dollar has created challenging conditions for some resource projects, the prospect of continued strong demand for Australia’s non-rural commodities has supported the build-up of about $500 billion of projects (BREE 2012b). Over half of these projects are already at an advanced stage. There is still substantial resource investment to come and it is expected to remain at high levels over the medium term.

While Australia’s terms of trade seemed to have peaked in 2011 at 140-year highs, commodity prices and the level of the terms of trade are likely to remain high over the medium term. Investment still to come will continue to increase Australia’s production and export capacity (IMF 2012a).
While income per person is projected to keep rising, its growth is expected to slow due to the projected decline in the terms of trade and the projected decline in labour force participation as the population ages.

The objectives and pathways in the White Paper roadmap provide the mechanisms to transform Australia’s economy as we aspire to Australia’s GDP per person being in the world’s top 10 by 2025, up from our ranking of 13th in 2011. This will require a lift in Australia’s productivity (Box 4.1).

Productivity improvements will be the main determinant of growth in Australian incomes. The Government will work to strengthen productivity through building on our investments and reforms across the five pillars of productivity—skills and education, innovation, infrastructure, tax reform and regulatory reform (chapters 5 and 6).

**Box 4.1: Australia’s living standards—international rankings**

Australia has one of the highest living standards in the world. Adjusted for purchasing power parity, Australia’s income per person was the 13th highest out of some 180 countries in 2011, up from 17th in 2007.

Based on International Monetary Fund projections, Australia is on track to raise its ranking from 13th to 11th in the world by 2017 (Table 4.1). For Australia to reach the top 10 by 2025, all else being equal, Australia’s labour productivity growth needs a boost of about one-half of a percentage point a year above the ‘business as usual’ scenario.

Australia has achieved such a boost in the past, on the back of institution-building and reform in the 1980s and 1990s. Labour productivity growth averaged 2.1 per cent a year in the 1990s compared to an average of 1.3 per cent in the 1980s—an increase of about three-quarters of a percentage point.

**Table 4.1: International rankings of GDP per person in 2017**

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Note: In 2017, Hong Kong ranked fourth, followed by Norway, the United States, Brunei, United Arab Emirates and Ireland. GDP adjusted for purchasing power parity (in 2011 prices). Source: Based on IMF (2012d).
But most of what is required to lift Australia’s productivity is in the hands of individuals, especially managers of businesses. It will emerge through innovation in business processes within firms and more sophisticated relationships among firms, encouraging knowledge transfer and exploiting gains from specialisation.

Given that the fastest growing markets will be in the emerging economies of Asia, Australian businesses and workers will need a good understanding of the cultures and practices in those markets (Chapter 6). Australia’s access will require ongoing reforms in regional markets to increase their openness (Chapter 7). To prosper, firms and individuals operating in Asia will need to deepen and broaden their relationships within the region (Chapter 9).

Labour force participation, along with productivity, will also determine growth in Australian incomes. It will be affected by the ageing of the Australian population, which has added to labour participation over the past four decades as the proportion of children in the population has fallen steadily. However, Australia’s aggregate labour force participation rate has now hit its peak. As the baby boomer generation moves into retirement, the same process of ageing will detract from labour force participation, and hence from growth in output and income per person.

Depending on the rate of immigration, the participation rate among working-age people will fall from around 65 per cent to 60 per cent (Australian Government 2010). Whereas today there are five people of working age for every person aged over 65, by 2030 this will have dropped to three (Chart 4.2). An ageing population and declining participation rate could lower Australia’s economic growth and reduce the capacity to fund infrastructure and essential services such as health. Of course, not all these trends are immutable. There is scope to lift workforce participation rates across most age groups, particularly mature age workers.

The ageing of the population is not solely an economic matter. Australians are living for longer and a growing cohort of active and experienced Australians presents economic and social opportunities. We will see increasing demand for products and services related to seniors living in Australia and overseas. Businesses and governments must position themselves to seize the opportunities from these new patterns—ensuring that those senior Australians who wish to contribute their energy and experience to the workforce have the option to do so.

Population growth will also have a substantial bearing on the size of the Australian economy. Australia’s population is predicted to grow to around 27 million by 2025 (Chart 4.2). In 2025, Australia is expected to have almost 2 million new jobs compared with today. An increasing population, including through well-planned and well-managed migration, has the potential to add considerably to the growth of the economy and boost incomes per person. However, if population growth is not well managed, it could also detract from our economic performance and from the wellbeing of Australians.
Australia has one of the most urbanised populations in the world: 75 per cent of Australians live in cities with populations over 100,000, and the capital cities hold about two-thirds of the nation’s population. By 2025, an additional 4.5 million people are projected to live in the capital cities. This will be driven mainly by firms and individuals seeking to capture the benefits of greater productivity and access to services in urban areas. In managing this urban growth, Australia will need to address environmental sustainability, urban development and amenity, and the capacity of infrastructure and services (Chapter 5).

Regional centres close to major metropolitan cities with good infrastructure, services and amenities could play a critical role in relieving stress on capital cities arising from urban growth.

Australia’s history shows that immigration can have positive economic effects and enrich society. A well-managed immigration program, drawing on young and highly skilled people, will have a positive impact on Australia’s demographics and labour force participation rates.

The recent trends of more two-way flows of people between Australia and the rest of the region are likely to continue. The number of Australians born in countries in Asia or with an Asian heritage is likely to grow as Australia becomes increasingly integrated into the region. The trends of people living, working or studying temporarily in Australia will also continue.

Australia’s population—with more than a quarter born overseas—and the large number of Australians living overseas help to build social and business networks that
increase our cultural awareness and lower the costs of international trade and investment. They foster connections with the rest of the world, helping to overcome language and distance barriers.

As Asian prosperity lifts the educational attainment of the region’s populations, there will be a growing pool of potential skilled migrants. At the same time, however, Australia will face greater competition to retain its best workers and to attract the region’s best to Australia. Asia is increasingly likely to be a region of immigration in addition to emigration, as countries such as China, India, Malaysia and Thailand become destinations as well as being countries of origin of many migrants.

Australia can address the challenges of a growing population and falling workforce participation—through a well-planned and well-managed migration program, appropriate assistance to ensure that economic circumstances do not present a barrier to parenthood, and policies that deal effectively with infrastructure provision and environmental sustainability. Australia can also support people to re-engage in the workforce through targeted reskilling and training programs. The link between population dynamics and policy does not run in one direction. Economic security and high and rising living standards in Australia, secured by robust policies, remove a major source of uncertainty for those considering having children, encourage expatriates to return to Australia and attract migrants seeking opportunity.

The challenge now is to build productive capacity and ensure that Australia prospers over coming decades.

4.3 Opportunities of the Asian century

Strong growth in Asia will present opportunities for most sectors of the economy in some form. Those opportunities will arise not just from increased incomes and changing consumer preferences in Asian economies. Changes in the Australian economy, including increasing incomes, will change consumer preferences, creating new opportunities for those supplying the domestic market. To capitalise on these opportunities, there will be a need for the structure of the economy to transform.

The mining boom has brought significant economic benefits to Australia. It has also brought challenges for some parts of the economy. The high level of the terms of trade has been accompanied by a sustained high exchange rate. The Australian dollar reached parity with the US dollar in October 2010 and has fluctuated around parity ever since. The real trade-weighted index in mid-2012 was around 40 per cent higher than its average since the 1983 floating of the Australian dollar (RBA 2012). Since the float, the Australian dollar has never before increased in value so quickly and remained elevated for so long.

The high exchange rate and competition for capital and labour from the mining-related sectors are having profound impacts on the size and structure of the Australian economy. The high exchange rate has also made it cheaper for consumers to buy goods from overseas. The parts of the traded sector not linked in some way to mining are facing sustained pressure from foreign competitors.
This is not the first time in Australia’s history that there has been a structural transition. A century ago, the Australian economy was heavily reliant on the country’s natural resource endowment. By investing some of the benefits of Australia’s natural wealth, we have created a diverse economy that is service-oriented, yet maintains a core of technologically advanced sectors engaged in agricultural, mining and industrial production. This pattern of growth is similar to that in other major developed economies, notwithstanding Australia’s larger domestic mineral and energy resources sector.

In the past decade, the process of structural change has been profoundly influenced by economic growth in Asia and Australia’s integration with the region (Chapter 3). This influence will continue well into the future. The effect on industries will be uneven and some individuals and communities, whether because of their particular skill sets or circumstances, may not easily benefit from the transition. Although change will bring challenges to some, it will provide opportunities to many others.

Australians can also take some confidence from the fact that the economy has adjusted to the recent resources boom more smoothly compared to past booms. This reflects the impact of past structural reforms that increased the flexibility of our economy (Box 3.5, Chapter 3).

New or expanded opportunities will not be isolated within individual sectors: active collaboration between firms in different sectors will often be necessary. For example, construction and engineering services and manufacturing will support resources development; research and design services will, in turn, support manufacturing and engineering. The financial services sector will enable investment in new projects and infrastructure as well as expansion into Asia. Service industries such as logistics underpin many other industries. The agriculture and food sector is also set to benefit from increased demand in Asia (Case study). Collaboration need not be restricted domestically and, increasingly, it will not be. Partnerships with firms in Asia provide access to new and diverse ideas and allow integration into cross-border production networks.

As the National Broadband Network is rolled out, it will create opportunities for Australians to participate better in the digital economy, the global network of economic and social activities that are enabled by platforms such as the internet, and mobile and sensor networks. This will have an impact across Australia’s export industries as the speed and capacity of Australia’s digital network expands.

The growing and populous nations in Asia will be increasingly important in driving the size and shape of global consumer markets. This will not be restricted to China’s influence; Australian firms can also capitalise on developments in India, Indonesia, Thailand, Vietnam and other emerging economies.

Many new opportunities will emerge, not just from the provision of tangible products and services, but from the value created from Australia’s intangible assets—from the ability to think creatively in analysing and understanding problems, from improvisation, and from designing imaginative and effective solutions to significant societal challenges. Investment in intangibles creates capabilities that allow firms to
find niches and become more competitive along their entire production chains, thereby capturing a larger share of value. Australia already has significant intangible assets that could potentially be shared with Asian economies.

The fastest growing sectors are likely to continue to be mining and those services and manufacturing sectors related to mining. While the terms of trade are projected to decline over the medium term, they are expected to remain at historically high levels for some time, reflecting a prolonged shift in global demand. Coal and iron ore mining output will continue to grow, while liquefied natural gas (LNG) production is expected to develop rapidly to become a major export industry of global rank.

However, the services sectors of the economy are by far the largest producers of output and create the largest number of jobs (Chart 4.3). The services sector is expected to continue to grow and the composition of services will shift in response to consumer and businesses preferences and Australia’s rising income. For example, the ageing population will change the type of services that these consumers demand, creating new opportunities.

![Chart 4.3: Australian real GDP and industry composition](image)

Note: Consistent with the business-as-usual scenario. Real GDP allocated to sectors based on nominal value added shares. Data are in 2009–10 dollars. Sources: Treasury projections based on ABS data and Australian Government (2011c).

Manufacturing output is projected to grow to 2025, albeit at a slow rate. Manufacturing firms are finding ways to adapt by anticipating changes in their markets, building the talents of their people and constantly innovating and lifting their productivity. The manufacturing sector stands out as one in which firms are reviewing their business practices and adopting new processes. In 2010, one in four manufacturing firms adopted new operational processes—as opposed to less than one in ten in other industries (Lowe 2012). The White Paper’s roadmap aims to support the manufacturing sector to become even more productive and capitalise on the opportunities arising from Asia.
The burgeoning Asian middle class will also create opportunities in other areas. The region will demand more agricultural products, a broad range of agricultural services and more sophisticated consumer goods (Case study). Within sectors, the types of firm will change as business transforms through the adoption of technology and other opportunities.

Some of the benefits from the rise in the Asian middle class are already evident. One example is education, which is Australia’s largest services export. The number of students from Asia, particularly from China, India and the ASEAN–5, studying in Australia has increased from around 170,000 in 2002 to over 320,000 in 2011, contributing 79 per cent of the export income generated by international students studying in Australia. A similar pattern can be seen for Australia’s wine exports, of which China’s share is now five times what it was five years ago.

Future employment opportunities will largely mirror production, both by sector and by location. Employment growth by each State or Territory will reflect their industry composition and population growth.

With resources investment and production continuing to expand for some time, northern Australia is likely to account for an increasing proportion of Australia’s production and labour demand. Western Australia, Queensland and the Northern Territory had amongst the highest population growth between 2006 and 2011, while Perth had the highest growth of any capital city (ABS 2012a, 2012g). Significant new projects in LNG, iron ore, coal and other resources and energy commodities are expected to continue these trends.

Within Australian States and Territories, there will be areas with potential high growth. The way this expanded economic activity is managed will have consequences for regional development. The strong demand for skilled workers has resulted in the emergence of ‘fly-in, fly-out’ and ‘drive-in, drive-out’ arrangements. Such arrangements might also present opportunities for workers in other regions of Australia.

The minerals and energy resources sector will continue to be a relatively small employer in absolute terms, even though growth in mining and related construction and professional services employment will remain high (DAE 2012). Services overall will add the largest number of jobs, with strong growth in health, education, professional and construction services. While manufacturing output is projected to grow in the medium term, its share of employment relative to other sectors will continue to fall.

What will emerge as a result of these opportunities is that Australia’s trade patterns will change, urbanisation will continue to drive demand for resources and energy, and new opportunities will emerge in manufacturing and in high-quality food production. Rising incomes will also provide opportunities for the education and tourism sectors, and for services more broadly.
Australia’s trade patterns will change

Australia is already one of the most Asia-oriented trading nations in the world (Chapter 3). Strong complementarity between the Australian and rapidly growing economies in the region, further reductions in trading barriers, growing cross-border value chains and technological trends will see Australia’s trade links with Asia continue to expand (Chapter 7).

The composition of Australia’s exports is expected to reflect international demand. The share of mining exports will remain elevated and the share of agricultural exports is likely to rise, while the share of manufacturing exports is expected to fall (Chart 4.4).

Although Australia has historically been among the most remote countries in the world, the rise of Asia means that we will become closer to the centre of world economic activity. The share of world output within 10,000 kilometres of Australia has more than doubled over the past 50 years to more than a third of global output today, and this share will rise to around half of global output in 2025. The reduction in transport and communication costs will support new opportunities for exporters to find new markets and integrate with cross-border value chains, just as others in the region have done (Box 4.2).

A large share of Australia’s exports to Asia is mining exports (Chart 4.4). Australia’s proximity to Asia is more of an advantage for goods with a higher freight component, like resource commodities. In absolute terms, exports in the mining, manufacturing, services, and agricultural sectors are all expected to increase between now and 2025.
Box 4.2: Exchange rate appreciation and successive relocations of production in Asia

In Asia, regional production networks developed in response to the appreciation of the Japanese yen, which rose by 70 per cent against the US dollar in the decade to 1995. However, the effects of exchange rate fluctuations differ between simple labour-intensive consumer goods, such as textiles, and more sophisticated products, such as electronics, which can be produced in a process that is broken up and spread across borders (Thorbecke 2011).

In response to rising cost pressures, Japanese firms shifted labour-intensive assembly operations to other Asian countries while high paying jobs and profits were retained in Japan. At first, in the 1980s, they channelled foreign direct investment and intermediate goods to South Korea, Taiwan and other newly industrialised economies. However, as their currencies appreciated and incomes rose, lower-end, labour-intensive assembly operations were successively relocated to China and the ASEAN economies.

Consequently, trading relations within Asia took on a ‘triangular’ rather than bilateral pattern (Gaulier, Lemoine & Ünal-Kesenci 2005). Higher skilled workers and industries in Japan, South Korea and Taiwan produced sophisticated technology-intensive parts and components and shipped them to China and the ASEAN economies for assembly and re-export to the rest of the world. In 2005, half of the value added in China’s gross exports of high-technology goods was foreign sourced; for Japan’s gross exports of high-technology goods, it was one-fifth (Riad et al. 2011).

The development of regional value chains and trends towards specialisation has influenced the pattern of trade in the region—benefiting people everywhere. The electrical equipment industry is a case in point (Athukorala & Menon 2010). In particular, the Japanese electronics industry underwent substantial vertical integration with China and the ASEAN economies in the 1990s. The share of trade between Japan and China in vertically differentiated electrical equipment products rose from less than 10 per cent in 1988 to almost 60 per cent in 2000 (as a proportion of total electrical machinery trade between the two countries) (Fukao, Ishido & Ito 2003). That share also increased for Japan’s intra-industry trade in electrical equipment with Indonesia, the Philippines, Singapore and Thailand.
Time zones will also matter in coming decades. With increasing trade in services possible through expansions in network technology and the tight interconnection between production in agriculture, minerals and energy resources, manufacturing and these service activities, Australia is well placed in the time zone of the dynamic Asian region. For example, 60 per cent of the world’s population lives in the same time zone as Australia’s west coast (UWA 2012). Time zone similarities will particularly benefit services sectors, such as financial, legal and consulting services.

As Australia’s trade links with Asia have increased, so too have two-way investment flows. This trend is set to continue as nations in Asia become an increasing source of investment into Australia. Australian investors will also take up investment opportunities elsewhere in Asia, particularly as restrictions to investment in overseas markets ease. We will continue to advocate for greater investment access in Asian economies. To make the most of these opportunities, firms will need to build their knowledge and understanding of financial and legal institutions in the Asian region (chapters 6 and 7).

Urbanisation will continue driving demand for resources and energy

Continued urbanisation in the developing nations of Asia, combined with Australia’s natural resource endowments, which go well beyond domestic needs, will drive strong demand for Australia’s energy and mineral resources (Chapter 2). Asia’s growth has been spurred by heavy investment in physical and human capital across the region. Capital investment across Asia is in the order of US$10 trillion a year and could grow to more than US$20 trillion a year by 2030 (BCG 2012).

Even though many commodity prices have fallen somewhat from their historic highs, Australian resources investment is expected to remain high in the medium term and will continue to lift minerals and energy production and exports (Chart 4.5). Natural gas is likely to be the primary fuel for transitioning the globe to a low-carbon future. Australia is well placed to be a major supplier of LNG, and a number of new world-scale LNG projects are already in development.

Australia is a resource-rich nation with a deep comparative advantage in mineral and energy resource exports. Australia has the world’s largest economically demonstrated reserves of lead, rutile, zircon, nickel, gold, silver and zinc. Australia ranks second in world reserves for iron ore, bauxite, tantalum, tungsten and ilmenite, and is in the top 10 for a number of other mineral reserves, including black coal (Geoscience Australia 2012). Australia is also the world’s fourth-largest LNG exporter (EIA 2011).

Maintaining Australia’s current attractiveness for investment, based on a stable political and regulatory environment and freight cost advantage to Asia, will be important. This includes addressing constraints on investment and production (Chapter 5). Our forthcoming Energy White Paper will set out a strategic policy framework for the continued development of our world-class energy sector. The opportunities from further growth in our energy exports will also support the expansion of our domestic energy and downstream industrial infrastructure.
Asia’s demand for Australia’s resources will continue to support growth in other parts of the economy, including parts of the construction, manufacturing and services sectors. And, as other nations around the world increase their resource production, Australian mining services companies are well placed to export their high-quality services (Box 4.3). The Australian mining technology services and equipment sector has grown its exports rapidly over the past decade, from around $470 million in 1996 to around $2.5 billion in 2009, from total revenue of around $8.7 billion. Exports to Asia make up the largest share, and exports to India and Indonesia exceed those to China (Tedesco & Haseltine 2010).

**Chart 4.5: Outlook for Australian commodity exports**

- **LNG exports**
- **Coking coal exports**
- **Thermal coal exports**
- **Iron ore exports**

Source: BREE (2012a).
Box 4.3: Developing globally competitive mining services

Australia is already on the way to meeting the conditions for developing a world-class natural resource services cluster.

First, Australia has highly demanding and sophisticated global customers for its natural resources. Natural resource companies, in turn, are world-class, highly sophisticated customers for the service industries.

Second, Australia has a rich base of natural resources to underpin its natural resource industries. While they provide a base, on their own they do not guarantee sustained competitive advantage. Instead, factors such as a highly skilled workforce, infrastructure and capital create longer-term competitive advantage.

Third, Australia has the sophisticated governance systems and strong legal system needed to guide the way companies are created, organised and managed, as well as the competitive legal frameworks to ensure that companies must compete actively with each other. This drives innovation.

Fourth, Australia has a large and growing set of related and supporting industries that cover a broad range of activities.

The strength of Australian natural resource industries has meant that many providers of resources services have developed successful global strategies and are growing rapidly on the back of their global businesses. Australian natural resource players are increasingly outsourcing specialist skills to dedicated suppliers. These organisations are following their customers offshore and are now exporting their expertise around the world.

This process by which fast-growing, internationally competitive, resource-based industries create clusters of rapidly growing suppliers and service providers is not new. In the United States, Texas built an oil and gas services industry on the back of its oil reserves. Israel has built an irrigation industry through its need to increase water-use efficiencies. What is new is the prospect that, because of improvements in communications technologies, Australian organisations are able to develop the global critical mass they need to lead in their fields, far faster than the historical experience.

Source: Port Jackson Partners (2011).
New opportunities will emerge in manufacturing

The structural adjustment underway in the Australian economy in response to the strong overseas demand for resource and energy commodities is making it difficult for some sectors of manufacturing to compete for labour and capital, particularly in the manufacturing sectors not supplying mining construction.

Despite these pressures, manufacturing is expected to play a critical role in Australia’s future. The Prime Minister’s Manufacturing Taskforce was appointed to map out a shared vision for the future of Australia’s manufacturing sector and help strengthen local firms as they adjust to changes in our economy and the region. The report from non-government members of the taskforce, Smarter manufacturing for a smarter Australia, concludes that manufacturing can prosper and grow in Australia if the sector takes advantage of emerging opportunities in the Asian region. We are committed to ensuring that Australia retains a strong manufacturing industry and will respond to the report’s recommendations with an Industry and Innovation Statement (Chapter 5).

Australia’s largest manufacturing exports to Asia are currently pharmaceuticals and industrial machinery (BCG 2012). Australia’s strong created endowments, highly skilled labour and strong regulatory standards provide comparative advantages for the pharmaceutical and other health-related manufacturing sectors. Australia has a well-deserved reputation for high-quality methodology and high safety standards.

Manufacturing firms will have opportunities from the growing resources sector and its infrastructure projects. For example, mining equipment and instrumentation, explosives, energy systems, transportation equipment and personal protective technologies for miners all present growth opportunities for the sector.

Increased trade and investment openness in the region, stable regulatory systems, and having the ability to draw on a highly skilled Asia-capable workforce will be important factors for the future of Australia’s manufacturing sector (chapters 5, 6 and 7). But the challenges that firms, especially small and medium-sized enterprises, will face should not be underestimated. Manufacturing firms will need to change their business models, improve their market orientation and improve their innovation performance, including through their links with research organisations (Chapter 5).

Increasingly, wealthy consumers in Asia will provide new markets for Australian niche manufacturers, as will the need to find innovative and sustainable ways to support Asia’s urbanisation. Australian firms will need to tap into the cross-border production and investment networks that will become more important over coming decades. Australian firms that broaden their operations across national borders can lower their cost base, reduce their dependency on the domestic market, increase their productivity and create opportunities for Australians to live and work in the region.

Domestically and internationally, the introduction of carbon pricing will provide opportunities for new low-emissions products and services to thrive (Box 4.4).
Box 4.4: Manufacturing can benefit from a clean energy future

The introduction of carbon pricing in Australia and moves to price carbon globally will create manufacturing opportunities as firms develop new low-emissions technologies that can be deployed worldwide. Opportunities will include developing:

- products and systems that support the growth of a low-carbon energy future, such as components and energy management systems for solar and wind
- products that support the construction of a more sustainable built environment and infrastructure, such as energy-efficient building systems and materials with inherently lower embodied energy/carbon
- low-carbon manufacturing techniques and technologies and exporting those developments
- high-value-added, manufactured products that are also high in intellectual property value with relatively low-carbon transport, and hence low shipping costs (often from the science and biotechnology areas, such as medical devices and diagnostic equipment).


Increased demand for high-quality food

Australia’s diverse climate systems and quality of agricultural practices position us well to service strong demand for high-quality food in Asia (Case study). As a result, agriculture’s share of the Australian economy is expected to rise over the decade to 2025 (Chart 4.3).

With rising incomes in Asian economies, there will be a structural change in global consumption to higher value food products and services. Strong demand is expected to continue for the foreseeable future, especially for higher quality produce and protein-rich foods such as meat and dairy products (Chart 4.6). This will also increase the requirement for animal feed, such as grains. As well as an expansion of food trade with Asia, changing consumer preferences will provide opportunities for a wider range of processed foods, convenience foods and beverages, including wine.

Australia is a world leader in the production of grains for human consumption and for feedlots, as well as in the production of land-intensive meat products such as beef (BCG 2012). Strong regulatory and quality management systems allow Australia to produce high-quality, safe foods that are traceable along the entire production chain. As Australia integrates with Asia, it will be important to maintain those qualities (Chapter 7).

There are also opportunities in exporting, and collaborative research in, agricultural technologies to increase yields, reduce water use and lessen environmental degradation. These technologies will improve food security within the Asian region and also improve the sustainability of Australia’s agricultural practices as production expands to meet growing demand (Box 4.5 and Chapter 8).
Box 4.5: CSIRO—helping find opportunities within challenges

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has a long history of partnering with Australian development aid agencies, such as Australian Agency for International Development (AusAID) and the Australian Centre for International Agricultural Research, to build capability in the Asian region. The rapid transitions occurring in some countries, such as Indonesia and Vietnam, coupled with the ASEAN – Australia – New Zealand Free Trade Agreement, mean that Australia has an opportunity to develop new research and collaboration partnerships with them.

CSIRO’s Food Futures Flagship has engaged in a long-term project with the centre aimed at improving feed sustainability for marine aquaculture in Vietnam and Australia. The project looks at diet development and low-value fish replacement, and aims to lead to greater adoption of manufactured feed in Vietnam and better use of alternative raw materials in Vietnam and Australia. Collaborating institutions in Vietnam include the Research Institute for Aquaculture and Nha Trang University.

In 2010, a CSIRO–AusAID Research for Development Partnership project was launched at the University of Mataram on the Indonesian island of Lombok in West Nusa Tenggara Province. The project, ‘Climate Futures and Rural Livelihood Adaptation Strategies’, is co-funded by AusAID and the Charities Aid Foundation. In collaboration with Indonesian researchers from the University of Mataram, the Research Institute for Agricultural Technology and the Indonesian Bureau of Meteorology, the project will combine analysis of downscaled climate projections, socioeconomic trends and adaptive capacity to identify and implement adaptation strategies for rural people.
Rising incomes provide opportunities for education...

Education is currently Australia’s fourth-largest export earner (DFAT 2012).² Education also provides opportunities for cultural engagement and the building of intangible assets, such as networks and knowledge of our region.

Although many governments and individuals in Asia are investing heavily in the sector, demand for high-quality education is likely to continue to outstrip supply. In the higher education sector, the number of outbound students from Asia has almost doubled over the past decade to more than a million (BCG 2012).

Australia has a well-established reputation in the international education market—with international student enrolments growing over the past decade. Over time, Australian institutions have also begun to provide education services within the region, either directly through collaborative arrangements with offshore partners or at fully or partly owned campuses offshore.

Around 80 per cent of all international students in Australia are from countries in our region. The top five countries for inbound international students are China (29 per cent), India (13 per cent), South Korea (5 per cent), Vietnam (4 per cent) and Malaysia (4 per cent). After a decline in recent years, overseas student numbers are expected to increase in coming years.

The benefits of education exports are not restricted to direct income. Around one-third of skilled migrants to Australia are former international students, bringing the benefits of their skills and knowledge to Australian firms. And the additional enrolments provided by international students allow educational institutions to diversify their course and research offerings and provide an international focused education in Australia. It fosters lasting connections and relationships between Australians and people from all around the world.

Rapid growth in enrolments between 2006 and 2009 has been followed by a decline in overall numbers since 2010 (Chart 4.7). The sector has faced challenges, and following independent reviews, we have introduced a number of significant policies to strengthen the quality of international students’ educational experience and to improve the quality, integrity and competitiveness of the student visa program.

We are committed to ensuring that Australia is recognised as a partner of choice for education and that education providers can adapt their existing practices to improve their links with and access into the region (chapters 6 and 7). Future Unlimited, the Australian Government’s international education brand, promotes Australia’s globally recognised education sector, and associated career possibilities, as well as supporting education providers to expand their engagement with the region.

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² Defined as ‘education-related travel services’.
... and for tourism ...

Tourism is one of Australia’s largest export industries—worth about $24 billion in 2010–11 (ABS 2011b). Asia’s outbound tourism is growing rapidly as incomes rise, and outbound tourists from the Asia–Pacific region are expected to reach 541 million by 2030 (UNWTO 2011).

Australia’s natural endowments and position as one of the developed countries closest to Asia provide us with natural advantages. In 2011–12, seven of Australia’s top 10 most valuable inbound tourism markets were in Asia (TRA 2012b). In the same year, China became Australia’s most valuable tourism market, and over time it will also become the source of the highest number of visitors. Strong growth from India and Indonesia, supported by a younger demographic and expansion in other promising Asian markets, such as Vietnam, is expected to complement the growth from China. This anticipated boost to tourism will have benefits for Australia’s tourist industry, including for Indigenous Australians engaged in tourism and for regional Australia. In particular, there are opportunities for new tourism hubs in northern Australia around the growth of new Asian markets.

While overseas tourist numbers from all regions are expected to increase to 2020, the growth in numbers from within Asia will outpace growth from all other markets in both percentage and absolute terms. By 2020–21, Asia’s share of inbound arrivals is expected to have increased from 41 per cent to 45 per cent (TRA 2012a) (Chart 4.8). This will drive the total economic value of inbound tourism to around $35 billion by 2020.
Increasing air services between Asia and Australia, as demonstrated by the recent expansion plans of Air India, China Southern, China Eastern and Jetstar, present a strong opportunity to build tourism links with Asia. And Australia will need to expand the supply of tourism infrastructure. Australia has one of the highest room occupancy rates among OECD countries and will need another 40,000 to 70,000 hotel rooms by 2020 to meet projected demand (OECD 2010b).

Importantly, the tourism industry needs to develop culturally relevant products to capitalise on growing Asian interest in Australia as a tourist destination. This will mean developing sophisticated luxury urban tourism opportunities, such as those offered by Crown Limited, as well as showcasing Australia’s outstanding natural beauty. Tourism brings opportunities to other sectors in the economy, such as retail and transport.

**Chart 4.8: Visitor arrivals in Australia**

... and for services more broadly

Services now contribute about two-thirds of Australia’s economy and about one-fifth of our exports (ABS 2012d; ABS 2012h). Over the period to 2025, services (including construction and utilities) will continue to grow (Chart 4.3).

The services sector covers a broad and widening range of economic activities, from professional and financial services to transport, construction and logistics. And the contribution of services to the economy goes beyond the value of individual sectors. Energy, transport, finance and insurance are important intermediate services used in the production of other goods and services. These inputs can account for a large proportion of the value of goods and services, especially in high-value-added manufactures. The expected increase in resources, energy, tourism and education exports will provide opportunities for the services sectors to expand.
As Asian markets integrate, there is an increasing call on service capabilities in an increasingly sophisticated market. Australian firms have developed strong capabilities in a range of professional, information technology and other business services (BCG 2012). Some Australian law firms have developed joint ventures or other regional business models with firms in Asia and elsewhere. For example, the Norton Rose Group recently merged with Deacons Australia as part of its regional expansion, as it was more cost-effective to supply Norton Rose’s Asian firms with lawyers from Australia rather than its London office.

Finance and insurance is the largest industry in the Australian economy (ABS 2012b). Of the ten banks in the world that Standard & Poor’s rate as AA- or above, four are Australian. Australian financial firms with presence in Asia and cross-border capabilities are well positioned to capitalise on increasing investment and intraregional trade flows (BCG 2012). New financial markets are also emerging through the benefits of technology. Banks in India have started using biometrics instead of identification numbers to allow a whole new class of customers to access the banking system, particularly in rural areas. Such technological developments are helping to overcome barriers caused by illiteracy, innumeracy and a lack of identification documents.

A broad range of other Australian services firms are buying, building or partnering with Asian businesses to deploy intellectual property developed initially in the Australian market.

Improvements to information and communications technologies and their wider distribution, in particular the rollout of the National Broadband Network, will make trade and collaboration in many services easier within Australia and with international partners. This is particularly the case for intermediate services, such as research and development, product design and logistics.

For businesses to capture opportunities in the rapidly growing Asian market, Australia needs to have a highly skilled and educated workforce that understands the region’s diversity and builds enduring relationships with its people (chapters 6, 7 and 9).

As Australian incomes increase over the period to 2025, consumer preferences are likely to change and demand for high-quality services will grow. Australia’s ageing population will also drive demand for health services, creating domestic opportunities.

With the surge in infrastructure investment in the region, there are opportunities for Australian design, engineering and construction services. The largest opportunities, such as those achieved by HASSELL (Box 4.6), are likely to be in Asia’s emerging markets.
Box 4.6: HASSELL seizes opportunities in Asian markets

HASSELL is one of the largest multidisciplinary design practices in the Asia–Pacific region, with expertise in architecture, interior design, urban planning and design, and landscape architecture. HASSELL entered the Asian market in 1991 when it acquired a Hong Kong firm, EBC. After winning early master planning and urban design commissions in China, it broadened its Chinese practice to include the full range of disciplines it offers in Australia.

Today, HASSELL is China’s largest foreign multidisciplinary design practice and employs more than 250 people in studios in Beijing, Chongqing, Hong Kong, Shanghai and Shenzhen. Elsewhere in Asia, it has studios in Bangkok and Singapore. HASSELL has maintained its commitment to Asia since the early 1990s—even while other designers switched focus after the downturn of the late 1990s, HASSELL stayed its course. Its commitment to China has been fundamental in gaining the trust of its Chinese customers.

HASSELL has also retained control through its wholly owned entity rather than the looser arrangements chosen by less successful entrants into China. Full ownership of its practice has allowed it to bring the best of its global capabilities to bear for clients.


4.4 Risks to the outlook

Australia’s ability to capitalise on growth in the Asian region is contingent on getting the policy settings right and the private sector and its partners taking up the opportunities on offer. If both these happen, Australia could exceed the central gross national income per person growth path outlined above. A downside risk is that Australia fails to lift its productivity growth and capture these opportunities, which would limit the growth in our living standards.

Asia’s long-term outlook is positive, but there will be volatility along the way. For example, a sharp cyclical decline in Asia’s growth could see commodity prices fall more rapidly in the near term than is currently assumed, with implications for Australia’s terms of trade and national income. This highlights the importance of macroeconomic policy settings for responding to shocks: a flexible exchange rate that acts as a shock absorber, countercyclical monetary policy directed at achieving price stability, and a strong fiscal position that provides the capacity to respond to adverse circumstances should they arise.

Asia’s emergence is driving a global shift in comparative advantage, and the structural adjustment that Australia is experiencing is happening internationally. With this comes a heightened risk of protectionism. Restrictions on international trade and investment would be at the expense of global economic growth and would undermine Australia’s flexibility and ability to capitalise on growth opportunities in the region. We will work in international forums such as the Group of Twenty (G20),
the World Trade Organization and the Asia–Pacific Economic Cooperation forum to
dissuade other nations from pursuing more protectionist policies.

It is impossible to predict with certainty precisely how the Asian century will unfold. However, Australia will need to lift Australians’ capabilities and improve our businesses to prosper. Australia needs to engage and become fully part of the region. A strong macroeconomic policy framework and policies that promote productivity and flexibility to adapt as circumstances evolve will be important, irrespective of external forces (Chapter 5).

The task of ensuring that Australia thrives in coming decades falls not just to government. Individuals, communities, educational institutions, businesses and governments at all levels will need to consider how to develop the capabilities and connections that Australians will need to take advantage of and contribute to opportunities in the region.

There are risks to Australia’s underlying prosperity if we do not manage Australia’s environmental challenges. These encompass a range of pressures affecting Australia’s natural and built environment, including climate change, declining soil fertility, loss of species and ecosystems, biosecurity risks and stresses on water systems (chapters 5 and 8).
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