



Australian Government

AUSTRALIA IN THE ASIAN CENTURY



White Paper
October 2012



Foreword



Predicting the future is fraught with risk, but the greater risk is in failing to plan for our destiny. As a nation, we face a choice: to drift into our future or to actively shape it.

That is why I commissioned the Australia in the Asian Century White Paper. I took a clear decision that our nation should actively plan for and shape our national future. Only by doing so can we realise our vision of being a land of increased opportunity, prosperity and fairness.

Whatever else this century brings, it will bring Asia's rise.

The transformation of the Asian region into the economic powerhouse of the world is not only unstoppable, it is gathering pace.

In this century, the region in which we live will become home to most of the world's middle class. Our region will be the world's largest producer of goods and services and the largest consumer of them.

History teaches us that as economic weight shifts, so does strategic weight.

Thriving in the Asian century therefore requires our nation to have a clear plan to seize the economic opportunities that will flow and manage the strategic challenges that will arise.

There are also great social and cultural benefits to be had from broadening and deepening our people-to-people links across the region.

Our nation has benefited from Asia's appetite for raw materials and energy. The challenge we must now address is how Australia can benefit from what Asia will need next.

Australians do not come to these tasks empty-handed.

Our economy is strong because over the past 30 years we have been prepared to do the things that are necessary to build for tomorrow. This approach has given us 21 years of continuous economic growth.

As a nation we pulled together during the Global Financial Crisis to successfully avoid recession and the loss of hundreds of thousands of jobs.

As a result of our courage to shape the future and our decisive action during the Global Financial Crisis we come to this century of change with economic strength.

Government has shown the fortitude to identify the right changes and get them done, in order to give us a more prosperous tomorrow.

We also have the benefits that come from a track record of engagement with the nations of our region. Our principal relationships with China, India, Indonesia, Japan and the Republic of Korea have strengthened in recent years. Our alliance with the United States remains as strong as ever.

Our institutional regional engagement combines the ongoing strength of the Asia-Pacific Economic Cooperation (APEC) forum with the now-developing East Asia Summit. Our people-to-people links are also expanding as business, travel, communications and study relationships in our region continue to grow.

But we must build on all of these strengths combined if we are to seize the opportunities of the Asian century.

I want our nation to be a winner as our region changes and I want every Australian to be a winner too.

Put simply, as a Labor Prime Minister I want the new opportunities that will come in this century to be seized and shared. I want us to take an approach to the looming change that is farsighted and focused on fairness.

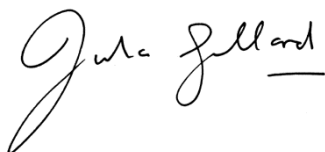
This White Paper is a plan to build on our strengths and shape our future.

It details how, by 2025, Australia can be a winner in this Asian century by becoming more prosperous, more resilient, and sharing the new opportunities.

It calls on all of us to play our part in becoming a more Asia-literate and Asia-capable nation.

The Australian Government will play its part in leading our nation to this vision of the future during a time of enormous change. Like past Labor governments, we will manage and shape change with the aim of providing better opportunities for all.

I commend this White Paper to you and ask you to play your part in shaping our future.

A handwritten signature in black ink, reading "Julia Gillard". The signature is fluid and cursive, with a horizontal line at the end.

Julia Gillard

Prime Minister of Australia

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Executive summary

Asia's rise is changing the world. This is a defining feature of the 21st century—the Asian century. These developments have profound implications for people everywhere.

Asia's extraordinary ascent has already changed the Australian economy, society and strategic environment. The scale and pace of the change still to come mean Australia is entering a truly transformative period in our history.

Within only a few years, Asia will not only be the world's largest producer of goods and services, it will also be the world's largest consumer of them. It is already the most populous region in the world. In the future, it will also be home to the majority of the world's middle class.

The Asian century is an Australian opportunity. As the global centre of gravity shifts to our region, the tyranny of distance is being replaced by the prospects of proximity. Australia is located in the right place at the right time—in the Asian region in the Asian century.

For several decades, Australian businesses, exporters and the community have grown their footprint across the region. Today, for Australia, the minerals and energy boom is the most visible, but not the only, aspect of Asia's rise. As the century unfolds, the growth in our region will impact on almost all of our economy and society.

An increasingly wealthy and mobile middle class is emerging in the region, creating new opportunities. They are demanding a diverse range of goods and services, from health and aged care to education to household goods, and tourism, banking and financial services, as well as high-quality food products.

Beyond economic gains, there are many valuable opportunities for building stronger relationships across the region, including through closer educational, cultural and people-to-people links.

Our nation also has the strength that comes from a long history of engagement with countries in Asia. Australia's relationships in our region are strong and robust, including with Asian nations like China, Japan, India, Indonesia and the Republic of Korea (South Korea). But in this Asian century we must enter a new phase of deeper and broader engagement.

This White Paper provides a roadmap for the whole of Australia—governments, business, unions, and the broader community—in this next phase. Our goal is to secure Australia as a more prosperous and resilient nation that is fully part of our region and open to the world.

Australia starts from a position of strength. Just as our region has a lot to offer us, we have a lot to offer our region. We have strong, world-leading institutions, a multicultural and highly skilled workforce, and a productive, open and resilient

economy, which is one of the strongest in the world. These assets have been reinforced by a series of economic reforms and good decisions made over past decades, including Australia's world-beating actions to avoid the worst impacts of the Global Financial Crisis.

Our strengths have long been reflected in Australia's interaction with countries in Asia. Over the past 50 years, Australia's trade with Asia as a share of our total trade has risen dramatically. Our financial, political and cultural links have deepened. We have strong relationships and close friendships with countries across the region.

But Australia's success will be based on choice, not chance. In order to succeed, we must sustain the policy settings and pathways that have served us well. We need to reinforce our strong social foundations, including our national institutions, our cultural diversity and our outward-looking society.

We will need to do more than this—we all need to respond to the rapid changes occurring in our region.

Australians need to act in five key areas in order to succeed in the Asian century.

First, irrespective of how the Asian century evolves, Australia's prosperity will come from building on our strengths. We need to reinforce the foundations of our fair society and our prosperous, open and resilient economy at home. We need to build on areas where we already perform well, in order to extend our comparative advantage. Critical to this will be ongoing reform and investment across the five pillars of productivity—skills and education, innovation, infrastructure, tax reform and regulatory reform.

Second, as a nation we must do even more to develop the capabilities that will help Australia succeed. Our greatest responsibility is to invest in our people through skills and education to drive Australia's productivity performance and ensure that all Australians can participate and contribute. Capabilities that are particularly important for the Asian century include job-specific skills, scientific and technical excellence, adaptability and resilience. Using creativity and design-based thinking to solve complex problems is a distinctive Australian strength that can help to meet the emerging challenges of this century. As a nation we also need to broaden and deepen our understanding of Asian cultures and languages, to become more Asia literate. These capabilities are needed to build stronger connections and partnerships across the region.

Third, Australia's commercial success in the region requires that highly innovative, competitive Australian firms and institutions develop collaborative relationships with others in the region. Australian firms need new business models and new mindsets to operate and connect with Asian markets. We will work to make the region more open and integrated, encouraging trade, investment and partnerships. Firms will adapt their business models to seize the opportunities created in our region.

Fourth, Australia's future is irrevocably tied to the stability and sustainable security of our diverse region. Australia has much to offer through cooperation with other nations to support sustainable security in the region. We will work to build trust and cooperation, bilaterally and through existing regional mechanisms. We will continue to support a greater role for Asian countries in a rules-based regional and global order. Australia's alliance with the United States and a strong US presence in Asia will support regional stability, as will China's full participation in regional developments.

Fifth, we need to strengthen Australia's deep and broad relationships across the region at every level. These links are social and cultural as much as they are political and economic. Improving people-to-people links can unlock large economic and social gains. While the Australian Government plays a leading role in strengthening and building relationships with partners in the region—with more intensive diplomacy across Asia—others across a broad spectrum spanning business, unions, community groups and educational and cultural institutions also play an important role. Stronger relationships will lead to more Australians having a deeper understanding of what is happening in Asia and being able to access the benefits of growth in our region. In turn, more of our neighbours in the region will know us better than they do today.

Success in the Asian century requires a whole-of-Australia effort, with businesses, unions, communities and governments being partners in a transformation as profound as any that have defined Australia throughout our history.

It is in the interests of all Australians—and therefore in the national interest—to develop the capabilities and connections that Australia will need, so that we can contribute to, and learn from, the region, and take full advantage of these opportunities.

The challenges ahead require sustained effort; Australians cannot build stronger relationships or learn new skills overnight, or even over five years, especially given the diversity of the countries in our region. Some actions can be taken immediately, but others require further conversation among communities across the nation, detailed planning and careful implementation over a generation.

Chapters 1 to 4 of the White Paper explain the extraordinary rise of Asia over recent decades and its likely future to 2025 (Figure 1). They examine Australia's place in Asia and our outlook to 2025. This sets the scene for a roadmap for Australia in the Asian century.

Chapters 5 to 9 set out an ambitious set of national objectives and pathways to guide Australia to 2025 (Figure 2). Advancing and implementing these national objectives sets the agenda for taking full advantage of the Asian century, but achieving these objectives will require a concerted and coordinated effort from the entire community.

Figure 1: Setting the context for the Asian century

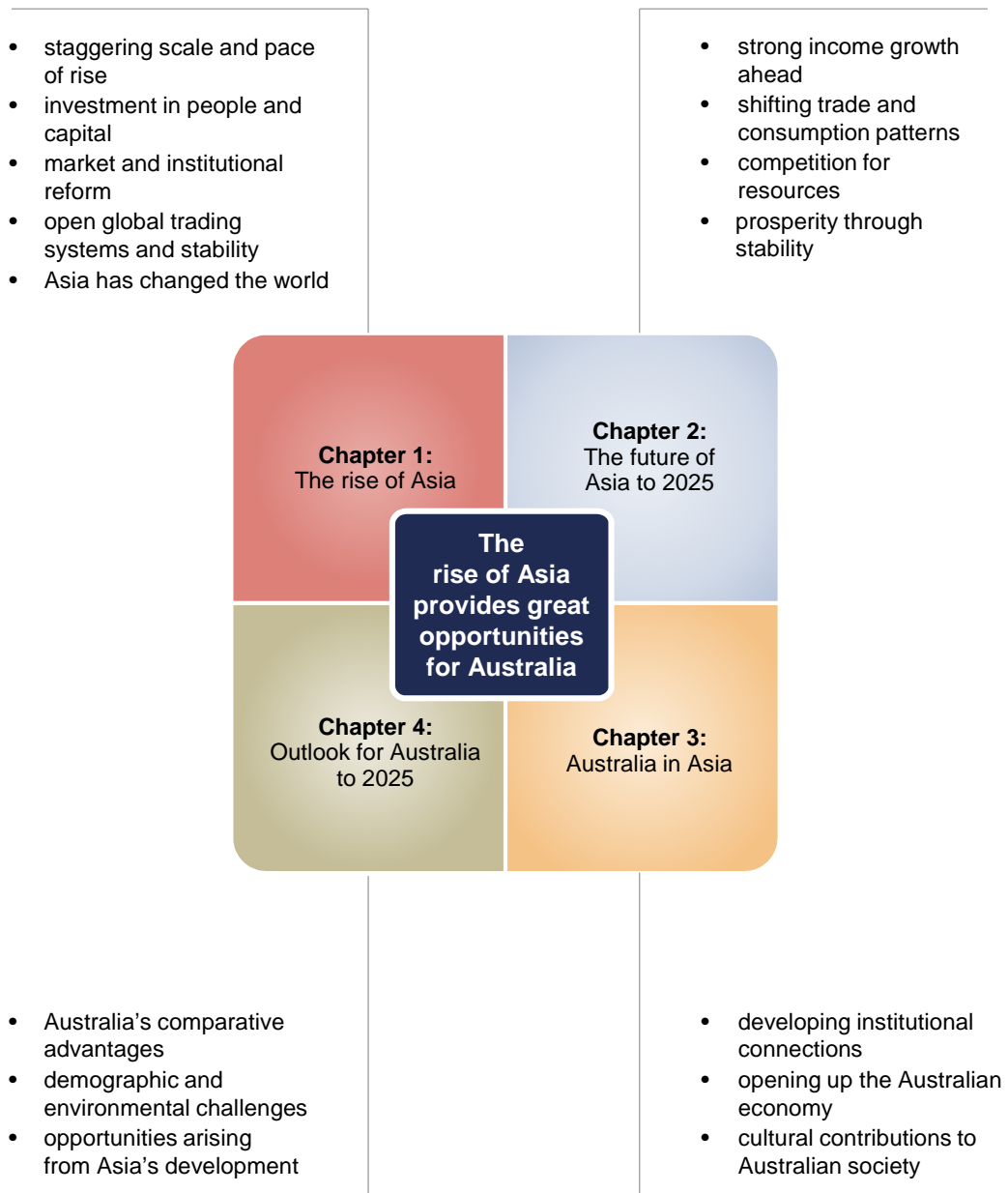


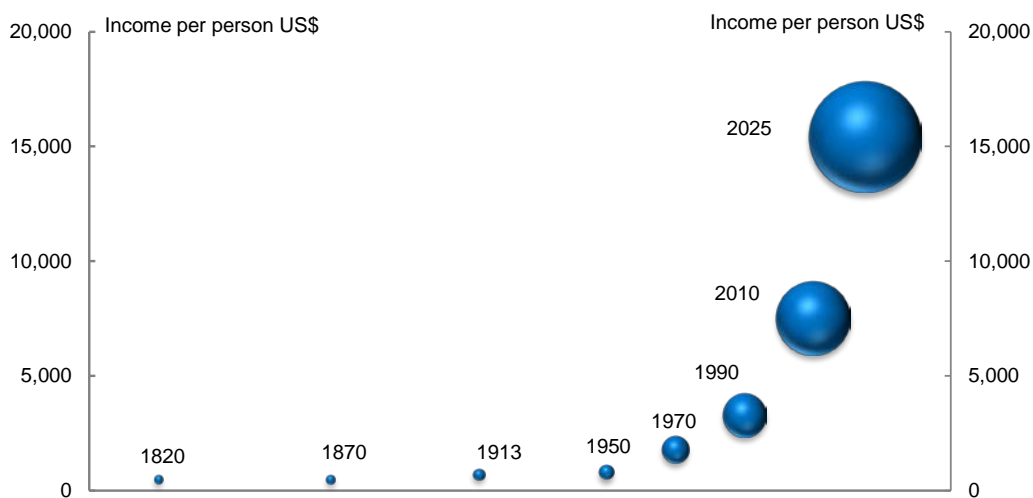
Figure 2: Roadmap to navigate the Asian century



The rise of Asia

The pace and scale of change in the region have been staggering (Chart 1).¹ In the past 20 years, China and India have almost tripled their share of the global economy and increased their absolute economic size almost six times over. By 2025, the region as a whole will account for almost half the world's output. Many millions of people will have been lifted out of poverty. They will live longer and be better connected to the world.

Chart 1: Asia's economic resurgence is set to continue



Asia's ability to capitalise on open global markets for goods and services has been crucial to its economic transformation. Central to this has been a widespread commitment to investing in people and physical capital.

Asia continues to develop against a backdrop of persistent global challenges. First among these is the present weakness in major advanced economies, where more moderate economic growth is expected. Second, there are global challenges such as climate change and other emerging challenges in the areas of food, water and energy security. Third, Asia has policy challenges of its own, including the continuation of market-based reforms to promote economically and environmentally sustainable growth, dealing with urbanisation, ageing populations in some countries and developing social safety nets.

¹ The bubble area in Chart 1 reflects the size of GDP for Asia's economies, adjusted for purchasing power parity in 2011 prices (Maddison 2010, IMF 2012c, Conference Board 2012 and Treasury projections). See glossary for definition of Asia and description of projections.

Asia's economic rise is shifting other dynamics in the region and across the globe. The United States will remain the most powerful strategic actor in Asia for the foreseeable future. But the economic growth and broader international interests of Asia's large powers, especially China and India, are changing the established strategic order. Rising national wealth is allowing states to modernise their defence forces, to acquire more advanced capabilities and to project power. At the same time, economic growth will put more pressure on energy, water and food resources. Existing regional strategic tensions remain, such as North Korea's nuclear program and unresolved territorial disputes. Australia's strategic landscape is becoming more crowded and complex.

The stability and prosperity of our region will depend on how major-power relations evolve, particularly between China, India, Japan and the United States. A degree of competition is inevitable as Asia's strategic order changes. But all countries in the region have a deep investment in stability and economic growth: the complex interdependencies and growing bilateral engagement are strong stabilising forces.

Still, while the likelihood of miscalculation may be low, the potential consequences would be high. These risks are driving bilateral and regional efforts to build trust, dialogue and habits of cooperation in the region, and those efforts are explored in this White Paper.

Australia in Asia

Australia is in a good position to make the most of the opportunities that will flow from the Asian century. Despite uneven conditions across sectors, Australia has one of the strongest economies in the world and a bright outlook. Unemployment is low. Inflation is contained. The terms of trade are high. While commodity prices appear to have passed their record peak, considerable minerals and energy investment is still to come and large-scale production and exports are yet to flow.

Australia's public finances are among the strongest in the world. Government debt is low. Our financial institutions are sound and we have the highest possible sovereign credit rating. We have a multicultural, highly skilled and creative population that has demonstrated capabilities in innovation and complex problem solving. We have vast natural resources and the know-how and technologies to develop them.

Australia's foreign policy and strategic frameworks have built strong relationships in the region, enabling us to influence regional and, at times, global outcomes.

While Australia has many strengths, we will need to take action to ensure we continually adapt to the rapid changes in our region and transitions in our own economy.

Over the past decade, Asia's demand for Australia's natural resources has created a once-in-a-lifetime surge in our terms of trade and an extraordinary boom in minerals and energy investment. This delivered a substantial increase in national income, even though productivity growth has been modest over the past decade.

While Australia's terms of trade are expected to remain high for some time yet, productivity growth remains critical to lifting living standards in Australia. This requires growth that is broadly based and sustainable.

Our goal is to ensure that Australians have higher incomes in a more diverse economy that is resilient in the face of ongoing change.

The Asian century offers a wealth of opportunities and career choices in a variety of businesses (including small and medium-sized enterprises), especially for Australia's young people:

- in mining and resource related sectors—continued economic development in the region will drive demand for energy and mineral resources
- in tourism, sport, education, the arts and creative industries, professional, banking and financial services, and science and technology—thanks to growing affluence in Asia
- in agriculture—rising food demand, connected to rising populations and an expanding middle class in Asia, offers an opportunity for Australia to be an important supplier of high-value food, requiring greater investment by agribusinesses to boost output and research, adapt to regulatory change and build capacity
- in manufacturing and services—as Australian businesses join regional and global value chains and over time become increasingly integrated and specialised, they will offer high-value and innovative products and services
- in environmentally sustainable growth, natural resource management, infrastructure development, urban design and health and aged care—as Australians leverage their expertise to do business with their neighbours.

To seize these opportunities, Australia must create deeper connections with Asia to broaden the flow of ideas and acquire new knowledge and capabilities. Asia is an important source of new ideas, arts and culture, technologies and leading-edge science. Australia stands to benefit greatly from Asia's advance. Increasingly, we look to measure our performance against standards of excellence in the region.

The arts, culture and creativity can broaden and strengthen Australia's relationships in Asia, both formally and informally. Australia's cultural strengths—as home to the world's oldest living culture, and as a country that welcomes diversity—underpin values of respect, understanding and inclusion that help to connect people, business, institutions and governments.

Two-way people movements between Australia and the rest of the region will further strengthen the fabric of Australian society and our way of life. Australia is well positioned to continue attracting highly skilled and talented people from the region to live, study and work in Australia—just as Australians have much to offer the region in return.

Not all parts of the Australian economy are facing the same opportunities at the present time; some industries and regions are working through difficult transitions. The Government, in partnership with business, unions and the wider community, is committed to targeted support for sectors and regions in transition, including by improving skills and education and helping with access to domestic and international markets.

As some business models are challenged, new development opportunities are opening up in other areas. Australia's regions make an important contribution to the economic, social and environmental fabric of our nation. Regional Australia is home to around one-third of our population. Primary industries, which are concentrated in regional Australia, make up close to two-thirds of our exports. Strong demand from Asia will support development across northern Australia from Western Australia to Queensland, including in Darwin, and in other regions including Tasmania and the Upper Spencer Gulf.

Australia has a track record of managing immense structural adjustments more effectively than many other countries. But the scale of change and opportunity presented by the Asian century is large and enduring; it requires a whole-of-Australia effort across the whole federation. Businesses, communities and institutions all need to lead their own responses to the changing global economy.

All of us will need to work smarter to maximise prosperity and manage challenges well. For the Government, that means continuing what we have done in recent years, by making the right decisions and continuing the proud tradition of reform that has spanned decades.

Twenty-five national objectives for 2025: a roadmap to navigate the Asian century

The rise of Asia provides great opportunities for Australia. To achieve the vision of a more prosperous and resilient Australia, fully part of the Asian region and open to the world, the Government has identified 25 objectives for the nation for 2025. These national objectives are set out in detail below, along with policy pathways to guide their achievement.

A productive and resilient Australian economy (Chapter 5)

Together, the objectives and pathways in the roadmap provide mechanisms to strengthen Australia's economy and society.

- By 2025, Australia's GDP per person will be in the world's top 10, up from 13th in 2011, requiring a lift in our productivity.
- This will mean Australia's average real national income will be about \$73,000 per person in 2025 compared with about \$62,000 in 2012.

Skills and education

1. All Australians will have the opportunity to acquire the skills and education they need to participate fully in a strong economy and a fairer society.
 - Australia's school systems will be in the top five schooling systems in the world and our universities and training systems will be among the world's best.

Pathways

- Improve Australia's early childhood education, schools, universities and training systems as strong foundations for building capability to improve productivity and connections with Asian nations (the full set of pathways is in national objectives 9–13 below).
- Increase participation among groups currently under-represented in the workforce, including through education and training, child care, paid parental leave, employment services and assistance for older Australians, so that more Australians can benefit from the Asian century.
- Continue to develop, through the *Fair Work Act 2009*, and ongoing partnership, a workforce culture in which employees, employers and unions collaborate for continuous improvement and productivity growth.

Innovation

2. Australia will have an innovation system, in the top 10 globally, that supports excellence and dynamism in business with a creative problem-solving culture that enhances our evolving areas of strength and attracts top researchers, companies and global partnerships.

Pathways

- Through the Industry and Innovation Statement, articulate an ambitious industry and innovation policy agenda for Australian business to create new jobs and seize new market opportunities.
- Through the National Research Investment Plan, provide a framework for investment in Australia's scientific capabilities—including our research infrastructure, Australia's workforce and fostering globalisation—to sustain our ability to help address the global challenges we and the region face.
- Improve financing options for Australia's innovation system to make it easier to attract private investment, encourage entrepreneurship, build on government investment in science and technology and commercialise our ideas.
- Support collaboration across business, the research sector and governments to build scale and capability that encourages innovation, allowing Australia to make the most of emerging opportunities in the Asian region.
- Support Australian researchers to broaden and strengthen their partnerships with the region as Asia grows as a global science and innovation hub.

Infrastructure

3. Australia will implement a systematic national framework for developing, financing and maintaining nationally significant infrastructure that will assist governments and the private sector to plan and prioritise infrastructure needs at least 20 years ahead.
 - Infrastructure investment will support Australia's growing trade and investment with the region, improve productivity and will reduce future congestion costs by billions of dollars a year.

Pathways

- Work, including through Infrastructure Australia, with States and Territories, the private sector and academic institutions, to expand existing infrastructure plans by creating a long-term national infrastructure strategy that focuses on corridor planning, cross-jurisdictional networks and projects of national significance.
 - Work with States and Territories to increase private sector involvement in new infrastructure projects, including removing barriers to investors (including superannuation funds) participating in infrastructure financing, and consider alternative ways to speed up project delivery.
 - Improve the productivity, amenity and liveability of Australia's cities by helping provide transparent and forward-looking analysis to support the States and Territories to deliver on their responsibilities, through forums such as the Standing Council on Transport and Infrastructure.
 - Sharpen rules governing infrastructure provision and use, including by promoting greater competition in retail energy markets, ensuring energy network investment is efficient and avoiding unnecessary costs, as outlined in our forthcoming Energy White Paper, and reviewing third-party access regulation.
4. Australia's communications infrastructure and markets will be world leading and support the rapid exchange and spread of ideas and commerce in the Asian region.
 - The National Broadband Network (NBN) will have bridged geographical barriers to Asian markets, allowing all Australian businesses and households to conduct more of their activities online.
 - All Australians will have access to high-speed broadband through a nationwide fibre network and wireless satellite services.
 - Australia will have high-speed broadband fibre to 93 per cent of premises, rolled out progressively to 2021 and capable of supporting speeds of one gigabit per second.

Pathways

- Complete the rollout of the NBN to enhance digital commerce and productivity and boost trade and wider economic ties with Asia.
- Review and examine regulatory and other barriers to expanding into new technological markets, including through increased use of the NBN.

Tax system

5. Australia's tax and transfer system will be efficient and fair, encouraging continued investment in the capital base and greater participation in the workforce, while delivering sustainable revenues to support economic growth by meeting public and social needs.

Pathways

- Ensure the tax system continues to support businesses to invest and adapt to take advantage of the Asian century, including through measures like the loss carry-back for companies and simpler tax arrangements for small business such as the immediate deduction for assets costing less than \$6,500.
- Ensure that the tax, transfer and superannuation system encourages Australians, particularly older Australians, to participate in the workforce and provides access to a minimum standard of living in retirement.
- Lift the tax-free threshold to at least \$21,000, freeing more Australians from having to lodge a tax return and raising participation in the labour market.
- Facilitate State and Territory-led tax reform, to phase out their inefficient taxes and make better use of their efficient tax bases, including through processes like the State tax plan being developed by the New South Wales and South Australian Treasurers.
- Establish the Tax Studies Institute to provide policy-relevant research that will inform debate about tax reform goals and transitional pathways and provide opportunities for regional collaboration and exchange.
- Continue the national conversation about tax reform with business and community groups, including through processes such as working groups and roundtables.

Regulatory reform

6. Australia will be among the most efficiently regulated places in the world, in the top five globally, reducing business costs by billions of dollars a year.

Pathways

- Progress the six priority areas for major reform to lower costs for business and improve competition and productivity as agreed by the Council of Australian Governments (COAG) in April 2012.

- Enter into a National Productivity Compact with the States and Territories and business to pursue regulatory and competition reform.
- Progress high-value reforms already identified by the Business Regulation and Competition Working Group and the Standing Council on Federal Financial Relations.
- Reduce reporting burdens on business by removing overlaps and expanding the use of online business reporting.
- Through COAG and processes such as the Business Advisory Forum, pursue continuous improvements to lift regulatory performance across all areas of regulatory practice, with a particular focus on the application of risk-based approaches and giving greater attention to reform implementation and enforcement.

Environmental sustainability

7. The Australian economy and our environmental assets will be managed sustainably to ensure the wellbeing of future generations of Australians.
 - Australia will have reduced emissions by at least 5 per cent below 2000 levels and we will be well on our way to securing a clean energy future in which emissions are 80 per cent below 2000 levels by 2050.
 - Australia will be a world leader in implementing sustainable food production methods, in sustainable energy and water use, and in biodiversity conservation.

Pathways

- Fully implement our Clean Energy Future policies, alongside international action, to reduce Australia's emissions intensity and absolute greenhouse gas emissions, through changes to the land sector, developing cleaner energy sources and linking with international carbon trading systems.
- Maintain our commitment to ensuring that 20 per cent of Australia's electricity is generated by renewable energy sources by 2020.
- Continue to support Australia being a world leader in the research and development of solar energy technologies, and becoming a world leader in the commercialisation and deployment of renewable energy technologies and energy efficiency.
- Achieve healthy rivers, strong communities and sustainable food production, including through finalising the Murray–Darling Basin Plan.
- Assess biodiversity impacts of growing demand for Australia's non-renewable resources as part of the review of Australia's Biodiversity Conservation Strategy 2010–2030 scheduled for 2015.

- Implement the world's largest marine reserve network and continue to protect Australia's biodiversity on the land.
- Support the ongoing development and use of environmental accounting in Australia.

Macroeconomic and financial frameworks

8. Australia's macroeconomic and financial frameworks will remain among the world's best through this period of change.
 - Australia will have a strong and sustainable fiscal position and will continue to have a triple-A sovereign credit rating.
 - Australia will have a deep and liquid corporate bond market to harness our national savings so that more investment is domestically funded and we have less reliance on offshore wholesale funding markets.

Pathways

- Maintain the macroeconomic policy settings that have supported Australia's long-term economic growth, including a floating exchange rate, independent monetary policy and a medium-term fiscal framework.
- Meet our fiscal targets of achieving budget surpluses, on average, over the medium term (including through maintaining a 2 per cent annual cap on real spending growth, on average, until surpluses are at least 1 per cent of GDP and while the economy is growing at or above trend) and improving the Government's net worth over the medium term.
- Build further on the strength, stability and competitiveness of Australia's financial system by implementing the Basel III capital and liquidity standards, boosting superannuation balances, and ensuring reasonably priced credit for productive investment and more choice for households.
- Ensure that Australia has an efficient and well-regulated funds management industry, to support strong growth in funds under management.
- Support the development of a deep and liquid domestic corporate bond market by streamlining market disclosure obligations in the retail corporate bond market and reducing transaction costs, while maintaining a high level of protection for retail investors.
- Provide a more visible benchmark price for Australian corporate bonds by allowing Commonwealth Government Securities to be traded on a securities exchange.

Building capabilities (Chapter 6)

Through schools

9. Australia's school system will be in the top five schooling systems in the world, delivering excellent outcomes for all students of all backgrounds, and systematically improving performance over time.
 - By 2025, Australia will be ranked as a top five country in the world for the performance of our students in reading, science and mathematics literacy and for providing our children with a high-quality and high-equity education system.
 - By 2015, 90 per cent of young Australians aged 20 to 24 years will have a Year 12 or equivalent qualification, up from 86 per cent in 2010.

Pathways

- Legislate and deliver the National Plan for School Improvement, in partnership with States and Territories and non-government school authorities. The plan will ensure that school funding meets student needs and additional funding is used to improve students' results, so that all schools get the funding they need to give students a great education. The plan will improve teacher quality, empower school principals and provide more information to parents and the community.
 - Implement, through the National Plan for School Improvement, the Australian Curriculum in partnership with States and Territories and non-government school authorities to upgrade student skills for the Asian century.
10. Every Australian student will have significant exposure to studies of Asia across the curriculum to increase their cultural knowledge and skills and enable them to be active in the region.
 - All schools will engage with at least one school in Asia to support the teaching of a priority Asian language, including through increased use of the National Broadband Network.

Pathways

- Fully implement the Australian Curriculum, which includes the cross-curriculum priority of 'Asia and Australia's engagement in Asia'. Develop measures to track how Australian students are increasing their knowledge of Asia, in consultation with States and Territories and non-government education authorities.
- Work collaboratively with States, Territories, non-government education authorities and higher education institutions to develop detailed strategies for studies of Asia to become a core part of school education.

11. All Australian students will have the opportunity, and be encouraged, to undertake a continuous course of study in an Asian language throughout their years of schooling.
- All students will have access to at least one priority Asian language; these will be Chinese (Mandarin), Hindi, Indonesian and Japanese.

Pathways

- Ensure that every Australian student has continuous access to high-quality Asian language curriculums, assessment and reporting in priority Asian languages as a core requirement in the new school funding arrangements to be negotiated between the Commonwealth, the States and Territories, and non-government education authorities.
- Lead a collaborative process with States and Territories, non-government education authorities and tertiary education institutions to develop detailed strategies for studies of Asia and Asian language take-up in schools, including through increased use of the National Broadband Network.
- Work with business and the community to increase understanding of the benefits of learning a foreign language and boost demand for language studies.

Through universities

12. Australia will remain among the world's best for research and teaching in universities, delivering excellent outcomes for a larger number of Australian students, attracting the best academics and students from around the world and strengthening links between Australia and the region.
- By 2020, 20 per cent of undergraduate higher education enrolments will be people from low socioeconomic backgrounds, up from 17 per cent in 2011.
 - By 2025, 40 per cent of all 25 to 34-year-olds will hold a qualification at bachelor level or above, up from 35 per cent in 2011.
 - By 2025, 10 of Australia's universities will be in the world's top 100.
 - A larger number of Australian university students will be studying overseas and a greater proportion will be undertaking part of their degree in Asia.

Pathways

- Progress higher education reform to continue improving the reach, quality, performance and flexibility of Australia's higher education system, including a strengthening of our international education sector informed by the International Education Advisory Council.
- Work with universities to substantially boost the number of Australian students studying in Asia through closer links with regional institutions, and improve financial support and information for students who study in Asia.

- Support universities to increase the number of students who undertake Asian studies and Asian languages as part of their university education, including through increased use of the National Broadband Network and digital technology.
- Encourage every Australian university to have a presence in Asia and establish an exchange arrangement involving transferable credits with at least one major Asian university.
- Support, through the Australian Research Council and other mechanisms, high-quality research by Australian publicly funded research organisations and strengthen research and teaching links between Australian institutions and those in the region.

Through the vocational education and training system

13. Australia will have vocational education and training systems that are among the world's best, building capability in the region and supporting a highly skilled Australian workforce able to continuously develop its capabilities.
 - By 2020, more than three-quarters of working-age Australians will have an entry-level qualification (at the Certificate III level or higher), up from just under half in 2009.
 - Australia's vocational education and training institutions will have substantially expanded services in more nations in the region, building the productive capacity of the workforce of these nations and supporting Australian businesses and workers to have a greater presence in Asian markets.

Pathways

- Work with States and Territories to implement the new National Partnership Agreement on Skills Reform to ensure that more Australians receive higher-quality vocational education and training that responds to industry and student demand.
- Address Australia's changing skills needs through improved planning, investment and delivery, guided by the new Australian Workforce and Productivity Agency, educators and Industry Skills Councils.
- Work with business and Australian industry partners, through regional forums and bilaterally, to build in-country partnerships and to develop complementary skills and qualification assessment and recognition.
- Strengthen networks between Industry Skills Councils, Australian industry and unions, and their counterparts in the region.

Asia-capable leaders, workplaces and institutions

14. Decision makers in Australian businesses, parliaments, national institutions (including the Australian Public Service and national cultural institutions) and advisory forums across the community will have deeper knowledge and expertise of countries in our region and have a greater capacity to integrate domestic and international issues.
 - One-third of board members of Australia's top 200 publicly listed companies and Commonwealth bodies (including companies, authorities, agencies and commissions) will have deep experience in and knowledge of Asia.
 - One-third of the senior leadership of the Australian Public Service (APS 200) will have deep experience in and knowledge of Asia.

Pathways

- Encourage boards to include more businesspeople with direct expertise from within the region.
- Encourage the Australian Institute of Company Directors to integrate Asian cultural competency training into its company directors course.
- Encourage leading peak business organisations to report annually on progress, including through cooperation with the ASX Corporate Governance Council to incorporate into its principles and recommendations reporting on business practices and processes to promote relevant Asian expertise and knowledge.
- Encourage the Australian Council of Trade Unions and the broader union movement to develop greater regional expertise and build stronger partnerships in the region.
- Strengthen the Australian Public Service by improving capabilities for integrated policy analysis, problem solving and implementation across domestic and international matters. A strategy will be developed by the Secretary of the Department of the Prime Minister and Cabinet and the Australian Public Service Commissioner to develop these capabilities.
- Build stronger ministerial relationships through more regular bilateral and regional engagement with counterparts in Asia to pursue policy outcomes.
- Build stronger relationships through interactive programs and regular exchanges of senior officials at mid-career points, including through the university sector.

Adaptability

15. Australian communities and regions will benefit from structural changes in the economy and seize the new opportunities emerging in the Asian century.

Pathways

- Work cooperatively with industries and businesses to develop strategies to ensure sustainable growth and jobs.
- Work with communities and regions right across Australia to help them manage structural transition, diversify their economies and take advantage of new opportunities that promote sustainable growth.
- Work together with business and the Northern Territory Government to accelerate Darwin's evolution as a sophisticated, liveable city built around a gateway to Asia, and a regional hub for a large number of goods and services, through coordinated infrastructure, planning and international engagement activities. Explore options to extend this strategy to other well-positioned, high-growth centres in northern Australia as well as other regions across Australia with growing links to Asia.

Social foundations

16. Australia will be a higher skill, higher wage economy with a fair, multicultural and cohesive society and a growing population, and all Australians will be able to benefit from, and participate in, Australia's growing prosperity and engagement in Asia.

Pathways

- Maintain and support Australia's stable, liberal democratic institutions and laws.
- Maintain world-leading social systems, including pensions and family support, and pursue long-term social reforms and investments such as the National Disability Insurance Scheme and health and aged care reform.
- Work with all levels of government, together with businesses and communities, to promote a cohesive and multicultural society through continued commitments to anti-racism policies and Closing the Gap with Indigenous Australians.
- Draw on Australia's diverse population by supporting a wide range of partnerships and networks—with migrant communities, Australians living abroad, people who have previously lived and worked in Australia, and others who have a special connection with Australia and Australians.
- Maintain a flexible, responsive and well-planned migration framework, including Australia's skilled migration programs, that meets our changing needs, maintains opportunities for Australians and supports our engagement in the region.

Operating in and connecting with growing Asian markets (Chapter 7)

17. Australia's businesses will be recognised globally for their excellence and ability to operate successfully in Asian markets.
 - Australian businesses will offer high-value goods and services as they link into regional and global value chains.
 - Small and medium-sized enterprises will be integrated into Asian markets.

Pathways

- Develop strong dialogues between government and business here and in the region, including through our Asian Century Business Engagement Plan, to make the most of our opportunities in the region.
 - Ensure that the Department of Foreign Affairs and Trade, Austrade, Enterprise Connect, Tourism Australia, the Export Finance and Insurance Corporation (EFIC) and other government bodies work with peak industry bodies and small and medium-sized enterprises to build capabilities and identify and secure opportunities to compete and succeed in regional value chains.
 - Revise EFIC's mandate to ensure more of its resources are devoted to addressing the market failures that impede Australia's small and medium-sized exporters, especially in emerging and frontier markets.
18. The Australian economy will be more open and integrated with Asia, the flow of goods, services, capital, ideas and people will be easier, and Australian businesses and investors will have greater access to opportunities in Asia.
 - Australia's trade links with Asia will be at least one-third of GDP by 2025, up from one-quarter in 2011.
 - Australia will be part of comprehensive region-wide agreements that substantially reduce the cost of doing business in Asian markets by lowering trade and investment barriers, better aligning economic regulations and corporate governance arrangements, and enhancing connectivity of infrastructure.
 - Businesses in Australia and the region will have well-developed working relationships based on a good understanding of each other's legal institutions, commercial practices and corporate governance standards.

Pathways in Australia

- Continue to reduce Australian tariffs through scheduled reductions and negotiated commitments as part of World Trade Organization and other trade agreements.
- Work to reduce unnecessary impediments in Australia's domestic regulations to cross-border business activity, investment and skilled-labour mobility, having regard to the arrangements in place in other countries in the region.

- Work with business, and with partner governments in the region, to improve Australia's border management framework, adopting an intelligence-led risk-based approach that manages threats effectively while reducing impediments to legitimate trade and travel.
- Make it easier for low-risk visitors to come to Australia, through longer period and multiple entry visas and greater use of online visas. To encourage more tourists from emerging markets, from China in particular, the Government will build on the trial of streamlined visa processes for independent Chinese tourists and continue to promote Australia as a preferred destination across the region.
- Continue to welcome foreign investment in Australia and promote Australia as an investment destination, including by engaging major investors and investing nations.
- Continue to enhance the transparency of Australia's foreign investment screening processes.

Pathways abroad

- Work persistently to reduce barriers to trade and investment through existing multilateral and regional forums such as the World Trade Organization, the Group of Twenty (G20), the Asia-Pacific Economic Cooperation (APEC) forum, the Association of Southeast Asian Nations (ASEAN) and its free trade agreement partners, and also through bilateral engagement.
- Work towards a free trade agreement of the Asia-Pacific region by encouraging competitive liberalisation in regional agreements, through our ongoing participation in negotiations for the Trans-Pacific Partnership Agreement, and participating in negotiations for the Regional Comprehensive Economic Partnership.
- Promote rules of origin in trade agreements that lower business compliance costs and facilitate trade.
- Assess the benefits of joining with the Pacific Alliance of Chile, Colombia, Mexico and Peru, as part of our efforts to position Australia as a connecting rod between Latin America and Asia.
- Work to increase access for Australian investment in Asian markets.
- Continue to advocate market-based reforms in Asia that promote stable, efficient and open financial markets; for example, through further work towards the establishment of direct trading between the Australian dollar and the Chinese renminbi in mainland China.
- Support efforts towards complementarity of financial market regulations within the region to open up market opportunities; for example, through APEC's financial market integration efforts, including the Asia Region Funds Passport initiative.

- Work with partners in the region on 'behind the border' initiatives to build an integrated and resilient regional economy and open up market opportunities for Australia, especially in our areas of expertise such as infrastructure, agriculture and food, education, health and aged care, finance and regulation of services.

Australia's agriculture and food sector (Case study)

19. Australia's agriculture and food production system will be globally competitive, with productive and sustainable agriculture and food businesses.
 - Australian food producers and processors will be recognised globally as innovative and reliable producers of more and higher-quality food and agricultural products, services and technology to Asia.

Pathways

- Implement the National Food Plan to foster an integrated food system where policies along the supply chain benefit food businesses and consumers and ensure Australia is a sustainable and productive supplier of nutritious and affordable food for its people and the world.
- Maintain the rural research and development corporation model to boost productivity through advances in collaboration, science and innovation.
- Increase Australia's participation in Asia's markets through providing services to assist food and agricultural exporters, and support two-way investment with the Asian region in food and food processing, related transport infrastructure, natural resource management and water conservation to drive the development of Australia's regional and remote areas, particularly across northern Australia and Tasmania.
- Use trade negotiations, existing intergovernmental agreements, government-to-government relationships and our overseas network to promote freer trade in agricultural and food products, support food security in the region and improve market access for Australian producers.
- Implement world-class biosecurity reforms that provide for the efficient movement of people and imported and exported goods while protecting Australia's unique environment, the health of our people and our agriculture and food industries.
- Ensure Australian food producers and processors make efficient use of our natural resources, including soil, water and energy, to support productivity growth and maintain the sustainability of those natural resources.

Building sustainable security in the region (Chapter 8)

20. Australian policies will contribute to Asia's development as a region of sustainable security in which habits of cooperation are the norm.

Pathways

- Promote cooperative arrangements among major powers in the region—China, Japan, Indonesia, India and the United States—as the economic and strategic landscape shifts.
- Continue to promote fair representation of Asian nations in key international organisations, reflecting their increased economic weight, and encourage these nations to be part of, and help shape, these rules-based institutions.
- Support China's participation in the region's strategic, political and economic development.
- Work with the United States to ensure that it continues to have a strong and consistent presence in the region, with our alliance contributing to regional stability, security and peace.
- Maintain a comprehensive approach to security, including the release of a National Security Statement and a Defence White Paper, informed by this White Paper.
- Maintain Australia's strong support for global, regional and bilateral security frameworks and norms based on the United Nations Charter.
- Work for global economic stability and cooperative major-power relations through the G20, which Australia will host in 2014, with a clear focus on economic growth and jobs, strengthening the global economy and making global rules and institutions effective and relevant in a period of economic change.
- Use global forums such as the United Nations and the G20, including through our hosting of the G20 in 2014 and our membership of the UN Security Council, to strengthen regional relationships and in turn use these relationships to address global and regional issues and strengthen these institutions.
- Work in the region to develop the East Asia Summit as a crucial regional institution in East Asia so that it can help manage regional challenges, foster strategic dialogue and promote cooperation on political, economic and security issues.
- Pursue practical cooperation and build local capability with regional partners across a range of issues such as terrorism, people smuggling, transnational crime, non-proliferation and disarmament, human rights, and disaster mitigation and management.

21. The region will be more sustainable and human security will be strengthened with the development of resilient markets for basic needs such as energy, food and water.

Pathways

- Work within the region to support growing international carbon markets, energy, food and water, including by improving regulations that recognise the links across these markets.
- Support the ongoing development and use of environmental accounting in the region through cooperation between national statistical agencies.
- Working within the region, build the capability of the food supply system, including through research and development, to ensure a competitive industry and stronger trade and investment partnerships.
- Build a well-functioning and comprehensive international carbon market by sharing experience and expertise with partner nations, including China, Indonesia, Japan and South Korea.
- Foster a constructive debate and cooperative solutions in global and regional forums on energy markets; and support regional partners to improve energy efficiency and enhance cooperation on research and development, and the deployment and commercialisation of new technology.
- Continue to be a reliable and high-quality development partner through collaborative relationships aimed at reducing poverty and improving sustainability.

Deeper and broader relationships (Chapter 9)

22. Australia will have the necessary capabilities to promote Australian interests and maintain Australia's influence.
- Australia's diplomatic network will have a larger footprint across Asia.

Pathways

- Work with and through all levels of government, business, institutions and the community to promote Australian interests in the region.
- When circumstances allow, open a full embassy in Ulaanbaatar (Mongolia) and consulates in Shenyang (China), Phuket (Thailand) and in eastern Indonesia.
- Appoint a Jakarta-based Ambassador to ASEAN to support engagement with the ASEAN Secretariat, ASEAN members and ASEAN-related forums.
- Ensure that all government departments and agencies embed international considerations into their domestic policy analysis and implementation and prioritise working relationships with their regional counterparts.

- Support stronger relationships between State and Territory and local governments and their counterparts in the region, including by broadening and promoting sub-national relationships as well as the value of sister-city and sister-state relationships.
23. Australia will have stronger and more comprehensive relationships with countries across the region, especially with key regional nations—China, India, Indonesia, Japan and South Korea.

Pathways

- Extend our comprehensive bilateral architecture, with China and India being immediate priorities.
 - Develop bilateral architecture that includes: regular high-level meetings between leaders, senior ministers and senior business leaders; dialogue between young leaders; and substantial flows of people and ideas between institutions, including parliaments, educational and cultural institutions, business and public services.
 - Work with the Australian community to develop comprehensive country strategies, with China, India, Indonesia, Japan and South Korea as the initial priorities. These strategies will set out the objectives and priorities for relationships across the whole community with each country. They will be tabled in Parliament and regularly evaluated and updated.
 - Strengthen Australia's economic and business diplomacy through deeper and more comprehensive bilateral ties between Australian and regional economic agencies, greater Australian involvement in regional economic forums and stronger links between Australian and regional business and Australian-based think-tank and university networks (Track 2 diplomacy).
 - Ensure that the newly reconfigured Australia Network service, combining the resources and experience of Australia Network and Radio Australia, provides an effective public diplomacy tool with a large online component to build knowledge about Australia in the region.
24. Australia will have deeper and broader people-to-people links with Asian nations, across the entire community.

Pathways

- Commit to 12,000 Australia Awards (Asian Century) over five years to nations in Asia to encourage people-to-people links with the region.
- Expand work and holiday program agreements with countries in Asia over time, starting with an increase to 1,000 places in the Work and Holiday Visa program we have with Indonesia.
- Extend Australia Awards (Asian Century) offered to recipients in Asia to include work placements and support mid-career sabbaticals in Australia.

- Strengthen the extensive alumni networks of Australian-educated leaders in Asia by providing a focal point for coordinating the networks through an Australia Awards Office.
- Support high-quality private-sector scholarships that bring future Asian leaders to Australia.
- Use the National Broadband Network and digital technology to boost online collaboration between researchers, community groups, students, schools and universities in Australia with their counterparts throughout the region.
- Nurture programs that promote cooperation between Australian and regional faith communities and community organisations.
- Encourage sports, academic, professional and scientific communities in Australia to become fully part of the region through collaboration and partnership arrangements.

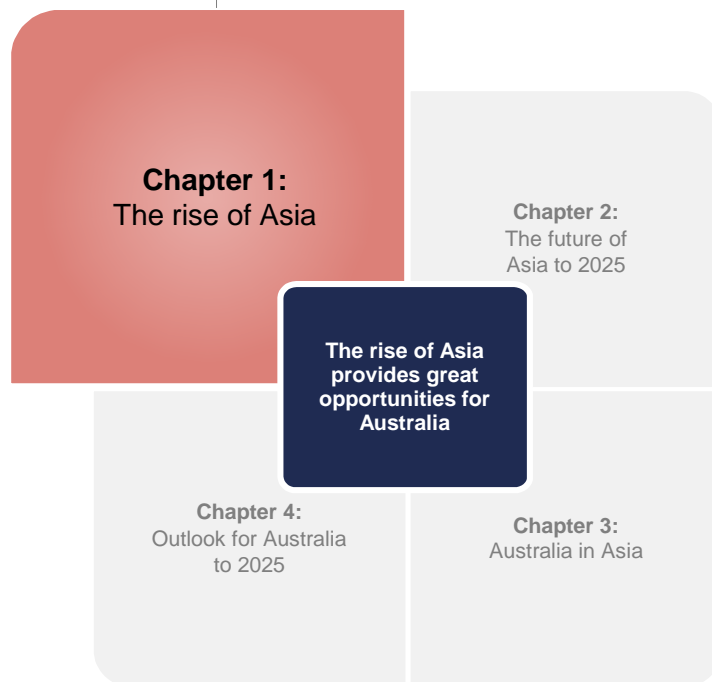
25. Australia will have stronger, deeper and broader cultural links with Asian nations.

Pathways

- Recognise and highlight Australia's unique cultural advantage as home to the world's oldest living culture and one that welcomes great diversity.
- Encourage cultural and arts communities in Australia to become fully part of the region through two-way collaboration and partnership arrangements, including through training and capacity building.
- Re-examine government activities that support artists to achieve success in Asia and promote Australia as a culturally vibrant and open country, including through the Government's consideration of the Review of the Australia Council.
- Revamp the Australian International Cultural Council to better coordinate our support for cultural and artistic organisations to enhance promotion of Australia as a culturally vibrant and open country.
- Work with the media industry, through its representative bodies, to improve its content and coverage of the region to ensure that Australians receive more day-to-day news about major events and issues from across the region. In addition, encourage media exchange programs with the region to build knowledge.
- Request that the Australian Broadcasting Corporation and the Special Broadcasting Service examine how to promote more extensive coverage of the region in all aspects of their content and programming, with special attention to news and information coverage, to ensure that their content reflects the depth and diversity of our connections with the region, including SBS's developing role as a news provider to Asian Australian communities in their languages.
- Strengthen cultural diplomacy and exchange to build trust, understanding and confidence in our cultural, political, security and economic relationships.

Chapter 1: The rise of Asia

- staggering scale and pace of rise
- investment in people and capital
- market and institutional reform
- open global trading systems and stability
- Asia has changed the world



Key points

The pace and scale of Asia's rise have been nothing short of staggering.

In a region rich in cultural, social, political and economic diversity, peoples' lives have been transformed just as the globe has been transformed.

Hundreds of millions of people have been lifted out of poverty, parts of the region have experienced a halving in their infant mortality rates and decades have been added to life expectancy.

Nearly all the high-performing economies in Asia deliberately set out to support prosperity by reforming their policy and institutional settings.

Many economies within the region have invested heavily in their people and created a climate that has supported capital investments.

With the benefit of a good education, growing shares of young people have found jobs as they have reached prime working age.

Open global trading systems and infrastructure to reduce transport costs have driven regional and global integration.

More broadly, a global system of rules has allowed for greater stability and spurred increasing levels of interdependence.

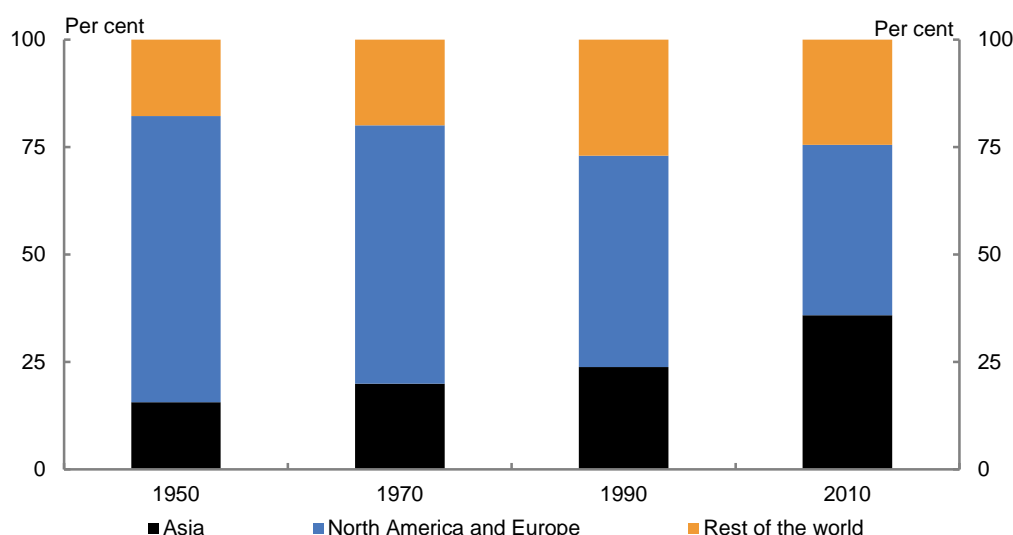
1.1 Introduction

Just over two decades ago, the Australian Government commissioned a study of Australia and the Northeast Asian ascendancy (Garnaut 1989). Since then, Asia has continued to change at an unprecedented pace and scale. This White Paper looks at the group of nations that stretch from India through Southeast Asia to Northeast Asia, including Indonesia, other Association of Southeast Asian Nations (ASEAN) members, China and Japan.

Asia is a region of great diversity—across ethnic groups, languages, history, institutions and natural endowments. Its transformation into the world’s most dynamic economic region has been a defining development of our time.

Over the past 20 years, one-third of the world’s population has re-engaged with the global economy and more are set to do so (Chart 1.1). Living standards for billions of people in Asia have improved at a rate not previously experienced in human history.

Chart 1.1: Asia’s rising
Share of world output



Note: GDP is adjusted for purchasing power parity (2011 prices). See glossary for the definition of country groupings in this chart.

Source: Conference Board (2012).

Between 2000 and 2006, around a million people were lifted out of poverty every week in East Asia alone (Gill & Kharas 2007). Japan, the Republic of Korea (South Korea), Singapore and, more recently, China and India doubled their income per person within a decade. Some went on to repeat this achievement two or three times. 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 (Maddison 2010).

This chapter looks at Asia’s success to date and how it has shaped the world.

1.2 The makings of success

Asia's economic rise has been staggering, starting with Japan, whose emergence gathered pace from the 1950s. The region's success has not followed a single 'recipe'. Even where economies have drawn on the lessons of others, they have adapted approaches to suit their own circumstances and have implemented them alongside home-grown initiatives.

The region's economies are diverse. Some started their growth surge earlier; some have enjoyed greater success. Incomes in Singapore, for example, are currently 12 times higher than in neighbouring Indonesia (Conference Board 2012). Economic progress has been uneven within countries too, including in the region's large economies.

But amidst this diversity some common patterns have emerged in recent decades. Nearly all the high-performing Asian economies deliberately set out to support prosperity by investing in people, building capital and undertaking institutional change, including expanding the role of markets.

With the benefits of a good education and employment-creating reforms, large numbers of young people have become productively employed as they reached prime working age, while a global system of rules has promoted stability and interdependence.

Open global trading systems and the construction of vital infrastructure to reduce transport costs have been drivers of integration. Intricate regional production networks have emerged, along with increased flows of intermediate goods between regional partners. Specialisation and scale have given the region a powerful advantage, particularly in manufactures.

Asia's most successful economies have evolved continually in response to new developments. As incomes have risen in population-dense economies such as Hong Kong, Japan, South Korea and Taiwan, and as their labour-intensive activities have become less competitive, Asia's high performers have refocused their production on new areas of consumer demand—developing domestic markets and specialising in high-skill activities.

Notwithstanding its diversity, the region is bound by a shared ambition for economic advancement. The means may have varied, but the effort has been determined and the results staggering.

Asia's demographic dividend

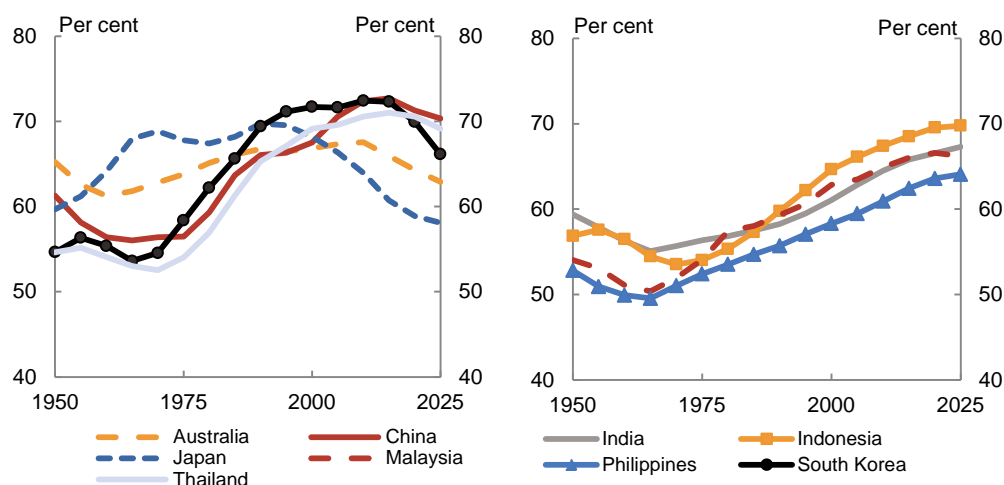
In the early stages of their take-off, many economies in Asia faced a favourable set of circumstances as large numbers of young people approached working age, boosting the productive capacity of economies.

The region's ability to capitalise on its favourable demographics has been a key factor underpinning Asia's stellar income growth over the past four decades.

An East Asian baby boom, which started in Japan in the late 1940s, sparked a series of demographic and social changes that helped shape the region's economic growth trajectory.

As the large 'boom' cohorts reached prime working and saving age (Chart 1.2), the productive capacity of economies such as Japan and South Korea expanded. During this phase—from 1965 to 1990—East Asia's working-age population grew nearly four times faster than its dependent population (Bloom & Williamson 1997).

Chart 1.2: Asia's demographic dividend
Share of working-age population



Source: UN (2011b).

Demography is not destiny. Indeed, despite having experienced similar demographic transitions, Latin America as a whole was unable to achieve a demographic dividend in the 1960s to the 1990s (Bloom & Canning 2004, cited in Wei & Hao 2012). To take advantage of the favourable window provided by a youthful workforce, East Asian economies invested in physical capital, job training and technological progress. With the benefits of a good education, East Asia's large numbers of working-age people became a huge productive workforce.

A virtuous spiral was created: population change increased income growth, and income growth pushed down population growth. The consequent declines in fertility reduced youth dependency rates and further boosted women's participation in the workforce.

East Asia's 'demographic dividend' is estimated to have accounted for between one-quarter and two-fifths of its growth in GDP per person in the late 20th century.¹

Favourable demographic changes were not confined to East Asia's developed economies—other economies have also enjoyed a demographic dividend (Chart 1.2 and Box 1.1). Between 1981 and 2010, the large share of working-age people is estimated to have boosted the growth rate of output per person by more than 1 per cent a year in Indonesia, South Korea, China, Thailand and Vietnam (ADB 2011b).

Box 1.1: Life has changed in Indonesia

The experience of a child living in Indonesia tells the story of what has happened across large parts of Asia.

While there is room for improvement, access to immunisation, sanitation and nutrition means an Indonesian child can now expect to have a life expectancy into their late 60s, compared to just 45 if they'd been born in 1960 (World Bank 2012d).

Around 18 per cent of Indonesians are living in poverty today, compared to 68 per cent in the late 1980s (World Bank 2012d). The size of the Indonesian economy is now larger than Australia's (when adjusted for purchasing power parity) (IMF 2012c).

Young children today will have had at least nine years of compulsory schooling, with plans for 12 years of compulsory education from 2014 (Yudhoyono 2012). Nearly a quarter of students who recently completed their secondary school education are enrolled in tertiary study (World Bank 2012d).

With economic growth and education, job choices have been transformed. As recently as 1990, a young Indonesian was most likely to have a job in agriculture. Now, the prospect of a city-based career in a professional service industry is a reality—and lifestyles are changing rapidly as a result.

Investing in people

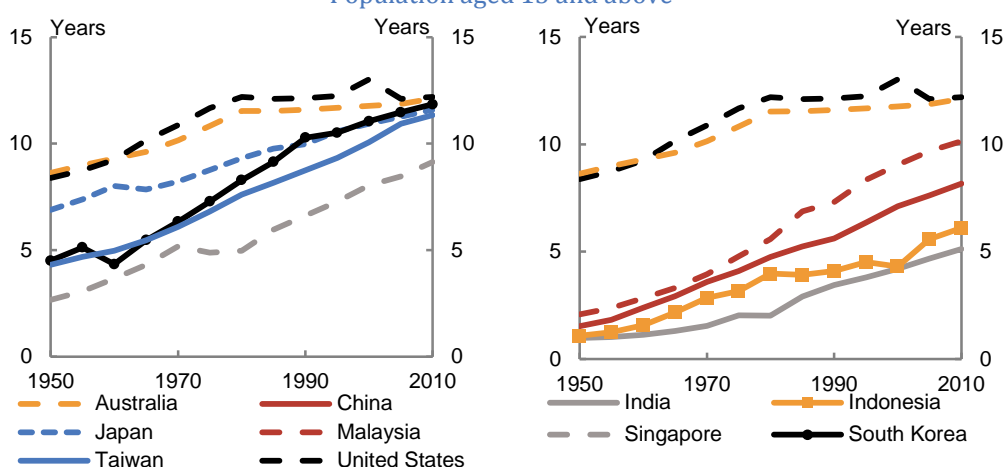
Asia's young people enjoyed marked improvements in their access to education and its quality as governments invested in their youthful populations and dramatically transformed their education and training systems.

¹ See, for example, Bloom & Sachs (1998), Bloom & Williamson (1998), Bloom, Canning & Malaney (2000), Mason (2001) and World Bank (2012c and 2012d).

Many countries started investing in their people, building on a strong base. Primary education was compulsory in many East Asian economies and by 1960 was prevalent in China, Hong Kong, Japan, Singapore, South Korea and Taiwan (Tilak 2002). Some who did not start from as strong a base also improved access to primary education sharply—primary school net enrolment rates are currently nearly 90 per cent in the Philippines and are close to universal in Cambodia and Indonesia (World Bank 2012d).

But the most profound changes occurred in secondary and higher education. Average years of formal education were extended across the region, as more people stayed in education for longer (Chart 1.3).

Chart 1.3: Average years of formal schooling
Population aged 15 and above



Source: Barro & Lee (2010).

Between 1970 and 2001, secondary school enrolment rates in some of the region's largest developing countries—Indonesia, Malaysia, Thailand and China—more than doubled (World Bank 2007). Higher education enrolment rates in the region have increased considerably since the 1970s, in countries such as Hong Kong (increased by a factor of 8), Malaysia (increased by a factor of 10) and Thailand (increased by a factor of 16). South Korea is a standout performer, with almost universal post-secondary education (World Bank 2012d).

As participation improved, the focus in many countries shifted to quality. Today, four of the world's five highest performing education systems are in Hong Kong, Shanghai, Singapore and South Korea (OECD 2010c).

In the more populous developing countries, such as India and Indonesia, efforts to increase access to, and the quality of, education continue. In both these countries, the task is complicated by the diversity and size of their education systems.

India, which has the second-largest education system in the world, has made large strides in improving school enrolment rates and reducing socioeconomic, caste and gender gaps in enrolments at the primary level, but significant challenges remain.

They include very low rates of schooling achievement as measured by test scores, and a lack of qualified teachers (Kochar 2012).

Indonesia's education system, the fourth-largest in the world, has more than 50 million students and 2.6 million teachers in more than 250,000 schools. While average primary school enrolment rates are reasonably high, they vary across the country. Net primary school enrolment rates are about 60 per cent in poor districts compared to almost universal enrolment in more well-off districts (World Bank 2012c).

The region's investment in its people has gone well beyond education. Governments have also invested heavily in improving access to sanitation, housing and clean water. A virtuous circle has been created in which social development has accompanied and supported higher rates of economic growth, and these in turn have contributed to further improvements in broader indicators of wellbeing (Box 1.2).

Box 1.2: Vietnam—big improvements in health and wellbeing

Vietnam's health expenditure per person has quadrupled since the mid-1990s and water supply and sanitation services have improved sharply. Seventy-five per cent of the rural population had access to clean water in 2010.

Better health outcomes have supported economic growth.

Average life expectancy is now 75 years, up from 49 in 1970. And the health of Vietnam's women and children has improved substantially. The share of women dying as a result of childbirth has fallen to around a third of the 1990 rate, with a similar drop in infant mortality, while the mortality rate for children under five has halved.

More than 90 per cent of children in Vietnam are now vaccinated against six common diseases. Polio was eradicated in 2000, and neonatal tetanus was eliminated in 2005.

Tuberculosis and dengue fever persist, however, and Vietnam's rapid development has brought new health challenges. More than 15,000 people die in traffic accidents each year, and non-communicable diseases associated with higher standards of living now account for half of all deaths.

Jump-starting growth through investment

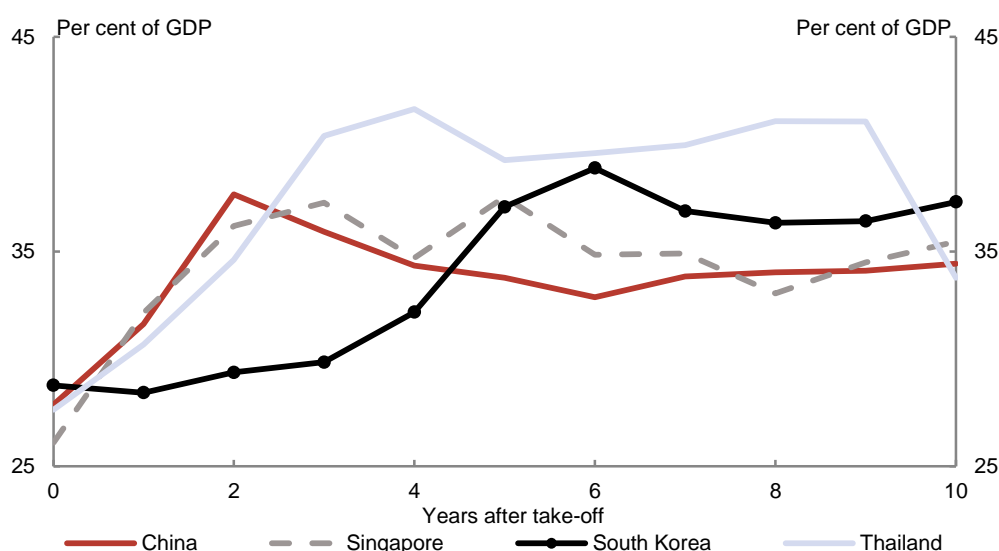
As Asia's economies emerged, they created a climate that supported investment—accelerating growth in the early stages of their development by rapidly investing in physical capital (Chart 1.4).

Higher levels of private and public investment enabled Asian countries to exploit their favourable demographics. With access to better machinery and infrastructure, workers became more productive. Technology and management systems, imported and adapted from overseas, further boosted productivity. And as firms invested and

expanded their operations, competitive pressures on enterprises, including state-owned monopolies, lifted productivity.

The paths taken by Asian economies to stimulate investment have varied, but those that succeeded generally followed a two-pronged approach. First, many built a favourable investment climate through a succession of—typically gradual and rudimentary—institution-building and market-enabling reforms. Second, governments in successful Asian economies actively enabled and complemented markets in different ways that supported investment. Different approaches ranged from putting in place export processing zones to various approaches to exchange rate management, and from industry-incentive arrangements to industry arm twisting.

Chart 1.4: Increasing investment in physical capital
Gross fixed capital formation



Note: The take-off years are 1990 for China, 1969 for Singapore, 1984 for South Korea and 1986 for Thailand (Hausmann et al 2005).

Sources: World Bank (2012d) and Conference Board (2012).

Institution-building and creating markets

In the early phases of Asian countries' rapid economic growth, institutional improvements helped create a favourable climate for human and physical capital accumulation.

Governments put in place more predictable property rights, opened up markets and invested in public goods such as basic knowledge, education and health.

Macroeconomic frameworks and governance more generally were improved. Price controls were liberalised and production quotas were gradually removed. Parts of previously closed economies were integrated into global markets, creating access to markets and finance, and boosting productivity.

It was not just economic institutions that underwent change. So did the formal and informal institutions that shape nations more broadly—governments and the military, the nature of political institutions and societal values and customs.

Countries across the region infused broad approaches to institutional improvement with their own unique practices. Although its development followed that of many other economies in Asia, China in many ways epitomised the gradual and pragmatic approach to reform. Its process is often described, in Chen Yun's phrase, as 'crossing the river by feeling stones' (Li 1995 and Box 1.3).

Box 1.3: China—feeling the stones

Reforms in China started in 1978 with the partial liberalisation of agriculture. Those reforms allowed local farmers, rather than the state, to take responsibility for the profitability of their enterprises and gave them incentives by allowing them to sell produce above state-determined quotas. In the 1980s, reforms also allowed largely communally owned enterprises to take advantage of new market opportunities—providing the engine of Chinese growth for two decades.² This was accompanied by the introduction and expansion of 'special economic zones', which provided concessions for private enterprise and foreign investment while the rest of the economy remained under controls and restrictions.

Over the next two decades, China continued its dual-track approach to reform as it encouraged private sector development while supporting state-owned enterprises in strategic industries. It gradually liberalised price controls and sought to reform state-owned enterprises, financial markets and the housing sector.

China's accession to the World Trade Organization (WTO) in 2001 was a further major step in integrating its economy with the global system. Reforms that supported China's commitment to the global trading system before its WTO accession should not be overlooked—no other member joining the WTO made so many concessions on the way to accession (Drysdale 2000; Brandt, Rawski & Zhu 2007). For example, in the decade before its accession to the WTO, China's effective tariff rate halved to 15 per cent in 2000, and has since continued to fall (World Bank 2012d).

Combined with a governance structure that gave local and provincial governments incentives to experiment with different approaches to growing local economies, China was able to adapt institutions and settings to fit each stage of its development (World Bank & DRC 2012).

2 Known as 'township and village enterprises'. Placing ownership in the hands of communities and local governments arguably struck a trade-off between lifting economic efficiency (by improving market incentives and property rights security) and ensuring that reform momentum was maintained by building constituencies and providing a 'win-win' for further reform (Qian 2003).

Similar patterns of gradual reform are clear in the four small newly industrialised economies that have successfully made the transition to high-income economies.

Hong Kong, for example, took a liberal approach to economic development, setting itself up as a regional and global financial centre. Singapore's path was much more state-led. Its distinctive brand of forward-looking public leadership, governance structures and investment in a high-performing public service allowed the country to take full advantage of its favourable geographical location. South Korea and Taiwan used aggressive strategies to foster entrepreneurship and innovation and established themselves as technological powerhouses.

But as conditions change, so does the usefulness of existing institutions. Over time, the region's more successful economies have managed to adapt many institutions in response to changing conditions and challenges. The benefits of investing in the formal institutions that support exchange increased as the Asian economies became richer, deeper and more complex. It is this ability to maintain the pace of institutional reform that largely explains why some economies—including the highly developed Asian economies—have sustained their initial growth success to reach high-income status.³

The reform path has not always been smooth. For example, while the structure and practices of Japan's financial sector were useful in initially driving rapid economic growth, they also contributed to the late-1980s asset bubble. In response, Japan underwent a reform period focusing on corporate governance and the financial sector in the 1990s. Similarly, the policy models that fuelled unprecedented economic growth in other countries and regions in Northeast and Southeast Asia contributed to asset price bubbles that later collapsed during the Asian financial crisis in 1997, which in turn required policy reform (Box 1.4).

3 For a discussion on the role of institutions in economic growth and development, see, for example, Zhuang, de Dios & Lagman-Martin (2010), Rodrik (2005), Aron (2000), Easterly (2005), Acemoglu & Robinson (2008) and North (1990).

Box 1.4: The Asian financial crisis

Several decades of unprecedented economic growth in many East and Southeast Asian economies came to an abrupt end in mid-1997 with the onset of the Asian financial crisis. Their growth models, particularly the focus on large-scale mobilisation of investments, contributed to asset price bubbles that later burst, leading to capital flight, sharp currency movements and the abandonment of pegged exchange rates (Gill & Kharas 2007).

Many factors lay behind the crisis and accounted for its severity: an inconsistent mix of macroeconomic and exchange rate policy settings, poor prudential supervision against a background of liberalisation of capital markets and underdeveloped domestic financial markets, lack of quick and coherent government action, and an overconfident international financial sector that had underestimated risks in the good years and panicked when economic conditions deteriorated.

The crisis had a devastating impact in several East Asian economies. For instance, in 1998, Thailand's real GDP fell by 8 per cent and Indonesia's by 14 per cent. Gross private financing to Asian emerging market economies collapsed from \$128 billion in 1997 to \$7 billion in 1998. Between 1996 and the second half of 1997, capital movements to Asia swung from annual inflows of almost \$100 billion to outflows of the same size, while international bank loans to non-banks in Asia (excluding Japan) fell by more than \$9 billion in the final quarter of 1997, the largest drop ever.

After the crisis, financial cooperation between ASEAN and East Asian economies became a regional priority, particularly through bodies such as ASEAN+3. This was also a reaction to concerns that the International Monetary Fund (IMF) was dictating policy settings to the crisis-affected countries—Indonesia, South Korea and Thailand—in a manner the region thought to be both intrusive and inappropriate.

In the immediate aftermath of the crisis, Japan offered to underwrite an Asian monetary fund, triggering opposition from the United States and the IMF. The proposal also lacked the support of China. But it eventually led to what has become the Chiang Mai Initiative Multilateralisation, which started as a complex network of bilateral swap agreements and has since become a single, uniform facility to help with managing regional financial crises.

Reforms put in place since the Asian financial crisis have improved the resilience of Asian economies.

Openness, reliability and stability

Asia's rising economies were major beneficiaries of the open global trading system established under United States leadership after World War II. In the early stages of their take-off, open global markets allowed them to take advantage of their large endowments of relatively unskilled, cheap labour.

In the most successful economies, early jobs in low-end manufactures, combined with hefty investments in education and training, enabled workers to learn the skills—and absorb and adapt advanced technology from abroad—that later permitted movement up the value-add chain (Krueger 2005).

Regional efforts also supported greater levels of openness. The Asia-Pacific Economic Cooperation (APEC) forum, for example, helped sustain market-driven integration in the region.⁴

More broadly, an open global trading regime enabled Asia's rising economies to secure energy and resources vital to their growth, including from Australia. This was particularly important for economies such as Japan and South Korea, which lacked large resource endowments.

At the same time, the security guarantees provided by the United States to its key allies in the region, especially Japan and South Korea, and the development of an effective working relationship between Washington and Beijing after 1972, provided strategic (and business) confidence that helped frame and support the region's economic development. The post-Cold War consolidation of ASEAN to incorporate the countries of Indochina helped establish the foundations for Southeast Asia's development.

1.3 Asia has changed the world

As Asia has grown over the past two decades, it has changed the world.

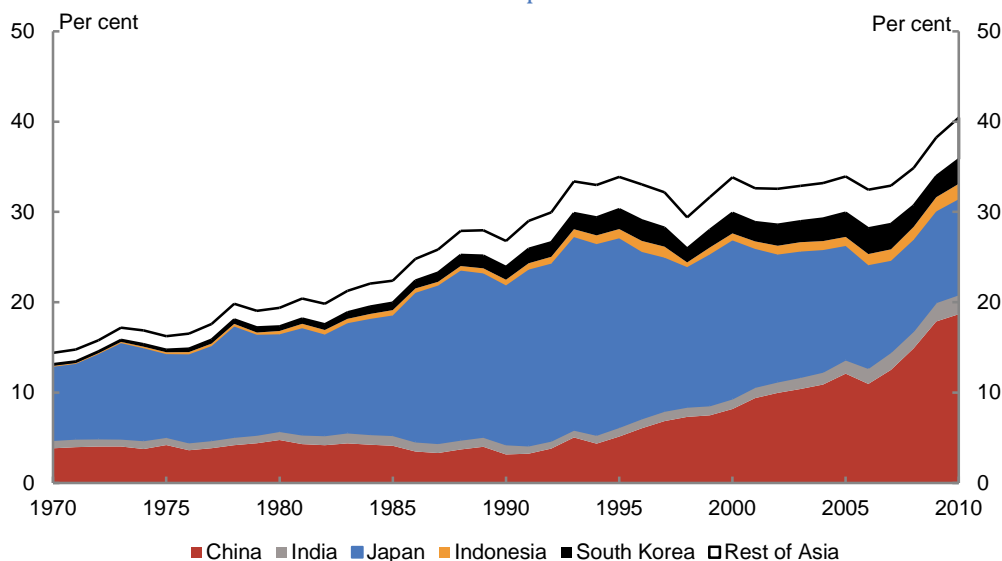
Asia's impact on global markets has been profound. More regional and global firms have emerged from Asia to shape the way businesses operate across the globe. The region's industrialisation and urbanisation have sparked demand for raw materials, creating a resources boom. And Asia's burgeoning middle class has reshaped global markets, including for high-value consumer goods and services—spanning everything from electronics to tourism.

⁴ Average tariffs of APEC members have declined from 16 per cent in 1989 to around 6 per cent in 2010.

Asia has shifted global production, trade and investment

With the emergence of 'Factory Asia', Asia has become the production engine for the world (Chart 1.5). As it has done so, it has also transformed the way the world produces goods and services.

Chart 1.5: Asia's manufacturing output
Share of world production



Note: See glossary for the definition of Asia in this chart.

Source: UN (2011a).

Integrated parts of the production process have spread across several different countries. These cross-border value chains first developed for cars and electronics and had their genesis in Japan's economic rise. As Japan developed, its production costs rose and the yen appreciated. Japanese companies began specialising in higher skill goods and services in Japan, while moving parts of their labour-intensive assembly operations to South Korea, Hong Kong, Taiwan and Singapore. As production costs rose in these economies, businesses relocated assembly processes to ASEAN countries and then to China; China quickly became the main assembly plant for Factory Asia. India, however, has so far followed a different economic development path from that of East Asia (Box 1.5).

Successive relocations and regional infrastructure projects that have increased connectivity have led to intricate regional production networks and greater flows of intermediate goods among Asian partners, and given the region a powerful advantage in many industrial sectors, especially manufacturing.

Box 1.5: India's manufacturing and services sectors

As India's agricultural share of output has fallen, its services share has risen, with the industry and manufacturing shares remaining broadly unchanged. Other economies at a similar stage of development have shown a greater bias towards labour-intensive manufacturing.

India's information technology, business services and financial services industries—the modern services sector—have recently been powering services exports. Their share in India's services export earnings has more than doubled over the past decade, to around 19 per cent in 2011. Software exports now rival India's other major services export—income from international 'guest' labour.

Some of the challenges facing India's industry and manufacturing sectors include its land acquisition and land-use policies, complex and time-consuming regulatory approvals, the quality of supporting infrastructure (including electricity systems) and skills shortages (Government of India Planning Commission 2011).

There are signs of improvement and elements of manufacturing are already globally competitive. For example, India's automotive and automotive components sector has thrived on the back of foreign investment, strong growth in domestic incomes and vibrant export opportunities. In 2010–11, more than 17 million vehicles were produced, most of which were 'two-wheelers'. India's automotive sector now accounts for more than 5 per cent of GDP and directly employs more than 5 million workers.

India has recognised the need to make substantial investments in skills and infrastructure to better equip India's future workforce and improve its competitiveness. Boosting industrial activity and employment is the driving impetus behind its 2011 National Manufacturing Policy.

East Asia now accounts for almost one-third of world trade in manufacturing, and the intermediate goods trade accounts for more than half of all interregional trade in East Asia. China's size, and the growing interconnectedness of production networks across Asia, means that China has become the main trading nation for almost all regional nations (WTO & IDE-JETRO 2011). Now the world's largest exporter, China's share of global value-add manufacturing has doubled over the past decade.

Not all parts of Asia have formed deep economic ties with their immediate neighbours. Links within South Asia have been growing, but they are still relatively modest. These links have been constrained by political tension (despite some promise of change), poor physical connectivity and impediments to cross-border trade and investment.

More recently, Asia's emergence has also reshaped global financial markets.

Over the past decade, regional investment has expanded rapidly and regional financial markets have become closer and more efficient as economies have become more interdependent. And in the decade before the Global Financial Crisis in 2008,

Asia also financed high rates of investment in developed economies—supporting growth in the United States and Europe.

While portfolio flows have oscillated, Asia has become a major net exporter of capital to the rest of the world through both growing foreign exchange reserves and private investment flows. Asia's foreign exchange reserves over the past decade have soared, with about two-thirds of the world's accumulated reserves in 2012 (Bloomberg 2012). China and Japan were the main contributors, at about one-third and one-tenth of global reserves respectively, but the pattern of accumulation has been common across countries in the region (Gill & Kharas 2007).

But, despite the region's impressive progress to strengthen financial systems and build regional connections, Asian financial markets remain relatively underdeveloped and are more closely linked to global markets than to each other.

Asia's rapid growth and urbanisation have transformed global commodity markets

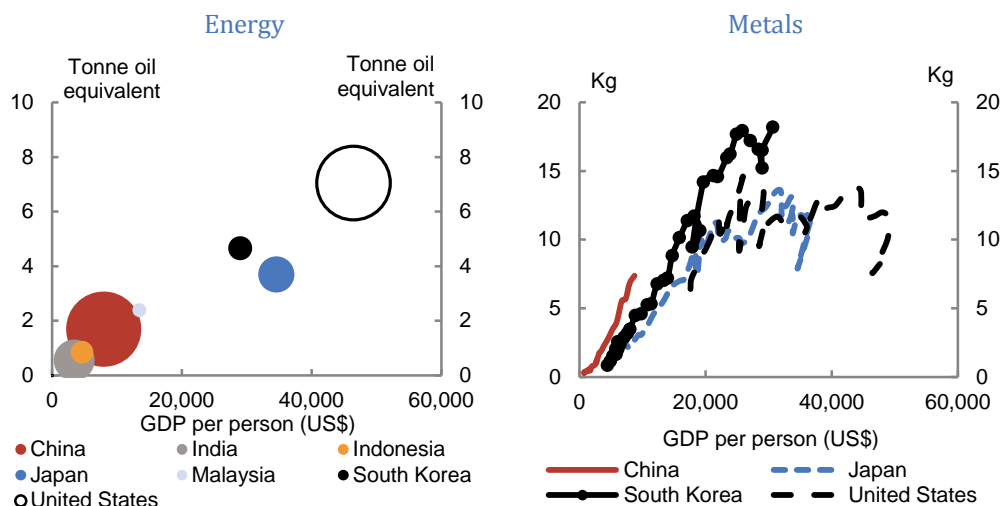
Urbanisation has transformed Asian societies. Urbanisation in Asia involves around 44 million people—around twice the size of Australia's current population—leaving rural areas and being added to the population of cities every year in search of opportunities. The impacts have been staggering. Between 1990 and 2009, energy consumption in Asia more than doubled and the region's share of global energy consumption increased from 25 to 38 per cent (IEA 2011). Demand has not been limited to energy. Between 2001 and 2011, iron ore prices increased by a factor of 13, zinc prices more than doubled, and copper, lead and tin prices all increased at least fivefold (IMF 2012c).

This process—along with the region's rapid growth, massive infrastructure investment and ongoing industrialisation—has boosted demand for a broad range of mineral and energy resources (Chart 1.6), affecting all resource-supplying nations, including Australia.

With its rapid growth, intensive resource use and sheer scale, China has led the pack. It is now the world's largest energy consumer, having gone from consuming less than half as much energy as the United States in 2000, to consuming slightly more today (IEA 2011). Now the world's largest producer and consumer of coal, China accounts for almost half of the world's coal consumption. Having been largely self-sufficient in coal until recently, China has quickly emerged as the world's largest importer of coal (IEA 2012).

China's commodities-intensive growth has also seen it become the world's largest consumer of steel, aluminium and copper, accounting for around 40 per cent of global consumption for each—a share two to three times larger than those of Japan or South Korea at the peak of their respective metals demand cycles (Coates & Luu 2012). China's growth and technological change have also demanded lesser-known materials. Demand has increased for manganese (used in the production of stainless steel), antimony (electronics), scandium (aluminium alloys) and zircon (ceramic glazes).

Chart 1.6: Energy and metals consumption per person, selected countries



Note: Bubble area represents the nation's total energy consumption in 2009. GDP adjusted for purchasing power parity (2011 prices). Metals consumption data are for 1972–2010 for China, 1960–2010 for Japan, 1975–2010 for South Korea and 1960–2010 for the United States.

Sources: World Bank (2012d), IMF (2012c) and Conference Board (2012).

China is a significant, and in some cases a dominant, producer of most energy and mineral resources. While it leads world production in black coal, iron ore, gold, zinc, manganese, rock phosphate, rare earths, tungsten, and lead (Geoscience Australia 2012), China is sourcing an increasing share of its commodity needs on global markets. As China becomes increasingly aware of, and sensitive to, the environmental and social costs of mineral extraction, domestic production is also becoming more expensive, reinforcing the shift toward imports. Both state-owned enterprises and the private sector are investing overseas to diversify supply, partly in response to government encouragement.

India, too, has significant resource endowments and has sought to remain primarily self-sufficient in mineral production, taxing exports in an effort to retain critical commodities like iron ore and metallurgical coal for domestic use. Some argue that domestic production has been hampered by inefficient regulation in areas such as land access and use.

The mature industrial economies of Japan, South Korea and Taiwan have long demanded raw materials for their manufacturing sectors. Primarily import dependent, these economies have established trade and investment relationships with nations rich in raw materials. Japan, for example, has relied on imports for over 80 per cent of its sizeable energy needs. Japan is the world's third-largest net importer of crude oil, second-largest importer of coal and largest importer of liquefied natural gas (EIA 2012).

The region's economic growth has also contributed to fundamental changes in global food demand. Income growth has boosted demand for better quality, higher protein

and more diverse diets, including for more dairy, fish, vegetables, fruits, edible oils and meat. For example, the amount of meat consumed a year in Asia increased by a factor of 14 between 1961 and 2009 (FAO 2012). Asia's urbanisation has further accentuated changes in lifestyle and consumption patterns, bolstering demand for semi-processed and ready-to-eat foods.

As production has become more sophisticated, Asia has emerged as a global innovation hub

While the United States and Europe continue to be world leaders in science and research, Asia is emerging as a world centre of innovation and technological development.

China has overtaken South Korea as a science and research producer and has recently overtaken Japan on a number of measures, such as research and development expenditure and national output of scientific publications. However, in 2010, Japan overtook the United States to become the highest producer of triadic patent families (a set of patents taken at the European Patent Office, the Japanese Patent Office and the US Patent and Trademark Office), while South Korea was fifth (OECD 2012c; Thomson Reuters 2012).

Other emerging economies in Asia are also becoming knowledge creators. India's large and youthful population and growing expenditure on research and development have lifted its publications of scientific papers from 2.1 per cent of the world total in 2000 to 3.5 per cent in 2010 (Thomson Reuters 2012). And it has also had success opening up new markets for high technology through 'frugal innovation'. An example is TATA's Swach, a \$25 water filter that exploits the properties of nanoparticles of silver and runs without electricity or moving parts.

Indonesia more than doubled, and Vietnam more than tripled, their volumes of scientific publications between 2000 and 2010, albeit from modest bases (Thomson Reuters 2012).

The scale and networks provided by Asia's cities have helped spur innovation. With activity increasingly concentrated in cities, businesses have been able to tap into innovative practices and deep and growing pools of talent. In 1993, China had less than half the number of researchers of the United States. By 2007, it had 1 per cent more, employing more researchers than any other country—around two researchers per thousand people in the labour force. This is still significantly lower than advanced Asian economies such as Taiwan and Singapore (both around 10 per thousand) (OECD 2012c).

Not only have Asia's cities become centres of innovation, they have also become engines of growth (Pellegrini 2011). In Malaysia and Thailand, cities contribute more than 90 per cent of GDP. Even in countries such as Sri Lanka and Bangladesh, where urbanisation is still low, more than 65 per cent of GDP is produced in urban areas.

A burgeoning middle class has emerged, poised to transform consumer markets

As incomes in the region have grown, an increasingly wealthy and mobile middle class has emerged, with a resulting shift in the balance of consumer markets towards Asia. With less income being taken up by necessities, demand for a diverse range of goods and services, from health care to household goods, has grown.

Between 2000 and 2011, the number of automobiles per 100 urban households in China is estimated to have risen from less than one to more than 18; the number of computers from eight to 80; the number of mobile phones from 16 to over 200; and microwave ovens from 16 to 60 (CEIC Data 2012). While rates of growth in different consumer durables vary, similar patterns are evident across a whole range of goods.

Intraregional tourism has boomed and popular culture is now shared across Asia as more people throughout the region and the world discovered Japan's pop music and manga, Hong Kong cinema, South Korea's television soaps and India's Bollywood films.

Technology—which is spreading particularly quickly in the region—is changing the way people interact. India now broadcasts more than 800 television channels, compared with only two in 1990 (Indian MIB 2012). More than three in four people in Asia and the Pacific now use a mobile phone, compared with less than one in four in 2005; and 2.3 million more people in Asia and the Pacific are connecting to the internet every week (ITU 2011).

The rise of Asia's middle class has a long way to play out (Chapter 2).

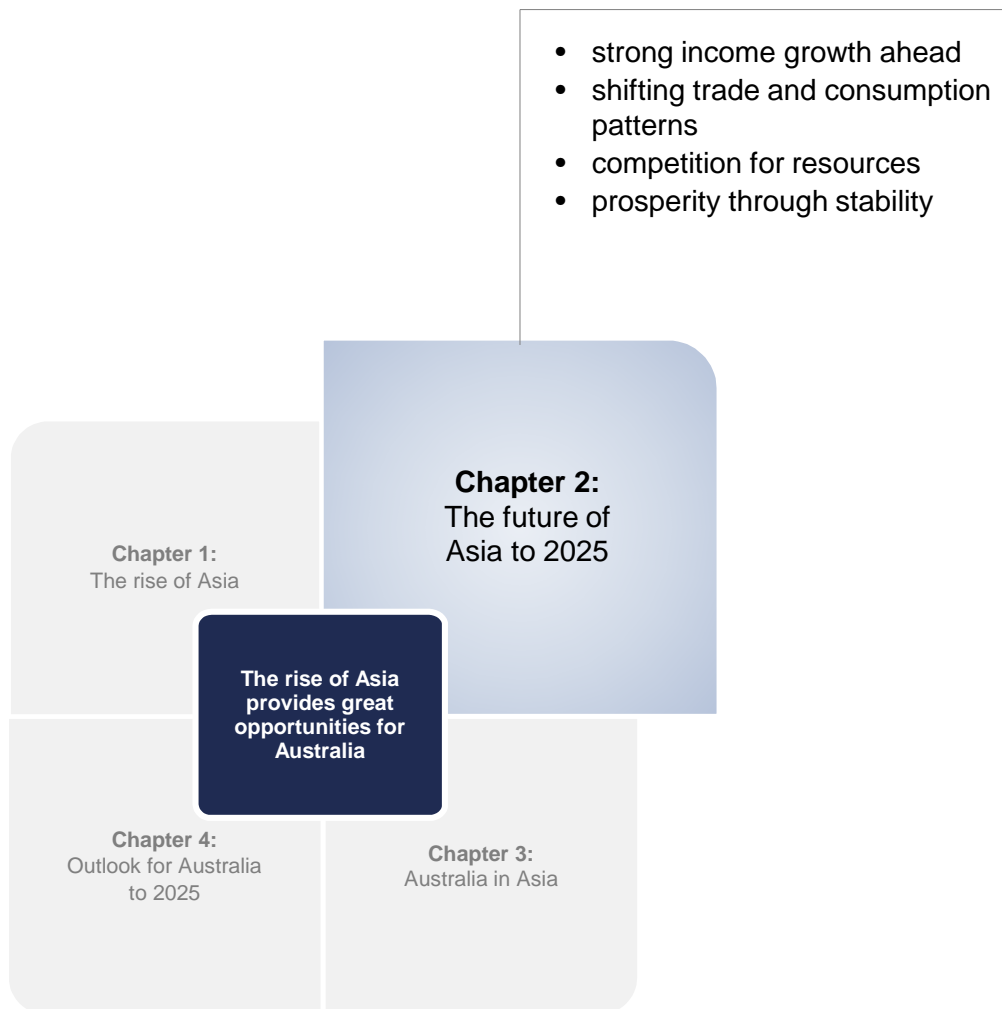
Asia's growing weight is altering the focus of global governance

Finally, Asia is not a self-contained strategic or economic system. The rising influence of emerging economies in Asia is shifting the focus of global governance.

The formation of the Group of Twenty (G20) following the Asian financial crisis—particularly its elevation to a leader level forum in 2008—is an example. Changes to the governance and membership of rules-setting bodies such as the International Monetary Fund (IMF) have also begun. An important sign of the shift in financial relativities was the substantial commitment that emerging economies made to the IMF's crisis reserves at the G20 summit in Mexico in 2012.

ASEAN has consolidated its role in the evolving regional architecture. It provides the framework for the East Asia Summit, which brings together leaders from all major powers involved in the region, with an agenda that covers economic, political, security and environmental issues.

Chapter 2: The future of Asia to 2025



Key points

Asia's past cannot be explained by a single model; nor will its future be a single destiny, but there are good reasons to be optimistic.

While the shape of the Asian century is not set in stone, the scale and pace of Asia's rise in the coming decades is expected to be staggering.

Many nations in the region have only just begun to catch up to the productivity levels enjoyed in advanced economies, promising strong income growth for decades to come.

Asia will not just be the most populous region in the world. Asia will be the biggest economic zone, the biggest consumption zone and the home to the majority of the world's middle class.

Economic cycles affecting the region are expected to occur around a rising long-term income trend.

The economies and societies of Asia will transform as they become more prosperous.

Over the coming decades, the nations of Asia will face new pressures, including likely moderate economic growth among advanced-economy trading partners, greater competition for natural resources and further environmental constraints.

Despite substantial declines in poverty levels, rising income disparities will challenge social stability.

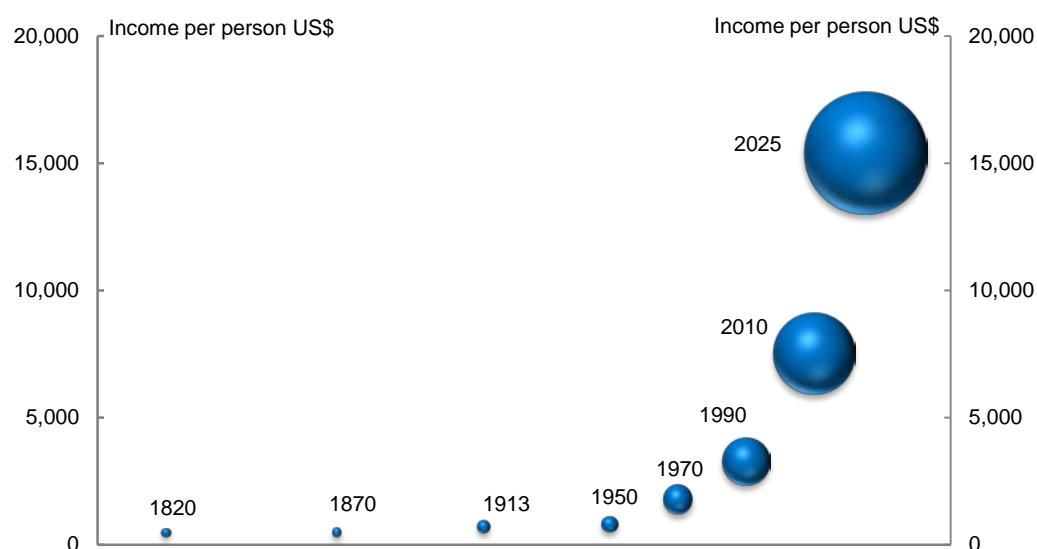
And Asia's continued growth won't occur in a strategic vacuum. Stable relations among the major powers in Asia and the Pacific—China, India, Indonesia, Japan and the United States—will remain fundamental to prosperity and security in the region and will require sustained effort.

Each nation's choices about its own institutions and policies will guide its future growth and prosperity, as will global economic and other developments.

2.1 Introduction

Embracing more than half of the globe's population, the transformation now underway in Asia is happening within compressed time frames (Chart 2.1).

Chart 2.1: Asia's economic resurgence is set to continue



Note: Bubble area reflects the size of GDP. GDP adjusted for purchasing power parity (2011 prices). See glossary for definition of Asia and description of Treasury projections. See Appendix A for a description of Asia's resurgence to date.

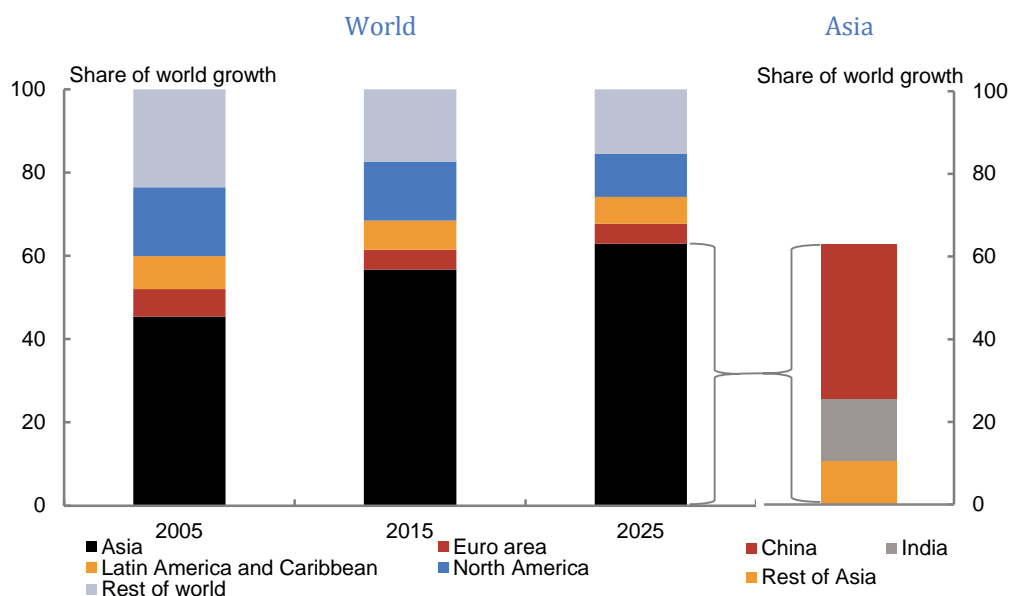
Sources: Maddison (2010), Conference Board (2012), IMF (2012c) and Treasury projections.

Average living standards are set to improve dramatically and transform the way people live and work. Asia's economies are projected to expand at a strong rate. The region's expansion and development will change the contours of Asia and the globe—opening up exciting new opportunities, while also posing some challenges.

2.2 Asia's rise has further to go

Building on settings that support prosperity, the region is set to continue its rapid growth into the next decade. Asia will change the shape of the global economy. Fast-growing Asian economies will be the engines of world economic growth as their share of global output rises (Chart 2.2).

Chart 2.2: Share of world output growth



Note: GDP adjusted for purchasing power parity (2011 prices). See glossary for the definition of country groupings.

Sources: Conference Board (2012), IMF (2012c), Maddison (2010) and Treasury projections.

Asia's contribution to world output growth will largely be the result of sustained growth by China and India as their productivity growth continues (Table 2.1).

China and India are expected to grow rapidly, albeit at a slightly slower pace compared to the past decade. The combination of their robust outlook and the sheer size of their economies mean that China and India will make the largest contribution to global and regional economic growth to 2025.

Despite their smaller size, Indonesia, Malaysia and other countries in Southeast Asia are expected to grow rapidly and make solid contributions to regional growth. Southeast Asia's cumulative economic, political and demographic weight is growing. With a combined population of 600 million, these countries have embarked on a drive, through the Association of Southeast Asian Nations (ASEAN), towards regional integration and connectivity by 2015.

As high-income nations that already count among the world's most advanced economies, Japan and South Korea are expected to grow at more moderate rates, especially as their populations' age.

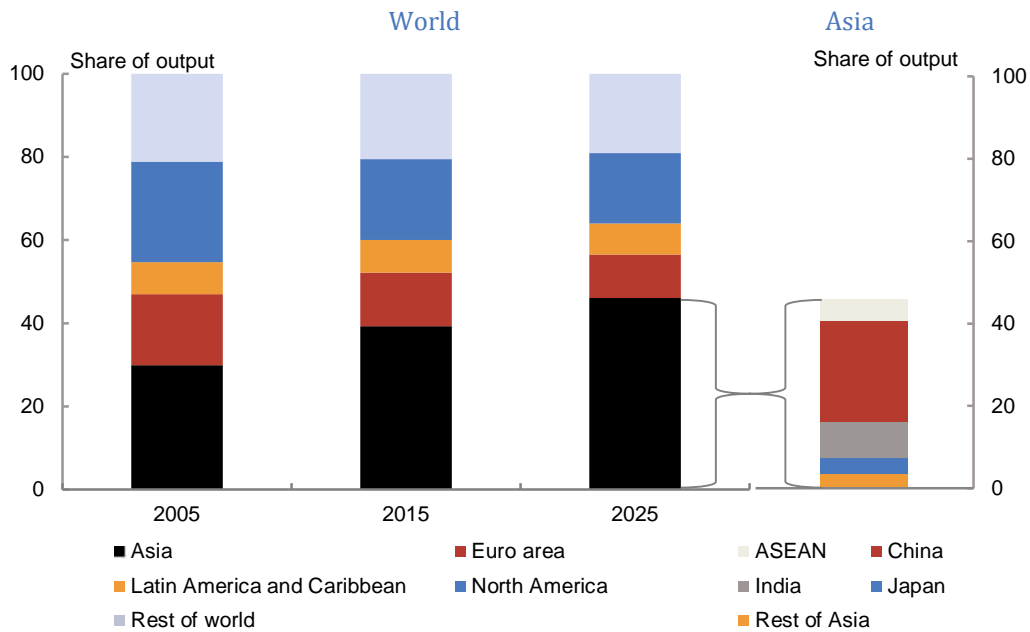
Table 2.1: Projected average annual economic growth rates in Asia, 2012–25

	China	India	Indonesia	Vietnam	Malaysia	Thailand	South Korea	Japan
Per cent	7	6½	6	6½	5	4½	2½	1½

Sources: IMF (2012c) and Treasury projections.

By 2025, four of the 10 largest economies in the world will be in the region—China (first), India (third), Japan (fourth) and Indonesia (tenth). Asia is likely to account for almost half of the world’s economic output, with China accounting for about half of that (Chart 2.3 and Box 2.1).

Chart 2.3: World output shares



Notes: GDP adjusted for purchasing power parity (2011 prices). See glossary for the definition of country groupings.

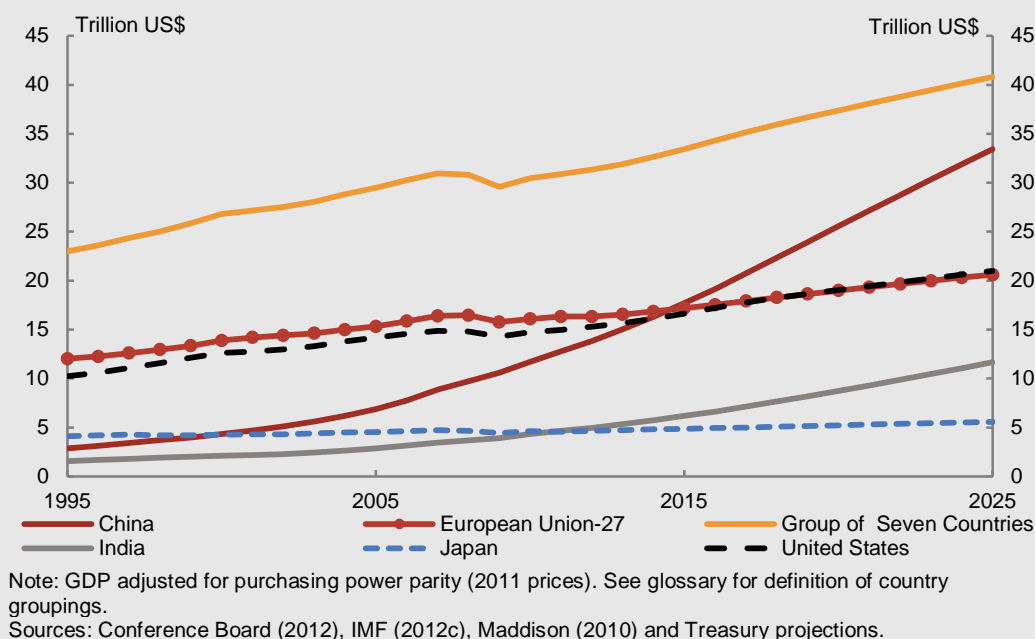
Sources: Conference Board (2012), IMF (2012c), Maddison (2010) and Treasury projections.

In 1980, income per person in developing countries in Asia was about one-thirtieth of that in the United States. By 2025, the gap will have closed at a rapid pace—income per person in the United States will be only four times the income per person in Asia’s developing countries. Higher living standards, improved health care, greater life expectancy and access to goods and services will transform the lives of millions in the region. The transformation will be amplified by widening access to education and by the global reach of communications and digital technology.

Box 2.1: Asian economies will become bigger than advanced economies

The combined output of China and India will likely exceed that of the whole Group of Seven (G7) by early next decade (Chart 2.4). Asia is set to overtake the combined economic output of Europe and North America within the decade to 2020. India has become the world's third-largest economy and China could overtake the United States as the world's largest economy by 2014 in real purchasing power parity terms.

Chart 2.4: Takeover points of absolute output levels



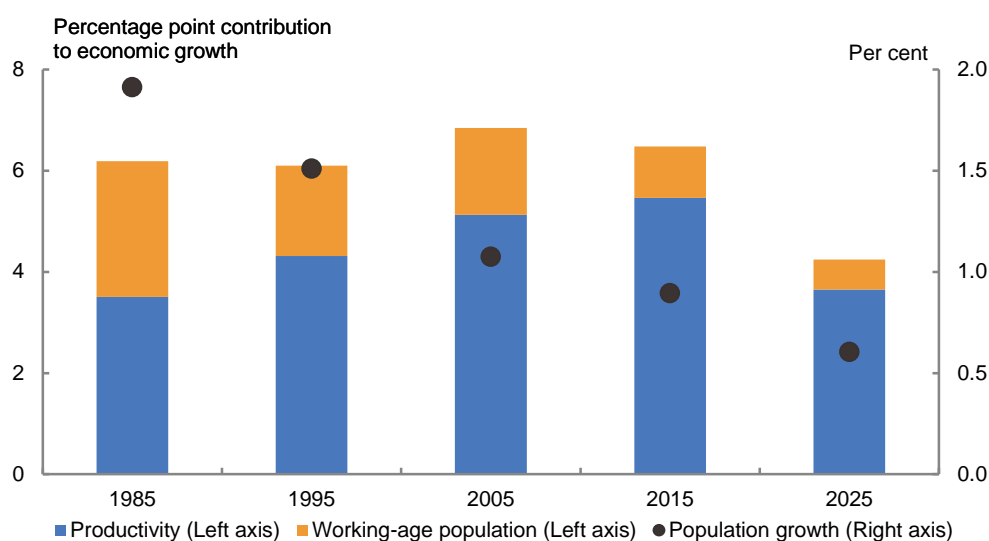
Demographics will matter, but they are not destiny

Asia's growth story has been closely connected with its demographic dividend (Chapter 1). But the demographic tide is turning. In Japan, South Korea and Singapore, the proportion of the population that is of working age has peaked or is peaking, as the number of young people entering the workforce no longer keeps pace with the number of older people leaving it. In China, too, retirees account for a high and growing share of the total population.

Across the region as a whole, the working-age share of the population is plateauing and will begin to decline from around 2025. Asia's working-age population is expected to grow at 0.8 per cent a year in the next two decades, around half the rate of the past two decades (Chart 2.5). Growth in the share of Asia's working-age population will be a particularly important factor in future output growth—both as population growth slows and even reverses in some cases, and as the proportion of elderly people increases.

Ultimately, the extent to which Asia's workforce becomes a demographic 'drag' will depend on domestic policy initiatives. These initiatives need to encompass workplace flexibility, investment in human capital and the incentive effects of social safety nets. Many of those factors will also determine whether Asia's more 'youthful' countries—India, Indonesia, Malaysia and the Philippines—are able to replicate the East Asian experience and capitalise on the opportunities of favourable demographics. Even if they do, for the region as whole, demographic factors will be a less significant source of economic growth than in the past.

Chart 2.5: Asia's population and productivity



Note: See glossary for the definition of Asia.

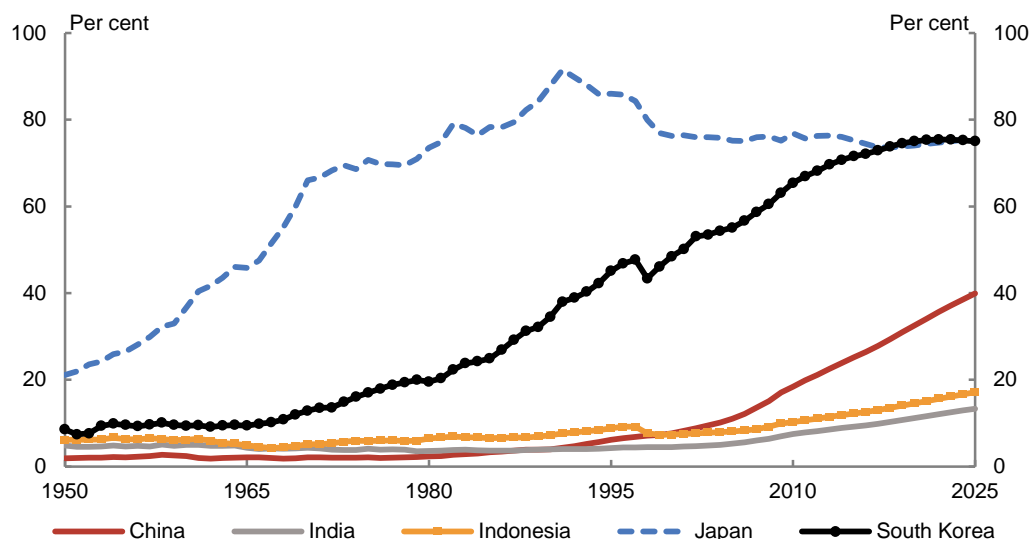
Sources: UN (2011b), Conference Board (2012), IMF (2012c), Maddison (2010) and Treasury projections.

Productivity remains the driver of economic growth

Improvements in productivity will drive the bulk of economic growth in Asia to 2025 (Chart 2.5). The acquisition and proliferation of established technologies, a more highly skilled workforce, an increased stock of productive capital, and sound policy and institutional arrangements are all needed to lift labour productivity levels.

Given the starting output levels per person in many emerging Asian economies, the potential for continued labour productivity growth is large. Output per person in China is currently only 20 per cent of that in the United States, while India and Indonesia have barely reached 10 per cent (Chart 2.6).

Chart 2.6: Output per person
Per cent of United States output per person



Note: GDP adjusted for purchasing power parity (2011 prices).

Sources: UN (2011b), Conference Board (2012), IMF (2012c), Maddison (2010) and Treasury projections.

With few exceptions, economies in Asia have been rapidly catching up with the productivity levels of more advanced economies. They have introduced markets to allocate resources efficiently, harnessed domestic savings for capital investment, and adopted existing technologies and foreign investment to create productivity growth. A few, of course, have already reached, or are close to, the global technological frontier.

But the fruits of adopting new technology and adapting it will become harder to harvest. A point will come, though it's still some way off, where the growth of labour productivity in developing Asian economies will slow—opportunities for gains from importing foreign technology and for shifting workers from agriculture to industry will diminish.

High levels of capital investment have been a considerable support for labour productivity growth in the region, but the next phase of such growth will likely draw from a wider set of sources—including investment in skills and education, further urbanisation, capitalising on further opportunities for deeper integration into the global economy and the rapid growth of other emerging economies.

The outlook for Asia is optimistic and it is shifting the global economy

While the shape of the Asian century is not set in stone, there are good reasons to be optimistic. Many nations in the region have only just begun to catch up to the productivity levels enjoyed in advanced economies, promising strong income growth for decades to come. Even if there are economic cycles, as is likely, they will occur around a trend of rising income.

Over the coming decades, Asian economies will face new pressures. These include expectations of more moderate economic growth among advanced economies, the need to build upon policy and institutional settings that support prosperity, greater competition for natural resources and further environmental constraints. Asia's economies will have cycles and, with greater integration, they will not be immune to shocks from elsewhere.

Yet there are potential upside risks. It is possible that productivity gains might exceed expectations, as was the case after China's entry into the World Trade Organization in the early 2000s (Armstrong & Trinh 2010). Also, consensus forecasts have consistently underestimated China's economic performance over the past decade or so (Connolly & Orsmond 2011).

The economies of Asia will each need to define their own economic, institutional and political paths forward. But effective reforms, allowing for the development of more flexible, transparent institutions that can respond to unexpected 'bumps in the road', will be a necessary platform for Asia's ongoing growth. Maintaining the direction of reform across Asia is important for achieving future economic outcomes at the upper bound of the region's potential.

In particular, as Asian economies become wealthier and more technologically sophisticated, they gradually lose the advantages of 'starting from behind'. They may not be so easily able to adopt and adapt technology from elsewhere as they operate closer to the technological frontier and compete further up the value chain. Without the necessary reforms and human capital development, Asia's emerging economies risk falling into the 'middle-income trap', finding it difficult to progress to becoming a high-income economy (Kharas & Kohli 2011; Eichengreen, Park & Shin 2011).

Some parts of Asia, including some ASEAN economies, already have the middle-income trap as a serious challenge to manage. Globally, a recent report showed that only 13 of the 101 countries deemed to be middle-income countries in 1960 had broken through to high income levels (World Bank & DRC 2012).

Much of Asia's future will be determined by how China and India manage their growth strategy so as to avoid this potential pitfall.

The shift of economic weight to Asia will continue, even if growth is slower than expected, given the low productivity base from which the large emerging economies are starting. If convergence is only 50 per cent of what is anticipated, three out of the world's top five economies will still be in Asia by 2025 and the region will still be the world's fastest growing. Even under a low growth scenario, China and India will continue to grow robustly (Box 2.2).

Box 2.2: Possible alternative courses for Asia

The central growth story outlined above assumes that economies in Asia are able to increase their output per person towards the level of advanced economies, through more rapid adoption and adaptation of technology and other policy changes.

If economies in Asia do not address their growth challenges, a slower growth path could emerge (Chart 2.7). But, even if developing Asian economies were to reach a long-run productivity level of only 50 per cent of what they would achieve under the ‘central’ scenario, Asia will still be the fastest-growing region in the world. Or, developing Asian economies could grow faster; the ‘high’ scenario assumes they reach a productivity level 50 per cent higher than the ‘central’ scenario.

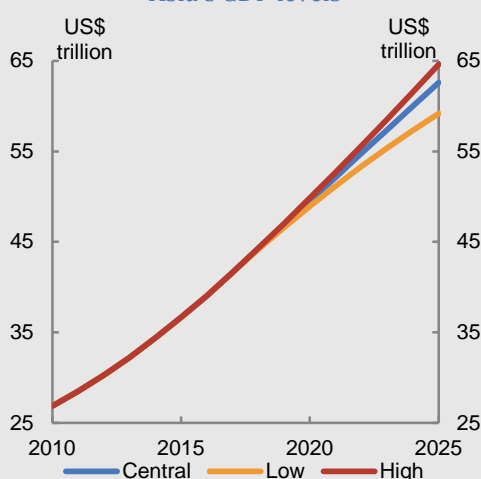
Under all three scenarios, four out of the ten largest economies will still be in Asia by 2025. And the ranking of the ten largest economies in 2025 will be unchanged.

Chart 2.7: Asia growth scenarios

Annual average growth, 2012–2025

	Base	Low	High
Asia	5¾	5¼	6
Developing Asia	6½	6	7
China	7	6½	7¼
India	6¾	6¼	7

Asia's GDP levels



Note: Productivity has been restricted so that no developing Asian economies exceed the US productivity level. GDP adjusted for purchasing power parity (in 2011 US\$). See glossary for the definition of Asia and developing Asia.

Sources: Conference Board (2012), IMF (2012c), Maddison (2010) and Treasury projections.

So while precise projections of Asia's economic growth trajectory are uncertain, the overwhelming consensus among forecasters and commentators is that Asia's economic rise will continue (Box 2.3). As one recent report shows, the centre of the world's economic gravity will be moving closer towards Asia based on these projections of global economic growth (Figure 2.1 and McKinsey & Company 2012).

Box 2.3: Long-term economic growth projections

Many long-term growth projections exist for the global economy, including those from large global investment banks such as Goldman Sachs, Citigroup and HSBC, think tanks such as the Carnegie Endowment for International Peace, international financial institutions such as the Asian Development Bank and the World Bank, and from Australian Government agencies such as the Bureau of Resources and Energy Economics (BREE) within the Department of Resources, Energy and Tourism (Chart 2.8).

All these projections show a similar picture of strongly rising output in China and India over the period to 2025. There is more variance around India's possible development path, in large part reflecting the earlier stage of its development.

Chart 2.8: Long-term GDP growth projections for China and India

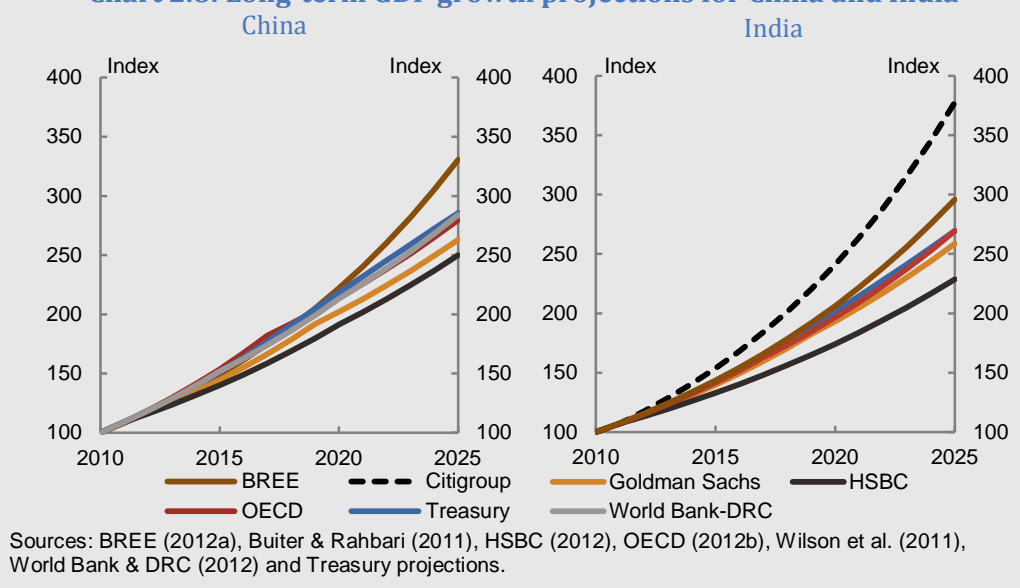
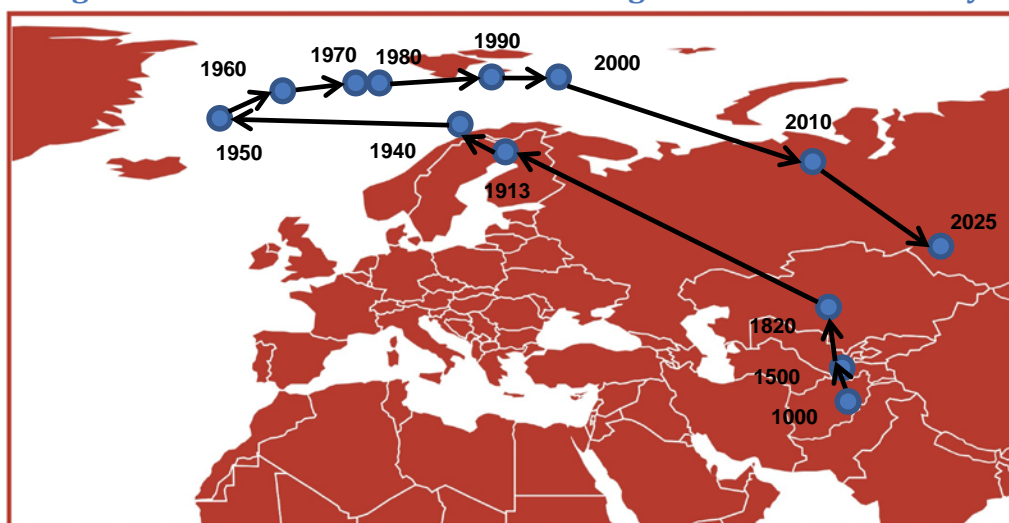


Figure 2.1: Asia to become the centre of global economic activity



Note: At each point in time, the centre of world economic gravity was calculated by weighting the GDP for each civilisation or country and measuring its relative importance against the known world economic capacity at that point. The centre of economic gravity slowly shifted from East Asia to Europe, then more quickly to the Atlantic and in more recent decades it has shifted quickly back towards Asia.

Source: McKinsey & Company (2012).

But Asia's development has not been evenly distributed

Although the conditions of Asia's poor have improved markedly, the incomes of the rich have been growing at a faster rate. Gaps have widened along rural-urban, gender and ethnic lines.

Cities and coastal areas were the first to benefit from Asia's integration and development, while interior regions have lagged. Wide disparities now exist between the coastal and inland provinces in China, the eastern, southern and western states in India, and western and eastern Indonesia. These disparities are evident in rural-urban wage differentials. In Indonesia, incomes of urban workers are some 20 per cent higher than those of rural workers. In India, the wage premium is more than 30 per cent. Urban incomes in China are two and a half times those in rural areas.

Gender inequality has also become pronounced, particularly in South Asia: in Afghanistan, India, Pakistan and Sri Lanka, women are half as likely as men to have a job or be looking for work. While education levels have improved in aggregate, gaps remain in education opportunities between young people in high and low-income households and between men and women (Menon, Mitra & Arnold 2011).

Three-quarters of women in the lowest income quintile in India have no education (World Bank 2012a).

Caste and ethnicity-based discrimination makes this regional and gender inequality worse. In many countries, the incomes of minority groups lag behind those of the ethnic majority. For example, despite impressive achievements in reducing poverty

and inequality, Vietnam ethnic minorities now constitute 45 per cent of the poor though accounting for only 15 per cent of the population (World Bank 2012b).

There are deep inequalities of opportunity between countries in the region. Many have found it difficult to stimulate and sustain rapid growth. In Bangladesh, Laos and Timor-Leste, more than a third of people still live in absolute poverty.

Unless these growing disparities in incomes and living conditions, both within and between countries, are addressed, social stability could be threatened and could have an adverse impact on long-term economic growth (Kharas & Kohli 2011).

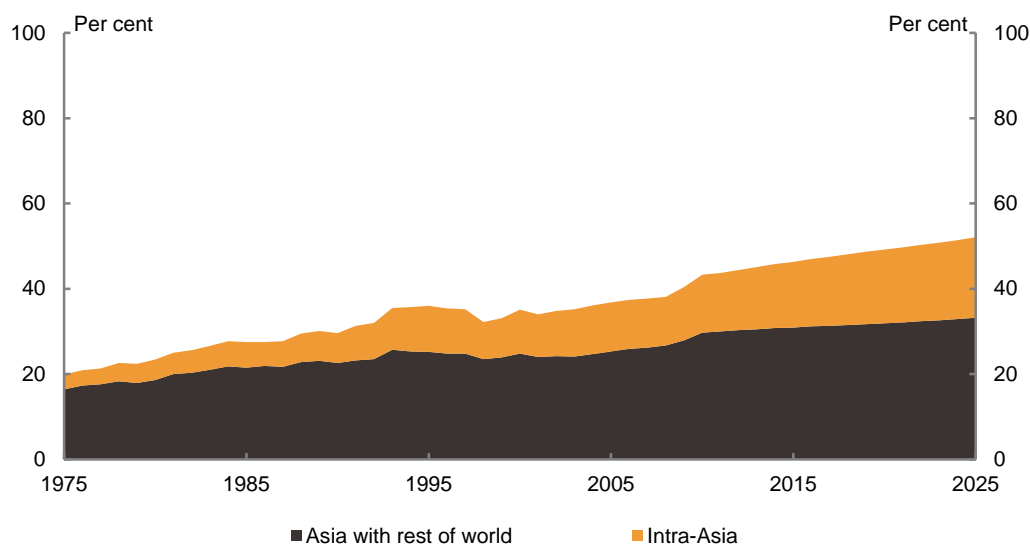
2.3 Asia will continue transforming the region and globe

Asia's economic rise will continue to transform the region and the globe in the period to 2025 and beyond. Economies in Asia will become even more important participants in world trade and Asian consumer markets will grow as the region's living standards rise. Asia's strong rates of urbanisation will continue, and the region will increasingly become an exporter of capital and a world financial centre.

Asia's rise will shift trade and production patterns

Asia has transformed the way the world produces goods and services and it will continue to be the production engine for the world (Chapter 1). Asia as a whole will become more important in the system of global trade to 2025 (Chart 2.9), retaining its many advantages as a mass producer of manufactured goods.

Chart 2.9: Asia's share of world merchandise trade



Note: See glossary for definition of Asia.

Source: Treasury projections based on IMF (2012b).

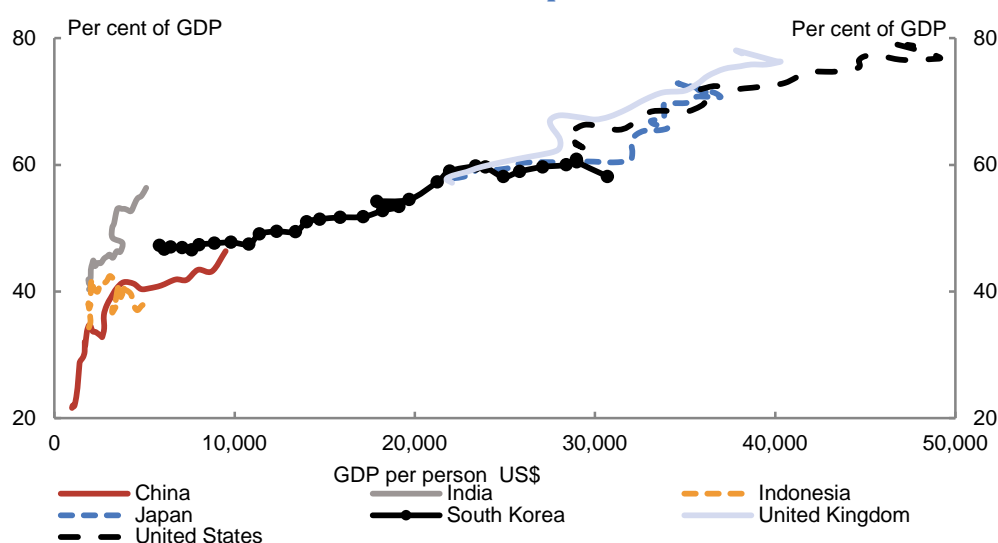
As the more advanced economies in Asia turn to producing higher value-added products and face rising labour costs, the competitive dynamics of industries will change globally. The trend of firms moving to regions in Asia with lower labour costs is likely to continue, driving more integrated and interdependent cross-border production networks. However, as more labour gets drawn into the traded sectors in the developing economies, real wages are expected to rise. Higher living standards and wages will narrow the labour cost difference between developing and developed economies, including with Australia.

More sophisticated and affordable information and communications technology, enhanced cross-border transport and logistics solutions, and a further reduction of barriers to cross-border trade, investment and people movement will all support further cross-border production integration.

In addition to increasing exports, economies in Asia will turn more to domestic end-market opportunities. Internal demand within Asia is expected to become the major source of new opportunity for firms in and outside Asia.

And as incomes rise in Asia, the expanding middle class's spending on services will become more significant, following the path of almost all advanced economies (Chart 2.10).

Chart 2.10: Services shares of output increases with income



Note: Data from 1980 to 2011. GDP per person adjusted for purchasing power parity (2011 prices)
Sources: Conference Board (2012) and World Bank (2012b).

India, for example, has developed a larger services sector than other economies at the same stage of development. By the early 2020s, information technology and business process outsourcing are projected to employ around 7.5 million workers.

Whether that sector will provide sufficient productivity gains and opportunity for the large number of relatively unskilled workers in India remains to be seen. But with the

development of new information and communications technology, and the capacity for these services to be integrated into global value chains, it may be possible for parts of India to 'leapfrog' the more heavy industrialisation of East Asia. The Indian Government has recognised that, for India to achieve its potential, there are many challenges ahead such as the burden of 'red tape' and the need to improve its human capital and infrastructure (Government of India Planning Commission 2011).

As producers in Asia 'move up the value chain', they will focus their efforts on increasingly skills and innovation-intensive goods and services.

The more advanced economies in the region—particularly Japan and South Korea—will remain important drivers of economic activity, especially as suppliers of critical, high-value elements of the region's production networks and as consumers of final goods.

Asia's growing science and research capability is boosting global scientific output and accelerating the pace of technological progress worldwide. It is also intensifying innovation competition as traditional technology powerhouses—such as Germany, the United Kingdom and the United States—strive to maintain, or at least mitigate the pressure on, their innovation roles.

Although competition from countries in Asia will increase, so too will opportunities for collaboration. These opportunities are likely to arise in the provision of international education, basic research (for example, particle physics and bioscience), research on common problems (such as climate change and disease prevention), and applied or commercial research with effective intellectual property arrangements. The benefits of international research collaboration include improvements in the influence, cost effectiveness and applicability of research, access to new ideas and data, and sharing of facilities.

Consumer markets will grow

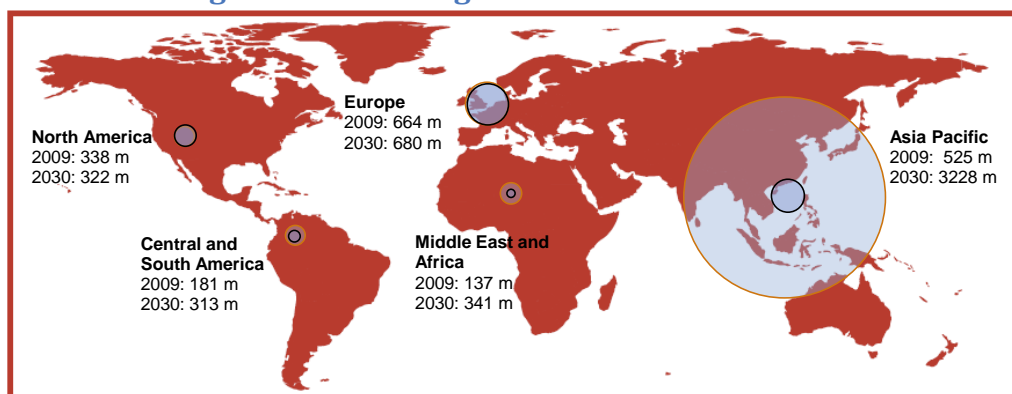
As the living standards of people in Asia improve, they will contribute to a shift in their economies towards greater domestic consumption.

In China, for example, consumption as a share of the economy has been squeezed by the export-intensive nature of China's rapid industrialisation. Although consumption per person has grown, the private consumption share of output is still below 40 per cent, much lower than in other major economies at comparable stages of development. China's 12th five-year plan is focused on restructuring its economic model towards internal sources of growth.

The Asian region is expected to be home to the world's fastest-growing middle class, whose pursuit of an improved quality of life will see Asian economies emerge as the world's dominant consumer markets. This trend will change spending patterns, social and cultural preferences, use of technology and occupations throughout the region and the world.

While recent studies differ on how to define and measure the global middle class, all point to the sheer magnitude of the shifts in Asia. One prominent study estimates that middle-class consumers in the Asia–Pacific region will increase by more than 2.5 billion people and account for around 60 per cent of global middle-class consumption by 2030 (Kharas & Gertz 2010 and Figure 2.2).¹

Figure 2.2: Growing consumer markets of Asia



Note: 'Middle class' is defined as those households with daily expenditures of between US\$10 and US\$100 per person. The black border circles and orange border circles depict the size of the middle-class population in 2009 and 2030 respectively.

Source: Kharas & Gertz (2010).

The large and dynamic consumer markets emerging in Asia are already attracting the attention of businesses—and governments—globally. And although this growing group of consumers will still be considerably poorer than consumers in advanced economies, their sheer number will open up huge new markets as they spend a higher proportion of their income on discretionary items. In urban China in 2025, discretionary spending is expected to constitute 45 per cent of a household's total expenditure, up from 34 per cent in 2000 (McKinsey & Company 2010).

Consumers across Asia are becoming more aspirational and more discerning. As incomes of the middle class increase, consumption choices will become more diversified—including a desire for higher quality, and potentially tailored, goods and services (Box 2.4).

¹ Specifically, daily expenditures of between US\$10 and US\$100 per person in purchasing power parity terms. The lower limit was chosen by the authors with reference to the average poverty line in Portugal and Italy, the two advanced European countries with the strictest definition of poverty. The upper limit was chosen as twice the median income of Luxembourg, the richest advanced country. Defined in this way, the middle class excludes those who are considered poor in the poorest advanced countries and excludes those who are considered rich in the richest advanced country.

Box 2.4: Middle-class consumers in Ahmedabad, India

Ten years ago, Hitesh moved from a village in the Indian state of Gujarat to Ahmedabad, a city of 4.5 million, where he now lives with his mother, wife and two daughters in a three-storey house in the old part of town.

Hitesh, 31, is a stockbroker in a firm that he opened with his friend several years ago. He brings in an annual income of US\$5,280, placing his family squarely in the middle of Ahmedabad's middle class. Almost half their income goes to food and housing, although they also spend a lot on transportation and entertainment. In the past few years, his wife, Komal, has begun buying groceries at a new supermarket instead of from local *kiranas* (traditional convenience stores), and the family buys electronics from a local showroom or from a friend's shop. They now have US\$700 in household assets, including a washing machine, a refrigerator, a television, a DVD player and two mobile phones—all of which, with the exception of the refrigerator, are international brands. Hitesh owns a motorcycle, which he bought for US\$850.

The family has seen a dramatic upgrade in the quality of their lives in the last few years, and they have high hopes for continued improvement. Hitesh expects his income to double within the next five years, and he and Komal are already planning how their lives will change. Their first focus is housing. The family currently lives in an old neighbourhood with narrow streets and older, worn buildings, and they would prefer a more developed area. They have been looking at a house with greater investment value and more living and outdoor space, including a garden and a parking spot. They have decided that they will buy an air-conditioning unit for their new home, are aiming to set up an internet connection and are budgeting US\$4,000 to US\$5,000 for new furniture. They then plan to invest in a small car and, eventually, new office space for Hitesh's firm, ideally in one of the commercial developments that have recently sprouted up in Ahmedabad. The family also expect to spend more on health care and, as their daughters grow up, education.

Stories like this will play out across the region in years to come.

Note: Expenditure figures quoted are 2010 US dollars.
Source: BCG (2010).

The Asian middle class will become more mobile. Outbound tourist numbers have already grown substantially; China's increased from 4.5 million to 57 million between 1995 and 2010 and India's from 3 million to 11 million over the same period (UNWTO 2012).

Asia's expanding middle class will seek greater access to educational opportunities as a driver for more highly skilled and better paid jobs. Studying abroad is considered important to obtain these jobs and in 2012 one survey found that 85 per cent of Chinese high net worth individuals intended to send their children overseas to study (Hurun 2012). This preference has led the number of students from China studying

overseas to almost treble: in 2003, 117,300 Chinese students studied abroad, but by 2011, this had grown to 339,700 students (China MOE 2012; AEI 2012a).

Alongside growing middle-class consumption in Asia, large consumer groups in the region already have much higher income levels, as evidenced by the size of the luxury goods market in Asia: China, for example, is now the world's largest market for Rolls Royce automobiles.

With billions of people set to enjoy considerably higher living standards, a surge in global creativity and productivity should be expected, accompanied by widening access to education—especially among women—and by the global reach of communications and digital technology.

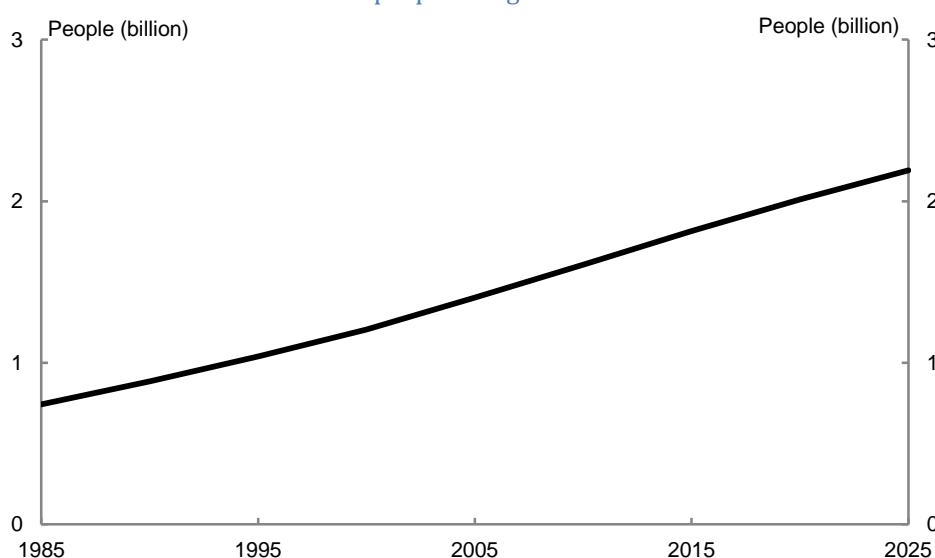
Access to a greater range of financial services to meet the demands of the middle class will also change consumption patterns. New investment products will further increase household wealth and provide alternative sources of funds for business investment.

Urbanisation is set to continue

Urbanisation in Asia has been an important driver, as well as a consequence, of the region's economic development and industrialisation.

Although Asia's rate of increase in urbanisation is soon to peak, the scale of urbanisation to come is unprecedented (Chart 2.11).

Chart 2.11: Asia's continuing urbanisation
Number of people living in urban areas



Note: See glossary for the definition of Asia.
Source: UN (2012b).

By 2025, more than 2 billion people in Asia—half the world’s urban population—are expected to live in cities. By 2050, this number will rise to some 3 billion people, around double the current level (ADB 2011a).

By way of comparison, China’s pace of urbanisation is 100 times the scale, and 10 times the speed, of Britain’s urbanisation during the Industrial Revolution (Maddison 2010). Building on their relatively low urbanisation levels, India and China are expected to account for around 40 per cent of the world’s urban population growth to 2025 (UN 2012b).

Urban areas are productive, attracting skilled workers, generating economies of scale and efficiencies, and providing more cost-effective essential services. Globally, large cities have 38 per cent of the world’s population but generate 72 per cent of global output; China’s metropolitan areas accounted for 78 per cent of its output in 2010. While urban India’s share of the country’s output is currently low—less than 40 per cent—urban areas there should generate half of India’s growth in GDP to 2025 (McKinsey & Company 2012). In China, average consumption per person in urban areas was more than double that of their rural counterparts in 2008. In India, average consumption per person was one-third higher in urban areas in 2009 (World Bank 2012b). The presence of a significant gap in incomes between urban areas and the rest of an economy is practically universal.

Strong rates of urbanisation in Asia will continue to shift investment activity from the building of heavy industry to the building of infrastructure: residential construction, roads and other transport networks, container port capacity, and urban amenities (such as water and electricity distribution).

In response to concerns about the degradation of arable land, urban densities are likely to increase. China is forecast to have more than 200 cities with a population in excess of 1 million by 2025. Europe, in contrast, has 35.

Urban areas will be the primary location for Asia’s emerging middle class, whose demands will relate to the needs of an urban lifestyle—transportation, infrastructure, housing and utilities, food and other consumables, health care, recreation and education.

Countries such as Bangladesh, Cambodia, Laos, Pakistan and Vietnam, which are at an earlier stage in the urbanisation process, will see a doubling in their urban populations over the next 25 years. They, too, face significant decisions about urbanisation, which could put pressure on institutional and political systems if not carefully managed.

Asia as a capital exporter

Asia is growing as a capital exporter and financial centre. The region holds more than half the world’s foreign exchange reserves and accounts for nearly a quarter of global financial assets. By 2050, this could rise to as much as 45 per cent (Kohli, Sharma & Sood 2011). Whatever the overall share turns out to be, Asia will host some of the

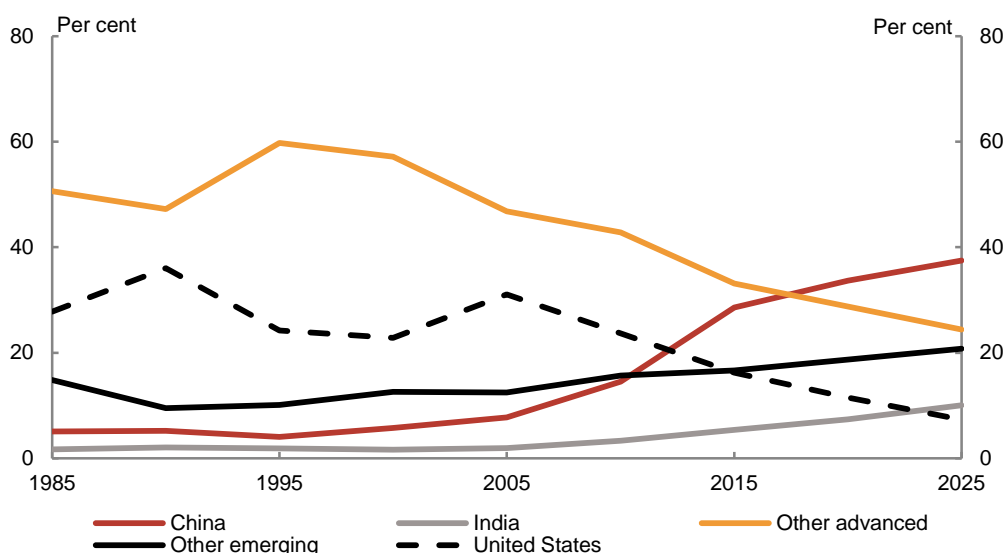
largest global equity, debt and banking markets, and be at the centre of global financial intermediation.

The share of total savings in China, India and other emerging economies is likely to increase over coming decades, while the United States' share, and those of other advanced economies, will decline (Chart 2.12).

Savings from Asian countries have largely been invested in foreign markets, such as the United States and Europe, due to the historic stability that these markets have offered compared to the Asian financial market. Foreign exchange reserves have also been built up, partly in response to macro-prudential concerns raised in the aftermath of the Asian financial crisis (Chapter 1). The strengthening and rigorous application of regulatory and supervisory frameworks will enhance confidence in Asian capital markets and these markets are likely to deepen as a result. As the financial system in Asia grows and matures, more direct investment within the region is likely, as is a gradual decline in the investment of funds in advanced economies (Sheng 2011). Deeper and larger capital markets in the region will likely lead to greater market opportunities for services such as risk management tools and financial market products, including the provision of such services from Australia.

And with financial systems in advanced economies unwinding the high debt levels built up before the Global Financial Crisis, financial institutions in stronger economic positions, such as those in Australia and elsewhere in the Asian region, will have opportunities to expand into new markets.

Chart 2.12: Share of total saving in the Group of Twenty



Note: See glossary for definition of country groupings.
Source: Speller, Thwaites & Wright (2011).

2.4 Success is giving rise to interconnected challenges

As Asia's economies, populations and middle class grow and its rates of urbanisation and consumption increase, so too do its challenges in the areas of food, water, infrastructure and energy and minerals security. Climate change is likely to amplify these challenges over time.

Energy and minerals security concerns

As it has grown, Asia has made growing claims on global energy. Increasingly, the region has relied on imports to meet its energy needs, with Australia playing an important role.

These concerns are likely to heighten in coming decades. Asia is expected to become 90 per cent dependent on imported oil by 2050, with the source of that oil being concentrated in the Middle East (ADB 2011a). For those countries within the region with large endowments of carbon-intensive fuel, climate change is adding a new dimension to Asia's energy challenges—creating pressures to restrict and alter patterns of energy use.

China is passing through the most energy-intensive part of its economic development (Song 2010). At the same time, its largest oilfields are maturing and production has peaked. So with backing from the government, Chinese national oil companies are investing overseas to expand production and diversify sources of supply.

To further address its energy security concerns, China's 12th five-year plan contains ambitious targets to reduce energy intensity and increase the share of renewable energy in national energy consumption. Action against these targets has been successful: China has emerged as a significant actor in the global renewable energy market and is now the world leader in renewable energy investment (UNEP 2012).

India, too, is focused on assuring ongoing access to reliable, affordable and secure energy. It recently became the world's third-largest energy consumer, and its energy demand is expected to more than double between 2009 and 2035 (IEA 2011). But India holds less than 1 per cent of the world's proven oil reserves, and while the country has the world's fifth-largest coal reserves, domestic production has been unable to keep pace with demand (BP 2012). Against this backdrop, India seeks to expand the population's access to modern energy sources, such as natural gas, liquid petroleum gas, diesel and biofuels.

The energy security landscape of ASEAN countries is being transformed as well. Once major exporters of oil and gas, ASEAN countries are now collectively net oil importers, and within three decades they are expected to also become net importers of gas (ADB 2011a).

Concerns about energy security are not confined to the region's fast-growing developing economies: Japan and South Korea have limited domestic energy supplies and so both have come to rely heavily on imports. Japan and South Korea are the

world's third and fifth-largest net importers of crude oil respectively and the world's first and second-largest importers of natural gas. Both confront a more crowded field of competitors for future energy requirements.

Asia's rapid growth, infrastructure investment, and ongoing industrialisation and urbanisation will boost demand for a broad range of minerals—spanning aluminium to zircon. China's iron ore imports, for example, are projected to grow strongly to reach over 1,000 million tonnes in 2025 (BREE 2012a). The demands of Asia's growing middle class for jewellery, as a means to display and store wealth, will drive demand for commodities such as gold.

The mature industrial economies of Japan, South Korea and Taiwan will also continue to demand raw materials to maintain their manufacturing sectors. And as their manufacturing industries respond to demands for 'greener', innovative technologies, there is likely to be a corresponding increase in demand for materials such as rare earths and lithium. Increasing global demand for consumer electronics is heightening this demand, all of which would be supplied by imports.

Climate change

As the region's energy use has increased markedly, so too have its greenhouse gas emissions. The link between energy and emissions arises from the use of fossil fuels, which dominate Asia's existing energy mix due to their low cost, availability and ease of use relative to low-carbon alternatives. In 2009, fossil fuels accounted for about 82 per cent of Asia's energy mix, with coal alone accounting for around 47 per cent.

It is in the region's interests to work to address climate change and many countries are taking steps to do so (Chapter 8). Projected sea-level rise, more intense tropical storms and higher wind speeds could inundate low-lying port cities, threaten coastal areas, exacerbate flooding and increase the salinity of rivers and bays across the region. With rapid and sometimes poorly planned urbanisation, these impacts could devastate Asia's coastal cities and major ports. Even under a conservative scenario of sea-level rise, by the end of the century the number of people affected by flooding in low-lying parts of the region, such as parts of Bangladesh, China, India and Vietnam, could increase from 13 million to 94 million (Cruz et al. 2007). In South Asia alone, the average costs of adapting to a 2°C temperature rise could be up to \$15 billion every year between 2010 and 2050 (CSIRO 2006).

Not only is action on climate change in the region's interests—given its large population and huge latent demand for emissions-intensive goods and services—it is critical to a global climate change solution. Asia is already a major contributor to global emissions. The region currently accounts for around 40 per cent of global emissions—up from 31 per cent in 2001. China, which recently overtook the United States as the world's largest emitter, is responsible for more than 60 per cent of the region's total emissions. And without a shift to low-carbon development, growth in emissions is projected to rise significantly (Garnaut 2011; Australian Government 2011c).

If the region is to reach its potential, it must address its growing food, energy, water and climate constraints. Significant efforts to do so are already underway. But for them to succeed, the region must avoid past approaches, where attempts to fix one area without regard for effects elsewhere led to unintended consequences. The links between food, water, energy and climate change are multiple and fundamental, and so a whole-of-system approach to these challenges is critical.

Growing demand for food

Asia's demand for food commodities is set to grow. In order to feed a larger, more urban and richer population, food production in 2050 needs to be around 70 per cent higher than today. Most of the projected increase in food demand will come from Asia (Linehan et al. 2012). The shift towards more protein-rich food and a wider variety of vegetables and fruit, combined with growth in biofuels, will also be more resource intensive.

The world is expected to be able to achieve the required increase in food production (FAO 2009; World Bank 2009), mostly from higher yields and cropping intensity.

But meeting the required increase in food production will not come easily. While the increase needed in agricultural yields is comparable to those achieved in the past, crop productivity growth is slowing and producers face much greater environmental constraints and challenges than before. And in many areas, climate change is multiplying these challenges. By 2030, rising sea levels could expose large parts of the Mekong Delta to extreme salinisation and crop damage.

The focus on lifting agricultural productivity will need to extend beyond the farm gate. Investments in water and transport infrastructure, particularly roads, irrigation systems and dams, will also be required. Such investments would help farmers better integrate into value chains and markets as well as help reduce food loss and waste. A lack of hard infrastructure, such as storage and cooling facilities and transportation, means that food does not always make it to market.

The combination of resource and environmental constraints, along with higher input costs, will constrain the supply response in most regions, so coming decades will be characterised by high food prices. Stronger links between agricultural and energy markets, as well as more frequent extreme weather shocks, will also add to food price volatility.

Water scarcity is set to increase

Meeting the region's growing food demands will be complicated by water scarcity.

Asia is a relatively water-scarce region, and the complexity and scale of its water problems are set to grow. Growing populations and cities, changing diets and expanding energy and industrial production will demand greater shares of the region's limited water resources. Industrial water use alone is projected to increase by 65 per cent by 2030, crowding out growth in agricultural water use (ADB 2011d).

If improvements in water efficiency remain at recent levels—a modest 1 per cent a year between 1990 and 2008—demand in India and China could exceed supply by 50 per cent and 25 per cent respectively by 2030 (Water Resources Group 2009). In developing Asia, aggregate water shortfalls could reach 40 per cent, with implications for the region's food and energy production, its ecological needs and the health and livelihoods of its population.

Large expanses of land are already becoming vulnerable to desertification, with deserts expanding in India, China and Pakistan. In China alone, just over one-quarter of the country's landmass is desertified and an average of almost 2,500 square kilometres of land being lost to advancing deserts each year.

Climate change, as it takes effect in the annual variability of rainfall, will make things worse. While there is uncertainty about the extent and rates of melting of the Hindu Kush glaciers, climate change could reduce downstream water availability, affecting 1.3 billion people who indirectly benefit from the water in eight countries (Papademetriou 2000; Singh et al. 2011).

Water quality is also likely to remain a problem. Within the region, surface-water sources are being rapidly polluted, often irreparably. More than half of the water in China's Hai River basin is classified as 'non-usable'. Of the Philippines' 412 rivers, 50 are classified as 'dead'. In Indonesia's West Java, all seven main rivers—the source of water for the nation's capital, Jakarta—are categorised as heavily polluted. And the waters of the Ganges and Yellow rivers are unusable for agriculture along more than half their lengths (ADB 2011d).

As water scarcity grows and as water quality deteriorates, competition among users and jurisdictions will increase. Already, in countries such as India, frequent water shortages have contributed to conflicts among households, communities and states (Mukhopadhyay & Shyamsundar 2012). Without effective management of water resources, tensions within and among countries will rise, with implications for regional growth and stability.

Infrastructure needs are set to increase

As the nations in Asia continue their process of rapid urbanisation and economic development, substantial investments in quality infrastructure will be required. Asia could require up to US\$8 trillion of new infrastructure investment out to 2020 to support the current levels of economic growth (ADB 2011c). And almost US\$1 trillion trans-regional infrastructure projects have been identified (ERIA 2010). This investment will influence the amenity, sustainability and productivity of societies—providing for the timely movement of people, goods and services.

Infrastructure demands vary across the region. Some countries are already investing heavily in infrastructure. For example, China spends \$116 per person, while India spends about \$17 per person (Kohli and Sood 2010).

Infrastructure needs are not contained to dynamic urban areas. In a survey of over 5,000 rural households in India's southern states of Andhra Pradesh, Karnataka and Tamil Nadu, about 90 per cent of respondents listed water and infrastructure as among their top three priorities (Besley et al 2004).

Given the size of the challenge, many in the region are looking to harness private sector involvement. Policy settings which address impediments to investment and encourage private sector participation in infrastructural development will be needed to meet the region's infrastructure needs (Sheng 2011). At the same time, planning practices will need to develop further to make the most of increasing scarce urban space. Solutions for these policy challenges can be found by working together—through multilateral development and other institutions, international forums, such as APEC forum and the G20, and bilaterally (Chapter 7).

2.5 International systems are evolving

The international system established after World War II brought about the longest and most prosperous period of peaceful expansion ever witnessed. This rules-based system, global and comprehensive in reach, and underpinned by institutions like the United Nations, the International Monetary Fund, the World Bank and the General Agreement on Tariffs and Trade (now the World Trade Organization), created the conditions in which many nations, including a large number in Asia, could confidently pursue their own development.

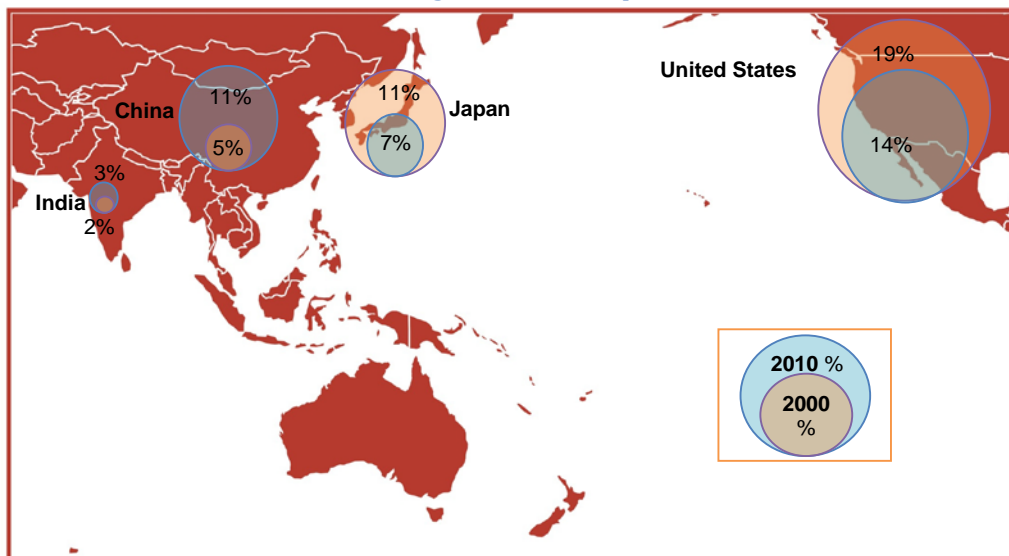
The question, looking forward to 2025, is how relationships between regional powers will change as the balance of influence among them shifts, and how regional and global institutions and rules will evolve.

Strategic power is difficult to define, but most attempts to measure it include a nation's income, or output, defence spending, population and technical advancement. Other measures include military capability, the determination and ambition of the political leadership and a country's 'soft power', which denotes a country's attractiveness and its consequent ability to persuade, rather than coerce, others to help in achieving its goals.

Whatever the definition, most measures point to the rapid rise in strategic power of emerging Asian economies in recent decades (Figure 2.3).

Positive and stable relations among all nations, and particularly the larger nations—China, India, Indonesia, Japan and the United States—will be fundamental to the prosperity and security in the region over the period to 2025. Indonesia and the other members of ASEAN are of special relevance to Australian interests.

Figure 2.3: Major economic powers in the Asia-Pacific region
Share of global economic power



Note: This index of global economic power is a weighted average of the share of a nation in world GDP, their share of global trade and their share of financial strength as measured by share of net exports of capital. Weights are from Subramanian (2012)—0.6 for GDP, 0.35 for trade and 0.05 for net exports of capital. Sources: Subramanian (2012) and World Bank (2012d).

Nothing is inevitable in the global strategic transition underway. At the same time, throughout the region, old frictions, including territorial disputes and debate over historical issues, persist and can easily escalate. The Democratic People's Republic of Korea (North Korea), with its nuclear ambitions, repressive government and impoverished population, remains one of the region's flashpoints. As can be seen in the South China Sea, territorial disputes, especially in the maritime domain, will continue to be points of regional friction and pose serious risks of conflict. Despite recent constructive developments in cross-straits relations, uncertainties remain about how Beijing and Taipei will resolve their differences. And relations between India and Pakistan, currently relatively stable, could yet deteriorate quickly and dangerously.

But there are reasons for optimism. The economic rise of Asia has been a win-win on an unprecedented scale. Risks of miscalculation and policy error will always be present, but the growing strength, breadth and sophistication of bilateral and regional engagement provide grounds for believing that shifting regional and global power can be managed constructively. These security dimensions of the region's growth are further examined in Chapter 8.

The relationship between the United States and China, the two largest economies in the world, will be of central importance. Many alternative strategic futures, both positive and negative, are possible. But Washington and Beijing are conscious of their complex interdependency and have been building mechanisms across their bilateral relationship to help manage the tensions that will inevitably arise from time to time.

The United States will almost certainly remain the single most powerful global and regional power for some time to come, drawing upon its economic, military and soft power and, within Asia, its network of security alliances and mutually beneficial political and economic relationships.

The two most populous regional powers, China and India, can be expected to seek greater strategic influence as their economic weight grows. But their determination to lift their large populations out of poverty suggests that they will continue to focus primarily on domestic policy issues, including environmental sustainability, and have a primary interest in stability.

The significance of their emerging relationship and the growing importance of the lines of energy supply to East Asia from the Middle East reinforce the value of thinking about the Indian Ocean and the Pacific Ocean as a single strategic arc (Box 2.5).

Box 2.5: Indo-Pacific and trans-Asian concepts

Driven by Asia's economic rise, the Indian Ocean is surpassing the Atlantic and Pacific oceans as the world's busiest and most strategically significant trade corridor. One-third of the world's bulk cargo and around two-thirds of world oil shipments now pass through the Indian Ocean (IOR-ARC 2012). Regional cooperation to ensure the safety and security of these vital trade routes will become more important over coming decades.

Some observers have raised a new 'Indo-Pacific' conception of the Asian region. Under such a conception, the western Pacific Ocean and the Indian Ocean would come to be considered as one strategic arc. This conception is being driven by the increased economic interaction between South, Northeast and Southeast Asia and the importance of the lines of energy supply to Asia from the Middle East.

Another conception of increasing importance is the trans-Asian region. With its growing economic ties and historical, community and cultural links to East and Southeast Asia, India's foreign policy has increasingly tended to 'look east'. In return, Northeast and Southeast Asian countries are looking west, not least because of the importance of energy links. Trade between China and India is expanding. In 2011, China was India's largest export market, although their two-way merchandise trade was one-tenth of India's total trade.

China is giving priority to developing road and rail infrastructure southwards from its borders as part of its wider efforts to improve production and distribution networks through enhanced regional connectivity (Bubalo & Cook 2010). India is building transport infrastructure that connects to East Asia. ASEAN's Economic Community is giving priority to developing trans-regional transport and other infrastructure. Japan is heavily involved in the development of these trans-Asian infrastructural projects. These developments represent significant trans-Asian infrastructure projects, lessen focus on ocean security and heighten focus on managing land border issues.

For Australia, either the Indo-Pacific or trans-Asian conceptions could shape, in different ways, our economic, political, security and environmental interests.

Northeast Asia's evolution is likely to be marked by both growing economic integration and continuing competition. China and Japan enjoy the third-largest economic relationship in the world. China is Japan's largest export market and its largest source of imports. Japan is China's second-largest export market after the United States, and its largest source of imports.

While a commercial competitor in some fields, South Korea has a deep economic partnership with China in fields such as information and communications technology and green energy. It is China's third-biggest trading partner in merchandisable goods and third-largest source of foreign investment, while China is South Korea's biggest trading partner and investment destination.

The strong links between the economies of China, Japan and South Korea are likely to increase. Japan and China are now close partners in value chains that underpin regional growth and prosperity. Discussions on a new trilateral free trade agreement have begun, and intensive bilateral and trilateral exchanges are taking place.

In Southeast Asia, Indonesia has re-emerged as a regional leader, is emerging as a global influence and is expected to play a growing role in the G20 and other forums. It has a large population, a strongly growing economy and a pivotal geostrategic location. It is the world's largest predominantly Muslim country and a lively democracy. It will increasingly influence outcomes within global and regional institutions. Indonesia will become even more important for Australia. Other ASEAN nations, such as Vietnam, Singapore, Thailand and Malaysia, will play a significant role in regional trade and investment. Vietnam has carved out a distinctive diplomatic and wider regional profile. Singapore's geographic location, world-class infrastructure and the ease of doing business there have made it an important commercial hub. For example, around 70 per cent of all intra-ASEAN trade is now with, or through, Singapore.

Chapter 3: Australia in Asia



Key points

Australian interactions with the Asian region have a long history and have evolved over time in response to developments at home and abroad.

In the post-war period, Asia's commitment to internationally oriented development opened unprecedented new opportunities for the resource-abundant Australian economy.

Australia's economic integration into Asia has accelerated over the past four decades. Steps to open up the Australian economy began in the 1970s with landmark tariff cuts in 1973. Comprehensive reforms to Australia's economic institutions and frameworks then gathered pace from the mid-1980s.

These reforms and Australia's more recent successful response to the Global Financial Crisis have laid the foundation for Australians to benefit from the opportunities stemming from the region—such as the surge in resource demand and the rising middle class in Asia—with the gains of success spread across the nation.

More recent policy reforms—including in tax, regulation, skills, school funding, managing the resources boom, increasing connectivity and investing in infrastructure—are important components of our agenda to further strengthen the economy's resilience and diversity and enhance our ability to engage with Asia.

Cultural diversity is at the centre of Australia's identity. The face of Australia has changed dramatically in recent decades and Asia is now an important part of our identity.

The Australian Government is engaging more with regional partners through multilateral institutions, regional forums and bilateral exchanges. Australia has built deep and broad relationships within the region, across educational, cultural and social dimensions. Our people-to-people connections with Asia have deepened and have transformed our society.

3.1 Introduction

Australia's interactions with nations in Asia have shaped our strategic focus and the structure of our economy and society.

In the early decades after Federation in 1901, Australia's mindset was oriented mainly towards the British Empire and Europe. Following World War II, Australia shifted its strategic focus to the United States and countries closer to home. And over time Australia's economic focus also has shifted into the region.

Over the past four decades, Australia has transformed its economy, society and institutions as it has become closer to Asia. Asia's commitment to modernisation and internationally oriented development opened unprecedented new opportunities for Australia to become a highly productive and reliable supplier of resources and related goods and services to the region and the world. Our economic integration with Asia gathered pace as our economic settings were liberalised.

Our people-to-people connections with Asia have transformed our society through migration, business, travel, study and popular culture.

3.2 Developing institutional connections

Successive generations have transformed Australia from a nation that once built defensive walls to shield itself from the region and the globe into an open, outward looking, prosperous society, securing its future in the region.

Australian interactions with the Asian region have a long history, dating back to contact between Indonesian fishermen from Makassar and Indigenous communities in northern Australia before European settlement, and early migration from a number of Asian regions during the colonial period. But all the elements of what has been described as the 'Australian Settlement' that underpinned Federation—'White Australia, industry protection, wage arbitration, state paternalism and imperial benevolence' (Kelly 1992)—had the effect of stunting the relationship with Asia.¹

In the early decades after Federation, Australia's economic, political and strategic mindsets were oriented mainly towards the British Empire and Europe. While there was an awareness of Asia, and cultural, economic and diplomatic exchanges with countries in the region took place, their development was constrained by Australian institutions. This reflected the values and attitudes of a time when many Australians defined themselves as distant and separate from Asia.

World War II was a major strategic shock for Australia. The fall of Singapore in 1942 marked a new chapter. Australia shifted its attention squarely to Asia and developed a security partnership with the United States.

¹ See Stokes (2004) for a critique of that summary and an alternative formulation.

In the immediate post-war period, Australian policy towards Asia was driven mainly by political, defence and security considerations, particularly decolonisation and its implications for Asian security, and the regional manifestations of the Cold War.

After World War II, the Chifley government was engaged in laying the foundations for a new international order, in which the United Nations was envisaged as playing a central role. Australia lent strong diplomatic support for independence for Indonesia, Myanmar, India, Pakistan, the Philippines and Sri Lanka. Successive Australian governments took the view that Australia should contribute to the region through development assistance. Conceived under the Chifley Government, and established under the Menzies Government in 1951, Australia led in the development of the Colombo Plan, offering scholarships whose recipients included a significant number of emerging Asian leaders.

The rapprochement with Japan in the 1950s, driven by the signing of the Agreement of Commerce in 1957, was a catalyst for Australia establishing itself as Asia's premier resources supplier and accelerated the shift of Australian diplomatic focus to the region.

Meanwhile, the Cold War reinforced Australia's preoccupation with sustaining major power (notably United States) military and wider engagement in the region. The conclusion of the ANZUS Treaty in 1951, which cemented our US alliance, was a landmark. Australia also encouraged the United Kingdom to retain its military and wider influence in the region into the 1970s.

These strategic considerations lay behind Australian policy in relation to Vietnam, including the decision to deploy Australian armed forces there. They were also prominent in Australia's decision to support Malaysia diplomatically and militarily when it was facing threats from the Sukarno government in Indonesia during the confrontation (*Konfrontasi*) period.

A distinctive feature of the 1950s was the expansion of Australian diplomatic representation in the region. Richard Casey, as External Affairs Minister, led this effort to build relations with the region. By 1960, when he retired from this role, Australia had established diplomatic missions in 14 Asian countries (Gifford 2001).

One of Australia's distinctive contributions to the region has been to encourage more effective mechanisms for political, strategic and economic consultation and cooperation.

Australia, under the Whitlam Government, became the first external dialogue partner of the Association of Southeast Asian Nations (ASEAN) in 1974 and has participated regularly in the ASEAN Post Ministerial Conference, which brings together ASEAN and its dialogue partners, including Australia, once a year.

Economic ties with the region deepened and broadened under the Hawke and Keating governments, with Australia playing a central role, alongside Japan and South Korea, in the development of the Asia-Pacific Economic Cooperation (APEC) forum in the late 1980s and early 1990s. Although APEC's agenda is largely economic, it helped

foster positive habits of cooperation and consultation and a stronger sense of shared regional interests. Until the recent formation of the East Asia Summit, annual APEC leaders' meetings were the only forum to bring together the heads of government of most regional economies.

Working closely with regional partners, notably Indonesia, Australia has encouraged the development of broadly inclusive regional security mechanisms like the ASEAN Regional Forum in 1994 and the ASEAN Defence Ministers' Meeting-Plus in 2010. We have supported informal networks and processes such as the Pacific Economic Cooperation Council and the Council for Security Cooperation in the Asia-Pacific network of think tanks and academics.

In addition to their functional importance, these processes have helped develop extensive personal networks of ministers, officials, businesspeople, academics and other experts around the region.

Regional and global institutions, like these, continue to evolve partly in response to Asia's rise. Australia has a growing engagement with regional partners in multilateral organisations. It has been at the forefront of support for reforms to international institutions to reflect the increasing importance of emerging economies. For example, our constituency at the International Monetary Fund has agreed that Australia and South Korea share the constituency's seat on the IMF's Executive Board. We have supported the bids of two regional partners, Japan and India, to secure permanent membership of the UN Security Council. The Group of Twenty (G20) gives us close engagement with China, Japan, India, Indonesia and South Korea.

Australia and our regional partners have established strong frameworks for practical cooperation to address shared regional security and related challenges. Australian experts in law enforcement, customs, migration, public health, intelligence and other fields are well regarded and connected in the region.

Central to our approach to engagement in the region has been developing coalitions of like-minded countries that can attract broader support for action. Our major contributions to the United Nations' efforts in Cambodia and Timor-Leste were examples.

In the security domain, Australia has developed defence cooperation programs with partners in Southeast Asia, including training, joint exercises, specialised exchanges and shared perspectives on defence doctrine.

The Australian Defence Force has a long record of contributing to regional security through peacekeeping and stabilisation operations and responding to regional needs for humanitarian assistance and disaster relief.

A further, longstanding strand in Australia's engagement with Asia has been our development cooperation program. In 2010, Australia was the sixth-largest OECD Development Assistance Committee donor to Asian countries, which accounted for 58 per cent of our aid program, the second-highest proportion among all donors, after South Korea (OECD 2012a).

Australian development assistance focuses on poverty alleviation and assisting the most vulnerable. It helps countries connect with the economic dynamism in Asia in a self-sustaining way by building skills and capacity, strengthening institutions and governance, and supporting sustainability.

Economic links are another major feature of Australian engagement with the region. Our economic ties became more important in the late 1950s. The 1957 Commerce Agreement between Australia and Japan started a boom in our economic ties and growing recognition that Australia's future lay in the region (Drysdale 1987). Australia was a reliable supplier to other Asian nations as well (for example, Australia exported wheat to China during the Cold War).

Australia has long been committed to economic integration with the region. The Whitlam Government's recognition of the People's Republic of China in 1972 and the establishment of diplomatic ties was a milestone. The 1976 Basic Treaty of Friendship and Co-operation with Japan was another landmark.² The loss of British markets, especially when the United Kingdom joined the European Common Market in the early 1970s, also spurred a search for new markets in Asia.

The 1997 Asian financial crisis reinforced Australia's growing economic interdependence with Asia. Australia was active in responding to the crisis, joining Japan and other countries to support arrangements to assist Indonesia, South Korea and Thailand. Following the crisis, efforts to improve governance, build capacity and develop stronger regional policy cooperation and institutions were intensified.

A final strand in our links with Asian countries—the people-to-people dimension—deepened in the 1970s. This development was given particular impetus by substantial Asian migration to Australia, but has since been complemented by others, such as the boom in international education in Australia and growth in tourism to and from Asia. More recently, other connections, such as social media, have become prominent.

3.3 How our economy transformed alongside Asia's

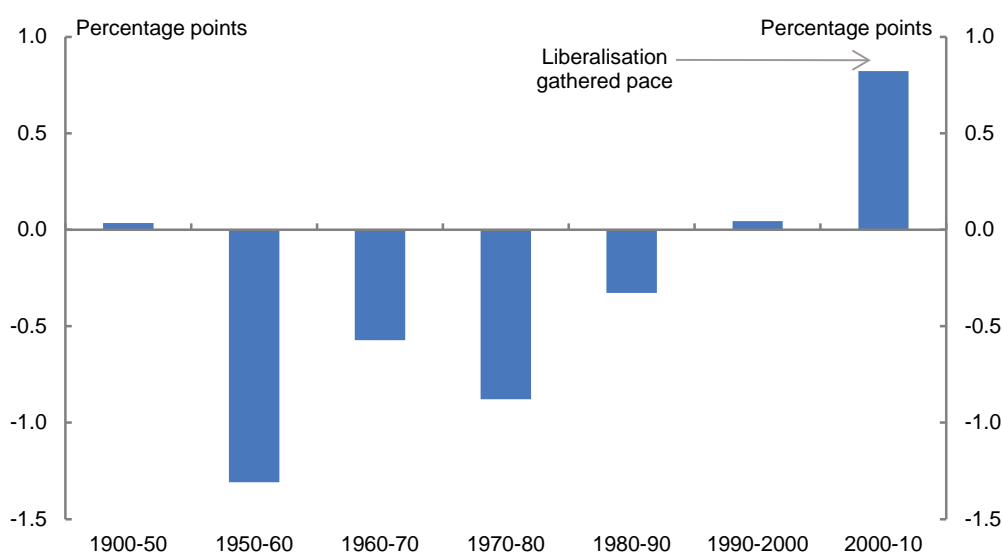
Australia's economic institutions inherited at Federation stood unchallenged, and indeed were extended, in the decades immediately after World War II. The growth strategy in the seven decades after Federation resulted in an economy that was overregulated and underproductive. On a number of occasions, Australia's inflexible macroeconomic settings buckled under the strain of global economic forces. Households and businesses that were not sheltered by our version of mercantilism were being short changed by a succession of failures in Australia's winner-picking policies. As Australian policymaker JB Brigden put it, people of all classes not only

² In 1990, only 14 years after the Basic Treaty was signed, Japan became one of the biggest investors in Australia. Japan held one-fifth of all foreign investments in Australia—a similar proportion to the United States and the United Kingdom.

expected the government to spend for them, but also to think for them—to help them find markets and to hold their hand in settling disputes (Coleman, Cornish & Hagger 2006).

At times during this period, Australians thought that the country was undergoing an economic revival, and many felt a sense of economic and national security, as occurred in the 1920s and 1960s. However, while living standards rose in absolute terms, Australia underperformed relative to comparable economies, especially between the 1950s and 1980s (Chart 3.1).

Chart 3.1: Australia's slide in comparative income has been reversed
Australia's average annual growth in output per person compared with the OECD-20



Note: GDP per person adjusted for purchasing power parity at 1990 prices. OECD-20 is the original 20 members in the Organisation for Economic Co-operation and Development in 1961. Before 1950, Iceland and Luxembourg have been excluded due to data limitations.
Sources: Maddison (2010) and Conference Board (2012).

In 1870, Australia enjoyed the highest average incomes in the world. By 1970, average incomes had fallen to three-quarters of those in the United States.

Seeing the opportunities emanating from within Asia against the backdrop of declining productivity growth and falling agricultural export prices, from the mid-1980s successive Australian governments managed a hard-fought transformation of our economic institutions. This reversed the comparative slide in living standards and set Australia up as a high-productivity economy (Box 3.1). The reform strategy taken can be characterised in three steps.

First, Australia opened up its economy over time, which allowed us to develop partnerships with Asian economies in an open global economic system. Moves to open up the Australian economy began in the 1970s with landmark tariff cuts in 1973.

Second, Australia adopted a liberal but prudent approach to macroeconomic policy frameworks and capital market regulation, commencing in the 1980s, to make the domestic economy more resilient. Among a long list of institutional changes, Australia floated the dollar, liberalised financial markets under systemic oversight, introduced inflation targeting through an independent Reserve Bank, and introduced a medium-term fiscal policy framework focused on keeping a strong public sector balance sheet. Australia's high-quality macroeconomic institutions created a stable environment that gave individuals, businesses and governments the ability to plan for the longer term and respond to external events and long-term trends.

Third, Australia then implemented broad microeconomic reforms from the mid-1980s onwards to lift the productivity and flexibility of the domestic economy. Exposure to international competition, especially as Australia integrated into Asian markets, placed pressure on Australian firms to adapt in order to succeed. Microeconomic reforms ultimately embraced goods and services markets, factor markets (including the labour market), the tax system, human services and publicly owned monopolies. In a landmark act of collaboration, the strands of the structural reform process were consolidated and extended in the National Competition Policy agreed by the Australian and State and Territory governments in 1995.³

Since coming to office in 2007, we have continued the reform process, putting into place the essential policy settings that will ensure Australia has an economy that is positioned to address the emergence of Asia. Tax reform, returning the budget to surplus, managing the resources boom, regulatory reform, ensuring that industries under pressure become a successful part of Australia's future, skills reform, school funding reform, and increasing connectivity through the NBN, are all part of this broad reform agenda.

Building the Australian economy also means investing in critical infrastructure—such as ports, roads and rail—to increase productivity, improve competitiveness, attract investment and drive growth. Infrastructure investments will also better connect Australian regions, helping them to harness their unique strengths.

These reforms of Australia's economy are essential and will assist in spreading the gains of success to ensure that all parts of society benefit. A resilient and diverse Australian economy, with many sources of strength and growth in different sectors, will be able to respond to the opportunities and challenges of the Asian century.

3 The National Competition Policy extended prohibitions on anti-competitive activities to all businesses (previously most government-owned and some private businesses were exempt), introduced competitive neutrality, established reviews of all legislation that restricts competition, established an access regime for nationally significant infrastructure, created a new regulator (the Australian Competition and Consumer Commission, merging the Prices Surveillance Authority and the Trade Practices Commission), as well as advanced reforms in the electricity, gas, water and land transport markets.

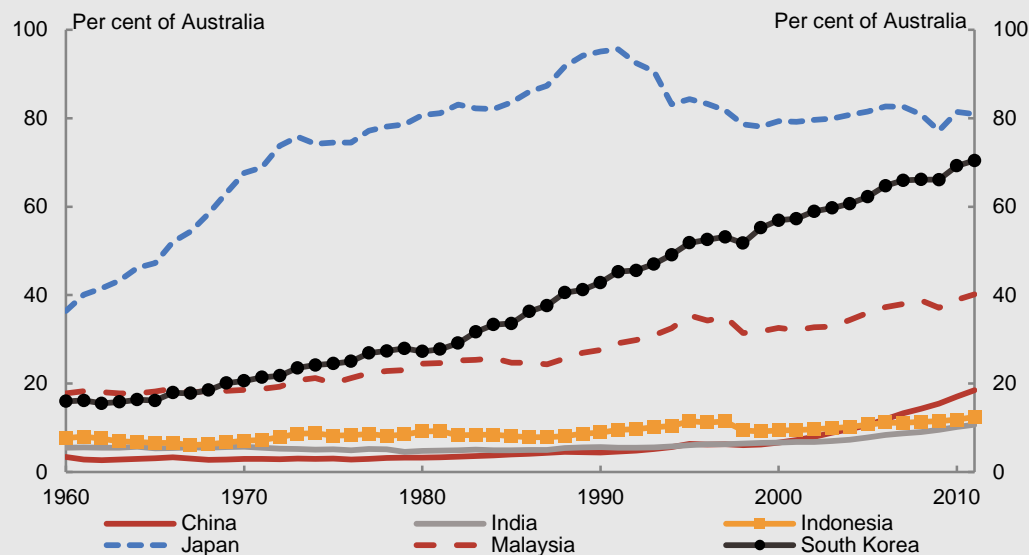
Box 3.1: Australia is a high-productivity advanced economy

Australia is a high-productivity economy and a regional leader in production per worker, even though productivity growth has slowed over a long period (Chart 3.2).

Australia's relatively high exchange rate reflects the build-up of investment, our strong macroeconomic performance and our attractiveness as a business destination. The high exchange rate has raised concerns about Australia's cost competitiveness and led to some to call for Australia's wage costs to be reduced.

Chart 3.2: Australia's output per worker is higher than many in the region

Output per worker as a percentage of Australia's, by country



Note: GDP adjusted for purchasing power parity at 2011 prices.

Source: Conference Board (2012).

However, a fall in a country's wage cost competitiveness does not necessarily translate into a fall in its global market share or damage its long-term economic performance (McCombie & Thirlwall 1994; Kaldor 1978; Krugman 1989).

There are many examples where advanced economies have had rising wage costs at the same time as their global market share has risen. As average living standards and wage incomes and costs surged in Japan and the United States in the post-war period, their share of global trade rose.

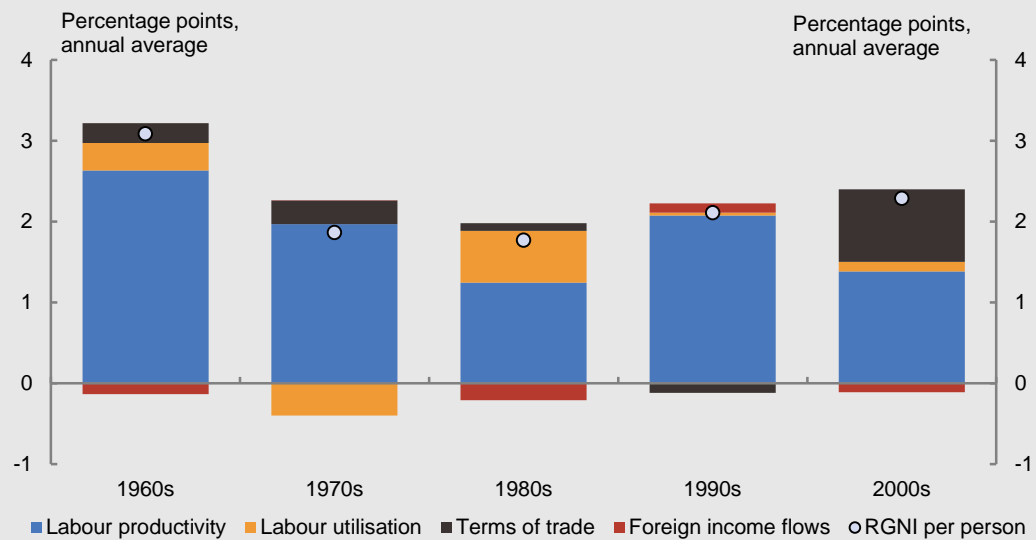
Box 3.1 (continued)

Although not necessarily desirable, another way to boost competitiveness would be for employers to reduce the profit share of income and lower the nation's capital costs (Felipe & Kumar 2011).

However, the best way to increase Australia's real income in future, as has been done in the past, is to boost our productivity and participation and to engage with the region. This will require supporting our innovative firms (Chapter 5) and building Australia's capabilities (Chapter 6) so they can tap into global production networks (Chapter 7) (Chart 3.3).

Chart 3.3: Australia's real income

Average annual growth in real gross national income (RGNl) per person, by source



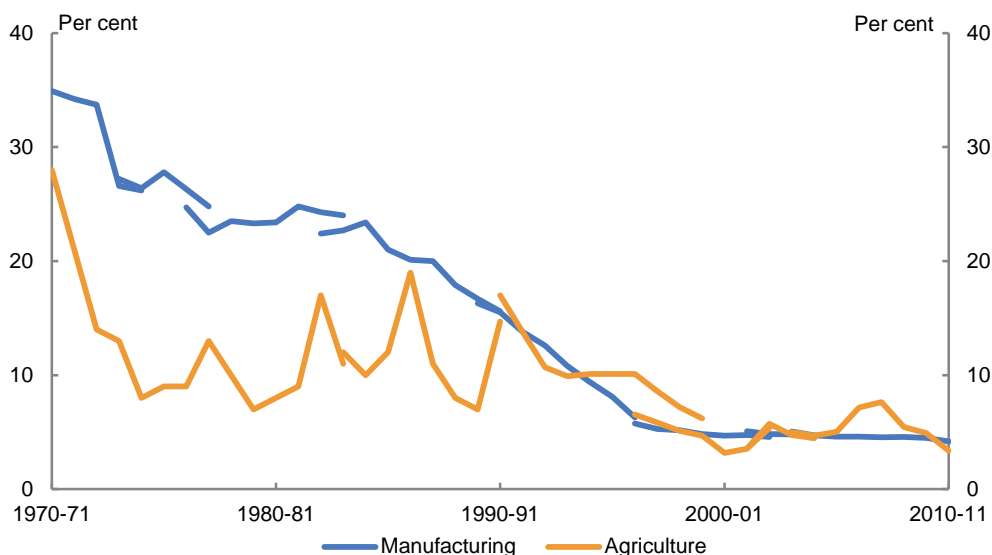
Sources: ABS (2011c, 2012a, 2012b, 2012e and unpublished data).

Opening up our economy: accelerated economic integration

Australia's economic integration with Asia gathered pace as our economic settings were liberalised. The opening up of our economy was begun by incremental, typically unilateral, decisions to liberalise restrictions on trade. Australia's sequence of reductions in tariff assistance began with a 25 per cent cut in the tariff rate at the beginning of the Tokyo Round of the General Agreement on Tariffs and Trade in 1973.

After a decade's hiatus, during which policymakers vacillated, liberalisation accelerated with the abolition of quantitative restrictions on imports from the mid-1980s. Controls were lifted from a range of consumer goods that Australian households wanted and needed, including clothing, textiles, whitegoods and, particularly, cars. The rate of assistance to industry fell significantly (Chart 3.4). While the transition was difficult for some firms, greater openness ultimately reaped economic dividends and made Australians better off (Box 3.2).

Chart 3.4: Fall in average effective rates of industry assistance



Note: Breaks in the series are represented by gaps, and overlaps are included to show the effects of the methodological and data changes made in moving between series.

Source: Productivity Commission (2012b).

As tariff barriers fell, and a succession of Asian economies emerged to become major players in global markets, our trade ties with Asia burgeoned—supported by our geographical proximity and complementarities with industrialising Asian economies.

Asia's rapidly expanding industrial sectors and abundant labour supplied Australians with the finished industrial goods that they wanted, such as electronics and cars. The source of those goods moved around the region as Asian economies successively industrialised and moved up the value-adding chain—starting with Japan, then to Taiwan, South Korea, the ASEAN economies and China.

Box 3.2: Quantifying the benefits of openness and integration

The Organisation for Economic Co-operation and Development (OECD) has undertaken extensive research quantifying the benefits of openness. It estimates that for a 10 percentage point increase in trade exposure there is a corresponding 4 per cent increase in income per working-age person in the long run (OECD 2003).

Separately, the OECD has confirmed that greater market openness is a necessary condition for a sustained improvement in economic performance (OECD 2009). Lower regulatory barriers to competition (including between domestic and foreign suppliers) could result in a 2–3 per cent increase in GDP per person in OECD countries. Opening up an economy creates more opportunities and, over time, new jobs, while protectionism has a significant negative impact on employment.

Research in Australia has reached similar conclusions. The Centre for International Economics suggested that trade liberalisation since 1988 may have added 2.5 per cent to Australia's GDP in the long run, representing an increase in real income of around \$3,000 to \$4,000 a year for the average working family (CIE 2009). The importance of an open economy for employment is also evident in the research, with more than one in five Australian jobs now trade-related.

Other studies show a similar positive relationship between market openness and working conditions. For example, one study shows that open economies outperform closed economies in terms of pay (Flanagan & Khor 2011). Based on 2008 figures, the study concluded that workers in the manufacturing sectors of non-Asian economies have pay rates three times greater in open economies than in closed systems. In Asia, manufacturing workers in open economies have pay rates nine times greater than those of workers in closed economies.

An Australian Bureau of Statistics study of small to medium-sized Australian exporters using 2006–07 data for 14 different industries showed that those businesses paid more than 40 per cent higher average wages than non-exporters (ABS 2009).

Recent studies by the International Collaborative Initiative on Trade and Employment, led by the OECD, confirmed previous findings that economic opening must be complemented by other policies in order to ensure inclusive growth. Such policies include investment in education, active labour market policies, promotion of labour market flexibility and the development of social safety nets (Campos-Vázquez & Rodríguez-López 2011; Iapadre 2011).

In turn, the large industrial sectors of densely populated Asian countries boosted global demand for Australia's raw materials. Increasing affluence in emerging Asian economies lifted demand for high-value goods and services—such as education, business services and niche manufactures—that Australia supplies as an advanced economy.

In 1960, Asia accounted for only one-fifth of Australia's goods trade, with Japan being our biggest regional trading partner. By 1980, that fraction had risen to over one-third (Japan took up one-quarter of Australia's goods trade) while by 2010, Asia accounted for two-thirds of Australia's goods trade. China, Japan, India, the four 'tigers' and our ASEAN neighbours absorbed around three-quarters of our merchandise exports and supplied half of our imports (RBA 1997; ABS 2012d). While Australia's services trade has not grown as fast, a number of Asian markets have become more important. The Chinese and Indian markets for Australia's services exports have increased fivefold over the past decade.

In contrast to the trade story, Australia's direct financial market ties with Asia have been slower to develop. Like other countries and regions in Asia, Australia has been more financially integrated with other parts of the globe than with the region (Pongsaparn & Unterberdoerster 2011). The United States and Europe continue to be the main sources of Asia's portfolio finance, although intra-Asian foreign direct investment has been rising, especially investments to integrate value chains over the past three decades.

Nevertheless, the more open financial markets in Australia and in parts of Asia led to rises in foreign investment from Asian economies as they emerged as economic powers. Hong Kong, Japan and Singapore continue to be the most important sources of finance from Asia; together, they hold one-tenth of all foreign investments in Australia. Starting from a low base, other rapidly emerging Asian economies have gained greater prominence, particularly in the resources sector. While investment from China has accelerated in recent years, it remains small in absolute terms. China was only Australia's 13th largest investor by the end of 2011 and it still has less than 1 per cent of the total stock of inward investment.

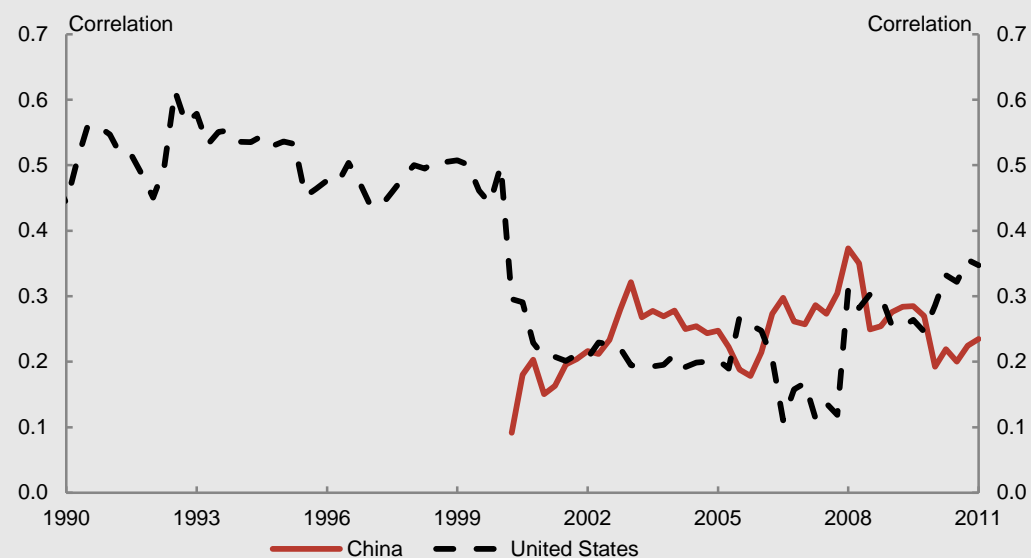
Our economic performance has become more synchronised with that of the region, and less with that of the United States (Box 3.3). And since 1998, Australian equity markets have become more synchronised with equity markets in Asia—particularly markets in Hong Kong, Indonesia, Japan, Singapore and South Korea (Boao Forum for Asia 2012).

Box 3.3: How closely is Australia's economic performance tied to the global economic powers?

Over the past two decades, China's economic influence on Australia has rapidly caught up with that of the United States. A decade or so ago, movements in Australian GDP were highly correlated with quarterly movements in US GDP (Chart 3.5), but that correlation has since declined. As Australia's economic ties with China deepened, the correlation between quarterly movements in Australian and Chinese GDP increased steadily in the lead-up to the 2008 Global Financial Crisis. While Australia outperformed other advanced economies during and after the crisis, China's recovery outpaced Australia's and the correlation declined.

Chart 3.5: Correlations between Australian, United States and Chinese output growth

Rolling correlation of real quarterly growth, 10-year window



Source: Lowe (2010).

Integration with Asia unleashed transformative economic forces

Australia's integration with a resurgent Asia unleashed forces that continue to transform our economy and the economic activities of Australians. The globalisation of economies in Asia has made Australian consumers better off. Demand from Asia for Australia's natural resources has changed the shape of our economy and the rising affluence in Asia has created broad new opportunities for Australian firms.

Because of Asia's abundant labour and integrated transnational production chains, it has a powerful advantage in producing many goods, especially manufactured goods. The expansion of Asia's industrial producers into global markets, together with improvements in business practices and technology, has constrained growth in the prices of the goods and services they produce.

At first, these benefits came in the form of cheaper, labour-intensive, simply transformed consumer goods. As Asian producers have moved up the value-adding chain, their impact has since been felt more strongly in the markets for high-technology goods (Spence 2011; Riad et al. 2011; WTO & IDE-JETRO 2011).

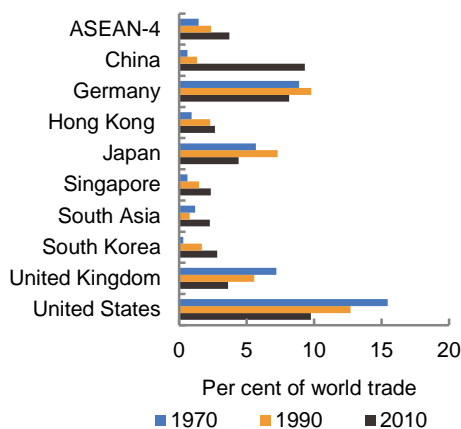
As Asian imports penetrated Australian domestic markets, their prices fell (Chart 3.6). In 2011, household electrical imports were on average half the price they were 25 years ago. By comparison, the price of a representative basket of goods and services has doubled over the same period.

Capital goods import prices have fallen rapidly since the 1980s, driven down by cheaper information and communications technology. The prices of consumer goods—clothing, household electrical goods and cars—have grown slower than wages and general prices.

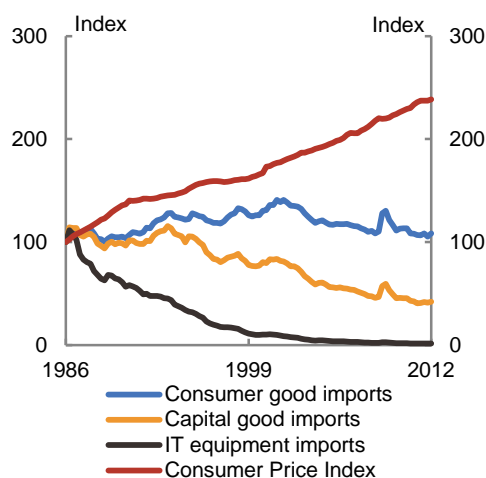
While the transition was difficult for some firms and workers, lower prices have meant that the purchasing power of Australians has improved—we have been able to buy more for less and dedicate more of our income to other things.

Chart 3.6: Globalisation of Asia has been good for consumers

Exports by country or region (as a percentage of world trade)



Australians' import prices



Notes: Prices are in Australian dollars and have been influenced by exchange rate movements. See glossary for country groupings.

Sources: World Bank (2012d), RBA (1997) and ABS (2012c).

As Asian producers became bigger players in global markets, heightened competition placed pressure on many businesses around the globe, including in Australia. Firms that competed head-on, such as in textiles, clothing, machinery and equipment, felt the pressure most.

In response to these challenges, Australian industry innovated and evolved in ways that were ultimately responsible for boosting Australia's productivity.⁴ Many firms improved their processes and 'did the same things better'. And rather than trying to compete head-on with producers in developing Asian economies, many Australian businesses changed their business models and took advantage of complementary capabilities. Instead of trying to defy Australia's comparative advantages, they created their own niche in domestic and overseas markets. And rather than producing more generic 'commoditised' goods, many sought to differentiate their products through design and value-adding. To complement this, they changed their marketing to target changing consumer tastes and export markets. While it was difficult times for some, many were successful.

Some businesses also moved away from labour-intensive, lower-skilled mass assembly operations and developed partnerships with complementary industries overseas (including firms in textiles and machinery industries with marked import penetration), developing production and value chains within the region. They moved parts of their production to lower-cost overseas locations, including in Asia. At the same time, the production of premium and specialised goods—as well as design services, marketing services, intellectual property and management acumen—was retained domestically (Box 3.4).

The surge in Asia's demand for resources, and our comparative advantage in these resources, has complemented Asia's development and driven both our labour market and industrial structures.

Since World War II, Australia has emerged as an important and reliable supplier of mineral and energy resources, which have helped fuel economic growth in Asia. Australia currently provides Japan with well over three-quarters of its domestic consumption of coking coal (for steel production) and half of its consumption of thermal coal (for power generation) and iron ore (Chart 3.7).

4 For case studies showing how some firms adapted to competitive pressures during this period of liberalisation in Australia, see Clark et al. (1996).

Box 3.4: Blundstone

In the past few decades there have been significant changes in the Australian business environment for labour-intensive manufactures such as footwear. These changes led Blundstone to move the remaining 50 per cent of its value-adding in leather manufacturing offshore to a number of facilities located throughout Asia.

If the company had not taken this decision, its 142-year presence would have vanished. Instead, Blundstone was able to retain the manufacturing of gumboots at its base in Hobart. Blundstone now defines itself as a proud Tasmanian company, competing on a global basis. It designs and sells highly innovative work boots and leisure footwear in more than 30 countries around the world.

Asia is a key enabler of Blundstone's strategy to compete globally—more than 90 per cent of the world's footwear is now manufactured in Asia. The company has entered partner business relationships with three footwear manufacturing facilities in Vietnam, China and India. It has some of its own employees working within these factories and has invested heavily in training personnel in its manufacturing techniques. It sees these suppliers as long-term business partners, with whom it shares intellectual property and a mutual interest in growing the Blundstone business. To this end, it has regular audits of its combined business practices, covering employee and industrial relations, environmental management practices and quality management systems.

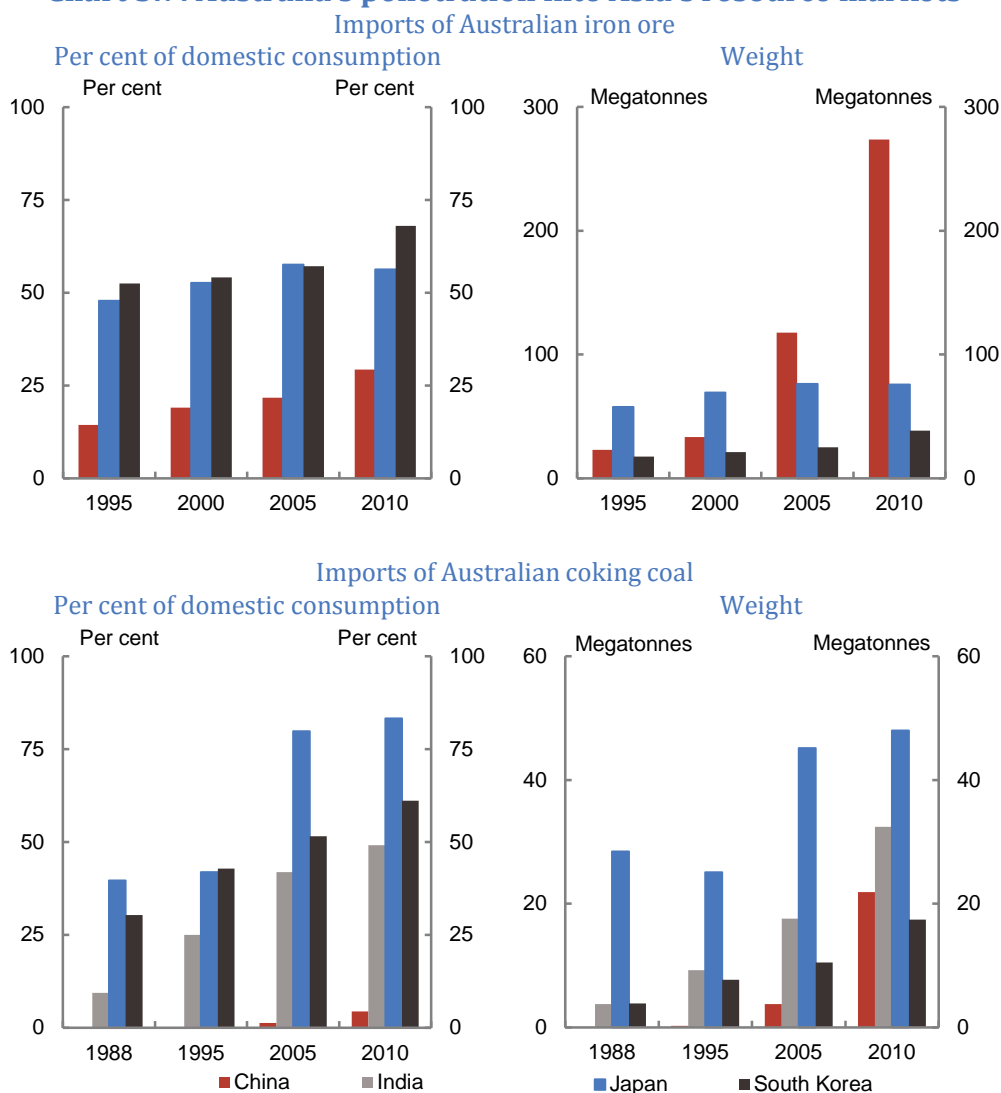
From Blundstone's headquarters in Hobart, the company is able to successfully manage product design and development, production and logistics, sales and marketing, and administrative support of its global operation. Having transformed its business, Blundstone is now in a position to compete well beyond the next decade and sees its Asian partners as an important enabler in that future.

Source: Blundstone.

Australia also supplies one-sixth of Japan's natural gas imports and is the largest supplier of industrially important minerals such as zinc and bauxite. The Japan-driven minerals boom began long ago, during Japan's period of rapid growth in the 1960s and 1970s. Like what is happening now, it revived or created towns in Australia's mining regions.

Since 2003, however, the pace of the economic emergence of China and India has lifted the demand for Australian commodities to a new scale. Australia now supplies around 40 per cent of Chinese demand for iron ore, accounting for two-thirds of Australia's total iron ore production. China is a relatively small but growing market for Australian coal and natural gas. India, on the other hand, is the second-biggest importer of Australian coking coal (behind Japan).

Chart 3.7: Australia's penetration into Asia's resource markets



Source: Bureau of Resources and Energy Economics.

A surge in resources demand since 2003 has led to the biggest and most sustained boom in Australia's export prices in our history. Our terms of trade are around three-quarters higher than our 20th-century average.

More moderate export price booms in the past have ended in high inflation and rising unemployment, due to weaknesses in our macroeconomic settings. Australia's more robust and transparent settings this time around have played an important role in sustaining our strong economic performance (Box 3.5).

Box 3.5: Australia's macroeconomic frameworks have served us well over the past decade

Australia's macroeconomic frameworks and settings have worked well over the past two decades, with Australia having recorded 21 years of continuous economic growth, a record unmatched by any other advanced economy over this period. Sound macroeconomic frameworks and decisive policy responses have allowed Australia to successfully weather significant economic shocks, including the Global Financial Crisis. The Australian economy has also sustained the longest mining boom in our history, managing to convert high commodity prices into more enduring export capacity. This has been achieved at the same time as contained inflation and low unemployment.

The Government's commitment to fiscal discipline, and the return to surplus in 2012–13, will ensure Australia's balance sheet remains one of the strongest in the developed world. The strength of Australia's public finances is a key reason behind Australia's AAA/stable credit rating from all three major rating agencies.

In the absence of sound macroeconomic policy frameworks, past booms, such as the Korean War wool boom of the 1950s and the commodity boom of the early 1970s, ended badly. Annual inflation spiked at more than 20 per cent in 1951–52, while in the mid-1970s inflation rates hit 15 per cent and unemployment rose to around 6 per cent by the end of the decade.

In these cases, the shock from the rise in the terms-of-trade fed directly into the economy through a fixed exchange rate. The shock was spread throughout the economy through the centralised wage fixing system, leading to inflation and considerable erosion of competitiveness in those sectors not linked to the booming sectors.

In contrast, while the terms-of-trade rise during the first phase of the recent mining boom was larger than in either the 1950s or 1970s, the economy was buffered by the floating exchange rate and more flexible labour markets. With prudent fiscal policy, a floating exchange rate and an independent, inflation targeting central bank, Australia's more robust and transparent settings have helped spread the gains.

The strength of our macroeconomic frameworks was shown during the Global Financial Crisis. In response to the global downturn, the Reserve Bank of Australia eased monetary policy significantly and swiftly. The cash rate was reduced by 3.75 percentage points over four board meetings from October 2008 (after Lehman Brothers collapsed) to February 2009. At the same time, the Reserve Bank provided significant liquidity support to money markets.

Box 3.5 (continued)

In addition, fiscal policy provided critical support. The Government implemented a significant and rapid fiscal stimulus package to support growth and jobs, consistent with the Government's medium-term fiscal strategy. Without the support of fiscal stimulus, the Australian economy would have experienced a technical recession.

At the same time as enacting fiscal stimulus, the Government introduced a clear and credible plan to return the budget to surplus through the introduction of strict fiscal rules which included allowing the level of tax receipts to recover naturally as the economy improves and holding real growth in spending to 2 per cent a year, on average, until the budget returns to surplus (Chapter 5).

The impact of the crisis on Australia's financial system was further reduced as a result of our decisive action to support the financial sector, for example, through guarantees for deposits and wholesale debt securities. The strong whole-of-financial-system oversight of the Council of Financial Regulators (comprising the Australian Treasury, Reserve Bank of Australia, Australian Prudential Regulation Authority and Australian Securities and Investments Commission) also supported the safety and stability of the financial sector through the crisis.

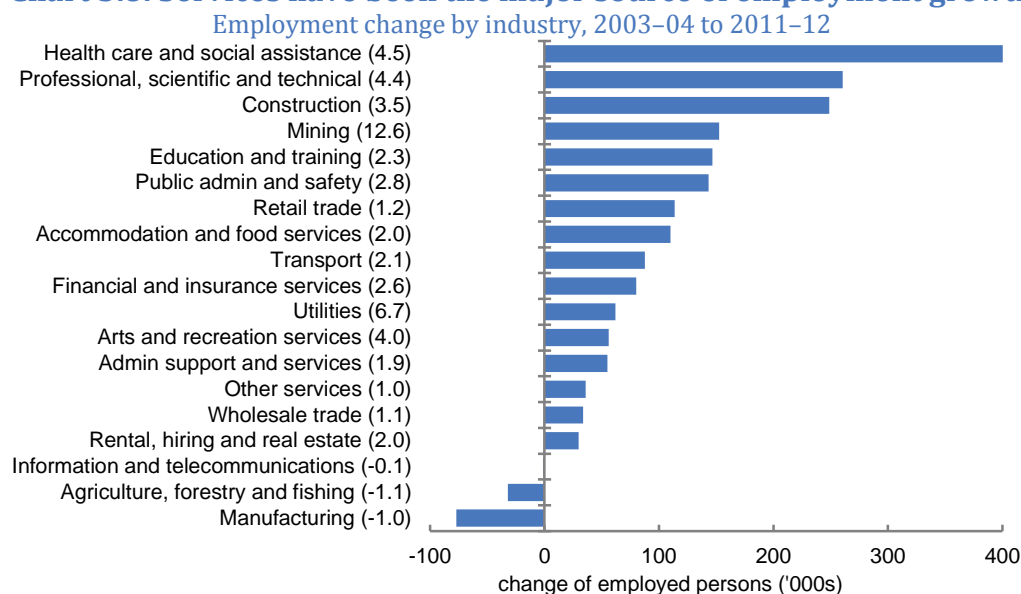
Strong demand for Australia's mineral commodities has led to strong growth in mining investment over the past decade. In 2010–11, mining investment was above 4 per cent of GDP—around eight times its share 50 years ago—and it is expected to remain high over the medium term (Australian Government 2012a).

In recent years, there has been strong employment growth in the mining and related construction sectors. While sectors like health and social services, professional services and education have recorded more moderate rates of employment growth, they continue to be the largest source of jobs growth given their greater share of Australian employment (Chart 3.8). In contrast, some industries have faced more difficult conditions, with some finding it harder to attract workers and compete. The purchasing power of average earnings has risen across the board, even though it has grown more quickly in the mining and mining-related sectors.

Although many people are moving into mining-related industries and enjoying higher returns for their work, large numbers of jobs continue to be created in the services industries, particularly health services, professional services and education and training.

Across both mining and non-mining communities, unemployment has declined. Despite the structural change occurring within the economy, unemployment has become less widespread as the aggregate level of unemployment has declined with the overall strengthening economy (Gruen, Li & Wong 2012).

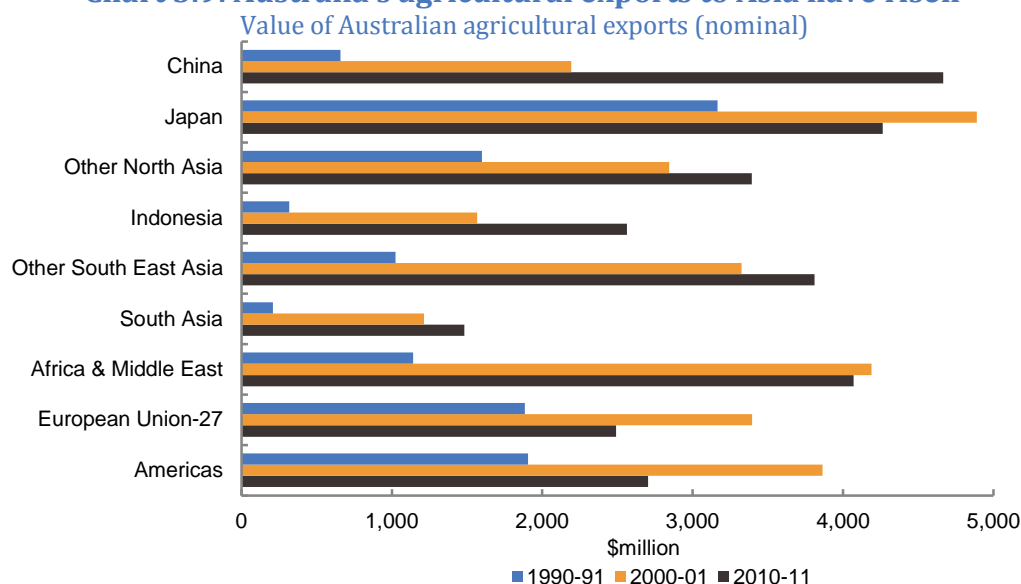
Chart 3.8: Services have been the major source of employment growth



Note: Average annual employment growth (per cent) by industry is given in parentheses.
Source: ABS (2012f).

An increasingly affluent Asian region has opened up market opportunities for enterprises beyond the resources sector. Demand for Australian agricultural goods has expanded as Asian countries have become more affluent (Chart 3.9), and Australian exporters have diversified away from a traditional focus on wool and cereals.

Chart 3.9: Australia's agricultural exports to Asia have risen



Source: ABARES (2011).

Education is the largest of our services exports, and the number of Asian students studying in Australia (particularly students from the ASEAN countries, China and India) has grown strongly in the past decade.

Asia has become the biggest source of visitors for the Australian tourism sector, contributing around 40 per cent of visitor arrivals. Even so, Australia's reliance on Asian tourism is relatively low compared to that of most Asian countries (Boao Forum for Asia 2012)—more than 70 per cent of arrivals to China, Hong Kong, Japan, Malaysia, South Korea and Taiwan come from Asia.

Business services are Australia's third-largest class of services exports (ABS 2012d). Australian firms in business, financial, professional and mining services and niche manufacturing, however they are categorised, have taken their considerable expertise and experience to Asian markets. This is especially true for a number of services firms in the areas of finance, engineering and design.

Thriving Australian businesses have not usually succeeded by competing against rivals solely on cost. Despite the high exchange rate and cost pressures, they have responded to opportunities and challenges by evolving and innovating their business models (Box 3.6).

Box 3.6: Tangalooma Island Resort

Tangalooma Island Resort is a family-owned, eco-style holiday destination on Moreton Island, not far from Brisbane. In the late 1990s, when it began to tap demand in Asia, its customer base was 80 per cent domestic and 20 per cent international. Today, the split is 50:50. The number of Chinese tourists visiting Tangalooma has quadrupled to 20,000 in the past four years.

They have representatives in China, India and Thailand and a managed office in South Korea. And Tangalooma invests heavily in relationships in the Asian region. The sales and marketing director spends around five months of the year in Asia, and several other sales and marketing managers travel to Asia every couple of months.

A range of unconventional marketing approaches have been developed by Tangalooma, such as co-marketing with retail chains that serve its target demographic. It has worked to develop products for the specific needs of its Asian customers. Staff members are Asia-literate, and marketing materials are available in a range of languages. Tangalooma offers personal experiences customised for customers from Asian countries, who are often looking for experiences that are unavailable at home, such as participating in the resort's wild dolphin feeding program, customised helicopter or quad-bike tours and parasailing.

Their success in attracting tourists from many parts of Asia has helped shield Tangalooma from downturns and low-season cycles, as different parts of the region have different holiday periods. Initiatives such as the opening of a hospitality and English training school have also diversified Tangalooma's offering.

Source: BCG (2012).

Many Australian businesses have found ways to add value, differentiate themselves from the competition and target changing demands. Rather than just engaging in transactions, they have built relationships and partnerships with others and formed clusters with complementary firms and industries. Some have accessed large regional markets by integrating into regional value chains.

Others have taken advantage of the high exchange rate and used their purchasing power to establish enterprises elsewhere in Asia, just as Japanese businesses did in the 1980s and 1990s in response to an appreciating yen (Chapter 4). Making the most of complementary interests and working collaboratively with partners in Asia, rather than competing against them, has been the best recipe for success.

Notwithstanding Australia's recent strong performance, competition has been increasingly fierce in the services sector. As the region has become more affluent, its business services sector has expanded and developed. The size and quality of the region's domestic education sectors have risen. And tourism infrastructure has improved, increasing competition for global tourism spending.

To make the most of the benefits flowing from the region, individual Australian firms and industries will need to make big decisions about their futures, changing and innovating to compete on the global stage.

3.4 How our society transformed alongside Asia's

Since 1945, about 1 million migrants a decade have settled in Australia. Few nations have absorbed so many migrants as a proportion of their populations in so short a period. The dramatic changes in the ethnic and cultural composition of Australia that have occurred in the space of the most recent generation and a half are as big as those wrought in Canada over three generations, and over more than six generations in the United States (National Multicultural Advisory Council 1999).

Today, nearly one-quarter of Australians were born overseas. Four million Australians speak a language other than English at home. In all, Australians identify with over 300 ancestries, speak as many different languages and observe a wide variety of cultural and religious traditions. Cultural diversity is at the centre of Australia's identity.

More people from Asian countries live, study and work in Australia than ever before. Of the 5 million overseas-born people living in Australia, almost 2 million were born in Asia—an increase from 276,000 in 1981. Close to 1 in 10 of Australia's population identifies with Asian ancestry. Today, there are more speakers of Chinese languages in Australia than speakers of Italian or Greek. In 2010–11, for the first time in Australian history, Britain was not the main source of permanent residents—more people moved here from China than from any other country, and in 2011–12, India was the number one source of permanent migrants. Australians are also increasingly living, working and travelling in the region.

The dramatic shift in orientation towards Asia in the past 40 years has changed the face of Australian society and strengthened our connections with our region. The scope of our ties has been broad, driven by trade, migration, tourism, education and exchanges in business, arts, ideas and information.

Asia has become an important part of our Australian identity.

Australia's people-to-people links with Asia grew stronger throughout the 1970s and these connections deepened into the 21st century.

Many Indian professionals, such as doctors, teachers and engineers, came to Australia in the late 1960s and 1970s. Further growth in migration from the region occurred in the late 1970s, when Indochinese refugees and their families came to Australia following the Vietnam War. Between 1975 and 1989, around 120,000 were resettled here (Quilty & Goldsworthy 2003). Vietnam remained the main source of migrants from the region through to the early 1990s. The period from the mid-1980s to the mid-1990s brought an increase in migrants from elsewhere in Asia, such as the Philippines, Malaysia and Hong Kong.

In 1984, for the first time, Asia-born permanent arrivals to Australia outnumbered permanent arrivals born in Europe (ABS 2012a).

In the past 15 years, permanent migration from throughout Asia to Australia has grown more than four-fold from around 25,000 in 1997–98 to about 112,000 in 2010–11. India and China have driven this growth in the skilled and family migration streams; the Philippines, Sri Lanka, Vietnam, Malaysia and South Korea are also important sources of permanent migrants from these streams. In this time, Australia has resettled around 32,000 refugees and people in humanitarian need from the Asian region, mainly from Myanmar and Sri Lanka.

And more Australians are living in and around the region. Nearly 4 in 10 of those Australians who emigrated moved to an Asian country in 2011–12. China was the fifth most common destination after the United Kingdom, New Zealand the United States and Singapore. Of those Australians who were born overseas, 4 in 10 have moved to live in an Asian country, most commonly China. Asia will become an even more important emigration destination over time, reflecting the evolving composition of Australia's population, the rising incidence of dual nationality and the increasing economic opportunities from a resurgent Asia.

More recently, along with other nations, Australia has benefited from the increasingly complex and circular people flows in the region. These two-way flows include people travelling for leisure and enjoyment, short-term visits to friends and family, entrepreneurs, and people living, working and studying in multiple countries. Ideas, culture and experiences are now more easily shared as technology and cheaper travel make it easier to maintain relationships across the region.

There has been a large increase in the number of people from Asia who spend time here studying or working temporarily. Around 40 per cent of long-term temporary

skilled migrants to Australia are from countries in Asia—the number more than doubled from 20,000 in 2001 to 48,000 in 2011. Many are from China, the Philippines and India (Box 3.7). Some temporary migrants become permanent residents in Australia; others return home or move to another country to pursue new opportunities.

Box 3.7: Dr Kanthanathan's 'Australian dream come true'

Dr Vijay Kumar Kanthanathan was working as an anaesthetist in the bustling city of Chennai, India, when he chanced across an advertisement in a medical journal for medical practitioners to work in Australia. He researched Australia thoroughly and became excited about the lifestyle and career opportunities a move offered him and his family.

He arrived in Australia on a temporary business (long stay) 457 visa in 2006 and worked as a general practitioner at Mareeba hospital in Queensland. He moved to the Mulungu Aboriginal Medical Centre nearby in 2007 where he still works today. 'It has been a rewarding experience to see the lifestyles of patients change over the last five years and the standard of living of the community improve,' Dr Kanthanathan said. He also feels as if he makes a contribution to the education of medical students at James Cook University at Townsville—who are posted to Mulungu as part of their rotations.

Through federal funding the centre has expanded into having a 'Mums and Bubs' clinic, which screens children for developmental problems and provides services in collaboration with Mareeba hospital. It also started a 'Well Being' clinic to help patients with chronic disease, empowering them to take control of managing their own health care.

Dr Kanthanathan became an Australian citizen in May 2011. 'Ever since we moved to Australia, me and my family have never looked back,' he says. 'This seems to be the Australian dream come true.' His story highlights the value of Australia's multicultural society and the valuable contribution skilled migrants from Asia make to the Australian community.

Australia has by and large managed its increasing ethnic diversity successfully. The contributions of Australia's Asian communities to Australian life have been diverse, with Australians with Asian heritage being active participants in Australian community and civic life. There are many longstanding community organisations and associations; for example, the Chinese community's Chung Wah Association of Western Australia dates back to 1909.

But there have, from time to time, been difficulties. Australia needs to continue to strengthen and build upon our institutional frameworks to address racial discrimination and to preserve and promote social cohesion and inclusion (Chapter 6). There are indications that many Australians hold misperceptions about some Asian nations. For example, a Lowy Institute poll in 2011 found that many believe that

‘Indonesia is essentially controlled by the military’, despite Indonesia’s democratic system of government (Hanson 2011).

The Australia Indonesia Business Council has argued that a misalignment between business perceptions of parts of Asia and new economic realities ‘is in large part responsible for the under-performance of the Australian trade and investment relationship with ASEAN and with Indonesia in particular’ (AIBC 2012). And Australian media could more accurately represent our ethnic and cultural diversity (Law 2009).

The benefits of Australia’s cultural and religious diversity have become apparent in other cultural and leisure activities. Following a rich history of European influences, Chinese, Indian, Japanese, Malaysian, Thai and Vietnamese cuisines have permeated Australian food culture. The calendar features an array of cultural celebrations, from welcoming Chinese New Year or observing Ramadan to celebrating Diwali, the Festival of Lights. In 2012, more than a million Australians participated in over 5,000 events on Harmony Day, which celebrates Australia’s cultural diversity.

Migrants from countries in Asia generally fare well in the Australian labour market, with low unemployment rates and, among those employed, high proportions in skilled employment. The level of educational attainment among the Asia-born population is higher than among the population as a whole (ABS 2011c).

However, there are gaps in participation in some of Australia’s institutions and organisations, such as in our parliaments, businesses, labour movement and civil society organisations. Our parliamentary representatives do not reflect fully our diverse population (Anthony 2006; Kennett 2012). In business, while there is encouraging cultural diversity among accounting and business services firms, there is a shortfall in the proportion of senior executives and up-and-coming executives who originate from non-English-speaking countries and who speak languages other than English (Diversity Council of Australia 2011).

Educational institutions, volunteering, exchanges and study programs continue to be important ways for Australians to learn more about Asia and build lasting relationships with people from the region.

Successive Australian governments have recognised the benefits of increasing Australia’s knowledge and appreciation of Asian languages, cultures and countries. In the 1970s and 1980s, building on efforts in the 1950s, a number of universities opened specialist Asian and Southeast Asian studies departments, and there was an expansion of language learning. For example, the majority of Australian universities have some kind of program of Japanese studies.

But the growth in Asian studies in universities and schools has not been sustained on a broader scale, and in many cases has declined (Asialink 2012; ASAA 2012). And while more Australians are studying in Asia, even more need to be encouraged to take up the opportunity, particularly as the quality of Asian universities continues to improve (Chapter 6).

Australia's university system is a powerful link with the Asian region through the number of students who come to Australia for their education, and more can be done to strengthen these links (chapters 6 and 9). Since the late 1980s, the number of Asian students studying in Australia has increased rapidly following the lifting of limits on the number of international students. In the past decade, there have been around 2.5 million enrolments of international students in Australian educational institutions, of which 1.9 million were by students from Asia.

Australia's cultural diversity and creative links to Asia have increased the vitality of our cities and regions (Box 3.8). The efforts of government, private sector and community organisations and individual artists have sparked an enthusiasm for Asian-Australian creative connections that has developed a life beyond official institutions (Quilty & Goldsworthy 2003). Connections and exchanges between Australia and Asia in the creative and performing arts increased during the 1990s: Asialink Arts began in 1990 and the Asia–Pacific Triennial of Contemporary Art was established in 1993 by the Queensland Art Gallery.

Box 3.8: Asian influences in Australian arts and culture—OzAsia Festival and the Asia–Pacific Triennial of Contemporary Art

Established in 2007, South Australia's OzAsia Festival is an annual two-week event devoted exclusively to exploring links between Australia and our neighbours, presenting works by Australian artists who identify with an Asian heritage, collaborative projects between Australian and Asian artists, and activities that include a cross-section of the traditional and contemporary cultures of Asia.

The OzAsia Festival includes theatre, dance, music, film, visual arts, literature, food, design and multimedia. The 2011 program featured almost 450 artists from Japan, China, Hong Kong, India, Indonesia, South Korea, Malaysia, Thailand and Vietnam, as well as Australia's best.

The Asia–Pacific Triennial of Contemporary Art is the flagship contemporary art event of the Queensland Art Gallery and Gallery of Modern Art. For two decades it has been the only major exhibition series in the world to focus exclusively on the contemporary art of Asia, the Pacific and Australia.

Since the first triennial in 1993, more than 1.8 million people have visited the event. The most recent triennial averaged a record-breaking 4,400 visitors daily. The gallery is also one of few public institutions to collect both contemporary Asian and Pacific art and it has built these collections in tandem with the series.

Many governments in Asia have played a formal role in promoting people-to-people links; Japan's support for Japanese language learning in Australia and, more recently, the establishment of a number of Chinese Confucius Institutes in Australia are examples. Independent bilateral and regional foundations, councils and institutes—many supported through grants programs administered by secretariats in the Department of Foreign Affairs and Trade—have also been established to foster connections and cooperation. Along with many sister-state and sister-city

relationships, these groups have created multifaceted, informal connections. A typical example is the Latrobe City Council's a sister-city relationship with Taizhou in China. There have been exchanges in education, health care and culture since 2000 and the focus is being broadened to include business opportunities and links.

Beyond government, many institutions across the region have developed relationships over the years to nurture people-to-people connections. Bilateral and regional business councils have supported business people to strengthen links. Young people are building connections through new organisations such as the Australia–Indonesia Youth Association, the Australia India Youth Dialogue and the Australia–China Youth Association, which has amassed more than 2,000 members since its formation in 2008 and has run a range of successful projects, dialogues and events, including promoting the study of China in Australian schools.

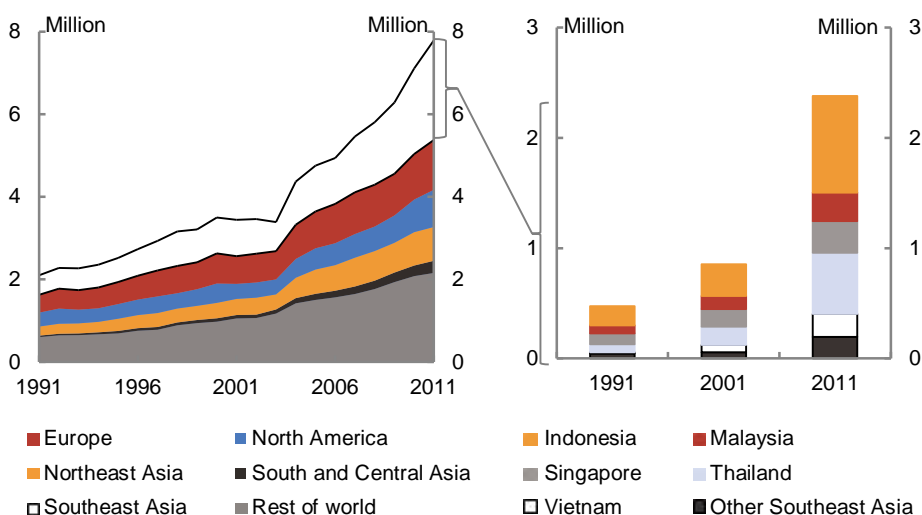
Tourism and short-term travel to Australia from countries in Asia have grown considerably, adding to our links. While the number of tourists from traditional markets, such as Japan, declined in the past decade, the number of visitors from China and India has grown. Arrivals from China have nearly increased by about six-fold, partly as a consequence of the Chinese Government's decision in 1999 to grant Australia 'approved destination' status. And the total number of visitors coming from Hong Kong, Singapore, South Korea and Taiwan was almost double the number coming from mainland China in 2010. Indonesia, Malaysia and Thailand are also significant sources of visitors.

And more Australians are taking holidays in the region. In 2011, 3.5 million Australians left for visits to Asia, mostly Southeast Asia (Chart 3.10). By 1995, Asian countries were the main destinations for almost 40 per cent of Australians, and in 1998 Indonesia overtook the United Kingdom and the United States as a tourist destination.

Chart 3.10: More Australians have been travelling to Asia

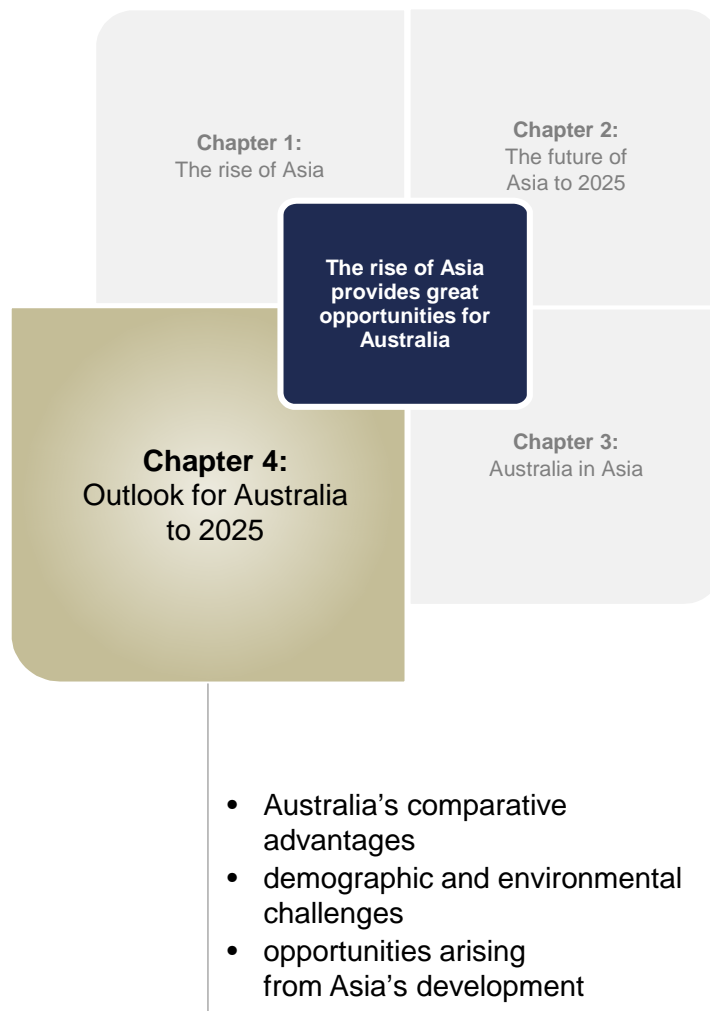
Departures by destination

Departures to Southeast Asia



Note: See glossary for definition of country groupings.
Source: ABS (2012a).

Chapter 4: Outlook for Australia to 2025



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

(Australian Government 2010). 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

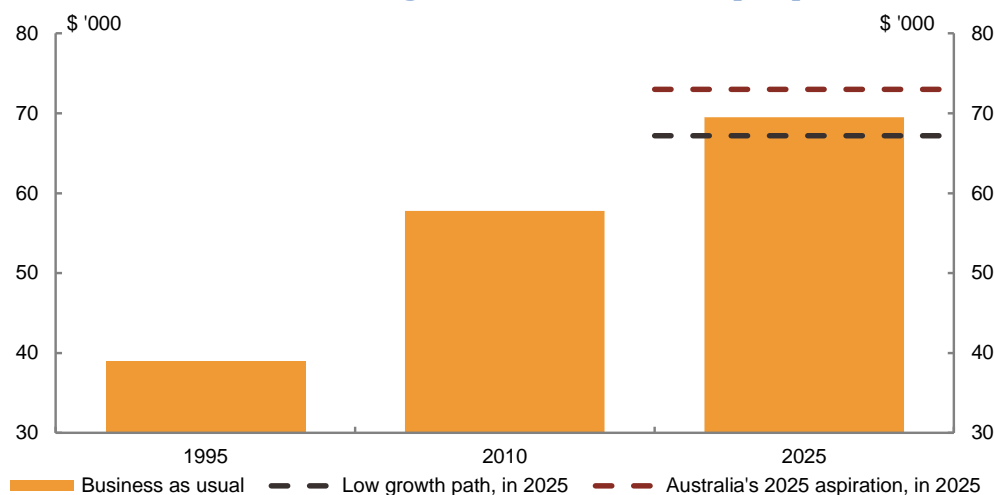
Australia's living standards would be in the world's top 10 by 2025.

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').

¹ Assuming unchanged projections for labour utilisation, net income transfers and the terms of trade.

Chart 4.1: Australian gross national income per person



Note: In 2011–12 prices. The 'Australia's 2025 aspiration' scenario is based on the business-as-usual case but assumes GDP per person grows between 2012 and 2025 at a rate that is required for Australia to rise to the world's top 10 in 2025. The low growth scenario is based on the business-as-usual case but assumes GDP per hour worked grows between 2012 and 2025 at the average growth rate observed in the 2000s. Sources: Treasury projections based on ABS (2012b) and Australian Government (2011c).

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

Australia ranks 11th in the world
based on IMF projections

A productivity boost will help
Australia reach the top 10

Rank	Economies		Rank	Economies
1	Qatar	<i>Requires a labour productivity growth boost of 1/2 of a percentage point a year above the 'business as usual' scenario.</i>	1	Qatar
2	Luxembourg		2	Luxembourg
3	Singapore		3	Singapore
...			...	
10	Switzerland		10	Australia
11	Australia		10	Switzerland
12	Sweden		12	Sweden
13	Taiwan		13	Taiwan

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).

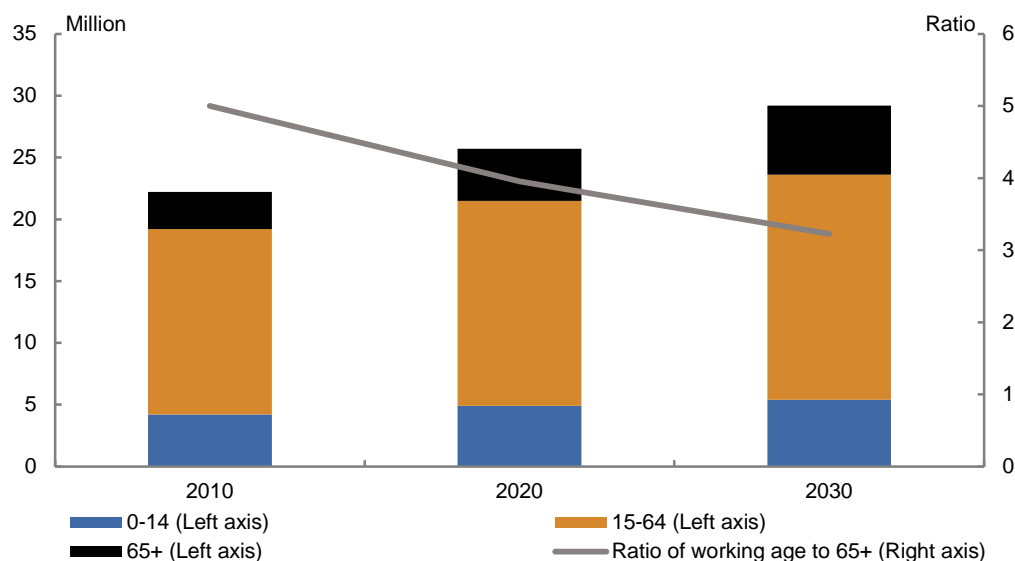
Labour force participation, along with productivity, will also determine growth in Australian incomes. It will be affected by the ageing of the Australian population, which has added to labour participation over the past four decades as the proportion of children in the population has fallen steadily. 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.

Chart 4.2: Proportion of Australia's population of working age



Note: The 'ratio of working age to 65+' is the ratio of the population aged 15–64 to those aged 65 and over.
Source: Australian Government (2010).

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.

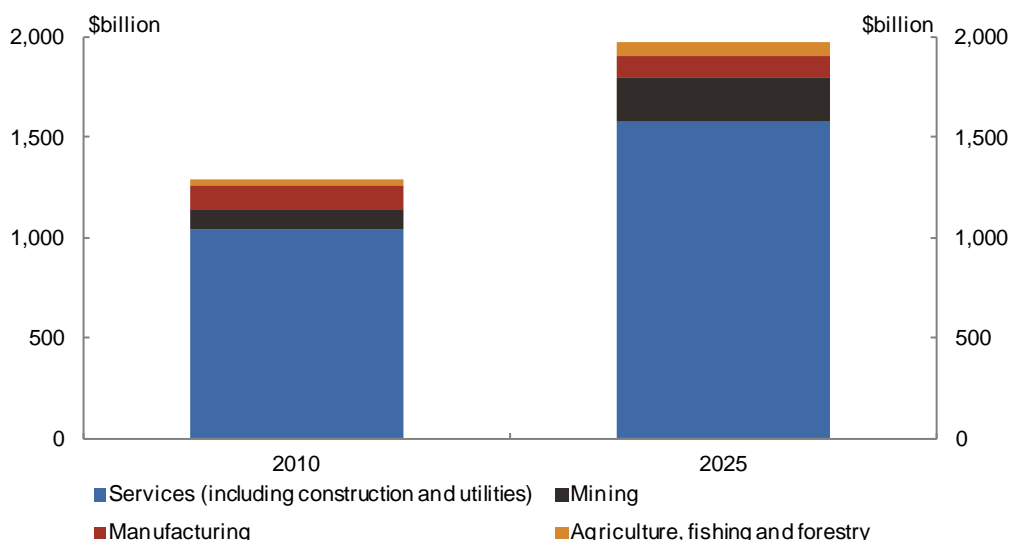
Many new opportunities will emerge, not just from the provision of tangible products and services, but from the value created from Australia's intangible assets—from the ability to think creatively in analysing and understanding problems, from improvisation, and from designing imaginative and effective 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



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.

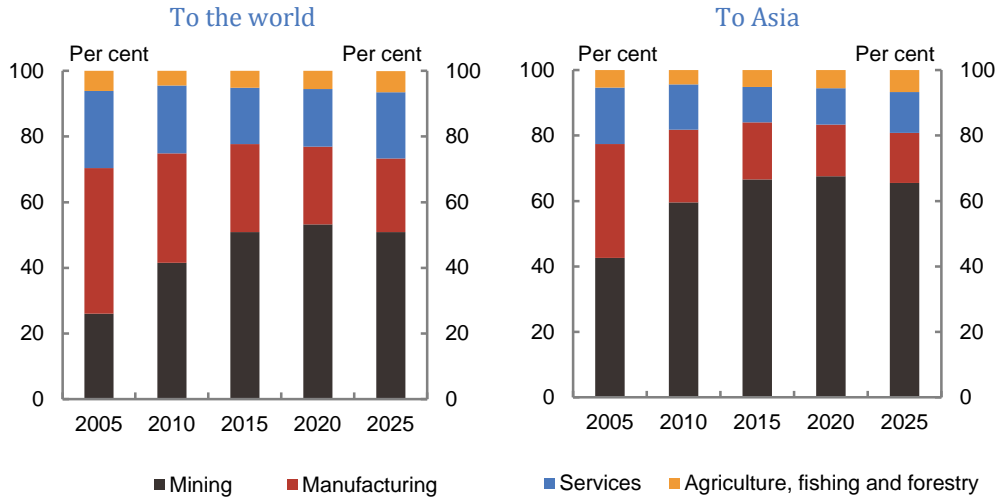
What will emerge as a result of these opportunities is that Australia's trade patterns will change, urbanisation will continue to drive demand for resources and energy, and new opportunities will emerge in manufacturing and in high-quality food production. Rising incomes will also provide opportunities 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).

Chart 4.4: Composition of Australia's exports, by industry



Note: Consistent with the business-as-usual scenario. See glossary for definition of Asia.
Source: Treasury projections based on ABS data.

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).

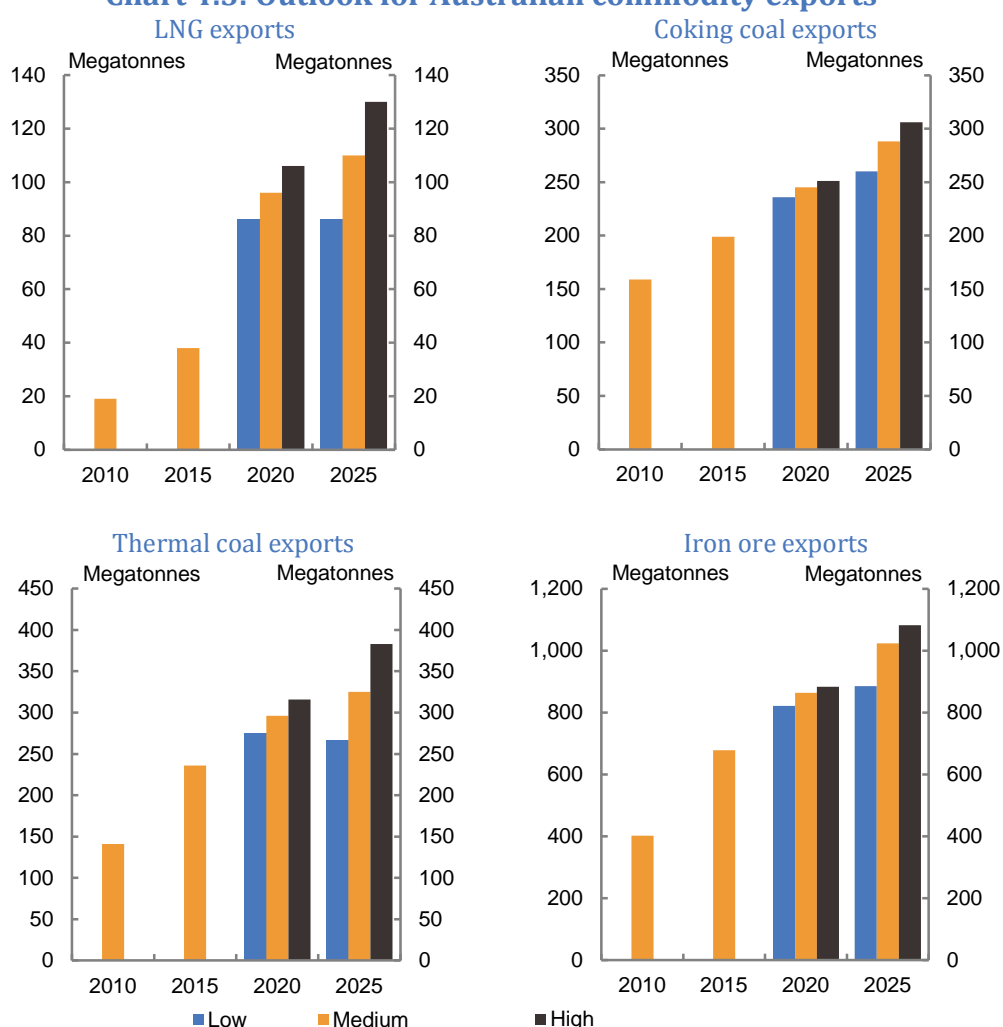
Even though many commodity prices have fallen somewhat from their historic highs, Australian resources investment is expected to remain high in the medium term and will continue to lift minerals and energy production and exports (Chart 4.5). Natural gas is likely to be the primary fuel for transitioning 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



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).

Source: FMIIC (2011).

Increased demand for high-quality food

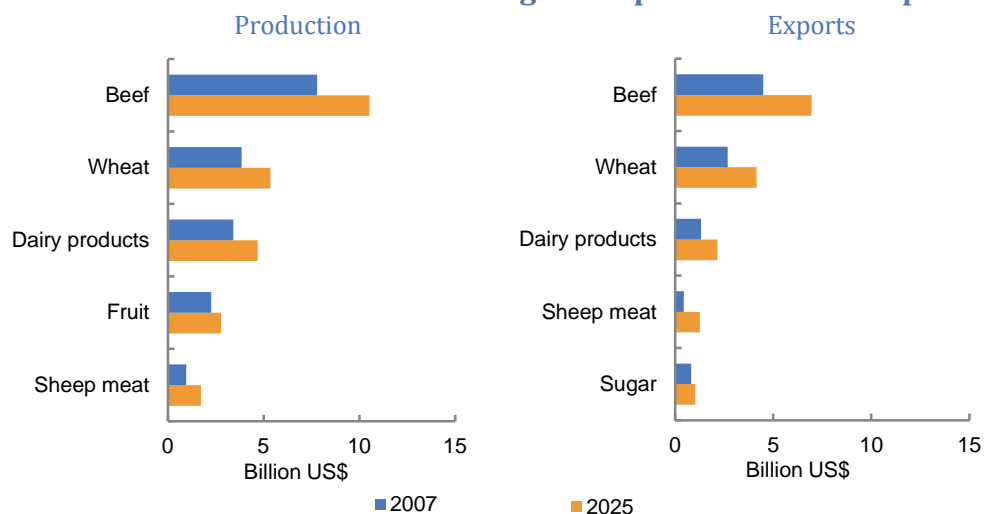
Australia's diverse climate systems and quality of agricultural practices position us well to service strong demand for high-quality food in Asia (Case study). As a result, agriculture's share of the Australian economy is expected to rise over the decade to 2025 (Chart 4.3).

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).

Chart 4.6: Outlook for Australian agrifood production and exports



Note: At 2007 prices.

Source: Linehan et al. (2012).

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.

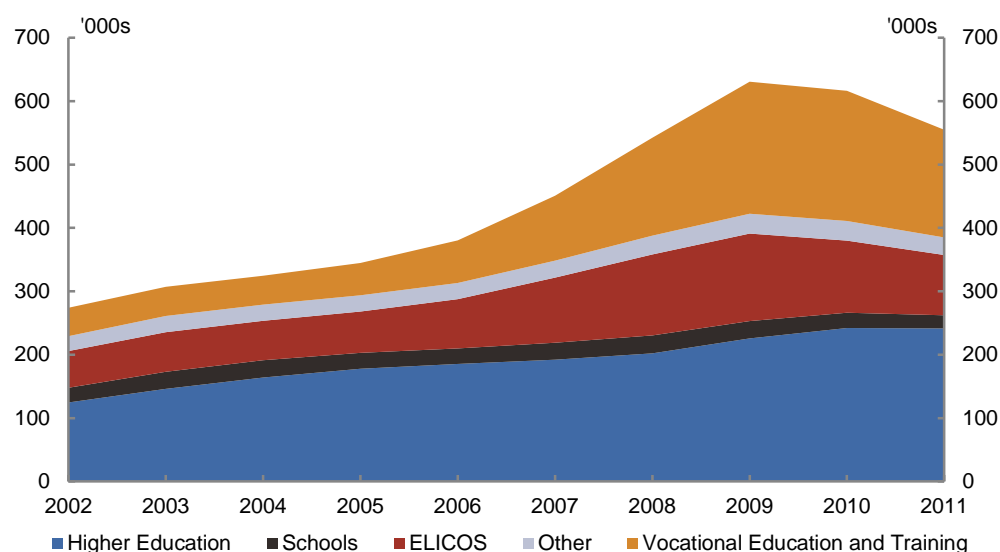
The benefits of education exports are not restricted to direct income. Around one-third of skilled migrants to Australia are former international students, bringing the benefits of their skills and knowledge to Australian firms. And the additional enrolments provided by international students allow educational 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.

² Defined as 'education-related travel services'.

Chart 4.7: Growth in international student enrolments in Australia



Note: VET stands for vocational education and training. ELICOS stands for English language intensive courses for overseas students. 'Other' includes non-award courses and enabling courses.
Source: AEI (2012b).

... 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).

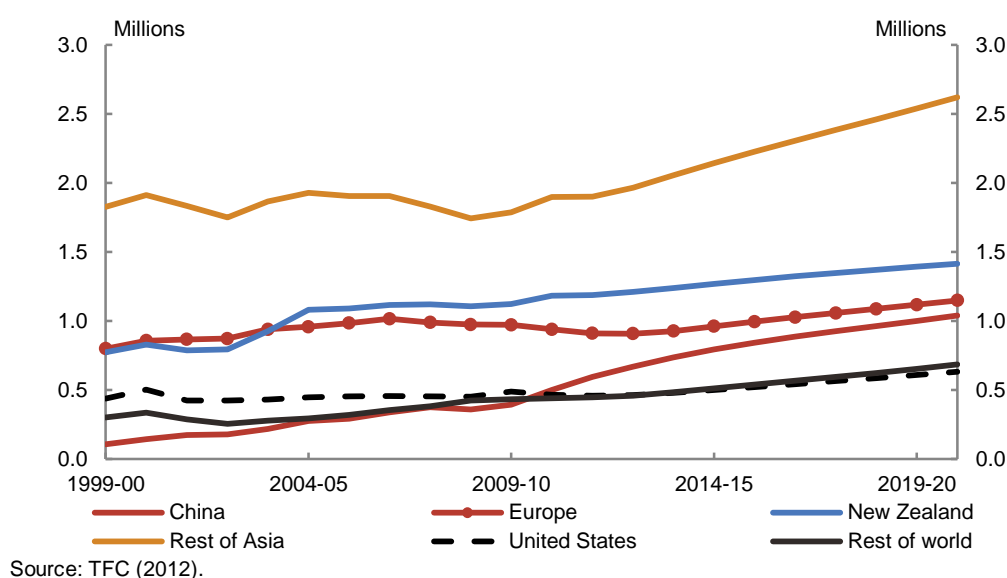
Australia's natural endowments and position as one of the developed countries closest to Asia provide us with natural advantages. In 2011–12, seven of Australia's top 10 most valuable inbound tourism markets were in Asia (TRA 2012b). In the same year, China became Australia's most valuable tourism market, 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.

Source: BCG (2012).

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),

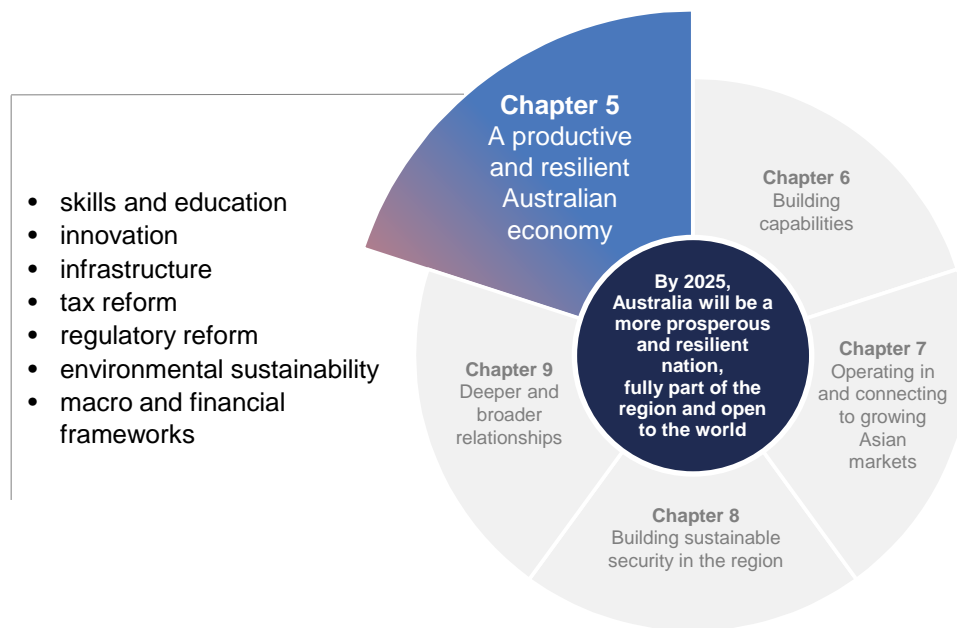
the World Trade Organization and the Asia–Pacific Economic Cooperation forum to dissuade other nations from pursuing more protectionist policies.

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).

Chapter 5: A productive and resilient Australian economy



Key points

The Asian century requires us to focus on domestic economic settings, with ongoing attention to the productivity, resilience and sustainability of the Australian economy.

Australia is in a good position to capitalise on the opportunities that the rise of Asia presents, but there is more work to do.

We have made substantial reforms and investments across the five pillars of productivity—skills and education, innovation, infrastructure, tax reform and regulatory reform—and these efforts will continue.

Ongoing reform and investment in education and training will help boost productivity and participation in the workforce, and enhance Australia's and Australians' capacity to respond to and benefit from changing demand.

Australia's innovation effort should progressively align better with our comparative advantages, attract top researchers and improve regional and global partnerships.

Better planning and prioritisation of infrastructure and greater private sector investment will support a growing Australian population and increasing trade and investment with the region. The National Broadband Network gives Australia world-leading communications infrastructure to support this engagement.

Our tax system will be progressively reformed to better encourage investment in Australia and participation in the workforce, and to ensure our public finances remain sustainable.

Over time, we will remove unnecessary regulation costs on businesses and people.

Through careful management of Australia's natural assets, we can meet, more sustainably, Asia's and our own growing demands for resources.

Australia's macroeconomic framework—a floating exchange rate acting as a shock absorber for the economy, independent monetary policy targeting low inflation and a medium-term fiscal policy framework—remains crucial to success.

5.1 Introduction

This White Paper provides a long-term roadmap for Australian governments, business and the broader community to secure a more prosperous and resilient nation that is fully part of our region and open to the world. Addressing many of these issues has driven much of the Government's policy agenda over the past five years and it is important that our broad settings continue to be right.

Our roadmap for the Asian century is ambitious. We envisage a nation with sustainably rising living standards, where all Australians enjoy a good quality of life. Crucial to Australia's success will be lifting productivity growth.

Irrespective of how the Asian century evolves, Australia's prosperity will come from building on our strengths, reinforcing the foundations of our society and our productive, open and resilient economy at home. We have made substantial reforms and investments across the five pillars of productivity—skills and education, innovation, infrastructure, tax reform and regulatory reform—and these efforts will continue.

Complementing these five pillars are efforts to ensure environmental sustainability and strong macroeconomic and financial frameworks, plus ongoing policies to increase workforce participation and create a fairer and more inclusive Australia (Chapter 6).

Success in the Asian century requires a whole-of-Australia effort, with businesses, communities and governments being partners in a transformation as profound as any that have defined Australia throughout its history.

The private sector drives the lion's share of productivity gains when firms and businesses do more with the resources they have and can respond to emerging opportunities. Governments have an important role in creating the conditions for businesses to boost their productivity.

In coming decades, Asia's economic rise will shift the centre of global economic activity closer to Australia. This, along with a large and growing Asian middle class, will bring further opportunities (chapters 2 and 4).

First, there are opportunities in the strong investment growth in Asia, both in building and financing infrastructure, and expanding human capital through education and training.

Second, enabling closer economic and social integration across the Asian region brings opportunities in network infrastructure such as telecommunications, logistics and financial systems.

Third, a broad set of opportunities will arise from the expanding consumer market, including niche manufacturing, creative and professional service industries, health and aged care, tourism and agriculture.

Fourth, within the challenges of environmental sustainability and population ageing likely to be faced in Australia and across the region, there are opportunities for innovative solutions to address environmental constraints, urban planning and regional development, and to improve health, aged care and other services.

Australian businesses need to remain competitive and resilient to secure these opportunities, which will provide wealth and jobs for Australians. We have already begun the process of adapting to drive future growth. Sound economic frameworks, a history of good decisions and reforms, Australia's comparative advantages and our willingness to engage with the Asian region have put us in a strong position.

Continuing our focus of recent years, we will work to raise Australia's productivity performance as it will be the main driver of higher living standards—especially against a backdrop of falling productivity growth in the early years of the 21st century, the pressures of an ageing population, and the likely decline in Australia's terms of trade over the medium term, as the global supply of resources continues to increase.

We will ensure that Australia's economy remains strong, resilient, diverse, productive and on a sustainable footing.

5.2 Building a highly skilled and productive workforce

We are committed to building a highly skilled, educated and productive Australian workforce. All Australians need the opportunity to acquire skills and education in order to fully contribute to and participate in the economy. This includes securing the skills needed for the jobs of the future.

Education and training are crucial to Australia's future productivity. The greater the skill level of each worker, the higher the potential productivity of the workforce—a highly educated and skilled workforce supports innovation, the spread of technological advances and the accumulation of physical capital (Australian Government 2010). Rising educational qualifications can also boost productivity by improving technical or problem-solving skills (Productivity Commission 2008). Enhancing the skills and attributes of Australians will be fundamental for seizing the opportunities from the rise of Asia, including greater capacity to innovate and adapt.

Education and training also shape the prosperity of individuals and families, influencing their earning potential and improving future labour force participation. Higher literacy and numeracy skills are strongly correlated with higher workforce participation and earnings (Shomos 2010). As Australia adapts to the changes that will occur, we need to equip people with the skills to take advantage of the shifts towards higher skilled, higher wage jobs, which could potentially grow at around 1.6 times the rate of low-skilled jobs to 2025 (AWPA 2012).

This has driven the investments and reforms we have made so far—from early childhood education to universities and training systems. Reforms to higher education have included the uncapping of the number of public university places from 2012 to enhance the overall skill level of the workforce and to equip students to become effective participants in the labour market of tomorrow. Our policies are designed to

ensure that the future training system is responsive to the needs of Australian industry and the economy and will provide graduates with relevant qualifications and a better chance of securing employment.

We have already made large investments in schools to boost the capability of school-age children. The recently announced National Plan for School Improvement also aims to help every Australian child get a world-class education, no matter where they live, the school they attend, or their family background. The aim of the plan is to make sure that Australia is in the top five countries in the world in reading, writing and maths by 2025 (Chapter 6).

National objective

1. All Australians will have the opportunity to acquire the skills and education they need to participate fully in a strong economy and a fairer society.

Our aim is to have early childhood education, schools, universities and training systems among the best in the world. The importance of this agenda to boosting Australia's productivity and ensuring people have the capabilities to take full advantage of the Asian century is explored in more detail in Chapter 6.

Australia's education and training systems need to be flexible and able to adjust the quantity and mix of services they provide as needs and individual preferences change. This will help ensure that the workforce skills match those demanded by employers.

Our efforts to boost workforce participation through skills and education attainment (Chapter 6) are complemented by other measures intended to remove barriers for those groups currently under-represented in the workforce—through child-care assistance, paid parental leave, employment services and tax reform.

Governments can help people make the most of the Asian century by promoting fair and responsive workplaces. As the structure of the domestic and international economy transforms, flexibility in the labour market and collaboration between employees, employers and unions will help people find new and rewarding employment opportunities and boost productivity.

We will continue to develop, through the *Fair Work Act 2009*, and ongoing partnership, a workforce culture in which employees, employers and unions collaborate for continuous improvement and productivity growth.

5.3 Enabling new patterns of innovation

Australia's ability to create, disseminate and apply knowledge is important to our wealth and prosperity. Australian businesses, in particular small and medium-sized enterprises are, and will continue to be, the engine room of innovation—supported by the efforts of research organisations and governments. An ability to innovate, in terms of finding better ways of doing business, developing new business models and tailoring products for a changing market will be a primary source of competitive advantage in the Asian century.

Through their continuous learning and experimentation with employees, suppliers and customers, businesses are the cornerstone of innovation-based economies and the main avenue through which the benefits of innovation are shared.

Most innovation takes place in response to market pressures and opportunities, with profit and competition—both domestic and foreign—important drivers (OECD 2007b and 2010a). Businesses gain competitive advantage by commercialising new products, processes or services faster than their competitors. Australian businesses that innovate are twice as likely to report increased productivity as businesses that do not innovate. Innovating businesses are also 40 per cent more likely to report increased profitability (ABS 2011d).

National objective

2. Australia will have an innovation system, in the top 10 globally, that supports excellence and dynamism in business with a creative problem-solving culture that enhances our evolving areas of strength and attracts top researchers, companies and global partnerships.

Governments, in general, have a role in creating the conditions for innovation through fostering competition and the free flow of products, people and ideas both domestically and internationally. Falling barriers encourage businesses to seek new and better production processes, while giving them greater access to new ideas and markets. These conditions can be as important as specific innovation policies and programs.

We provide direct support for vital research—especially basic research that would not be done by the private sector—and create and enforce intellectual property rights. Investments in infrastructure and workforce capabilities help Australians to pursue knowledge and undertake research and development, and to use and adapt technology flowing from other countries (Chapter 6).

We are also helping to encourage innovation through our role as major providers and consumers of innovative products and services—driving innovation by demanding new and better inputs from the private sector and by developing better ways to deliver services in such areas as health, education, social welfare, defence and environmental management.

Overall, we provided direct support for science and innovation in the order of \$8.9 billion in 2012–13. This included expenditure undertaken by Australian Government research institutions such as CSIRO, expenditure that supports business research and commercialisation, expenditure on research and research training in higher education institutions and cross-sectoral programs such as the National Health and Medical Research Programs and Cooperative Research Centres.

Another issue is the transfer of knowledge and ideas. The scope and speed of knowledge sharing are partly driven by intellectual property rights regulations: Australia's domestic intellectual property framework is consistent with obligations contained in relevant international agreements. We will seek to ensure that domestic and international laws strike the right balance between supporting the availability and use of intellectual property-based goods and services and protecting and promoting the development of new products and the delivery of new services.

Improving the flexibility of our innovation support

Our forthcoming Industry and Innovation Statement will articulate an ambitious industry and innovation policy agenda, providing a framework for industry to respond to the opportunities and challenges ahead and better linking businesses and research institutions through our national innovation system.

The pace and patterns of innovation are changing, with new centres of global creativity and innovation emerging, particularly within the region. The ways in which businesses innovate are also changing. Businesses are adopting new models of innovation, focusing more on better integrating internal activities, such as marketing, operations and design, and less on traditional research-intensive approaches. At the same time, they are more open to external ideas and the possibility of new routes to market, engaging with a larger number and wider range of collaborators (Australian Government 2011a; Cutler & Company 2008; Banks 2008).

Australia's innovation support structures need to take account of these changes.

While some important measures to encourage innovation, such as the Research and Development Tax Incentive, are broadly based, many are small, targeted to specific areas and spread across a number of programs, organisations and levels of government. For example, there are more than 200 initiatives to support business innovation (CSTACI 2011). About one-third of these are administered by the Australian Government, while States and Territories administer the remainder. This makes it harder to respond to change and build the scale and flexibility needed to ensure innovation efforts focus on areas of comparative advantage.

We are already working with the States and Territories to improve the consistency and improve the overall accessibility and efficiency of innovation programs across Australia. We will build on these efforts to avoid overlap and progressively increase our flexibility to respond to current and likely future areas of comparative advantage.

By focusing on areas in which Australians can be national, regional or global leaders, Australia can build on its strengths to better attract collaborative partners, top researchers and access to world-class facilities, including from within the region. Researchers and industry have begun to identify such advantages and to collaborate to gain scale and network benefits (Box 5.1). The CSIRO Global Precincts framework aims to encourage clustering of expertise and innovations across business, academic institutions and government.

Box 5.1: Focused innovation efforts—the CSIRO experience

CSIRO has shifted towards specialist research hubs, or precincts, that will concentrate specialist research and development in specific locations.

CSIRO has identified five research precincts in Australia with the potential to achieve global standing and scale. The benchmark was set at 3,000 researchers and more than \$1 billion in capital and facilities. These precincts are expected to provide the scale and incentives to attract top researchers, funding, facilities and partnerships with business here and overseas.

- The Canberra precinct will focus on plant and agricultural sciences, combining science and science policy to help shape Australia's innovation system.
- Brisbane's Boggo Road precinct will become the world's largest environmental sciences hub.
- Resources sciences will be concentrated at Perth's Kensington precinct, forming an internationally recognised centre for minerals and energy research.
- The vision for Melbourne's Clayton precinct is to be one of the world's top three advanced materials research facilities and to support a sustainable and vibrant future for the manufacturing sector.
- Parkville precinct in Melbourne will integrate world-class health care, research and education to translate research discoveries rapidly into clinical practice, and nurture life sciences and biotechnology development.

Source: CSIRO (2011).

The National Research Investment Plan, being prepared by the Australian Research Committee, will support efforts to build scale and identify strategic priorities. The plan aims to guide and coordinate our future research investment by setting out a framework that enables Australians to develop the quality and scale of research capability needed to engage with the best global research teams. It will ensure that business and non-business end-users can draw on that research to create economic, social and environmental benefits here in Australia.

Tapping into new centres of global creativity

Global innovation activity is shifting towards Asia. Asia's large markets are becoming increasingly attractive places for multinational companies to introduce and develop new technologies and products. Asia's capabilities in science and research are also increasing rapidly, adding to global scientific output and the pace of technological progress worldwide (Chapter 2).

Australia has a strong international reputation as a community of early adopters of technology and social innovators, which provides a good foundation for developing and testing innovations.

The rollout of the National Broadband Network (NBN) will support innovation by making it easier for people to interact. Innovation often flows from interactive and

cumulative processes drawn from an array of learning and problem-solving activities. The NBN is a vital piece of Australia's tool-kit for becoming a more sophisticated, knowledge-based economy.

Building on the demonstrated ability of Australians to be creative and excellent design thinkers, Australia is well placed to form international links that will become increasingly important in staying abreast of international research and technologies across all frontiers.

There are great opportunities for those Australians in the Asian century who tap into the creative economy from culture to design.

By strengthening regional links over time, Australia can link into Asia's innovation efforts and absorb overseas know-how and technology in two main ways. First, engagement through investment and trade helps transfer technology and ideas (Chapter 7). Multinational companies build modern facilities in Australia and join our innovation system, while Australian businesses directly invest overseas and become part of global and regional value chains. This facilitates the exchange of state-of-the-art machinery, equipment and processes.

Second, Australia can benefit through collaboration and other people-to-people links and connections with top research centres at the technological frontier. As Asia grows as a global science and innovation hub, expanding long-term research and innovation partnerships has the potential to produce significant dividends (Chapter 9).

Supporting financing for innovation

The translation of Australia's good ideas into products, processes and new competitive businesses has often involved funding from government, particularly in the early phases on the path to commercialisation.

Increasingly, the focus is on attracting private sector capital. This involves efforts to increase certainty for investors and entrepreneurs—including through effective intellectual property, corporate and financial market regulation—and leveraging off government investment in science and technology.

We currently provide a range of financial and tax-based support for venture capital, which is supplemented by smaller-scale support from publicly funded research organisations and State and Territory governments. This has seen the establishment of the Commercialisation Australia initiative that assists researchers, entrepreneurs and innovative businesses convert ideas into successful commercial ventures.

The \$1.2 billion Clean Technology Program provides incentives for business to reduce emissions and invest in clean energy technologies. The Australian Renewable Energy Agency and \$10 billion Clean Energy Finance Corporation will drive research and development into, and the commercialisation of, clean energy technologies. These measures provide strong incentives and opportunities for the private sector to directly participate in clean energy projects, through partnering and co-funding arrangements.

5.4 Delivering the infrastructure to support opportunities

Infrastructure provides the backbone for business efficiency and helps people both engage in productive work and enjoy greater amenity. All businesses and households require reliable and affordable water and energy. Road, railway, port, airport and telecommunications facilities connect businesses with markets, innovators with ideas, people with goods and services, and commuters to their workplaces.

Increasing economic and social links with countries in the region will add to existing infrastructure demands as more goods, services, people and ideas flow within and across national borders.

Considerable reform has occurred, but challenges remain

In past decades, successive governments at all levels have reformed the use of essential infrastructure by encouraging greater private sector involvement and relying more on markets to determine when, where and how infrastructure needs are met. This process has delivered real benefits, including gains in productivity and reduced costs for users of some services.¹

We greatly increased our investment in nationally significant infrastructure, with \$36 billion of Commonwealth funds being invested nationally from 2008–09 to 2013–14 through the Nation Building Program.

In addition to record funding of roads, rail tracks and ports, we have made a concerted effort to rethink the way future infrastructure needs and projects are identified and different ways to fund them. Recognising the need for more effective planning, we established Infrastructure Australia in 2008. Infrastructure Australia's main role is to assist governments allocate infrastructure spending toward the right projects. It is also helping to drive the development of a long-term, coordinated national approach to infrastructure planning and investment.

Infrastructure Australia has focused on an ambitious planning program including the development of the National Ports Strategy, National Land Freight Strategy and National Public Transport Strategy. The strategies will be crucial to developing a long-term pipeline of infrastructure projects attractive to public and private investors, and to ensuring that the right investments occur at the right time. Our investments are aimed at improving productivity, efficiency and reducing congestion. Inadequate infrastructure can hamper productivity and the efficient movement of people and

¹ Average telecommunications charges fell by more than 20 per cent between 1990 and 2003 (Productivity Commission 2005). More generally, the Productivity Commission's review of National Competition Policy reforms found that productivity gains in the six major infrastructure sectors which underwent most reform permanently added at least 2.5 per cent to GDP over the period from 1990 to 2003, raising average income in all but one of 57 regions across Australia and in all income groups (Productivity Commission 2005).

goods, including through the impacts of congestion that cost Australia's economy billions of dollars.

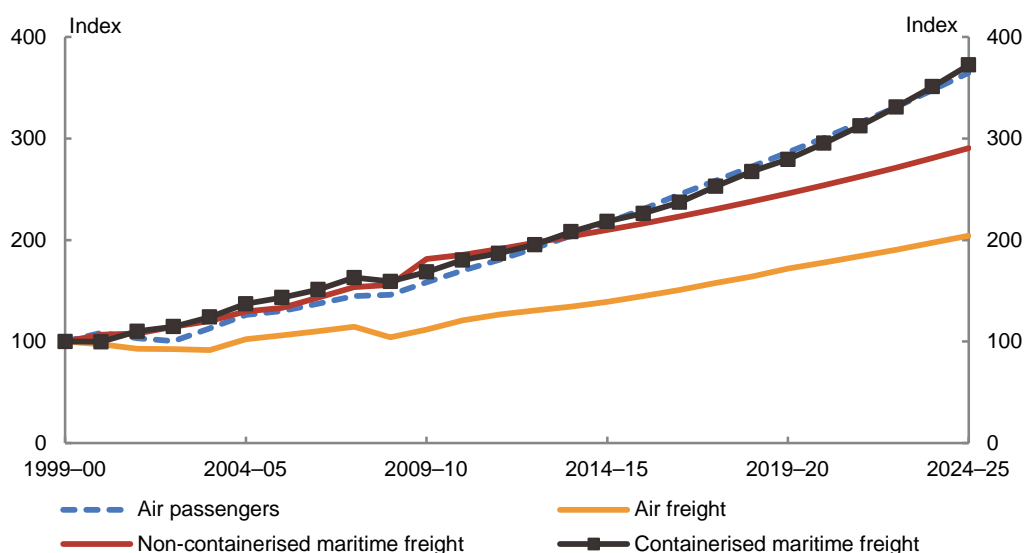
Despite these achievements, reform challenges remain across all sectors. This is a particular issue for State and Territory governments, which have responsibility for much of this infrastructure.

Transport infrastructure is showing signs of strain. Traffic congestion is growing in capital cities and infrastructure bottlenecks are emerging in some of Australia's major ports. At Sydney's Kingsford Smith Airport, limitations of existing infrastructure will start to have a sizable effect on airport operations from around 2015.

In response to the growing capacity constraints around the Kingsford Smith Airport, we commenced a detailed investigation into the suitability of potential sites for a second Sydney airport, including conducting preliminary economic, social and environmental studies. And we have supported the development of the Moorebank Intermodal Terminal in Western Sydney. This involves developing freight terminal facilities linked to Port Botany by rail, increasing Sydney's rail freight capacity and reducing road freight on Sydney's congested road network.

These strains will grow as demand increases. By 2025, our airports are expected to be handling three times as many international passengers and our ports three times as much containerised freight compared to the start of the decade, while air and non-containerised freight volumes are expected to double (Chart 5.1).

Chart 5.1: Projected flows of people and goods to and from Australia



Note: Air passengers are the number of international passenger movements to and from Australia; air freight and maritime non-containerised freight is the total of imports and exports, measured in tonnes; maritime containerised freight is the total of imports and exports, measured in twenty-foot equivalent units.

Source: Bureau of Infrastructure, Transport and Regional Economics.

If left unchecked, this will erode productivity, the liveability and competitiveness of Australia's cities, and our capacity to connect with the region. The avoidable costs of road congestion alone are likely to increase from around \$9 billion in 2005 to around \$20 billion by 2020 (BTRE 2007).

Challenges are not confined to transport infrastructure.

In water supply, governments still dominate service provision and there is considerable scope to improve efficiency. Decisions on urban water supply and use—many intended to deal with growth in demand and a lengthy period of drought—have not always focused on providing services at the lowest cost. This has led to misdirected investment and higher prices that could persist for decades (Productivity Commission 2011a).

Australia's energy sector is one of the most reliable and low-cost suppliers in the world (Infrastructure Australia 2008), but reforms need to establish truly national electricity and gas markets and promote innovative and more efficient ways to supply and use energy. Rising electricity network costs has been the main contributor to rising electricity prices in recent years. Generation, transmission and distribution costs account for around 40 to 50 per cent of a typical household electricity bill and have, on average, increased by 18 per cent, 59 per cent and 30 per cent (respectively) from 2009–10 to 2011–12. These cost increases reflect replacement of ageing infrastructure and new investment in capacity for peaks in demand.

Ensuring that regulatory settings in Australia's energy market are right will help ensure that networks deliver efficient and cost-effective outcomes for consumers (Australian Energy Market Commission 2012). The Council of Australian Governments (COAG) has requested a report from the Standing Council on Energy and Resources on the next phase of national energy market reform for consideration by the end of 2012. Our forthcoming Energy White Paper will outline our blueprint for progressing domestic energy market reform. It is essential that regulatory settings in this area are closely monitored to remove any unnecessary costs for Australian businesses and households.

Better planning and prioritisation of new infrastructure projects

Better planning of infrastructure projects will be essential to creating the right investment conditions for new infrastructure projects to be supported. This will involve long-term planning to guide infrastructure priorities, options for structuring projects to attract private capital and expanding the investment pipeline. A nationally coordinated approach to infrastructure will deliver greater long-term certainty for constructors, owners, investors and, of course, users.

National objective

3. Australia will implement a systematic national framework for developing, financing and maintaining nationally significant infrastructure that will assist governments and the private sector to plan and prioritise infrastructure needs at least 20 years ahead.

Infrastructure Australia has delivered significant outcomes to date, such as an infrastructure audit and development of a priority of pipeline projects and a policy and guidelines for public–private partnerships.

Yet, more can be done, particularly in defining priorities and ensuring strategic coherence for nationally significant infrastructure investment in agreement with the States and Territories.

Through COAG, governments have the opportunity to develop a nationally agreed set of infrastructure priorities. Some States and Territories have already released, or intend to release, long-term infrastructure plans. We will take these plans into account when considering our investment priorities in nationally significant infrastructure. Adopting a common framework and timeline across jurisdictions will allow for the development of a clear and strategic national hierarchy of infrastructure plans.

We will work, including through Infrastructure Australia, with States and Territories, the private sector and academic institutions to expand existing infrastructure plans by creating a long-term national infrastructure strategy that focuses on corridor planning, cross-jurisdictional networks and projects of national significance.

Such a strategy would be useful in developing a longer-term pipeline of projects and in reserving and developing nationally significant land corridors that will assist future project commencement. This approach will enhance the planning processes currently underway through Infrastructure Australia.

One factor in considering infrastructure needs is the level and distribution of Australia's future population. So far, there has not been a systematic process to ensure that the suite of localised infrastructure plans combine to capture the total national projected population. Over time, we will work to better coordinate and analyse data on the distribution of projected population growth throughout Australia and its implications for government services including infrastructure provision.

Even with better targeting of projects, simply building more publicly funded infrastructure will not be fully effective or sustainable. Not only would it be extremely costly and difficult in an environment where government faces many demands, building more infrastructure in highly developed cities like Melbourne and Sydney is not always technically feasible.

Part of the solution to Australia's infrastructure challenge is also to explore ways to better use existing infrastructure, including through adopting new technology that improves consumer choice through providing more information and intelligent transport systems (Infrastructure Australia 2008). We have implemented a number of initiatives to support smart infrastructure, including investing in the Australian Rail Track Corporation's Automatic Train Management System Trial.

Boosting private sector involvement in infrastructure

Governments alone cannot meet the infrastructure needs facing Australia. Privately provided infrastructure is necessary and desirable. Private sector involvement can improve efficiency through greater accountability, cost effectiveness and financial discipline (OECD 2008a).

To ensure a sustainable program of infrastructure investment, we will continue to develop new ways to attract and retain private sector involvement.

The 2011–12 Budget included several measures that reduce barriers to private investment in nationally significant infrastructure, such as removing impediments to companies carrying forward losses in the tax system, and indexing losses to ensure that their values are maintained over time.

And in May 2012, we launched the National Infrastructure Construction Schedule. For the first time, information on all major infrastructure projects worth \$50 million or more, planned or delivered by all governments, and encompassing energy, water, transport, communications and social infrastructure, has been brought together. This portal provides the private sector with more information about future opportunities for linking with major government infrastructure projects in Australia.

Good regulatory and policy frameworks—including contractual arrangements—are valuable in encouraging private investment in infrastructure. We will continue to sharpen the frameworks governing infrastructure provision and use across all classes of infrastructure, including promoting greater competition in retail energy markets, ensuring energy network investment is efficient and reviewing third-party access regulation.

Mechanisms to encourage superannuation funds to invest in infrastructure and to simplify public–private partnership (PPP) processes will also help encourage greater private sector involvement (IFWG 2012). Our Stronger Super reforms will assist by driving competition and consolidation in the superannuation sector. With greater consolidation, superannuation funds will be in a better position to invest in infrastructure assets.

The high cost of PPP bidding processes—and procurement costs across all forms of infrastructure procurement—has been identified as a barrier to private sector involvement in the financing of infrastructure projects. We are working with the States and Territories to improve approaches to managing demand forecasting and patronage risk for infrastructure projects. Work designed to remove incentives to overbid for toll-road concessions has been completed, drawing on international experiences. Addressing over-optimistic bidding is important to successfully engaging with the private sector to help fund and finance our major motorways. We will progress PPP reform through the National PPP Working Group.

Responding to land-use change

The competitiveness of cities is becoming increasingly important as modern, service-based industries become more important drivers of growth. These industries are far more flexible in their choice of location than industrial enterprises.

One factor affecting the productivity of cities is planning and zoning arrangements—an area of State and Territory government responsibility. States and Territories are working towards establishing simpler and more flexible land-use controls to reduce red tape, enhance competition, help free up land for a range of uses and give a greater role to the market in determining what those uses should be.

If Australia is to fully exploit the opportunities afforded by the Asian century, our planning regimes need to anticipate, rather than react to, change. The opportunities in mining, agriculture and tourism across the country will require State and Territory planning systems to be responsive to investment in these areas, including by ensuring that planning rules and practices do not inadvertently impede businesses or access to finance.

We will continue to work with the States and Territories to provide transparent and forward-looking analysis focused on improving the productivity, amenity and liveability of Australia's cities. This work will be advanced through relevant forums such as the Standing Council on Transport and Infrastructure.

5.5 Communications infrastructure

The internet has produced productivity benefits across the economy by allowing businesses to sell, locate and purchase supplies more easily, maintain real-time inventories and deal with customers more efficiently. The NBN will take this a step further.

Businesses and governments enjoying internet-related productivity benefits estimated at \$27 billion in 2010, the internet is now essential infrastructure for the Australian economy (Productivity Commission 2011b). The digital economy is influencing almost all sectors of the Australian economy, from health care to mining services. And a greater share of Australian spending is now occurring online—estimated at 4 per cent and rapidly growing (Productivity Commission 2011b). Importantly, it is also the vehicle for a large amount of modern innovation and new forms of social interaction.

A faster and more reliable network in Australia is necessary to grow online innovation and ensure continued access to the exploding global internet economy.

National objective

4. Australia's communications infrastructure and markets will be world leading and support the rapid exchange and spread of ideas and commerce in the Asian region.

Our reforms to the telecommunications sector through the rollout of the NBN and the structural separation of Telstra—separating the wholesale provision of telecommunications infrastructure from the retail provision of telecommunications services—provide the opportunity to create a level playing field and enable competition and investment to grow across the economy.

The NBN will provide high-speed broadband access for 100 per cent of Australian premises. Ninety-three per cent of homes, schools and businesses will get access to a fibre network capable of delivering broadband speeds of up to one-gigabit per second. The remaining 7 per cent of premises will be served by a combination of next-generation fixed wireless and satellite technologies providing peak download speeds of 12 megabits per second (NBN Co 2011).

The provision of ubiquitous, high-speed and reliable internet connections has the potential to change almost all facets of work and life. Broadband will bridge geographical barriers to Asian markets by allowing all Australian businesses and households to conduct more of their activities online.

The NBN will offer benefits across business, health, education and other services. High-performing videoconferencing will boost collaboration between researchers, community groups, schools and universities in Australia and with those in the Asian region.

The application of the NBN will expand over time and so we will continue to monitor potential barriers to its use along with barriers to expanding into new technological markets.

We are helping realise the productivity gains from this physical infrastructure and boost online security. These reforms and initiatives support the National Digital Economy Strategy, which aims for Australia to be a leading digital economy by 2020. Building on this, we are developing Australia's first White Paper on cyber and digital economy policy, which will provide an integrated policy framework to enable Australia to realise the benefits of the digital age—including security, telework, skills and encouraging innovation.

5.6 Building a strong, fair and sustainable tax and transfer system

The Asian region is becoming increasingly integrated. As Australia becomes fully part of the region, the choices businesses make about where to invest and do business, and some people's choices about where to work, will become more sensitive to tax policies.

National objective

5. Australia's tax and transfer system will be efficient and fair, encouraging continued investment in the capital base and greater participation in the workforce, while delivering sustainable revenues to support economic growth by meeting public and social needs.

We have introduced a range of tax reforms to support businesses to invest and adapt to take advantage of the Asian century. These include the instant asset write-off for small businesses which will help to simplify the tax system and promote new investment, and the loss carry-back scheme, which will help companies to retrain, retool and reinvest to take advantage of new opportunities.

We have also acted to encourage workforce participation and ensure a fair return for effort through significant cuts to personal income tax. We provided \$47 billion worth of personal income tax cuts in our first three Budgets, and have tripled the tax-free threshold from \$6,000 to \$18,200. Increasing the tax-free threshold will have the added benefit of making the tax system simpler, freeing up to 1 million Australians from having to lodge a tax return.

This reform will continue as we increase the tax-free threshold to \$19,400 from 1 July 2015. In future years our first priority will be to increase the tax-free threshold even further, to at least \$21,000, and to remove the Low Income Tax Offset entirely. This significant tax reform would mean better and more transparent rewards for work, which would mean more Australians in work.

The transfer system also has a significant impact on incentives to participate in the workforce. Our reforms to the transfer system will improve employment incentives for unemployed people, single parents, young people who are not earning or learning, and people with a disability. For instance, we will be reducing the taper rate for single parents on Newstart Allowance and increasing the amount of income that young people on Youth Allowance can earn before they lose benefits, which will substantially reduce some effective marginal tax rates.

As the Australian population ages, and as the impacts of Asia's economic rise flow through our economy, it will become more important than ever that we remove barriers that could prevent older Australians who want to remain in the workforce from doing so, especially given improvements in life expectancy and health. With this in mind, we have introduced new training opportunities and support for older

Australians who wish to continue to work, and have also reformed the eligibility rules and qualifying age for the Age Pension. We will also remove the maximum age limit on the Superannuation Guarantee, to increase the incentive for workers aged 70 and over to remain in the workforce.

At the same time we are delivering a better standard of living in retirement for current and future generations of Australians, with our historic increase in the base rate of the Age Pension and by gradually increasing the Superannuation Guarantee from 9 to 12 per cent from 1 July 2013 to 1 July 2019.

The efficiency and fairness of the tax concessions provided for superannuation contributions have also been improved, by increasing the concession received by low-income earners and reducing the tax concession received by very high-income earners. This will ensure they are more in line with the concession received by average income earners. These reforms, together with our Stronger Super reforms to improve the efficiency and integrity of the superannuation system, will be particularly important as Australia's superannuation savings pool continues to expand and as the system matures. Australia's younger generations are benefiting from the Superannuation Guarantee through their entire careers.

These are significant reforms to encourage investment in the capital base and participation in the workforce, while at the same time improving the fairness and efficiency of the tax and transfer system. However, it is important that this direction of reform continues. This will require concerted effort from all levels of government to maximise the efficiency of the tax system.

The Minerals Resource Rent Tax (MRRT), which seeks to tax economic rent from the extraction of Australia's mineral resources, is a good example of the reforms that have been made. Whereas state royalties are an inefficient means of raising revenue which distort investment decisions by penalising all mines, the MRRT is an efficient profits-based tax. The MRRT is one of nearly 40 reforms we have announced since May 2010 that progress recommendations in the Australia's Future Tax System Review. These reforms span personal tax and transfer payments, business tax, the superannuation system, environmental and social taxes, and tax system governance.

Tax reform is no easy task. It has the potential to alter the actual and perceived fairness of the tax system, its complexity, and how widely opportunity and risk are shared. Important discussions about tax and transfer reform have occurred through processes like the Business Tax Working Group, the Superannuation Roundtable and the Not-for-Profit Sector Tax Concession Working Group. We will continue to use working groups and roundtables for national conversations in the years to come.

At the same time, ageing and rising societal expectations are likely to put continued pressures on budgets. As with our previous reforms, future tax and transfer reform will need to be undertaken in a fiscally responsible way that keeps to our medium-term fiscal strategy and ensures the ratio of tax-to-GDP remains, on average, at or below the level that existed in 2007.

We will continue to examine, in consultation with the Australian community, ways to reform the company income tax system—paid for by savings from within the business tax system—in order to boost real wages through improved productivity. Business tax reform is a long-term agenda and our efforts must be mindful of the need to ensure Australia remains an attractive destination for globally mobile capital. This will become an increasing challenge for open and integrated economies such as Australia. Future discussion may need to take place on more fundamental changes to the company tax base.

Existing State and Territory tax systems rely heavily on inefficient taxes and structures, such as stamp duties and insurance taxes, that are not well placed to serve the Australian community over time. States and Territories will need to identify ways to phase out their inefficient taxes and make better use of their efficient tax bases, through processes such as the State tax plan being developed by the New South Wales and South Australian Treasurers, which provides States with a process that can explore how to better create a more efficient tax base within their own taxation systems. The ACT Government has recently shown that significant, progressive tax reforms can be proposed, without financial assistance from the federal government, if States and Territories are willing to make better use of efficient tax bases.

It will be important for the national debate about tax and transfer reform to be informed by independent research, which is why we are establishing a Tax Studies Institute. In addition to providing policy-relevant research about goals and transitional pathways, the Institute will also provide opportunities for collaboration and exchange across the region.

Tax and transfer reforms will be complemented by our broader participation agenda (Chapter 6).

5.7 Reforming regulation

Regulation covers almost all aspects of Australian social and economic activity and, if poorly designed, can act like a tax on business, raising costs and stifling innovation (Australian Government 2012d). We have frameworks to improve the quality of regulations and continue to refine them. But even regulations that were initially appropriate and cost-effective may not continue to be so over time. Markets and technologies change, as do people's preferences and attitudes. And the accumulation of regulations leads to interactions that raise costs (Productivity Commission 2011c).

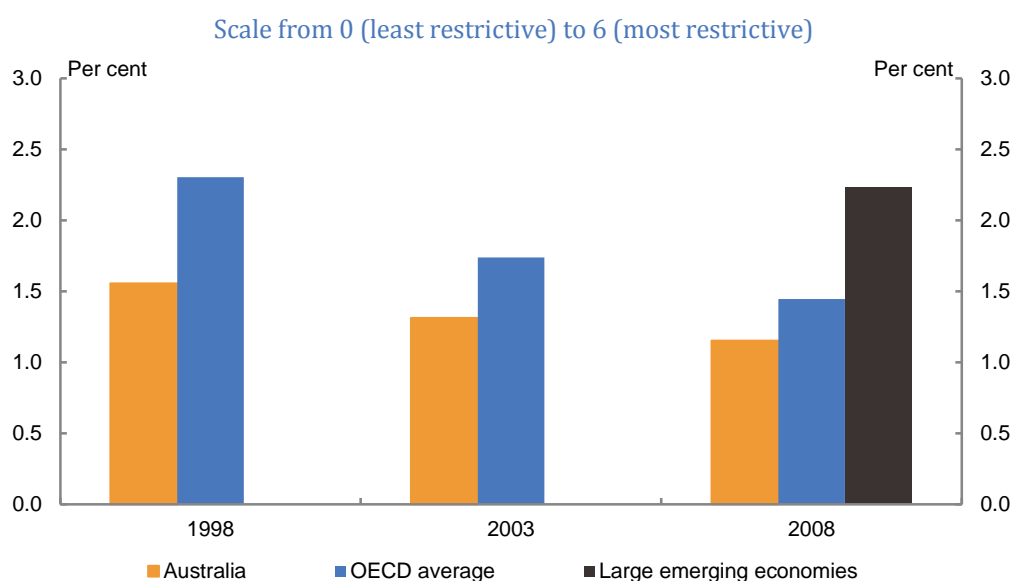
Better quality regulation decreases red tape, lowers business costs and increases labour mobility. Regulatory reform also removes regulatory barriers to competition, which, as is widely recognised, increases the incentive for firms to be innovative and boost productivity. An effective and consistent regulatory environment can increase investment confidence and make Australia attractive to globally mobile capital.

COAG's National Partnership Agreement to Deliver a Seamless National Economy has delivered a range of reforms to regulation and competition over the past few years,

including the national trade measurement system, the national health workforce registration and accreditation scheme, the Australian Consumer Law and related product safety reforms, and phase one of the consumer credit reforms. And there are more gains to be made—fully implementing just 17 of the 27 deregulation priority reforms being delivered under the National Partnership could ultimately provide cost reductions to business of around \$4 billion per year and, after an adjustment period, increase GDP by over \$6 billion per year in the longer term (Productivity Commission 2012a). The national occupational health and safety laws and the National Occupational Licensing System are two examples of the important reforms remaining.

As a relatively open and globally integrated economy, Australia will face an ongoing task to sharpen regulatory frameworks and reduce unnecessary burdens. The fact that many other countries are now reducing regulatory barriers and seeking to exploit the same opportunities in Asia adds to this need (Chart 5.2).

Chart 5.2: Australia's barriers to entrepreneurship are falling, but so are other countries'



Note: The indicator encompasses 'regulatory and administrative opacity' such as licences, simplified systems for permits such as one-stop shops, communication, simplification of rules; 'administrative burdens for start-up' and 'barriers to competition'. See glossary for definitions of country groupings.
Source: OECD (2008b).

National objective

6. Australia will be among the most efficiently regulated places in the world, in the top five globally, reducing business costs by billions of dollars a year.

Through COAG, we will work with States, Territories and key stakeholders to undertake an ambitious regulatory reform agenda to improve competition and productivity and reduce business costs by billions of dollars a year.

Our aim is that, by 2025, Australia will be in the world's top five for ease of doing business.

We will progress six priority areas of major reform to lower costs for business and improve competition and productivity, as agreed by COAG, following discussions at the Business Advisory Forum (COAG 2012):

- addressing duplicative and cumbersome environmental regulation
- streamlining the process for approvals of major projects
- rationalising carbon reduction and energy efficiency schemes
- delivering energy market reforms to reduce costs
- improving assessment processes for low-risk, low-impact developments
- best-practice approaches to regulation.

Related reforms will aim to reduce regulation, particularly for small and medium-sized enterprises, by removing overlaps in Commonwealth and State and Territory reporting obligations and expanding the use of online business reporting.

To support these reforms, a new National Productivity Compact on competition and regulation is being developed between the Commonwealth, the States and Territories and business. The Compact will set out principles for effective regulation and reform, and will include commitments for continued consultation with business on a new reform agenda and improved regulatory processes at all levels of government, as well as measures to ensure the hard won benefits of new national frameworks are sustained over time.

We will work through other COAG forums to pursue reform opportunities, such as those already identified by the Business Regulation and Competition Working Group and the Standing Council on Federal Financial Relations. The focus will be on high-value reforms and working in close consultation with States and Territories and with the business community.

5.8 Charting a sustainable course

Australia is rich in natural capital and environmental assets. From them Australia derives a large share of our wealth, including in agriculture, mining and tourism (Australian Government 2010). Australia has the world's largest economically demonstrated reserves of a number of resources, while the Great Barrier Reef alone adds more than \$5 billion to the Australian economy each year (State of the Environment Committee 2011).

As the urban middle class in Asia grows and demands more diverse and better quality goods and services, demand for Australia's minerals, agricultural commodities and tourism services is set to increase (Chapter 4). Growth in Australia's own population will put further pressure on our natural resource base.

But Australia's environment is crucial: it regulates the climate, purifies water, absorbs and transforms waste, prevents disease and provides the genetic resources that are the basis for many medicines (DEWHA 2009).

Australians need to manage our environmental assets sustainably to ensure the wellbeing of future generations is at least as good as ours. That means carefully considering the varied and often competing roles environmental assets play in Australia's economy and society.

Many of Australia's environmental assets are already under threat. The clearance of vegetation and degradation of natural habitats are threatening the continent's rich biodiversity. Water scarcity and pollution, and over time climate change, will add to these pressures. The costs to the Australian economy and the welfare of all Australians if these assets degrade further will be large. They are expensive, and sometimes impossible, to recover.

National objective

7. The Australian economy and our environmental assets will be managed sustainably to ensure the wellbeing of future generations of Australians.

We have put in place a number of environmental policies to redress and prevent further decline in the health of Australia's environmental assets. They include policies relating to climate change, biodiversity and water and soil management.

Acting on climate change

The world is warming, and high levels of carbon pollution risk environmental and economic damage. Australia is a hot, dry continent, so we face acute risks. Studies indicate that warming of more than two degrees Celsius runs the risk of overwhelming the capacity of many of the world's natural ecosystems (Hennessy et. al 2007).

The Clean Energy Future legislation is a comprehensive strategy to cut greenhouse gas emissions, introduce a carbon price, invest billions of dollars in renewable energy,

transform the energy sector away from high-emissions sources, and store millions of tonnes of carbon in the land through better land management. As well as being a cost-effective way to reduce Australia's carbon emissions, the Clean Energy Future package drives a large-scale transformation of the Australian economy.

Our plan for a clean energy future is contributing to international action as economies around the world move to low-emissions sources of energy. The Carbon Pricing Mechanism will facilitate a smooth transition by Australian businesses and communities to a low-emissions economy, in the context of increased global efforts to reduce emissions.

We are looking to integrate our emission reduction plans with others overseas where it is in Australia's national interests to do so. From 1 July 2015, the significant step of linking Australia's carbon pricing mechanism with the European Union's Emission Trading System will begin. Australia will continue to work with partners in Asia to build emerging carbon markets in the region (Chapter 8).

By 2025, Australia will have reduced emissions by at least 5 per cent below 2000 levels on the way to a clean energy future in which emissions are 80 per cent below 2000 levels by 2050.

Building on Australia's status as a world leader in the research and deployment of solar energy technologies, our aim is for Australia to become a world leader in the commercialisation and deployment of renewable energy technology and energy efficiency, with at least 20 per cent of Australia's electricity generated by renewable energy sources by 2020. And we are supporting the deployment of new technology through the \$10 billion Clean Energy Finance Corporation.

Acting on climate change requires global action, and many nations are adopting policies to reduce their emissions. Many countries in the region are equally concerned about the risks posed by climate change and have already begun to curb their emissions and make substantial investments in renewable energy.

Promoting sound water and soil management practices

The Asian century will increase the importance of managing water resources sustainably. While the link between water availability and agricultural production is well known in Australia, water is also required in all stages of mining production—for exploratory drilling, production and site rehabilitation, as well as in downstream processing. Many manufacturing processes and service industries use water as an essential input.

The level of sustainable extraction for many of Australia's water resources is being approached or exceeded (NWC 2011). The impacts of this are already evident in reduced water quality, salinity and threatened biodiversity. While these problems are primarily environmental, they could have adverse consequences for economic production because of water's role as an industrial input.

Better water management—involving cooperation with the States and Territories to increase environmental water flows, better understanding of water systems and improved water management arrangements, including reliance on water markets—has the potential to make better use of Australia’s available water resources.

Through the Water for the Future package, we are supporting improvements to the sustainable management of water resources.

A major component of the package is to provide farmers and communities in the Murray–Darling Basin with more confidence to plan for a future with less water, to put water use on a sustainable footing, to enhance irrigation productivity, and to improve river and wetland health. We will finalise and implement the Murray–Darling Basin Plan to ensure the basin can support productive communities.

Australia’s soil is a major national asset, driving our agricultural productivity and ability to be a net exporter of food. The potential for Australian agriculture to increase productivity growth while managing climate change and reducing greenhouse gas emissions will depend heavily on successful management of the soil resource base.

Most of Australia’s soils are ancient, low in carbon and nutrients, and poorly buffered. Erosion, soil carbon rundown and soil acidification reduce the land’s ability to support production, maintain resilience to climate change and provide ecosystem services, including clean air and water, to the Australian community.

Through the Caring for our Country program, we will invest in projects that encourage land management practices by farmers to improve the condition of Australia’s soil resource. This work will be complemented by investments under the Carbon Farming Futures program to improve soil management and for soil research, development and extension.

Preserving Australia’s rich biodiversity

Australia’s biodiversity is in danger—more than 1,700 species and ecological communities are known to be at risk of extinction.²

Threats to Australia’s biodiversity are largely the result of a long history of unsustainable use and management of natural resources, habitat loss, degradation and fragmentation, invasive species and changes to the aquatic environment and water flows. More recently, climate change has added to these threats (NRMMC 2010).

We are addressing these challenges. Australia’s Biodiversity Conservation Strategy 2010–2030 provides a guiding framework for conserving our nation’s biodiversity over the coming decades. The framework recognises the importance of increasing the use

² For details, see the *Environment Protection and Biodiversity Conservation Act 1999*—‘List of threatened fauna’; ‘List of threatened flora’; and ‘List of threatened ecological communities’.

of markets and other incentives, such as environmental stewardship payments, for managing biodiversity and ecosystem services. We are also seeking to protect biodiversity in the seas by implementing the world's largest marine reserve network.

This strategy is scheduled for review in 2015. So that meeting Asia's and Australia's own growing demands for non-renewable resources does not come at the expense of environmental sustainability, we will seek to ensure these risks are broadly assessed as part of the review.

We also support the ongoing development and use of environmental accounting in Australia.

5.9 Maintaining sound macroeconomic policy

Australia's macroeconomic frameworks and settings have worked well over the past two decades, with Australia having recorded more than 20 consecutive years of economic growth—a record unmatched by any other advanced economy over this period (Chapter 3). Sound macroeconomic frameworks and decisive policy responses have allowed Australia to successfully weather significant economic shocks, including the Global Financial Crisis. The Australian economy has also sustained the longest mining boom in its history, managing to convert high commodity prices into more enduring export capacity. This has been achieved at the same time as contained inflation and low unemployment.

Maintaining our macroeconomic policy frameworks is necessary as Australia's economy becomes more integrated with the fast growing Asian region. While Asia's long-term outlook is positive and the growth paths of emerging economies should follow a rising trend, there will be volatility along the way.

Australia has little direct influence on overseas economic volatility, but our robust domestic macroeconomic policy frameworks moderate the impact of any volatility on Australians.

Our macroeconomic framework comprises three pillars:

- a floating exchange rate that acts as a shock absorber for the economy
- independently operated monetary policy focused on managing the level of demand to keep the economy on a stable growth path consistent with low inflation
- fiscal policy that is focused on the medium term and responsive to the economic cycle, set within the Charter of Budget Honesty.

National objective

8. Australia's macroeconomic and financial frameworks will remain among the world's best through this period of change.

Sound fiscal management will continue to serve us well

At this time of ongoing global economic uncertainty—when concerns around governments' fiscal positions have been a cause of economic distress in many countries around the world—maintaining fiscal sustainability is crucial. Fiscal sustainability is essential to maintaining macroeconomic stability, reducing economic vulnerabilities, and achieving sustained growth in living standards.

Around the world, public finances that are viewed as unsustainable generate uncertainty, as governments are expected to act to secure finances by reducing expenditure or increasing taxes, or face the risk of default. A credible strategy to maintain fiscal sustainability, therefore, provides a positive foundation for long-term decision-making by households and businesses.

We give effect to promoting fiscal sustainability through our commitment to achieving budget surpluses on average over the medium term and to improve our net financial worth over the medium term.

In order to return the budget to surplus, we introduced a clear and credible plan with strict fiscal rules that included (1) allowing the level of tax receipts to recover naturally as the economy improves, while maintaining taxation as a share of GDP below 2007–08 levels on average, and (2) holding real growth in spending to no more than 2 per cent a year, on average, until surpluses are at least 1 per cent of GDP and while the economy is growing at or above trend. Our commitment to fiscal discipline, including the return to surplus in 2012–13, will ensure Australia's balance sheet remains one of the strongest in the developed world and will help maintain confidence in the strength of Australia's public finances—as reflected by Australia's AAA credit rating with a stable outlook from all three major credit agencies.

However, the return to surplus has been made more difficult by weakness in revenues. Tax receipts are now expected to remain well below the unsustainable peaks reached prior to the Global Financial Crisis. Despite these challenges, we are returning the budget to surplus in 2012–13.

Higher government saving over the medium term, consistent with our medium-term strategy, will also ensure we are better placed to deal with fiscal pressures arising from an ageing population.

We have introduced a number of enduring savings measures that will build steadily over coming years, providing ongoing improvements to the budget position and helping make room for emerging priorities, like school funding reform and the National Disability Insurance Scheme. These savings include progressively increasing the Age Pension qualifying age, means testing the private health insurance rebate, reforms to family tax benefit arrangements, dependent spouse tax offset and the Baby Bonus, better targeting the tax concession for living-away-from-home allowances and benefits, and reducing the contributions cap for superannuation and the superannuation concessions for high-income earners.

Proposal for saving through a sovereign wealth fund

With the return to surplus, our first priority is to strengthen our balance sheet by reducing net government debt from already low levels, while maintaining a liquid and efficient Commonwealth Government Securities market.

A number of submissions to the White Paper argued that sustaining the benefits of a high terms of trade, as well as managing its immediate macroeconomic effects, could be achieved by investing some portion of government revenues arising from the high terms of trade in financial assets through a sovereign wealth fund.

Such funds are employed by a number of resource-rich countries, such as Norway and Chile. Their sovereign wealth funds either build up financial assets for the long term or set aside revenues when commodity prices are high so that those revenues can be used when commodity prices are low.

But government revenues in these countries tend to be much more reliant on their resources sector. For example, oil and gas make up around one-third of Norway's total revenue, while in Chile, copper generates about one-fifth per cent of government revenue (Garton & Gruen 2012; IMF 2011). In contrast, Australia's mining sector contributes around 6 per cent of government revenue in 2008–09 (Garton & Gruen 2012).

Ultimately, the effectiveness of any sovereign wealth fund rests on underlying fiscal discipline that ensures national saving rises in line with unusually high revenues. Just as opening a new bank account does not compel an individual to save, the establishment of a sovereign wealth fund on its own does not compel public saving.

At the moment, we consider it unnecessary to establish a sovereign wealth fund.

Over the longer term, what we do with revenues would depend on what the economy needs at the time. Future surpluses could be used in three ways: to accumulate financial assets; to invest in productive non-financial assets, such as well-targeted investments in infrastructure and education; or to cut inefficient taxes. The latter two policies would, through different channels, lift Australia's economic growth and increase the income and wealth of future generations.

Enhancing the efficiency and resilience of Australia's financial system

Australia's financial markets—our banking, insurance and managed funds sectors—are open, stable, efficient and well regulated following decades of reform to deepen them, strengthen their resilience and make them more attractive to foreign investors. This also reflects the quality of the institutions Australia has created to oversee and regulate them, including the Reserve Bank of Australia, the Australian Prudential Regulation Authority and the Australian Securities and Investments Commission.

But the reform task is not complete.

Australia's financial markets will need to continue to evolve to be better able to withstand the sort of volatility experienced during the Global Financial Crisis, which threatened to deprive the Australian banking system of access to offshore wholesale funding with potential flow-on effects for the supply of domestic credit—we acted quickly to support the flow of credit during the Global Financial Crisis. Australian businesses and investors also need to be better able to manage global financial risk.

We are committed to ensuring Australia has access to well-managed and efficient financial markets offering a diversified range of financial products, with the risks and complexity associated with particular products both transparent and appropriately priced. This includes having an efficient and well-regulated funds management industry, with the value of funds under management doubling in size by 2025.

An important part of our commitment is fostering a stable and competitive banking system. To this end, we have implemented the Competitive and Sustainable Banking System reform package and are advancing the financial stability reforms agreed by G20 countries, including implementing the Basel III capital and liquidity standards. These reforms aim to further increase the resilience of the financial system—requiring a higher quality and quantity of capital—and enhance the ability of financial institutions to withstand funding stresses.

We are also working to ensure a more efficient superannuation system, following the Super System Review, to encourage greater retirement savings (SSRP 2010).

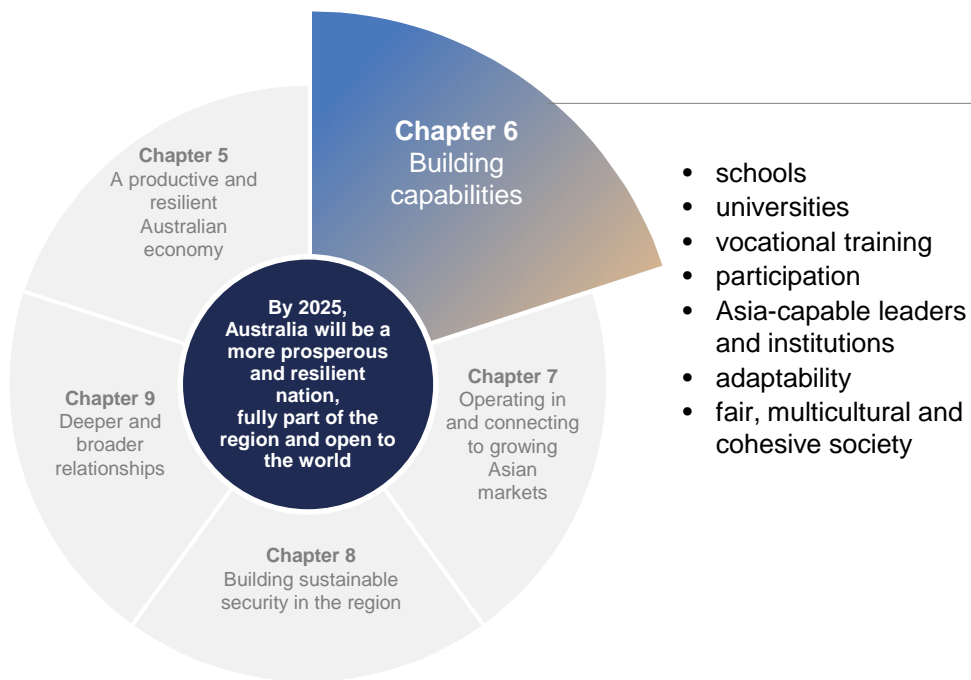
Looking further ahead, we will work to remove impediments to the emergence of a deep and liquid corporate bond market. An efficient corporate bond market will allow businesses to borrow directly from the market, reducing their need to rely on intermediated funding sources. This should also produce an attractive investment asset for superannuation funds, a significant domestic source of investment capital. As an initial step, we will be seeking to reduce regulatory complexity and costs associated with issuing corporate bonds to retail investors.

We are also moving to allow Commonwealth Government Securities, such as Treasury Bonds, to be listed on a security exchange. This will allow retail investors to diversify their investment options, and establish a more transparent risk-free rate of return, assisting the appropriate pricing of corporate bonds.

Other regulatory arrangements that drive an over-reliance on a particular source of funding or investment vehicle will also be examined. This will include regulatory burdens or barriers to greater financial market integration across the region.

Promoting open, well-regulated and resilient financial markets in our region will have flow-on benefits for the stability of Australia's own financial system. We will work with regional partners to this end (Chapter 7). Together, these efforts will help ensure sustainable, diversified and competitive financial markets.

Chapter 6: Building capabilities



Key points

Australia's future prosperity will be built on our strengths and capabilities.

Improving the capabilities of all Australians will raise our productivity performance and enable all Australians to participate and contribute in the Asian century.

Australians need to build 'Asia-relevant' capabilities—both broad-based and specialised.

Our skills and education systems play a fundamental role in ensuring that all Australians can develop the right capabilities.

We are improving the quality and accessibility of our skills and education systems, from early childhood through schools to tertiary education, to be among the world's best.

This requires a long-term effort by all governments, in partnership with business and communities.

Businesses, the public sector and national institution need to ensure they have the right mix of capabilities to seize the opportunities and make the most of Asia's rise.

We will work with our sectors and regions to help them adjust to change, take advantage of new opportunities and promote sustainable growth.

Australia's strong social foundations are the basis for our success in the Asian century, and we will continue to strengthen them.

6.1 Introduction

Central to Australia's future prosperity is lifting our productivity and participation by investing in our most important resource, our people. Improving the capabilities of all Australians will raise our productivity and enable all Australians to participate successfully, helping Australia seize the opportunities on offer in the Asian century.

Australia's education and training systems play a fundamental role in ensuring that all Australians have the right capabilities to take advantage of the Asian century.

Making sure we have world-class education is a central part of our strategy for economic success.

Australians need an evolving set of Asia-relevant capabilities that are both broad and specialised. Governments, businesses, institutions and individuals all have a role in building these capabilities.

Developing Australia's capabilities will require us, as Australians, to consider and in some instances to change the way that we do things, such as the way we educate ourselves, the way we do business and the way we operate our institutions.

These changes will continue to be based in Australia's strong foundations—our robust national institutions, our culturally diverse and outward-looking society and our strong economy—which are crucial to building these capabilities.

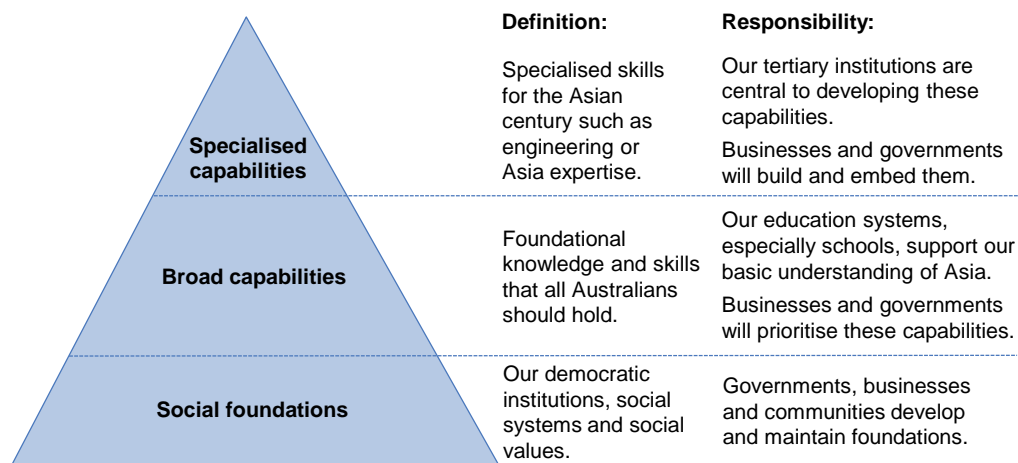
6.2 The capability of Australia's people and institutions

All Australians need the opportunity to develop broad-based Asia-relevant capabilities; some will go on to develop more specialised skills shaped by their individual choices and circumstances. Australia's education and training systems, from early childhood through schools and on to tertiary institutions, will be central to Australians developing these skills.

These Asia-relevant capabilities are critical—they are the fundamental skills and abilities that will drive Australia's economic and jobs growth in the years ahead. In addition to these real economic benefits, these capabilities will increase Australians' understanding of our region, preparing foundations for deeper and broader relationships and enriching our society and culture.

Asia-relevant capabilities include adaptability, flexibility, resilience, creative and design thinking and the confidence and readiness to interact with and operate in Asia (Figure 6.1).

Figure 6.1: Building capabilities for the Asian century



Some people will require more specialised Asia-relevant capabilities, including greater depth of expertise for specific jobs or technical requirements—such as high-level expertise for our scientists and innovators who will collaborate to problem-solve with colleagues from the region and our highly skilled engineers or legal experts who will work across regional borders.

Others will seek a more general understanding of the region. Asia and its many nations may be a conduit for new ideas, a source of new opportunities or a way to benchmark our achievements. For example, Australian teachers will exchange ideas and share resources on best teaching practices for subjects like science and maths. Sporting organisations and athletes will identify opportunities and develop partnerships by following the fast-changing sports environments in the region. And Australia’s tourism industry will benefit from investing time and resources into better understanding and catering to visitors from growing tourist markets such as India, China and Korea.

For business and government, Asia-relevant capabilities mean having the advisory, decision-making, cultural and representational skills to make informed decisions in an increasingly complex environment.

For the whole community, having a more broadly informed understanding of the region is both enriching and helps national engagement and deeper economic integration.

The role of schools

School reform

A world-class school system is essential to Australia's success in the Asian century. Improving the quality of all schools and lifting student achievement is critical for a fair and prosperous nation in which all students can grasp the opportunities ahead.

Education from early childhood through school is the foundation of a skilled workforce and a creative community. The higher a young person's literacy and numeracy skills, the more likely they are to continue at school, undertake tertiary study, and go on to high-skill, highly paid work. During the Asian century, the importance of education to Australia's economic performance will continue to grow. We can only remain a world-beating economy if we also deliver world-class education.

While many Australian schools currently perform well, as measured by PISA, Australia's results have fallen behind in recent years.¹ In particular, from 2000 to 2009, Australia experienced substantial declines in reading and mathematics performance matched by only three other OECD countries.² This decline appears to have occurred among all student groupings, although students from low socioeconomic backgrounds have the poorest educational outcomes (Gonski 2011; Nous Group et al. 2011).

Four of the five highest PISA performers are in our region (the Shanghai region of China, South Korea, Singapore and Hong Kong). The difference in performance is significant. For example, in Shanghai the average 15-year-old mathematics student is performing at a level two to three years, on average, above their age counterparts in Australia, the United States, the United Kingdom and EU21 countries (Jensen 2012).³

Information from My School and other international sources such as the OECD shows that the achievement gap linked to socioeconomic disadvantage is too great, and we must aim higher for every child in every school, particularly for poorer children and Indigenous children. By Year 3, 89 per cent of children from the poorest quarter of Australian homes are reading below average. By Year 9, the average child from the poorest quarter is two years behind children from the most well-off quarter of Australian homes in reading and maths. In very remote Australia, the average Indigenous child is still reading below a Year 3 level in Year 9.

1 Based on the most recent PISA survey, conducted in 2009. PISA is the OECD's Programme for International Student Assessment, which measures reading, mathematics and science literacy in a sample of 15-year-olds every three years.

2 The other three countries were Ireland, Sweden and the Czech Republic.

3 These are the 21 OECD countries that are members of the European Union and for which data is available or can be estimated: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Slovenia, the Slovak Republic, Spain, Sweden and the United Kingdom.

Currently, Australia is ranked 7th on Reading and Science, 13th on Mathematics and about 10th on providing a high-quality and high-equity education system.

Therefore, to achieve the level of educational performance needed in this century, the Government has set challenging national objectives.

National objective

9. To build the capabilities of Australian students, Australia's school system will be in the top five schooling systems in the world, delivering excellent outcomes for all students of all backgrounds, and systematically improving performance over time.

- By 2025, Australia will be ranked as a top five country in the world for the performance of our students in reading, science and mathematics literacy and for providing our children with a high-quality and high-equity education system.
- By 2015, 90 per cent of young Australians aged 20 to 24 years will have a Year 12 or equivalent qualification, up from 86 per cent in 2010.

While challenging, these objectives are within our reach—if governments, non-government education authorities, schools and their communities work together in the right ways, improvement will happen.

Australia has already begun delivering national reforms to improve the quality of schooling which are making a positive difference, including developing the Australian Curriculum, providing unprecedented levels of information on schools and their performance through the My School website, new professional standards for teachers and a stronger focus on effective teaching. These changes have lifted school performance in many places. For example, Currambine Primary School in Western Australia, with support from targeted Australian Government funding, saw a strong increase in the percentage of students in Year 5 performing above the national minimum standard for numeracy between 2008 and 2011—from 70 per cent to 93 per cent. Over the same period, literacy results for Year 3 and Year 5 students have also improved with performance above the national minimum standards in areas such as grammar and reading increasing by 10 to 15 per cent.⁴

To continue this improvement and achieve our national objective by 2025, we will legislate and deliver the National Plan for School Improvement, in partnership with States and Territories and non-government school authorities. The Plan will set out the reforms and actions that we need to improve performance and ensure that additional school funding is used to get better student results. That means focusing our actions in the areas where evidence shows the greatest difference can be made: improving the quality of teaching, delivering a high-quality curriculum, empowering principals to deliver school improvement and building strong partnerships with parents and communities.

⁴ Based on changes in NAPLAN Outcomes from 2008 to 2011.

Recent improvements in the performance of schools in the Asian region, and beyond, should be a source of learning for Australia. Australia has its own unique schooling system and not every approach would work here. But our schools can, and should, adapt the lessons of school systems in our region to drive improvements here at home, and to share our own successes with them (Jensen, 2012).

Every Australian child has the right to a world-class education, no matter where they live, the school they attend or their family background. The Australian Government is committed to a National Plan for School Improvement and funding Australian schools in a way that reflects the needs of each individual child. This will help every student get a great education and secure a good job when they leave school. It will help our economy stay strong.

Under this Plan, every child's education will be supported with a benchmark amount of funding through a new Schooling Resource Standard based on what it costs to educate a student at the schools we know already get strong results. Extra needs will be met through a system of 'loadings'—extra funding, per student, to help students from low socioeconomic backgrounds, Indigenous students, students with a disability and students with limited English skills, and to help with extra costs for small and remote schools. The loadings will be fully publicly funded at all schools, so that every student who needs more help will get it.

Under the National Plan for the School Improvement, every Australian school will have the money it needs to do a great job. Government schools will continue to be fully publicly funded. Like the current system, the public money provided to non-government schools would be adjusted based on parents' capacity to contribute to school resources.

The National Plan for School Improvement will be based on evidence of what we know works to improve results for children in every school in Australia.

The new requirements under the National Plan will deliver practical improvements to lift teacher quality, including requiring more classroom experience before graduation and higher entry requirements for the teaching profession.

Teachers will be of the highest calibre, and will have received the best training and support as new teachers. They will be continuously honing their skills and receiving structured feedback and support to help measure their skills and highlight areas to focus effort on. Every school will have a school improvement plan outlining the steps they will take to improve student results. These plans will be developed in consultation with parents and the community. Every school will look at its results each year and plan where and how it will do better.

More information about school finances, attendance, and teachers will be provided on My School. Schools will need to provide more information to parents to help them support their child's education.

Principals will be empowered to lead their schools, making decisions that get improvements unencumbered by bureaucracy. Under the Plan, school principals will get more authority over staff selection and budgets—including in staffing, maintenance and buying extra resources the school needs.

All schools will implement the Australian Curriculum in all subjects—meaning every student in Australia studies, and is assessed against, the same high-quality curriculum.

Schools will form strong partnerships with parents and the local community to work with students with disruptive behaviour or who are under-performing. Every school will need to include details on how they will work with parents on student behaviour, as part of their overall annual School Improvement Plan.

High performing schools will share their strategies for success with others. All principals will have information about best practice in driving school improvements, including innovative ideas from our best performing schools around the country.

Through this long-term approach to improving school performance, Australia can continue to build the capabilities that will underpin our success in the Asian century.

Asia-literacy in schools

As our schools improve, knowledge and understanding of Asia also needs to be a core part of what our students learn. Governments have laid down the foundations for this, especially through the Australian Curriculum. But we need to produce a step change in the understanding of Asia and the acquisition of Asia-relevant capabilities.

The building blocks to develop knowledge of the history, cultures, societies and languages of nations in Asia are laid at school. The diversity of Australia's population, which includes a large number of Australians born in Asia or of Asian descent, and the growing number of Australians who holiday in the region, provide some community understanding of the region. However, only a small proportion of Year 12 students study anything about Asia in the subjects of history, literature, geography, economics, politics and the arts under existing State-based curriculums (AEF 2012).

There have been various national and state education-based initiatives in recent decades to increase studies of Asia and language learning in schools (Box 6.1).⁵ These programs have had limited, localised success, but have not produced a significant cohort of young Australians completing secondary education with deep knowledge of our region or high levels of proficiency in Asian languages.

Most students in most highly developed education systems around the world are proficient in more than one language by the time they finish school, and many are proficient in three (AEF 2012). Many Asian school systems teach English, and some, such as Malaysia's and Singapore's, also teach other Asian languages. Countries in Europe and North America are also increasing their teaching of Asian languages. For example, Sweden has recently announced that Chinese (Mandarin) will be taught in all Swedish schools by 2020 (AEF 2012).

5 The National Asian Languages and Studies in Australian Schools (1995–2002) and the National Asian Languages and Studies in Schools Program (2009–2012).

Box 6.1: Asian languages in schools

States' and Territories' policies on teaching foreign languages differ as to whether or not a minimum number of minutes a week or hours a year are required, and what that number might be. This creates significant differences in student experience across States.

Several States have set up hubs and specialist schools, supported by start-up funding from the Australian Government. For example, Queensland has established 28 Asian learning centres in strategically located secondary schools. Each centre is a school of excellence for a particular Asian language. Western Australia has 24 hubs (107 schools), some of which are developing partnerships with schools and universities in China, Indonesia and Japan. South Australia is developing new pathways from different stages of education for languages. Tasmania has established a network of 'Connected Language Centres' that use new technologies to help language learning and professional development for teachers.

Several States, such as New South Wales, are negotiating with universities to ensure that teachers who wish to retrain as language teachers are given priority in the allocation of Commonwealth supported places and access to HECS-HELP, while the Australian Capital Territory conducts an Asian language teacher training program with an in-country immersion course. New online syllabus documents have been developed in Indonesian, Japanese and Chinese for primary and middle schools in the Northern Territory.

Some States are also looking beyond language programs. Victoria has launched the Leading 21st Century Schools Victoria: Engage with Asia program—a principal-led project to build a sustainable approach to developing knowledge of Asia and Australia's engagement with Asia across the curriculum.

By contrast the share of Australian students studying languages, including many Asian languages, is small and has fallen in recent times. Between 2000 and 2008, the share of Australian students learning a tertiary accredited language other than English in Year 12 dropped in a time where overall student numbers increased by almost 9 per cent. In 2008, less than 6 per cent of Australian school students studied Indonesian, Japanese, Korean or Chinese (Mandarin) in Year 12 (AEF 2012, MCEETYA 2008). Fewer Year 12 students studied Indonesian in 2009 than in 1972 (Hill 2012). And, while Japanese remains the most widely taught language in Australian schools, student numbers fell by 16 per cent from 2000 to 2008 (de Kretser & Spence-Brown 2010).

In recognising the need to build a sound knowledge of Asia in schools, the 'Asia and Australia's engagement in Asia' cross-curriculum priority will be embedded in the Australian Curriculum. The languages component of the Australian Curriculum will enable all students to learn a language other than English—a curriculum for Chinese (Mandarin) is one of the first in development.

We provide funding to the Asia Education Foundation to support the implementation of the 'Asia and Australia's engagement in Asia' cross-curriculum priority. The Foundation works with others, such as the Australian Institute for Teaching and School Leadership, to help build teachers' capacity to develop Asia-relevant capabilities for Australian students, and with Education Services Australia to develop digital resources and online professional support for teachers, including for implementing the Asia cross-curriculum priority and teaching Asian languages (Box 6.2).

While these initiatives are steps in the right direction, there is more to be done. Learning about Asia should be business-as-usual for every Australian school and every Australian student.

Box 6.2: Leongatha Primary School—connecting with Indonesia

Over 250 schools and more than 400 teachers across Australia, China, Indonesia and South Korea are involved in Australia–Asia BRIDGE School Partnerships,⁶ managed by the Asia Education Foundation and supported by the Australian Government. Teachers and students in Thailand will soon be involved.

The partnerships develop students' intercultural capabilities through a mix of language and cultural studies based on people-to-people exchanges and online collaboration.

For one school in particular, 'the BRIDGE project was an ideal opportunity to involve the school with Indonesia. We wanted to go beyond the walls of the school, beyond our area, and indeed beyond Australia.'

Irene Beasley is the only teacher of Indonesian at Leongatha Primary School in Gippsland, in the heart of Victorian dairying country. Leongatha Primary is partnered with SD Pondok Labu 11, a school in the bustling 10 million-strong metropolis of Jakarta. The two schools connect classes through Skype. This enables the children to have authentic, real-time, face-to-face conversations. 'We try to speak Indonesian at our end and they speak English,' Irene said. The students investigate and use a range of Web 2.0 technologies to exchange their ideas, interests and information about their country and culture. These exchanges have led to regular teacher exchanges, and in 2012, to the first student exchanges.

She reflected on the genuine engagement fostered between her students and their counterparts in Jakarta. 'We've moved from being an isolated school to being part of the wider global community, and that's really important for the 21st century.'

The BRIDGE program demonstrates the potential of technology to enable innovative learning strategies that overcome barriers and borders, creating a truly global classroom.

⁶ The BRIDGE program began in 2008 as an initiative of the Asia Education Foundation and the Australia–Indonesia Institute, with funding from the Australian Government and the Myer Foundation.

The capacity for Australians to build deeper ties with Asia will be hampered if there is not an increase in proficiency of languages other than English. Relying on the language capabilities of Asian-Australians for all of Australia's relationships and engagement will not be adequate. Proficiency in more than one language is a basic skill of the 21st century.

National objectives

10. Every Australian student will have significant exposure to studies of Asia across the curriculum to increase their cultural knowledge and skills and enable them to be active in the region.

- All schools will engage with at least one school in Asia to support the teaching of a priority Asian language, including through increased use of the National Broadband Network.

11. All Australian students will have the opportunity, and be encouraged, to undertake a continuous course of study in an Asian language throughout their years of schooling.

- All students will have access to at least one priority Asian language; these will be Chinese (Mandarin), Hindi, Indonesian and Japanese.

Each of these goals will be achieved, over time, by ensuring Asian literacy and languages are a core part of the Australian school system through full implementation of the Australian Curriculum. Every school system and every government in Australia has a stake in achieving these goals. To ensure we track how we are increasing Australians' knowledge of Asia, we will improve measurement, in consultation with States and Territories and non-government education authorities.

We aim to embed these goals by making sure that every Australian student has continuous access to high-quality Asian language curriculums, assessment and reporting in priority Asian languages. We are working to make this access a core requirement through new school funding arrangements between the Australian Government, the States and Territories and non-government education authorities.

We will also lead a collaborative process with the State and Territory governments, non-government education authorities and tertiary education institutions to develop detailed strategies for studies of Asia to become a core part of school education and to encourage the take-up of Asian languages through innovation and best practice. These strategies will include ways in which the NBN can be used to support studies of Asia.

Initial efforts should include a particular focus on working with business, the university sector and the community to boost student demand by increasing understanding of the benefits of studies of Asia, including Asian languages, among students, principals, parents, businesses, employers and the community. For example, the Asia Literacy Business Ambassadors initiative involves almost 300 ambassadors.

These ambassadors demonstrate to more than 13,000 secondary school students around Australia how Asia-literacy skills have assisted their careers.

While priority languages in school education should be Chinese (Mandarin), Hindi, Indonesian and Japanese, governments should continue to support efforts to increase the study of other languages such as Korean, Vietnamese and Thai. The selection of priority languages reflects those nations where the majority of opportunities will be available to Australians in the Asian century (chapters 2, 4 and 9).

Other efforts to support high-quality studies of Asia will need to focus on the quality of teaching. Strategies should also make better use of existing Asian language capabilities in the Australian community (AFMLTA 2012).

Achieving significant gains in the level of Asian literacy and Asian language skills of Australian students will require governments, school systems and schools to share responsibility for ongoing leadership and commitment.

The role of tertiary education and training systems

Reform of the higher education sector

Australia has a world-class university system. In 2012, after the United States and the United Kingdom, Australia has the third-highest number of universities in the world's top 100 (ARWU 2012).⁷ We are committed to reforms to deliver the best possible higher education for more Australians to meet Australia's future economic needs.

National objective

12. Australia will remain among the world's best for research and teaching in universities, delivering excellent outcomes for a larger number of Australian students, attracting the best academics and students from around the world and strengthening links between Australia and the region.

- By 2020, 20 per cent of undergraduate higher education enrolments will be people from low socioeconomic backgrounds, up from 17 per cent in 2011.
- By 2025, 40 per cent of all 25 to 34-year-olds will hold a qualification at bachelor level or above, up from 35 per cent in 2011.
- By 2025, 10 of Australia's universities will be in the world's top 100.
- A larger number of Australian university students will be studying overseas and a greater proportion will be undertaking part of their degree in Asia.

⁷ The 2012 Academic Ranking of World Universities placed five Australian universities in the top 100.

We will continue to implement and pursue reforms to achieve these goals. For example, the recently introduced demand-driven funding system for undergraduate courses at public universities means that the type and amount of teaching will vary over time in response to need and demand. The Government has created an extra 119,000 student places since 2007. This is allowing an extra 150,000 students to study. An estimated 548,000 places will be funded at public universities in 2012, with 512,000 being undergraduate places.

At the same time, we are committed to improving quality. We will work with the higher education sector to improve the reach, quality, performance and flexibility of Australia's higher education system. This includes establishing the Tertiary Education Quality and Standards Agency and equity and structural adjustment funding arrangements.

The higher education sector contributes significantly to building Australian capabilities. For more than 60 years, Australia's universities have also built capabilities in students from Asia. In 2011, there were more than 550,000 international student enrolments (77 per cent from within the Asian region) in Australian education institutions. They contributed more than \$15 billion to the Australian economy in 2011, making education Australia's fourth-largest export (AEI 2011; DFAT 2012; Austrade 2011). More than this, international students in Australia enrich our social and cultural understanding of the region and deepen and broaden relationships. These connections have enduring value.

The International Education Advisory Council, established in 2011, will continue to advise us about the challenges and opportunities facing Australia's international education sector. The advice of the Council, which includes input from providers and students, will help to inform the development of a national strategy to strengthen the sector, in particular looking at its long-term quality and sustainability.

High-quality research is an important part of Australia's world-class university system. We are committed to supporting and expanding Australia's research capabilities to improve Australia's knowledge and skills base and to drive innovation. Our agenda includes actions to increase significantly the number of Australia's higher degrees by research and efforts that focus on supporting business innovation. Getting the link between research and innovation right will be critical for Australia's success in the Asian century.

Our researchers and institutions will also increasingly need to link with their regional counterparts. Countries in the region are focused on making rapid improvement to their universities, and investment in the capacity of Asian institutions to conduct sophisticated research is increasing quickly (Levin 2010). Australian universities are already increasingly engaged in research, collaboration and engagement in the region, with substantial success; for example, the University of Sydney's level of research collaboration with Asian academics resulting in publications has almost trebled in eight years (University of Sydney 2012).

Stepping up these kinds of efforts will ensure that Australia contributes to, and benefits from, regional and global research. We will continue to support, through the Australian Research Council and other mechanisms, high-quality research by Australian publicly funded research organisations and stronger research and teaching links with the region.

Asia specialists in the higher education sector

Australian universities have a strong reputation for knowledge and scholarship about Asia. But the share of tertiary students undertaking language studies has declined over the last decade for some priority Asian languages. For example, from 2001 to 2010, university enrolments in Indonesian dropped by 37 per cent, against a 40 per cent increase in total undergraduate enrolments (Hill 2012).

In other priority languages, such as Chinese (Mandarin), there have been some positive gains in student enrolments. These largely reflect the growing number of Australians of Chinese background and students from China studying in Australia (McLaren 2011). While these gains are important, they have been accompanied by a stagnation or decrease in the proportion of students from non-Chinese backgrounds learning Chinese (Mandarin). This highlights the importance of flexible teaching methodologies and pathways that cater to students' varied learning backgrounds.

In response to the need to build a broader base of students for the future, many universities are initiating structural changes to increase support for students to develop Asia-relevant capabilities (Box 6.3). Some have recently increased language studies by making curriculum changes and introducing new interdisciplinary course structures. For example, since 2007 the University of Melbourne has required undergraduate students to complete a major and undertake study outside their primary discipline. This has significantly increased the take up of Asian languages—a 79 per cent increase in Chinese, 64 per cent increase in Japanese and 33 per cent in Indonesian (University of Melbourne 2012). Similarly, the University of Western Australia has promoted new course structures for language learning, and in 2012 enrolments increased so dramatically that in some cases demand exceeded teaching supply (UWA 2012b).

Together with universities, we support in-Asia study by Australian students as a way of developing Asia-relevant capabilities, regardless of the field of study. In-country study allows students to experience another culture, develop skills and directly build relationships that are likely to last a lifetime (Chapter 9).

One successful model for in-country learning is the Australian Consortium for In-Country Indonesian Studies. This international consortium, which involves 25 universities, is hosted by Murdoch University and assists Australian and other foreign students to study in Indonesian universities (ACICIS 2012).

To significantly boost in-Asia study by Australian students, we will work with universities to forge closer links with regional institutions and improve access (Box 6.3).

Box 6.3: Universities are preparing Australia for the Asian century

Australia's universities have earned international recognition for their knowledge and scholarship about Asia. That expertise extends across the country, from the University of Sydney's China Studies Centre to the new Brisbane Universities Language Alliance. Universities also reach out beyond the campus and develop partnerships with the community. For example, Asialink, supported by the University of Melbourne and the Myer Foundation, has worked with business, government, philanthropic and cultural partners to initiate and strengthen Australia's Asia engagement.

The Australian Government created the Australian National University (ANU) with a large and special Asia-focused mandate after World War II. The ANU has committed to bringing its considerable Asian research and studies assets to the task of building capabilities for the Asian century.

Some of the immediate initiatives that are part of this are:

- expanding its suite of in-country study options and making the facility available to students from other universities
- expanding national access to Asian languages through online delivery of a new Diploma of Asian Languages, and extending its Asian Studies teacher training and outreach program for schools
- developing the National Young Leaders Program to bring together young leaders from Australia and the region, and expanding its National Parliamentary Internships Program, which will place students into the personal offices of leading legislators in Asia
- developing the Commonwealth-sponsored national Public Policy Fellows Program, to bring high-calibre officials from Asian countries to the ANU for intensive periods of research and engagement on major policy problems.

We will provide more financial support and information for students who study in Asia. And we will support universities to increase the number of students who undertake Asian studies and Asian languages as a part of their university education, using the NBN and digital technology.

In addition, we will encourage every Australian university to have a presence in Asia and to establish an exchange arrangement, with transferable credits, with at least one major Asian university.

Following the 2012 APEC Summit in Vladivostok, APEC members agreed to examine ways to better facilitate mobility of students, researchers and education providers in the region, providing opportunities to enhance educational cooperation within the region.

Australian universities will also need to form partnerships with business and other institutions in the community to enable all parts of Australia to build Asia-capable communities and workforces.

Reform of the vocational education and training system

Australia's national vocational education and training system is important for providing more people in Australia with the skills they need, including developing Asia-relevant capabilities (Box 6.4).

National objective

13. Australia will have vocational education and training systems that are among the world's best, building capability in the region and supporting a highly skilled Australian workforce able to continuously develop its capabilities.

- By 2020, more than three-quarters of working-age Australians will have an entry-level qualification (at Certificate III level or higher), up from just under half in 2009.
- Australia's vocational education and training institutions will have substantially expanded services in more nations in the region, building the productive capacity of the workforce of these nations and supporting Australian businesses and workers to have a greater presence in Asian markets.

We are pursuing these objectives together with the States and Territories through the \$1.75 billion Council of Australian Governments' National Partnership Agreement on Skills Reform, which makes a number of fundamental changes to ensure more Australians receive higher quality, innovative vocational education and training, such as delivering an entitlement to skills training for all. Supporting reforms include initiatives to improve the quality of teaching and assessment; the Australian Skills Quality Authority, which will ensure higher quality standards across the sector; and better information on training courses and providers through the My Skills website.

Governments and industry need to continue to work together to address Australia's changing skills needs. The new Australian Workforce and Productivity Agency will improve long-term workforce planning and development. It will ensure our investment in training delivers the skills that industry and the economy need, in the right place at the right time.

Box 6.4: A traineeship helped take Daniel from Illawarra to China

Daniel Taylor was named the 2010 Trainee of the Year in the Illawarra region and was a finalist for the 2010 NSW Trainee of the Year Award. During his traineeship in Process Manufacturing Certificate III, Daniel was employed by Edmen Recruitment. His host employer was Calderys Australia, a refractory business in Unanderra, where he is now permanently employed.

Daniel was promoted to production supervisor in 2009 and manages site staff, production issues and goods logistics. Calderys was so impressed by Daniel's dedication that they flew him to a sister plant in China last year for quality control training using state-of-the-art equipment. Daniel says, 'This was an amazing experience, to learn about a new culture, and see the differences in the way they work.'

Daniel hopes that with his willingness to continue learning and his dedication so far, he will in the future be able to relocate to one of the company's overseas sites to learn about other applications and work processes.

Source: NSW Government (2012).

Vocational education and training connections in the region

Asia's rise is presenting opportunities for Australia's vocational education and training institutions to develop deeper connections and partnerships in the region.

As economies in Asia develop, many have ambitious plans to upgrade the skills of their workforces. Australian vocational education and training providers are already working in Asia with local students and partners to deliver skills training. The majority of programs are currently in China, though expanding across the region, and often deliver Australian qualifications (Box 6.5).

Together with firms and Australian industry partners, we will be working through regional forums and bilaterally to build in-country partnerships and to develop complementary skills and qualification assessment and recognition. This will allow businesses and individuals to work across regional borders, sharing skills and experience within the strong oversight that exists across Australia's skilled migration programs.

For example, through the East Asia Summit, Australia is collaborating with South Korea to build a Regional Network of Technical and Vocational Education and Training providers. The aim is to exchange ideas, share knowledge and expertise and form institutional partnerships (DIIS RTE 2012).

Stronger connections and relationships between Australian Industry Skills Councils and Australian industry and their counterparts in the region will progress compatible skills standards and build mutual recognition arrangements which will over time make it easier to work across borders.

Box 6.5: India—investing in human capital

The Indian Government has set an objective of upskilling 500 million people in India by 2022. India has sought international partnerships to help it reach the goal, including by creating a regulatory environment that enables international institutions to participate in public–private partnerships.

The Australian Trade Commission (Austrade) and Australian industry are working together to implement a range of offshore education and training models with Indian counterparts. Examples of collaboration include in-company training, the provision of vocational education and training courses in specific towns and regions, and the delivery of Australian qualifications in a range of industries, including retail, hospitality, education and health.

Through such efforts, Australia is advising on skills development and policy frameworks, training content aligned to industry needs, faculty, certification, accreditation, technology frameworks, delivery mechanisms and monitoring tools.

One Australian company group doing this is the Leighton Group, which is one of the world’s leading contracting, services and project development organisations. In 2010, after seeing a gap in the capabilities of Indian recruits, Leighton set up a trades training school to arm new recruits with basic Australian qualifications (Certificate I) in construction trades, such as carpentry, masonry and scaffolding. Leighton is building Indian capacity while improving its own quality of work and the value of Australian qualifications (AEI 2011).

Participation

Access to education and training systems that are among the world’s best will give each Australian the best opportunity to develop the capabilities needed to get highly skilled, well-paid jobs and contribute to Australia’s success in the Asian century. This applies to all Australians, from our children who are developing capabilities for the first time, to our already skilled Australians who wish to extend their capabilities.

Learning new capabilities and improving existing capabilities is vital as jobs in coming decades will likely require new and different skills—new jobs will be created which do not exist today, and more traditional jobs will require Australians to have new capabilities.

Increasing participation will help Australia adjust to the likely pressures of an ageing population (Chapter 4). Many of our reforms to the tax and transfer system are designed to reduce the negative participation incentives created by the interaction of personal income taxes and the withdrawal of transfer payments, and ensure a fair return for effort, such as the trebling of the statutory tax-free threshold from \$6,000 to \$18,200 (Chapter 5).

It is important to effectively support job seekers to re-enter the workforce. Job Services Australia is the national employment services system which has been a key part of our employment record. It provides jobseekers with personalised help to find and keep a job. We are investing \$6 billion in Job Services Australia over the next four

years. And we have also introduced Disability Employment Services, which will deliver more effective employment assistance for job seekers with disability.

For those who face specific barriers to participating in the workforce, changes have been made which boost support to help those individuals overcome these barriers. These changes sit alongside clearly defined responsibilities to participate in work and improve skills. Some examples of this include specific support and requirements for jobless families, in particular disadvantaged communities to help them break the cycle of joblessness, and additional attention and support from government service providers for vulnerable job seekers. And we are working to ensure that carers have the same opportunities as other Australians to participate fully in work through the National Carer Strategy.

Assistance to access affordable and high-quality child care is important to the workforce participation of parents, and also plays an important role in supporting the development of children, particularly those from disadvantaged backgrounds. We have improved the affordability of child care for parents by significantly increasing the rate of Child Care Rebate from 30 to 50 per cent, and boosted funding for Jobs, Education and Training Child Care Fee Assistance.

Australia's employment policies need to provide the appropriate incentives to encourage mature age Australians to continue contributing to the community and the economy. To provide this support and encouragement, we have been delivering a range of reforms to maximise the workforce potential of senior Australians.

We announced a \$41 million response to the final report of the Advisory Panel on the Economic Potential of Senior Australians. This includes the establishment of an ongoing Advisory Panel on Positive Ageing that will raise awareness and lead a national dialogue on ageing issues, including how best to harness the economic and social opportunities presented by an older population.

And we are investing \$26 million over four years in the Mature Age Participation–Job Seeker Assistance Program to provide additional assistance for eligible mature age jobseekers and providing additional support through the National Workforce Development Fund to improve the skills of mature age workers, aged 50 years and over, consistent with their workforce development needs.

Business capabilities

Just as people will need to build their capabilities, so too will businesses to succeed in the Asian century. Businesses are increasingly outward-looking, innovative and capable of adapting and responding to change. More will require cultural and language skills to collaborate and partner in the region. They will need more staff who are flexible and responsive to customer needs. This applies to business of all types, from small and medium-sized enterprises right through to larger corporations, and across the breadth of sectors.

The productivity and profitability of firms are closely correlated with the culture of the workplace, the corporate leadership style and the way work is organised,

including employee-level participation in decision-making, strategy and skills utilisation (Boedker et al. 2011).

Some businesses are adapting well to the opportunities presented by the Asian century. For example, many businesses in the trade-exposed manufacturing and services sectors are re-evaluating their business models. Some firms are finding ways to adapt by anticipating changes in their markets, managing their exposure to risk, building the talents of their people and constantly improving their productivity. More businesses will need to adapt if Australia is to make the most of the opportunities in the Asian century.

Indeed, while Australia generally rates above average in international comparative studies of management practices, there is always scope to improve. For example, a 20-country comparison of medium to large manufacturing companies found that Australia's management practices in an overall management assessment⁸ ranked below those of other countries such as Canada, Germany, Japan, Sweden and the United States (Bloom et al. 2012).

To support the development of high-performing organisations, we are committed to getting the domestic economic framework right by improving settings for infrastructure, innovation, tax and employment (Chapter 5). We have a number of supporting mechanisms directed at improving business capability and performance to improve access to markets in the region (Chapter 7).

Asia-capable workplaces

Organisations that are successful in the Asian century will need staff who have specific knowledge of the products and markets of Asia, along with the cultural and language capabilities needed to be active in the region. International evidence connects language capabilities with export success, and shows losses where companies lack skills to overcome language and cultural differences (Sen 2012).

National objective

14. Decision makers in Australian businesses, parliaments, national institutions (including the Australian Public Service and national cultural institutions) and advisory forums across the community will have deeper knowledge and expertise of countries in our region and have a greater capacity to integrate domestic and international issues.

- One-third of board members of Australia's top 200 publicly listed companies and Commonwealth bodies (including companies, authorities, agencies and commissions) will have deep experience in and knowledge of Asia.
- One-third of the senior leadership of the Australian Public Service (APS 200) will have deep experience in and knowledge of Asia.

⁸ The overall management assessment was based on three elements: monitoring management, targets management and incentives management.

Business recognises the need for these capabilities. Asialink, a body that includes senior business, industry and education leaders, has called for Australia to increase the number of workplaces that can attract, use and retain Asia-capable talent—people who have the ‘knowledge, skills and mindset’ for successful engagement in Asia (Asialink 2012). This is supported by survey data that shows a strong correlation between Asia-relevant capabilities and business success in and with Asia. And this data suggests that a large share of businesses consider that they do not have enough leaders with the experience needed to engage with Asia adequately (Asialink 2012).

Businesses are taking action, and some are already well advanced, but more needs to be done (Box 6.6). Asialink’s Asia Capable Workplace Taskforce (Asialink Taskforce) is driving the development of a strategy to increase the Asia capabilities of the Australian workforce. The Asialink Taskforce is developing measures of Asia capabilities through the Asia Capable Workplace Framework. There are six elements in this framework: strong leaderships and vision, talent development and retention, productive local partnerships, aligned internal culture, knowledge of the local environment, and supportive systems and processes (Asialink 2012). The breadth of the framework recognises that business success in the region will not be solved by acquiring a single generic ‘Asia-relevant capability’, but by each business assessing its circumstances and tailoring capabilities accordingly.

As a step towards this goal, we encourage listed company boards to include more business people with direct expertise from within the region. And we ask the Australian Institute of Company Directors to consider integrating Asian cultural competency training into its company directors training courses. In addition, to track the rise in Asia-relevant capabilities, we encourage leading peak business organisations to report annually on progress against this goal. One mechanism could be by cooperating with the ASX Corporate Governance Council to incorporate into its principles and recommendations reporting on business practices and processes to promote relevant Asian expertise and knowledge.

Australia’s institutions and organisations, such as the labour movement organisations and civil society organisations, can also play a role building Asia-relevant capabilities and deepening our connections into the region. It will be important for the leaders of these organisations to enhance their own capabilities so they can understand the changes and the responses required to allow Australian workers to benefit from the opportunities which flow from the Asian century. For example, Australia’s trade union organisations can facilitate this through greater regional expertise and building stronger partnerships in the region.

Box 6.6: ANZ—building a ‘super regional’ bank

ANZ is pursuing a strategy to build a ‘super regional’ bank by growing its business across Australia, New Zealand, Asia and the Pacific. ANZ is expanding in high-growth Asian markets and high-growth industries with strong exposure to the region, including natural resources, agriculture and infrastructure.

ANZ’s success in Asia is underpinned by a number of factors, including product innovations and a client-centric culture that offers integrated services across the region. In particular, ANZ regards its human resources strategy as essential to building a strong, sustainable business. They recognise that a culturally diverse, inclusive and engaged workforce with a ‘wide-angle lens’ view of the world is critical to be able to understand and support customers who do business within and across the Asia–Pacific region.

ANZ views employee diversity—different perspectives and experiences—as a competitive source of innovation that can help open up new markets and business opportunities. This approach has focused on attracting and developing leaders with strong cultural capability, emotional intelligence and flexibility, and who have the ability to get the best out of people from diverse backgrounds. ANZ has sought to appoint and develop Asia–Pacific ‘insiders’—people who understand the client and how to operate in key markets in the region. The bank has done this by recruiting people within local markets as well as rotating senior leaders through its Asia–Pacific network.

Today, 71 per cent of ANZ’s top 120 executives have significant international experience and the organisation continues to actively attract and develop future leaders with diverse cultural backgrounds and language skills (with a requirement of international experience/mindset). Fifty-one per cent of ANZ’s 2011 graduate intake in its Australian and New Zealand operations have languages in addition to English.

As ANZ builds the diversity of its workforce, it is focused on improving cultural awareness, capability and inclusiveness among teams, celebrating cultural diversity, and building relationships with customers and communities from diverse backgrounds.

Asia-capable public institutions

Not just business, but high-performing organisations of all kinds, will need staff who can operate comfortably in the region. This includes our public institutions so that public decision-making is closely informed by knowledge of the Asian region. For example, the Australia and New Zealand School of Government has collaborative public sector leadership programs with China and Indonesia. This type of peer-to-peer collaborative learning, sometimes known as ‘twinning’, helps professional and community-based organisations build relationships and expand their Asia-relevant capabilities (AVI 2012; Chapter 9).

Multiple pathways, some of which will develop from the relationships and types of collaboration outlined above, will be needed to achieve this goal. Such pathways would be valuable for the media and community group sector (Chapter 9).

In the public sector, we will ensure that our ministers build stronger ministerial relationships through more regular engagement with their counterparts in Asia to pursue policy outcomes. The Australian Public Service (APS) also needs to develop Asia-relevant capabilities to improve the quality of its policy advice. As Australia becomes more integrated with its neighbours, the lines between domestic and international policy are increasingly blurred. Asia-relevant capabilities will be required right across the public service, including among the leadership of the APS and beyond traditional 'external facing' institutions. Officials will need to understand how Australia's domestic policy objectives intersect and are shaped by global and regional factors and how domestic policy objectives can be achieved by looking out to the region and beyond. Service delivery and regulatory agencies are likely to require increased cross-cultural awareness.

Policy officers will require a more sophisticated understanding of the region, as well as Asian language proficiency, to ensure that governments are better engaged with the region, can collaborate with nations in Asia on policy issues of mutual interest, are better able to link domestic, regional and international aspects of policy advice and program delivery, and better able to support business and the broader community in making the most of the opportunities in the region.

The building blocks are in place in the APS. The Australian Public Service Commission partners with agencies to develop the fundamental skills that will underpin an Asia-capable APS.

To further develop the APS's Asia-relevant capabilities, the Secretary of the Department of the Prime Minister and Cabinet and the Australian Public Service Commissioner will lead the development within 12 months of a strategy to strengthen the APS by improving capabilities for integrated policy analysis, problem solving and implementation across domestic and international matters. The strategy will embed practices that ensure international and domestic policy outcomes are considered together in the development of government policies.

A number of APS agencies already have exchange and collaboration programs with their regional counterparts. The Department of Defence, for example, currently facilitates major programs of senior and working-level exchanges. There are also some training programs in place. For example, the Leading Australia's Future in the Asia-Pacific program provides opportunities, in partnership with the ANU, for APS leaders to deepen their understanding of the region.

As a further step, we will support building stronger relationships through the development of interactive programs and regular exchanges of senior officials at mid-career points, including through the university sector.

6.3 Adaptability

The rise of Asia, and other factors such as technology, will continue to change the structure of Australia's economy (Chapter 4). These changes bring opportunities and challenges to which people, businesses and institutions need to adapt.

National objective

15. Australian communities and regions will benefit from structural changes in the economy and seize the new opportunities emerging in the Asian century.

Building on existing social systems and support for businesses, we will continue to work with communities, regions and sectors to help them better manage structural change in the economy and take advantage of new opportunities, and we will continue to create environments that promote sustainable growth and jobs. We will also continue to work cooperatively with industries and firms to develop strategies for ensuring those same outcomes.

Greater labour mobility can reduce the impacts of change at both the regional and household levels. Some barriers to mobility are natural, such as people's unwillingness to leave family and support networks. But some are artificial, such as the differences in the recognition of skills and qualifications across jurisdictions, differences in education systems and the perceived liveability of cities and regions, where the availability of housing and access to high-quality services such as schools are real considerations for most people.

Australians are quite mobile in the way they change jobs, occupations and industries. But more can be done to enhance labour mobility. We are working to reduce artificial barriers, through national licensing for selected occupations and support for job seekers to relocate. In addition, our focus on higher quality and consistent education and training is likely to improve labour mobility as well as connecting people with new job opportunities through employment services.

Structural changes to the Australian economy present challenges and opportunities. Some regions and sectors have seen strong growth in population, employment and income while others have faced stiff global competition. The uneven impact on different communities and regions underscores the importance of tailoring approaches to take into account differing circumstances.

One region that has seen strong opportunities from recent economic changes is Darwin (Box 6.7). An alignment of policies supporting development, coupled with a clear vision, provide real opportunity to shape the direction of Darwin's future.

Together with business and the Northern Territory Government, we will work, over time, to accelerate Darwin's evolution as a sophisticated, liveable city built around a gateway to Asia, and as a regional hub for a significant number of goods and services. We will do this through coordinated infrastructure, planning and international engagement activities. Learning more from this experience, we, together with

States and Territories, will explore options to extend this strategy to other well-positioned, high-growth centres in northern Australia as well as other regions across Australia with growing links to Asia.

Box 6.7: Darwin's evolution

Darwin is unique among Australian cities in its capacity to transform itself in coming decades because of its proximity to Asia, natural attributes, potential sites for new ports and expanding liquefied natural gas processing industry. Closer to Jakarta than it is to Sydney, Darwin has great opportunities to become a world-leading centre for engineering, financial, medical and education services. It is on the cusp of evolving in the same way as Singapore, which has used its location to become a modern thriving city with high-quality housing, services and quality of life.

Natural resources developments are leading the transformation of Darwin, which is experiencing an investment boom that is driving and diversifying its economic expansion and creating thousands of new jobs. With access to rich gas fields off its coast, land to process the gas onshore and ports close to its central business district, Darwin is poised to reap substantial benefits. Not only will it help meet Asia's growing demand for energy, it has the capacity to become a centre for gas industry services and for vocational education for students from Asia.

To achieve its potential, Darwin will need all levels of government to work together with a strategic focus on infrastructure, skills and liveability. This includes ensuring that amenities, services, skills and infrastructure are aligned with business investment and population growth. Careful and coordinated planning will help Darwin create opportunities for Indigenous Australians, maintain affordable housing and attract a highly educated permanent workforce.

Decisions made today will shape the direction of the city for decades to come.

6.4 Social foundations

Australia's social foundations, with support from governments, will continue to be a basis for Australia's success.

National objective

16. By preserving and building on our social foundations, Australia will be a higher skill, higher wage economy with a fair, multicultural and cohesive society and a growing population, and all Australians will be able to benefit from, and participate in, Australia's growing prosperity and engagement in Asia.

To achieve this objective, all governments and communities must maintain and support Australia's stable, liberal democratic institutions and laws.

We will maintain Australia's world-leading social systems, including pensions and family support, to assist people who need them.

Despite Australia's broad prosperity, not everyone enjoys access to the same opportunities. A small but significant number of people experience multiple disadvantages, particularly those in the lowest socioeconomic groups who live in disadvantaged areas. In some areas this inequality has widened in recent years (ASIB 2012). Australia ranks 21st out of 29 OECD countries on employment participation rates for those with disability (PwC 2011), and the gap between Indigenous and non-Indigenous Australians over a range of health, education and other indicators is still far too wide (Australian Government 2012b).

To help address these gaps in opportunity, we will pursue long-term social reforms and investments to provide the services Australians need. Long-term reforms include health and aged-care reform and implementation of the first stage of the National Disability Insurance Scheme. This scheme will fundamentally change how governments deliver disability care and support to improve the lives of people with disability and their families.

Maintaining Australia's social cohesion is essential. Australia's openness to migration and cultural diversity have delivered social and economic benefits and influenced how we see ourselves, our neighbours and the world—and how the region and the world sees us.

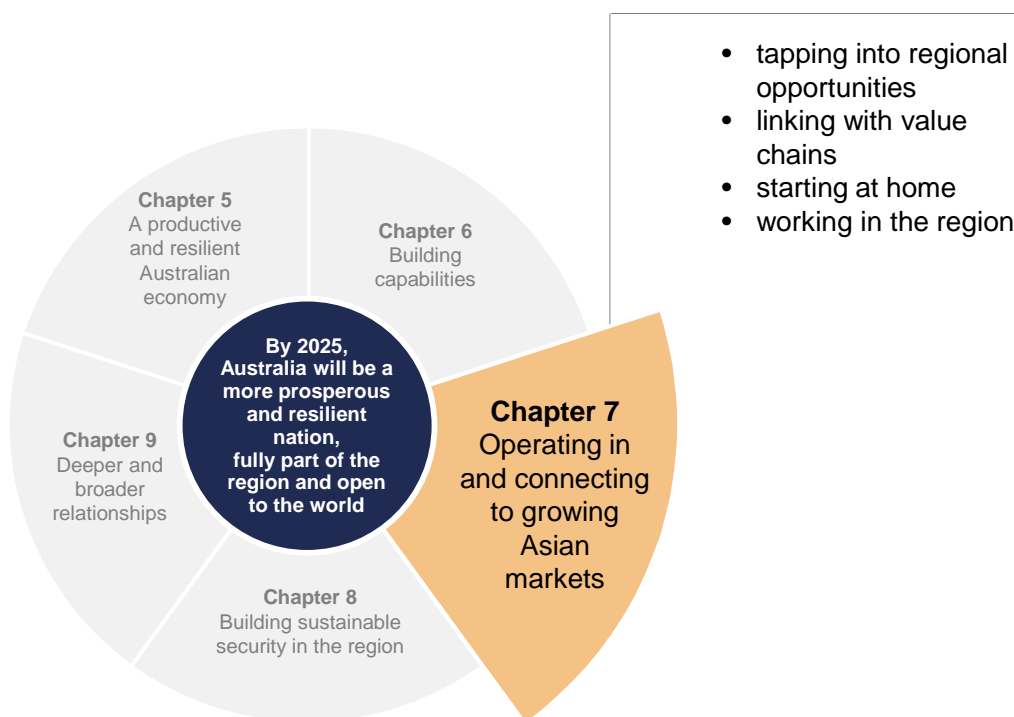
As Australian society evolves and more people from the region and elsewhere visit, work and live in Australia, an ongoing commitment to promote a cohesive and multicultural society through continued efforts to combat racism and close the gap with Indigenous Australians is necessary. Adhering to this commitment requires involvement from all levels of government, together with businesses and communities.

Australia's culturally diverse population, including the large number of Australians living and working in Asia, is a distinct competitive advantage. Australia should draw on and nurture this advantage through continued support for a wide range of connections with the region. These include migrant communities in Australia, Australians living abroad, people who have lived or worked here, and others who have a special connection with Australia and Australians.

Australia's recognition of dual citizenship for Australian-born citizens and for migrants to Australia has helped to promote these links and supports mobility in the region. Our flexible and responsive migration frameworks also support these.

We remain committed to ensuring that our migration programs, particularly for skilled migrants, are flexible and responsive to Australia's changing needs. For example, the temporary skilled migration ('457 visa') program is demand driven, making it highly responsive to economic conditions, while strong oversight of the program and minimum training benchmarks for sponsors preserves the work and skills opportunities for Australians. Recent reform in the permanent skilled migration program includes a stronger focus on English language proficiency, on-the-job work experience and higher levels of education. We will continue to assess and review our migration programs through mechanisms such as the Long-Term Migration Planning Framework and continued consultation with stakeholders.

Chapter 7: Operating in and connecting to growing Asian markets



Key points

Australian businesses and their employees can be big winners from the Asian century, with new and expanding opportunities for our miners, manufacturers, farmers and a broad range of service providers.

To make the most of these opportunities, Australian businesses must become fully part of the region, adjusting their strategies, linking with regional value chains and developing long-term relationships.

Australian businesses need to continue developing products, services and expertise that are valued in Asia—by innovating and by understanding the diversity in demand, conditions and customs.

The Government will work with businesses, especially small and medium-sized enterprises, to build their capabilities, identify opportunities and open markets.

We will work with industry to raise awareness of the opportunities available to firms from Asia of doing business, and partnering, with Australian businesses, focusing on Australia's many areas of strength.

We will work at home to support Australian businesses—welcoming foreign investment and reducing tariffs and other barriers to the movement of goods, services and people.

But even the most competitive Australian businesses cannot participate in the Asian century if they are locked out of markets.

The Government will work beyond Australia's borders to strengthen regional economic and financial architecture, increase openness to trade and improve outward investment opportunities for Australian businesses across the region.

We support the ambition of a free trade area for the Asia-Pacific and will traverse various pathways in order to bring it to completion, including through the Trans-Pacific Partnership Agreement, the Regional Comprehensive Economic Partnership and expanded agreements involving countries in the Association of Southeast Asian Nations.

We are committed to concluding high-quality agreements with China, India, Indonesia, Japan and South Korea and a regional trade agreement in the long term.

The Government will press for early completion of agreements on trade facilitation as part of the Doha round and on services under the auspices of the World Trade Organization involving 46 economies, and negotiations on agriculture liberalisation.

Collaborating with governments within the region will be vital to securing greater accord between our arrangements and those of our neighbours.

7.1 Introduction

The Asian century offers a wealth of opportunities for Australian businesses and consumers as the flow of goods, services, people and capital increases between Australia and the region.

Economic integration with Asia and openness to the region have been beneficial for Australian businesses and consumers (Chapter 3).

Greater openness within the region, more sophisticated and affordable communications and transport systems and rising incomes will bring closer connections and increased demand for more diverse goods and services (Chapter 4).

Australia's domestic market supports many Australian businesses, but the region provides scope to sustain, transform and grow many more, no matter what their size.

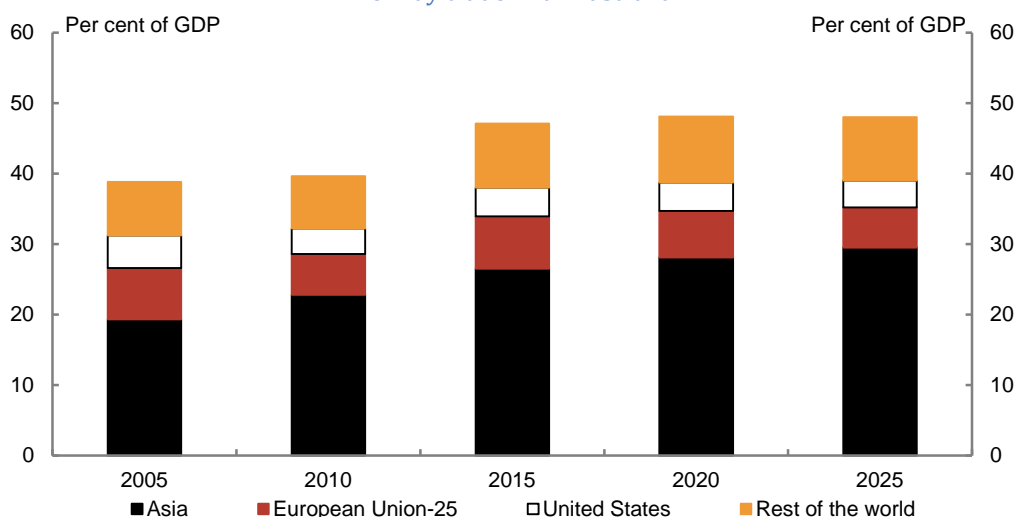
Governments and businesses will need to work together to seize these opportunities. The region will be a highly competitive environment as businesses from around the world seek to secure similar opportunities.

Australian businesses need to build on their existing advantages by developing new capabilities and approaches as they become fully part of the region.

7.2 Tapping into regional opportunities

The rise of Asia presents Australian businesses with many new opportunities, as cross-border flows of goods, services, people and capital increase (Chapter 4). Australia's trade with Asia will grow strongly (Chart 7.1), as will our investment flows.

Chart 7.1: Australia's trade links
Two-way trade with Australia



Notes: Consistent with the business-as-usual scenario (Chapter 4). See glossary for definitions of country groupings and the details of the Treasury projections.
Source: Treasury projections based on ABS data.

National objective

17. Australia's businesses will be recognised globally for their excellence and ability to operate successfully in Asian markets.

Australian businesses will be quick to recognise opportunities as they emerge and have both the understanding and capacity to adapt to the way business is done across the region. This means more Australian businesses, including small and medium-sized enterprises, will be integrated into Asian markets.

They will build on existing advantages, including in mining, agriculture, finance, design, construction, health and aged care, education, professional services and tourism, to deliver the products and services that are valued in Asia. They will continue to innovate and develop long-term relationships.

Australian businesses and their employees will improve their Asia-relevant capabilities by investing in people and knowledge to support expansion of their businesses (Chapter 6). The diversity within the region means there is no standard model.

Many businesses have made these connections already. Their knowledge will be invaluable to others seeking to develop new business models (Box 7.1).

Box 7.1: Building links internationally

The Mahindra Group, a multinational based in India, employs more than 100,000 people worldwide. It enjoys a leadership position in utility vehicles, tractors and information technology, and has a growing presence in financial services, tourism, infrastructure, trade and logistics. When Mahindra decided to expand into the aerospace sector, it looked globally for investment prospects and found its perfect match in two established Australian aerospace companies.

In 2009, Mahindra took a majority stake in Gippsland Aeronautics and Aerostaff Australia. Gippsland Aeronautics is an established brand, having delivered more than 200 aircraft in 32 countries. Aerostaff Australia is a highly regarded manufacturer of high-precision close-tolerance aircraft components and assemblies for major players, such as Boeing and Lockheed Martin.

Mahindra was well aware of Australia's general advantages through previous investments, and was drawn to Gippsland Aeronautics' highly skilled and multilingual workforce and research and development capability.

Mahindra has retained key management personnel in both companies. Gippsland Aeronautics' staff has more than doubled to around 155 people since Mahindra became involved and it is investing for long-term growth.

This investment is a valuable opportunity for Australia's aerospace sector to build its international presence. Austrade worked closely with Mahindra to provide advice and assistance on the investment process and introductions to contacts in the Victorian Government and other professional service providers.

While Australian businesses will be at the heart of this push, we will support their efforts—particularly small and medium-sized enterprises—to access these opportunities, through capacity-building, reducing the costs of doing business in Australia, welcoming foreign investment and working to open regional markets to trade and investment.

Linking with regional and global value chains

The capacity of Australian businesses to become fully part of regional and global value chains will heavily influence their success in the Asian century, and will also influence wealth and job creation in Australia. East Asia leads the world in such value chains. While Australia has achieved an increase in Australian-produced elaborately transformed manufactures to China and commodity exports to countries in the Association of Southeast Asian Nations (ASEAN) (Durban & Paterson 2011), we have relatively low participation in these value chains—something that must change (OECD 2012d).

Cross-border value chains are proliferating across all sectors of the international economy, including services. This trend is set to continue in coming decades, with the business models supporting these arrangements varying from fully vertically integrated corporate structures to contractual networks.¹ There is no single approach.

Increasingly, legal, accounting, engineering and design services will be supplied across national borders. For example, the Ford Ranger vehicle was designed in Australia and is produced across the global Ford production network, including in Thailand, and is sold in 180 countries.

Structural change in response to technology and changes in relative costs is not new for Australian businesses and is likely to continue. Business strategies and operating models will continue to respond. For example, the opportunities provided by the increasing sophistication and affordability of information and communications technology, particularly for service provision, are there for all. Many businesses have recognised these opportunities and are managing complex changes to their business models to secure them.

Integrating with regional value chains provides Australian industries with the opportunity to build on their strengths and expand their businesses. Australian businesses are already identifying those elements of value chains—from conception to production to consumer—where they have a comparative advantage. Traditionally, this has been at the start of these chains, providing minerals and agricultural products. These industries will remain important, but opportunities are increasingly likely to come from the efficient delivery of high-value-added inputs focused on

1 For example, Swedish furniture company IKEA has for years outsourced manufacturing to subcontractors in countries like Poland and China, retaining design engineering in Sweden. See also the Blundstone Australia example in Chapter 3.

customer demand in Asia, particularly for services (chapters 2 and 4). Capturing these opportunities will require a highly skilled labour force, access to technology, a strong focus on service provision and deeper engagement with Asian customers so as to understand and meet their requirements (Chapter 6).

Recent competitiveness studies suggest that Australian businesses can further enhance their international outlook and management experience, business systems and connectivity to suppliers and the region. This necessity is reflected in Australia's relatively low rating on the development of value chains (see, for example, CPA Australia 2012).

The value chain model is driving regional specialisation. Specialised production hubs are one possibility that Australian businesses should explore. These hubs involve a clustering of specific production steps in a particular region or country—for example, where transport or overhead costs are reduced or technology spillovers are enhanced by co-location (Athukorala 2010). Australia needs to prioritise cluster strategies, based on strong supplier networks and greater inter-firm cooperation (CPA Australia 2012).

Choices over the location of business activities, especially in the region, are also a factor for the competitiveness of Australian businesses. In many cases, cross-border partnerships, mergers or acquisitions will be necessary to build sufficient scale to be regionally competitive (Box 7.2). For example, BlueScope Steel, Australia's largest steel manufacturer, recently reconfigured its Australian operations and formed a joint venture with the Japanese company Nippon Steel to improve domestic growth and access new Asian markets, including Brunei, Indonesia, Malaysia, Singapore, Thailand and Vietnam, and to secure a greater presence in the United States (BlueScope Steel 2011).

Australian businesses are recognising the benefits of building commercial links with businesses in other countries—collaborating rather than competing to offer goods and services that align with areas of comparative advantage. For example, Australian financial services providers are increasingly targeting their products to complement other regional financial services centres.

In this environment, strategies to manage business risks and pressures that can arise from more sophisticated and integrated value chains are necessary. Disruptions to the global automotive components system following the earthquake and tsunami in Japan and the floods in Thailand in 2011 illustrated the importance of such skills and relationships (Boao Forum for Asia 2012). Building redundancy and resilience into value chains will be necessary, as will having a diverse set of partners and suppliers.

Strong relationships with these partners and suppliers will be essential.

Box 7.2: Accessing cross-border value chains—Binder Group

The Binder Group, established in 1982, is one of the world's leading designers, manufacturers and suppliers of pipe support and pipe suspension systems incorporating the latest technology in accordance with international design codes. Binder's systems are used in heavy engineering to secure and keep pipes in place.

Binder understood that to be a long-term sustainable manufacturer it needed to expand internationally, offer a cost-competitive product and be the supplier of choice to multinational customers.

Binder worked hard to develop exports by researching international markets and developing relationships with multinational customers. It accessed the global supply chain by continually 'knocking on the doors' of major engineering procurement and construction companies, getting added to approved vendor lists and developing a strong network of agents in target markets.

Using the latest design software, Binder can integrate with many of its customers' design packages to provide a seamless service that adds value and removes the time-consuming task of support design. The company has production spread across national borders. Its Perth factory focuses on short lead-time, high-flexibility products, and its joint venture manufacturing facilities in Indonesia allow it to compete in markets where price is a major factor.

Doing the homework and building up an international presence has paid dividends. Binder supplies the world's top 30 engineering companies and has worked with companies such as KBR, Bechtel, Saipem and Toyo. It has completed projects in the Middle East, Southeast Asia, Japan and South Korea.

Binder's competitive advantage is that it is a long-term global player offering bespoke solutions with a track record of projects; it also offers a competitively priced world-class product. The company has a strong international reputation and network of agents and has at various times been assisted by Austrade—through the Export Market Development Grants scheme—and the Export Finance and Insurance Corporation.

The Government will create a domestic environment with stable systems and a strong productivity agenda that allows Australian businesses to expand into regional markets, through policies based on improving skills and education, better planning of infrastructure investment, greater innovation and reducing regulatory burden (chapters 5 and 6). We will also work to increase market information and access.

And businesses can help each other. Some Australian businesses, including banks and suppliers of professional services such as legal and accounting services, can do a lot to help others become part of the region. In particular, they can and are assisting small and medium-sized enterprises to connect with potential customers and business partners in the region.

Building deeper business partnerships in the region

Australian businesses expanding into Asia cannot rely solely on strategies developed for the domestic market. Building a successful business in Asia requires an ability to establish and adapt relationships with regional partners and customers. Strong relationships are particularly important in the Asian market—business relationships cannot be established by a single visit, transaction or acquisition.

Some Australian businesses are deepening their relationships with Asia by ensuring that their senior management teams or company boards include people with Asian capabilities and experience, and that those skills are recognised and valued within the business. This trend has scope to broaden across industry sectors, and move beyond business leaders and large companies to form part of the business strategy for small and medium-sized enterprises looking to enter regional markets (Chapter 6).

Relationships across borders can be reinforced through a range of mechanisms, including joint ventures, local agents and direct ownership—the same mechanisms for joining regional and global value chains.

Australian businesses recognise that their approach must be based on a good understanding of the region, including an awareness of cultural differences across Asian countries and the impact these may have on social and business relationships (Box 7.3). Having leaders with cultural knowledge, language skills or experience in Asia are factors that will contribute to Australia's success.

Box 7.3: Linfox in Asia

Linfox is Australia's largest privately held logistics company. It delivers supply chain solutions across the Asia-Pacific region, including domestic transport and warehousing, cold-chain support and supply-chain network design.

Linfox first established operations in Asia in 1984. Today it operates in 10 countries, including Thailand, Malaysia, Indonesia and China, and has around 12,000 staff based in Asia. Its operations in Vietnam and India have recently grown rapidly. Its Asian business is profitable and growing twice as fast as its non-resource Australian business. Central to Linfox's success in Asia is a keen understanding of the cultural, political and business practices in each area of its operations.

Linfox's strategy, in Australia and abroad, has been built on developing an effective business model and staying with it. This strategy includes not compromising on critical elements of the model such as a commitment to safety, fair work practices and respectful staff relations. Building and maintaining long-term relationships with business partners and customers has also been important. The Linfox model demonstrates that applying best international practice along with deep regional knowledge can deliver a competitive advantage in business.

Businesses that are successful in Asia understand the importance of reciprocity and of differences in negotiating styles and social norms across Asian cultures, show courtesy in their relationships, and demonstrate a commitment to fostering and developing these relationships in both personal and professional dimensions (BCG 2012; UGM Consulting 2012; RBC 2012).

Businesses that understand their markets will be best able to tailor their products and capitalise on opportunities. Services sectors, in particular, rely on the ability of business to understand and engage with Asian economies and communities. Tourism, education, financial services, retail and information technology require a high degree of personal interaction. In many cases, building local teams has been important for success (BCG 2012).

Bilateral business councils, chief executive officer and similar forums, and industry and professional associations can support Australian businesses to network and make enduring regional connections.

Organisations, too—such as the Australian Petroleum Production and Exploration Association, the Australian Services Roundtable, the Business Council of Australia, CPA Australia, Engineers Australia, Master Builders Australia and chambers of commerce—can forge effective partnerships with international counterparts. Some of these associations have been pioneers in building bridges with Asia (Box 7.4). For example, over the past 50 years, the Australian Chamber of Commerce and Industry has provided support to the Australia Japan Business Co-operation Committee, which meets annually with Japanese counterparts at the top levels of business.

Opportunity exists to further leverage the capabilities and connections of Australia's business organisations. Through our Asian Century Business Engagement Plan, and with the support of the Austrade network, we will support the activities of Australia's member-based business groups to develop and execute projects to strengthen their long-term engagement in the region. This would see Australian businesses more effectively access in-market networks, develop new relationships with potential partners in Asian economies and help identify and secure more opportunities for Australian businesses to compete and succeed in regional value chains.

Box 7.4: A history of engagement—CPA Australia

CPA Australia's involvement in Asia began in the late 1940s, in an era when many nations in the region were newly independent or approaching independence and needed business institutions, infrastructure and processes to promote economic growth. A strong accounting profession was central to achieving those aims. Its approach is focused on forging strong formal and informal relationships with local professional bodies, universities and government agencies.

Today, it has 33,000 members in Asia, and offices in Beijing, Guangzhou, Hanoi, Ho Chi Minh City, Hong Kong, Jakarta, Kuala Lumpur, Shanghai and Singapore, among others. In Vietnam, CPA Australia has an agreement with the Ministry of Finance to help develop an international best practice legal framework to govern the local accounting and auditing profession. This will deliver results for the Vietnamese economy, and for Australian businesses looking to operate in Vietnam.

7.3 Starting at home

To secure the opportunities emerging in Asia, Australia needs to have in place border controls that do not impose unnecessary barriers to cross-border activity, and that support Australia's economic integration with the region.

The Government will remove unnecessary regulatory impediments and disincentives to doing business in Australia and moving goods, services, people and capital across our borders. While there are legitimate reasons for certain measures, these will be examined against the benefits that further economic integration brings.

Maintaining Australia's reputation as an attractive place to invest is crucial to our future. We will ensure that Australia remains open to investment from across the region and the globe.

We will work to further enhance Australia's reputation as a preferred business destination. Australia tends to do well on competitiveness and similar indices overall, but the results across individual elements can be highly variable (CPA Australia 2012). We cannot afford to be complacent, but should focus on building on Australia's existing advantages and improving our performance in areas where we are doing relatively less well.

Our domestic policy priorities are to meet our commitments to lower remaining tariffs, improve regulatory frameworks (particularly in support of greater financial integration), make the movement of low-risk goods and people easier, maintain consistent and transparent foreign investment screening and ensure that our regulations are well understood by domestic and foreign companies.

Appropriate infrastructure—airports, ports and communications systems—is essential to enabling effective cross-border trade and travel (Chapter 5). These facilities need to link into regional networks.²

National objective

18a. The Australian economy will be more open and integrated with Asia, through efforts to improve our domestic arrangements. The flow of goods, services, capital, ideas and people will be easier.

- Australia's trade links with Asia will be at least one-third of GDP by 2025, up from one-quarter in 2011.

To support these efforts, we will place regional economic integration at the centre of decision-making processes (Chapter 6). The relationship between our policies and regulations and those of our neighbours will be examined and we will look to the region, as well as across the globe, for better ways of doing things.

² Our Aviation White Paper sets out national priorities for the industry, including the coordination of airport planning and investment (Australian Government 2009).

We will work closely with Australian businesses, particularly small and medium-sized enterprises, to build their capacity to access emerging opportunities.

Continuing to lower our tariffs

Australia already has some of the lowest tariffs on industrial and agricultural products in the world. The Government will continue scheduled tariff reductions, such as the reduction of textile and clothing tariffs as well as those associated with commitments made to our trade partners in bilateral and regional agreements.

Ensuring the efficient administration of Australia's tariff system is important for reducing unnecessary transaction costs. For example, we are reviewing the legal and administrative framework for excise-equivalent goods to identify further possible improvements to this framework, including opportunities for streamlining arrangements and reducing costs to businesses.

Removing unnecessary regulatory impediments to doing business

We will build on our progress in simplifying and harmonising business regulations in cooperation with State and Territory governments (Chapter 5), through removing unnecessary regulatory measures or impediments to cross-border business activity over time and continuing to better align our regulatory frameworks with those of other countries in the region.

Continued financial market integration is a priority. This requires domestic and international efforts. Reforms are currently underway to further build on the strength of Australia's banking system, deepen Australia's corporate bond market and improve the efficiency and effectiveness of Australia's superannuation and financial sectors (Chapter 5). We will continue efforts to increase access by foreign businesses and investors to Australian financial markets, without risking system integrity, and to secure greater regional use of Australian financial services, such as funds management.

The Government has taken a number of steps towards this outcome, such as progressing an Investment Manager Regime, recommended in the Australian Financial Centre Forum's report *Australia as a financial centre* (the Johnson Report). The Investment Manager Regime will clear the path for growth of offshore funds in Australia and boost the attractiveness of Australia as a regional headquarters for fund managers. We are also progressing the Asian Region Funds Passport, which will increase the opportunities for Australia's funds management industry to manage the growing wealth in the region. Our present focus is on ensuring that licensing and other regulatory requirements applying to foreign financial participants strike the right balance between the integrity of the system and market access, and that Australian exchanges can effectively service the region.

Australia's tax settings have implications for increasing cross-border trade and capital mobility. Our bilateral tax treaty network, which sets out tax arrangements with partner countries and establishes mechanisms for dealing with disputes, needs to

cover our emerging trade and investment links across the region. The Government will give priority to negotiations within Asia, where it is in the national interest and where fiscal circumstances permit.

Our rules will be clear and consistent in their application, and better able to accommodate differences in definitions of income, debt and equity, capital, and accounting practices across the region. We will make efforts to ensure that ambiguity or conflict can be resolved in a credible and timely manner.

In these efforts, there will be trade-offs that will need to be balanced. The opportunities provided by increasing integration also present potential risks to Australia's revenue base.

Improving the movement of goods across Australian borders

The Government is developing an Australian border management strategy to respond to the challenges of the dynamic regional and global environment. This strategy will continue our intelligence-led, risk-based approach to intervention, whereby border protection agencies can concentrate on high-risk people, goods and environments, and low-risk goods and people can move in and out of the country with minimum disruption. Coordinating efforts offshore, at the border and onshore will be important for the effectiveness of border management arrangements in managing risk (Box 7.5).

Implementation of our biosecurity reform agenda includes stronger partnerships with State and Territory governments, industry, trading partners and the general public.

Reducing compliance costs is a shared responsibility. The Australian Customs and Border Protection Service works closely with industry, mainly through the Customs and Border Protection National Consultative Committee, to improve trade facilitation through co-design work. An example of this collaboration is work being conducted under the Cargo Control Framework; identifying measures to streamline the clearance of legitimate cargo is one area of focus. Customs and Border Protection undertakes an annual time release study to measure improvements in cargo clearance times.

The Government will encourage the Australian trading community to develop new collaborative mechanisms, such as the 'port community systems' being explored in the United Kingdom and elsewhere in the European Union. These systems seek to support efficient collection, collation and communication of data to border management authorities.

We remain committed to operating a robust and transparent trade remedies system that complies with Australia's international obligations. This system, which includes mechanisms for imposing anti-dumping remedies for under-priced imports that cause material injury to a domestic industry, is an important complement to the trade liberalisation commitments Australia makes to other countries. Reforms announced in the June 2011 Streamlining Australia's Anti-Dumping System package are in the process of being implemented (Australian Government 2011b). These reforms will provide better access to the system, particularly for small and medium-sized enterprises and primary producers, and will enhance the rigour and timeliness of decisions.

Box 7.5: Time release studies—measuring progress at home and abroad

Australia's time release studies provide a holistic view of the cargo operating environment and how different participants—government and businesses—affect clearance times. The studies allow year-on-year improvements in clearance times to be measured and further improvements to be identified. They also provide industry with a measure of how the Australian Customs and Border Protection Service and other agencies perform in delivering timely cargo clearance.

Data from time release studies indicates that clearance times at Australia's seaports and airports are improving. Since the first study was conducted five years ago, sea cargo is now cleared approximately 1.5 days earlier. It also shows that early reporting by industry supports improved cargo clearance performance, enabling border agencies to complete risk assessments before cargo arrives in Australia. Early clearance reduces transaction costs for industry as traders are able to prearrange collection and inland transport. The earlier identification of high-risk cargo, which may require additional scrutiny, supports more efficient handling of legitimate cargo.

Australia actively supports the carrying out of time release studies in other countries through the Asia-Pacific Economic Cooperation (APEC) forum and other international trade facilitation forums, and contributes to the expansion of regional expertise and capacity in this area.

Supporting the cross-border movement of people

Rising living standards in Asia will alter the pattern and volume of migration and travel (Chapter 2). The Government will ensure that our migration policy and regulatory settings are consistent, fair and have a reduced impact on trade and travel, while effectively managing the risks associated with the cross-border movement of people from many places.

We will strive to provide the best visa services in Asia by learning from existing services and the experience of travellers in the region, developing a new client-centred approach, and undertaking close discussions with countries in the region to work through impediments.

Low-risk visitors need to be able to enter Australia more easily if we are to take advantage of the expected increase in regional travel. We will expand our network of service delivery partners, progress label-free visa arrangements, support longer validity periods and multiple entry visas, and extend online visa lodgement to most visitors by 2013–14.

China will be a focus. The Government will build on a recent trial to streamline access for independent Chinese tourists and China's recent agreement to label-free visa arrangements. This follows the successful conclusion in 2011 of the Memorandum of Understanding on Strengthening Tourism Cooperation with China.

These initiatives add to existing efforts; respondents to a 2012 survey of Chinese travellers found the Australian visa application process easier than or comparable to those of other long-haul destination countries (GfK Blue Moon 2012).

Improved recognition of overseas educational qualifications and trade skills and a flexible, responsive skilled migration system, with appropriate controls, are required to help meet Australia's changing labour force needs while ensuring greater opportunities for Australians across a range of industries (Chapter 6).

Foreign investment

Foreign investment has been, and will continue to be, important to Australia's prosperity (Chapter 3). Investment links between Australia and the region are low relative to our trade relationship. Two-way investment links with our region should continue to grow over time.

The Government welcomes foreign investment into Australia (Box 7.6). Foreign investment supplements domestic savings and provides additional capital for economic growth, supports existing jobs, and creates new opportunities. It helps boost productivity by introducing new technology, providing capital for infrastructure, supporting global value chains and markets, and enhancing Australia's skill base through greater knowledge transfer and exposure to more innovative work practices.

Transparency regarding Australia's foreign investment screening process is important to give confidence to investors and the Australian community. The Government has improved transparency by outlining the factors that are considered when assessing the national interest implications of proposed investments. National interest considerations include the impact on national security, the economy, the community, competition, Government revenue or other policies, in addition to the character of the investor and the independence of its operations from foreign governments. An easy-to-read version of our foreign investment policy, which sets out these national interest considerations, was released in 2010 and translated into Chinese (Mandarin), Japanese and Indonesian.

The Foreign Investment Review Board website is regularly updated to provide guidance to assist investors to understand the foreign investment regime. The board has published a number of fact sheets to alert investors to their obligations when investing in Australia, including on issues such as corporate governance, corporate law, market activity, directors' duties, competition and consumer law, and taxation.

We will continue to enhance the transparency of Australia's foreign investment screening process, including publicly explaining significant decisions where possible, and making greater efforts to reach out to businesses and governments. We will ensure that our assessment framework and expectations for operating within Australian markets are well understood.

Our focus for promoting Australian investment opportunities to overseas investors will be on four priorities: economic and social infrastructure; tourism infrastructure; clean energy; and innovation (including advanced manufacturing). The Australian Trade Commission (Austrade) works closely with State and Territory governments to deliver Australia's investment priorities.

Box 7.6: Foreign investment in Australia

Around 450 business proposals for foreign investment in Australia are approved each year (with an average annual value of around \$135 billion), most within 30 days. Since 2001, only two business proposals have been rejected, one in 2001 in the resources sector and one in 2011 in the financial services sector.

The Government's foreign investment screening regime is designed to enable us to consider proposed investments on a case-by-case basis and, where necessary, stop those that are not in the national interest. We can also impose conditions on investments or require undertakings by foreign investors to address concerns.

Within this framework, however, foreign investment from all enterprises is welcomed. Recognising some community concern in this area, the screening arrangements are being made more transparent. For example, we have outlined some of the factors considered when reviewing proposals by foreign governments and their related entities and when reviewing investment proposals in agricultural land and businesses.

Investment in Australia by foreign government-related entities

Foreign investment across the region involves sovereign wealth funds, pension funds and state-owned enterprises, along with private enterprises. In Australia, all direct investments by entities related to foreign governments³ will continue to be subject to screening, regardless of the value of the investment, as will proposals by such entities to establish new businesses or acquire land in Australia.

For proposals involving a foreign government or a related entity, we give particular attention to whether the investment is commercial in nature or if the investor may be pursuing broader political or strategic objectives that may be contrary to Australia's national interests.

The increased understanding of Australia's foreign investment regime has helped reduce issues around foreign government investment and resulted in a smoother screening process.

3 Foreign governments and their related entities include a body politic of a foreign country; companies or other entities in which foreign governments, their agencies or related entities have more than an aggregate 15 per cent interest; and companies or entities that are otherwise controlled by foreign governments, their agencies or related entities (Australian Treasurer 2012).

Box 7.6 (continued)

Australian agricultural land and businesses

Foreign investment, along with domestic investment, will continue to be important for expanding Australia's food production and supporting Australia's position as a major exporter of food and agricultural produce.

We will continue to screen all proposed acquisitions of agricultural land and direct investments in agribusinesses by foreign government-related entities, irrespective of their value. Proposed investments by private investors in agribusinesses are subject to the same thresholds that apply to investment in other Australian company or business assets.

We recognise the need to preserve and, where possible, enhance the sustainability of Australia's national agricultural resources. In assessing foreign investment applications involving agriculture, we consider the impact of the proposal on:

- the quality and availability of Australia's agricultural resources, including water
- land access and use
- agricultural production and productivity
- Australia's capacity to remain a reliable supplier of agricultural production to both the Australian community and our trading partners
- biodiversity
- employment and prosperity in Australia's local and regional communities.

Data collected by the Australian Bureau of Statistics (ABS) in 2010 indicates that there is little foreign ownership of Australian agricultural land or businesses (89 per cent of agricultural land was wholly Australian-owned and a further 5.5 per cent was at least 50 per cent Australian-owned) (ABS 2011a). These results are broadly comparable with results from a 1983–84 ABS survey. High-quality data is crucial to public debate in this area and to maintaining public confidence in the foreign investment screening process. Consequently, we have funded ongoing and expanded data collection by the ABS.

A working group to consult on the development of a foreign ownership register for agricultural land has also been established. A national foreign ownership register for agricultural land would provide the Australian community with a more comprehensive picture of the size and locations of foreign agricultural landholdings than is currently available. We will pursue a register where it clearly improves transparency of foreign ownership in agriculture without imposing unnecessary burdens on investors or duplicating work already undertaken by State and Territory governments.

Greater collaboration between business and government

Australian businesses and governments can make a fresh commitment to work together to seize the opportunities before us.

The Government will step up efforts to help businesses to identify and secure opportunities on offer in the region. By offering practical in-market support and advice, helping businesses to secure finance and providing 'badge of government' support, we can make doing business in the region a little easier.

There will be opportunities for Australia's small and medium-sized enterprises through greater international engagement. The Government's main focus will be assisting these enterprises, which often find it more difficult to identify market opportunities and regulatory requirements, to gain access to trade finance and to establish contacts in target markets. Addressing the impediments these companies face in conducting business in Asia will be important for Australia to capture the benefits of the Asian century.

This support should be well targeted. We will work closely with the business community, including through peak industry and small business groups across the economy, and through bilateral and regional business forums.

We ask that businesses and industry groups get involved in these processes, as they have extensive networks and insights that complement and expand those of government. Such collaboration will also assist government efforts to get policy settings right, both domestically and internationally.

Collaboration between business, academics and government will be encouraged to generate ideas and strategies to resolve problems.

The Government will continue to work with non-government groups such as the APEC Business Advisory Council, the Business-20 (B20) forum as part of the Group of Twenty (G20) process, the Tasman Transparency Group and the Pacific Economic Cooperation Council. We will also work with leading university research groups and think tanks such as the G20 Studies Centre within the Lowy Institute and the G20 Asia Forum at the Australian National University.

Leaders across all levels of government have been supporting trade delegations and business tours across the region to build government-to-government and business-to-business links. Bilateral business councils are also important. These pathways to building business relationships will reinforce collaboration within the region.

New openings are emerging for Australian businesses to partner with governments and institutions in the region. For example, many countries in Asia have ambitious plans to upgrade the skills of their workforces. This creates opportunities for Australian education and training providers, some of whom are already working in the region (Chapter 6).

The Department of Foreign Affairs and Trade, Austrade (Box 7.7), Enterprise Connect and the Export Finance and Insurance Corporation (EFIC) will be at the heart of the Government's efforts to help Australian businesses to become part of regional markets. These agencies will better coordinate their activities abroad and at home, and better target the growth opportunities of the Asian century. We will improve cooperation and coordination with State and Territory agencies so we can work together under an overall 'Australian' umbrella.

Enterprise Connect supports Australian small and medium-sized enterprises to develop the skills, capabilities and knowledge needed to make the most of opportunities at home and abroad. Its business advisers work directly with companies. This support was extended recently to the tourism industry.

EFIC assists Australian businesses exporting overseas through the provision of financial services. The Government will revise EFIC's mandate to ensure more of its resources are devoted to addressing the market failures that impede Australian small and medium-sized exporters, especially in emerging and frontier markets.

Box 7.7: The Australian Trade Commission in Asia

Austrade is our international trade, education and investment promotion agency. It assists businesses and institutions through the combination of its knowledge of, and connections in, markets, and its status as a government organisation to promote Australian products and services.

Austrade has increased its efforts in high-growth economies, particularly in Asia's emerging and frontier markets where support is most needed, such as Mongolia, western China and Central Asia. It is active in 16 countries across Asia, with 60 per cent of its 558 international staff based there. Austrade has offices in 45 locations in Asia, including 13 in China and 11 in India.

It employs skilled local staff who are supported by a leadership group of 41 Australian trade commissioners, the majority of whom are recruited from the private sector and have Asian business experience and language skills. More than 410 Austrade employees speak one or more Asian languages.

Austrade is seeking to improve the quality of the information, advice and services it provides to Australian businesses that want to capture trade opportunities, including in value chains in Asian markets, as well as to potential investors into Australia and Australian educational institutions that are providing high-quality opportunities for Asian students in Australia or seeking to deliver education and training in Asia.

It is enhancing Australia's reputation through the Building Brand Australia program, which aims to project a more contemporary and holistic image of the nation through the brand identity *Australia Unlimited*. Brand Australia highlights the world-class ideas and achievements of Australian business leaders, academics, scientists, administrators, innovators, creators and social entrepreneurs.

Other measures to support small and medium-sized enterprises will continue to operate. These include the Small Business Support Line, the Small Business Advisory Services program, the Buy Australian at Home and Abroad initiative, Commercialisation Australia grants, and research and development tax incentives. The Government will review these programs regularly to ensure that they respond to shifts in the business environment. Austrade will ensure that the Export Market Development Grants scheme continues to support the changing needs of Australian exporters.

Under the Tourism 2020 strategy, the Government has established a \$48.5 million Asia Marketing Fund to accelerate the promotion of Australian tourism to growing markets in Asia. The fund will be administered by Tourism Australia.

Tourism Australia, together with the States and Territories, is also supporting small and medium-sized tourism enterprises to secure opportunities in Asia through industry missions, trade events and digital promotion connecting to the Australia Tourism Data Warehouse. Product and destination information is currently being translated into Chinese (Mandarin). Austrade is a partner in these efforts through its strategy of targeting Asia to fund the development of new products and services in a number of industries, including tourism.

7.4 Working in the region to strengthen openness

Australia has a solid record of building international coalitions for greater openness. It proposed the establishment of APEC and hosted the first meeting in 1989. Australia was a founding member of the Cairns Group, which was instrumental in achieving a breakthrough in agricultural market access barriers and subsidies at the Uruguay Round negotiations under the General Agreement on Tariffs and Trade. We were an active part of the negotiations that led to China's accession to the World Trade Organization (WTO).

The Government remains determined to strengthen regional and global institutions and architecture to support effective regional economic and financial systems. This will be a carefully considered process, as countries are at different stages of development. We will seek to reduce tariffs and other barriers to trade imposed by countries at the border and beyond. We will constantly strive to increase access for Australian businesses and investment in Asian markets. This will complement our efforts to ensure that Australia remains open to investment from the region.

The stalling of the WTO Doha round, now in its 11th year, and the implementation by G20 economies of 124 new restrictive measures between October 2011 and April 2012 (WTO 2012) are particularly troubling. Some of Australia's major trading partners maintain barriers to our goods, services and investments. We are working hard to reduce these barriers faced by Australian businesses.

The WTO, the G20, APEC, ASEAN and the East Asia Summit will all be important for the emergence of effective regional and bilateral agreements and institutions, and for progressing economic integration. They will drive both greater collaboration in the development of national regulatory frameworks and better understanding of each other's arrangements.

We work pragmatically across these forums to further the opportunities for greater openness and integration as they arise.

National objective

18b. The Australian economy will be more open and integrated with Asia, through comprehensive regional agreements, better aligned economic regulations, greater infrastructure connectivity and enhanced understanding of each country's arrangements. The flow of goods, services, capital, ideas and people will be easier and Australian businesses and investors will have greater access to opportunities in Asia.

Our efforts have a clear focus on reducing administrative, compliance and enforcement costs. To this end, we are engaging the business community and broader institutions, academics, regulators and other experts.

We will continue to work with our neighbours to break down trade and investment barriers and to build a deeper knowledge and understanding of each other's arrangements. The risks that can emerge from greater economic and financial integration, such as greater exposure to negative events in other countries, must be carefully managed.

Effective and stable regional financial and economic systems

The Government will seek full economic and financial integration across the region, supported by the evolution of stable, efficient and well-regulated financial markets. Greater integration requires strong global and regional institutions, with an emphasis on inclusive, rules-based systems.

The G20 is the main vehicle for putting this strategy into practice. Its membership reflects the growing dynamism of the region and the global influence of emerging economies (Chapter 8). It is now the pre-eminent forum for international economic cooperation, with a focus on rules-based and market-oriented approaches.

Australia is hosting the G20 in 2014. We will use this opportunity to promote strong, sustainable and balanced growth, working with other G20 and non-G20 countries and drawing on the interest and expertise of business leaders, academic communities and non-government organisations.

While the East Asia Summit and APEC are at different stages of development, they complement each other. They each offer avenues for nurturing regional support for reform. Efforts across these forums provide Australia with the best chance to shape outcomes that are in Australia's and the regions' interests.

APEC's efforts in pursuing financial reform and regional financial integration are fundamental—the Asia Region Funds Passport initiative and the Asia-Pacific Public-Private Partnership Mentoring Scheme are two examples of the practical changes that can be achieved.

The APEC Business Advisory Council 2012 Report to APEC Economic Leaders recommended the establishment of an Asia-Pacific Financial Forum to promote progress in financial market integration, in support of the region's financial development goals. Australia is hosting an international symposium in 2013, which will bring together private sector leaders and regulators in the financial services industry from across the Asia-Pacific region. The focus will be to explore the Business Advisory Council's recommendation.

APEC leaders reaffirmed their commitment this year to move more rapidly to regional economic integration, including greater exchange rate flexibility, and to intensify efforts to bolster financial sector stability. Australia will work closely with Indonesia and China—APEC hosts in 2013 and 2014—on the agenda for deepening regional integration.

The Government supports ASEAN's plans to formally establish an economic community by 2015, and we welcome ASEAN's proposal to link this community with its external trading partners, including Australia, through the Regional Comprehensive Economic Partnership. We will also seek appropriate opportunities to participate in work underway in the ASEAN+3 grouping and similar forums of which we are not a member. In particular, we remain interested in participating in the financial crisis management fund established by the Chiang Mai Initiative Multilateralisation to support regional financial and economic stability. Similarly, we would seek to join any Asian monetary fund or similar institution that might emerge. This would strengthen Australia's economic, financial and political links with the region, formalise our involvement in regional crisis management and ensure that we could participate in the evolution of regional processes.

Australia is a member of the Asian Development Bank, and supports its contribution to ASEAN regional initiatives. As in the past, we would be a willing participant in resolving regional financial crises if they were to occur.

Further integration of Australia's equity and bond markets with the emerging markets in Asia and with global bond markets is a priority. This will support the development and diversification of Australia's local currency corporate bond market, and provide new opportunities to access the capital pools resulting from Asia's high savings rates.

We are working with China to support the internationalisation of its currency, the renminbi (RMB). Earlier this year, the Reserve Bank of Australia and the People's Bank of China announced a \$30 billion bilateral currency swap agreement, one of the largest such swaps China has entered into.

In July 2012, we announced an annual Australia–Hong Kong RMB trade and investment dialogue, recognising Hong Kong's role as the financial gateway between China and the rest of the world. The dialogue is led by the private sector and focuses on business opportunities arising from the internationalisation of the RMB.

The Australian dollar is currently one of nine currencies convertible with the RMB on the Chinese foreign exchange market; the others are the US dollar, the Euro, the Japanese yen, the British pound, the Hong Kong dollar, the Canadian dollar, the Malaysian ringgit and the Russian rouble.

A further priority is the establishment of direct trading between the Australian dollar and the RMB in mainland China; other currencies that are directly traded at present are the US dollar, the Japanese yen, the Malaysian ringgit and the Russian rouble. We have held preliminary discussions with the Chinese Government to explore how soon direct convertibility can be practicably achieved. We are continuing these discussions, and also exploring other opportunities to work with China to support the internationalisation of the RMB.

We are making reform of infrastructure delivery throughout the region a priority in our cooperation dialogues with regional partners. Our focus is on creating the conditions necessary for both private and public participation in regional infrastructure development. This builds on efforts being advanced through APEC, including the Asia–Pacific Infrastructure Partnership dialogues.

Trade barriers

The WTO has established a set of global trade rules, an internationally recognised system for avoiding or resolving disputes, and seeks to deliver multilateral trade negotiations. Australia has the credentials and incentive to continue to be at the forefront of initiatives for reform in the WTO and the global trading system, deploying diplomatic and non-official (Track 2) processes to secure a robust global trading system.

The WTO is the Government's preferred vehicle for pursuing trade liberalisation. We will continue to identify new pathways for making progress in the WTO Doha Development Round, seeking early outcomes where agreement is close and developing fresh approaches to the more intractable issues.

Australia is pressing hard for the completion of negotiations on trade facilitation. By streamlining and simplifying customs procedures, an agreement on trade facilitation would reduce non-tariff barriers to trade. The trade facilitation agreement is estimated to contribute 44 per cent of the entire benefit of the Doha round, two-thirds of which would accrue to developing countries.

Australia is co-chairing, with the United States, negotiations among 46 economies for an agreement on the liberalisation of trade in services under the auspices of the WTO. This plurilateral agreement, which would cover 70 per cent of global GDP and 70 per cent of global trade in services, could be expanded over time to take in more WTO members. Australia is also participating in discussions aimed at expanding the product coverage and membership of the WTO Information Technology Agreement.

Agriculture remains a high priority for Australia in the Doha round negotiations. Australia will continue working with members of the Cairns Group and other like-minded countries to negotiate reforms to market access, agricultural export policies and farm production subsidies.

Within the Asian region, Australia is negotiating bilateral trade deals with China, India, Indonesia, Japan and South Korea. Successful conclusion of these negotiations, following the signing of a free trade agreement with Malaysia in May 2012 and the negotiation of agreements with Singapore and Thailand by the previous Government, could assist in paving the way for more complete regional economic integration.

By completing the ASEAN – Australia – New Zealand Free Trade Agreement (AANZFTA) in 2009—a high-quality, truly liberalising agreement covering countries accounting for 18 per cent of Australia’s total trade—we have contributed to the development of an important region-wide agreement.

The vision of regional integration is a free trade area that covers the Asia–Pacific. Australia will continue to work through APEC to encourage trade liberalisation by member economies, as has occurred over the past two decades. Average tariffs of APEC members have declined from 16 per cent in 1989 to around 6 per cent in 2010. The agreement of APEC members at Vladivostok in September 2012 to limit tariffs on 54 environmental goods to no more than 5 per cent constitutes further progress towards free trade.

There are different possible pathways to a free trade area of the Asia–Pacific. The Trans-Pacific Partnership Agreement negotiations involve 11 APEC members and membership is likely to continue expanding. Australia will support the November 2012 launch of, and participate in negotiations for, the Regional Comprehensive Economic Partnership involving ASEAN, Australia, China, India, Japan, New Zealand and South Korea.

Negotiations for the Trans-Pacific Partnership Agreement and the Regional Comprehensive Economic Partnership could create momentum for competitive liberalisation and put Australia on two complementary pathways to a free trade area of the Asia–Pacific. Australia welcomes and encourages these processes. We recognise that outcomes agreed in one negotiation that facilitate deeper economic integration will encourage new members to join, and also create pressure to adopt similar liberalisation in competing negotiations.

We also need to be open to other opportunities to position Australia as part of networks of regional trade agreements. For example, four Latin American countries—

Chile, Peru, Colombia and Mexico—have formed the Pacific Alliance for free trade. We will make an assessment of the merits of seeking to join the Pacific Alliance, which is likely to expand to include other countries such as Costa Rica and Canada. If it joined the Pacific Alliance, Australia could form a connecting rod between open trading countries of Latin America and the markets of Asia that might facilitate an open trade agreement.

In negotiating these bilateral and regional trade agreements, Australia supports simple, liberal rules of origin to keep business compliance costs to a minimum and to enable the agreements to be expanded over time towards the ultimate goal of a free trade area of the Asia–Pacific.

Regulatory change and practical assistance

Australia will continue to provide practical advice and technical assistance directly to regional countries to build market resilience and improve access for Australian businesses.

Advocating policy changes beyond other countries' borders in support of open and well-regulated economic and financial markets will remain a priority. We seek greater mutual understanding of national arrangements and a better interface between our regulatory frameworks and those of our neighbours.

We look to collaborate further with other countries in developing regulatory frameworks, and to provide practical capacity-building and technical assistance. Similarly, efforts to promote joint standard-setting work and advocate international standards will continue (Box 7.8).

Box 7.8: Embedding international standards

The International Accounting Standards Board's International Financial Reporting Standards (IFRS) support the cross-border comparison of businesses, investments and commercial opportunities in countries that have adopted the standards.

Australia adopted the standards in 2005 and works to encourage their adoption by other countries. In this context, Australia recognises the importance of ensuring that regional perspectives and the circumstances in particular countries are taken into account as the standards evolve. For example, the technical complexity inherent in the standards complicates their adoption in countries where the accounting profession's capacity is limited by lack of experience and/or scale.

The Asian–Oceanian Standard–Setters Group and the IFRS Regional Policy Forum, both of which Australia supports, are mechanisms through which countries in the region contribute to the international standard-setting process.

The work Australia does with other countries through APEC and the East Asia Summit is important. APEC, with its track record of achievement in strengthening collaboration and building capacity for reform, has much to offer (Box 7.9).

Box 7.9: APEC delivers on reducing trade and investment barriers and building capacity for reform

The APEC Business Travel Card provides visa pre-clearance and express lane airport processing for around 104,000 businesspeople in APEC member economies. Improvements in customs procedures, regulatory cooperation, logistics and infrastructure delivered US\$58.7 billion in savings for businesses in the APEC economies between 2007 and 2010.

In 2010, APEC economies agreed to work towards a regional improvement in cross-border supply chain performance of 10 per cent by 2015. This includes identifying choke points that limit fast, cost-efficient movement of goods and services and addressing them through capacity-building and regulatory reform.

The food security action plan is pursuing sustainable development in the agricultural sector and facilitating investment, trade and markets in the APEC region. Various APEC economies, including Australia, have undertaken specific capacity-building activities to strengthen food security.

APEC's cross-border privacy rules provide best-practice guidance to economies on the design of privacy laws and help to foster regulatory complementarity.

The 2010 APEC New Strategy for Structural Reform has seen Australia and other economies publish individual plans for domestic structural reforms that are designed, among other things, to promote open, well-functioning, transparent and competitive markets. Implementation of the plans will be supported by practical, voluntary cooperation among APEC economies. Australia has taken a lead role by establishing a fund to help APEC economies implement their plans through targeted capacity-building activities.

In 2011, leaders reaffirmed their commitment to the Investment Facilitation Action Plan and agreed on a set of 'non-binding investment principles' covering issues such as expropriation, compensation and dispute settlement. Implementation of the plan is supported through capacity-building and technical assistance.

In 2012, leaders agreed to reduce tariffs to five per cent or less by 2015 on 54 environment products; these include solar cells, wind turbine blades, waste water technologies and renewable energy electricity generating equipment. Lower tariffs will boost trade in green products and help the region move towards a clean energy future.

More recently, leaders have committed to promoting convergence on how APEC economies address transparency in their trade agreements and reaffirmed the need to build good regulatory practice that supports regional economic integration, product safety, supply chain integrity and environmental protection, including through capacity-building.

The East Asia Summit (EAS) also offers scope to secure greater regional regulatory collaboration. The inaugural EAS Finance Ministers' Meeting in 2010 discussed regional cooperation and capacity-building programs that focus on structuring and restructuring financial markets. At the July 2012 EAS Education Ministers' Meeting, two new education cooperation projects were announced, and Australia will take part in both projects. Our efforts will be pragmatic, based on informed discussions with the business community and relevant governments. We are not interested in full harmonisation for its own sake, and recognise that our approach could be one of many possible pathways to a positive outcome.

Australia is already active on many fronts regarding regulatory reform in the region. For example, within the context of APEC's activities, the Australian-initiated Services Trade Access Requirements database helps small businesses expand into regional markets, while the Australian-led Non-Binding Guidelines for the Regulation of Foreign Accountancy Professionals initiative provides best-practice guidance on the design of rules for the accounting profession.

A range of bilateral exchange programs and activities aimed at public sector capacity-building already exist. For example, the Australia Indonesia Partnership for Economic Governance supports partnerships between the Australian and Indonesian government departments responsible for economic governance and public sector reform by funding long-term technical adviser deployments, staff visits and secondments. In 2011, nine Australian Government officials worked in Indonesia on activities to strengthen its investment policy and regulatory environment.

The Productivity Commission is undertaking an innovative 'twinning' program with other APEC economies under the auspices of APEC's New Strategy for Structural Reform. Under the program, the Productivity Commission is sharing with other countries its experience as an independent advisory body to government.

Our Government Partnerships for Development program (previously the Public Sector Linkages Program) links Australian public sector agencies and universities to their counterparts in developing countries and provides direct support for capacity-building work. For example, the Australian APEC Study Centre at RMIT University draws on the program to fund training courses and symposiums for government officials from across the region, focusing on such areas as sustainable economic growth, strengthening financial systems and food security.

Further education and training for financial regulators from Australia and the Asia–Pacific region will be delivered by the Centre for International Finance and Regulation, located at the University of New South Wales.⁴

We offer technical assistance and capacity-building work as part of our free trade agreement negotiations and implementation. AANZFTA negotiations were supported by extensive technical assistance, and the agreement includes a commitment to ongoing economic cooperation (Box 7.10).

Box 7.10: Economic cooperation through trade agreements—AANZFTA

The AANZFTA includes economic cooperation commitments with an associated five-year Economic Cooperation Work Program, which supports ASEAN countries and businesses to implement and use the agreement. Australia is contributing up to \$20 million over five years to the program.

Program activities are approved by the AANZFTA’s Free Trade Agreement Joint Committee. A support unit in the ASEAN Secretariat manages project implementation and often partners with international organisations, including the World Intellectual Property Organization, the UN Educational, Scientific and Cultural Organization (UNESCO), the UN Economic and Social Commission for Asia and the Pacific, the OECD and the World Trade Organization.

Examples of economic cooperation activities in 2010–11 included capacity-building and technical assistance on rules of origin, monitoring the use of tariff preferences, the two-annex approach to the scheduling of investment reservations, intellectual property crime and accession to the World Intellectual Property Organization’s Madrid Protocol, and statistics relating to international trade in services.

The Economic Cooperation Work Program activities are designed to leave a long-lasting legacy. For example, the ASEAN Regional Diagnostics Network will contribute to the system-wide delivery of credible plant pest and disease diagnostic services, and a multiyear project is planned for training patent examiners.

⁴ The Centre for International Finance and Regulation, established in 2011, is a strategic link between academia, financial regulators, government and the financial industry. It will drive our contribution to the regional and global examination of financial sector developments and the design of regulatory responses to them.

Case study: Australia's agriculture and food sector

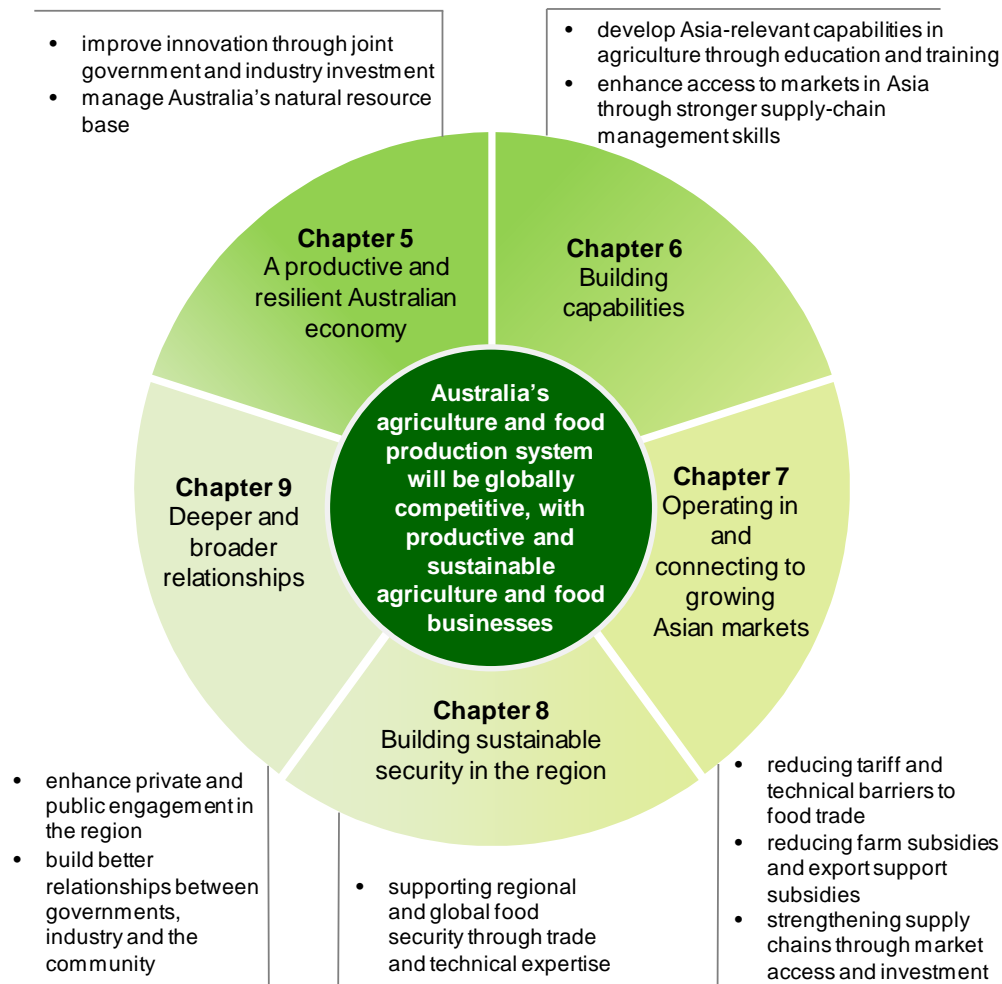
For Australia's agriculture and food sector, substantial opportunities are emerging from Asia's rise. This will result in a boost to Australia's economic and social prosperity, particularly supporting jobs and income in rural and regional communities.

National objective

19. Australia's agriculture and food production system will be globally competitive, with productive and sustainable agriculture and food businesses.

- Australian food producers and processors will be recognised globally as innovative and reliable producers of more and higher-quality food and agricultural products, services and technology to Asia.

Figure C.1: Australia's agriculture and food sector in the Asian century

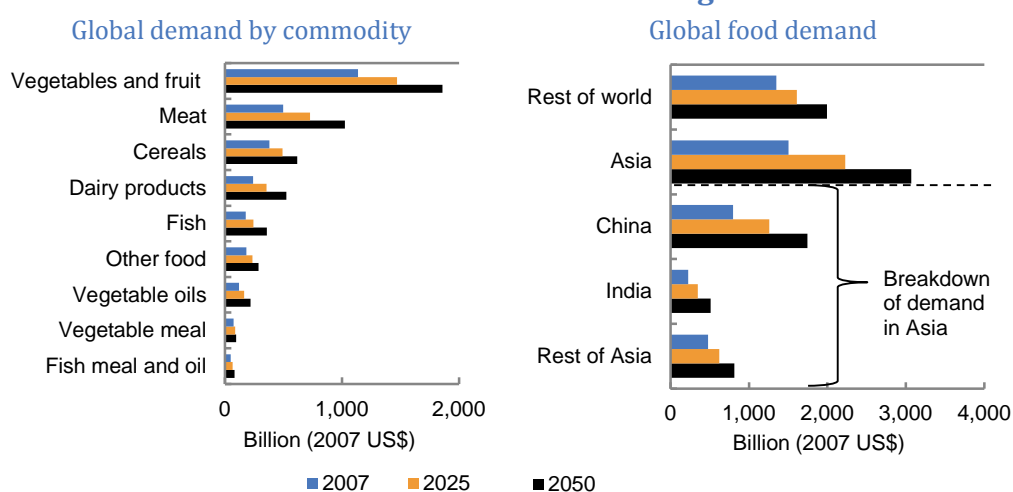


Asia's demand for food is surging

Population and income growth in the region is driving increased demand for food—in quantity, quality and product integrity. The real value of global food demand is expected to rise by around 35 per cent by 2025 from 2007 levels, with most demand coming from Asia (Chart C.1). China and India alone could account for almost 60 per cent of the global increase (Linehan et. al 2012).

The size and scale of global food markets will shift as an increasingly affluent region demands higher value food and greater food choice. Consumer food preferences and diets in our region will change.

Chart C.1: Demand for food will grow



Source: Linehan et al. (2012).

Although Asia contains some of the world's largest agricultural economies, the projected increase in consumption in the region will require greater food imports—demand is likely to outpace food production over coming decades based on recent global agricultural productivity performance and emerging environmental constraints. The production of agricultural commodities for non-food use—particularly plant-based biofuels—and non-agricultural uses of land, including urban encroachment, will also constrain the supply response.

Australia's agriculture and food sector is extraordinarily well-placed to build on its strengths: proximity to markets in Asia, complementarity in production systems, a robust biosecurity system, a record of innovation and reputation for producing high-quality and safe food products, and a skilled workforce.

Lifting productivity to increase output and capture value-adding opportunities

While Australia is a relatively small global food producer, we are a reliable exporter of high-quality, 'clean and green' agricultural commodities and food products.

The sector has emerged from wide-ranging reforms over the past decades more resilient and competitive. A renewed focus on productivity and investment will underscore the sector's next phase of growth.

We need to build on the sector's strengths and build competitiveness through all five pillars of our productivity agenda—skills and education, innovation, infrastructure, tax reform and regulatory reform, while ensuring we manage our environmental assets sustainably.

Through long standing investment in research and development and industry innovation, Australian agriculture is one of our most productive industries. We already encourage innovation across the food value chain through investment in rural research and development corporations, the CSIRO, Cooperative Research Centres program and other programs and incentives.

By continuing Australia's strong track record of investment in research and development, by both government and industry, we can continue to develop products for Asian markets and solutions to the challenges of production uncertainty and climate change. The Government is making large investments to support adaptation through the Securing a Clean Energy Future plan. Better links between scientists, researchers and businesses both in Australia and across the region will further underpin the application of innovation, science and best practice in the food production and value-adding chain. And the intellectual property that is generated is a growing export opportunity in its own right.

Industry investment will be required in response to the opportunities ahead and as new business models emerge. Access to capital will be essential, and we are creating the right operating environment, including through our regulatory and tax reforms and sound macroeconomic policies. Removing unnecessary regulation supports investment and allows industry to transform. Significantly for the agriculture and food sector we are reforming environmental regulation, undertaking agricultural and veterinary chemical reforms and improving our biosecurity system. Our goal is to place Australia in the top five countries for ease of doing business.

Public and private sector infrastructure investment—especially for transport, energy, communication and water—will be needed. Moving into new areas and methods of production, ensuring that businesses can connect to growing markets, and accommodating sophisticated logistics requirements—all require careful planning and infrastructure provision. State and Territory governments, which are responsible for land-use planning, need to ensure that regulation supports, and does not impede, sustainable agricultural development. We will be ensuring that the needs of the

agriculture and food sector are fully considered in national infrastructure planning and investment.

The long-term productivity of agriculture—both here and elsewhere—is tied to the sustainability of food production. Our environmental stewardship is also a source of competitive advantage. We will develop ways to clearly identify our ‘clean, green and environmentally friendly’ credentials so that Australian exporters can reap the benefits of this valuable national ‘brand’.

We need to maintain the health of our natural resources, including soil and water, through quality regulation, assisting farmers and fishers to adopt sustainable management practices and through robust markets. The Murray-Darling Basin Plan and other water reform policies are critical measures to safeguard the future water needs of agriculture, communities and the environment. The Caring for our Country program, which funds management of our natural resources, is another such measure.

The boost to the agriculture and food sector’s prospects from Asia’s rise could see the development of new technologies and practices, as well as the necessary commercial incentives for new infrastructure investment that will enable sustainable production in northern Australia to flourish.

Enhancing capabilities to build successful businesses

Building Asia-relevant capabilities in the agriculture and food sector will help productivity and support deeper connections with our trading partners in Asia. The sector needs highly skilled people who understand and can respond to the changing demands of the modern agricultural and food business operating environment and global market place.

Stronger entrepreneurial, management and technical skills will be necessary to be successful in an increasingly interconnected global food industry, and this is placing a premium on partnerships in value chains. The prevalence of multinational food processing and retail companies means our businesses need to show world-class supply chain management skills, including consistency of supply and the tailoring of products and services to specific market needs. Businesses will need to manage issues further removed from the boundaries of their own operations than ever before.

Developing a deeper understanding of the work practices and cultures of countries in Asia will make it easier to build relationships—at the industry and customer levels. Australian businesses will need to understand the diversity of preferences, cultures and circumstances that can affect how products are produced, presented and transported. This requires strong understanding of the market and capabilities in agriculture and food science and technology.

Together with industry, we can build the capability and responsiveness of the sector's workforce and improve the sector's attractiveness as a career. We are building flexible and high-quality universities and vocational education and training systems and we have appropriate migration policies. We will ensure that skills and training systems create the pathways that Australia's agriculture and food businesses need. Through AgriFood Skills Australia, we support industry-led skills agendas and workforce development in the agriculture and food sector.

Industry needs to complement these platforms to build on-the-job training and career opportunities in the sector.

Securing growth through better access to markets

Australia has a strong record of exporting agricultural and food products—and Asia is home to many of our largest food markets—as well as a reputation as a leader in agricultural and food technology and science solutions.

The Government has recently gained new or improved market access for a number of products to a range of markets in our region, including chilled meat, citrus and table grapes to China, and plums and carrots to Taiwan. This builds on existing access to Asian markets. We will continue to work hard to improve market access for our agricultural and food exports, including ensuring appropriate presence of our overseas staff in the region.

In cooperation with industry we will work to remove barriers to trade and other policies around the world that are distorting trade and production. Broad-based, multilateral reforms remain our priority. We remain committed to working through all means and forums to lower agricultural subsidies and tariff and non-tariff barriers in markets, including in the Doha Round of Multilateral Trade Negotiations, which provide the best vehicle to achieve open trade. As Chair of the Cairns Group of agricultural exporting countries, we will continue to lead efforts to secure agricultural trade reform in the World Trade Organization.

We have successfully concluded a number of free trade agreements, including the recent Malaysia–Australia Free Trade Agreement (MAFTA) which builds on the ASEAN – Australia – New Zealand Free Trade Agreement.

Under MAFTA, Malaysia will guarantee tariff-free treatment for the vast majority of agricultural products from day one. Key MAFTA outcomes for agriculture and food exporters include:

- milk—a liberalised licensing arrangement for liquid milk exporters, allowing access for higher value retail products
- processed foods—immediate elimination of virtually all tariffs
- wine—a guarantee for Australian exporters of the best tariff treatment Malaysia gives any country
- rice—open access arrangements from 2023 and all tariffs eliminated by 2026.

Our agriculture and food sector is set to benefit from agreements we are pursuing with our trading partners in the region, including China, India, Indonesia, Japan and South Korea.

Free trade agreements give concrete benefits and help agriculture and food exporters to compete on equal terms. The comprehensive Trans-Pacific Partnership Agreement and the Regional Comprehensive Economic Partnership have the potential to provide complementary pathways towards the goal of a free trade area of the Asia-Pacific, which would see tariffs with some of our most significant trading partners eliminated.

We will continue to provide a range of support to our agriculture and food businesses looking to capture opportunities. The Australian Trade Commission (Austrade) distributes trade opportunities to potential Australian suppliers and provides a range of market entry services. Austrade also works closely with industry bodies on international marketing and promoting awareness of Australia's high-quality goods—for example Wine Australia (for wine) and the Australian Industry Group (for food and beverages). Recent legal recognition by China of the Australian Made, Australian Grown country of origin symbol will provide additional benefits for our exporters of food and beverages to that market.

Australia's policy on foreign investment encourages investment and ensures that investments are in the national interest. We will continue to welcome foreign investment in our agriculture and food sector, as we have done in the past. Foreign investment provides much needed capital for expansion and supports market development and access, customer insights, and the transfer of technology and management skills.

Austrade is working with government partners to develop strategies to attract productive foreign investment into Australia's agriculture and food sector. Investment in agricultural research and development is one element of the Australian Government's inward investment priorities on innovation. A further priority on agricultural science and food technology and processing is currently being explored with State and Territory governments. And we will continue to push for lower barriers for Australian companies that wish to invest overseas. Two-way investment flows will help Australian businesses develop value-adding activities, build strong connections

with markets, and form strong partnerships in increasingly sophisticated and integrated food value chains.

Increased trade will require continued investment in our border controls to build capacity and manage biosecurity risks. We are reforming our biosecurity arrangements to deliver a modern system that is responsive and targeted and covers the entire biosecurity continuum (offshore, at the border and onshore). Moving to an even more collaborative approach with our trading partners will ensure that risks are identified and better known before products reach Australia. This will allow Australia to efficiently and effectively respond to our changing risk profile and to the growing pressures on the system. As biosecurity arrangements in Asia mature, we should jointly manage biosecurity risks through increased recognition.

Maintaining the integrity of Australia's pest and disease status, through a science and risk-based approach to biosecurity, will remain vital to safeguarding our environment, our people and the competitiveness of our agricultural and food sector.

A shared interest in food security

Food security is at the heart of social and political stability in our region. As production increases lead to scarcer land and water, concerns about food security and poverty alleviation will rise.

We are confident that policy reform in the region and globally will support food security through the development of efficient and resilient food markets, will strengthen food-supply systems, and will allow food to move from where it can be produced efficiently to where it is most needed.

We will continue to be active in institutions that support trade, productivity and market-oriented development assistance, including the World Trade Organization, United Nations Food and Agriculture Organization, the World Bank, and the Asian Development Bank. We will also draw on APEC's strengths in trade and investment liberalisation to advance the food security of our region. Our role in the Group of Twenty (G20) is an important way to maintain momentum on global and regional food security policy.

Lifting production capacity and improving distribution infrastructure is a regional and global task. Australia has much to offer in policy development and through collaboration in science and research, in areas such as animal and plant health and biotechnology, production practices, natural resource management and remediation, logistics and product safety. The Australian Centre for International Agricultural Research is an important channel through which we build networks and share our research capabilities with the region. The Indo–Australian program on marker-assisted wheat breeding is an example of Australia working with partners on problems of mutual interest and is co-funded. The program associates key Indian and Australian institutions involved in wheat research in a suite of collaborative projects. The program has entered into its fifth year, and an extension for another five years is being finalised.

The Australian and Chinese governments are conducting a ground-breaking joint study on cooperation on food security. The study focuses on the potential for investment in new productive capacity in the agriculture sectors of Australia and China to be available for sale on world markets. It would also involve the application of research and development and technology on a commercial basis to raise agricultural productivity in both countries. This includes looking at opportunities in agricultural services and throughout the agribusiness supply chain generally.

The objective of this study is to establish a best-practice approach to food security cooperation between Australia and China that will lead to improved policy coordination across all levels of government to provide consistent advice to potential investors and to avoid regulatory duplication, in line with Australia's regional development goals. It will also assist investors to better understand the requirements of good corporate citizenship.

We are also working in partnership with countries in the region to improve biosecurity arrangements and animal and plant health systems. These partnerships will support food security by mitigating risks to production across the region and providing greater confidence in the trade of food.

Building relationships in the region

Achieving liberalisation of agricultural trade through formal trade negotiations is an important aspect of the Government's support for the growth of Australia's agriculture and food sector, but it is not the only aspect. We will also support the sector's growth through diplomacy, buttressed by industry expertise and partnerships in the region. Australia's strong diplomatic and business-to-business relationships underscore our position as a reliable supplier of 'clean and green' food products. Knowing the region well helps us understand our neighbours and work with them to identify new opportunities and build confidence in our products. To develop successful commercial links, it is essential that Australian agriculture and food exporters know what their customers want. We will work with industry to identify the emerging food needs of Asia and develop strategies to help Australia's exporters respond to those needs.

Strong relationships also support a consistent and ongoing dialogue to manage issues as they arise. Our in-country presence will continue to be important for clarifying and resolving trade issues and negotiating access, as will achieving more consistent and better aligned standards in the region and globally.

Our businesses, communities and institutions involved in agriculture and food need to nurture and strengthen their links with the region. People-to-people links across the spectrum—for example, between winegrowers in Australia and emerging wine-growing areas in Asia, scientists working on collaborative research projects, consumer advocates encouraging consistent food labelling laws, and connecting the experiences of tourists—will be increasingly important for raising the profile of what Australia has to offer.

Leadership and strong policy frameworks are essential

By managing productive resources sustainably, raising productivity and securing access to markets in Asia, Australia's agriculture and food sector is embracing the Asian century and can look to the future with confidence. Australia is well placed to capture a healthy share of growing markets, despite fierce competition.

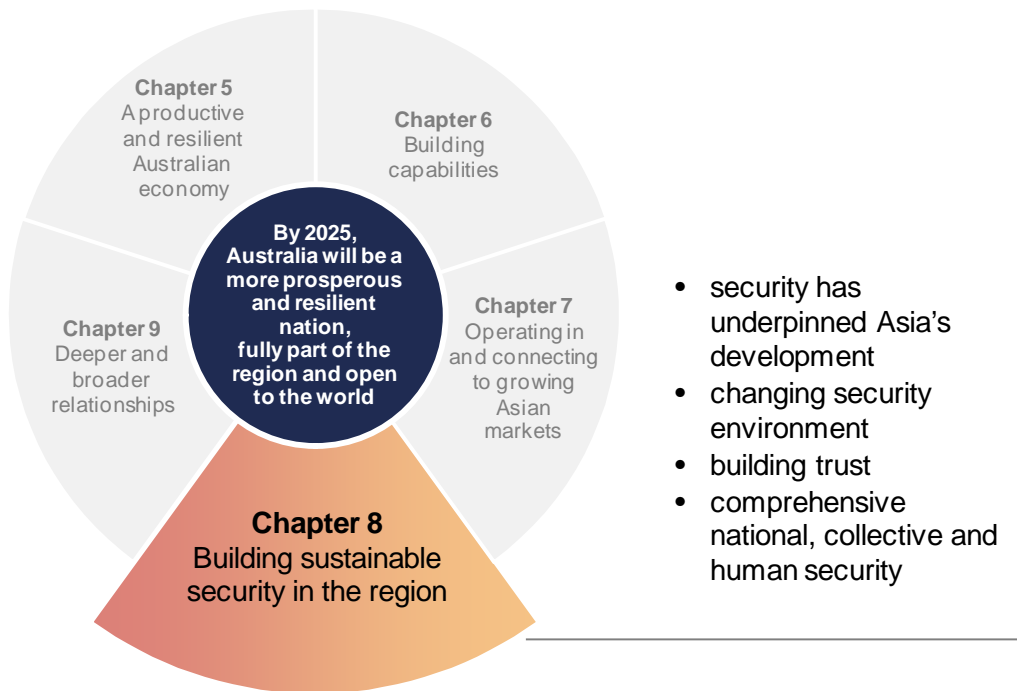
Australia can build a food system that is globally competitive and offers reliable, high-quality food products. At the same time, Australia can be an important partner in building food production capacity in our region.

The Government's forthcoming National Food Plan, Industry and Innovation Statement and National Research Investment Plan, as well as our Rural Research and Development Policy Statement, Food Processing Industry Strategy Group and ongoing trade negotiations, are all significant steps in achieving these goals.

Our agriculture and food sector will be transformed by the changes occurring in Asia and, if industry and governments make the right choices, will be a strong, resilient and flexible part of the Australian economy, reinforcing the confidence we have in our own food security.

The mechanisms outlined in this White Paper, through partnership across industry, government and the broader community, lay the ground work on which to build a more integrated and productive food sector in the region.

Chapter 8: Building sustainable security in the region



Key points

Australia's future prosperity and security are inextricably linked to what happens in our region.

The security environment is shifting in response to the region's economic growth, the change in the strategic power of nations, and the behaviour of non-state actors.

We will promote cooperative arrangements among nations in the region as the economic and strategic landscape shifts.

We support China's participation in the region's strategic, political and economic development.

We will work with the United States to ensure it continues to have a strong and consistent presence in the region, with our alliance contributing to regional stability, security and peace.

Global and regional institutions will be central to efforts to develop collective security in the region through building trust and supporting norms and rules.

During our 2013–14 term as a non-permanent member of the United Nations Security Council, Australia will ensure that regional perspectives are brought to the Council's deliberations.

We strongly support the Group of Twenty (G20)—to be hosted by Australia in 2014—as an important forum for the world's leaders to address major economic challenges and opportunities.

We will work within the region to develop the East Asia Summit (EAS) as a crucial regional institution in East Asia so that it can help manage regional challenges, foster strategic dialogue and promote cooperation on political, economic and security issues.

We will strengthen human security by supporting the development of resilient markets for basic human needs—especially food, water and energy—and by tackling climate change.

8.1 Introduction

Much of this paper has been concerned with how Australia must prepare itself for the Asian future. But, as can be seen, while that future is promising, it is not immutable. Challenges to the economic order, the security order and the environmental order are all real. What the countries of the region, including Australia, do to shape the future, through effective statecraft and domestic policy reform, will be critical.

Some of the challenges emerge from the internal dynamics of Asia itself—the consequences of changing power relationships as Asian economies grow. China’s rise and the resulting impact on its regional and global interests and those of its neighbours, India’s growing re-engagement with East Asia, and Washington’s ‘rebalancing’ of its global interests towards the region will all be central.

Other challenges will arise from the impact on the region of broader global trends. These include growing pressures on energy, food and water, the unpredictable actions of harmful non-state actors, and the need to make international organisations more effective and representative.

Australia seeks to build an environment for the region in the Asian century that is marked by sustainable security.

We seek security in a broad sense—meaning the security of Australia from attack or coercion; the collective economic and political security of this rapidly evolving region; security of supply for food and energy as the region grows; the human security of individuals in the region, especially those most at risk from hunger or natural disaster; and the security of the natural system as the globe enters a period of rising temperatures and new environmental challenges.¹

And that security must be sustainable in all its meanings—workable, defensible, viable and maintainable. It must have solid foundations and lasting impact.

Australia can contribute to the sort of sustainable security we will need if the advantages of the Asian century are to be realised.

8.2 How security has underpinned Asia’s development

Earlier chapters outlined how a secure and predictable strategic environment provided a strong foundation for Asia’s growth. It enabled governments to focus on their development and build their economic relations in the broad knowledge that the security and order of the region would not be seriously disrupted. These foundations included a framework of rules, open to all who agreed to be bound by

¹ Human security, which the United Nations broadly defines as ‘freedom from fear, freedom from want and freedom to live in dignity for all’, lies at the heart of the nexus between security, development and human rights (UN 2012a).

them, to govern trade and economic relations; the stabilising impact of the US strategic presence; and internal development priorities in Asia itself.

The post-World War II international system established a predictable rules-based economic order into which Asia's developing economies could emerge (Chapter 2). It supported the longest period of economic expansion ever seen.

The United States' alliances and partnerships with Japan, South Korea, Australia and other regional states, its guarantee of extended deterrence—the promise that it would project power across the Pacific if any of its allies were attacked—and the development of an effective working relationship between Washington and Beijing after 1972, provided a reliable and stable security environment that further underpinned the economic rise of Japan, then South Korea, the other 'Asian tigers' and China. India's economic reforms from the early 1990s contributed to its closer engagement with the region.

The policy choices and actions of Asian countries themselves reinforced this stability. China's reform program, particularly from the late 1980s onwards, refocused Beijing's attention on internal growth and gave it a large stake in the established international system. Its relations with the United States and its regional neighbours expanded and deepened as complex regional investment patterns and value chains developed. The deeper economic interaction between China, Japan and South Korea helped keep historical tensions in check.

In Southeast Asia, the Association of Southeast Asian Nations (ASEAN) emerged as a stabilising regional force following the tensions of the 1960s, and its expansion in the 1980s and 1990s to encompass Brunei, Cambodia, Laos, Myanmar and Vietnam as well as Indonesia, Malaysia, the Philippines, Singapore and Thailand has helped ensure stability and encourage economic integration.

8.3 New challenges

Our security environment is being challenged by three developments, which will continue to shape the Asian century.

The first change, and in some ways the most basic, is coming from the systemic impact of Asia's economic growth—the cumulative effects of the resource demands already made and still to come, and their environmental consequences. Economic growth has given regional states a new and broader range of interests and responsibilities, including in global economic governance and the security of energy, resource and food inputs to their development. So the sources of those resources and assured supply routes will feature more in their strategic considerations.

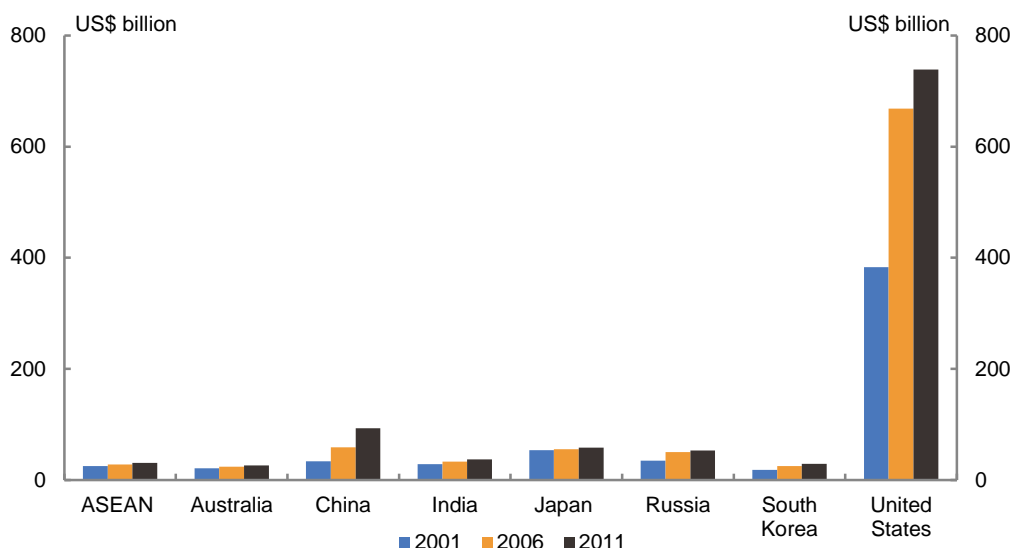
Over the period to 2025, the pressure on water resources, food, energy supplies and air quality will increase (Chapter 2). Climate change is likely to add to the frequency and severity of natural disasters.

Second, and directly related, the economic growth and broader international interests of Asia's large powers, especially China and India, are having an impact on the established strategic order.

At the same time, rising government incomes are enabling many states to modernise their defence forces with more advanced capabilities. Some countries are enhancing their defence industrial capacity, including leading-edge technological innovation, and boosting their defence exports.

It is important to keep regional defence expenditure in context: in some cases, increases over recent years come from relatively low baselines, while the US defence budget continues to dwarf those of other countries (Chart 8.1). But regional states' defence capabilities will continue to grow and China's military modernisation has made steady progress in recent years. China largely focuses its military capabilities on the region, whereas the US capabilities are spread globally.

Chart 8.1: Regional defence expenditure



Note: All expenditure is reported in 2011 dollars. ASEAN military expenditure excludes that of military expenditure by Myanmar due to data unavailability. China's actual defence budget is likely to be more than the publicly available figure in Chart 8.1.

Source: DIO (2011).

The third change to the familiar regional environment has to do with the growing empowerment of individuals and non-state actors. This change will by no means be completely, or even predominantly, negative. There is a growing capacity for groups in society to organise within countries and across national boundaries. And in some regions and nations there are changing demands for better governance and more transparency from individuals who have better access to information and can share their views more easily. Improved lines of communication may help governments in the region respond more effectively to concerns that arise as nations transform in the Asian century.

But, at the same time, greater access to information and communications technology, particularly if information is not accurate, can help negative influences in society. Combining easier information transfer with the increasing mobility of people, goods, services and money will help raise the capabilities of more dangerous transnational groups such as terrorists, people traffickers and smugglers, pirates, transnational criminals and hackers. Self-radicalised terrorists or lone hackers can often be even more difficult to identify and combat than organised groups.

None of these developments of themselves make major power conflict likely—in some important ways they will probably act as a constraint. All the major powers recognise how interdependent their economic interests are. The regular high-level strategic and economic dialogue between the United States and China has been useful in managing differences. And similar institutionalised bilateral links are being established between other key regional players, such as India and China. Most regional countries will adapt their policies over time in response to new issues that arise and to ensure they balance their various interests.

But these developments certainly make the consequences of any conflict more far-reaching and dangerous. They raise the cost of miscalculation in a range of longstanding regional flashpoints—North Korea, the Taiwan Strait, territorial disputes in the South China and East China seas, India–Pakistan relations—and give greater urgency to efforts to manage them.

8.4 Australia's response

For more than 60 years, Australia has been a committed partner to the countries of the region and a strong supporter of regional institutions. Our diplomatic, defence, intelligence, business and people-to-people links have helped spearhead this work. Australia's longstanding commitment to active middle-power diplomacy, with its focus on practical problem solving, effective implementation and building coalitions with others, will continue to drive our approach.

But, as we have discussed, changing power relativities and other regional and global dynamics are driving change in our security order. We need not be pessimistic about this future, but nor should we be complacent. New mindsets and creative approaches will be needed. We will need to continue to strengthen our institutions and mechanisms, bilaterally and regionally, to help manage change.

As Asia becomes more central to the global economy, and the large Asian countries more important to global decision-making, we will face increasing competition for access and influence in the region.

National objective

20. Australian policies will contribute to Asia's development as a region of sustainable security in which habits of cooperation are the norm.

Cooperative relations among the pre-eminent powers in the region—China, India, Indonesia, Japan and the United States—will be fundamental to regional security and prosperity (Box 8.1). Because those relationships will almost certainly have both competitive and complementary aspects to them, their management will be critical.

Box 8.1: China, the United States and Australia

The relationship between China and the United States, the two most powerful states influencing the region, will do more than any other to determine the temperature of regional affairs in coming decades.

Beijing and Washington both want to develop constructive relations and avoid conflict: their governments have consistently said so; the intensity, structure and sophistication of their engagement, often underestimated, has shown it; and they have deeply interlinked interests that will push them that way.

We are optimistic about the ability of China and the United States to manage strategic change in the region. But their relationship will inevitably have a competitive element, especially as China's global interests expand, it becomes more active on a broader range of international issues and its defence capabilities grow in areas dominated for more than half a century by the United States.

The danger of miscalculation and accident therefore requires ongoing investment in bilateral and regional efforts, such as the East Asia Summit and other regional bodies, to build trust and transparency and to ensure that communications are open and military-to-military dialogue is effective.

In managing the intersections of Australia's ties with the United States and China, we will need a clear sense of our national interests, a strong voice in both relationships and effective diplomacy.

We consider a strong and consistent presence by the United States in the region will continue to be as important in providing future confidence in Asia's rapidly changing strategic environment as it has in the past. We will support this through our alliance with the United States.

At the same time, China's importance to Australia, economically and politically, will only grow in decades to come.

We welcome China's rise, not just because of the economic and social benefits it has brought China's people and the region (including Australia), but because it deepens and strengthens the entire international system. We have consistently supported the reform of global institutions to make them more representative of the large emerging economies and the modern world.

We accept that China's military growth is a natural, legitimate outcome of its growing economy and broadening interests. It is important that China and others in the region explain to their neighbours the pace and scope of their military modernisation, to build confidence and trust.

Box 8.1 (continued)

This is not a world in which anything like a containment policy can work or be in our national interests: compared with the Cold War period, our mutual interests are much deeper and ideological differences much less marked.

We want, therefore, to deepen our already close and cooperative relationship with China at every level, including enhancing our defence cooperation. We come to the relationship with China as a dependable economic partner, a constructive participant in regional affairs, one of the world's oldest democracies, a good international citizen, and a close ally of the United States. None of these dimensions will change. Together they offer the strongest possible foundation for engagement with China and the region as a whole.

The perspectives of Australia's neighbours vary widely. Some share our views, including on issues of principle, while others differ. Divergences between our cultures and systems sometimes compound inevitable frictions. So our policy responses will be shaped by the broad objective of building trust. That means making every effort to build between the states of the region (and globally) deeper understanding, greater transparency, clearer communications, more effective and reliable rules and dependable markets.

Large-scale change like that expected in Asia will put a premium on the development of mutual trust and confidence between the countries of the region. All the major Asian states will have a deep interest in avoiding armed conflict, but the form and conditions of regional peace will be just as important a consideration.

We will encourage, as we have traditionally, the construction of a peace in which all the region's countries have a voice in its future, which is guided by established rules and transparent behaviour, and in which decisions are taken without threats of the use of force or other forms of intimidation.

The first way of building trust will be to work bilaterally to deepen our relationships with regional partners. By deepening relations, we mean engaging more broadly than at present across governments and societies, developing reliable and practical habits of cooperation, and increasing the levels of understanding between our peoples through business links, people-to-people engagement, media and other networks (Chapter 9).

Building trust will also require us to continue to work on building global and regional institutions whose form and functions reflect the emerging world and can deal effectively with new issues.

8.5 Sustainable security in the Asian century

The sustainable security that we will seek to build in the region encompasses our own national security, the collective security interests of the region, and the human security needs of its people.

National security

National security is a broad and evolving concept. Within a broader security agenda, the Government's national security policy is primarily concerned with the protection of Australia's sovereignty, population and assets, and shaping a favourable international environment. We will release a National Security Statement that articulates our national security priorities in the context of the emerging global strategic environment, drawing on the analysis and guidance in this White Paper.

At the core of Australia's national security lies the capability of our defence forces—the Australian Defence Force's ability to deter or defeat any attack on our territory, to contribute to the stability and security of Australia's immediate region—including through peacekeeping and stabilisation operations—and to help meet our international obligations, such as those under our alliance with the United States. It also needs to be able to respond to regional needs for humanitarian assistance and disaster relief.

And national security depends on partnership—building trust—with others. Australia has a long tradition of working to build security with regional partners bilaterally and through regional agreements such as the Five Power Defence Arrangements. We have defence cooperation programs with regional partners, especially in Southeast Asia, that include training, joint exercises, specialised exchanges and shared professional perspectives on defence doctrine. Regular exchanges take place between ministers, military officers and officials.

As regional countries modernise their defence forces, these programs are opening up opportunities for us to pursue deeper strategic and security partnerships. We will direct increasing effort in the period ahead to the development of deeper defence cooperation, joint exercises and other forms of defence and security engagement with our neighbours, particularly Indonesia, other Southeast Asian countries, Japan, South Korea, India and China (Box 8.2).

Such interactions will build mutual trust—increasing patterns of contact, reducing the risk of misunderstandings and helping with practical challenges like maritime security and the effective provision of humanitarian assistance and disaster relief.

Accurate information is important for building trust, avoiding misunderstandings and encouraging rational decisions. So we will support actions that promote clearer communication and greater transparency about intentions, strategies, and military budgets and capabilities. We regularly release public documents, such as Defence White Papers, to make our views and intentions on such issues clearer. Our next Defence White Paper will set out in more detail the role we will play with regard to defence and security throughout our region.

Box 8.2: Indonesia–Australia Defence Alumni Association

In March 2011, the Indonesia–Australia Defence Alumni Association (IKAHAN) was officially launched.

Through an annual program of seminars, cultural and sporting events, IKAHAN encourages all participants in Australia–Indonesia defence engagement activities to renew and maintain their relationships. Since its launch, IKAHAN has grown to over 800 members. Celebrations in Jakarta to mark its first anniversary were attended by the Indonesian Defence Minister, Australia’s Chief of the Defence Force and Secretary of Defence, and their Indonesian counterparts.

Training and education is a longstanding element of our bilateral defence relationship with Indonesia. Each year, around 100 Indonesian military officers participate in courses, short-term visits and other exchanges in Australia through the Defence Cooperation Program. Around 50 Australian Defence personnel visit Indonesia in an official capacity each year. Australian and Indonesian military personnel participate in regular joint exercises. This level of engagement is growing on both sides.

The role of the United States in East Asia has been central to the strategic environment for nearly 70 years. And our alliance with the United States has been the cornerstone of our defence and security policy for most of that period.

The alliance is driven by shared values, a long history and a common set of aspirations for the global system. It has never required us to abandon our independent national interests or policies and there will always be issues on which our views diverge. But the alliance embodies trust. It impels us to understand and take into account the views of our partner.

We consider that a strong and consistent United States presence in the region will be as important in providing future confidence in Asia’s rapidly changing strategic environment as it has been in the past. We will continue to support US engagement in the region and its rebalancing to the Asia–Pacific, including through deepening our defence engagement with the US and regional partners.

We welcome Japan’s active diplomatic role on a wide range of international issues, including regional architecture, climate change, non-proliferation and disarmament, and energy. Despite its modest growth in recent decades, the Japanese economy remains one of the world’s largest. Japan is also the world’s largest creditor, continuing to wield significant influence in regional and global economic organisations such as the International Monetary Fund, the World Bank and the Asian Development Bank. Australia and Japan have substantial shared interests and values, including as allies of the United States, which are reflected in a range of trilateral dialogues at the Ministerial, senior officials’ and working levels, including the Trilateral Strategic Dialogue and other processes. Our relationship with Japan is likely to become even more important over coming decades in building sustainable security in our region.

We are working closely with China to build a comprehensive, constructive and cooperative relationship that encompasses not only trade, resources and investment, but also political, security and people-to-people connections. To sustain regional prosperity and security, we will continue to work actively with China to advance our shared interests, in regional institutions such as the EAS and APEC, and globally through the G20 and other bodies. With a long commitment to peace and security in the region, we have a key interest in building defence and broader security cooperation with China.

Elsewhere in Northeast Asia, South Korea is a growing security and environmental partner for Australia. We work together bilaterally and through a shared commitment to active middle-power diplomacy in bodies such as the United Nations, the G20, the EAS and APEC. Areas of common interest include climate change, international development and non-proliferation. We are pursuing a high-quality free trade agreement and our defence links are also increasing.

India's growing economic and strategic weight will increasingly influence the balance of power within Asia, and amplify India's global influence. The wider regional construct of the Indo-Pacific, linking the Indian and Pacific oceans as one strategic arc that includes Southeast Asia, illustrates this influence. Trans-Asian transport and wider connectivity is another (Chapter 2). Important determinants of evolving relations in the region will be how India's relationship with China develops, and the role of strategically located countries such as Myanmar. These factors will also influence which conception of the region's future comes to dominate.

Stronger Australian engagement with Southeast Asia, especially with our biggest neighbour, Indonesia, will remain important for our security and environmental policies. The continuing rise of a stable, democratic and more prosperous Indonesia, which plays a leadership role in the region and has an increasing global influence, is unequivocally in our strategic and wider interests. We will deepen our comprehensive partnership with Indonesia and step up engagement with ASEAN more broadly. We will focus more attention on engaging active regional powers such as Vietnam, Singapore, Malaysia, Thailand and the Philippines on security and sustainability issues.

In the contemporary international environment, it is clear that national security cannot be delivered only within national borders. Threats to Australia's people or institutions from non-state actors like terrorists, traffickers, pirates, hackers or other transnational criminals must be addressed with partners in other countries.

Australian capacities, like those found across the public service in the areas of law enforcement, border protection and health, are increasingly used to deliver sustainable security for Australia and our region.

For example, one effective way to reduce cross-border crime is to 'follow the money' through regional collaboration using a mix of anti-money-laundering and proceeds of crime laws to confiscate the assets of criminal organisations. Australian Federal Police officers are currently attached to 13 of our diplomatic missions in Asia, working with

their counterparts on money laundering and other issues such as illicit drugs and identity theft.

Sustaining regional efforts against terrorism will also require continued collaboration among security agencies. Australia will continue its law enforcement cooperation and capacity building role across the region, including through joint leadership with Indonesia at the Jakarta Centre for Law Enforcement Cooperation (JCLEC). While regional countries, especially Indonesia, have become increasingly effective in capturing and prosecuting high-profile terrorists and degrading their networks, jihadist ideology continues to motivate and focus an increasingly loose, geographically diverse and largely independent range of violent movements, cells and individuals, some of which remain highly capable.

We will continue to work with regional partners on joint approaches to managed migration, such as the Bali Process on People Smuggling, Trafficking in Persons and Related Transnational Crime, which Australia co-chairs with Indonesia. We will continue to support the group's commitment to further develop a regional cooperation framework on combating people smuggling and irregular migration through strong cooperation at the operational level. We will enhance cooperation on migration management, business processes, intelligence, policy and legislative development, by means such as exchanges, training and the funding of specific projects.

Given these transnational security threats, our approach will emphasise practical action through law enforcement cooperation, better information and intelligence exchanges, and capacity-building to support effective governance.

Collective security

Sustainable security in the Asian century will require governments to work multilaterally as well as bilaterally. Global and regional institutions will be central to efforts to develop collective security in the region.

As is evident with other dimensions of global change, the emergence of new centres of power is shaping the evolution of global and regional institutions and the way international rules, norms and standards are developed. Such rules are important because they provide predictability, underpin coordination and cooperation, and offer some defence against arbitrary action.

Strengthening aspects of international law through the negotiation and implementation of treaties and other international legal instruments is important to sustainable security. For example, implementing the United Nations (UN) Convention on the Law of the Sea, to which most countries in the region have acceded, and progressing negotiations under the UN Framework Convention on Climate Change are two aspects of international law on which progress should be made. We will continue to engage in dialogue with our neighbours on international legal issues and to share our expertise.

Many of the rules by which the international system operates remain relevant, effective and durable, and directly serve Australia's interests. Emerging economies have as great an incentive to support them as established powers. But the rules-based system is evolving as emerging economies become more globally engaged, and new issues arise.

As a middle power, with global and regional interests, Australia has a stake in the outcome of change in these areas.

With its universal membership, broad agenda and unique norm-setting role, the UN remains at the centre of global governance. As a founder member of the body, Australia will continue our long history of support for its goals and involvement in its work.

Within the UN, the Security Council is the cornerstone of international peace and security. To promote a Council more representative of the 21st Century, we support efforts to expand the Council's membership to include Japan, India and Brazil as permanent members, as well as appropriate African representation. Australia has long been committed to seeking to ensure that regional perspectives are brought to the Council's deliberations. During Australia's 2013–14 term as a non-permanent member of the UN Security Council we will continue this commitment.

That same commitment by Australia to support the reform of international architecture, so that it is properly representative of the 21st century world, will guide our approach to other existing and prospective organisations. It is why we have strongly supported the creation of the G20 (Box 8.3).

As Australia prepares to chair the G20 in 2014, we will support efforts to make its agenda as practical and useful as possible, with a particular focus on economic growth and jobs. We will work not just for its immediate members but for the wider international community. Through our stewardship responsibilities we will work with G20 members, non-G20 countries, and international organisations and others, such as business, labour and non-government bodies, to ensure global economic norms, rules and institutions are fully effective and relevant in a period of economic change.

We will use our role in the UN and the G20 to strengthen regional relationships and in turn use these relationships to address global and regional issues and strengthen these institutions. We will continue to support and promote international frameworks that preserve open, competitive and well-regulated markets and inclusive, sustainable growth. This will take time and require careful management. It is likely to include a shift in the group of nations that takes responsibility for providing global public goods, with China and India, in particular, adopting a higher profile over time.

Box 8.3: The G20

The formation of the G20 in 1999 and its elevation to a leader-level forum in 2008 represented a powerful recognition of the growing influence of emerging economies, including Brazil, China, India, Indonesia, Russia and Asia more generally. The G20 has permitted a more inclusive response to macroeconomic policy coordination and financial regulatory arrangements than smaller groupings such as the G7 and G8. Detailed policy development for leaders is carried out in working groups co-led by an advanced economy and an emerging market economy. For example, Canada and India co-chair the G20's framework working group and the United Kingdom and Indonesia co-chair the energy and commodities markets working group.

The G20 provides an opportunity for Asia's emerging economies to assume greater responsibility in the global economic system, as their impact on the policy directions of other countries grows. The announcement of additional funding in June 2012 to the International Monetary Fund by emerging G20 economies demonstrates their willingness to engage actively.

The G20 needs to maintain its character as a flexible forum in which leaders can focus on global challenges. The implementation of existing commitments will be important for its credibility. The G20's success will depend on the extent to which countries can build consensus and shape mutually reinforcing economic objectives to support the economic transformation underway.

Elements of the G20 agenda of particular interest to countries in Asia include development, food security, investment in infrastructure, open markets and resisting protectionist pressures. The G20 will also continue to drive further reforms of other international organisations, working with the broader membership of those bodies.

Asia does not currently have the advanced security institutions and confidence-building measures developed in Europe. In such a diverse region, with its different history, that is not surprising. Regional security architecture in Asia will continue to develop at its own pace and with its own characteristics. But, building on ASEAN's success, a number of institutions already provide forums in which sustainable security is being built. They include the EAS, the ASEAN Regional Forum (ARF) and the ASEAN Defence Ministers Meeting-Plus (ADMM+) among others.

We advocated successfully for the inclusion of the United States and Russia in the EAS. The EAS now has the right membership and the mandate to address political, economic and security issues, and has emerged as a critical regional institution in East Asia.

The significance of the expanded EAS is clear. Its members account for 55 per cent of the world's output and an equal proportion of its population, at 3.8 billion. Eight EAS members are in the G20; three are permanent members of the UN Security

Council. These three, along with India, possess four of the five largest armed forces in the world.

We will continue to play a leading role in efforts to develop the EAS, including its political and security agenda. Trust and confidence can be built through cooperation in non-traditional security issues like disaster relief, where Australia and Indonesia are leading a joint project.

The EAS complements and supports ASEAN's community-building agenda in Southeast Asia. It also complements APEC's role of supporting regional trade liberalisation, economic reform and economic security.

Our active involvement in the ADMM+ is a component of our regional military engagement. The ADMM+ brings together Defence Ministers from all EAS member countries, and has a mandate for practical military-to-military and defence-to-defence cooperation in areas such as maritime security, humanitarian assistance and disaster relief, counter-terrorism, military medicine and peacekeeping. It provides the opportunity for our defence forces to exercise alongside regional partners, and our active contribution will strengthen bonds with our neighbours.

As an Indian Ocean state, Australia also has security, environmental and economic interests in South Asia and the wider Indian Ocean region. South Asia, in which India plays the predominant role, has its own distinctive dynamics.² It is characterised by less regional integration than Northeast and Southeast Asia, partly because of disparities and differences in economic development and national perspectives.

We strongly support India's growing global and wider Asian engagements, including working closely with India and other partners to boost South Asian and wider Indian Ocean cooperation. Specifically, Australia is supporting the Indian Ocean Rim Association for Regional Cooperation, which we will chair in 2014–15, and is helping to develop a practical work program. We are also participating in the Indian Ocean Naval Symposium, an initiative of the Indian Navy.

The effective management of a number of regional flashpoints will become increasingly urgent as Asian military capabilities and global interests grow. Managing competing maritime and territorial claims will be particularly important. Over recent years, tensions have arisen in relation to some disputed areas, especially the South China Sea and maritime parts of Northeast Asia. While nationalist sentiment plays a part in these tensions, so do access to fisheries and concerns about energy and resource security. Some disputes have been, or are being, resolved through negotiation or international legal adjudication. The parties involved generally appear to be aware of the serious consequences of escalation. Even so, the risk of mistakes and misadventure remains high. In relation to the South China Sea and other territorial disputes in the region, Australia does not take a position on the competing

² India accounts for 75 per cent of South Asia's population, 63 per cent of its area and 82 per cent of its output.

claims. We continue to encourage the parties to clarify and pursue their claims and maritime rights in accordance with international law, including the UN Convention on the Law of the Sea.

We will support conflict prevention and risk reduction frameworks that provide early warning of possible conflicts, identify and apply the measures most likely to be effective in averting them, and manage them if they occur. Such actions range from the establishment of agreements on incidents at sea and hotlines to longer-term assistance with institution- and capacity-building.

Australia has a long record of contributing to global efforts on arms control, non-proliferation and disarmament (Box 8.4). These efforts remain important in achieving sustainable security.

Box 8.4: Non-proliferation and disarmament: Australia and Japan

Australia and Japan have worked closely and productively together on non-proliferation and disarmament for many years in international forums such as the UN, the International Atomic Energy Agency and various export control regimes. Collaboration has included promoting adherence to the Nuclear Non-Proliferation Treaty and the Comprehensive Test Ban Treaty, strengthening nuclear safety and security, and applying more effective export controls against the proliferation of weapons of mass destruction, especially in our region.

Japan provided a distinguished expert to participate in the Canberra Commission established by the then Australian Foreign Minister Gareth Evans in 1995. With Mr Evans, former Japanese Foreign Minister Yoriko Kawaguchi co-chaired the International Commission on Nuclear Non-Proliferation and Disarmament, which delivered its report in 2008. The commission has been succeeded by the Non-Proliferation and Disarmament Initiative, an intergovernmental group in which Australia and Japan have the joint lead role.

In particular, efforts to control the proliferation of technologies and materials needed for nuclear, chemical and biological weapons and their delivery will be important to Asia's security, especially as technology advances and trade links become more complex.

Issues of particular importance for Australia will be enhancing the effectiveness of relevant export controls, including securing closer regional engagement with export control regimes such as the Australia Group, and supporting practical forms of cooperation such as the Proliferation Security Initiative.

Because the reduction of arsenals of nuclear weapons in the region is important, we will continue to press China, India, Pakistan and North Korea—as well as the United States—to ratify the Comprehensive Test Ban Treaty so the treaty can be brought into force, and will press to begin the long-stalled negotiation of a Fissile Material Cut-off Treaty.

With our regional partners in the Asia–Pacific Safeguards Network and as a member of the Board of Governors of the International Atomic Energy Agency, we will work to promote best practice in nuclear safeguards and security in the region through training and professional development.

As missile technology becomes more sophisticated and more widely available, missile proliferation, especially of anti-ship ballistic missiles, poses particular challenges. Closer engagement among regional nations on missile defence will be necessary. We will work with the United States and regional partners to develop a constructive regional approach to dealing with the missile threat posed by rogue states, and the proliferation of enabling technologies in our region.

More effective regulation of the trade in conventional arms, including small arms and light weapons, can also help. We will support the implementation of global standards to enable more effective regulation in this field, for example, through the Arms Trade Treaty currently under negotiation.

Shared transport and communications infrastructure, notably the internet, is becoming more important in the region. We will work closely with regional partners to strengthen and protect this infrastructure, while avoiding unnecessary impediments to legitimate business, travel and other transactions. This will require active engagement with Australian businesses and the wider community.

We are developing Australia's first White Paper on cyber and digital economy policy in recognition of the growing importance of cyberspace to Australia's national interests. The White Paper will provide an integrated policy framework to enable Australia to take full advantage of the opportunities offered by the digital age through minimising risks and enhancing trust and confidence in online engagement.

We will work cooperatively on cyber issues through policy, diplomatic and wider dialogue with businesses and communities. Improving practical cooperation to strengthen network resilience and to respond to cyber-incidents will be increasingly important. This can be done by developing closer regional links, especially between national institutions such as computer emergency response teams.

Countries in Asia have taken advantage of the opportunities ushered in by the digital age, and now have a large stake in an open, stable and secure internet. They are well placed to make a contribution in this area.

The internet needs to remain open and free of unnecessary government regulation. To enable this, while also ensuring that the online environment remains stable and secure, Australia and its international partners are working towards the development of international norms of behaviour in cyberspace. In our view, the starting point is the existing framework of international law. In 2013, South Korea will host the third in a series of international conferences, known as the London Agenda, which bring together governments, businesses and other groups to discuss international cyber-issues and the development of norms.

Space-related technologies, such as those used to observe the Earth from space, are increasingly important for security, environmental and commercial interests. In the maritime domain, for example, information from space can provide essential data for anti-piracy measures, fisheries enforcement and environmental operations. Advanced space-enabled positioning systems, which are highly accurate and based on existing systems such as the global positioning system maintained by the US Government, are driving innovation in the logistics, agriculture, construction and other sectors.

Some regional countries are increasing their investment in space technology. For example, India, China and Japan are flying satellite missions and are developing independent satellite positioning systems. And Vietnam is investing US\$600 million in a space technology centre in the Hoa Lac hi-tech zone in Hanoi.

Protection of this space-based and space-related infrastructure will become increasingly necessary.

Australia's regional connections, geographical location and long-term engagement on space issues position us well. However, we need to continue our investment in space-related ground infrastructure to capitalise on our location and ensure that our capabilities remain relevant.

Asia has a strong tradition of diplomacy through non-official channels (called Track 2 diplomacy) on security issues, which reaches beyond national governments to business, academia, non-government organisations and the wider community, and helps to set forward agendas and address difficult issues. Some of these processes are well established, such as the annual Shangri-la Dialogue in Singapore, which attracts wide ministerial participation. Others, such as the Council for Security Cooperation in the Asia-Pacific, have built a role underpinning the formal intergovernmental work of the ASEAN Regional Forum. We will continue to support strong Australian participation in such dialogues.

Human security

Over the past decade most armed conflicts have been fought within states rather than between them. According to the Stockholm International Peace Research Institute (2012), only one interstate conflict (over Kashmir) was recorded in our region between 2001 and 2010, compared with between five and eight intrastate armed conflicts each year during the same period. Internal violence and fragility can also spill over international borders, undermining the security of other countries, displacing populations, and setting back economic development.

The sustainability of Asia's security environment will depend not just on the traditional dimensions of national and regional defence and collective security approaches but on the human security of the region's people as well.

The 855 million people in the region who still live on less than \$1.25 per day are especially vulnerable to shortages of water, energy and food and the consequences of their misuse (World Bank 2012b). Ageing populations, inequality within societies and

rising social tensions will all help shape the regional security environment. Our policies will be directed at building trust at the level of human security.

National objective

21. The region will be more sustainable and human security will be strengthened with the development of resilient markets for basic needs such as energy, food and water.

Energy, food and water resources are all coming under greater pressure and, along with climate change, these pressures are increasingly intertwined (Chapter 2). Policies seeking to address problems in one area can have unintended impacts in another. Shortages of energy, food or water, or rising prices, can lead to community unrest and even to conflict between states.

So far, within the region and in Australia, there has been limited recognition of the interdependencies between these issues, and the consequent trade-offs and synergies. For example, in some parts of the region, subsidised electricity for farmers in an effort to boost agricultural output has resulted in over use of energy and extraction of ground water.

We recognise the need to form energy, food and water security policies and tackle climate change in a holistic and integrated manner. Adjusting policy settings and governance arrangements to account for interdependencies will require a multistage response. The immediate priority will be to support efforts to better understand the connections and trade-offs. Basic metrics for these critical relationships are needed to inform policy. To this end, we will support the use of environmental accounting in the region.

Over the longer term, regulatory and institutional arrangements will need to be progressively modified to allow for integrated decision-making. This could include providing better links to ensure consistent incentives across carbon, energy, food and water markets so that users, not just governments, take account of their interdependencies.

Working towards a more water-secure region

Given the importance of water resources to Asia's development, and the risk that they may become a future source of political tension, we will continue to work with the region by contributing to good policies and sustainable management practices.

Already a relatively water scarce region, the scale and complexity of Asia's water problems are set to grow (Chapter 2). Improving water-use efficiency will be central in achieving regional water security, but water-saving policies, practices and technologies only help if they are accompanied by incentives that encourage their adoption.

We are well placed to collaborate and share our experience of replacing centrally planned water allocations with a market. This process has been crucial in managing our water resources, especially during the recent drought. By exposing the opportunity cost of water, users as well as governments now make complex decisions about who should use water, where and for what purpose.

Australian firms have developed valuable expertise. This country's experience with drought and water markets has prompted considerable technological innovation in water recycling and irrigation infrastructure. Systems devised for Australian agriculture have been adapted for application in China. We will continue to showcase our technology, providing commercial openings for innovative Australian firms.

Sharpening incentives to use water wisely is just one way of helping to improve water management. We will work to strengthen capacity at all levels of partner governments to manage water resources. This will include working with the region on water management issues, particularly in the Greater Mekong region and South Asia (Box 8.5).

Box 8.5: Australia's involvement in the management of the Mekong River

The growing challenges of water resource management in the region are well demonstrated by the Mekong River. The river flows for more than 4,800 kilometres through Cambodia, China, Laos, Myanmar, Thailand and Vietnam, all of which depend on it heavily for agriculture and fishing.

As populations and economies in the Mekong region have grown, so have demands on the river. In recent years, a number of large hydropower dams and irrigation projects have been proposed. Such developments threaten to alter flows and affect the livelihoods of downstream users.

The public protests and diplomatic disagreements spurred by such proposals have highlighted the trade-offs between the needs of upstream and downstream water users. The trade-offs become more pressing as development of the basin continues. Collective decision-making and a whole-of-basin approach in the Mekong region will be essential to adjudicate disagreements and support water and food security in coming decades.

Progress towards a common approach has already been made. In 1995, countries in the lower Mekong Basin agreed to cooperate through the Mekong River Commission in managing, using and further developing their segments of the basin. Recently, Myanmar has informally signalled its interest in joining the commission. And after recognising the downstream impacts of its hydropower developments in 2010, China has now agreed to expand technical cooperation with its lower-Mekong neighbours through a negotiated memorandum of understanding.

We support these efforts through the Australian Mekong Water Resources Program.

Australians have already been working collaboratively with China to produce a 'report card' on river health to inform Chinese policy development, monitor progress and raise public awareness (Byron & Jiang 2012). There are opportunities to take this relationship further, including by working together to develop financial incentives, such as polluter-pays systems, to address water pollution.

Stepping up to the plate—working together on food security

Food security is a critical dimension of human security in the region. Two-thirds of the world's food insecure reside in Asia and sharp upward price movements can result in political and social unrest.

To feed a larger, richer population, the region will need to increase productivity and use its resources more efficiently. In some parts of the region, that will involve adopting proven farming techniques and processes. Yields in some developing countries have ample room to improve. For example, India's rice yields are one-third of China's.

In other parts of the region, governments and the private sector will need to find new and better ways of increasing production and helping agriculture adapt to and mitigate the effects of climate change. This will require innovations in biological sciences, resource management and agricultural processes. Encouraging investment in agricultural research and development, and the subsequent adoption of new technologies and varieties, will be essential. Given the long lag time before the gains from investment in research and development are realised, further research into hardier crop types, pest control and more efficient water and fertiliser use must begin now.

Australia is well placed to work with the region to bolster agricultural productivity. Australians have expertise in agricultural technology, economics and policy—supported by strong educational and research institutions—and can provide technical assistance to improve agricultural capacity.

Australia's research and development capabilities are well recognised. We will use established networks, such as those of the Australian Centre for International Agricultural Research (ACIAR), to share our research capabilities with the region. Recent evaluations show that ACIAR projects—which make Australian agricultural and rural development expertise available to developing country partners—have delivered around \$11.4 billion of benefits to developing countries and \$1.2 billion to Australia, from a total expenditure of \$234 million (Harding et al. 2009).³ We currently expect to invest around \$455 million, or 8 per cent, of Australia's official development assistance in agricultural and food security activities in 2012–13.

Our efforts to improve food security go beyond the farm gate. Investments in water and transport infrastructure, particularly roads, irrigation systems and dams, are

3 In 2008 dollar present value terms.

needed (Chapter 2). Such investments help farmers integrate into value chains and markets and reduce food loss and waste. We can exchange lessons with our regional partners on how best to encourage greater private sector participation to help finance growing infrastructure needs (Chapter 7).

Adequate national supply is only part of the challenge. No country will achieve full food self-sufficiency at all times—international trade and efficiently functioning markets will be necessary to meet the region’s growing food demands. We will continue to argue and work bilaterally, and in international organisations, against trade distortions such as production and export subsidies and export restrictions, and to improve market access conditions for food and agricultural exports (Case study).

Addressing climate change

Recognising the threats to human security—and to economic development—that will come from climate change, many countries in Asia have started to build climate resilience and reduce the emissions intensity of their growth paths. Emissions reduction policies are gaining traction, through national development strategies and through clean and low-emissions energy targets.

The biggest Asian emitters, China and India, have pledged to reduce growth in their emissions. China will reduce its carbon intensity (carbon emissions per unit of GDP) by 40–45 per cent between 2005 and 2020. India has committed to reduce its emissions intensity by 20–25 per cent over the same period. Other countries in the region have also made international pledges to limit or reduce their emissions by 2020, including Japan, South Korea and Indonesia. With a growing share of global emissions, Asia’s transition to a low-carbon development path is critical to a global climate change solution.

To spur greater mitigation and adaptation effort in Asia, we already contribute financial assistance through our aid program. Along with other developed nations, we have committed to helping to mobilise US\$100 billion annually by 2020 to assist developing countries, many in Asia, tackle climate change. Capacity-building—by sharing experience on practical matters such as renewable energy targets, energy efficiency standards and sea level mapping—provides another avenue through which we encourage greater regional climate action.

Globally and regionally, there is growing interest in harnessing the potential of carbon pricing, and the international carbon market, to deliver effective and least-cost emission reduction. Many countries in Asia are developing or considering carbon pricing and emissions trading schemes to maintain strong economic growth as they make the transition to a low-carbon development pathway.

China plans to develop emissions trading schemes in several cities and provinces, with the aim of scaling up to a nation-wide approach after 2015. South Korea has passed legislation for an emissions trading scheme to start from 2015. Japan has an emissions trading scheme operating in the Tokyo and Saitama regions, covering 20 million people.

Sharing our experience and expertise in carbon pricing will help build well-functioning and comprehensive carbon markets in our region. Through this work, we can also explore ways to realise the additional benefits that come from carbon market integration. Australia's emissions trading scheme has been designed to link to other credible emissions trading schemes to realise such benefits. Integrated carbon markets, in our region and beyond, have the potential to increase access to a broader range of credible, low-cost abatement opportunities. They will incentivise trade and investment, particularly in renewable energy and energy efficiency technologies. They will also expand opportunities for the financial services sector. The Australian financial industry is well qualified to offer intermediary and advisory services to integrated carbon markets.

Australia already has well-established mechanisms for exchanging these ideas and experiences through links with counterparts in the region, academia and policy organisations. We already share technical expertise on emissions trading design with China, Indonesia, Japan and South Korea. We also engage with regional neighbours through initiatives such as the World Bank's Partnership for Market Readiness.

Within and beyond formal government exchanges, Australian thinking and know-how continues to play a role in shaping emerging arrangements. Experts from Australian universities are sharing their economic, quantitative, energy, policy and low-carbon technology expertise with countries in the region. These activities have already included assisting in the preparation of Indonesia's Green Paper on strategies for climate change mitigation, and working with Chinese counterparts on policy options for energy efficiency, low-carbon cities, and the design of market mechanisms to reduce emissions.

Even with substantial mitigation efforts, climate change is expected to have significant impacts around the world, including in Asia. Adaptation will be critical in minimising its economic, social and environmental costs. Some countries in Asia are starting to act. For example, China, Indonesia and Vietnam have recognised adaptation as a high-level priority within their domestic policy settings. While many less-developed countries have limited capacity to respond and adapt effectively, countries such as Bangladesh, Cambodia, Laos and Myanmar are completing National Adaptation Action Programmes. Impact assessments are being used across Asia to investigate at-risk sectors.

We will share adaptation expertise. In coastal zones, we can help countries put in place regulatory frameworks to adapt to climate risks. Australian businesses are well placed to export their knowledge and expertise in coastal mapping technology and support tools to assist in adaptation planning decisions. For example, a number of Australian companies have the capability to undertake digital elevation modelling of coastlines, which allows for a more detailed understanding of the range of possible impacts of climate change.

Improving energy security

Countries in Asia will become increasingly focused on energy security in coming decades as China and India transform the global energy system by their sheer size. Meeting the energy needs of these two economies, along with those of others in the region, will require a combination of bolstering technological innovation to open up new sources of energy, including renewables, and prompting users to find new ways to use energy more efficiently.

Many countries in the region already use energy efficiency targets and performance standards, along with renewables targets, to encourage new sources and greater energy efficiency. Others are progressively shifting towards market-based pricing as a means of stimulating improvements in energy efficiency and alleviating some of the upward price pressure. For example, countries such as India, Indonesia and Malaysia are making plans to remove energy subsidies (IEA 2011). These and other efforts to improve energy efficiency offer the additional benefit of restraining growth in emissions.

Australia can collaborate with the region to sharpen these responses by supporting partner countries to implement energy efficiency measures. This includes working together on minimum energy performance standards—a proven way to improve energy efficiency as people become more affluent and use more energy-hungry appliances—and continuing our work through the APEC Expert Group on Energy Efficiency and Conservation and the UN Environment Programme’s *en.lighten* initiative. We will work with Vietnam and Indonesia to support energy-efficiency standards and labelling programs.

We will use established forums to enhance cooperation on technology research, development, deployment and commercialisation, including for clean energy technology.

Dealing with energy uncertainties

While energy resources are expected to meet global needs through to 2025, there may be surprises. Energy security risks will be more diverse and more complex than in the past—technological change, social and political unrest and extreme weather all have the potential to disrupt markets.

Global and regional energy security and response frameworks will need to expand and diversify as global and domestic energy markets evolve, technologies advance, energy systems integrate and energy consumption patterns shift. Australia will work through the International Energy Agency on a more comprehensive approach to the security of energy supplies, including more comprehensive coverage of energy resources, such as natural gas, and major energy use within the region.

Exchanging ideas on natural resource management

The region is exploring and developing solutions to its sustainability challenges, and there is much that Australia can learn from those efforts. Japan and South Korea are world leaders in energy efficiency. China has embarked on an ambitious agenda of environmental reforms and will invest around US\$608 billion during the next decade in projects to improve water conservation (Byron and Jiang, 2012).

A large share of funding for our collaborative work with the region on sustainability issues comes through our aid budget. This presents two related challenges. First, many worthwhile collaborations (whether they be with Japan on energy or with China on water) do not fall within the scope of aid. Second, it means that Australia is often focused on what we can impart, rather than what we can learn from working with the region.

We need to reconsider our approach to collaboration with the region. That does not mean we need to rethink the aid budget—we have robust processes for determining which programs receive funding and which do not. Rather, we need to promote other forms of collaboration.

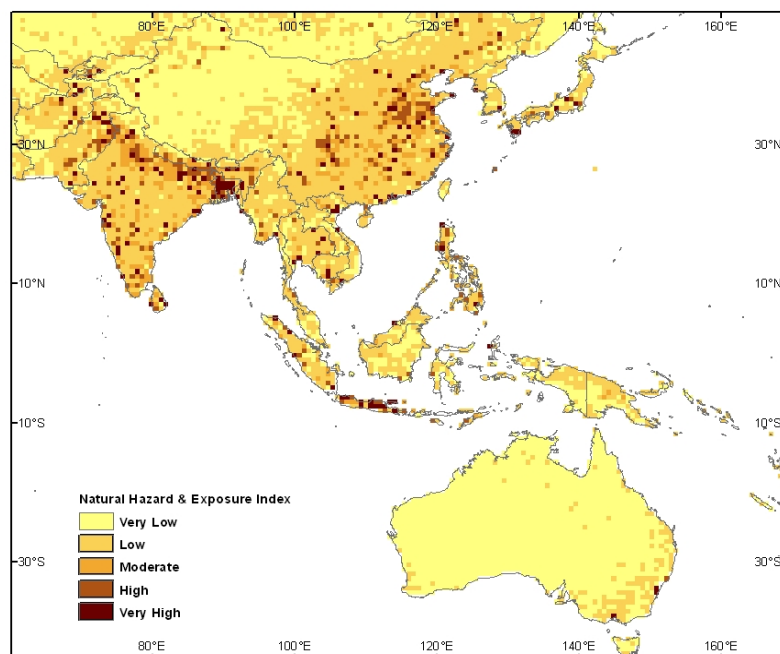
Improving resilience to natural hazards

The region is especially vulnerable to natural hazards—floods, earthquakes, tsunamis, cyclones and volcanic eruptions. The 2004 Indian Ocean tsunami and the 2011 earthquake and tsunami in Japan highlighted the scale of such disasters and the complexity of the responses needed. Population growth, the pace of urbanisation, environmental degradation and extreme weather brought on by climate change are all likely to increase the scale of such disasters and the region's vulnerability to them (Figure 8.1).

Regional countries are increasingly focusing on risk reduction measures to prevent or mitigate the effects of such disasters. Policy responses include tightening building codes in earthquake and flood prone areas; providing better information and more timely warnings to the people in affected areas; and the use of new technologies—including open data, early-warning systems, system mapping of geographical information and the use of mass instant text messaging.

A number of regional institutions are involved in this work. The East Asia Summit, in particular, is working with existing ASEAN mechanisms to improve regional disaster response arrangements.

Figure 8.1 Asia's natural hazard and exposure index



Note: The natural hazard index was created for each country by aggregating the mean value of exposure to tropical cyclone, flood, landslide and drought (1980–2000); earthquake (1973–2007); tsunami (historical 2,000 years); volcano (historical 10,000 years). This was then combined with population density data to generate the overall Natural Hazard and Exposure Index.

Source: Miller & Weber (2012).

Drawing on our experience in dealing with natural hazards, we are engaged with a number of countries and organisations in efforts to improve information sharing, overcome bottlenecks in the delivery of assistance and build countries' capacities to respond to disasters and receive assistance. For example, the Australia–Indonesia Facility for Disaster Reduction, launched in 2010, brings together a range of government agencies in both countries as well as multilateral bodies (including the UN Office for the Coordination of Humanitarian Affairs, the UN Development Programme and the World Bank) and non-government organisations.

We will continue to deploy whole-of-government teams of civilian and military personnel, as we did after the 2008 major earthquake in Sumatra and during the 2010 Pakistan flood disaster. The National Critical Care and Trauma Response Centre—established in Darwin after the Bali bombings in 2002 and 2005—is an important hub for our emergency medical responses in the region. It also delivers training to clinicians in the region. Given Darwin's proximity to Southeast Asia, its large military population and its capacity for growth in the decades ahead, the centre is well placed to become a regional centre of medical excellence in the region.

In a number of regional countries, including Australia, military personnel and assets play an important role in disaster response. The Australian Civil–Military Centre promotes stronger civil–military collaboration in dealing with conflict and disaster management. It brings together police, military and civilian agencies and non-government organisations to improve national capacities to prevent and respond to disasters and conflicts.

Continued cooperation with our partners in Asia in the maintenance and protection of international agreements, such as the Antarctic Treaty, will also be an asset. The development of the close relations we have with our Asian regional partners involved in Antarctica will be increasingly important in protecting the Antarctic region as well as in frontier marine, biological and climate research in the Asian century. Australia's scientific research and basing capacities in Hobart and in Antarctica have fostered closer cooperation with China, Japan, Korea, Malaysia and Indonesia and other partners on Antarctic research and logistics. This cooperation can be elevated through the Australia's Antarctic science strategic plan, working within the Antarctic Treaty system.

Aid and broader institutional connections

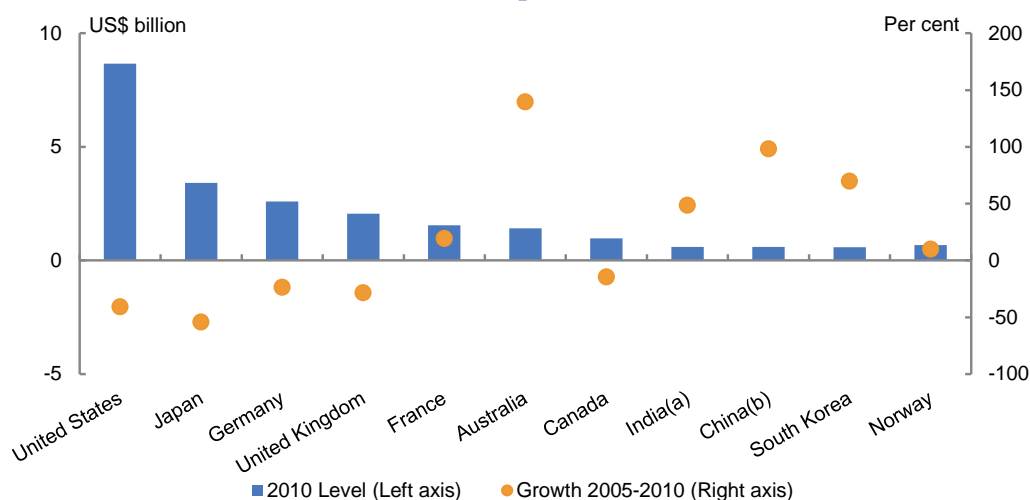
Our aid program is one of the main avenues through which we provide support for human development and human security in the region. In 2010, 58 per cent of our aid budget was expended in Asia, the second-highest proportion among all OECD Development Assistance Committee donors, after South Korea. We were the sixth-largest international donor to the region.

Our focus is on poverty alleviation and assisting the most vulnerable, but by helping to build skills and strengthen institutions, we also contribute to Asia's economic development.

As former aid beneficiaries have become aid donors, we are increasingly engaging with others in the region, such as China and South Korea (Chart 8.2). While aid from traditional donors to Asia fell from US\$45 billion in 2005 to US\$25 billion in 2010, non-traditional donors have partly filled the gap. China's grant aid has doubled since 2005. It also has a much larger concessional loan program. India recently announced that it would be establishing the Development Partnership Administration to manage its rapidly growing aid program, worth US\$610 million in 2009. This 'south–south' assistance has begun to change the landscape as new donors bring experience and lessons from their recent development experience.

In the area of human security, our trust-building policies will be directed towards information sharing and building contacts between specialists. For example, managing public health and biosecurity across borders will require particularly close regional cooperation between authorities and experts. Our biosecurity reform agenda recognises the transition now underway from an approach where we have provided capacity-building assistance to our neighbours to a new phase of biosecurity partnership and mutual recognition of capability and performance.

Chart 8.2: Official development assistance to Asia



Note: (a) India's measured assistance is from 2005–06 to 2008–09, and is not strictly comparable with other nations as it differs from the OECD Development Assistance Committee's criteria; it excludes lines of credit. (b) China's measured assistance is for 2005–2008 and is not strictly comparable with other nations as it differs from the OECD Development Assistance Committee's criteria; it includes grants, interest-free loans and subsidies for concessional loans. Estimates of assistance that include concessional loans and debt relief are one-and-a-half to three times higher.
Sources: OECD (2007a and 2012a), Smith, Fordelone & Zimmermann (2010) and Information Office of the State Council (2011).

Our engagement with multilateral bodies such as the International Labour Organization (ILO) provides opportunities to strengthen ties with our region and address shared policy challenges. We signed a five-year partnership agreement with the ILO in 2010 to provide funding to support ILO technical assistance programs that promote sustainable development and fair work, such as improving conditions for factory workers in the garment industry in several Southeast Asian countries.

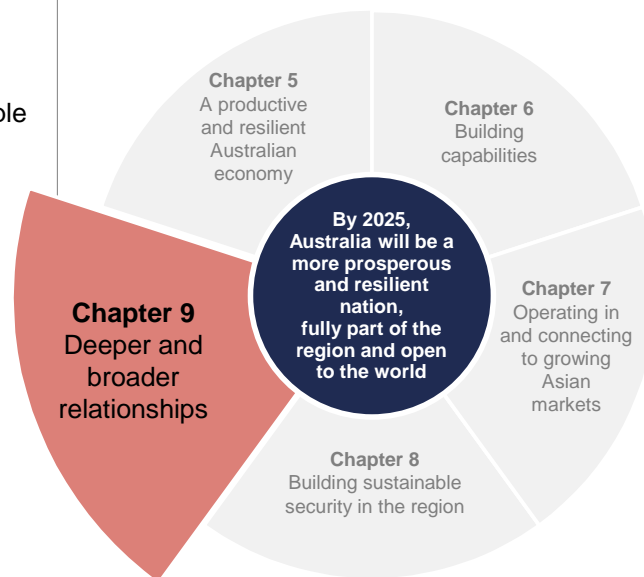
While countries in our region have different cultures and histories, we can learn from each other's distinctive experiences in pursuing our common goal of promoting respect for universal human rights.

We recognise the connections between human rights and human security. Events in our region have demonstrated links between serious abuses of human rights and threats to regional security and stability. Strengthening governance, security, justice and the rule of law in all our societies assists in managing and resolving conflict without violence (World Bank 2011). We will continue to support dialogue and practical collaboration on human rights in the region. We endorse cooperative models, such as the ASEAN Intergovernmental Commission on Human Rights and the Asia-Pacific Forum of National Human Rights Institutions.

We will also engage our region more actively on wider peace-building questions, such as how we can together assist countries in other parts of the world, including the Pacific, to build stronger, more resilient and more accountable national institutions (UN 2009).

Chapter 9: Deeper and broader relationships

- effective diplomacy
- stronger and more comprehensive relationships
- closer people-to-people links
- vibrant cultural connections



Key points

Australia's connections with the region have, over decades, been woven into a pattern that is both deep and complex.

We engage across the board—through governments at all levels, businesses, unions, academics, universities, the media, students, migrants, tourists, volunteers, scientists and people involved in the arts and sporting activities.

From these strong foundations, Australia will need to deepen and broaden our relationships across the community as competition for influence and access to markets increase in coming decades.

Stronger and more comprehensive relationships with countries across the region will be built through collaboration and cooperation and based on trust, mutual respect and understanding.

We will maintain an effective diplomatic network, with the necessary capabilities, and with an expanded footprint across Asia over time.

We will work with the Australian community to develop comprehensive country strategies, with China, India, Indonesia, Japan and South Korea as our initial priorities, to bring a stronger national purpose and cohesion to these relationships.

Australia's people-to-people links will be deeper and broader, through government support and through the actions of the entire community. This will include the substantial flows of people and ideas between institutions, such as parliaments, educational institutions, business and community groups and the public service.

We will commit 12,000 Australia Awards (Asian Century) over the next five years to nations in Asia to encourage people-to-people links with the region.

Cultural connections across a range of areas can be powerful forces for bringing people together. Exchanges in culture build greater understanding, foster cultural appreciation and offer commercial opportunities.

9.1 Introduction

The importance of Australia and Asia being ‘in each other’s minds’ has long been recognised (Garnaut 1989). The scale and pace of change taking place in Asia makes it even more important today.

In earlier chapters, just part of the long story of Australia’s relationship with Asia was traced. As we have seen, it has been an economic story, a foreign policy story, a defence story, a story about society. It has involved political leaders, diplomats, business people, unions, researchers, educators, students, migrants, tourists and artists. And from the beginning it has been a story of change and reinvention.

But in the decades ahead, the terms of the exchange between Australia and Asia will change again.

In some ways, Australia’s importance to our Asian partners will be even greater—the result of resource flows, migration patterns, political engagement and education exchange—at the same time as Asia’s importance for Australia grows significantly. And technology will provide extraordinary new opportunities to learn from each other and communicate.

But Asian states will have a wider range of global interests and certainly a greater range of interlocutors competing for attention and influence in coming years. So Australia will need to work harder to advance our interests in the region. In particular, the broad nature of the relationships Australia wants to develop will require greater involvement by many parts of our society outside government to bring success.

Two-way people movements will further strengthen the fabric of Australian society and our way of life. Improving people-to-people links can unlock large economic and social gains. Australia is well positioned to continue attracting highly skilled and talented people from the region to live, study and work in Australia. And Australians have much to offer the region.

Importantly, our links with Asia are social and cultural as much as they are political and economic. The arts, culture and creativity play an important role in strengthening Australia’s relationships with people in Asia. Australia’s cultural strengths underpin values of respect, understanding and inclusion that help to connect people, business, institutions and governments across the region.

A transformational agenda for Australia’s engagement with the region is needed.

9.2 The work of government

Diplomacy is the term used to describe the broad processes by which states deal with each other. At the most senior levels of diplomacy, Australian political leaders promote Australia's interests in the region through frequent contact with their Asian counterparts.

Ministers have a greater range of opportunities for regular meetings with their regional colleagues than ever before and heads of government now meet annually at the East Asia Summit (EAS), Asia-Pacific Economic Cooperation (APEC) forum, the Group of Twenty (G20) and other forums and meetings.

Resident diplomatic missions provide the day-to-day framework for dealings between states. They give us an on-the-ground understanding of the countries Australia is working with and enable us to directly advocate our interests with those in power and with decision-makers more broadly.

Australia's diplomatic missions are staffed by professionals from a range of departments, working together under whole-of-government arrangements. People who are 'in country' for long periods develop the relationships and local knowledge needed to provide the right advice and to get things done. A targeted and flexible diplomatic capacity is essential for promoting and protecting Australia's interests overseas.

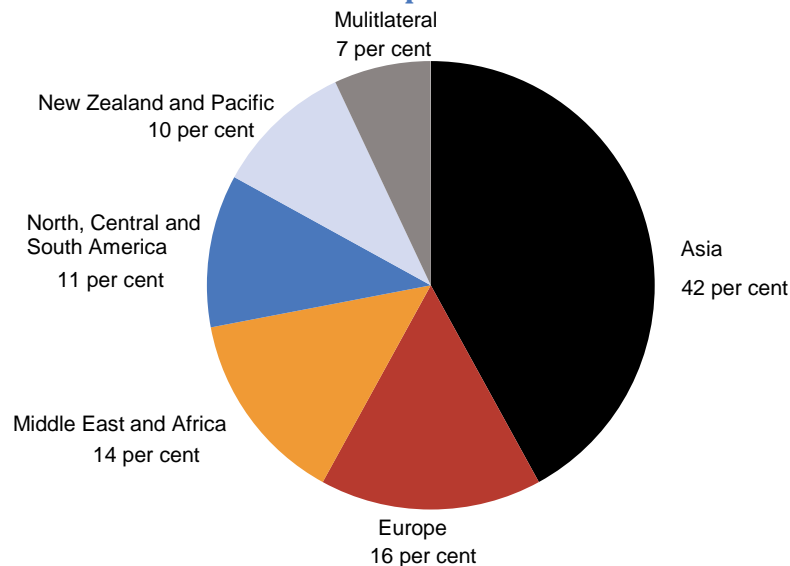
National objective

22. Australia will have the necessary capabilities to promote Australian interests and maintain Australia's influence.

- Australia's diplomatic network will have a larger footprint across Asia.

Successive Australian governments have recognised that our prosperity and security are intertwined with our region, and have shifted diplomatic resources accordingly. More Australia staff from the Department of Foreign Affairs and Trade (DFAT) in overseas diplomatic and consular posts are in the Asian region than in any other part of the world. At 30 June 2012, 42 per cent of the 593 Australia-based DFAT staff in posts overseas were located in Asia (Chart 9.1). And of DFAT's 1,700 locally engaged staff in overseas posts, 45 per cent were in Asia.

Chart 9.1: DFAT staff posted overseas



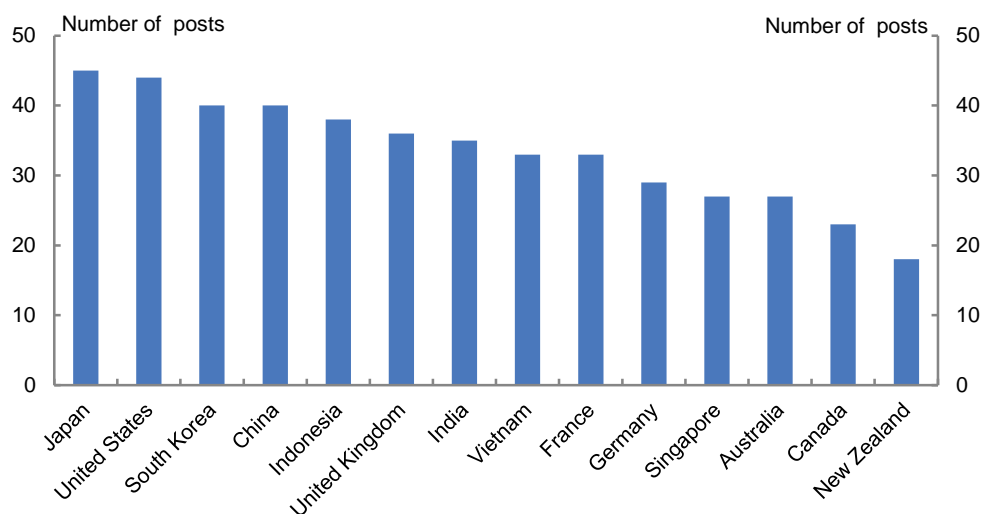
Note: As of June 2012. Multilateral refers to staff accredited to international organisations.
Source: Department of Foreign Affairs and Trade.

Asia's strong economic growth and increasing strategic weight are focusing international attention on the region. This means Australia faces growing competition for influence as others devote more resources to the task of building relationships (Chart 9.2). And Australia's level of official representation is lower than that of similarly sized countries seeking greater engagement in the Asian region. At the same time, demands on the diplomatic service have expanded as our agendas with countries in the region have become more diverse and complex. While the growing number of Australians travelling abroad place increasing demands on our consular services.

The Government recently opened new posts in Mumbai (India), Chennai (India) and Ulaanbaatar (Mongolia), and will soon open one in Chengdu (China). But Australia's overall diplomatic capacity has remained static—and at times declined—since the mid-1990s. In North and Southeast Asia, the number of DFAT policy positions has fallen while our interests have expanded rapidly. In South Asia, they have increased in the same period, largely in India but also to support Australia's efforts in Afghanistan. During this period, the number of DFAT policy staff in Europe has dropped.

To support Australia's interests in the region, when circumstances allow, we will open a full embassy in Ulaanbaatar (Mongolia) and consulates in Shenyang (China), Phuket (Thailand) and in eastern Indonesia. Over time, we will continue to review our diplomatic representation in Asia to reflect new priorities, both in capital and regional cities.

Chart 9.2: Diplomatic posts in Asia



Note: Compiled using data as of July 2012 from relevant foreign ministries websites. See glossary for definition of Asia.

Source: Department of Foreign Affairs and Trade.

Our approach to diplomacy must adapt to the evolving environment, a more complex policy agenda and new communications technologies (Box 9.1). Diplomacy will increasingly be a skill set, not a job description—our missions will need to draw on an increasing range of government agencies and external sources of expertise as Australia builds the specialist links and knowledge described in earlier chapters.

Box 9.1: 21st-century diplomats abroad—a day in the life

Until recently, Australia's diplomats were concerned mostly with government-to-government relationships, including advocating Australian interests in host capitals, reporting on developments and negotiating international agreements with other governments. Those remain important tasks—but more is asked of today's diplomats. The tasks of staff in overseas posts have multiplied and can now include any of the following:

- negotiating a science and technology agreement
- discussing market access for Australian agricultural products
- attending the trial of an Australian detainee
- participating in a forum to combat illegal fishing
- working with local authorities and the Australian Electoral Commissioner on possible electoral cooperation in future
- engaging in Ramadan festivities with a local community group
- promoting a cultural festival.

Source: Richardson (2011).

Today, almost every domestic policy issue has an international dimension, and most international issues have significant domestic repercussions.

As the agenda grows, Australia's overseas posts will more than ever be whole-of-Australia hubs promoting and managing a growing number of links—both physical and virtual. And they will continue to grow as hubs for greater business, institutional and community collaboration between Australia and the region.

A growing number of departments and agencies are already represented in Australia's overseas diplomatic posts (Appendix B). And other Australian Government agencies and promotion bodies work throughout Asia, such as Meat and Livestock Australia, Wine Australia, and Tourism Australia which has representation in China, India, Japan, Malaysia, Singapore and South Korea.

Each of Australia's six State governments has representative offices in various cities in Asia, some of which have been established for many years. State and Territory representatives, as well as some local governments, participate in trade, investment, tourism and cultural promotion and other missions to countries in the region. They also pursue other forms of engagement, including by promoting subnational, sister-state and sister-city relationships with regional counterparts, which involve their broader communities. Australia has over 100 of these relationships with Japan and more than 80 with China. We will continue to support stronger relationships between state and local governments and their regional counterparts.

DFAT has a central role in shaping and driving Australia's Asia engagement, including by consulting widely, drawing on external expertise, and connecting the domestic and international dimensions of policy. To do this effectively, it must work closely with other agencies and levels of government, with business and across the entire community.

At the same time, all Australian Government departments and agencies need to ensure that international considerations are embedded into their domestic policy analysis and implementation. They need to further invest in the development of effective working relationships with their regional counterparts.

Stronger and more balanced relationships

As Australia's individual bilateral relationships become more complex, we need to review the official bilateral architecture that underpins our stable and mature relationships within the region to ensure that it can help us manage this complexity (Appendix B). The bilateral architecture already in place with Indonesia, Japan and South Korea, for example, is well developed. Australia's relationships with China and India will be the immediate priority for future development of bilateral architecture.

We will look at ways to further enhance ties with Asia. This will include expanding regular high-level meetings between government leaders, ministers and senior business leaders. We will also build dialogues between young leaders and increase the flow of people and ideas between institutions. Institutions that should look to expand their links include parliaments, the judiciary, academia, cultural institutions, research organisations and businesses. In addition, we will continue to implement agreements and treaties across a wide range of areas.

Strengthening Australia's economic and business diplomacy is important. We need deeper and more comprehensive bilateral ties between Australian and regional economic agencies, greater involvement with regional economic forums, stronger links between Australian and regional business groups and effective Australian-based think-tank and university networks that are well connected to the region (often referred to as Track 2 diplomacy).

National objective

23. Australia will have stronger and more comprehensive relationships with countries across the region, especially with key regional nations—China, India, Indonesia, Japan and South Korea.

To bring a stronger national purpose and cohesion to our relationships with Asia, we will consult widely to develop comprehensive country strategies. This will include discussions with business and other community leaders to help identify opportunities to deepen and strengthen our national relationships. Deepening our people-to-people links will be a particular focus. These strategies will be tabled in Parliament and regularly evaluated and updated.

Because of their size, economic links with Australia and strategic and political influence in the region and globally, China, India, Indonesia, Japan and South Korea will be the initial priorities for the development of these country strategies.

At the same time, Australia will reinforce our partnerships with other countries across the region, including members of the Association of Southeast Asian Nations (ASEAN), such as Vietnam, Thailand, Malaysia, Singapore and the Philippines.

ASEAN, as an organisation, has amplified the voice of Southeast Asian countries and is at the core of regional groupings. To deepen Australia's engagement with the ASEAN Secretariat and ASEAN member countries, Australia will appoint a Jakarta-based Ambassador to ASEAN.

Australia will be able to strengthen our relationships in the region by pooling expertise and coordinating our Asia-focused programs more effectively across all levels of government under an overall 'Australia' umbrella. Coordination and consultation across agencies, levels of government and non-official expertise will be made easier through using new technology, such as the National Broadband Network.

Public diplomacy

The work of diplomacy is clearly no longer confined to dealing with governments and officials. The range of actors influencing the international agenda has proliferated to include business, the media, think tanks, cultural and educational institutions, community groups and individuals. If we are to advance our national interests across Asia, Australia must increasingly listen to, engage with, and try to influence the views of this broader constituency. To do this, Australia must draw on the connections and interests of a broad group of individuals and organisations, not only government and officials.

This means there is a core role for public diplomacy.

Public diplomacy, which includes cultural diplomacy, has traditionally been defined as the actions taken by government to shape the perceptions of individuals and groups in other countries in ways that will promote Australia's foreign policy goals (Senate Standing Committee 2007). But in recent times, with the influence of new technology including social media, the evolving nature of communications, and the proliferation of interest groups, a broader definition that takes into account the dynamics of two-way connections and a broader range of actors is more useful. And public diplomacy has a role to play both within Australia and overseas.

Foreign affairs ministries in the region are devoting more resources and using a wider range of public diplomacy tools to promote their culture and achievements internationally. And many countries outside the region have major public diplomacy programs that they use to promote understanding and awareness of, and interaction with, communities in the region; for example, the United States and the United Kingdom.

As the international environment becomes more contested, communication channels more complex and power more diffuse, public and cultural diplomacy tools help to start conversations, share knowledge and convey nuanced messages about Australia and our regional partners. The value of public diplomacy was demonstrated in helping to repairing Australia's image in India during 2009–10 (Box 9.2).

Australia's public diplomacy programs include: the Australia Awards program; cultural exchanges and projects in our overseas posts; country-specific foundations, councils and institutes;¹ international broadcasting services (Australia Network and Radio Australia); various schemes to encourage high-level visitors to come to Australia (including the Special Visitors Program, the International Media Visits Program and the International Cultural Visits Program); and the Building Brand Australia program.

1 Including the Australia–China Council, the Australia–India Council, and the Australia–Indonesia Institute, the Australia–Japan Foundation, the Australia Korea Foundation, the Australia–Malaysia Institute, and the Australia–Thailand Institute.

Social media is increasingly being used as a public diplomacy tool. It provides new opportunities to foster engagement and collaboration amongst community and business groups around the region. Through the creative use of these new tools, we can reach and engage new constituencies in Asia and Australia.

Box 9.2: Public diplomacy in action—repairing Australia’s image in India

In response to widespread negative fallout in India as a consequence of incidents in Australia involving Indian students, in 2009–10 the Government developed, in consultation with India experts, a public diplomacy strategy to help repair Australia’s damaged reputation. Drawing on the expertise of the federal and State governments, the City of Melbourne, media, educational institutions and the community, it included:

- intensive advocacy led by the Prime Minister and involving State Premiers and senior ministers
- encouraging more informed media coverage in India and Australia through fact-finding visits to Australia by more than 30 Indian journalists; providing regular media interviews and briefings; and holding regional seminars involving Indian, Australian and regional journalists
- promoting greater mutual understanding by bringing senior Indian opinion leaders to Australia; stepping up cultural connections, including by supporting a concert in Parramatta by Indian composer AR Rahman; touring a photography exhibition on Australia’s Indian community to major cities; and producing ‘interstitials’ (short items shown between features) on multicultural Australia for television and web distribution in India.

Time and persistence are needed to address reputational issues and to build the goodwill and resilience necessary for a bilateral relationship to withstand tensions that can arise. Research by the Reputation Institute shows that Australia’s reputation in India has improved since 2011, but that is not a reason for complacency.

Cultural exchanges build greater understanding between countries at all levels and the arts, culture and creativity can strengthen Australia’s relationships with nations in Asia both formally and informally (Box 9.3). Australia’s cultural strengths, as home to the world’s oldest living culture and one that welcomes great diversity, underpin values of respect, understanding and inclusion that help to connect people, business, institutions and governments.

In addition to its role in forging people-to-people connections, media is a particularly powerful public diplomacy vehicle for projecting a positive image of contemporary Australia abroad.

The newly reconfigured Australia Network service, which combines the resources and experience of the Australia Network and Radio Australia, provides a more flexible public diplomacy tool that includes an extensive on line component to build knowledge about Australia in the region.

Box 9.3 The Indigenous dimension of Australia's cultural diplomacy

Indigenous Australians have had a leading role in bringing Australia to the world. Contemporary Indigenous visual arts is one of the most highly regarded art movements in the world.

There are frequent exhibitions involving leading Indigenous artists touring Asia, both through our national collecting institutions and through Australia's diplomatic missions. The exhibition curated by the National Museum of Australia of works by Emily Kame Kngwarreye toured to Tokyo and Osaka in Japan and attracted record-breaking crowds and much local media attention. Indigenous music was a major component of Australia's cultural programs at the Shanghai and Yeosu expos in 2010 and 2012. Performing arts groups, such as leading dance ensemble Bangarra Dance Theatre, regularly tour overseas. Indigenous performing and visual art will feature prominently at OzFest, a major Australian cultural festival being led by the Australian Government in India from late 2012.

Presentations such as these demonstrate the vitality and uniqueness of Australian culture, which in turn assists Australia's national interests, including in our region. Each year, the Government supports a tour of a contemporary visual arts exhibition that showcases the richness of Australia's Indigenous cultures. Ongoing interaction between Asia and our Indigenous cultures is crucial and will lead to outcomes in tourism, economic growth and cultural exchange.

Through the provision of a mix of news, current affairs and business, English-language learning, education, documentaries, drama, sports and children's programs, the Australia Network will allow Australia's 'voice' to be available throughout Asia (Box 9.4). Ensuring that programming, applications and platforms respond to demand, while at the same time ensuring the editorial independence and integrity on which Australia Network's reputation depends, will increase its relevance and influence in the region.

Box 9.4: International broadcasting—reaching mass audiences

International broadcasting has the potential to reach more people each day than any other public diplomacy tool, enabling swift responses to unfolding events.

Australia's international television broadcasting service, the Australia Network, reaches an estimated 31.2 million homes in 46 countries in the Asia-Pacific region. It has a mandate to encourage awareness of Australia, promote cross-cultural communication and build regional partnerships. It is among the most-watched government-funded international television services in the region.

Radio Australia, which recent surveys estimate has a weekly reach of 1.54 million, provides content to Asia in six languages—English, Chinese (Mandarin), Indonesian, Vietnamese, Cambodian (Khmer) and Burmese (ABC 2012). It is a multichannel, multiplatform, multilingual service with nine new audio channels for radio and online, broadcasting 24 hours a day.

Other international broadcasters are competing for audiences in Asia, and spending considerable money in doing so, include Al Jazeera (Qatar) (\$359 million in 2009), CCTV (China) (\$280 million in 2009) and NHK World/Radio (Japan) (\$226 million in 2008).

Diplomatic dialogue through non-official channels, often referred to as Track 2 diplomacy, comes under the heading of public diplomacy. It generates new ideas and strategies and allows the non-government sector from different countries—usually academics, business people or officials acting in an unofficial capacity—to interact in processes aimed at creating and enlarging common ground to assist policy development. By its nature, these dialogues are more about the dynamics of building trust and common preferences than about 'bargaining' or negotiating strategies.

As demonstrated effectively in the past, Australian non-government sector networks, including business, universities, think-tanks and other networks, are a valuable resource for promoting foreign policy priorities, and an avenue for mobilising a broader set of resources. These networks can be used and deployed strategically to make Australian initiatives more likely to succeed and Australian foreign and trade policy more effective. Australia's public diplomacy efforts over time will continue to grow in influence.

We will routinely draw on non-official expertise and influence in developing and implementing foreign policy initiatives. Through greater coherence and connection between official and non-official dialogues, we can enhance our diplomacy to promote greater mutual understanding between communities in Australia and Asia. And over time, in partnership with the community, we will explore new avenues for intensifying our public and cultural diplomacy and engagement with the region.

9.3 The work of communities

The work of preparing Australia for the Asian century cannot depend on the Government alone. While the Government will play a leading role in strengthening and building truly comprehensive relationships with partners in the region, others across a broad spectrum of society, spanning business, unions, community groups, educational institutions and arts and cultural institutions, will play their role too. Public diplomacy and people-to-people connections are mutually reinforcing.

National objective

24. Australia will have deeper and broader people-to-people links with Asian nations, across the entire community.

Polling indicates that Australians' views of Asia, while largely positive, do not always recognise the dramatic regional transformations that have occurred over the past decade (Box 9.5). Similarly, some of our regional neighbours hold dated and stereotyped impressions of Australia.

So change is needed in the way Australians think about and engage with the region. The active support of the community will be critical in challenging traditional mindsets, identifying new opportunities and intensifying our regional engagement.

We will work to put in place structures that help this process, but Australia will only succeed in the Asian century by engaging the whole community.

Australia's community and institutional connections with Asia are diverse and growing. In recent decades, Australia's cultural wealth has been boosted through greater Asia engagement, particularly migration flows. This is reflected in the food Australians enjoy, where we choose to travel, the books we read and the films we watch.

Australians of Asian heritage bring a wide range of valuable perspectives to our nation:

[G]reater engagement with Australians with Asian heritage and backgrounds is needed to better utilise talents and resources in these communities. Senior and future leaders in these communities have extensive contacts and interaction with business and social interests that will benefit Australia's presence and economic prosperity in the long-term. (AIYD 2012:4)

In addition to encouraging informed and up-to-date perceptions of Asia in Australia, Australians of Asian heritage can also help to project more accurate perceptions of Australia into our region.

Partnerships with individuals, groups and institutions in Asia have intrinsic value for those involved as they link Australians with the dynamism and diversity of the region.

But over and above this intrinsic value, Australia's rich network of people-to-people connections provides ballast to our official relationships. They are a conduit for ideas and opportunities, and a mechanism for exploring sensitive or complicated issues that may not be amenable to government resolution.

Box 9.5: Australians' views on Asia and Asia's views of Australia

The 2012 Lowy Institute poll presented Australians with six possible responses from the Australian Government 'as the Asian region grows and becomes more significant' (Hanson 2012).

The strongest support was for doing more to get 'Australia included in Asian political forums' (37 per cent of respondents said that it was 'very important'), increasing 'defence spending' (32 per cent) and encouraging 'Australians to learn more Asian languages' (31 per cent). A quarter said the Government should 'increase the number of Australian diplomats we send to Asia', but there was less support for doing 'more to attract Asian investment into Australia' (16 per cent) or increasing 'the number of migrants Australia accepts from Asia' (13 per cent).

Responses differed across generations. Australians aged 60 years or older were twice as likely as 18–29-year-olds to say that increasing defence spending is 'very important'. Older Australians were more likely to say that encouraging 'Australians to learn more Asian languages' was 'very important'. Australians 18 to 29 years old were the most likely age group to say it was 'very important' that the Government 'increase the number of Australian diplomats we send to Asia'.

In international polls, Australia regularly ranks among the top countries to visit and to live, work and study in. However, our reputation is stronger in Group of Eight (G8) countries than in countries in our region. In a 2011 Reputation Institute poll, G8 countries ranked Australia 3rd behind Canada and Sweden, whereas non-G8 countries (including Brazil, China, India, Indonesia and South Korea) ranked us 14th overall (Reputation Institute 2011).

Our reputation in Asia remains strongly linked to our landscape and lifestyle, and does not fully reflect the intellectual, creative and commercial credentials of Australia today. Promoting a modern, innovative and multicultural image of Australia in Asia is a public diplomacy priority.

Our international reputation matters because it affects our policy influence, rubs off on Australian businesses, builds negotiating capital and helps to attract tourists, international students, and trade and investment opportunities.

Travel, study, migration and work links

A rich network of personal relationships links Australia to our region through travel, study, migration, work flows and volunteering.

Almost one million Australians are living abroad, of whom an estimated 230,000 reside in Asia (Hugo 2006). This includes Australians who are working, volunteering or

studying in the region (Box 9.6). Australians abroad have great potential as unofficial ambassadors and when back in Australia they bring knowledge and experience that enriches our society as a whole.² And the reverse is true: large numbers of people from the region live, work and study in Australia before returning to their home countries. Enabling young Australians to travel and work in Asia is a high priority since Australians abroad are important conduits for building capabilities and exchanging ideas.

Box 9.6: Australian Volunteers International

Since its founding in 1951, Australian Volunteers International has enabled more than 9,000 Australians to work in developing communities around the world, including 4,319 in Asia. Australia's first volunteers were graduates from the University of Melbourne who responded to a request from Indonesia for technical experts not only to share their knowledge, but also to participate in the life of the then newly independent society. The Government has provided funding for volunteer programs since 1965 and continues to provide significant support.

Australian Volunteers International is adapting its approach to volunteering in response to the changing international environment. It is partnering with the ANZ Banking Group to develop community engagement opportunities for bank staff, providing young Aboriginal and Torres Strait Islander people with overseas volunteering opportunities, and helping Macquarie University to create the only whole-of-university volunteer program in Australia by sending students to South and Southeast Asia. Australian Volunteers International is increasingly 'twinning' Australian and Asian organisations to share expertise, technology and strategic thinking through two-way exchanges.

Australia's working holiday maker program fosters cultural exchange and enhances people-to-people links with partner countries. We have formal working holiday maker program agreements with Bangladesh, Hong Kong, Indonesia, Japan, Malaysia, South Korea, Taiwan and Thailand that make it easier for young Australians to work and study there. Given the value of these arrangements in building connections between young people, we will expand Work and Holiday program agreements with countries in Asia over time, starting with an increase to 1,000 places in the Work and Holiday Visa program we have with Indonesia.

Links formed through study are another important channel for building people-to-people relationships. Australia's large number of overseas students reinforces our links to the region (Box 9.7). Some are funded through Australia's extensive Australia Awards program.

² This was demonstrated by the contributions being made by groups, such as Advance, a global not-for-profit network founded in 2002 for Australians living and working overseas.

Students who return to their home countries are a particular source of goodwill for Australia, and Australia will do more to encourage stronger alumni networks of Australian-educated leaders in Asia. Prominent Australian alumni include Indonesian Foreign Minister Dr Marty Natalegawa; the founder of Asia's largest biotechnology firm, Kiran Mazumdar-Shaw from India; the founder of China's largest manufacturer of solar panels, Shi Zhengrong; and Japan's first NASA astronaut and head of its National Museum of Emerging Science and Innovation, Mamoru Mohri.

To consolidate the branding of Government scholarships and awards and to strengthen our alumni networks, we established the Australia Awards program in 2009.

Australia's official scholarship and awards program is worth \$325 million in 2011–12 and is much larger in scale than the Colombo Plan (Box 9.7). It is in our interests to continue to forge enduring links with the countries of Asia through these programs. We commit to 12,000 Australia Awards (Asian Century) over five years to nations in Asia. The awards will be for Australians to study in the region and students from regional countries to undertake study or professional development in Australia. Some awards will be extended to include work placements and support mid-career sabbaticals.

Box 9.7: International student flows

In 2011, Australia had 550,000 enrolments by international students in our education institutions. Around three-quarters of these enrolments were from countries in Asia. China, India and South Korea were the top three source nations. Australia draws the second-largest number of tertiary students from Asia studying abroad, behind only the United States

This year, there are around 6,800 international students, researchers and professionals on Australia Awards, most of whom are from Asia. Australia's current inbound scholarship and awards programs are larger than the Colombo Plan scholarship program, which brought some 20,000 students from Asia to study in Australia over 35 years.

Increasingly, Australian students are studying abroad. In the five years to 2010, the proportion of Australian undergraduate degree students who studied overseas during their courses (from short-term placements to double-degree programs with partner universities) more than doubled, to around 12 per cent. More than 30 per cent of outbound Australian students studied in Asia. We will implement a suite of policies to boost the number of Australian students who take up an in-Asia study experience (Chapter 6).

Greater emphasis will be placed on maintaining lifelong links with and between scholarship and award recipients. We will strengthen the extensive alumni networks of Australian-educated leaders in Asia by providing a focal point for coordinating the networks through an Australia Awards Office.

We will also continue to support high-quality private-sector scholarships that bring future Asian leaders to Australia and encourage greater numbers of Australians to study in Asian institutions through grants and other exchange programs (Chapter 6). For example, the Hong Kong company Cheung Kong Group is a co-sponsor of the Endeavour Australia Cheung Kong Awards, which support undergraduate and postgraduate education exchange between Australia and Asia.

Students at university level are not the only ones who benefit from links within the region. A growing number of high school graduates benefit greatly from Asian exchanges during a gap year. And digital technology will boost online collaboration between students of all ages and backgrounds, as well as between researchers, businesses and community groups.

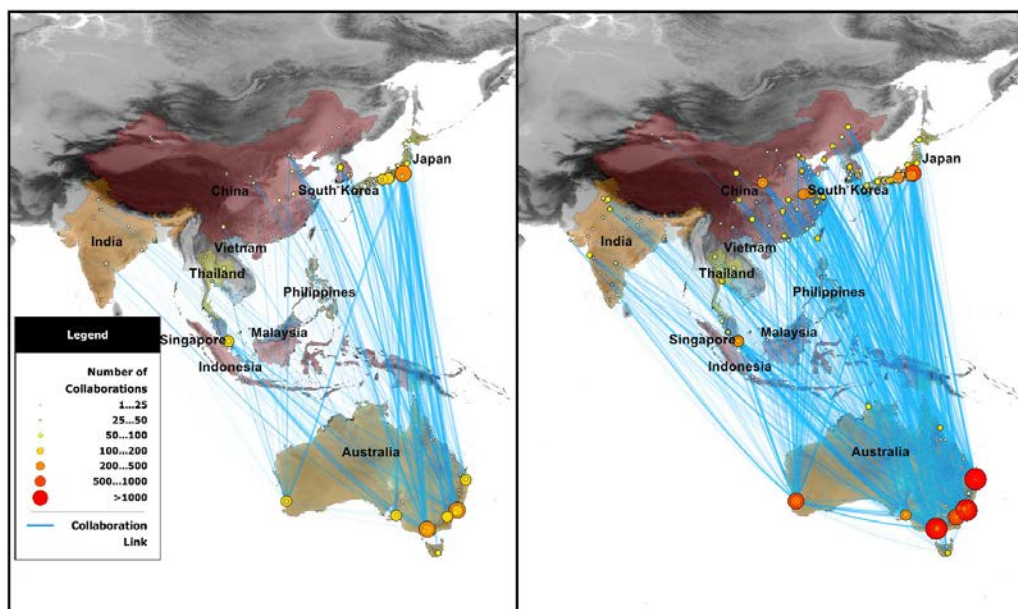
Academic, scientific and professional links

A growing proportion of global scientific research is taking place in Asia. Partnerships with research and technology communities are crucial to supporting Australia's ability to access new ideas and to build our future competitiveness.

The scope for mutually beneficial research is considerable. Countries in the region, including China, India, Japan, Singapore and South Korea, have world-class research infrastructure and capabilities. China and Japan are home to two of the world's most powerful supercomputers. Despite its small population, Singapore has developed as a world hub of biotechnology research and development, particularly in pharmaceuticals.

Australia's connections with research communities in the region are strong and growing (Figure 9.1). Measured by the number of joint scientific publications, Australia is among the top 10 most important partners for China, Japan, India, South Korea, Sri Lanka, Taiwan and all 10 members of ASEAN. Australian researchers are collaborating more with their international counterparts and the proportion of Australia's publications produced through international collaboration rose from less than 35 per cent to more than 45 per cent between 2000 and 2010 (Thomson Reuters 2011b). At the institutional level, the Chinese Academy of Sciences is now the single most frequent partner institution for Australian collaboration, as measured by publication data between 2004 and 2008 (Adams, King & Webster 2010).

Figure 9.1: Scientific links between Australia and Asian nations
2002 2010



Sources: Thomson Reuters (2011a) and Scopus.

As the international focus on Asia intensifies, Australia will face more competition for opportunities to collaborate with the region's most capable researchers. Sustaining Australia's present links will need continued investment and stewardship by governments, our leading scientists, innovators and institutions.

Over time, Australia should broaden and strengthen our partnerships across the region to link with Asia's growth as a global science and innovation hub. We will use the National Broadband Network and digital technology to boost online collaboration between researchers, community groups, students, schools and universities in Australia with their counterparts throughout the region (Chapter 5).

Australia's professional collaboration with regional partners extends beyond pure research. Australia has broad and longstanding ties in fields as diverse as jurisprudence, and library and information sciences. Sustaining our commitment to these relationships is important for developing shared bodies of knowledge and experience, enabling the easy flow of ideas.

The Burnet Institute argues that 'the impact of these relationships that are developed over long periods of time, based on mutual interests and with a genuine sense of equality, trust and understanding, is difficult to measure but unarguably important' (Burnet Institute 2012).

We recognise the importance of these research and professional links, and science and research exchanges, and support a wide range of pathways to maintain and expand them.

Connections through faith and community service organisations

Cooperation across national boundaries through faith communities can strengthen understanding within and between nations and help dispel misperceptions.

Across our region, many local and national interfaith organisations and networks have emerged and implemented a diverse range of programs and activities. In Australia, peak bodies—such as the Federation of Australian Buddhist Councils, the Australian Federation of Islamic Councils, the Executive Council of Australian Jewry and the National Council of Churches—have integrated interfaith dialogues with the region.

These communities are promoting regional peace and cooperation. Regional interfaith dialogues, such as those held in Yogyakarta (2004), Cebu (2006), Waitangi (2007), Phnom Penh (2008), Perth (2009) and Semarang (2012), and similar initiatives, contribute to peace and understanding in the region by connecting faith communities in constructive and practical ways.

More generally, Australian communities are linked with Asian communities by groups with an interest in community service. These include groups such as Lions and Rotary and various development, environmental, human rights and other not-for-profit organisations. While many once had a traditional emphasis on aid, service groups are now increasingly focused on supporting shared visions, developing joint projects and promoting a greater two-way flow of knowledge and ideas.

We promote these connections in a wide range of ways, including by supporting regional interfaith dialogues, assisting organisations working for development and sustainability in Australia and across the region.

Sport

Australia is a growing part of Asia's sporting culture. Many Australian sporting groups are strengthening their partnerships with regional groups, including in sports that have larger followings in parts of Asia than in Australia, such as badminton and table tennis. Australia is an active member of the Asian Football Confederation, and three Australian teams compete in the annual Asian Champions League. The Australian Open tennis tournament is the most watched tennis event in the Asia-Pacific region (Tennis Australia 2012), and the Northern Territory has hosted thousands of athletes from the region every two years since 1993 as part of the Arafura Games. India is a main driver of Twenty20 cricket.

Our sporting connections can open doors and create links between people in the region (Box 9.8). Industry leaders in Australia and Asia often have close connections to sport through board appointments or team ownership, providing unique business networking opportunities. Sports in which Australia shares a connection with particular countries in Asia (such as football and cricket) provide obvious opportunities for businesses to develop links with Asian markets. This already occurs through sponsorship or team ownership. In the other direction, businesses and business figures from the region invest in Australian sport and the broader Australian economy through similar mechanisms.

Box 9.8: Football diplomacy

When Football Federation Australia became a member of the Asian Football Confederation in 2006, for the first time Australia had a significant, ongoing sporting relationship with a large number of Asian and Middle Eastern countries, complementing our diplomatic and other links. Australians have competed against their Asian counterparts in a variety of sports, but those links have tended to be limited to particular countries (most notably, cricketing ties with the Indian subcontinent) or have occurred only occasionally. By contrast, Australian teams now play regular competitive matches against teams from throughout the region.

As countries in Asia continue to develop and as their middle classes continue to grow, football will become increasingly popular. More than 80 million people in Asia played football in 2006. By 2020, that number may be more than 380 million. More people will watch games. Professional football leagues will continue to develop and there will be a steady shift in professional football leadership to Asia creating considerable business and other opportunities.

Our football engagement with Asia is not limited to national teams and A-league clubs. State representative teams make regular visits to China, Indonesia, Japan, Malaysia, Singapore, Thailand and Vietnam and they often travel and play outside capital cities. Club teams from Asia often visit Australian States, Territories and regions, particularly Western Australia, northern New South Wales, Victoria and the Northern Territory (FFA 2012).

In 2015, two major sporting events will be held in Australia—the International Cricket Council Cricket World Cup and the Asian Football Confederation Asian Cup. In addition to players and officials participating and supporters visiting, hundreds of millions of people in our region will watch these games using many different technologies. Such events offer opportunities for Australia to build on our international reputation for delivering major sporting events, and to promote Australian tourism, trade and other interests in Asia.

Cultural connections

Cultural connections across a range of areas can be powerful forces for bringing people together. Exchanges through culture build understanding and foster cultural appreciation. The people-to-people links forged through arts and culture can open up new business, training and market opportunities and are an integral part of strengthening political and trade relationships.

National objective

25. Australia will have stronger, deeper and broader cultural links with Asian nations.

Australia's arts and cultural community is increasingly connected with Asia. Australia has a dynamic Asian–Australian arts scene and our leading cultural institutions and major performing arts groups have strong relations with Asian partners. There is extensive collaboration between some smaller arts and cultural organisations and at an individual level.

Our major performing companies have a long history of successful tours to most Asian countries. These tours involve not only performing Australian works and interpretations for Asian audiences, but also often include artist exchanges and ongoing company partnerships resulting in lasting collaboration.

Australia's creative sectors allow us to connect with the region in new and clever ways that provide commercial and innovation benefits (Box 9.9).

Box 9.9: Digital ninjas from Down Under

Fruit Ninja is a game in which players slice fruit with a blade controlled by swiping their fingers across a smartphone or tablet screen. The flagship product of Brisbane developer Halfbrick Studios, it is the no. 1 paid application in Taiwan, Germany and Russia, and the no. 2 in China, the United States and Australia.

Halfbrick is now one of the world's leading independent game-app developers. Fruit Ninja has reached 300 million players worldwide and amassed more than 20 million paid downloads.

Working at the crossover of culture, technology and design, companies such as Halfbrick demonstrate what is possible when creativity and energy come together.

But more needs to be done. Australia's arts and cultural engagement should be strengthened across all of Australia's major regional relationships. And we can do better in encouraging cooperation and exchanges of expertise and specialists with cultural institutions from Asia, including through training and capacity building and through the creative use of digital technology.

We support the arts community through a range of pathways including the provision of competitive grants for international touring, coordinating an Australian presence at major arts events such as the Korea International Art Fair, and assisting organisations such as Asialink which promotes collaboration between Australian and Asian artists through a long-running residency program. We encourage the arts community and arts institutions, including those in regional Australia, to look to Asia when planning programs and future growth strategies.

Formal government-to-government cultural agreements can support cultural exchange and collaboration between nations, such as the formal agreement on cultural cooperation between China and Australia. These agreements provide incentive to grow relationships through a range of arts and cultural activities that link Australians with our Asian neighbours. For example, *Imagine Australia*, the Year of Australian Culture in China, together with its counterpart program, *Experience China*, is the biggest bilateral cultural exchange program ever held between the two

countries and comes as we celebrate the 40th anniversary of diplomatic relations. And in 2011, Australia marked the 50th anniversary of diplomatic relations with South Korea with the Australia–Korea Year of Friendship. In 2012 and 2013, we joined with some of India’s best cultural festivals and venues to stage events across India as part of OzFest.

Over time, Australia’s cultural links should grow and prosper through both private endeavour and government support. The mindset should be that Australian organisations should become fully part of the region through two-way collaboration and partnership arrangements.

The Government’s consideration of the Review of the Australia Council will ensure that the Australia Council is well placed to respond to the arts and culture sector into the future. We will also revamp the Australia International Cultural Council to ensure a strategic approach to cultural diplomacy and deliver support to Australian artists and cultural organisations to undertake international cultural exchange. The reforms could include a greater role for external peers in determining the council’s strategic direction and the prioritisation of cultural diplomacy objectives and artistic excellence when assessing applications for funding.

Media

Media is central in shaping perceptions and enhancing communications between Australia and the region, and the information revolution offers unprecedented opportunities to connect in new ways. This is illustrated by the current popularity of *Junior Masterchef Australia* in Indonesia, and the parallel exchanges that the show has prompted through social media.

Asia has a dynamic, crowded and fragmented media environment with over a hundred 24-hour news channels operating across the region, a proliferation of new international channels and major growth in the use of digital and mobile technologies. At the end of 2011, Asia had an estimated 932 million internet users and the Asia–Pacific region had an estimated 2.9 billion mobile phone subscriptions. India now has more than 800 television channels (from only two in 1990) (Indian MIB 2012) and Indonesia has 43 million Facebook users (IWS 2012).

Our engagement with the region must acknowledge and respond to the rapid pace of change in media technologies and consumer behaviours: modern coverage of news and information is now practically instantaneous and transcends borders. As an illustration, Tourism Australia’s new ‘There’s Nothing Like Australia’ campaign advertisement in China had 20 million digital downloads over three months to September 2012.

The content and coverage of the region in Australia’s media need to improve. This is the responsibility of media organisations themselves. It is an important part of the whole-of-Australia approach to building links and engaging with Asia that is needed. We will explore opportunities to convene third-party expert panels with leading

media organisations and journalists to discuss the scope and quality of coverage of Asian countries and developments in the region of importance to Australia.

We will also support collaboration between regional media services; we will work with the media industry through its representative bodies such as press clubs, foreign correspondents associations and media and journalism schools, to ensure that Australians receive more day-to-day news about major events and issues from across the region. In addition, we will continue to encourage two-way media exchange programs with the region to build knowledge.

Within Australia's public broadcasting service, the Australian Broadcasting Corporation (ABC) Charter obliges it to transmit to other countries programs to encourage awareness of Australia and an understanding of Australian attitudes on world affairs. At the same time, both the ABC and the Special Broadcasting Service (SBS) have a role in reflecting a modern vision of Asia back to Australia through their correspondents in Asia and in the Asia-Pacific News Centre. This includes SBS's role as a news provider to Asian-Australian communities in their languages.

We will request the boards of the ABC and SBS to examine how to promote more extensive coverage of the Asia region in all aspects of their content and programming, with special attention to news and information coverage, to ensure their content reflects the depth and diversity of our regional connections.

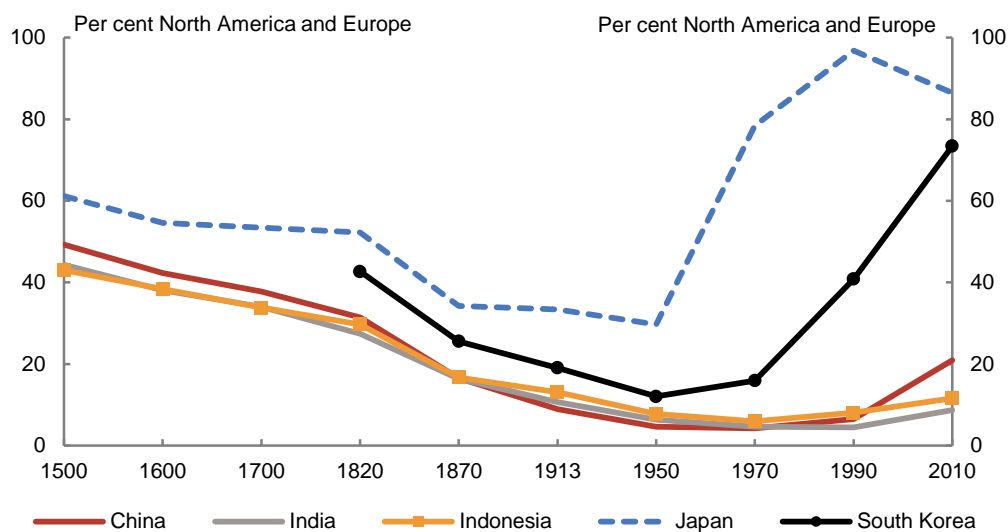
The scale and pace of change in Asia presents great opportunities for Australia. Right across our nation—in governments, businesses, unions, educational and cultural institutions and broad community groups—we need to become even more innovative, efficient and adaptable. All of us will need to work smarter to maximise prosperity.

Appendix A: Asia's resurgence

The rapid economic growth unfolding at our doorstep represents a resurgence of Asia's economic fortunes.

Until the 19th century, the diverse nations in Asia made up more than half of the world economy. Together, the economies of Asia were larger than those of Western Europe and North America combined. People in Asian countries were reasonably prosperous, enjoying living standards that were at levels around two-thirds of those in North America and Europe (charts A.1 and A.2). In the 1500s and 1600s, China was advanced in a number of areas, including its meritocratic civil service, long-distance maritime technologies and agriculture. The kingdoms of Southeast Asia—which now form parts of Indonesia and Malaysia—were enjoying the heights of the spice trade. The numerous kingdoms of India—such as the Moguls and other neighbouring states—were also at the height of their economic and political power, although their interests were more focused on domestic activities than those of many of their Asian neighbours.

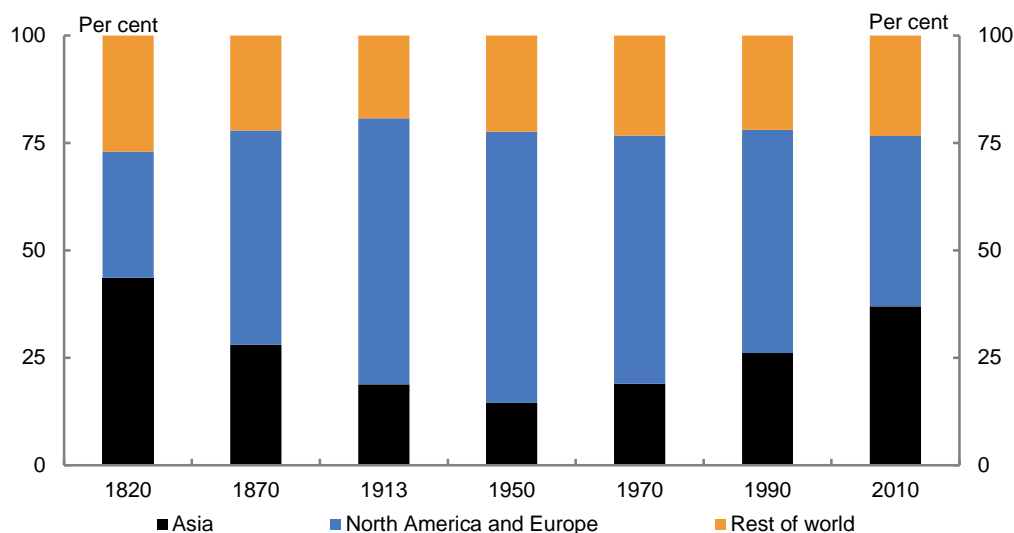
Chart A.1: Rising Asian income per person
Percentage of income per person in North America and Europe



Notes: GDP is adjusted for purchasing power parity (1990 prices). See glossary for definitions of North America and Europe.

Sources: Maddison (2010) and Conference Board (2012).

Chart A.2: Rising Asian economic output
Percentage of world output



Notes: GDP is adjusted for purchasing power parity (1990 prices). See glossary for definition of North America, Europe and Asia.
Sources: Maddison (2010) and Conference Board (2012).

However, from the middle of the 18th century up to the mid-20th century, economic power shifted towards the West as it industrialised—dispersing and adapting new technologies and scientific, commercial and social advances.

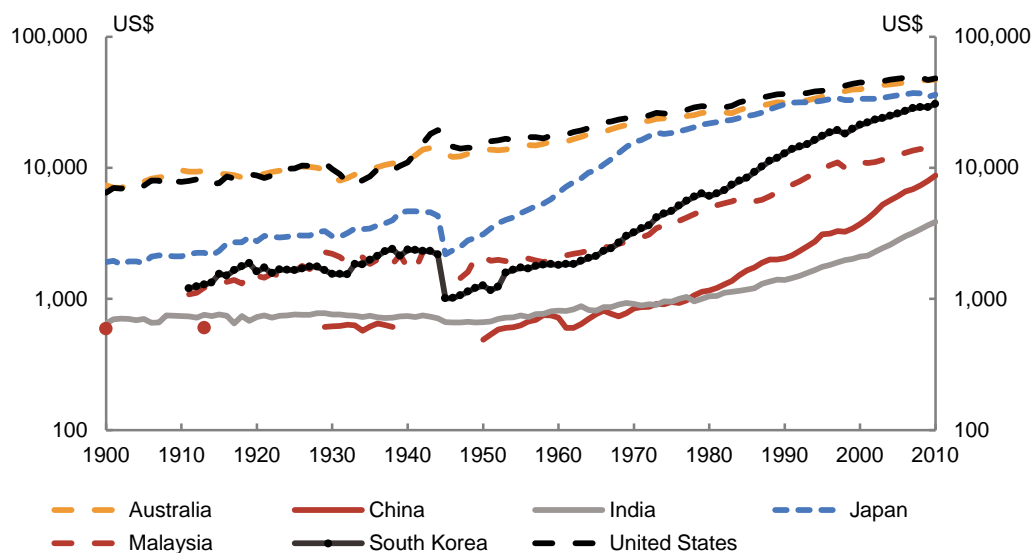
Meanwhile, in Asia, once-powerful states became more inward looking—stifling entrepreneurial dynamism and curbing the spread of technological advances. Persistent internal conflict and instability increased their vulnerability to colonial intrusion. Compared to the West, average living standards fell dramatically, hitting their lowest point in the middle of the 20th century.

Fast-forward to today, and the region has been enjoying an economic resurgence. Asia's share of global output has reverted to something akin to what it was 200 years ago, and its people are enjoying a revival in prosperity.

Asia's resurgence has spanned a wide range of nations, all with distinct histories, emerging at different speeds and at various times after World War II. The trade and industrial transformation of Asian economies, which occurred in three waves, has been underpinned by staggered surges in productivity growth (charts A.3 and A.4).¹

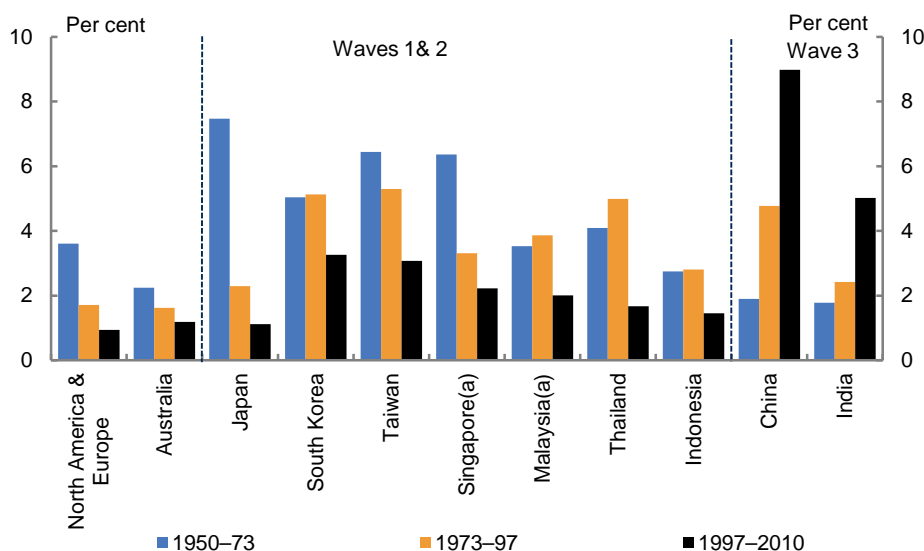
¹ The waves of economic transformation have been identified using the growth acceleration framework from Hausmann, Pritchett & Rodrik (2005) and the model of the 'second gaggle of the flying geese' (see, for example, Furuoka 2005). See also Drysdale (2004).

Chart A.3: Asia's three waves of income take-off
Income per person (log scale)



Note: GDP adjusted for purchasing power parity (1990 prices).
Sources: Maddison (2010), Maddison (2006) and Conference Board (2012).

Chart A.4: Asia's three waves of productivity growth
Average annual growth in GDP per worker



(a) 1960-73 for Singapore and Malaysia (rather than 1950-73).
Note: GDP is adjusted for purchasing power parity (1990 prices). See glossary for definition of North America and Europe.
Sources: Maddison (2010), Maddison (2006) and Conference Board (2012).

The first wave comprised Japan's remarkable emergence, which resumed after the disastrous impact of World War II, and its subsequent reintegration into the global community. The period between the mid-1950s and the early 1970s was a golden era for Japanese economic growth, fuelled by investment and energy-intensive industrialisation. Incomes per person doubled in the 1950s and again in the 1960s. By 1966, Japan had become the third-largest economy in the world.

Japan's economic emergence had impacts throughout the region, including in Australia. With limited domestic resources, Japan looked to global markets for the raw materials to fuel its ongoing industrialisation. Australia's stable supply of minerals and energy to Japan became essential for powering the Japanese economy.

As Japan's productivity and living standards approached world-best levels in the late 1980s, growth slowed, exacerbated by an ageing population and the bursting of an asset price bubble. Since that time, Japan's productivity has remained on par with that of other advanced economies, indicating that Japan has been using its resources as effectively as other leading economies in generating wealth.

The second wave of economic catch-up consisted of a cluster of mainly Northeast Asian and, soon after, Association of Southeast Asian Nations (ASEAN) economies, which industrialised following Japan's lead (charts A.3 and A.4). The first group comprised a set of export-oriented economies, including Hong Kong, Singapore, South Korea and Taiwan. As with Japan, these high-income economies are now among the most prosperous in the world. Between 1960 and the Asian financial crisis in 1997, income per person increased by a factor of 11 in South Korea and Taiwan, a factor of 9 in Singapore and a factor of 7 in Hong Kong.

The second wave also included a group of relatively populous ASEAN economies—Indonesia, Malaysia and Thailand—which emerged over the same period to become middle-income economies. While these economies have closed some of the gap in living standards between them and advanced economies, their rate of development has been more moderate. Incomes per person in Malaysia and Thailand are currently around one-third of United States levels, and are around one-sixth in Indonesia. Despite a lower level of income, the sheer size of Indonesia's population—at around 240 million people—means that its economy is larger than Australia's.²

The Asian financial crisis in 1997 had profound impacts across the region, particularly in South Korea and in Southeast Asia. Since that time, the high rates of economic growth in the second-wave economies have moderated considerably. Even so, most have continued to grow faster than advanced economies.

² Measured in purchasing power parity terms.

The third wave comprises the two most populous Asian states—China and India—which emerged economically in the late 1970s and early 1990s, respectively.³ Underpinned by high productivity, economic growth has accelerated even further in the past decade (charts A.3 and A.4). While China and India have generated headlines over the past decade for the rapid pace of their growth, Vietnam—a populous nation of around 90 million—has also been part of the third wave of economic catch-up.

In the 20 years since their economic take-off, the sizes of the economies of China, India and Vietnam have quadrupled. The rate at which China's average living standards have increased—they doubled in the 1990s and doubled again in the 2000s—is reminiscent of Japan's speedy period of growth. India and Vietnam, where take-off started about a decade after China's, close to doubled their national output the 2000s.

Economic conditions in China and India, which are large enough to be conceived as continents more than countries, have differed widely, contributing to uneven growth within those countries. Many states and provinces have lagged behind their urban and coastal counterparts.

In India, rural incomes were almost one-third of those in urban areas in 2009. The divide is even starker in China, where the 2008 mean income of rural areas was 40 per cent of those in cities (World Bank 2012). However, some gaps have been closing in recent years. Regions in the Chinese hinterland are now enjoying more rapid economic growth, particularly those that are rich in resources, while some poorer Indian states, such as Bihar, are enjoying more favourable economic times.

With a combined population of more than 2.5 billion, the sheer sizes of the third-wave economies are leading to profound shifts in economic, political and strategic landscapes, both globally and regionally.

3 As with many economies in the region, the precise timing of India's take-off is contentious. Economic growth had already taken off in the early 1980s (Hausmann, Pritchett & Rodrik 2005).

Appendix B: Australia's bilateral relationships with Asia

Australia has extensive and comprehensive connections with countries across Asia. Country and region profiles which contain facts and figures about our bilateral relationships with Asian countries can be found at: www.dfat.gov.au/publications/asian-century/index.html and www.asiancentury.dpmc.gov.au.

This appendix contains background material on the history of Australia's engagement with the region, the distribution of government agencies across the region and the types of bilateral architecture Australia has in place.

Table B.1: Evolution of Australia's relations with the region

Year	Events
1901	Federation of Australia.
1901	Immigration Restriction Act puts White Australia policy into effect.
1908	Tariffs are tied to centralised arbitration of wages under Australia's 'New Protection' policy.
1914–18	Japan declares war on Germany; does not send forces, but escorts Australian troops to war. Japan takes responsibility for some of Germany's Asia-Pacific colonial holdings.
1919–20	Australia supports the defeat of Japan's attempt to insert a declaration of racial equality into the League of Nations Covenant.
1929–32	During the Depression, Japan's and China's shares of Australian exports rise.
1929	The Brigden report is equivocal about raising or lowering tariffs.
1936	Australia applies a 'trade diversion' policy and restricts Japanese and US imports in favour of Britain.
1940–41	Australia establishes diplomatic missions in Tokyo and Chongqing.
1941–45	Australia at war with Japan.
1941–45	US provided war materiel to China and British Commonwealth allies under Mutual Aid agreements (Lend-Lease); Australia provided materiel to US under reverse lend-lease arrangements.
1942	Japan defeats Allied forces in Singapore.
1945–52	After the defeat of Japan, Australia represents the Commonwealth on the Allied Council for Japan and leads the British Commonwealth Occupation Force.
1947	Australia initiates United Nations intervention in the colonial war between Indonesian republicans and the Dutch, and supports the republic in its efforts to gain independence.
1947–50	Australia supports independence for the countries of South Asia, and supports India remaining in the Commonwealth as a republic.
1950–53	Australia commits forces to the UN-authorised unified command in defence of South Korea.
1950–60	Australia contributes forces to the Malayan emergency.
1951	48 nations sign San Francisco Peace Treaty with Japan marking formal end of the war.
1951	Australia, New Zealand and the United States sign the ANZUS Treaty.
1951	Colombo Plan launched in Australia.
1954	Australia joins the Southeast Asian Treaty Organisation (SEATO).
1957	Australia concludes Commerce Agreement with Japan, despite historical frictions and popular sentiment.
1962–75	Australia is involved in the Vietnam War.

Table B.1 (continued)

Year	Events
1968–71	Negotiation of Five Power Defence Arrangements with Malaysia, Singapore, the UK and New Zealand.
1972	Australia recognises the People's Republic of China and establishes diplomatic relations.
1973	Following previous incremental changes, the White Australia policy is fully dismantled. Australia's immigration policy ceases to discriminate on the basis of race.
1973	Across-the-board tariff cut of 25 per cent.
1974	Australia becomes first ASEAN external dialogue partner.
1975–89	Australia accepts more than 110,000 Indochinese refugees.
1976	Australia and Japan sign the Basic Treaty of Friendship and Co-operation.
1980	Pacific Community Seminar held in Canberra at the initiative of Australian and Japanese Prime Ministers; establishment of Pacific Economic Cooperation Council (PECC).
1984	The Jackson report sparks a series of higher education sector changes increasing inbound Asia students.
1989	Garnaut report on the Northeast Asian ascendancy.
1989	First meeting of APEC is held in Canberra after Australia proposed the grouping.
1989–93	Australia leads the development of the UN peace plan for Cambodia and provides the force commander for the UN Transitional Authority in Cambodia.
1993	First APEC Economic Leaders' Meeting in Seattle.
1997	Australia contributes to the International Monetary Fund rescue packages for countries affected by the East Asian financial crisis (Indonesia, South Korea and Thailand).
1999	Australia is one of the first Western countries (along with New Zealand) to be granted 'approved destination status' by China.
1999–2002	Australia leads a multinational force in East Timor and plays a leading role in support of the UN transnational administration preceding the country's independence in 2002.
2001	China enters the World Trade Organization, following two decades of economic reform.
2002	East Timor formally secures independence as Timor-Leste.
2002	First Bali terrorist bombing.
2003	Singapore–Australia Free Trade Agreement enters into force.
2004	Indian Ocean tsunami—Australia and other countries rally to provide humanitarian and disaster relief and reconstruction assistance to Indonesia, Thailand, India and Sri Lanka.
2005	Thailand–Australia Free Trade Agreement enters into force
2005	Australia signs the Treaty of Amity and Cooperation in Southeast Asia (the Bali Treaty).
2005	Australia participates as a founding member in the inaugural East Asia Summit held in Kuala Lumpur.
2006	Lombok Treaty between Australia and Indonesia is agreed.
2006–present	Australia provides support to Timor-Leste through Operation ASTUTE to restore stability and provide a secure environment for the ongoing development of Timor-Leste.
2008	Australia participates in the first leaders meeting of the G20.
2010	ASEAN – Australia – New Zealand Free Trade Agreement enters into force for Australia and a number of other countries.
2011	Australia attends East Asia Summit in Indonesia. The summit includes all major regional powers, including the United States and Russia.
2012	India becomes the largest source of migrants to Australia.
2012	Malaysia–Australia Free Trade Agreement is signed. It will enter into force once Australia and Malaysia have completed their domestic ratification procedures.

Table B.2: Australian-based representation at Australian missions in Asia

Location	DFAT	DIAC	Austrade	AusAID	DAFF	AFP	ADF	Customs	DIISRTE	DRET	RBA	Treasury	AGD	DIT
Bangladesh	X	X		X										
Brunei	X													
Cambodia	X	X		X		X	X							
China	X	X	X	X	X	X	X	X	X	X	X	X		
Hong Kong	X	X	X			X								
India	X	X	X	X	X	X	X	X	X			X		
Indonesia	X	X	X	X	X	X	X	X	X			X	X	X
Japan	X		X		X		X		X			X		
Laos	X			X										
Malaysia	X	X	X			X	X	X	X					
Mongolia			X											
Myanmar	X			X		X								
Nepal	X			X										
Pakistan	X	X		X		X	X							

Table B.2 (continued)

Location	DFAT	DIAC	Austrade	AusAID	DAFF	AFP	ADF	Customs	DIISRTE	DRET	RBA	Treasury	AGD	DIT
Philippines	X	X	X	X		X	X							X
Singapore	X	X	X	X		X	X							
South Korea	X	X	X		X		X		X					
Sri Lanka	X	X		X		X		X						
Taiwan	X		X											
Thailand	X	X	X	X	X	X	X	X	X					X
Timor-Leste	X	X		X		X	X							
Vietnam	X	X	X	X		X	X		X					

Note: In the absence of formal representation in Taiwan, the Australian Office in Taipei unofficially represents Australia's interests.
Source: DFAT.

Table B.3: Bilateral architecture in major relationships

	China	India	Japan	South Korea	Indonesia	Vietnam	Thailand	Malaysia	Singapore
Mutual membership of leaders-level regional institution	☑	☑	☑	☑	☑	☑	☑	☑	☑
Regular/institutionalised head of government meeting					☑	Note 16			☑
Joint Foreign and Defence Ministers meeting (2+2)			☑	Note 12	☑				Note 29
Regular/institutionalised Foreign Ministers meeting	☑	☑	☑	☑	☑	☑	☑	☑	Note 29
Regular/institutionalised Trade Ministers meeting	☑	☑	☑	☑	☑	☑		☑	Note 29
Regular/institutionalised Defence Ministers meeting	☑		☑	☑	☑			☑	☑
Other ministerial meetings	☑	☑	☑	☑	☑	☑		☑	☑
Parliamentary exchanges	☑		☑	☑	☑	☑	Note 19	☑	☑
Strategic dialogue	☑	☑	☑	☑	☑	☑	Note 20		☑
Senior officials talks	☑	☑	☑		☑	☑	☑	☑	Note 30
Other political leaders dialogue	☑					☑			
Unofficial leadership dialogue	☑		☑	☑	☑				
Government staff secondment/exchange arrangement	☑		☑		☑			☑	
Young leaders dialogue	☑	☑	☑	☑				☑	
Free trade agreement	Note 1	Note 4	Note 10	Note 13	Note 15	Note 17	Note 21	Note 25	Note 31
Other trade agreement	☑	☑	☑		☑	☑		☑	☑
Regular joint trade commission meeting	☑	☑		Note 14		☑	☑	Note 26	
Australian Chamber of Commerce/business association in-country	☑	☑	☑	☑	☑	☑	☑	☑	☑
Other officially supported business forums	☑	☑	☑		☑		☑		

Table B.3 (continued)

	China	India	Japan	South Korea	Indonesia	Vietnam	Thailand	Malaysia	Singapore
Investment agreement (a)	☑	☑		☑*	☑	☑			
Double taxation agreement (a)	Note 2	☑	☑	☑	☑	☑	☑	☑	☑
Mutual legal assistance agreement (a)	☑	☑	Note 11	☑	☑	☑	☑	☑	☑
Social security agreement (a)		Note 5	☑	☑					
Science/research agreement (a)	☑	☑	☑	☑	☑	Note 18	☑	☑	☑
Nuclear cooperation/safeguards agreement (a)	☑	Note 6	☑	☑	☑	☑			
Extradition treaty		☑	Note 11	☑	☑	☑	Note 22	☑	Note 32
Bilateral aid recipient	Note 3	Note 7			☑	☑			
Scholarship program	☑	☑	☑	☑	☑	☑	Note 23	☑	
Counterterrorism cooperation		☑	☑	☑	☑		☑	Note 27	☑
Disaster relief cooperation	☑		☑	☑	☑		Note 24		☑
Bilateral foundation/institute/council	☑	☑	☑	☑	☑		☑	☑	
Dedicated cultural/sporting program/exchange	☑	☑	☑	☑	☑		☑	☑	
Defence cooperation arrangements (note 33)	☑	Note 8	☑	☑	☑	☑	☑	☑	☑
Defence staff college exchanges (note 32)	☑	Note 9	☑	☑	☑		☑	☑	☑
Transport cooperation agreements (note 35)	☑	☑	☑	☑	☑	☑	☑	☑	☑

Note: This table provides only a snapshot of bilateral architecture in major relationships. (a) The term 'agreement' is used in the broader non-legal sense.

Notes to Table B.3

1. A bilateral FTA is under negotiation.
2. A scoping study is underway for a double taxation agreement.
3. Australia is phasing out its bilateral aid program.
4. A bilateral Comprehensive Economic Cooperation Agreement / FTA is under negotiation.
5. A bilateral Social Security Agreement is under negotiation.
6. The government is considering how it might put in place arrangements that would enable exports of Australian uranium to India.
7. Australia no longer provides bilateral aid to India but will continue to provide targeted assistance to India through regional programs and multilateral organisations (such as the World Bank).
8. Navy to Navy and Air Force to Air Force talks are provisionally scheduled annually, and Army to Army talks biennially.
9. Each year Australia offers places on our defence staff college to India. India also offers Australian officers places at military training institutions. There is no specific agreement that a certain number of officers will be exchanged.
10. A bilateral FTA is under negotiation.
11. While there are no extradition or mutual assistance treaties with Japan, Australia is able to cooperate on these matters under our legislative framework.
12. Australia and South Korea agreed in 2011 to work toward establishing a regular '2+2' bilateral Foreign and Defence Ministers' meeting.
13. A bilateral FTA is in the final stages of negotiation.
14. A Ministerial Joint Trade and Economic Commission (trade ministers' meeting) has been long established; it was last held in May 2009. The investment agreement relates to information sharing and cooperation regarding mineral resource investment and clean energy opportunities only.
15. As well as the bilateral Comprehensive Economic Partnership Agreement under negotiation, Australia and Indonesia are both parties to the ASEAN – Australia – New Zealand Free Trade Agreement (AANZFTA).
16. In 2009, Australia and Vietnam signed a Comprehensive Partnership. This is currently being implemented through the Australia–Vietnam Plan of Action (2010–13) signed in 2010.
17. Australia and Vietnam are both parties to AANZFTA and are both involved in the Trans-Pacific Partnership Agreement free trade negotiations.
18. A science and technology agreement is under negotiation.
19. The Australian Political Exchange Council and Thailand's King Prajadhipok's Institute will sign a Memorandum of Understanding on 28 May to establish an exchange program between young political leaders.
20. The last strategic dialogue was in 2009.

21. As well as the Thailand–Australia Free Trade Agreement, Australia and Thailand are both parties to ANZFTA.
22. Covered under an extradition treaty between the United Kingdom and Siam (Thailand) which dates from 1911. Negotiations for a bilateral extradition treaty are underway and have resulted in a near final text.
23. A new ‘Discover Thailand’ scholarship program is being introduced to provide assistance to Australians studying in Thailand.
24. Thailand suffered from widespread flooding in the second-half of 2011. Australia provided 100,000 sandbags and \$1 million in assistance.
25. As well as the Malaysia–Australia Free Trade Agreement, Australia and Malaysia are both parties to ANZFTA, and are both involved in the Trans-Pacific Partnership Agreement free trade negotiations.
26. Dr Craig Emerson and Malaysia’s Minister for International Trade and Industry Mustapa Mohamed co-chaired the 16th Australia–Malaysia Joint Trade Committee meeting on 31 January 2012.
27. Australia and Malaysia signed a Memorandum of Understanding on Combating Transnational Crime and Developing Police Cooperation on 13 May 2009 and a Memorandum of Understanding on Maritime Security on 12 July 2011.
28. Establishment of annual leaders-level meeting in April 2012.
29. The Singapore–Australia Joint Ministerial Committee involves Foreign, Defence and Trade ministers.
30. Regular Secretary-level meetings between our Foreign Ministries and, separately, Defence Secretaries regularly meet, although there is no formal strategic dialogue. In 2011 a secretaries’ roundtable involving 10 secretaries from each country was started.
31. As well as the Singapore–Australia Free Trade Agreement, Australia and Singapore are both parties to ANZFTA, and are both involved in the Trans-Pacific Partnership Agreement free trade negotiations.
32. No bilateral treaty, but have the London Scheme for extradition within the Commonwealth.
33. The Defence Cooperation Program focuses on Southeast Asia and the Pacific. Priority areas for cooperation with Indonesia, Singapore, Malaysia, Thailand and Vietnam include counter-terrorism, peacekeeping, maritime security, defence reform, and English language training.
34. Every year, mid-level military officers in regional countries attend courses at the Centre for Defence and Strategic Studies and Australian military officers attend staff colleges in countries such as Thailand, Indonesia and Japan.
35. Cooperation agreements in the transport sector include air services agreements, capacity building frameworks, and transport cooperation frameworks covering road and rail transport, maritime transport, aviation safety, aviation security, and accident investigation activities.

Abbreviations

AANZFTA	ASEAN – Australia – New Zealand Free Trade Agreement
ABC	Australian Broadcasting Corporation
ABS	Australian Bureau of Statistics
ADB	Asian Development Bank
ADF	Australian Defence Force
AFP	Australian Federal Police
AGD	Attorney-General's Department
APEC	Asia–Pacific Economic Cooperation forum
APS	Australian Public Service
ASEAN	Association of Southeast Asian Nations
AusAID	Australian Agency for International Development
Austrade	Australian Trade Commission
BITRE	Bureau of Infrastructure, Transport and Regional Economics
BREE	Bureau of Resources and Energy Economics
CIE	Centre for International Economics
COAG	Council of Australian Governments
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DEEWR	Department of Education, Employment and Workplace Relations
DFAT	Department of Foreign Affairs and Trade
DIAC	Department of Immigration and Citizenship
DIISRTE	Department of Industry, Innovation, Science, Research and Tertiary Education
DIT	Department of Infrastructure and Transport
DRET	Department of Resources, Energy and Tourism
EAS	East Asia Summit
EFIC	Export Finance and Insurance Corporation
EIA	Energy Information Administration

ERIA	Economic Research Institute for ASEAN and East Asia
FAO	Food and Agriculture Organization
FTA	free trade agreement
G20	Group of Twenty
G7	Group of Seven
G8	Group of Eight
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
IEA	International Energy Agency
IFRS	International Financial Reporting Standards
ILO	International Labour Organization
IMF	International Monetary Fund
LNG	liquefied natural gas
NBN	National Broadband Network
OECD	Organisation for Economic Co-operation and Development
PISA	Program for International Student Assessment
RBA	Reserve Bank of Australia
RMB	renminbi
SBS	Special Broadcasting Service
TFC	Tourism Forecasting Committee
TRA	Tourism Research Australia
UNEP	United Nations Environment Programme
UNESCO	United Nations Education, Scientific and Cultural Organization
UNWTO	United Nations World Tourism Organization
VET	vocational education and training
WTO	World Trade Organization

Glossary

Africa and Middle East

The definition of Africa and the Middle East for the purposes of the charts varies due to data constraints. Chart 3.9: Africa and Middle East refers to Algeria, Angola, Bahrain, Benin, British Indian Ocean Territory, Botswana, Burundi, Burkina Faso, Central African Republic, Cape Verde, Chad, Republic of Comoros, Congo, Côte d'Ivoire, Cyprus, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, St Helena, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Oman, Iran, Qatar, Reunion, Rwanda, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Syria, Tanzania, Togo, Tunisia, Uganda, United Arab Emirates, Western Sahara, Yemen, Zaire, Zambia and Zimbabwe.

Chart 9.1: Middle East and Africa refers to Egypt, Ethiopia, Ghana, Iran, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Mauritius, Nigeria, Saudi Arabia, Senegal, South Africa, Turkey, United Arab Emirates and Zimbabwe.

Agrifood

Food-based agricultural commodities and fish.

Americas

For the purposes of Chart 3.9, Americas refers to Antigua and Barbuda, Anguilla, Argentina, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, Canada, Cayman Islands, Chile, St Christopher and Nevis, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Malvinas), French Antilles, French Guiana, Guatemala, Grenada, Guyana, Haiti, Honduras, Jamaica, St Lucia, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, St Pierre and Miquelon, Puerto Rico, Suriname, Turks and Caicos Islands, Trinidad and Tobago, the United States, the United States Virgin Islands, Uruguay, Venezuela, St Vincent and the Grenadines and the Virgin Islands.

APEC Business Advisory Council

A private sector body that presents recommendations to APEC Leaders in an annual dialogue and advises APEC officials on business sector priorities and concerns.

ASEAN

The Association of Southeast Asian Nations comprises 10 countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. For the purposes of Chart 2.3, Brunei has been excluded due to data constraints.

ASEAN+3	The 10 ASEAN country members with China, Japan and South Korea.
ASEAN-4	Indonesia, Malaysia, the Philippines and Thailand.
ASEAN-5	A sub-regional grouping within ASEAN, comprising Indonesia, Malaysia, Singapore, Thailand and the Philippines.
Asia	<p>The definition of Asia for the purposes of the charts varies due to data constraints. Charts 1, 1.1, 2.1 and A.2: Asia refers to Australia, Bangladesh, China, Hong Kong, India, Indonesia, Japan, Malaysia, Myanmar, New Zealand, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Thailand and Vietnam.</p> <p>Charts 1.5 and 2.11: Asia refers to Bangladesh, Bhutan, Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Laos, Macao, Malaysia, Maldives, Mongolia, Myanmar, Nepal, North Korea, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Thailand, Timor-Leste and Vietnam.</p> <p>Charts 2.2, 2.3, 2.5 and 2.7: Asia refers to Afghanistan, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Thailand and Vietnam.</p> <p>Charts 2.9, 4.4 and 7.1: Asia refers to Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Laos, Malaysia, Myanmar, the Philippines, South Korea, Singapore, Thailand, Timor-Leste and Vietnam.</p> <p>Chart 4.8: Asia refers to Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Brunei, Cambodia, China, Georgia, Hong Kong, India, Indonesia, Japan, Kazakhstan, Kyrgyz Republic, Laos, Macau, Malaysia, Maldives, Mongolia, Myanmar, Nepal, North Korea, Pakistan, the Philippines, Singapore, Sri Lanka, South Korea, Taiwan, Tajikistan, Thailand, Tibet, Timor-Leste, Turkmenistan, Uzbekistan and Vietnam.</p> <p>Chart 8.2: Asia refers to Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, Cambodia, China, Georgia, Hong Kong, India, Indonesia, Iran, Iraq, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyz Republic, Laos, Lebanon, Macao, Malaysia, Maldives, Mongolia, Myanmar, Nepal, North Korea, Oman, Pakistan, the Philippines, Qatar, Saudi Arabia, Singapore, South Korea, Sri Lanka, Syria, Tajikistan, Thailand, Timor-Leste, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, and West Bank and Gaza Strip.</p>

Chart 9.1: Asia refers to Afghanistan, Bangladesh, Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Timor-Leste and Vietnam.

Chart 9.2: Asia refers to Bangladesh, Bhutan, Brunei, Cambodia, China, Timor-Leste, Hong Kong, India, Indonesia, Japan, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.

Asian tigers	A term used in reference to the highly developed economies of Hong Kong, Singapore, South Korea and Taiwan.
Asia–Pacific Economic Cooperation	A forum with 21 members established in 1989 to facilitate economic growth and prosperity in the Asia–Pacific region, with the vision of creating a seamless regional economy
Asia–Pacific Safeguards Network	An informal network of nuclear safeguards authorities, ministries and other organisations responsible for implementing safeguards in the countries of the Asia–Pacific region. It comprises Australia, Canada, China, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Russia, Singapore, South Korea, Thailand, the United States, Vietnam and the International Atomic Energy Agency.
Australia Group	An informal forum of 41 countries which, through the harmonisation of export controls, seeks to ensure that exports do not contribute to the development of chemical or biological weapons.
Australia–Hong Kong RMB Trade and Investment Dialogue	A dialogue between senior banking and other business leaders from Australia and Hong Kong, facilitated between the Australian Treasury, the Reserve Bank of Australia and the Hong Kong Monetary Authority. It aims to maximise the opportunities flowing from the wider use of the RMB in trade and investment in the region.
Bali Process	A process co-chaired by the Australian and Indonesian governments that brings together participants to work on practical measures to help combat people smuggling, trafficking in persons and related transnational crime in the Asia–Pacific region.
Basel III	A comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of the global banking sector.

Cairns Group	A unique coalition of 19 developed and developing agricultural exporting countries with a commitment to achieving free trade in agriculture.
Chiang Mai Initiative	A multilateral currency swap arrangement among the 10 members of ASEAN, China (including Hong Kong), Japan and South Korea.
Colombo Plan	A regional intergovernmental organisation for the furtherance of economic and social development of the nations of the Asia-Pacific. It was formed in 1950 by a group of seven Commonwealth nations—Australia, Britain, Canada, Ceylon, India, New Zealand and Pakistan—and has developed into an international organisation of 26, including non-Commonwealth countries.
Developing Asia	For the purposes of Chart 2.7, Developing Asia refers to Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and Vietnam.
Doha round	The current round of trade negotiations among the World Trade Organization membership. Its aim is to achieve major reform of the international trading system through the introduction of lower trade barriers and revised trade rules.
European Union-21	All European Union countries prior to the accession of the 10 candidate countries on 1 May 2004, plus the four eastern European member countries of the OECD, namely Czech Republic, Hungary, Poland and Slovak Republic.
European Union-25	For Chart 7.1, this refers to Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.
European Union-27	For charts 2.4 and 3.9, this refers to Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.
Euro Area	For charts 2.2 and 2.3, this refers to Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Slovakia and Spain.

Europe

The definition of Europe for the purposes of the charts varies due to data constraints. Chart 3.10: Europe refers to Aland Islands, Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Gibraltar, Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro and Kosovo, the Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom and the Vatican City.

Chart 4.8: Europe refers to Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Gibraltar, Greece, Greenland, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom and the Vatican City.

Chart 9.1: Europe refers to Austria, Belgium, Croatia, Cyprus, Denmark, France, Germany, Greece, Hungary, Ireland, Malta, the Netherlands, Palestine, Poland, Portugal, Russia, Spain, Sweden, Switzerland, the United Kingdom, the Vatican City and Yugoslavia.

Five Power Defence Arrangements

A series of defence relationships established in 1971 by bilateral treaties between Australia, Malaysia, New Zealand, Singapore and the United Kingdom.

free trade agreement

An agreement to eliminate tariffs, import quotas and preferences between signatory countries.

Group of Seven

For Chart 2.4, this refers to Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

Indian Ocean Naval Symposium

A biennial and voluntary initiative started in 2008 that seeks to increase maritime cooperation among navies of littoral states of the Indian Ocean region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.

Indian Ocean Rim Association for Regional Cooperation	A regional forum established in 1997 linking most countries on the Indian Ocean rim through an annual foreign ministers' meeting.
International Atomic Energy Agency	The world's centre of cooperation in the nuclear field, set up in 1957 as the 'Atoms for Peace' organisation within the United Nations.
Large emerging economies	For Chart 5.2, this refers to Brazil, China, India, Indonesia, Russia and South Africa.
Latin America and Caribbean	For the purposes of charts 2.2 and 2.3, Latin America and Caribbean refers to Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St Lucia, El Salvador, Trinidad and Tobago, Uruguay and Venezuela.
Middle class	For the purposes of this White Paper, the middle class is defined as allowing daily expenditures of between US\$10 and US\$100 per person in purchasing power parity terms. The lower limit was chosen by the authors with reference to the average poverty line in Portugal and Italy, the two advanced European countries with the strictest definition of poverty. The upper limit was chosen as twice the median income of Luxembourg, the richest advanced country. Defined in this way, the middle class excludes those who are considered poor in the poorest advanced countries and excludes those who are considered rich in the richest advanced country.
New Zealand and Pacific	For Chart 9.1, this refers to Fiji, Kiribati, Federated States of Micronesia, Nauru, New Caledonia, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.
non-state actors	Entities that participate in international relations that are not states, some positively such as NGOs, multinational corporations and international media, others negatively, such as terrorists, people traffickers and smugglers, pirates, transnational criminals and hackers.
North America	For the purposes of charts 2.2 and 2.3, North America refers to Canada and the United States.
North America and Europe	For the purposes of charts 1.1, A.1, A.2 and A.4, North America and Europe refers to Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

North, Central and South America	For the purposes of Chart 9.1, North, Central and South America refers to Argentina, Brazil, Canada, Chile, Mexico, Peru, Trinidad and Tobago and the United States.
North Korea	Democratic People's Republic of Korea
North East Asia	For the purposes of Chart 3.10, North East Asia refers to China, Hong Kong, Japan, Macau, Mongolia, North Korea, South Korea and Taiwan.
Organisation for Economic Co-operation and Development	For the purposes of Chart 5.2, OECD refers to Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.
Other Advanced	For the purposes of Chart 2.12, Other Advanced refers to Australia, Canada, France, Germany, Italy, Japan and the United Kingdom.
Other Emerging	For the purposes of Chart 2.12, Other Emerging refers to Argentina, Brazil, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey.
Other North Asia	For the purposes of Chart 3.9, Other North Asia refers to Hong Kong, North Korea, Macau, Mongolia South Korea and Taiwan.
Pacific Economic Cooperation Council	A partnership of senior individuals from business and industry, government, academic and other intellectual circles, for the discussion of current, practical policy issues of the Asia-Pacific region.
Programme for International Student Assessment	An international study by the OECD that aims to evaluate education systems worldwide every three years by assessing 15-year-olds' competencies in the key subjects of reading, mathematics and science. To date over 70 countries and economies have participated.
public diplomacy	Diplomacy that promotes the national interest of a country through engaging, understanding, informing and influencing foreign audiences.
renminbi	The name of the official currency of China. The yuan is the name of a unit of this currency.

Shangri-La Dialogue	An annual international intergovernmental forum on the security of the Asia–Pacific, hosted by the International Institute for Strategic Studies in Singapore, attended by defence ministers from the region, and their civilian and military chiefs of staff.
South Asia	For the purposes of Chart 3.6, South Asia refers to Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
South Korea	Republic of Korea
South East Asia	<p>The definition of South East Asia for the purposes of the charts varies due to data constraints. Chart 3.9: South East Asia refers to Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam.</p> <p>Chart 3.10: South East Asia refers to Brunei, Cambodia, , Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste and Vietnam.</p>
South and Central Asia	For the purposes of Chart 3.10, South and Central Asia refers to Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Georgia, India, Kazakhstan, Kyrgyz Republic, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan and Uzbekistan.
Track 2 diplomacy	Diplomatic activity that is taken by non-government individuals or agencies.
Treasury projections	Projections from the Australian Treasury undertaken using the Global Trade and Environment Model (GTEM) as described in Australian Government (2011c). The projections use updated economic and commodity price data and projections from Australian Government (2012a), Australian Government (2012c), IMF (2012c), Treasury’s long-term projections (Au-Yeung, Kouparitsas, Luu and Sharma, forthcoming) and the International Energy Agency (2011).
Trilateral Strategic Dialogue	A ministerial-led dialogue between Australia, Japan and the United States to promote regional stability and security.
United Nations Security Council	The UN organ that has responsibility for international peace and security.
United Nations	The international organisation founded in 1945 that is committed to maintaining international peace and security, developing friendly relations among nations and promoting social progress, better living standards and human rights.

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