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CHINA IN AUSTRALIA'S FUTURE



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contents

and **contributors**

1. China and the International Economy	2
Mark Thirlwell Lowy Institute for International Policy	
2. The Development and Significance of the Australia–China Economic Relationship	12
John Edwards HSBC Bank Australia Limited	
3. China’s Economic Development and Outlook	18
Nicholas Coppel Department of Foreign Affairs and Trade	
4. Towards a Mature Relationship: China and Australia	30
Jia Qingguo and Zhong Tingting Beijing University	
5. The Economic Significance of Resources and Energy Trade	36
Charlie Lenegan Tony Beck Malcolm Gray Rio Tinto Limited	
6. The Services Opportunities in China for Australian Businesses	48
Jon Nicholson Ben Thompson The Boston Consulting Group	
7. Opportunities in Higher Value Manufacturing and Other Collaborations	56
Richard Martin IMA Asia	
8. Emerging Political and Security Relationships	62
Peter Jennings Australian Strategic Policy Institute	
9. A Perspective on Intellectual Property Protection in China	68
Ian Heath IP Australia	

China and the international economy

MARK THIRLWELL

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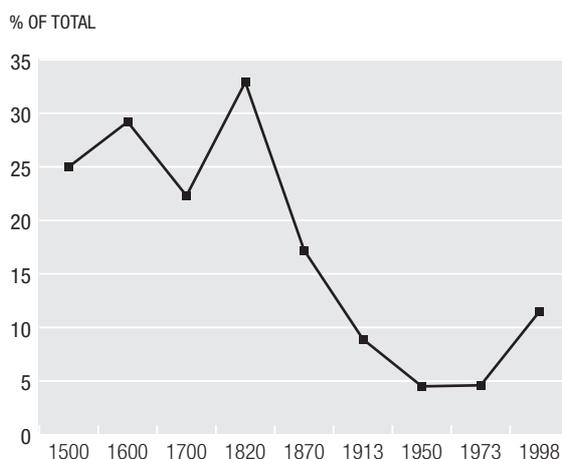
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Introduction: Remaking the world economy

In its December 2004 report, *Mapping the Global Future*, the National Intelligence Council – the US intelligence community's "Center for midterm and long-term strategic thinking" – makes the judgement that the likely arrival of China as a serious global player will "transform the geopolitical landscape", noting that "most forecasts indicate that by 2020 China's gross national product (GNP) will exceed that of individual Western economic powers except for the United States."¹ While transformation of the geopolitical landscape may still – just – be a judgement about the future, the emergence of China as a new economic power is *already* reshaping the global economy. In recent years China has become a steadily more important determinant of global growth, of world export and import volumes, and of the price of major commodities such as oil. China's increasingly central place in the international economy has also been evident in heated debates over the bilateral trade deficit with the United States (US) and the future status of China's exchange rate peg to the US dollar. These have occupied policymakers since the start of the new millennium.

FIGURE 1.1
CHINA'S ECONOMIC PERFORMANCE IN THE (VERY) LONG RUN

CHINA'S SHARE OF GDP



Source: Maddison 2001

At the same time as remaking the world economy, China is having an even greater impact in its immediate neighbourhood. Beijing's growing political and economic weight is exerting a gravitational pull on the rest of East Asia that is moulding both regional trade flows (a trend visible in the current expansion of intra-regional trade and proliferation of international supply chains) and regional institutions (seen, for example, in the growing role of ASEAN+3 and the spread of regional preferential trade deals).

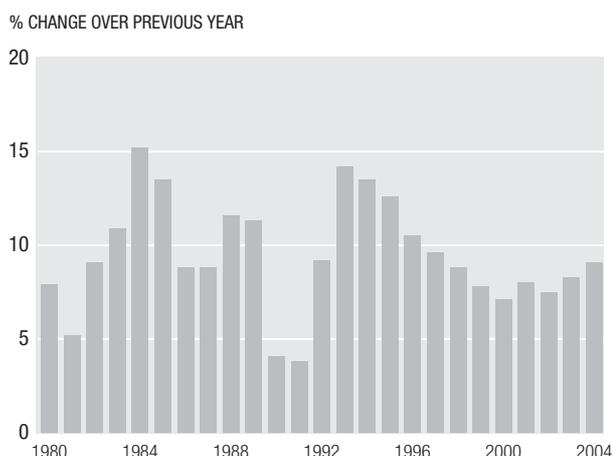
For Australia, this transformation in the global and the regional economies within which we work and trade is creating both challenges and opportunities. The rest of this chapter outlines some of the ways in which China is changing our external environment, and then concludes with some thoughts about implications of the bilateral relationship, leaving a more detailed review of the latter to the following chapters. Thus John Edwards and Jia Qingguo and Zhong Tingting focus on the broad nature of the relationship from an Australian and a Chinese perspective respectively, while Peter Jennings examines the relationship from a security context.

History lessons

Economic history tells us that the entry of new economic players into the world economy can have dramatic, and not always happy, consequences. Martin Wolf, for example, argues that the rise of the US economy in the late nineteenth century "had devastating consequences for the liberal economic order" of the day; as a rapid increase in the

FIGURE 1.2
CHINA'S RECENT GROWTH PERFORMANCE

CHINA: REAL GDP GROWTH



Source: IMF World Economic Outlook database, September 2004 and press reports

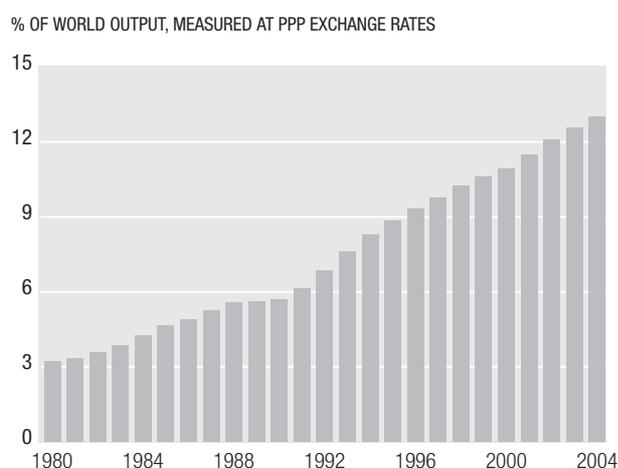
supply of cheap US grain prompted European agricultural protectionism, US trade policies further militated against free trade and US economic instability rocked the prevailing international monetary system. Wolf goes on to suggest that "China is for labour-intensive manufactures what the Americas were for grain: a competitive new supplier with nigh-inexhaustible potential". By implication this poses similar challenges to the international system.²

Undoubtedly, the rise of China does carry with it potential for the significant disruption of the established economic order. Yet the historical experience with the US also shows us that such periods of transition also bring with them great opportunities. Closer to home in terms of both geography and time, this is certainly the lesson that Australia can draw from its own experience in the second half of the twentieth century, an experience which indicates that the rise of new Asian economic powers – Japan, Korea, Taiwan and the ASEAN tigers – can provide an important lift to our own economic prospects.

Economic history also tells us that China's current emergence as a global economic power is perhaps better characterised as China's re-emergence. Work by the economic historian Angus Maddison estimates that China may have accounted for almost one-third of world GDP in 1820.³ The following century and a half saw that share dwindle to less than 5 per cent as the Atlantic became the locus of international economic activity (see Figure 1.1). The global economy is currently experiencing a process of global reorientation, as economic weight in the international economy shifts back towards China, from where it departed in the nineteenth century.

FIGURE 1.3
CHINA'S GROWING WEIGHT IN THE WORLD ECONOMY

CHINA: SHARE OF WORLD ECONOMY



Source: IMF World Economic Outlook database, September 2004 and press reports

A growing global impact

China's current progress towards centre-stage in the world economy is in large part a product of the economic reforms that got under way in the late 1970s. These in turn helped deliver an extremely impressive growth story: China has been one of the fastest growing economies in the world since 1980, with real GDP growth averaging over 9 per cent per annum between 1980 and 2004 (see Figure 1.2). Moreover, this strong aggregate growth performance has also translated into impressive gains in output per head, with GDP per capita over the same period rising by more than 8 per cent a year on average, with important positive implications for global poverty levels.

In Chapter 3 we provide a detailed look at China's economic development and outlook, but one simple version of the story is that the impressive growth performance reflects the benefits of economic catch-up after decades of under-performance, with economic liberalisation playing the role of facilitator. The high tempo of activity has been supported by the large-scale transfer of labour out of underemployment in the rural sector and into more productive uses. High domestic savings rates and access to global markets (particularly since WTO membership in 2001) and to foreign capital (through high rates of foreign direct investment) have also been important contributory factors.

One significant consequence of this sustained period of rapid economic growth is that China has become an increasingly important driver of *global* growth prospects. During 2001–03, for example, China accounted for about one-quarter of world growth when output is measured at purchasing power parity (PPP) exchange rates.⁴

TABLE 1.1
SELECTED INDICATORS OF CHINA IN THE WORLD ECONOMY (2003)

INDICATOR	VALUE	SOURCE
GDP at market exchange rate	US\$1409.8 b	World Bank
Rank in world economy	7	
Share of world output	3.9%	
GDP at PPP exchange rate	\$6435.8 b	World Bank
Rank in world economy	2	
Share of world output	12.5%	
Population	1.28 b	World Bank
Rank in world economy	1	
Share of world total	20.5	
Merchandise exports	US\$437.9 b	WTO
Rank in world economy	4	
Share of world total	5.8%	
Merchandise imports	US\$413.1 b	WTO
Rank in world economy	3	
Share of world total	5.3%	
Inward foreign direct investment flow	53.5 b	UNCTAD
Rank in world economy	1*	
Share of world total	9.6%	

* Technically, China ranks behind Luxembourg, reflecting the latter's status as host to large financial holding companies.

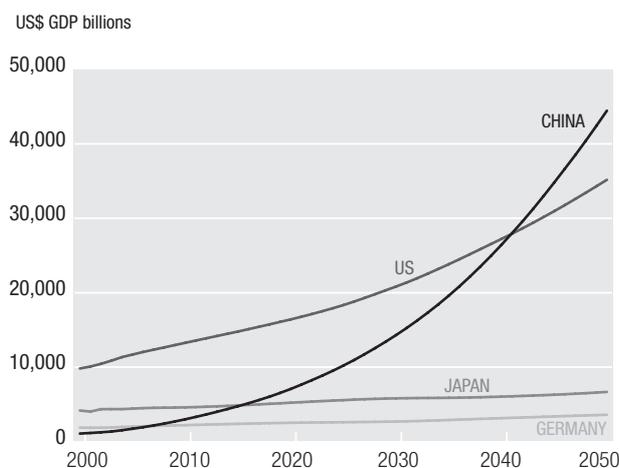
A second consequence has been the steady rise in China's relative importance in the world economy. If world output is measured at PPP rates, China has seen its share rise by almost 10 percentage points between 1980 and 2004 (see Figure 1.3).⁵

By 2003 China was the world's second-largest economy in PPP terms, accounting for 12.5 per cent of global output (see Table 1.1). True, if world output is measured using market exchange rates, China's relative position looks less impressive, with its economy accounting for a little less than 4 per cent of world output, making it the world's seventh-largest economy in 2003.⁶ But even on this measure China was closing rapidly on the UK, France and Italy in the three places above it, and seems destined to soon be in the number four spot.

Moreover, on current trends, China is on track to become an even more significant player. For example, a much-cited report by Goldman Sachs in 2003 estimated that by 2020 China could overtake Japan to be the second-largest economy in the world in US dollar terms, and by 2049 it could even displace the US economy from the number one spot (Figure 1.4).⁷

FIGURE 1.4
ONE SCENARIO FOR CHINA IN THE WORLD ECONOMY

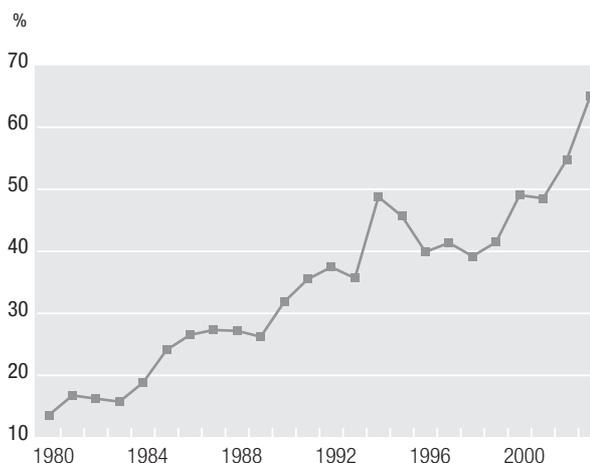
GOLDMAN SACHS BRICs PROJECTIONS



Source: Derived from Appendix II in Wilson and Purushothaman 2003

FIGURE 1.5
CHINA'S INCREASINGLY OPEN ECONOMY

CHINA: SHARE OF TRADE IN GDP



Source: World Bank World Development Indicators on line

Sustaining China's growth

Can China continue to sustain a healthy pace of economic growth? While the economy is unlikely to maintain the breakneck pace of activity recorded in 2004, when real GDP soared by 9.5 per cent and warning signals were sounded about overheating, there are strong grounds for expecting China to be able to sustain high growth rates beyond the next decade. Fundamentally, China is still a relatively poor economy in global terms, which leaves plenty of scope for economic catch-up with the developed world, and the combination of high savings and investment rates, and an ample supply of relatively cheap labour, should continue to provide the resources needed to power this process.⁸ Work by the International Monetary Fund (IMF) that looks at the historical experience of Japan and other East Asian economies during their phases of integration into the world economy suggests that not only are China's output growth rates not exceptional by regional standards, but also that China's share of world GDP at market exchange rates is still significantly below Japan's, and not greatly above that of the other East Asian economies, at similar stages of the integration process.⁹

On one reasonably conservative estimate, China's potential growth rate could run at around 7.5 per cent on average during the second half of the current decade.¹⁰ Other estimates suggest a range of 6–9 per cent.¹¹

Of course, even if China's *potential* growth rate is set to stay high, there remains a risk that the economy will fail to live up to this potential. As Professor Ross Garnaut has noted, while China may be *likely* to perform relatively strongly, "success may be broken at any time by inadequate responses to immense challenges."¹² And the challenges are immense. Beijing will have to continue to

pursue reform of the financial and state enterprise sectors, while at the same time managing the associated financial and social risks. In this regard, the economy's ability to absorb the labour released by structural reforms is set to be a particularly pressing challenge over the next decade, along with policymakers' ability to manage growing income inequality and any associated pressures for political change.¹³

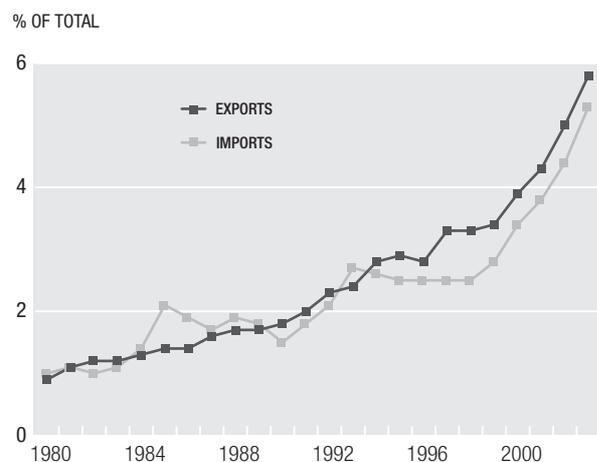
At the same time, continued integration with the world economy will also pose significant risks as well as great opportunities. Past experience suggests very few emerging markets have been able to complete the international integration process without suffering a financial crisis of one form or another: for China to avoid the same fate, not only will its policymakers have to be extremely skilful, they will also have to be extremely lucky.¹⁴ A key question for the future then becomes how effectively will China's social, political and economic institutions respond to such a crisis. In other words, would China's response to a financial crisis (should one eventuate) look more like Malaysia's or Indonesia's?

Transforming world trade

While much attention is paid to China's future status in the world economy, it is already exerting an important influence. This is particularly true with respect to international trade, where China has become a much more influential player over the past two decades, and particularly since the turn of the century. This in turn reflects the way in which China's development model has placed a high degree of emphasis on integration with the rest of the world. Evidence of the way in which policy has bet

FIGURE 1.6
CHINA'S GROWING SHARE OF WORLD MERCHANDISE TRADE

CHINA: SHARE OF WORLD MERCHANDISE TRADE



Source: World Bank World Development Indicators on line

on international integration can be seen in the way in which the share of trade (exports plus imports) in China's output has more than quadrupled between 1980 and 2003 (see Figure 1.5).

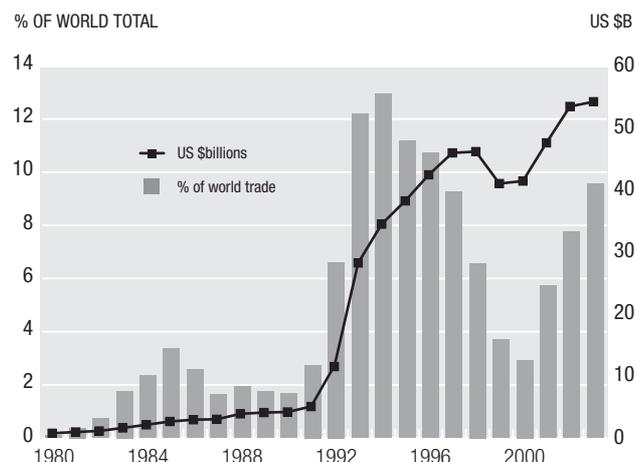
Growing openness to the international economy has been associated with a growing place in that economy: China's share of world merchandise exports has jumped from less than 1 per cent in 1980 to almost 6 per cent in 2003: its share of world merchandise imports over the same period increased from 1 per cent to 5.3 per cent (see Figure 1.6). As a result, by 2003 China had become the world's third-largest importer and its fourth-largest exporter.

The rapid gain in export market share is a reflection of very strong export growth: during most of the second half of the 1990s, China's merchandise exports grew at twice the pace of world exports, an achievement they repeated in 2003.¹⁵ Since 2000 China has also been the single most important contributor to the growth in overall global trade.

As with GDP growth, questions have been raised over the sustainability of China's rapid trade – particularly export – growth. Again, the same set of comparisons with its East Asian neighbours suggest that China's potential for further growth remains substantial. Thus, the recent performance of China's exports has been similar to that displayed by other regional economies in terms of growth rates, while China's actual share of world trade has been below that achieved by Japan or the so-called newly industrialised economies (NIEs) of North-East Asia at similar phases in their integration process. However, China's much greater size than its regional predecessors

FIGURE 1.7
FDI INFLOWS TO CHINA

CHINA: FOREIGN DIRECT INVESTMENT INFLOWS



Source: UNCTAD

indicates that its ultimate influence on the world economy could well be an order of magnitude larger than these past examples of integration.¹⁶

The world's factory?

This growing presence in international trade has been felt particularly sharply in global manufacturing, where China's comparative advantage lies in the production and export of labour-intensive products. The increasingly integrated nature of the world economy is allowing producers in the rest of the world to take advantage of this, and one result has been that a leading role in China's export performance to date belongs to foreign direct investment (FDI). Between 1994 and mid-2003, a period which saw China's exports roughly triple in value, so-called "foreign invested enterprises" (subsidiaries of global corporations and joint ventures) accounted for 65 per cent of the growth in exports.¹⁷ In 2003 China became the world's largest recipient of FDI inflows, attracting more than US\$53 billion of financing, or just less than 10 per cent of total world FDI inflows (see Figure 1.7). The United Nations Conference on Trade and Development (UNCTAD) estimates that the stock of FDI in China now stands at US\$505.5 billion.¹⁸

China's attractiveness as a destination for FDI is due in large part to its big domestic market and cheap labour costs, along with relatively open FDI policies. Of particular importance to the FDI story has been investors from Hong Kong SAR and Taiwan, who together with Singaporean investors have accounted for more than half of FDI flows to China.¹⁹

To date the main impact in the market for manufactured goods has been felt at the lower value end. But over time China has moved from a focus on exports of textiles, footwear, clothing and toys during the early 1990s to a greater emphasis on exports of transport and machinery, including electronics.²⁰ This steady progress of China up the value chain has led some to fear that China is becoming competitive across the whole spectrum of manufactured products, pointing to a high share of high-tech and industrial exports as evidence that the whole of global manufacturing is destined to relocate to China. As we have already noted, however, many of these exports are produced by foreign-owned rather than Chinese firms, and the latter remain heavily dependent on the import of designs, parts and components.²¹ This means that while China is a now potent competitor across a wide range of manufacturing sectors, it is also a key import market for other manufactured products. In Chapter 7 we look at the opportunities present in higher value manufacturing as China continues its development as the 'world's factory'.

Fuelling the dragon

The impact of China in those markets in which it has a comparative advantage as a *supplier* is to push down the relative price of products and increase the degree of international competition. This is good news for consumers,

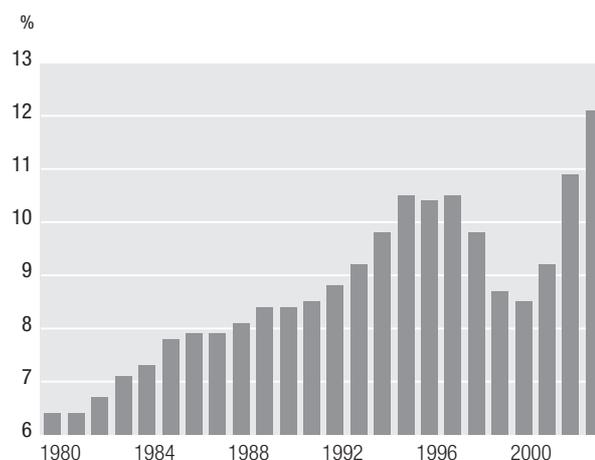
China is now the world's largest consumer and importer of many industrial raw materials, displacing the US as the largest market for copper, iron ore, aluminium, platinum and other commodities.

and for those economies who are net importers of such products, but it is obviously much less welcome for those countries competing in the same markets as China.

At the same time, however, China is also an increasingly important source of demand in markets for resources and energy. China is now the world's largest consumer and importer of many industrial raw materials, displacing the US as the largest market for copper, iron ore, aluminium, platinum and other commodities. China is also a growing importer of agricultural commodities, having recently displaced Japan as the number-two market for rubber imports, and in the future is likely to become an increasingly important source of demand for food imports.²²

FIGURE 1.8
CHINA'S GROWING ENERGY DEMAND

CHINA: SHARE OF WORLD PRIMARY ENERGY CONSUMPTION



Source: BP 2004

International energy markets are also subject to a growing Chinese influence. China's economic boom has been powered by industrialisation, with a major role for energy-intensive sectors as iron and steel and chemicals. One consequence is that China is now the second-largest consumer of energy in the world (see Figure 1.8). The International Energy Agency in its latest *World Energy Outlook* predicts that China's share of world primary energy demand will increase from around 12 per cent now to 16 per cent by 2030, and that China will account for 21 per cent of the growth in energy demand over this period.²³

One energy market where China's presence has been making itself particularly felt in recent years is the oil market. China's demand for oil has doubled over the past decade, and in 2003 China overtook Japan to become the world's second-largest oil consumer, accounting for 7.6 per cent of global oil consumption.²⁴ Preliminary data for 2004 suggest that China contributed to almost one-third of the estimated increase in global consumption, as Beijing's imports of oil jumped by 0.6 million barrels per day to 2.1 million barrels per day.²⁵ This in turn contributed significantly to the fastest annual increase in global oil consumption since the 1980s.²⁶

Finally, as well as needing to fuel development through imports of resources and commodities, China also needs to import services and ideas. Thus, while most of the focus on China's emergence to date has been on manufacturing and resources, there are also likely to be significant implications for services and intellectual property. Some commentators, for example, have argued that intellectual property could potentially be a major winner from the China market.²⁷

In Chapter 5 we take a more detailed look at the implications of Chinese growth for trade in resources and energy, with a particular focus on the implications for Australia, while in Chapter 9 we provide a review of intellectual property protection in China.

Forging a new regional order

So far the focus has been on how China's emergence is reshaping the international economy. But – thanks to the logic of geography – the greatest impact of China's growing economic weight is being felt in the surrounding region. The rising importance of China to East Asia (and particularly to the region's emerging market economies, with Japan treated as a somewhat different case) has prompted two alternative interpretations. One is that China and the rest of the region are comrades that share mutual benefits from growing incomes of Chinese consumers. The other interpretation sees China and other regional economies as competitors, producing goods that are relatively close substitutes and hence competing in key third markets like the United States.²⁸

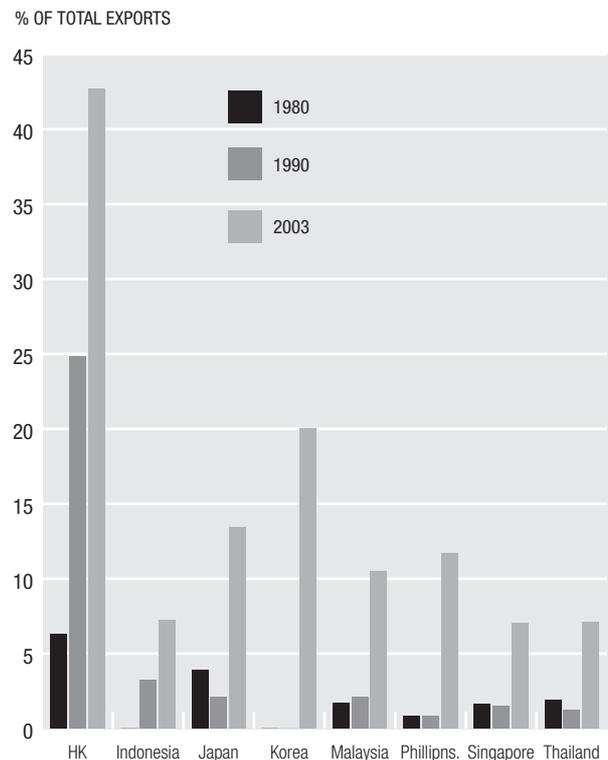
The proposition that China represents an important new source of demand for the rest of East Asia is one that is certainly being borne out by the data. In its latest regional update, for example, the World Bank notes that in 2002 and 2003 China was by far the largest source of export market growth for many of the rest of the region's economies. In 2003, growth in exports to China and Hong Kong accounted for 50–60 per cent of the overall export growth enjoyed by Korea and Taiwan, and about 25 per cent in economies like Malaysia and Thailand. Moreover, regional economies have been steadily gaining market share in China's imports over time, reflecting a

The proposition that China represents an important new source of demand for the rest of East Asia is one that is certainly being borne out by the data.

growing level of economic complementarity, with 2001–2003 witnessing a 'remarkable jump' in the degree of integration: China now sources over 60 per cent of its imports of industrial high-tech and transport machinery, equipment and components from emerging East Asia. The Bank notes that while the NIEs have been some of the biggest beneficiaries of this trade in parts and components, Malaysia, the Philippines and Thailand are also enjoying strong export growth.²⁹ At the same time, South-East Asia has also been able to benefit from China's growing demand for commodities, with strong growth, for example, in the export of crude rubber from Malaysia and Vietnam, cork and wood from Malaysia, and vegetables and fruit from Vietnam.³⁰

FIGURE 1.9
CHINA'S IMPORTANCE AS A MARKET FOR EAST ASIA

REGIONAL EXPORTS TO CHINA



Source: Calculated from IMF Direction of Trade Statistics

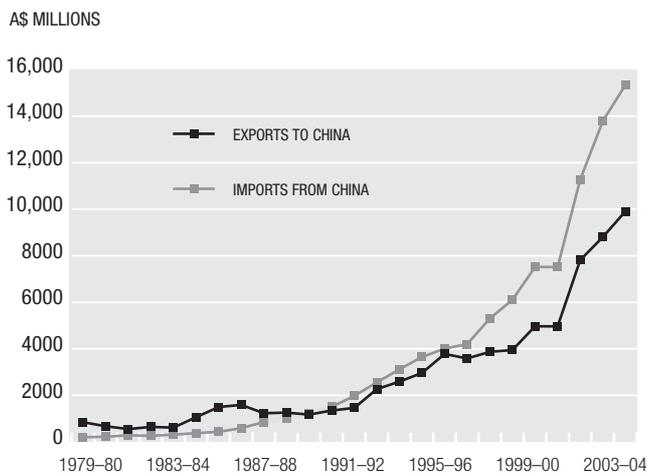
The result of this process has been the emergence of a new international division in the division of labour in East Asia. Thus, many regional producers no longer export final products to markets in the advanced economies outside the region, but instead ship parts and components to China where they are assembled and then shipped out through local affiliates. At the same time, large sections of the region's labour-intensive industries like clothing and textiles have also been relocated to China. By 2003 China had become a major export destination for virtually all of the region's economies (see Figure 1.9). At the same time, exports from China have increasingly replaced sales from other regional economies in markets like the US and the European Union (EU).³¹ In other words, it is possible to find evidence for both the 'comrade' and the 'competitor' views of China-regional relations from the data.³²

China's growing regional presence is also being felt in the region's structures and institutions, including the emergence of ASEAN+3 as an important part of the regional architecture.

The economic challenge posed by Beijing appears to have been one of the factors that have persuaded the region to consider preferential regional trading arrangements as a useful way of managing economic relations with their increasingly important neighbour.³³ When China proposed

FIGURE 1.10
AUSTRALIAN TRADE WITH CHINA

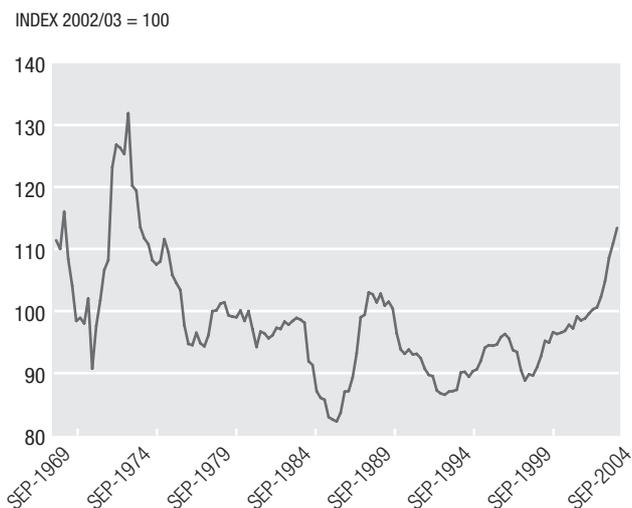
AUSTRALIA–CHINA BILATERAL MERCHANDISE TRADE



Source: Department of Foreign Affairs and Trade, *Direction of Australian Trade* (various issues)

FIGURE 1.11
THE LIFT TO AUSTRALIA'S TERMS OF TRADE

AUSTRALIA: TERMS OF TRADE



Source: RBA web site

a Free Trade Agreement (FTA) between itself and ASEAN in November 2000, this was interpreted by some as Beijing seeking to provide reassurance to a region wary of the new trading power emerging to its north.³⁴ The China–ASEAN trade accord that was signed in November 2004 marks a significant step towards the planned FTA.

The combination of greater economic regional integration, together with signs of more active Chinese economic diplomacy, has even led some commentators to see the long-term potential for the “recreation of the kind of strategic centrality that China enjoyed at the height of imperial rule, when Asian states paid tribute to Beijing and recognised its pre-eminence in return for favourable terms of trade.”³⁵ And not surprisingly, these gambits in the field of economic diplomacy have in turn had their own repercussions, with Japan, for example, also joining the move towards forging regional trade agreements as Tokyo frets about being left behind by Beijing in the race for regional influence.

The bilateral economic relationship

Inevitably, these trends in the global and regional economies have significant implications for Australia. The following chapters explore some of these ramifications in detail, but here it is worth noting that the bilateral relationship is already of great and growing importance.

One area where this is clearly visible is in trade flows, where the global and regional story of a rising Chinese presence is also clearly apparent in the two-way trade between Australia and China (see Figure 1.10). In terms of merchandise exports, for example, in the financial year 1979–80 China was the destination for around A\$845 million of Australian exports, or about 4.5 per cent of the total, making it Australia’s sixth-largest export market at that time. By the 2003–04 financial year, Australian exports to China had risen to A\$9.9 billion and accounted for 9.1 per cent of total exports, with China overtaking the US to become Australia’s second-largest merchandise export market.

The same trend is visible in Australia’s imports: China was the source of just under A\$200 million of merchandise imports (a bit over 1 per cent of total imports) in the 1979–80 financial year, making it Australia’s sixteenth-largest import source. As of the 2003–04 financial year, imports from China had risen to A\$15.3 billion, almost 12 per cent of total imports and enough to make China the third-largest import source.

The importance of bilateral merchandise trade flows is continuing to grow; by the end of calendar year 2004 exports to China had risen further, to A\$11 billion, and imports from China were up to A\$17.9 billion, taking China into second place as a source of imports.³⁶ Existing and likely future deals for the export of Australian energy to China – exports from the North West shelf to Guangdong province are expected to begin in 2006 – will continue to boost the value of Australian exports in coming years (see Chapter 5).

The trading relationship is not just about goods. In 2004 China was also Australia’s seventh-largest services export market and its eighth-largest source of services imports.³⁷ Of particular importance in bilateral services trade are

education and tourism exports, which account for about two-thirds of services exports. By 2003 China had become Australia's largest source of overseas students (with some 43,000). In the same year over 176,100 Chinese visitors came to Australia (and 114,200 Australians visited China), with some forecasts suggesting that by 2010 the number of Chinese tourists visiting Australia each year will exceed one million.³⁸ In Chapter 6 we take a detailed look at the services opportunity for Australian businesses in China.

China's influence in terms of shifting international relative prices is also shaping Australian economic performance. In September 2004 Australia's terms of trade (the ratio of export to import prices) reached a 30-year high, thanks to a

China's influence in terms of shifting international relative prices is also shaping Australian economic performance.

combination of strong export prices (pushed up by higher global commodity prices – a reflection in part of Chinese demand) and import prices that have been constrained by intense (China-inspired) international competition in manufacturing (see Figure 1.11). Moreover, with higher contract prices for bulk commodities (coal and iron ore) expected this year, Australia's terms of trade are expected to continue to rise in the near term.³⁹

In contrast to the deepening trading relationship, bilateral investment flows to date have been much more modest.⁴⁰ Australian investment in China was A\$1.2 billion as of 30 June 2003, making it Australia's-eighteenth-largest destination for investment, while Chinese investment in Australia was A\$2.2 billion in the same year, giving China a ranking of 14 in terms of overseas investors.⁴¹ Even so, it is noteworthy that Australia was the location of the first significant overseas investments by China, with the joint ventures in the Portland aluminium smelter and Channar iron ore mine in the mid-1980s, and China's existing interest in investment in the resources and energy sector. These could well expand significantly in coming years.⁴²

Building bilateral ties: What role for an FTA?

Finally, is there a role for economic diplomacy to further boost the bilateral relationship? Australia and China signed a Trade Agreement in 1973, one year after the establishment of diplomatic relations, and this has since served as the formal framework for the bilateral economic relationship. In a recent effort to build on this agreement, the two sides signed a Trade and Economic Framework (TEF) in October 2003. The TEF was intended to provide a basis for a further deepening of economic ties

and included a commitment by both Canberra and Beijing to undertake a joint feasibility study into an FTA, which at the time of writing was due to be completed at the end of March 2005.

Preferential trade agreements – of which an Australia–China FTA would be an example – are controversial among economists, many of whom fear that they distort international trading relationships and threaten the health of the multilateral system. This broad debate about the intrinsic merits of such agreements rightly received a fair amount of attention during the negotiation of the Australia–US FTA (AUSFTA). But following AUSFTA's entry into force at the start of this year, that particular debate seems to be pretty much over from an Australian policy perspective, at least for now – with three recent FTAs (agreements with the US, Singapore and Thailand) under its belt, Canberra has clearly climbed aboard the preferential trade bandwagon, as indeed has nearly all of the rest of the region and most of the membership of the World Trade Organization. In this context, a trade agreement with one of our most important economic partners would seem to be an inevitable part of any serious FTA-based trade strategy.

A key policy question therefore becomes how best to use the proposed agreement to manage future relations with Beijing. This is particularly the case given that, as noted above, China seems set to become an increasingly important player in emerging regional economic structures, including regional trade agreements. Thus, while the complementary nature of the two economies means that China is likely to be an important market for Australian exports of (in particular) energy and resources regardless of whether a formal trade agreement is in place or not, at its best a China–Australia FTA could aim to provide a framework that would allow policymakers on both sides to pursue closer collaboration on a series of economic issues (so-called 'deep integration') that could have significant longer term benefits in terms which bind the two economies together. Equally, however, it will be important to make sure that the content and structure of any FTA is such that it contributes towards regional (and ultimately global) trade liberalisation and integration, rather than becoming an obstacle to the same.

END NOTES

- 1 National Intelligence Council 2004, p. 9.
- 2 Wolf 2003, Germany's emergence as a contender for economic and political leadership in the nineteenth century is another example of a major disturbance to the global status quo.
- 3 Maddison 2001.
- 4 Prasad and Rumbaugh 2004.
- 5 PPP exchange rates are constructed exchange rates that equate the cost of a typical basket of goods across countries. In other words, they make adjustments to take into account the fact that the price of non-traded goods and services (such as a haircut) will tend to be much lower in China than in (say) the US. By attempting to "correct" for this difference, measures of global output shares using PPP exchange rates give much higher weights to developing countries like China than do output shares measured at market exchange rates: China's share of world output at PPP rates is much larger, and rising much faster, than market rate measures. Which measure is more appropriate? Market exchange rates have the big advantage that they are visible in the market place, rather than being theoretical constructs, and moreover are the rates at which international transactions actually take place. So for purposes of measuring a country's immediate impact in the world economy, they are the more relevant metric. PPP rates are generally taken to be a better source of guidance for judging relative standards of living. However, market rates are subject to significant volatility, and hence a country's share of world GDP can move around dramatically with changes in current market sentiment. According to economic theory, market rates should over time converge on PPP rates. Hence, there is a case for looking at PPP rates as a guide to longer term trends.
- 6 China probably moved into sixth place in 2004.
- 7 Wilson and Purushothaman 2003.
- 8 On World Bank data, China's gross national income per capita in 2003 was just 13 per cent of the US level using PPP exchange rates or less than 3 per cent at market exchange rates.
- 9 IMF 2004.
- 10 Heytens and Zebregs 2003.
- 11 See Box 2.3 in IMF 2004.
- 12 Garnaut 2003, p. 3.
- 13 On the employment challenge see Brooks 2004.
- 14 For example, to return to the case of the emergence of the US economy in the nineteenth century, it has been estimated that the US experienced some ten boom-to-bust cycles over this period (Kynge 2004).
- 15 WTO 2004, p. 1.
- 16 IMF 2004.
- 17 Roach 2003.
- 18 UN 2004.
- 19 Tseng and Zebregs 2003.
- 20 Rumbaugh and Blancher 2004.
- 21 Gilboy 2004.
- 22 Hale 2004.
- 23 See International Energy Agency 2004, p. 265.
- 24 BP 2004.
- 25 International Energy Agency 2004, p. 64.
- 26 International Energy Agency 2004, p. 83.
- 27 See, for example, Xie 2003.
- 28 Fernald and Loungani 2004.
- 29 World Bank 2004, p. 13.
- 30 World Bank 2004, p. 16.

- 31 WTO 2004, p. 1.
- 32 Most economic modelling in this area has been done in the context of predicting winners and losers from China's accession to the WTO. Much of this tends to find that "on balance" the industrialised and newly industrialising economies in East Asia benefit from a greater role for China in international trade, with the evidence more ambiguous for the economies of South-East Asia. For example, Ianchovichina, Suthiwart-Narueput and Zao (2004) suggest that as major suppliers to China both Japan and the NIEs will benefit from an improvement in their terms of trade and a rise in production and exports as China's demand for intermediate inputs and final products expands – as suggested by the World Bank report cited above. For the ASEAN economies, however, the same authors judge that while the Chinese market will represent sizeable opportunities, including through participation in links in global production networks, the similarity in export structures also suggests increased third market competition, particularly in sectors like clothing and textiles (Ianchovichina, Suthiwart-Narueput and Zao 2004, pp. 26–7). See also Ianchovichina and Walmsley 2003, and Ianchovichina and Martin 2003.
- 33 Other probable factors include the proliferation of such agreements elsewhere in the international economy, concerns about the direction of trade policy in major markets like the US and EU, and disappointment with the progress offered both by the multilateral system and by APEC.
- 34 See, for example, Cheng 2004, p. 258.
- 35 See, for example, Vatikiotis and Hiebert 2003.
- 36 Department of Foreign Affairs and Trade 2005.
- 37 Department of Foreign Affairs and Trade 2005.
- 38 Department of Foreign Affairs and Trade 2004.
- 39 Reserve Bank of Australia 2005.
- 40 The contrast between a close trading relationship and a relatively more distant financial one applies to Australia's relationship with Asia more generally (see Macfarlane 2003).
- 41 Department of Foreign Affairs and Trade 2005.
- 42 Garnaut 2002.

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THE DEVELOPMENT AND SIGNIFICANCE OF THE

Australia–China economic relationship

JOHN EDWARDS

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Introduction: The new super-customer

Australia trebled goods exports to China in the first half of the first decade of the twenty-first century. That increase vividly demonstrated to the Australian government and business that China's promise as a great economic power was being fulfilled. Even at the end of the last decade Singapore was a more important export market for Australia than China. By the middle of this decade China had already overtaken the United States (US) as Australia's second-biggest export market.

With trade growth underpinned by the great likelihood of a bilateral free trade agreement, China may well overtake Japan as Australia's biggest export market within another couple of decades. While Australia continues to run a large trade surplus with Japan, however, the growth of exports to China has been more than matched by the growth of imports from China. By the end of 2004 the deficit in Australia's trade with China was equal to one-third of its trade deficit overall. Imports from China, too, will be encouraged by the prospective free trade agreement.

The growth of Australian exports to China and of Australian imports from China partly reflects changes in the structure of both economies, which we outline below. The increasing bilateral trade flow between Australia and China is, however, only the most vivid evidence of its increasing centrality in Australia's economic future. Well over half of Australian exports are sold in East Asia, and an increasing share of East Asian exports are sold to China. It is still the case that Australian exports to Japan are twice as big as exports to China, for example, but China has become Japan's second-largest export market. So too it is increasingly important to Korea, Taiwan and South-East Asia. Nor is the increasing importance of China to other regional economies only a final production stage in North Asian exports to the US and Europe. China has emerged as a huge market in its own right, one that will continue to be driven by the twin forces of urbanisation and industrialisation for decades to come. Australia's trade with Asian economies other than China's will increasingly be influenced by the nature of their trade with China.

China's importance in Australia's future goes beyond trade. China and the US are developing as the two chief centres of the Asia Pacific economy, complementary but also uneasily competitive. Having already overtaken Japan as the world's second-biggest national economy, China will most likely challenge and then surpass the US as the world's biggest economy well within the active

Well over half of Australian exports are sold in East Asia, and an increasing share of East Asian exports are sold to China.

careers of younger Australian business executives and government policymakers. The European economy is already as big as the economy of the US and Europe too has a competitive relationship with it. But Europe and for that matter Japan are already high-income, well-developed economies that have for decades shared in making rules for the global economy. China is still the outsider, though one rapidly and irresistibly becoming part of the global economic order. It has been a member of the WTO for only half a decade, and was not a member of the GATT. Its role in the IMF, World Bank and Asian Development Bank does not begin to reflect its true importance in the global economy. It is an invited participant in some meetings of the G7, though it is a bigger economy than three of the seven put together, and it is exceeded in economic weight by only one of the seven. These considerations mean that the place China ultimately assumes in the world economic order and the economic relationships between China and the US and Japan are as important to Australia's economic future as the direct relationship between Australia and China.

It is worthwhile pondering, then, the evolving nature of Australia's direct relationship with China, its regional context, and also the way in which China's emergence as a formidable economic power is changing the way the world works.

After 14 years, a changed Australia

Australia's economic relationship with China is the product of a changing Australian economy and a changing Chinese economy. With 14 years of uninterrupted growth behind it, Australia is enjoying an extraordinarily long period of economic success. Over that period real incomes have increased by well over a third and household wealth has doubled. There are people now in their thirties, well established in their careers, with a house, a car and kids, who – quite unlike their parents – have not experienced a recession in their working lives.

This long period of growth is itself favourable to continuing growth because it reduces the transition costs of industrial change. Growth has facilitated changes in the shape of the Australian economy that have generally seen agriculture, mining, manufacturing and some utilities lose share while services generally have gained share.

The long upswing has been built on sustained productivity growth, itself the product of stronger competition, new flexibility in the labour force, and technological innovations such as cheap computing and cheap telecommunications. It has also been built on a markedly more competitive exchange rate since the 1983 float and sustained low inflation.

Most of the policy framework changes that preceded the long expansion had the effect of increasing Australian economic exposure to the rest of the world. These included the float of the currency, financial deregulation and tariff cuts. The other major change, the switch to enterprise bargaining, was the necessary consequence of greater exposure to global competition. The impact was amplified because Australia's regional neighbours were increasing their exposure to the global economy at the same time. Globalisation is after all a network phenomenon.

The external character of the Australian economy has changed. The share of exports in GDP increased, and at the same time the share of exports going to Asia generally increased, and the composition of exports changed. Manufactured and service exports are now consistently higher than rural exports. There has been a corresponding increase in the import share of consumption, which is reflected in imports from China.

More recently, Australia has entered another stage of internationalisation. Australia has experienced over the last decade a very big increase in both net and gross capital flows. Over the last decade the current account deficit has averaged 4 per cent of GDP. This is a measure of the net inward flow of global savings. But gross inward flow has increased to three times the current account

deficit. Two-thirds of the inward flow is matched by outward flows, particularly in recent years. This has largely taken the form of foreign direct investment (FDI) by Australian corporations. Australian businesses now own more business assets in the US than US businesses own in Australia. From less than one-quarter of a decade ago the total stock of Australian foreign direct investment abroad is now about three-quarters of the total stock of FDI in Australia. Very little of that outward Australian direct investment has gone to China, for reasons we explore below.

Australia has discovered that globalisation suits an open, medium-sized economy, both in the export of goods and services and in the export of FDI. By extending market size and opportunity, globalisation continuously opens up new specialisations in which Australian businesses can enter. Because China is developing a more open economic model than that of Korea or Japan, it will highly likely be the case that China's development over the next several decades will provide opportunities for Australian businesses that are quite different from the commodities which now dominate Australian exports to China.

A necessary consequence of these trends is that Australia's external financial vulnerability has increased. Australia's gross external debt has rapidly grown, not least to fund the FDI abroad. Net foreign debt has doubled to well over A\$400 billion in the last six years, and more than two-thirds of this Australian foreign debt is now owed by Australian banks compared to less than half five

Australia has discovered that globalisation suits an open, medium-sized economy, both in the export of goods and services and in the export of FDI.

years ago. Australia's commercial banks have become the pillar of the balance of payments. In respect of their external accounts China and Australia have opposite configurations. Australia has a floating exchange rate, while China's is fixed. Australia has a large current account deficit and China runs a surplus. Australia buys foreign equity and sells Australian debt. China buys foreign debt and sells Chinese equity. On a very small scale, Australia replicates aspects of the US external account position compared to China's.

Fourteen years of uninterrupted success have changed Australia's outlook. It is more willing to embrace change, more confident. It no longer looks to Singapore, Korea or Japan as alternative and desirable economic models. The economy whose structures Australia's most closely resembles is the US, which is also the destination of a little less than half of Australian investment abroad. But the economies with which it is increasingly integrated are in East Asia, and they themselves often have a closer integration with the US economy and the China economy than Australia. Less than 10 per cent of Australian exports go to the US and around 10 per cent to China, compared to much bigger shares for Chinese, Japanese or Korean exports to the US and China. Directly and indirectly, Australia is increasingly integrated into an Asia-Pacific regional economy in which China and the US are the twin poles.

China drives East Asia's economy

While Australia's economy has been changing over the last 15 years, so has China's. China's rapid growth from the mid-1980s and through to the end of the 1990s was built on the expansion of labour-intensive exports, often produced in factories that were themselves the result of FDI. In the last decade the range of China's exports has increased to include a larger share of technically advanced and capital-intensive products. While exports are still extremely important, China's growth model has changed to meet internal demand for dwellings and household goods, roads and motor vehicles, and the rapid expansion of basic industries such as energy generation, steel-making and cement production. It has been accompanied by growth in imports, and particularly imports of raw materials. Australian commodity exports have been a major beneficiary.

The rate of growth of output in any one year is influenced by the growth of demand in the developed world and by changing economic policies in Beijing; however, over the long term China's average growth will be driven by the momentum of industrialisation and urbanisation, a process that has decades to run. Unlike Japan or Korea, China has the labour, natural resources, land mass and political organisation to continue growing rapidly over several more decades.

China's economy is now around half the size of the US on a PPP (purchasing power parity) basis. It accounts for a bigger share of global manufacturing than the US or Europe, and for greater consumption of basic materials such as steel and copper. Within the last decade it has become the driving force in the region. In recent years, growth of non-China Asian exports to China has been much faster than growth of non-China Asian exports to the US or Europe.

Over the last two decades trade between East Asian economies has grown at twice the rate of world trade as a whole, and very much faster than trade between the members of the North American Free Trade Agreement

(NAFTA) or the European Union (EU). Intra-regional East Asian exports expanded sixfold in the last quarter of the last century. East Asia's share of global trade doubled to 19 per cent in the last 15 years of the last century, while NAFTA's share barely changed. Trade between the East Asian economies has become more important, and at the same time as they have become more important in world trade. From 1985 to 2001 the share of East Asian exports going to other East Asian economies rose from 24 per cent to 35 per cent. Even excluding Japan, the rest of East Asia now originates just under one-fifth of world trade, which is roughly the same share as the US, Mexico

East Asia has turned into a capital exporter in net terms, with persistent current account surpluses since the Asia crisis.

and Canada put together. The nature of the trade between East Asian economies has also become more closely integrated. Commodity exports have fallen as a share of their trade, while semi-finished manufactures have increased as a share. East Asian economies are evidently increasing intra-industry trade (especially in office machinery and telecommunications) as part of intra-regional trade, increasing their mutual dependency and production integration.

East Asia has turned into a capital exporter in net terms, with persistent current account surpluses since the Asia crisis. China, Hong Kong, Japan, Taiwan and South Korea are continuing to accumulate reserves, with which they buy US dollar assets. They are therefore supporting the US current account deficit while resisting appreciation of their currencies. In gross terms, these countries are accumulating relatively safe financial assets such as US treasuries, while economies such as the US accumulate relatively risky assets in East Asian economies such as share portfolio or businesses. (The US and Australia are by contrast building risky assets like foreign investment abroad against low-risk liabilities, such as bank debt or government securities). This is likely to be an enduring circumstance. It means that the US and East Asia have renewed with greater scope the pattern of East Asian surpluses corresponding to US deficits, and the US dollar being sustained at a higher level than it would otherwise be. The US current account deficit will not and cannot in these circumstances "adjust" to the extent it might have. The difference now is that China has replaced Japan as the driver of the process. (But note that the Chinese trade surplus is falling and may be zero next year). The US dollar, the US standard of living, the ability of the US to consume or invest 5 per cent of GDP more than it otherwise could, are now conditioned by this symbiosis between East Asia and the US.

Openness drives a trade surge

Influenced by Australia's increasing openness and by the long economic upswing, the value of Australian goods imports from China rose from \$6.6 billion in 1999 to \$18 billion in 2004. Unlike Australian trade with Japan or Korea, which in export structure resembles trade with China, Australia buys more from China than it sells. Australia sells twice as much to Korea as it buys, and a quarter again as much to Japan. But while Australian exports to China have been rapidly climbing, imports from China have been climbing even more rapidly. In the middle of the 1990s Australian trade with China was nearly balanced. Despite the rapid growth of exports, the merchandise trade deficit with China has dramatically widened. In 2004 it reached \$7 billion, or a little less than one-third of Australia's total merchandise trade deficit in that year. When services are taken into account, the gap is less but still formidable. Including Hong Kong makes little difference. China now accounts for well over half of clothing, footwear and textile sales in Australia, for a large share of the small domestic appliance market, and for an increasing share of the sales of televisions, DVDs and home computers. The first Chinese manufactured cars have now been sold into the Australian market. Unlike the US and Europe, Australia did not impose country quotas when it sharply reduced protection for clothing, footwear and textiles. As a result, China supplied a higher share of Australia's requirements than it did of other countries, though this will change with the phase out of country quotas in Europe and the US.

The growth of imports from China reflects increased imports as a share of GDP as Australia increased the openness of its economy from the late 1980s, and cut tariffs in clothing, footwear and textiles. It also reflects China's replacement of Japan, Korea and Taiwan as sources of cheap domestic appliances, and rising Australian incomes and wealth. These trends are also influenced by China's rapid movement up the technology curve, from clothing and simple labour-intensive manufacturing, to computers, motor vehicles and consumer electronics.

Chinese imports have certainly replaced Australian production in some areas, but they have also replaced imports from other countries. While Australian imports from China and from South-East Asia have been growing swiftly, imports from Korea, Japan and Taiwan have flattened out. This suggests that cheaper products from China and South-East Asia are pricing Japan, Korea and Taiwan out of the market, especially for consumer electronics and clothing.

Though there are widespread fears, imports from China have not seen the destruction of Australian manufacturing. Despite the big increase in imports and the contraction of labour-intensive manufacturing industries in Australia, the manufacturing industry as a whole has expanded. By 2004 the volume of Australian output of clothing, footwear and textiles was half of what it had been before tariff cuts began in 1988. Over the same

period, however, the volume of manufacturing output had increased by one-quarter and of machinery and equipment by more than one-third.

The swift growth of Australian imports from China reflects long-term changes in Australia's economy, just as China's increased demand for Australian exports reflects long-term changes in that economy. Both reflect changes in the home market rather than export market, but in quite different stages of industrialisation.

Though not as dramatic as import growth, exports to China have also been swiftly increasing. At the end of the last decade Australian merchandise exports to China totalled \$4 billion, a level little changed from the middle of the decade, though four times the level reached at the end of the 1990s. Exports to China at the end of the 1990s accounted for 5 per cent of total Australian exports, a useful contribution to the total, but not a significantly higher share than at the end of the 1980s. In the new decade, however, exports to China have risen explosively. By 2004 merchandise exports were just short of \$11 billion, a little short of three times the value five years before. China by then accounted for 10 per cent of Australian exports, and had replaced the US as Australia's second-biggest export market after Japan. Services exports, mainly education and tourism, were worth another \$1.3 billion in 2004.

Other than education services, almost all of the growth in exports has been in raw materials, and mostly in metals and minerals. Iron ore accounts for one-sixth of total exports to China, wool for one-tenth and coal for one-twentieth. This will likely remain true over the coming decade, with liquid natural gas making an increasingly important contribution to an export mix still based on iron ore, coal, copper, alumina and aluminium, nickel, cotton and wool. For both of the major suppliers of Australian iron ore to China, the experience has been similar. By 2004 exports to China accounted for 10 per cent of the global sales of Rio Tinto and BHP Billiton – in both cases double the share of only a few years before.

For Australia, a new mining boom

What increases in exports can be reasonably expected over the coming decade? This is directly relevant to the issue of increasing dependency of Australia on commodity exports, and of commodity exports on China. Between 2003 and 2004 the value of iron ore exports increased 41 per cent, coal 72 per cent, other ores excluding iron and copper 224 per cent, and nickel 88 per cent. Though difficult to forecast it is highly unlikely that commodity exports would continue to increase at anything like these rates, not least because the base to which the increases are added is becoming so big. China's import growth will slow, and indeed in 2004 and 2005 the Chinese government has been taking measures to

reduce it. After the surge, China's import growth should over time slow to something closer to the rate of growth of the economy overall. At a persistent GDP growth rate of somewhere between 8 per cent and 10 per cent, however, there is little doubt that China will be an increasingly important customer for Australian commodities. And while the surge in iron ore, and coal and base metals, will slow in coming years, Australia is just about to commence liquid natural gas sales. These will also show very rapid growth in the early years.

Will China's voracity for Australian metals, minerals and energy make Australia too dependent on commodity exports and too dependent on China? Mining exports are very important to Australia, but even so the entire mining industry accounts for only 4 per cent of total Australian output. Though it is a relatively small component of GDP, over the last 30 years mining output has increased

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threefold. Because of its much bigger absolute size, additions to mining output (or diversion from other markets) are proportionately less significant than they were in the mid-1960s, when demand from Japan and Korea accounted for a bigger share of much smaller mining output. Iron ore is the biggest single Australian export to China, but even by 2004, after several years of rapid increases, iron ore exports to China accounted for one-third of Australian iron ore exports overall. Its share of other major mineral exports was much less.

Direct investment: Scope for growth

While exports of goods and education services have grown explosively, Australian direct investment in China and Chinese direct investment in Australia are both close to insignificant. By 2004 the value of Australian direct investment in China was actually somewhat less than it had been in the late 1990s. Several big Australian investments of the 1980s and early 1990s proved less successful than expected. Fosters, for example, found the Chinese beer market more difficult than it expected. Other manufacturers who set up export plants in China have since decided to contract for the product rather than own the factories. There is a more fundamental reason that Australian investment in China has been relatively

meagre. It is that Australia is not a major manufacturer. It has not seen China as a manufacturing base for Australian corporations selling into a global market, as US, European and Japanese firms have. One implication is that as China's industrialisation proceeds, more Australian firms will be attracted to the market. Australian firms that have internationalised are often in real estate development, finance and health technology – industries in which for one reason or another Australia has a specific expertise, and the home market has been outgrown. As Chinese households evolve more complicated balance sheets and the Chinese service sector expands, Australian expertise will become more relevant. Similarly, Chinese investment in Australian business has been quite small, but may increase in the future as China invests more off-shore in general, and as it seeks stakes in its supply chain for energy, metals and other raw materials. One of the major benefits of a free trade agreement with China will be in easing formal and informal barriers in investment between the two economies.

Conclusion: China enmeshed in the global economy

Over the last five years, trade with China has increased so swiftly that China now matches the US as the largest source of Australian imports, and has replaced the US as Australia's second biggest export market. Like the US, China is important to Australia not only for the direct relationship, but also for its global and regional

Over the last five years, trade with China has increased so swiftly that China now matches the US as the largest source of Australian imports, and has replaced the US as Australia's second-biggest export market.

economic role. China has replaced Japan as the centre of an East Asian regional economy. Because of these considerations, and because its future shape is yet unknown, China's economic and political trajectory is now the single most significant long-term external issue affecting the Australian economy.

Will the increasing connection with the Chinese economy change Australia's external policies? China is the centre of the regional economy in which Australia is integrated. But Australia is a security ally of the United States, shares many economic and political characteristics with it, and with some important reservations supports its role in global economic governance. There will undoubtedly be tensions in this new configuration, but

it is important to recognise the symbiotic relationship between the US and China. Unlike the Soviet Union, China is completely immersed in the global economy, and its continuing success depends (as does that of the US) on the success of the global economy, its rules and institutions. This is a big difference between the role China will play, and the role played by the former Soviet Union. In many respects China is more open to the world economy than Korea or Japan. China may and may not be a strategic competitor for the US, but it is certainly and necessarily an economic partner. This increasing interdependence will mitigate and condition the resolution of the political disputes that will certainly accompany the assertion of China's claims to global influence. Australia will not find it easy but governments formed by both major political parties have already publicly recognised the centrality of both great powers to Australia's prosperity and security.



China's economic development and outlook

NICHOLAS COPPEL

3

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Introduction

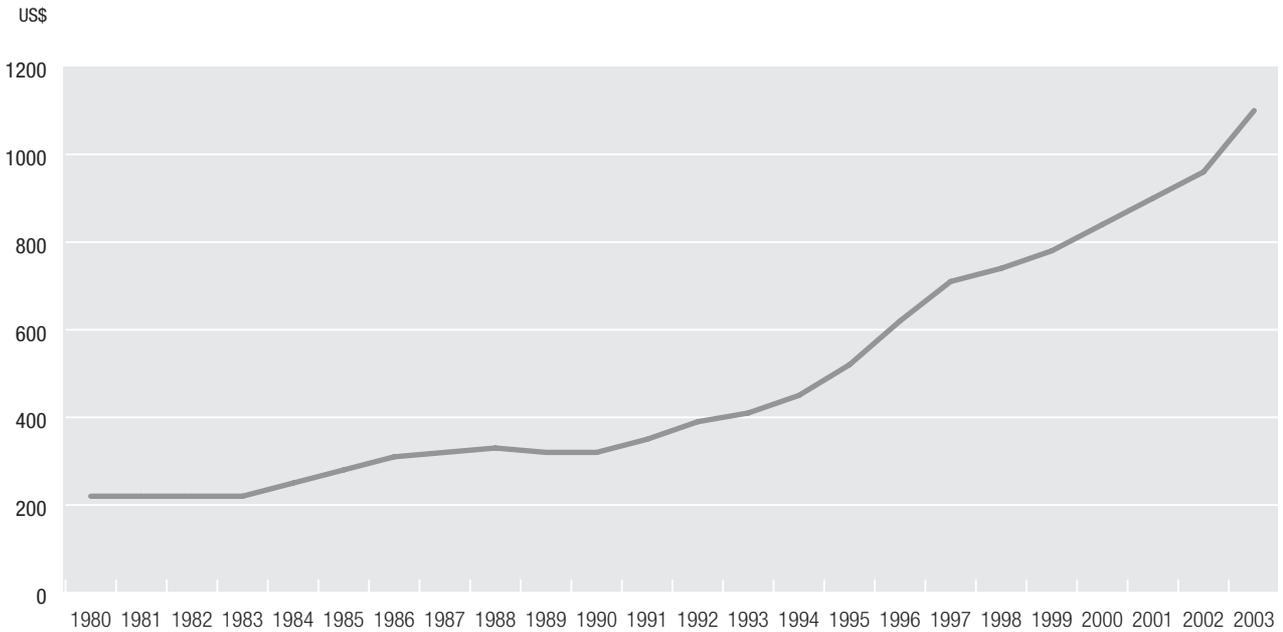
China is the world's fastest growing and seventh-largest economy. It is the world's largest recipient of foreign direct investment (FDI) and the world's fourth-largest trader. China's economic growth is impressive and has consistently outperformed all other major regional economies.

China has not followed closely the path of transition from planned to market economy advocated by the World Bank. Also, China does not rank highly in measures of economic freedom that, some argue, is correlated with long-term economic growth and prosperity.¹ Against these templates for development, China's very high rates of economic growth seem anomalous.

In this chapter we consider this phenomenon of high growth, despite imperfect policies and imperfect institutions. Reforms in China worked because they improved economic efficiency and, importantly, were compatible with the interests of those in power. China's initial conditions provided ample room for efficiency improvement. In this context, "transitional institutions", while not perfect, were successful.

FIGURE 3.1
RISING INCOMES

PER CAPITA GROSS NATIONAL INCOME, CURRENT PRICES, ATLAS METHOD, US\$, 1980–2003



Note: Real per capita income growth in the 1980s is estimated at almost 9 per cent. This is not reflected in the graph due to exchange rate movements in the 1980s.
Source: World Bank World Tables 2004; World Bank, World Development Indicators, 2004

Economic growth

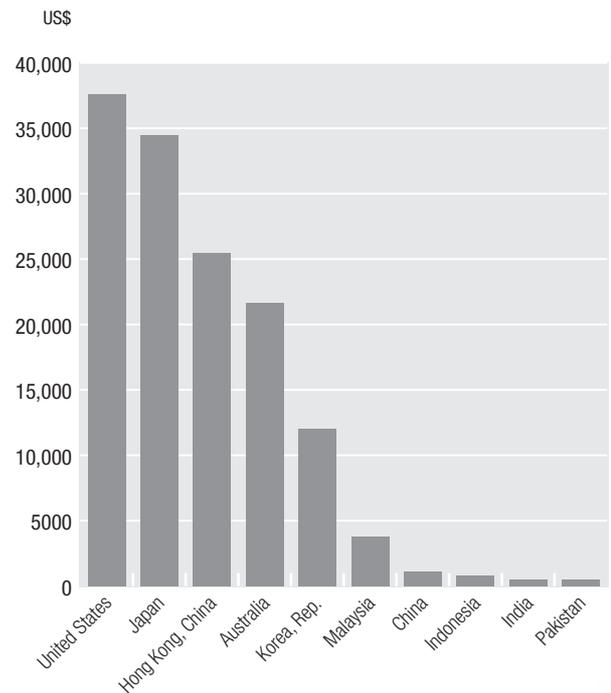
In the 1980s, China’s gross domestic product (GDP) increased by 9.7 per cent per year and in the 1990s it increased by 10.7 per cent per year. Over the past five years it has continued to grow in the 7 to 9 per cent range. Preliminary figures from China’s National Bureau of Statistics² indicate that 2004 was another year of solid growth with real GDP growth of 9.5 per cent. Rapid growth over the past 25 years has largely been the function of China growing from a low base and of China’s move from a strict command economy to one in which market forces have played an increasing role.

Economic growth has raised per capita incomes in China (see Figure 3.1), drawing large numbers of the population out of poverty.

While China’s continued economic expansion is impressive, in Figure 3.2 we show that China still has some way to go before the per capita incomes of its population catch up to many of its successful neighbours.

FIGURE 3.2
PER CAPITA INCOME STILL LAGS MANY NEIGHBOURS

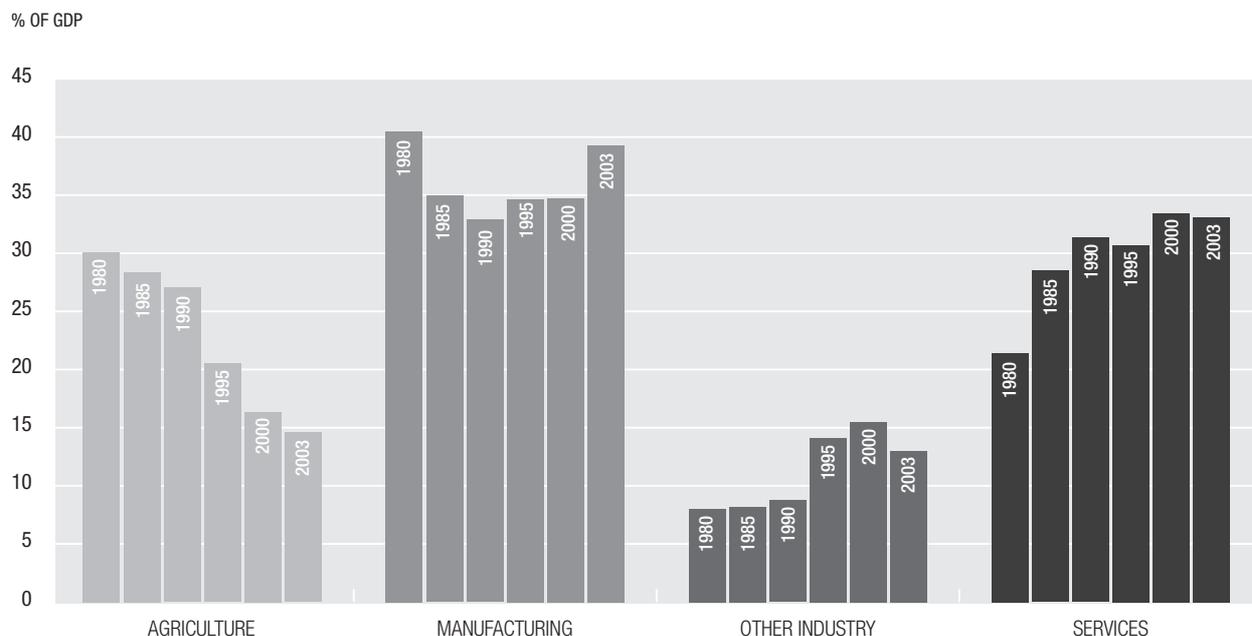
PER CAPITA GROSS NATIONAL INCOME, ATLAS METHOD, CHINA AND SELECTED ECONOMIES, US\$, 2003



Source: World Bank, World Development Indicators, 2004

FIGURE 3.3
MANUFACTURING AND SERVICES STRONG

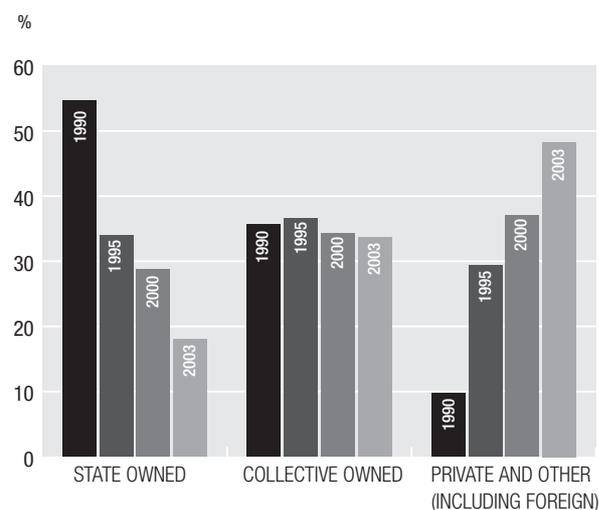
STRUCTURE OF GDP, %, 1980, 1985, 1990, 1995, 2000, 2003



Source: World Bank 2004, 2005

FIGURE 3.4
PRIVATE SECTOR NOW DOMINATING INDUSTRY

SHARES OF GROSS INDUSTRIAL OUTPUT, %, 1990, 1995, 2000, 2003



Note: The Chinese statistical authorities redefined different categories of ownership in the late 1990s, so figures before and after 1998 are not strictly comparable.

Source: CEIC 2005

China's economic transformation

China continues to undergo rapid economic and structural changes. Manufacturing remains the predominant driver in the economy, while the shift away from agricultural production towards services and other industry continues (see Figure 3.3). In recent years, growth of major “traditional” manufacturing sectors like textiles, clothing and footwear has lagged behind the very high growth in higher value-added industries like household goods, computers and related components (CEIC 2005).

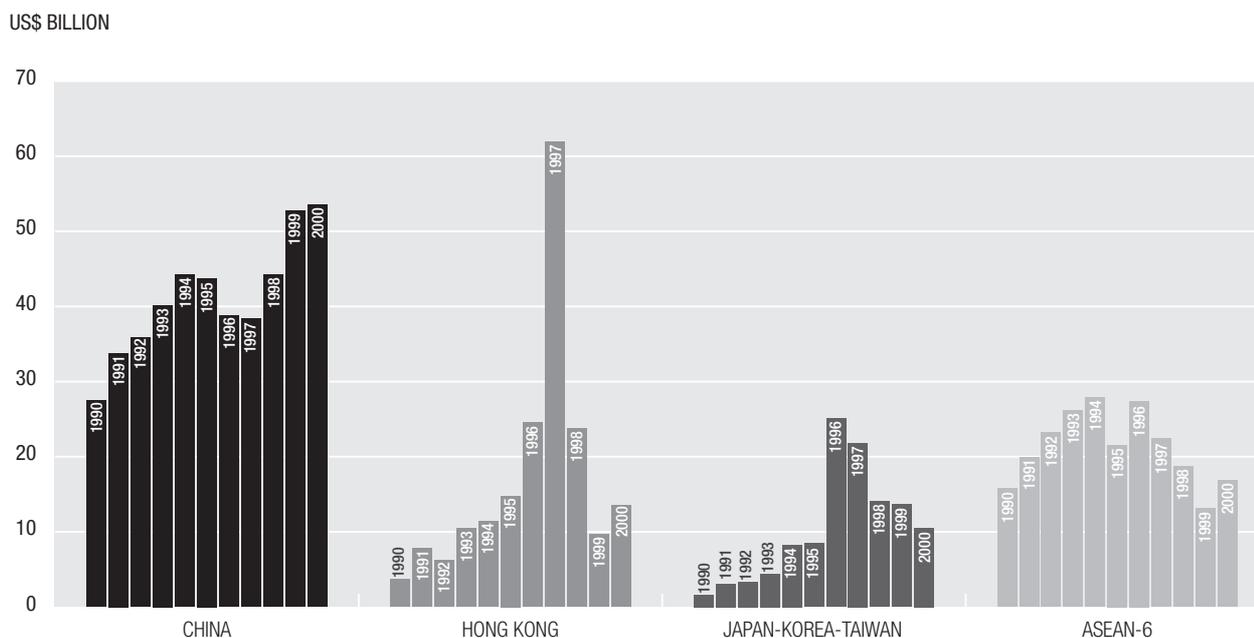
Infrastructure constraints, especially in the booming Pearl River delta and in rail transport and energy production, are emerging and will challenge continued strong growth rates. The impact of rapid growth on the environment is also emerging as an issue. Sixteen of the world's 20 most polluted cities are in China.³ Land degradation and the sustainability of some important agricultural commodities, such as grains, is also emerging as a matter of concern.

The private sector continues to grow

By 2003 the private sector was the largest contributor to industrial output, outstripping the contributions of collective-owned units and far outweighing state-owned enterprises (see Figure 3.4), as well as providing the majority of new employment. Easing restrictions on the private sector, the privatisation of some state-owned enterprises and improved access to credit have helped drive this growth.

FIGURE 3.5
CHINA DRAWING FOREIGN INVESTMENT

INWARD FDI FLOWS, CHINA AND SELECTED EAST-ASIAN SUB-REGIONS, 1993–2003



Notes:

a) ASEAN-6 includes Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam

b) The jump in FDI into Hong Kong in 2000 is largely due to Hong Kong-based China Mobile's US\$33 billion acquisition of several Chinese mobile phone networks and associated international capital raising (United Nations Conference on Trade and Development 2001).

Source: United Nations Conference on Trade and Development 2004 (World Investment Report 2004); IMF 2003 (International Trade Statistics)

Inflation under control

Most price controls in China were abolished by 1993 and since then prices have largely been determined by market forces. Pharmaceutical prices and prices for health care and education are still administratively determined. Between the mid-1990s and 2003, China had an average annual inflation rate of only about 1 per cent, with periods of mild deflation.⁴ Consumer prices in 2004 peaked at around 5 per cent, driven largely by one-off rises in food prices. However, non-food prices have shown an upward trend and there have been steady rises in the producer price index. China's fixed exchange rate against the US dollar means that China is exposed to increases in US inflation. If significant problems with inflation emerge, then the authorities might be more inclined to revalue the currency.

Investment booming

In recent years investment has been the main driver of economic growth. According to the Asian Development Bank,⁵ investment contributed 6.3 percentage points to growth in 2003. Fixed asset investment soared by 26.7 per cent (9.8 percentage points higher than the previous year). Public-sector investment, which accounted for 72 per cent of total investment, surged by 28 per cent, driven largely by local government investment decisions.

A rapid expansion of bank lending, continued FDI inflows and a property market boom were major factors contributing to the investment surge. Investment in real estate grew by just under 30 per cent.

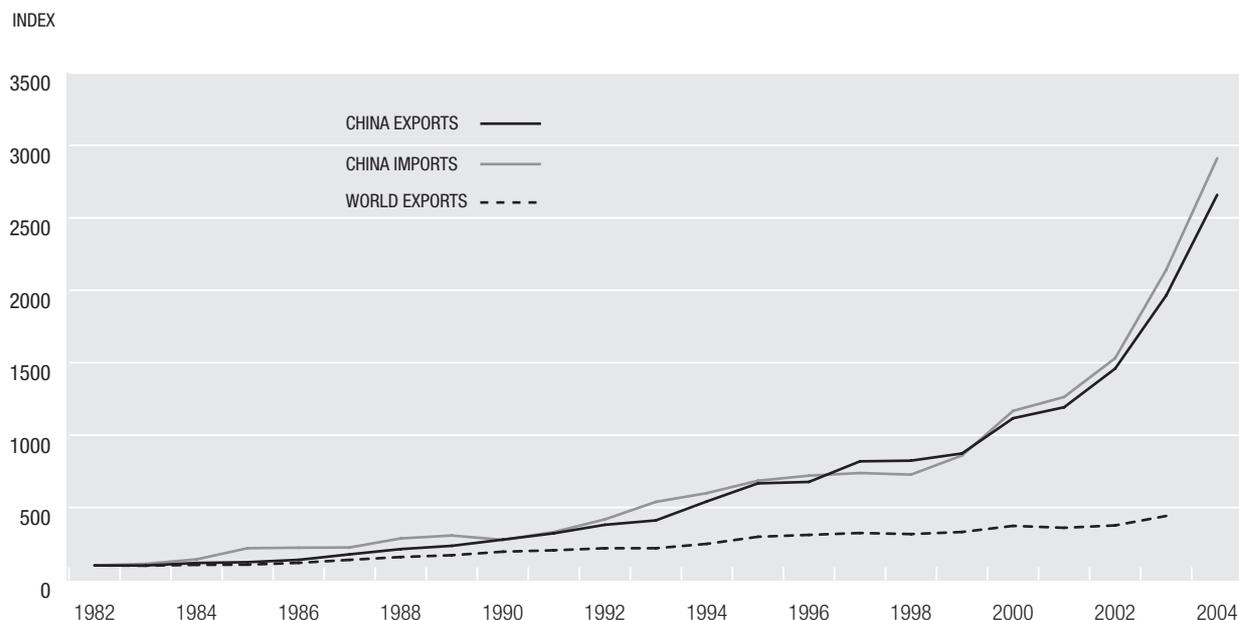
According to the Bank, economic growth will be unsustainable in the long run if one of its major drivers continues to be government-dependent investment. The high level of government-dependent investment increases the risk of new non-performing loans in the banking sector.

More recently, FDI and exports have contributed to growth. For the entire 1980s, FDI in China was tiny and started to increase substantially only in 1993 and at its peak accounted for about 10 per cent of total investment.⁶ FDI into China has almost doubled since the early 1990s, while FDI into other regional economies has declined since the late 1990s⁷ (see Figure 3.5).

Over the past decade many multinational companies have built factories in China to access its competitive production costs. Some of these investments relocated operations from elsewhere in East Asia and many involve the assembly of imported components into final products for export.

FIGURE 3.6
TRADE GROWTH EXPONENTIAL

MERCHANDISE TRADE GROWTH, INDEX, 1982 = 100, 1982–2004



Source: CEIC database 2005; IMF (various years) direction of trade statistics

Exports and imports expanding

The growth in China's exports and imports is remarkable, with both merchandise exports and imports more than doubling in value since 2000. As China has integrated into world markets, its trade has expanded exponentially, well above the growth in world trade (see Figure 3.6). In 2004 alone, China's exports are estimated to have grown by around 35 per cent to almost US\$600 billion (CEIC 2005), allowing China to overtake Japan as the region's largest exporter and importer.

China's growth: Implications for the Asian region

China's growth compares favourably with that of other regional economies. While other regional economies suffered from the 1997–99 Asian financial crisis and the 2000–01 technology sector downturn, China's economy continued to grow strongly (see Figure 3.7).

While China's economic and export growth and FDI attractiveness outstripped most other regional economies in the 1990s and 2000s, fears about its detrimental impacts on regional economies appear unfounded. A study by the Department of Foreign Affairs and Trade's Economic Analytical Unit⁸ examines the view that many of China's regional neighbours are facing strong Chinese competition for a significant portion of their exports.

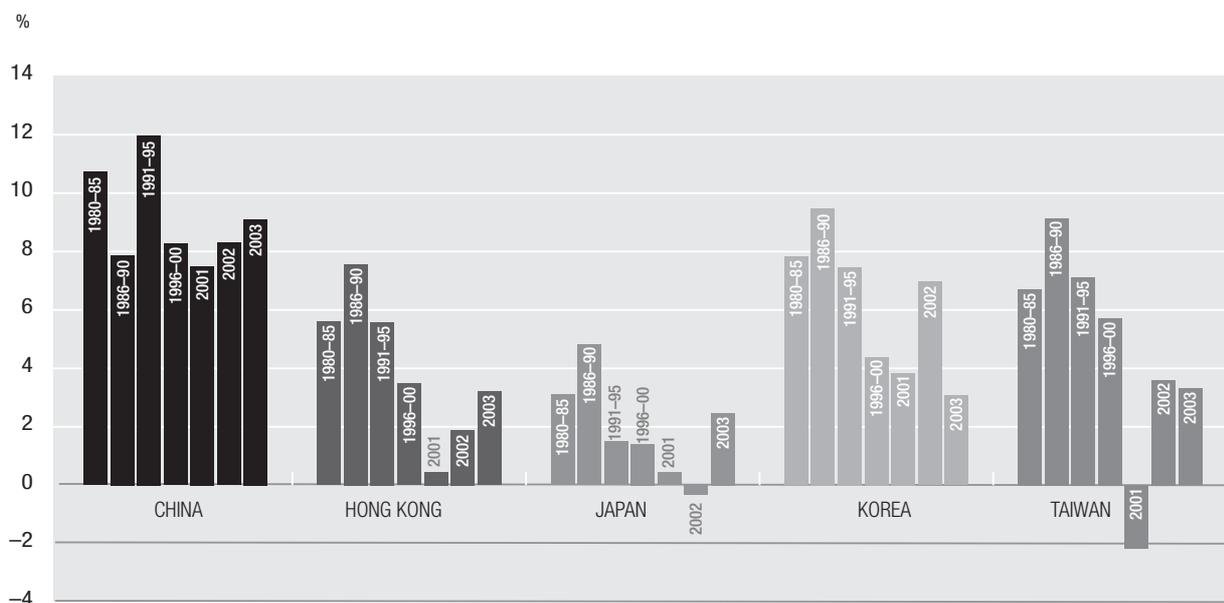
According to the study, examination of trade trends shows increasing internationalisation of production chains accounts for much of the apparent convergence in regional economies' export patterns. The great majority of North-East Asian and South-East Asian economies are successfully restructuring their economies, enabling them to benefit from China's expansion as an industrial powerhouse. Most of the more advanced East Asian economies – including Japan, Taiwan and Singapore – are moving rapidly out of more labour-intensive sectors and increasingly supplying the capital and human capital intensive inputs Chinese industry demands. In addition, most East Asian economies and Australia have significant complementarity with China, ensuring they benefit from continuing Chinese economic growth.

As their economies are more similar to China's, developing South-East Asian economies could be expected to confront more acute challenges competing with Chinese exports. And yet, most appear to be expanding their net exports of competing products quite strongly and also are benefiting from increased trade complementarity with China. However, competing net exports from Thailand, whose net export profile is the most similar to China's, have grown relatively little in recent years.

The analysis concludes that China's industrial rise is good news for most East Asian economies, but it is contributing to pressures for rapid restructuring throughout the region, which is likely to have significant commercial implications for exporters.

FIGURE 3.7
CHINA OUTPERFORMS ITS NEIGHBOURS

AVERAGE ANNUAL GROWTH OF REAL GDP FOR SELECTED ECONOMIES, %



Source: IMF 2004 (World Economic Outlook Database)

Exchange rate reform

Since 1994, China has officially had a managed floating exchange rate system, although the currency has been de facto fixed to the US dollar. This exchange rate regime has been criticised by some of China's trading partners as providing China's exports with an unfair advantage.

According to the International Monetary Fund (IMF),⁹ there is a substantial body of opinion that argues for an immediate shift to a floating exchange rate regime. Those in favour of greater exchange rate flexibility argue it would be in China's own interest and would make pursuit of an independent monetary policy easier. The IMF argues that the Chinese authorities should move gradually towards greater flexibility, and this has been accepted as a broad objective. Greater flexibility needs to be accompanied by greater attention to the structural problems in the banking system, especially the high level of non-performing loans

Trade reforms and commitments

On 11 December 2001 China acceded to the World Trade Organization (WTO) after completing a 15-year negotiation process.¹⁰ WTO entry will continue China's process of external liberalisation, further boosting international trade and investment, and deepening its global integration. China's commitments to further tariff reductions, when fully implemented, will result in a relatively open economy by world standards. China will reduce average tariffs on all products from 15.3 per cent

in 2001 to about 10 per cent by 2010; within this, industrial tariffs will fall to 9 per cent and agricultural tariffs to 15.7 per cent. China committed to bind all its import tariffs at current or reduced levels, limiting future tariff rate rises. China also has committed to reduce a range of non-tariff barriers. It will replace import licensing and quotas on a range of agricultural products with a system of tariff-rate quotas.¹¹ Licenses and quotas on industrial products progressively will be eliminated, with a few exceptions. China undertook to make these new arrangements more transparent than previous quota and licensing systems. China also committed to replacing some existing tariff rate quotas with tariffs only.

Additionally, China agreed to bring its export licensing and quota regimes into line with WTO requirements. China agreed to eliminate immediately all export subsidies and limit the level of domestic agricultural support to 8.5 per cent of the value of agricultural production. China agreed to extend importing and exporting rights to all domestic and foreign firms by the start of 2005, apart from retaining some restrictions on the few commodities reserved for state trading. China also committed to apply uniform customs fees and charges across the country and to bring its anti-dumping, subsidies, countervailing duties, technical barriers to trade, and sanitary and phytosanitary regimes in line with WTO regulations.

Under its accession agreement, China will reduce barriers to FDI, continuing a process begun in the early

1980s. For example, China has agreed to continue reducing ownership ceilings on foreign investment in sectors already allowing foreign participation, including automobiles, banking, insurance and infrastructure. Many previously closed sectors like telecommunications, securities and distribution will be gradually opened. China will also remove or reduce other key controls on foreign investment, including local content and export performance requirements. Foreign investors will not have to undertake research or transfer technology to local firms. Finally, China agreed to undergo an annual transitional review of its WTO implementation, to monitor its compliance with its WTO commitments.

So far, China's implementation of its WTO accession commitments has generally been impressive. However, implementation is not complete and at times China has demonstrated difficulty in adhering to WTO rules. Market

Falling tariffs, fewer import restrictions and improved quota access are boosting opportunities for trade with China.

access, for example, is still being closely managed, particularly through the use of administrative measures. China has revised or adopted a wide range of laws, regulations and other measures to ensure the protection of intellectual property rights. However, enforcement of intellectual property rights is problematic and counterfeiting and piracy in China have been described as at "epidemic" levels.¹² Also, China's commitments to open services sectors have not been fully realised in all sectors. An opaque regulatory process, overly burdensome licensing and operating requirements continue to frustrate foreign providers of services.

Falling tariffs, fewer import restrictions and improved quota access are boosting opportunities for trade with China. Since accession, there has been a marked increase in China's imports across a range of sectors. Investment liberalisation is also attracting flows of FDI into newly opened sectors, especially services.

The expiration of the Uruguay Round Agreement on Textiles and Clothing (the successor agreement to various Multi-Fibre Arrangements) on 1 January 2005 is seen as beneficial to China as it is regarded as having a comparative advantage in the production of textiles and clothing. The Chinese authorities, however, are encouraging a gradual transition to the new liberal trade environment. Anxious to avoid US safeguard and EU anti-dumping actions, they have imposed export taxes on certain textile and clothing products.

Labour market reform

Over the past 20 years, China's labour market has become more market oriented. In part, this has been driven by the growth in the urban private sector, the downsizing of some state-owned enterprises and the migration of rural workers to urban centres in the coastal provinces. Overall, employment growth has averaged just 1 per cent since 1990, led mostly by urban job growth.¹³

Measures of unemployment vary, but the trend is rising and the unemployment rate is now in the 4 to 5 per cent range. In addition, there is considerable surplus labour in the rural sector and in state-owned enterprises. Strong economic growth, particularly in the labour-intensive services sector, will help to offset jobs lost from state-owned enterprise reform.

The World Bank has recommended a change to the hukou system that regulates movement of workers between rural and urban areas.¹⁴ It estimates that reforming the hukou system could result in an increase in rural wages of almost 17 per cent and allow about 28 million people to leave agriculture.

State-owned enterprise reform

State-owned enterprises need to be reformed mainly to reduce the drain on the central budget and to reduce the risk of collapse. Propping up state-owned enterprises consumes funds that could be used to achieve other government objectives. Making enterprises more productive and efficient would also contribute to economic development (although as China's economy currently is growing rapidly, further growth at present is in itself less of a priority).

There have been numerous attempts to reform China's state-owned enterprises. There has been some success in the privatisation of small state-owned enterprises (primarily local government-owned) and in the mid-1990s in lay-offs of redundant employees. Management reforms have resulted in increased productivity, but financial performance remains weak.

To accelerate state-owned enterprise reform, the State-owned Assets Supervision and Administration Commission was established in April 2003. It acts to supervise the 196 central state-owned enterprises that had over US\$800 billion in state assets at the end of 2002.¹⁵ A major aim of the Commission is to improve corporate governance.

Change, including improved governance, transparency and accountability, would reduce risk of collapse and provide greater confidence to foreign firms seeking to do business with the enterprises. So far, however, attempts to reform large-scale state-owned enterprises have not been successful. The key obstacle to improved state-owned enterprise performance is the government's insistence on control over the appointment of senior managers.

It is easy to overstate the impact of the problems facing China's state-owned enterprises on China's economic outlook. Some state-owned enterprises are well-managed and are performing remarkably well. Also, China's economy is large and, coupled with high labour mobility, has the capacity to absorb localised shocks. Also, as

It is easy to overstate the impact of the problems facing China's state-owned enterprises on China's economic outlook.

China's economy grows the relative importance of state-owned enterprises is diminishing.

While privatisation is desirable, it in itself will not prevent enterprise collapse. Developed market economies with established corporate governance regimes also experience corporate failure.

Banking sector reform

China has a large banking sector dominated by government entities, including four wholly state-owned commercial banks. Stock and bond markets are relatively small and the banks carry out most financial intermediation. For this reason it is particularly important that the banking sector is healthy and well-functioning. The state-owned banks have a history of supplying credit to state-owned enterprises, based on government plans rather than commercially based lending decisions.¹⁶ This has contributed to their high non-performing loan ratios. In recent years, progress has been made in strengthening the commercial orientation and financial position of the banks, but more needs to be done. The rapidly increasing incomes of urban residents need to be accessed through new financial products and services, such as mortgage finance and credit cards.

The recapitalisation of two major banks in 2004 was an important step forward and needs to be accompanied by recapitalisation of other banks, and enforcement of capital requirements and adequate loan-loss provisioning throughout the banking system.¹⁷

One benefit of state-owned banks is that although there is no explicit deposit insurance, implicitly the state stands behind the banks it owns, turning a potential financial crisis into a potential budget problem.¹⁸ Thus, despite the high level of non-performing loans, systemic risk in the financial sector is limited.

China's WTO accession agreement includes a commitment to a process for foreign participation in the banking sector. This will strengthen the financial sector and maintain pressure for further reform.

Economic freedom

It is often argued that political and economic freedoms are mutually reinforcing and that expansion of political rights fosters economic rights and tends thereby to stimulate growth.¹⁹ For each year since 1995, The Heritage Foundation *Wall Street Journal* have produced an "Index of Economic Freedom".²⁰ The goal has been to develop a systematic, empirical measurement of economic freedom in countries throughout the world. The Index seeks to analyse the factors that most influence the institutional setting of economic growth. According to the authors, the findings are straightforward: "The countries with the most economic freedom also have higher rates of long-term economic growth and are more prosperous than are those with less economic freedom".

China is classified in this Index as "mostly unfree" and in 2005 it ranked 112th out of 161 countries. This reflects poor rankings in areas such as the overall foreign investment climate, the relative openness of the banking and financial system, the degree to which China's laws protect private property rights and the degree to which the government enforces those laws, and how easy or difficult it is to open and operate a business (regulation).

From planned to a market economy

In 1996 the World Bank devoted its annual World Development Report²¹ to the transition of countries with centrally planned economies to a market orientation. It made a number of general points for reforming economies. It emphasised the "utter necessity of both liberalising economies through opening trade and market opportunities and stabilising them through reducing inflation and practicing fiscal discipline – and then of sticking to these policies consistently over time". The Report discusses the necessity of reforming enterprises and expanding the private sector, while restructuring social safety nets to deal with the social impact of the move to the market. And it makes the "vital point" that, in the long run, clear property rights and widespread private ownership are needed for markets to perform efficiently and equitably.

The World Development Report also describes the institutions that make a market-based economy work. It outlines how public agencies, legal systems, financial institutions, and education and health systems could all enhance the success of market economies: "These are the institutions that help set and enforce the rules that allow market transactions to proceed in a climate of confidence, that decrease the opportunities for corruption and crime, that mobilize and allocate resources, and that build human capital". The Report also discusses the need for integration with the global economy and world trading system.

In 1998 the World Bank compiled a “composite institutional development index”²² for each country and produced regression results showing the relationship between institutional development and economic growth. However, in these results China’s economic growth is too high relative to its index value of institutional development.

China does not satisfy the “utter necessities” identified by the World Bank, and yet it has recorded rates of economic growth in excess of all other major transition economies. In this sense China’s economic performance

China does not satisfy the “utter necessities” identified by the World Bank, and yet it has recorded rates of economic growth in excess of all other major transition economies.

is an anomaly, if not a paradox. On closer examination, however, it becomes apparent that while China did not follow closely the World Bank’s reform template, it did have its own unique path to reform. This helps to explain the high growth outcome.

Transitional institutions

China appears as an outlier in these results because its reforms did not establish “best practice” institutions. However, the unconventional institutional changes in China worked because they improved economic efficiency and, importantly, made reform compatible with the interests of those in power.²³ The “transitional institutions” also took into account China’s specific initial conditions. They introduced incentives, hard budget constraints and competition, and, in addition to increasing efficiency and output, the reforms had regard to political and social concerns and avoided harm or loss to traditional interests.

China initially adopted a dual track approach to market liberalisation. On one track, rights to, and obligations for, fixed quantities of goods at fixed planned prices were retained. At the same time a market track was introduced that enabled production and sale at free market prices, provided obligations under plans were fulfilled. The approach worked in major sectors (including agriculture, coal and steel) because the market track provided the opportunity for those who wished to participate to be better off while protecting the status quo for those more comfortable with the plan track. By the 1990s, the rapid growth of the market track had made the plan track less significant and it was gradually phased out. It had served its purpose.

The introduction of private ownership of firms is a key component of economic freedom considered by many essential for economic development. China’s reform experience has been different. Between 1979 and 1993, most new-entry Chinese firms were neither private firms nor state firms, but local government firms.²⁴ In 1993 private enterprises contributed less than 15 per cent of the national industrial output while local government-owned firms – mainly township–village enterprises – contributed 42 per cent. In the absence of rule of law to protect private property, local government-owned firms were more secure than private enterprises. The incentive to improve efficiency was strong as they also generated revenue for local governments to provide local public goods.

Most transitional economies have experienced sharp government revenue shortfalls because of the erosion of monopoly profits from state-owned enterprises and the greater difficulty in taxing new private firms. In China, the development of township–village enterprises allowed, on the revenue side, some revenue collection despite the lack of an effective taxation system and, on the expenditure side, kept a large proportion of revenue in rural areas, avoiding redistribution by the central government to urban areas. Township–village enterprises were the engine of growth and the driving force for market-oriented reform.²⁵

With the development of complementary institutions, including the creation of a national tax bureau in 1994, the expansion of private firm ownership has been possible and in the 1990s, especially after 1998, privatisation of township–village enterprises took place. Local governments supported privatisation because they were allowed to keep all the private revenue and to levy a fee on all local private firms.²⁶ In the case of large-scale state-owned enterprises, reform has not been successful, largely because no reforms were found to improve economic efficiency in a way compatible with the interests of those in power.

Aside from reform of large-scale state-owned enterprises, the Chinese experience shows that transitional institutions can make reform more acceptable and therefore successful. It also shows that transitional institutions can be superseded by conventional best practice institutions when more development and reforms have taken place. Perfect policies and perfect institutions are not necessary conditions for rapid economic growth. They may hold growth back from attainable levels,²⁷ but this is less apparent in the early years when the initial conditions provide such ample room for efficiency improvement. Increasingly, however, continued high growth will require further policy and institutional reform.

Challenges remain

The Asian Development Bank has identified five broad medium-term risks and uncertainties that the government needs to address to ensure balanced and sustainable socioeconomic development: the weak banking system, state-owned enterprise reform and capital market development, fiscal priorities, unemployment and poverty, and the environment for private-sector development.²⁸

The banking system, which is dominated by four state-owned commercial banks, remains weak. The average non-performing loan ratio in the financial sector is still high and profits generated by the banks are inadequate to recapitalise quickly the banking system. Additional capital injection by the government is required. Furthermore, approaches need to be developed to improve governance and credit risk assessment in the state-owned commercial banks to reduce future non-performing loans. Dealing with non-performing loans and improving corporate governance and credit risk management are prerequisites for listing the banks on the stock exchange.

Many provincial state-owned enterprises have been privatised through management buy-outs or mergers with private and foreign firms. The issue of the disposal of non-tradeable state-owned stakes needs to be addressed for the healthy development of the stock market and to promote state-owned enterprise reform.

The Asian Development Bank identifies the need for a fiscal policy strategic shift from “pump-priming” to problems that the market cannot solve. It also lists poverty, low agricultural productivity, unemployment, inadequate education and health care in poor rural areas,

Many provincial state-owned enterprises have been privatised through management buy-outs or mergers with private and foreign firms.

a weak social security system, a deteriorating environment, sluggish development in the central and western regions, as well as old industrial bases in the north-east, and the income gaps between regions and between urban and rural areas. To implement the “strategic shift” in fiscal policy, the Asian Development Bank argues that government needs to rationalise its tax system, improve tax collection, find a better balance in revenue sources and expenditure obligations at different levels of government, and develop a more efficient and targeted fiscal transfer system.

Despite high levels of economic growth, too few jobs are being created to ease growing unemployment pressures. State-owned enterprise restructuring is likely to release more workers in the years ahead. One of the reasons high growth has not produced a more marked

increase in employment is that most of the growth is in the manufacturing sector, which is relatively capital intensive. Growth in the labour-intensive services sector will be needed to have an impact on unemployment. Labour market reform also would enable further job creation.

Finally, the Asian Development Bank notes the importance of the private sector to economic growth and job creation. It suggests the government needs to focus more

Pressure to float the currency is likely to continue and this in turn will keep the authorities focused on further financial sector reform.

on improving the environment for private-sector development. It suggests that the government improves transparency to reduce opportunities for corruption, strengthens the rule of law, adopts an anti-monopoly law to reduce local protectionism, passes a bankruptcy law, provides the private sector with better access to credit, and ensures the protection of private property rights and intellectual property rights.

Reform outlook

As a consequence of international commitments and international developments, it is now more certain than before that China will continue to reform with beneficial consequences for economic efficiency and growth. Implementation of WTO accession commitments and the expiration of the Uruguay Round Agreement on Textiles and Clothing should further lift Chinese incomes and improve the sustainability and quality of economic growth. The WTO commitments will reinforce ongoing market-oriented reforms and restructuring of the economy, and strengthen the business environment for both local and foreign firms.

Pressure to float the currency is likely to continue and this in turn will keep the authorities focused on further financial sector reform. Financial reform will mean capital is allocated on a commercial and more productive basis.

The structural change that has taken place in China will continue as state-owned enterprises, in particular, come under pressure. State-owned enterprise reform will encourage the development of the private sector. As in other countries, there will be winners and losers from structural change and these might not be in the same geographical location. The economy's high growth rate and high labour mobility will ensure that adjustment costs are minimised. This in turn will limit social and political pressure to delay or abandon the next generation of reforms.

Economic outlook

According to the IMF,²⁹ few think the current pace of growth is sustainable. The very high investment growth rate, rising prices of raw materials and shortages in some sectors (especially power shortages) are taken as signs of economic overheating. The IMF says the challenge for China's policymakers is to ensure a smooth adjustment to growth rates that can be sustained over the medium term without fuelling inflationary pressures (a so-called "soft landing").

In its analysis, the IMF notes that in the 1980s, two cycles ended with hard landings characterised by sharp slowdowns in growth. However, these periods were often influenced by political changes and typically began with an early relaxation of monetary and fiscal policy to support state-owned enterprises. This led to significant increases in inflation. Eventually the authorities responded with a heavy reliance on direct controls and other non-market-based administrative measures. Growth slowed sharply and inflation was brought under control.

During the 1991–97 cycle an easing of monetary and fiscal policies led to an investment boom with real GDP growth exceeding 14 per cent and inflation peaking at over 24 per cent in 1994. A number of factors – including structural reforms, a record grain harvest in 1996, excess capacity and a tightening of monetary policy – contributed to a soft landing on this occasion.

The current cycle is characterised by high GDP growth, rapid credit growth and high rates of investment. Beginning in mid-2003, the authorities have moved to tighten monetary policy in the form of administrative controls, including on bank lending, and a modest rise in interest rates. The preliminary figure of 9.5 per cent real GDP growth in 2004 indicates that growth has yet to moderate, but this figure was boosted by some one-off factors, including a good grain harvest. Credit growth and investment rates are easing, albeit not by as much as the authorities would like.

China's long-term growth rate is likely to moderate to the 7 per cent per year range, notwithstanding high growth in productivity.³⁰ The contribution of factor accumulation is expected to be less significant in determining economic growth in the future, as the demographic transition lowers the relative numbers entering the workforce, while higher consumption (lower savings) will bring the rate of investment down to the levels of other well-performing middle-income countries.

Conclusion

Starting from a very low base, China has sustained high rates of economic growth and it is now one of the world's largest economies. This is in large part a reflection of the enormity of China's population. On a per capita basis, incomes remain low. Additional years of high growth will be required to absorb labour from agriculture and state-owned enterprises, and to raise further the per capita income level.

Notwithstanding China's rank in the index of economic freedom, its transition from a planned economy to one in which market forces play an increased role has contributed significantly to efficiency improvements and economic growth. China has followed its own transition path and it has now "locked-in", through international commitments, further reforms.

There are other challenges and constraints that China needs to address for balanced and sustainable economic development. These might impact at times on the pace of growth. The trend, however, is likely to be for continued high rates of growth.

END NOTES

- * Nicholas Coppel, Executive Director, Economic Analytical Unit, Department of Foreign Affairs and Trade, Canberra. I am grateful to Warren Hauck, Deputy Director, Economic Analytical Unit, for assistance in putting together the statistical material for this chapter. The views expressed are those of the author and do not necessarily reflect the views of the Department of Foreign Affairs and Trade.
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TOWARDS A MATURE RELATIONSHIP:

China and Australia

relationship

JIA QINGGUO

4

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Introduction

The signing of the framework agreement to establish a free trade area between China and Australia in October 2003 signified the beginning of a new relationship between the two countries. Just as many commentators in both countries put it, the Sino–Australian relationship has never been better and has great promise for further development. It is true that the two countries are still confronted with many problems in managing their relationship. However, with relations between them richer and deeper than at any time in history, they are in a better position than ever before to forge a genuine partnership for peace and prosperity.

The path towards a mature relationship

In retrospect, the relationship between China and Australia has gone through three periods since the establishment of diplomatic relations between them in 1972: (1) de facto cold war allies between 1972 and 1989; (2) post-Tiananmen antagonism between 1989 and 1991; and (3) pragmatism and cooperation from 1991 to date.

De facto cold war allies

The rapprochement between China and the United States (US) at the beginning of the 1970s brought important changes to the structure of international relations. Among other things, it also changed the nature of the China–Australia relationship from one of strategic confrontation to one of strategic collaboration. Despite the existence of deep ideological differences between them at the time, both countries found it useful to cooperate against the perceived threat of Soviet expansionism. It was against this background that the two countries decided to establish diplomatic relations in 1972.

**TABLE 4.1 TRADE BETWEEN CHINA AND AUSTRALIA
1972–1980 (IN US\$ THOUSANDS)**

YEAR	EXPORTS	IMPORTS	TOTAL
1972	46,970	39,460	86,430
1973	81,860	134,700	216,560
1974	112,190	362,910	475,100
1975	70,120	403,190	473,310
1976	89,120	341,740	430,860
1977	100,940	517,870	618,810
1978	117,640	715,110	832,750
1979	156,110	985,190	1,141,300
1980	223,650	1,062,960	1,286,610

Source: Xue Muqiao et al., comp., *1982 Zhongguo Jingji Nianjian (Almanac of China's Economy: 1982)*, Jingji Guanli Publishing House, Beijing, 1982, pp. viii–46.

After this event, relations between the two countries went through a rapid and substantive development. To begin with, they engaged in increasing strategic cooperation. In 1974, Mao Zedong, Chinese leader at the time, formally proposed the three-world theory. The theory categorised Australia as a second world country, one with which China believed that it should unite in its efforts to fight against international hegemony, meaning the Soviet Union.¹ Meanwhile, the Australian government under prime minister Malcolm Fraser took a tougher position on the Soviet Union and assigned greater importance to developing relations with China.²

In the second place, trade and economic relations between the two countries experienced rapid development. As Table 4.1 shows, in 1972, the total trade volume between the two countries was merely US\$86.43 million. In 1973, one year after the establishment of diplomatic relations, the trade figure was more than doubled the next year. And in 1974, it was more than doubled again. In 1980, it went up to US\$1141 million, a more than tenfold jump from that in 1972. And by the end of the 1980s, it amounted as much as US\$1.4 billion!³

Strategic cooperation and expanding economic relationships contributed to the development of relations between the two countries. In 1984, Chinese premier Zhao Ziyang visited Australia. The same year, Australian prime minister Bob Hawke paid an official visit to China. In 1985, Hu Yaobao, the General Secretary of the Chinese Communist Party, visited Australia. These summit visits greatly boosted relations between the two countries, testifying to the importance that they attached to the relationship. During the latter part of the 1980s, despite the growing détente in international relations, relations between China and Australia maintained the positive momentum. In 1988, Chinese premier Li Peng paid a visit to Australia and received a very warm welcome and the bilateral relations scaled a new height. In fact, relations between the two countries were perceived to be so good that Bob Hawke, the then Australian prime minister, called it unparalleled.⁴

Post-Tiananmen antagonism

The outbreak of the Tiananmen incident in 1989, however, put a sudden stop to the euphoria in the relationship. Frustrated and angered by what happened in Beijing, Australians found their view of China drastically changed from one of a very positive nature to one of a very negative character. In an emotional response, the Australian parliament took the exception to hold a special session to mourn the victims of the Tiananmen incident. Australian media constantly poured out outrage towards the Chinese government and demanded that the Australian government take tough measures to penalise China for the incident. The Australian government also joined the condemnation of the Chinese government and

imposed a series of sanctions against China in July 1989. The sanctions included downgrading the official relationship between the two countries and suspending all official visits to China of a political nature. They indefinitely put a stop to the exchange of high-level visits by defence officials and all defence-related trade with China. A consideration of cooperation on nuclear technologies was postponed, as was an endorsement of new loans to China on the part of the international financial institutions. In the meantime, the Australian government also excluded possibility of normalising its relations with China in the near term. For a time, emotions ran high and condemning China became the fashion of the day in Australia. Relations between the two countries were frozen in hostility.

Despite the political disruptions, however, the growing stake in trade and increasing personal ties between the two countries had already made it impossible for the relationship between the two countries to return to the pre-1972 days. In fact, trade and economic relations continued to expand largely unaffected, even during the emotionally charged times. As the Chinese political situation stabilised,

As relations between the two countries went back on track, however, the new conservative Australian government under John Howard took a number of actions that caused serious frictions between the two countries.

the Australian government decided that it needed to face the Chinese reality and thus take measures to restore the damaged relationship. Accordingly, it announced that it remained committed to developing long-term cooperative relations with China.⁵ By 1991, the Australian government had lifted most of the sanctions imposed on China in the wake of the Tiananmen incident.

However, relations between the two countries were not going to be the same as the one that had existed prior to the pre-Tiananmen incident. The Keating government made it clear that the restored relationship between the two countries was supposed to be of a realistic and commercial nature, as opposed to the special relationship existing prior to 1989.⁶ Prime minister Paul Keating paid an official visit to China in June 1993. Among other things, he made sure that the visit focused just on trade and economic relations between the two countries.

As relations between the two countries went back on track, however, the new conservative Australian government under John Howard took a number of actions that caused serious frictions between the two countries. First, on the question of Taiwan, the Australian government

not only publicly supported US dispatch of two aircraft carriers to the Taiwan Strait during the Taiwan Strait crisis in 1996, but also initiated talks with the Taiwan authorities to explore the possibility to sell uranium to that island. In September, an Australian commercial delegation led by the Secretary of Industry paid a visit to Taiwan. These and other actions on the part of the Australian government provoked strong reactions from China. The Chinese government began to seriously question the sincerity of the Australian government in adhering to its One China Policy.

In addition, at a time when Sino-US relations were in deep trouble, the Howard government and the US issued a joint statement on enhancing their strategic partnership in the twenty-first century. Among other things, the statement called for expansion of military cooperation between Australia and the US. To the Chinese government, this move on the part of Australia was by no means an isolated event. Rather, it suggested that Australia was assigning more importance to its military alliance with the US and giving greater support to a US-dominated security framework in the Asia-Pacific.⁷

Finally, in September 1996, ignoring Chinese protests, the Australian government allowed the Dalai Lama to visit Australia. Even worse, Prime Minister John Howard personally met him in Canberra. The Chinese government regarded this as a deliberate interference in China's internal affairs and accordingly strongly condemned it, suggesting that it would inevitably affect the political, economic and trade relations between the two countries. As a result of these and other actions on the part of the Howard government, relations between the two countries were seriously strained for some time.

Pragmatism and maturity

As relations between the two countries deteriorated, both China and Australia decided that it was against their interests and therefore they needed to do something to arrest this trend of development. The meeting between Chinese and Australian leaders at the APEC Summit in Manila in November 1996 provided an occasion for them to do so. At the meeting, the two sides agreed on Prime Minister Howard's visit to China in April 1997 and to take measures to improve their troubled relationship.

From that point on, relations between the two countries entered into a period of pragmatism. Over time, the relationship has become more pragmatic or mutually beneficial and respectful. To begin with, political relations between the two countries are now close and stable. Leaders of the two countries regularly exchange visits and appear to be on good terms. Instead of the public exchange of harsh words in the past, they now frequently express willingness to understand and shower praises for each other. For example, commenting on the view that China posed a threat to the region in an interview on 31 July 2001, Australian Foreign Affairs and Trade Minister Alexander Downer said that

TABLE 4.2
TRADE STATISTICS

YEAR	TOTAL (MLN US\$)	EXPORT	IMPORT	GROWTH ON PREVIOUS YEAR (%)		
				TOTAL	EXPORT	IMPORT
2004	20,390.84	8,838.32	11,552.52	50.3	41.1	58.3
2003	13,563.32	6,262.77	7,300.55	30.0	36.6	24.8
2002	10,435.84	4,585.59	5,850.24	16.0	28.5	7.8
2001	8,998.83	3,570.43	5,426.4	6.4	4.1	8.0

Source: Trade statistics of the website of the Ministry of Commerce of the People's Republic of China, <http://www.mofcom.gov.cn>

Australia does not share the “paranoia about China that some people might have. We have a very good relationship with China.”⁸ During his visit to Australia, Chinese president Hu Jintao also struck a positive note about the relationship. Among other things, he said that China has always viewed its “friendly ties [with Australia] from a strategic and long-term perspective. To cultivate deeper and all-round cooperation between the two countries is the common aspiration of the two governments and peoples.”⁹

Improvement of political relations has been accompanied by rapid and sustained expansion of trade and economic relations between the two countries. In 1996, trade between Australia and China amounted US\$5 billion. In 1999, it reached US\$6.311 billion. In 2003, it reached US\$13.56 billion. As of 2003, Australia was China's ninth-largest trading partner and China Australia's third-largest trading partner. In the same year, China also replaced the US as Australia's second-largest export market. And the growth accelerated in 2004. It grew by a staggering 50.3 per cent! (See Table 4.2.) In August 2002, the two countries signed a 25-year, A\$25 billion deal, in which Australia was to provide China three million tonnes of liquefied natural gas for five years from 2005.¹⁰

In the area of investment, China and Australia have already become important foreign investors for each other. By August 2003, China had approved 6703 direct investment projects by Australian companies with actualised investment of US\$3.421 billion. By the end of 2003, China had approved more than 200 investment projects in Australia with actualised investment of US\$0.45 billion. While Australian investment in China focuses on steel, transportation, food, environment, finance and legal consultation, Chinese investment in Australia concentrates on exploration of national resources, real estate, services, and import and export services.¹¹

The two countries have engaged in increasing military contacts since the 1990s. Senior defence officials and military officers of both countries have exchanged visits on an increasingly frequent basis. In August and September 1997, Australian warships paid their first port visit to China. In May 1998, Chinese warships made

their first port visit to Australia. Since then, warship visits have become a regular event between the two countries. Through these and other such contacts, top defence and senior military officers of the two countries have got to know each other and the two militaries have developed some degree of understanding and trust between them.

The two countries have seen increasing cultural and educational exchanges between them. During the 1970s and 1980s, the two countries concluded a number of agreements on cooperation in culture, education, sports, and science and technology. Beginning from 1991, the two countries have concluded several agreements on cultural and sports exchanges. In 1997, China made Australia a tourist destination for Chinese citizens. Against this background, the two countries have held many cultural and sports activities, implemented educational exchanges, and made it possible for tens of thousands tourists to visit each country.

Finally, the two countries have engaged in cooperation in regional and international institutions. With an increasing stake in international and regional peace and stability, both China and Australia have indicated their preference for multilateral efforts to attain such objectives. Accordingly, over the years, the two countries have worked together to promote multilateral efforts to tackle regional problems. Among other things, they have actively participated in APEC activities; they are core members of multilateral efforts to develop the Mekong river area; and they are also important members of the ASEAN Regional Forum. In these and other regional multilateral institutions, China and Australia are working together to promote peace and prosperity.

It is against this backdrop that President Hu Jintao said in his address to the Australian Parliament prior to the signing ceremony that cooperation between China and Australia was going “deeper and broader”, and that he believed that the two countries would strive for “all-round cooperation that features a high degree of mutual trust, long-term friendship and mutual benefit.”¹²

Interests, values and pragmatism

How should one explain the positive development between the two countries over the years? Expanding shared interests, converging values and increasing pragmatism appear to have shaped this trend of development.

To begin with, expanding shared interests have laid the material basis for cooperation between the two countries. The most important incentive for the rapid growth in economic relations between the two countries is the complementary nature of their economies. As China's economy grows rapidly, its demand for Australian iron ore, natural gas, unwrought aluminium, copper, wool and wheat has also grown rapidly. In the meantime, Australian consumers increasingly benefit from inexpensive Chinese exports, including computers, clothing, video and digital cameras, mobile phones and sporting

The political relationship between China and Australia is now close and stable in part as a result of the drastic changes in China.

goods. The complementary nature of their economies has made it possible for the two countries to deepen their economic relations and encourage them to contain conflicts, which often accompany closer economic ties. It is against this background that the two countries made a far-reaching commitment to explore the possibility of a free trade agreement in the near future. It is also against this background that Chinese commerce minister Bo Xilai said last June that the prospect for economic cooperation has great potential.¹³

Growing stakes in deepening economic relations demands closer political ties. In retrospect, one finds that an important incentive for both Chinese and Australian leaders is to protect their existing economic ties and seek to strengthen such ties. That in part explains why they so quickly suppressed their differences over the Tiananmen incident and resumed official contacts. It also in part explains why they repeatedly visited each other, despite their busy schedules and the exhausting trans-Pacific journeys.

Closer political ties, in turn, facilitate further expansion of economic relations between the two countries. The frequent high-level visits and contacts have been useful to iron out the differences between the two countries and to tackle any problems in their economic relations. They are also helpful in efforts to push for closer economic relations through exploring new areas of cooperation and concluding new agreements.

The convergence of values has provided another good reason for the two countries to enhance political contacts and economic cooperation. The political relationship between China and Australia is now close and stable in part as a result of the drastic changes in China. After 25 years of reforms and opening to the outside world, China has undergone significant changes in terms of both rhetoric and substance. Unlike the past, the Chinese government has made more and more efforts to promote rule of law, respect human rights, engage in democratic reforms, and improve governance. As a result of these and other changes, the political differences between the two countries have continuously narrowed and this has allowed more and more room for cooperation.

Narrowing differences do not guarantee improved relations. However, over the years, both China and Australia have learned to handle their relations with pragmatism and sensitivity. The Chinese government has learned to appreciate Australians' concerns over issues such as human rights, Taiwan and Tibet. It has made greater efforts to address such concerns though engaging in official dialogues with Australia over these issues and through reaching out to a wider Australian public to explain China's positions on these and other issues.

For its part, the Australian government has also learned to be pragmatic in voicing its concerns and promoting its values in dealing with China. During the early 1990s, the Australian government used to take a moralistic approach on China. In addition to instituting a series of sanctions against China in the wake of the Tiananmen incident in 1989, it constantly resorted to the press to voice its displeasure on China's human rights situation. On Taiwan, it not only supported US military intervention in the Taiwan Strait in 1995–1996 but also followed the US footsteps in upgrading its relations with Taiwan. On Tibet, the Australian prime minister ignored China's objections and accorded a meeting with the Dalai Lama in 1996. These and other actions on the part of the Australian government caused serious frictions between the two countries and at times threatened to affect other aspects of their relationship. In 1997, however, the Australian government changed its previous practice of conducting relations with China. While it continued to voice its concerns and advocate its values, it began to work with the Chinese government to explore ways to address such concerns. The new approach has proven to be more effective in attaining its objectives while advancing Australian interests in China.

Against this background, political relations between the two countries have improved significantly in recent years. The good relationship is underscored by frequent summit visits by Prime Minister Howard and Chinese leaders President Jiang Zemin and President Hu Jintao. The most recent visit by Chinese President Hu Jintao in October 2003 highlights the warmth of the Australia–China relationship. During his visit, President Hu delivered a speech in the Australian Parliament. This

was symbolic of the importance Australia attached to the relations because it was the first time an Asian leader addressed the Australian Parliament – and it came one day after a similar address by US President George W. Bush. In Hu's speech he told the Australian law-makers that China wants to be Australia's "long-term partner".¹⁴ The address received a standing ovation from the representatives on both sides of the House.

Prospect for development

Despite the warmth, relations between two countries are and will face a number of challenges. To begin with, while the rapid development of trade and economic relations benefit the two countries as a whole, these are not going to be distributed equally between and within them. The parties and the groups whose interests are negatively affected at a given moment are not likely to take it easily. This is especially true with the pace of change in the economic relationship. This situation is bound to affect the relationship one way or another. The agreement of the two countries to work towards establishing a free trade area, for example, has already generated much concern on the part of certain sectors within Australian society.¹⁵ The recent sharp price rise of iron ore in Australia has also led to serious concerns on the part of various sectors in Chinese society.¹⁶ As economic relations deepen, such incidences are going to increase even though the economies of the two countries are highly complementary.

Also, the close Australian–US military relationship may constrain and at times even damage China–Australia relations in the days to come. As China continues its rise, the US government becomes increasingly wary of its implications. More likely than not, it is going to take measures – economic and military – to hedge the perceived threat from China. When it does so, it is likely to ask Australia to do certain things that are likely to damage its rapport with China. For example, the US may demand Australia to cooperate in its efforts to prepare to intervene militarily in a potential Taiwan Strait crisis. If Australia complies with US demands, it is likely to hurt relations with China.

Finally, differences in ideology and political systems are likely to complicate relations in the days to come. Despite the narrowing of the differences, the gaps remain significant enough to generate misunderstandings and suspicions. Certain interest groups are likely to make use of the differences to promote their interests through pressuring the Australian government to take heavy-handed approaches on issues such as human rights, labour rights, Tibet, Taiwan and the environment. Some Australian politicians are also likely to take advantage of the situation to promote their personal ambitions through fanning anti-China sentiments in Australia.

How effectively China and Australia are going to deal with these and other challenges remain uncertain. However, one does have good reason to be cautiously optimistic. This is because, more than three decades after the establishment of diplomatic relations, the two countries have accumulated important stakes in the relationship and therefore greater incentives and more experience to manage it better.

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ECONOMIC SIGNIFICANCE OF

resources and energy

trade

CHARLIE LENEGAN

5

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Introduction

The rapidly increasing use of resources and energy, supported where necessary by trade, is a fundamental element of China's recent growth and its integration into the international economy. In this chapter we review the economic growth in China and consider its wide ramifications, particularly in relation to trade in resources and energy. With this background we look at the current and prospective state of resources and energy trade involving China, with a particular focus on implications for Australia.

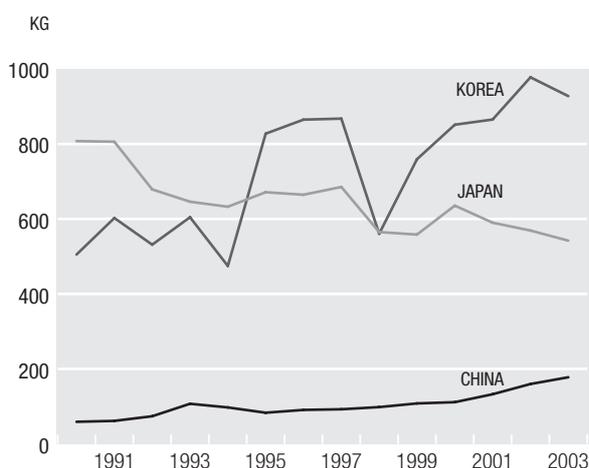
Growth in the Chinese economy and in the demand for resources and energy is expected to continue, but with some risks as it faces a number of short- and long-term challenges. We outline some of these key challenges and consider their possible impact on resources and energy trade, in part drawing on recent ABARE modelling for insights.

Finally, we draw on Rio Tinto's experience in China to identify some lessons for Australian companies in doing business in China, and consider what the future may hold in this regard.

China's economic growth

At the beginning of this recent growth phase, in the late 1970s, China's economy was predominantly agricultural and relatively closed. Economic development needs required that China open its economy in order to access resources and technology, while also leveraging its competitive labour position to generate export earnings. China's abundant labour became an asset rather than a liability for economic growth when it could be traded for scarce capital-intensive and technology-intensive products.

FIGURE 5.1
CONSUMPTION OF STEEL PER PERSON



Source: ABARE (2004a), p. 308

Moves to internationalise the Chinese economy coincided with the maturing of the Japanese and some of the newly industrialised economies in East Asia, and their structural adjustment out of labour-intensive exports in the 1970s and 1980s. Since then China's industrialisation and social transformation has progressed rapidly with strong growth in private and infrastructure investment, domestic consumption, and exports, all of which have led to growing demand for resources and energy.

Industrialisation has followed the familiar pattern of recent newly industrialising economies with a trend from agricultural and primary resource production and exports, to those that are labour intensive and subsequently capital intensive.¹

As economies become industrialised, the manufacturing sector grows in relative importance through increases in domestic consumer demand, infrastructure construction and exports of manufactured products. Manufacturing exports from developing economies are usually more competitive than exports from more developed nations because of relatively low production costs associated with lower wages and safety and environmental standards.²

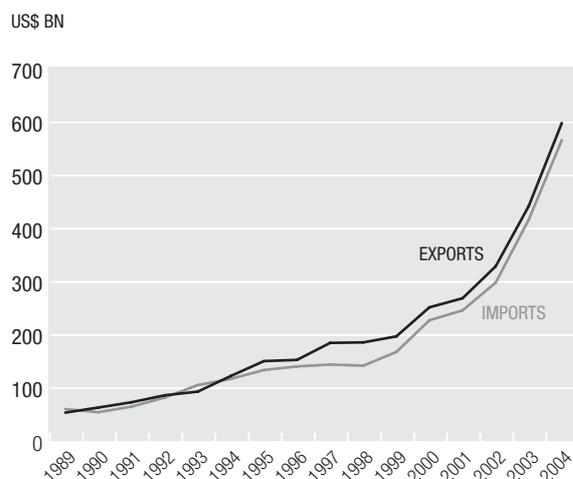
This expansion in manufacturing and construction activity, associated with the process of industrialisation, supports rapid growth in minerals and metals consumption in both absolute and per-capita terms. This is the materials-intensive phase of industrialisation, which is eventually followed by phases that typically involve lower rates of growth in resource use. In more developed economies the service and information sectors tend to make a larger contribution to economic growth.

Figure 5.1 demonstrates that metals consumption on a per capita basis is declining in the developed Japanese economy, but still rising rapidly in the newly industrialised Korean economy and in China, although the absolute level remains relatively low in China. This provides an indication of the future growth potential in China.

Given the size of China's population and the scope for further infrastructure and social development, materials-intensive growth can be anticipated for an extended period unless there are major political or economic disruptions.

China's industrial production has grown even more strongly than the economy as a whole, averaging more than 13 per cent a year over the past ten years, compared with OECD growth of just 2.2 per cent over the period. As a result, China is now ranked fourth in the world in terms of the value of industrial output and rivals the United States (US) as the world's principal consumer of minerals and metals.³

FIGURE 5.2
CHINA'S EXTERNAL TRADE



Source: Rio Tinto databases

Key role of trade liberalisation

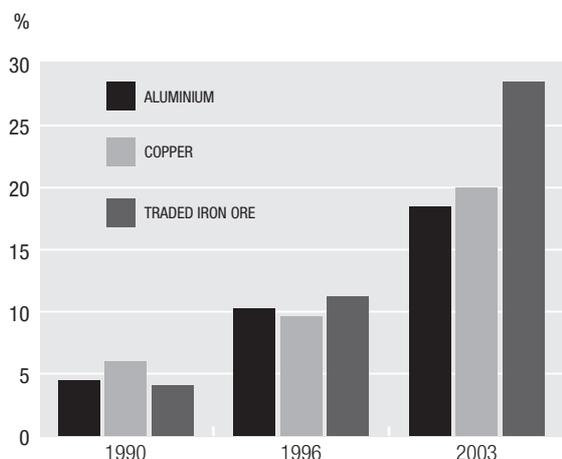
Chinese economic growth has been facilitated by trade liberalisation, both through multilateral processes such as the World Trade Organization (WTO) and through bilateral agreements. China's industrial growth has been underpinned by an ability to import raw materials, components and semi-finished products, which has seen strong import growth, and by relative free access to world markets for its output, which has seen a corresponding growth in exports. As Figure 5.2 shows, growth in China's trade has been balanced, with the trade surplus (or occasional deficit) remaining modest.

Entry into the WTO has prompted acceleration in China's market and trade reforms, which are also being encouraged through bilateral agreements such as that under negotiation with Australia.

In this context it is important to recognise that trade with China is not one way. As Australian industry expands, so does its need for supplies, and increasingly China is becoming a competitive supplier. Recently, the resource industry experienced a critical shortage of ammonium nitrate and Chinese imports solved the shortage. Access to China and other international suppliers is important to control costs and keep Australia's operations globally competitive.⁴

Attempts by domestic manufacturers to maintain protectionist policies adversely affect our trade competitiveness and are ultimately counter-productive, both through increasing costs and damaged trade relationships.

FIGURE 5.3
CHINA'S PERCENTAGE SHARE OF WORLD MARKET DEMAND



Source: Rio Tinto databases

Recent trends in China energy and resource use and trade

The growth in importance of China as a key player in the global resources and energy markets has been rapid and profound. As shown in Figure 5.3, China now accounts nearly 20 per cent of global demand for aluminium and copper, and around 30 per cent of the world iron ore trade.

Similarly for energy, China is the world's second-largest consumer of primary energy after the US and has become a major player in world energy markets. Continuing growth is putting pressure on domestic energy resources and imports of coal, oil and gas are growing while coal exports have stabilised. Consequently, opportunities for Australian energy exporters are increasing.

We look more closely at the outlook for resources and energy trade in the section below, but at this stage it is useful to consider the challenges ahead in both China and Australia if the full potential of China–Australia trade is to be realised.

Challenges ahead

China

The potential for China to continue to grow as a market for many of Australia's minerals and energy commodities is undoubted. Whether this potential is fully realised will depend on how China meets a range of challenges along the path to sustainable growth. These challenges are significant, ranging from micro and macroeconomic management to social, political, financial and environmental issues. Some of the issues are covered elsewhere in this volume, but in this chapter it is useful to consider those that could have the most direct bearing on resources and energy markets.

Domestic economic management

China's most recent challenge has been to manage a potentially overheating economy with its associated risk of inflation and economic disruption. China's authorities have implemented a number of measures in an attempt to reduce the growth in the money supply and lending to sectors believed to be expanding too rapidly, sectors that are materials and energy intensive; namely, steel, aluminium, car manufacturing and property development.⁵

If these measures are successful they are likely to slow China's growth rate, and therefore its demand for minerals and energy in the short term, but set it on a more sustainable path. If more stringent measures are necessary and China's growth falters, it would have more adverse consequences for global minerals and energy markets.

Infrastructure bottlenecks

China's growth has put a strain on its infrastructure in various ways. The consequences are directly affecting the minerals and energy sectors. Infrastructure development has been a priority at both the national and provincial level in recent years with investment in the Three Gorges dam, pipelines, electricity generation and transmission, transport and communication. Nevertheless, demand for infrastructure services has outstripped supply in a number of cases. Shortages of power, water, migrant labour, management skills, arable land and transport facilities have been reported.⁶ Particularly relevant to resources and energy trade are the problems affecting the electricity generation and transport systems.

Electricity

The lack of adequate electricity supply in many provinces is curtailing industrial production growth and leading to supply interruptions that negatively affect businesses and households. In some cases, investment and policy distortions are causing or compounding the problem. For example, the rapid increase in China's aluminium production in recent years has contributed to electricity shortages in a number of provinces and has raised concerns of over-investment in the sector.

Importantly, a significant proportion of China's thermal coal is subject to administrative price controls and all of this is sold to the major state-owned electricity producers. Prices for the remaining thermal coal and all metallurgical coal are determined through direct negotiation between sellers and buyers. In this segment of the market, prices have risen strongly. Some electricity producers were reportedly reluctant to purchase coal at the prevailing prices, as they were unable to pass on higher production costs to their end-users. This has contributed to power blackouts in some parts of the country.⁷

Transport

Transport infrastructure difficulties can affect ports, rail and road systems, and can slow the supply of required raw material imports (such as iron ore and coal). They can particularly affect the capacity of importers to transfer products to facilities located inland.

For example, in spite of coal being given priority on the rail freight system, bottlenecks have contributed to coal shortages in some regions. Increased demand for transport from all sectors has strained an already over-stretched rail network and limited the ability of planners to switch rail allocation in favour of coal. Coal stocks in some regions reportedly reached record lows in 2003.⁸ In other cases, companies have been forced to use different modes of transport, such as the waterways, but these have generally been less efficient and higher cost, increasing the delivered price of imported materials.

Securing input supply

China's projected import demand for a range of resources is now such that questions of securing long-term supply are coming to the fore. China is increasingly looking to long-term supply relationships in various forms to ensure that the resources it needs will be available. The issue of energy security is particularly sensitive.

In the case of coal there are underlying issues in China's coal sector that need to be addressed in order to ensure long-term supply security. In particular, while China has large reserves of coal, investment in key parts of the coal supply chain has not kept pace with demand.

China's projected import demand for a range of resources is now such that questions of securing long-term supply are coming to the fore.

This is partly a result of the transfer of ownership of the key state-owned mines from the central government to the provinces, and the inability of the provincial administrations to expand financial support for the sector. This should be addressed as the profitability of the coal sector increases and could be assisted by creating more attractive conditions for foreign investment in the sector. The security of coal supply could also be enhanced by encouraging increased imports of coal, especially in regions of China that are far from domestic coal reserves.⁹

In response to the increasing dependence on oil imports, China's energy planners are paying considerable attention to issues of oil security. It is expected that strategic reserves will be established between 2006 and 2008, and that the level of reserves will rise to 90 days of net imports by 2015. Other measures to address liquid fuel security include the construction of China's first coal

liquefaction plant. Encouragement is also being given to China's oil companies to participate in the exploration and development of overseas oil reserves and to purchase overseas upstream assets.¹⁰

Domestic resource development could play a significant role in addressing some of these issues. Much of China's mineral sector is small scale and inefficient. Lack of clear definition of the property rights in mineral developments has proved a powerful disincentive to the participation of the global mining industry in the development of China's resources. This situation is slowly changing and the coming decades may see participation by the world's major mining houses in China's minerals industry, facilitating the transfer of exploration and production technology and management skill.

Environmental sustainability

A range of environmental problems have arisen in recent years and, despite government efforts, concentrations of most pollutants remain high. A World Health Report noted that seven of the ten most polluted cities in the world are in China. Sulphur dioxide and soot caused by coal combustion are two major air pollutants, resulting in acid rain, which now falls on about 30 per cent of

A range of environmental problems have arisen in recent years and, despite government efforts, concentrations of most pollutants remain high.

China's total land area. Industrial boilers and furnaces consume almost half of China's coal and are the largest single point sources of urban air pollution.¹¹ With around 13 per cent of the world's total, China is the second-largest emitter of energy-related carbon dioxide after the US. This share is expected to increase in the coming years, reaching nearly 18 per cent by 2025.

Pressure to meet growing demand has led to environmental and safety standards being compromised in a number of sectors. An example is the recent increase in the share of coal produced from local town and village mines. These mines have been the subject of closure orders from the central government in recent years as they frequently employ unsafe and illegal production methods and are considered to underutilise existing coal reserves.

The difficulty caused by compromised environmental and other standards has been demonstrated recently when the State Environmental Protection Administration forced work to stop on 30 major public works projects, mostly power stations, pending approvals for environment impact assessments.

As well as enforcing existing laws, there are a number of policies the State EPA is considering. Adopting the "polluter pays" principle, and allowing for the accumulation of funds for pollution abatement are among the policies being enacted. Ensuring that fees charged on pollutants are higher than abatement costs, strengthening existing laws, and tax incentives are also being considered.

Australia

The challenge for Australia is to position itself effectively to make the best of the range of opportunities that will arise from China's development. Apart from resources and energy commodities, we can expect a growing demand for agricultural products and niche manufactured goods. China will also be looking for a diverse range of skills and services.

Across all these fields we can expect strong competition from alternative suppliers such as Brazil, India, South Africa and the South-East Asian countries. Australia must look to the efficiency of its domestic markets and institutions if input and labour costs are to be kept competitive.

Resources and energy trade outlook

According to ABARE, Australia's mineral and energy exports to China are projected to continue to grow strongly over the period to 2015, although the situation varies from commodity to commodity. As well as being a significant consumer of mineral and energy commodities, China is also a major producer. From Australia's perspective, China is therefore both a competitor and a customer of the Australian resources sector.

Minerals

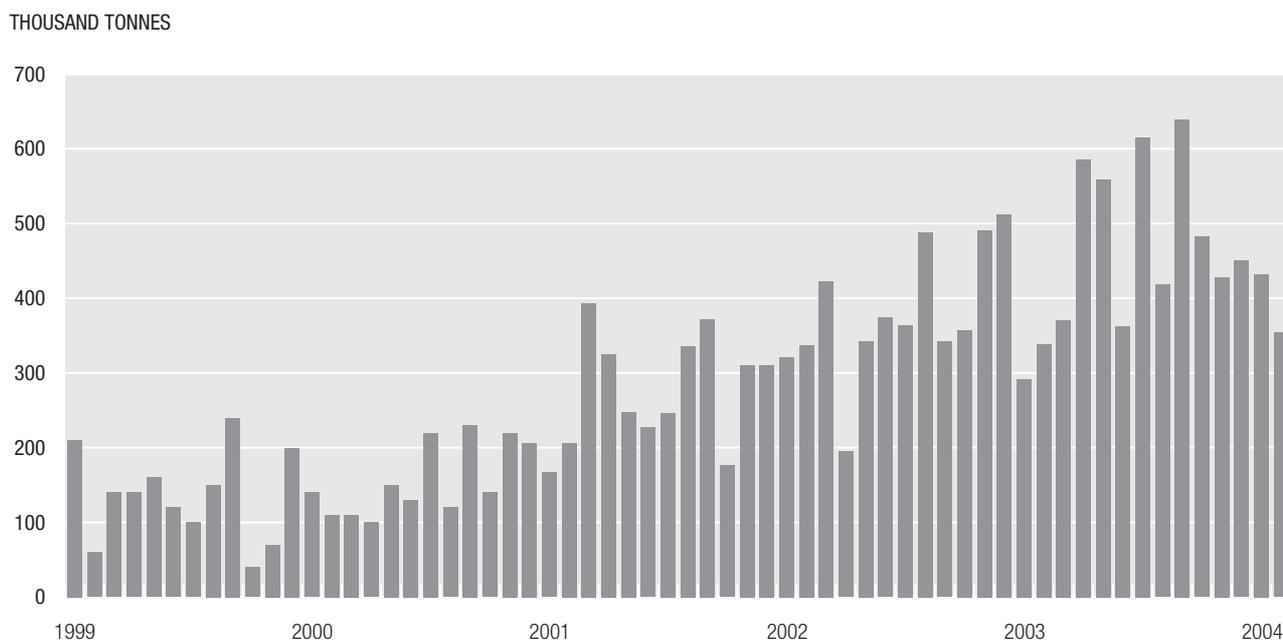
Australian producers of iron ore, alumina, copper and nickel have benefited from China's growing industrial production. China's rapidly increasing production of steel and aluminium, and the lack of sufficient domestic raw materials to support this production growth, is expected to result in China importing increasing quantities of iron ore, nickel and alumina for the foreseeable future.¹²

On the other hand, China is a significant producer of lead, tin and zinc, and because its production costs are relatively low for these commodities, they are particularly competitive. China also has the ability to produce low-cost refined metals. This means that Australian producers of refined and smelted metals such as aluminium, lead and zinc are competing against China for export market share.

In this section we review the trade outlook for the main mineral commodities of interest to Australia drawing mainly on recent ABARE research, including consideration of the sensitivity of China's demand for these commodities to different growth paths. ABARE's global trade and environment model, GTEM, is used.¹³

The ABARE base case projects Chinese GDP growth of about 8.3 per cent a year over the period 2004–15. To

FIGURE 5.4
CHINA'S ALUMINA IMPORTS



Source: Rio Tinto databases

assess the impact of lower growth, an alternative scenario is simulated with GDP growth over the projection period of 7.3 per cent. This lower growth rate based on GDP growth of 7.3 per cent accommodates the uncertainties surrounding the future growth of the Chinese economy and the challenges it faces.

The specific mineral commodities considered here include aluminium and alumina, steel and iron ore, and other minerals.

Aluminium and alumina

China accounted for nearly 19 per cent of world aluminium consumption in 2003, compared with 4.8 per cent in 1990, and it is now the second-largest consumer behind the US (21 per cent of world consumption in 2002). Aluminium is consumed mainly in the construction, electrical, food packaging and motor vehicle manufacturing industries. There has been significant growth in these industries and future expansion will provide significant support to growth in China's aluminium demand.

China's primary aluminium production has increased rapidly in the past decade and, with output of 5.6 million tonnes in 2003 (20 per cent of world primary production), China is the world's largest producer of primary aluminium.

China's aluminium consumption is projected to grow at an annual average rate of 4.8 per cent in the reference case

and 4.5 per cent in the low economic growth scenario in the period 2004–15. However, with production also projected to rise relatively strongly, the real value of China's exports are also projected to grow (at 4.6 per cent a year), leading to a marginal increase in China's share of world exports in the period to 2015.

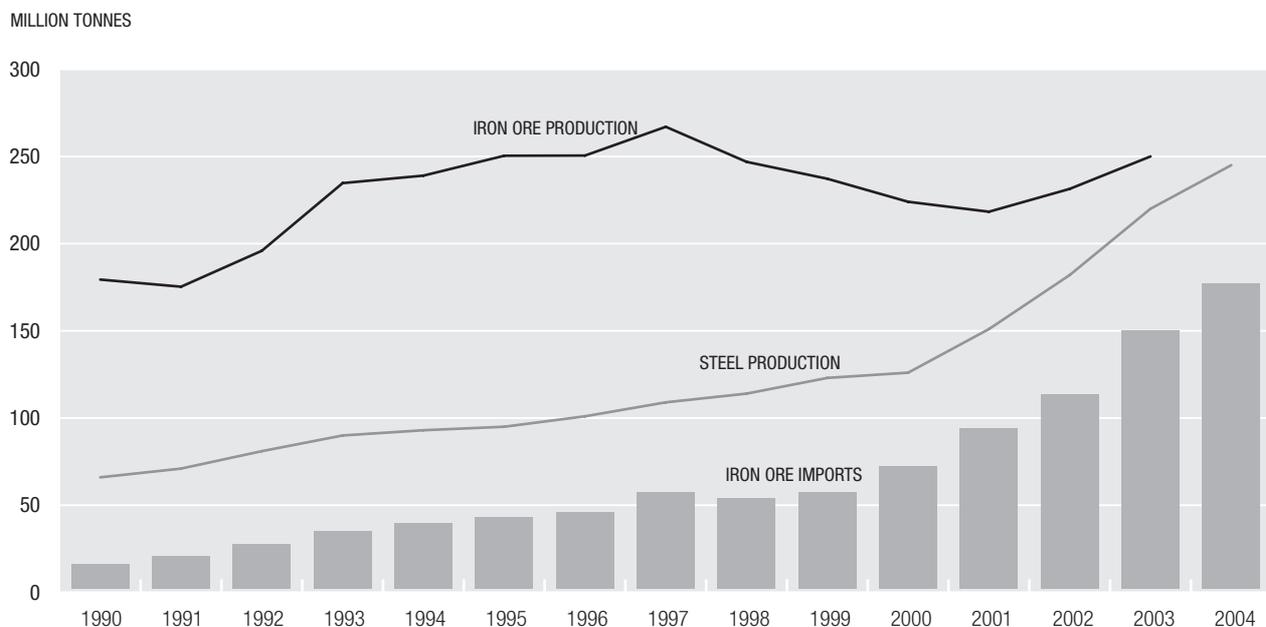
China is expected to remain a net exporter of aluminium in the short to medium term and there is little prospect of significant growth of Australian exports to China in the foreseeable future.

However, as China is the world's largest producer of primary aluminium, it is also the world's largest consumer of alumina. In 2003 China produced over 5.9

China's primary aluminium production has increased rapidly in the past decade ... with output of 5.6 million tonnes in 2003.

million tonnes of alumina, consumed almost 10.9 million tonnes and imported the residual of around 4.9 million tonnes (see Figure 5.4). With no significant increases in domestic alumina capacity planned, China's demand for imported alumina is expected to rise with growth in consumption.

FIGURE 5.5
CHINA: STEEL AND IRON ORE*



* Ore is reported in gross weight. China's domestic ore is significantly lower grade than imported ore.
Source: Rio Tinto databases

Australia, as the world's largest producer and exporter of alumina (32 per cent of total world production in 2003), is in a strong position to take advantage of China's expected growth in alumina imports. Some of the new alumina refinery developments in Australia, such as Comalco's new alumina refinery at Gladstone in Queensland, are in response to prospective growth in demand in the Chinese market. Other refineries that are in a position to take advantage of China's alumina demand include a potential expansion of the Queensland Alumina refinery in Gladstone, Queensland, and Nabalco's refinery in Gove, Northern Territory.

In the ABARE scenarios, the real value of Australia's exports of alumina to China are projected to rise at an average rate of 5.2 per cent a year in the reference case and by 4.9 per cent a year in the low China growth scenario over the period to 2015.

Steel and iron ore

From 1990 to 2003, China's consumption of crude steel increased from 70 million tonnes to nearly 255 million tonnes, making China the world's largest consumer of steel. Over the same period, China's production of crude steel also grew significantly, at 10 per cent a year, to reach 220 million tonnes. As China's consumption of steel exceeds its production, China is a significant importer of steel, with net imports of around 35 million tonnes in 2003. With China's rapid growth in the manufacturing

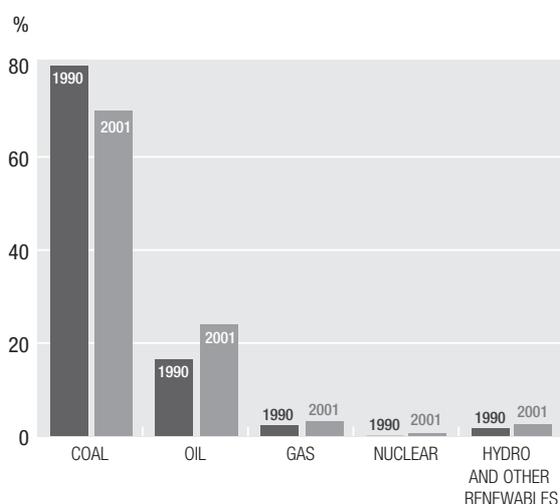
and construction industries, demand for steel has grown rapidly over the past decade. It is expected that growth in the demand for steel will continue to increase strongly.

Over the period to 2015, China's steel consumption is projected to rise by an average of 5.7 per cent a year in the reference case. This growth is lower in the low economic growth scenario, at 5.3 per cent a year. In both

While China is a significant producer of iron ore (240 million tonnes in 2003), its reserves and mine output are of insufficient quantity and quality to meet the growing demand from steel producers.

scenarios, China is projected to remain a significant importer of steel in the period to 2015. In the reference economic growth case, the real value of China's steel imports is projected to rise at an average annual rate of 6 per cent. This growth results in China's share of the real value of world imports rising from around 7 per cent in 2004 to 11 per cent in 2015. Australia does not export significant quantities of steel to China.

FIGURE 5.6
CHINA'S PRIMARY ENERGY CONSUMPTION, BY FUEL



Source: ABARE (2004b)

While China is a significant producer of iron ore (240 million tonnes in 2003), its reserves and mine output are of insufficient quantity and quality to meet the growing demand from steel producers. As a result, China's imports of iron ore have grown significantly, rising from 14 million tonnes in 1990 to 148 million tonnes in 2003 (see Figure 5.5).

China is currently Australia's second-largest customer for iron ore, surpassed only by Japan. Australian exports of iron ore to China grew by an average of 10 per cent a year from 1990 to 2003. As a result of China's increasing demand for iron ore, Rio Tinto and BHP Billiton have embarked on major expansion plans, accelerating developments of mining projects and associated infrastructure.

Other minerals and metals

In the ABARE model, all metallic mineral ores and concentrates other than alumina are currently analysed in a single "other minerals" group, which includes iron ore. All metals other than aluminium and steel are in a single "nonferrous metals" group. China's share of the real value of world imports of other mineral ores and concentrates is projected to increase from 9 per cent in 2004 to 15 per cent in 2015 in the reference case. The only other significant changes in shares are projected to occur in Japan (down from 17 per cent in 2004 to 14 per cent in 2015) and the EU (down from 36 per cent to 31 per cent over the same period) in the reference case. The rise in China's demand for these products supports an average annual increase in Australia's total exports of mineral commodities in this category to China of 5.6 per cent in the reference case and 5.2 per cent in the low economic growth scenario.

The increase in China's share will help boost Australia's share of the real value of world exports of other mineral ores and concentrates from 14 per cent in 2004 to a projected

15 per cent in 2015. South America is also projected to benefit from increases in China's import demand, with its share of world exports rising from 24 per cent to 25 per cent between 2004 and 2015.

China is both an importer and an exporter of commodities included in the nonferrous metals category. For example, China imports iron ore, refined copper and nickel, but is an exporter of refined lead and zinc. In the reference case, China's imports of nonferrous metals grow at an average annual rate of 4.3 per cent over the projection period. China is projected to become a more important market for Australia's exports of nonferrous metals over this period. China's share of the real value of Australia's total exports of nonferrous metals rises from 5 per cent in 2004 to 6 per cent in 2015 in the reference case.

The increase in China's imports of nonferrous metals supports an increase in Australia's share of the real value of world exports of this commodity category from 4.5 per cent in 2004 to 5.5 per cent in 2015 in the reference case.

China's share of the real value of world imports of other mineral ores and concentrates is projected to increase from 9 per cent in 2004 to 15 per cent in 2015.

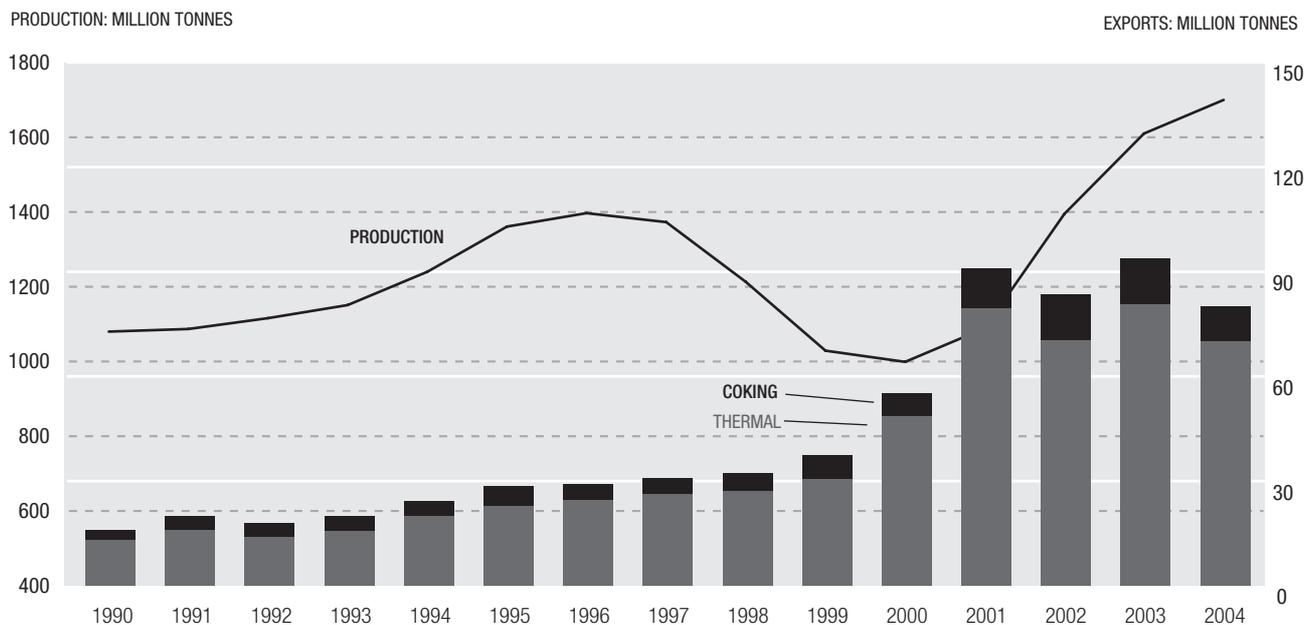
Other significant changes in export shares over the projection period include increases of around 1 per cent for Korea and a decline of nearly 5 per cent for the EU.

China's exports of nonferrous metals are also projected to increase in the reference case, rising at an average rate of 4.8 per cent a year over the period to 2015, but from a low base so that China's share of the real value of world exports increases from 2 per cent in 2004 to 3 per cent in 2015.

Energy

Strong growth in economic output, especially in industrial production, continues to lead to a significant increase in China's total primary energy consumption. A major contributor to growth in recent years has been increased output in the electricity, iron and steel, aluminium and chemicals sectors. Coal continues to dominate the fuel mix in China but its share is slowly declining. As shown in Figure 5.6, in 2001 coal accounted for 69 per cent of total primary energy consumption compared with 80 per cent in 1990. Oil accounted for around a quarter of primary energy consumption in 2001 and was used mostly in the transport sector. While consumption of gas remains a minor proportion of energy consumption, at less than 4 per cent in 2001, it is expected to grow more rapidly than other fuels over the next decade and beyond.

FIGURE 5.7
CHINA'S COAL PRODUCTION AND EXPORTS



Source: Rio Tinto databases

Coal

China's coal production in 2003 was a record 1.6 billion tonnes. This follows steady increases from a production low in 1997 of around one billion tonnes and has been driven by strong increases in demand from all key sectors, but especially electricity and steel. Nevertheless, the increase in

One of the outcomes of the domestic coal shortages has been a shift in China's coal policy away from the export focus that has been dominant since 1999 to one of ensuring that domestic markets are satisfied.

production has been insufficient to meet the growth in China's demand for coal and shortages of both thermal and metallurgical coal have been widespread throughout the country. Physical shortages of coal were exacerbated by high prices and by rail transport constraints.

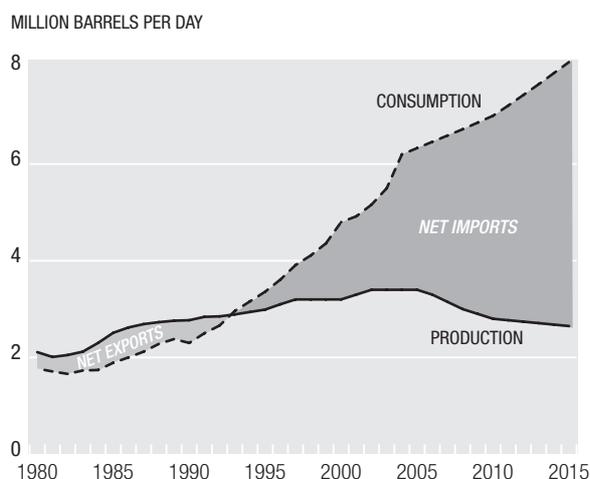
Despite tightness in the domestic market, China's coal exports in 2003 were 12 per cent higher than in the previous year. Exports of thermal coal reached 81 million

tonnes, compared with 71 million tonnes in 2002, while metallurgical coal exports were 13 million tonnes, slightly below their 2002 level (see Figure 5.7).

However, towards the end of 2003 it was apparent that while China was continuing to meet its long-term coal export commitments it was notably absent in the international thermal coal spot market. This made a significant contribution to increases in international spot coal prices. In order to overcome some of the domestic coal supply gap, China increased its imports of coal in 2003. Thermal coal imports reached eight million tonnes and metallurgical coal imports were 2.6 million tonnes. Most of the latter were of hard coking coal.

One of the outcomes of the domestic coal shortages has been a shift in China's coal policy away from the export focus that has been dominant since 1999 to one of ensuring that domestic markets are satisfied. This is being seen in measures such as a reduced export target of 80 million tonnes for 2004 encompassing both thermal and metallurgical coal, the slow release of export licences, changes to the VAT rebates on exported coal, and increases in other charges on coal exports that bring the treatment of exports into line with that of coal sold on the domestic market.

FIGURE 5.8
CHINA'S OIL PRODUCTION AND CONSUMPTION



Source: ABARE (2004b)

Oil

While China's domestic oil production remains relatively unchanged at 3.4 million barrels a day, much of this is produced from old fields in the eastern onshore basin that are in slow decline. It is expected that China's total oil production will decline gradually over the medium to longer term (see Figure 5.8).

Oil consumption was a record 5.3 million barrels a day in 2003, with China overtaking Japan to become the world's second-largest consumer of oil. The transport sector accounts for around 40 per cent of China's oil product consumption and is the largest source of growth

Oil consumption was a record 5.3 million barrels a day in 2003, with China overtaking Japan to become the world's second-largest consumer of oil.

in oil demand.¹⁴ This situation is likely to accelerate over the medium term, with road transport playing a key role in future demand. At the end of 2002, China had almost 10 million private motor vehicles, compared with 816,000 in 1990. The volume of passenger traffic on highways, measured as person-kilometres, increased almost three times over the same period, and road freight traffic, measured as freight tonne-kilometres, more than doubled.¹⁵

Aviation is also a rapidly growing component of the transport sector for both passengers and freight. Rising personal incomes and commercial activity are expected to result in continued strong growth in oil demand in the transport sector.

China's net oil imports rose sharply to an average 1.9 million barrels per day in 2003 and reached an average 3 million barrels per day in the first two months of 2004. This implies that China's oil import dependency was 36 per cent in 2003 and potentially higher in 2004. This compares with a dependency ratio of 12 per cent only five years ago. Around 50 per cent of China's crude oil imports are sourced from the Middle East and this share is likely to increase.

Given the limited forecast increases in oil production, it is likely that China's oil import dependence will continue to rise over the medium to longer term (see Figure 5.8), and net imports could exceed five million barrels a day by 2015. This will make China an increasingly significant participant in world oil markets and it can be expected to exert a stronger role in the determination of international oil prices.

Natural gas

The planned expansion of natural gas in China's energy mix is also expected to contribute to overall energy security objectives. China's natural gas consumption remains low relative to other fuels, but recent developments in

A further development in China's gas market has been the commitment to import liquefied natural gas.

the sector are likely to underpin rapid expansion in gas supply. In 2003, natural gas met approximately 3 per cent of primary energy consumption and was used mainly in the industry sector, particularly as a feedstock for fertiliser production. The commercial/residential sector and electricity generation are smaller but increasingly important consumers of gas in China.

Since the mid-1990s, natural gas has increased in significance in China's short- and long-term energy planning. It is now the focus of accelerated investment in exploration, production, transmission and LNG imports. The government has embarked on a major expansion of gas infrastructure, including pipelines and power plants, reflecting the large domestic reserves base and increasing environmental pressures associated with the combustion of coal. In 2003 all gas consumption was met from domestic sources.

A further development in China's gas market has been the commitment to import liquefied natural gas (LNG). In 2001 China approved the construction of the country's first LNG receiving terminal in Guangdong province. In 2002 Australia's North West Shelf project was granted the foundation contract to supply around 3.3 million tonnes of LNG a year to the terminal for 25 years. Supply is expected to begin in mid-2006.

There have also been several recent announcements on possible additional LNG terminals that could begin operation towards the end of the decade. These include a terminal in Zhejiang province by 2009, with an import capacity of three million tonnes of LNG a year. Other proposed terminals are in Tianjin, Shanghai and Dalian. In 2003, Australia's Gorgon gas project entered into an agreement with the China National Offshore Oil Company to supply China with 100 million tonnes of LNG over a 25-year period.

Rio Tinto perspective

Australia is not the only country exporting minerals and energy to China. Quite reasonably, the Chinese are seeking to diversify their suppliers for reasons of security as well as economics, and Australia's competitors are

Rio Tinto's sales of iron ore to the People's Republic date back to 1973 when Hamersley Iron sent its first trial shipments to China and this trade has grown and diversified over the years.

more than willing to take market share from Australian suppliers. It is important then that we look to all aspects of our trading relationship to ensure we secure, maintain and increase our place in the market.

The importance of establishing a long-term trading relationship cannot be overstated. Rio Tinto's sales of iron ore to the People's Republic date back to 1973 when Hamersley Iron sent its first trial shipments to China and this trade has grown and diversified over the years.

Early iron ore shipments to China eventually led to the Channar Joint Venture between Hamersley and the then Ministry of Metallurgical Industry's trading arm CMIEC. This was the first overseas investment of its kind by China and its success paved the way for other overseas investments. More recently, Hamersley has signed the BaoHI Ranges Joint Venture with the Shanghai Baosteel Group. This project will see Hamersley deliver 200 million tonnes of iron ore to Baosteel over the next 20 years. Also, Shougang, another leading Chinese steel mill, became one of the joint

venture partners in the construction of the first commercial scale HIs melt plant at Kwinana.

In 2003 around two-thirds of Rio Tinto's trade with China was in iron ore. This made Rio Tinto Iron Ore (RTIO) the chief supplier of such ore to China, accounting for about 25 per cent of imported iron ore.

A long-term commitment to the Chinese market has also been important in establishing a share of the growing Chinese alumina market for Comalco (Rio Tinto's integrated aluminium business). Comalco's current sales to China go back 11 years. The opening of an office in Beijing indicates the company's intention to cement its relationship with its Chinese customers.

Long-term relationships such as these provide the foundation for a trading partnership that is increasingly complex and interdependent. China, having successfully concluded joint ventures with Australian companies, is looking to invest directly in our industry. The contracts drawn up by companies like RTIO are increasingly long term. China and Australia also have research interests in common.

Reference was made earlier to the difficulties of transporting bulk materials around China. As part of its service to its customers, Rio Tinto has been developing product delivery systems that assist in overcoming these difficulties. This need to develop total supply chain solutions in order to remain a competitive supplier indicates the increasing sophistication of the China market and the ongoing challenges it presents for Australian companies seeking to do business there.

Conclusion

China has chosen a growth model that promotes full participation in global markets and the result is materials-intensive economic growth. Rapidly growing demand for mineral resources and energy stems from growing domestic demand for consumer durables, investment in infrastructure and growing exports of manufactured goods.

Where necessary, substantial increases in imports of raw materials have occurred to meet this growing demand. As a result, China has already had a fundamental impact on

China has chosen a growth model that promotes full participation in global markets and the result is materials-intensive economic growth.

global resources and energy trade and on the market for Australia's minerals and energy commodities. Chinese demand for most Australian mineral and energy commodities has increased and, over a relatively short time

frame, China has become a major market for Australia's iron ore, alumina and coal. At the same time, however, China has also become a rival producer of metals such as aluminium.

Given the potential scale and scope of ongoing growth in China's economy, further significant growth in Australia's exports of resources and energy commodities to China can be anticipated. However, if strong growth is to be sustained China must meet a number of important challenges. Issues related to effective domestic economic management, overcoming infrastructure constraints, and achieving environmental sustainability among others must be addressed.

Ultimately, the success of Australian companies in gaining a share of the growing Chinese resources and energy market will depend on their skill and patience in establishing long-term business relationships and delivering total supply chain solutions.

END NOTES

- ¹ This changing balance in the sectoral composition of exports from developing countries is presented in more detail in Garnaut, R. and Song, L. (eds) 2004, *China: Is Rapid Growth Sustainable?* Asia Pacific Press, ANU, Canberra, pp. 3–8.
- ² ABARE 2004a, "China's Mineral Sector", *Australian Commodities*, Vol. 11, No. 2, June p. 307.
- ³ ABARE 2004a, p. 306.
- ⁴ Lenegan, C. 2004, "Resources – Why a Free Trade Agreement Matters", address by Mr Charlie Lenegan, MD Rio Tinto Australia, to the Australia China Free Trade Agreement Conference, Sydney, 12–13 August 2004.
- ⁵ ABARE 2004a, p. 306.
- ⁶ Huang, Y. and Jha, R. 2004, "China and India: Short-term Macroeconomic Outlook", in Garnaut, R. and Song, L. 2004, p. 28.
- ⁷ ABARE 2004b, "China's Energy Sector", *Australian Commodities*, Vol. 11, No. 2, June, p. 300.
- ⁸ ABARE 2004b, p. 300.
- ⁹ ABARE 2004b, p. 301.
- ¹⁰ See Energy Information Administration 2004, *China: Country Analysis Brief*, June, Washington DC, p. 4.
- ¹¹ See Energy Information Administration 2003, *China: Environmental Issues*, July, Washington DC, p. 1.
- ¹² ABARE 2004a, p. 318.
- ¹³ See ABARE 2004a, p. 310, for methodology, and www.abareconomics.com/research/models/models.html for details of the model.
- ¹⁴ ABARE 2004b, p. 32.
- ¹⁵ APERC 2004, *Energy in China*, Asia Pacific Energy Research Centre, Tokyo, pp. 25–8.



THE SERVICES OPPORTUNITIES IN

China for Australian businesses

JON NICHOLSON

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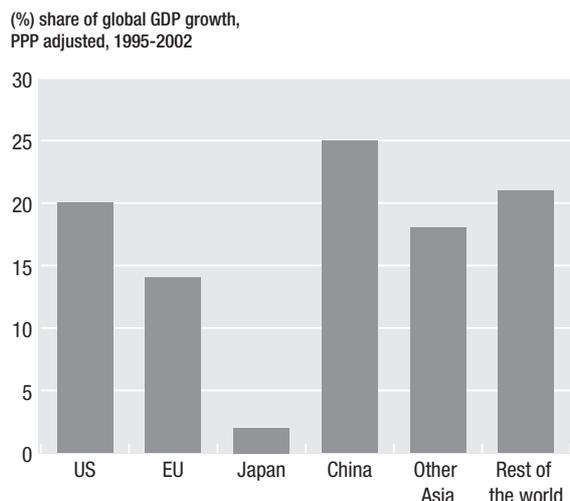
BEN THOMPSON

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FIGURE 6.1
GLOBAL GDP AND “VOLUME” GROWTH

MAJORITY OF GLOBAL “VOLUME” GROWTH FROM EMERGING COUNTRIES



Source: World Bank; BCG analysis

Introduction

China’s economic growth has been explosive since it opened to the outside world in 1979. Real GDP has increased by over 9 per cent per annum for over 20 years, more than Japan achieved in its historic post-World War II recovery and probably the most impressive sustained economic expansion the world has seen.

Adjusting for purchasing power parity (PPP), China has been close to the greatest contributor to global GDP growth over the last seven years (see Figure 6.1).

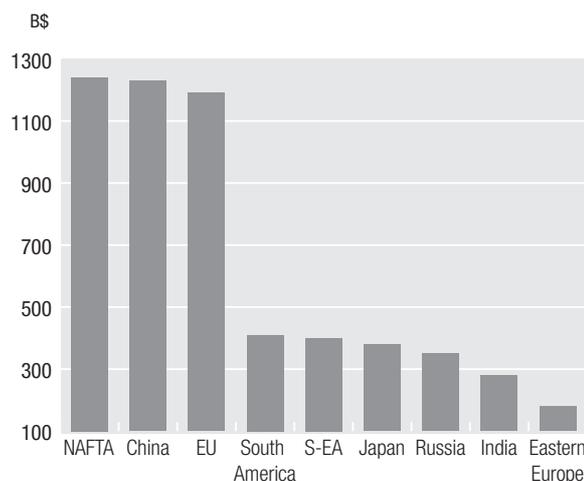
By some measures, China is now the world’s fourth-largest economy. If its present growth trajectory continues, as many forecast it will, China will rival the US in size within a few decades. And as a source of global economic growth it is likely to match the US within the next decade (see Figure 6.2).

The emergence of a modern Chinese economy has forever changed the structure of the world market for manufactured goods. Powered by an enormous, very low cost workforce, China has become the major manufacturer of a range of goods. At the same time, Chinese domestic demand has soared with rapidly rising incomes. As a result, China is now among the world’s largest markets for a variety of consumer goods¹ (see Table 6.1).

There are good reasons for believing that China’s favourable manufacturing position will continue for some time. The disparities in labour costs between China and the world’s advanced economies are so wide that manufacturing is likely to continue to move to China

FIGURE 6.2
FUTURE INDUSTRIAL GROWTH

REAL INDUSTRIAL GDP 1999–2015*



* At 1996 prices.

Source: EIU; World Bank; CIA; BCG estimates

TABLE 6.1
CHINA IS ALREADY ONE OF THE LARGEST MARKETS FOR MANY INDUSTRIES

INDUSTRY	GLOBAL RANK	HISTORIC GROWTH ¹ (%)
Refrigerator / AC	1	14 ²
Automotive	5	34 ⁵
Chemicals	4	13 ³
Construction	NA	9
Electronics	3	35 ⁴
Energy	2	22
Food and beverage	5	8 ²
Western pharmaceuticals	7	13 ⁴
Packaging	4	14 ³

1 Growth rate of 1995–2002.

2 Growth rate of 1995–2001.

3 Growth rate of 1995–2000.

4 Growth rate of 1996–2001.

5 Growth rate of 2000–2002.

Source: BCG China Database

(and other low-cost economies) for a long time yet, despite an upward trend in wage rates. Moreover, despite China's emergence as a major global manufacturing centre, its penetration of Western markets is by no means complete (see Figure 6.3).

China's services economy

In economies around the world, growth in GDP per capita has been accompanied by growth in the share of GDP held by the services sector. In China, however, services sector growth appears to have stalled over the last decade – while it grew from 22 per cent in 1981 to 34 per cent in 2002, it was already at 34 per cent in 1992.

As a result, China is now substantially “below the curve” on GDP per capita versus services sector percentage of GDP. In India, by contrast, services represent nearly 50 per cent of the economy and in advanced economies the proportion is over 60 per cent (see Figure 6.4).

China's anomalous position probably springs from a number of factors. In the early stages of economic liberalisation, for example, government policy and infrastructure support were directed to boosting goods-producing industries, especially those with export potential. At the

same time, markets in the service sectors were difficult for new players to break into, given government monopolies and regulatory complexities. And, since service industries typically need a critical mass of demand to succeed, China's low levels of urbanisation have led to slow growth in the establishment of service firms.

It's no surprise, then, that Western investors have focused on manufacturing and industrial opportunities in China. However, this could be about to change. In the Chinese government's current five-year plan (2001–05), accelerating the development of the service sector is a priority for action. On joining the WTO, China committed to liberalising the sector, particularly in key areas like finance. By the end of 2006, China will have implemented very liberal, market-based reforms.

Liberalisation is likely to be followed by rapid market development and growth in a range of service industries. In some at least this is likely to be accompanied by significant levels of foreign investment as global services corporations seek to establish footholds or major positions.

Growth will probably be centred in China's coastal provinces, which have dominated economic development over the last decade. The top five such provinces have high GDP per capita (over US\$10,000, PPP adjusted)

FIGURE 6.5
CHINA'S PROVINCIAL MARKETS



and strong growth. The Chinese government, as a matter of policy, developed infrastructure and industry in these provinces during the 1980s and 1990s. They therefore have the most experience in market deregulation, in granting licences, in attracting and accommodating foreign investment, and in other areas important for rapid industry growth and foreign participation (see Figure 6.5).

Assessing the opportunity

How well placed is Australia to participate in a rapidly growing Chinese services sector? How should Australian businesses and policymakers think about the opportunities this represents?

The services sector is easily the largest in the Australian economy. In 2002–03, it accounted for 56 per cent of GDP and 68 per cent of gross value-added in the goods producing and services industries. Seventy-five per cent of all employed people work in a service industry.

Between 1997 and 2002, the three fastest growing Australian service industries were “property and business”, “communication” and “finance and insurance”, each with a compound annual growth rate of over 5 per cent. The three biggest service export industries were

Between 1997 and 2002, the three fastest growing Australian service industries were “property and business”, “communication” and “finance and insurance”, each with a compound annual growth rate of over 5 per cent.

tourism, passenger transport and education. Of these, education was the fastest growing, at an average of over 16 per cent per year over the last two years.

We believe that in many, if not all, of these industries Australia has the real strengths and world-class companies needed to realise services sector opportunities in China. However, it’s important to remember the sheer magnitude of the Chinese economy and markets. In our view, the largest Australian industries and the largest companies in those industries will find it easiest to operate at Chinese scale.

In the discussion below, we take four of Australia’s biggest service industries and tease out some of the issues around their opportunities in China. In highlighting these industries, we are not suggesting that they alone are likely to succeed. Services markets across the board in

China are potentially vast, and we believe that Australian companies in a range of service industries will build strong positions.

Property

China is undergoing a massive construction boom. In the first seven months of 2004 alone, investment in new real estate development totalled \$95 billion. While the Chinese government has recently been attempting to foster a more sedate rate of growth in construction, the 29 per cent year-on-year growth rate through July 2004 was faster than the 25 per cent average from 1999 to 2003.

“Property and business” is Australia’s largest service industry (20 per cent of services value-added). Unlike other property industries around the world, property management in Australia is more significant than construction. The Australians’ traditionally heavy investment in property, coupled with the regulatory structure of our superannuation system, has led to Australia’s ten largest listed property groups being management focused. The eleventh (Leighton, with a market capitalisation of around \$3 billion) is the largest construction-oriented property group.

As a result, the Australian property industry includes some globally significant firms. The Westfield Group, with market capitalisation of \$25 billion, is the world’s largest retail property group. Stockland, GPT and Macquarie Infrastructure Trust are all on a world scale, with market capitalisation of over \$7 billion in each case.

Australia’s most successful property companies offer a unique set of financing, construction and management capabilities likely to be highly valuable in China’s rapidly growing, capital hungry property markets.

Macquarie in China

Macquarie Bank has been very successful in establishing offshore operations. It built its property business in China by linking its financial and property services over time.

Macquarie began operating in China in 1995, providing funds management for residential and retail property development out of a dedicated office in Tianjin. In 1996 it introduced funds management and property development management in Shanghai. In 2002, Macquarie became the first foreign player in the Chinese mortgage market, with mortgage and securitisation operations in Shanghai.

Macquarie now appears to be building a direct property portfolio in China, starting with its January 2005 acquisition of the Xin Mao Tower, 20 storeys of Grade A office space in Shanghai, for US\$98 million.

Financial services

By 2007, the Chinese banking industry will be fully liberalised, both in operational scope and in relation to foreign investment, as will the insurance industry (except for a 50 per cent foreign ownership limit in life insurance).

According to Economist Intelligence Unit² forecasts, nearly 30 per cent of the world's new deposits over the next 5 years will be in China, with the volume of new savings higher than those in either all of Europe or the US. The Chinese banking system will need to handle twice the savings it handles today, at a time when government policy has put significant limitations on the four large incumbent banks.³

Even taking a static view, the Chinese financial services market is enormous, with individual provinces representing significant markets in their own right. For example, deposits in Guangdong province alone (home to Guangzhou and Shenzhen) reached US\$334 billion in 2003, more than Australia's total of US\$300 billion at the same time.

"Finance and insurance" is Australia's second-largest service industry, responsible for 12 per cent of all services value-added. Each of the big four banks is among the 50 largest banks world-wide and each is a top performer globally in shareholder value creation. And, contrary to common perceptions about our banks, their capabilities are world-class. For example, their technologies are highly developed (Australia's payment system is globally advanced), they are extremely efficient (the ANZ Bank has one of the lowest cost-to-income ratios in the world's top 1000 banks), and they are well advanced in terms of implementing Basel 2.

Two of Australia's big four, the Commonwealth Bank Australia (CBA) and the ANZ Bank, have (or are close to) investments in China already. Outside the two global giants (HSBC and Citigroup), these investments will put the ANZ Bank and the CBA in the front rank of universal banks operating in China in any substantial way.

Education

Chinese demand for foreign education is forecast to grow annually at 15 per cent.⁴ With the Chinese government boosting public expenditure on education by 60 per cent and strong growth in household incomes, China is expected to be the world's greatest single source of foreign students by 2020.

Educating foreigners is an Australian strength. Education is our third-largest service export industry and contributes 5.3 per cent of GDP. Of the 1.74 million people who studied in a foreign country in 2001, more than 6 per cent came to Australia.⁵ Overall, foreign students comprise 14 per cent of Australia's tertiary enrolments – the highest percentage among the top 10 countries that educate foreign students (see Table 6.2).

TABLE 6.2
FOREIGN STUDENT POPULATIONS

COUNTRY	FOREIGN STUDENTS	% TERTIARY ENROLMENTS
Australia	105,764	14
Austria	31,682	13
Belgium	38,150	11
United Kingdom	225,722	10
Germany	199,132	10
France	147,402	8
USA	475,168	4
Japan	63,637	2
Spain	39,944	2
Russia	64,103	1

Source: UNESCO *Global Education Digest 2004*

Australia's education industry is well regarded. Foreign students say the quality of the education provided is the most important factor in their decision to study here. In addition, the country is seen as an attractive and safe location, and the fact that it is English-speaking is also important. Cost is a real but secondary factor. The rising Australian dollar over 2004 appears to have had little or no impact on student numbers.⁶

Australian universities and schools have decades of experience in serving Asian students. Many Australian universities have set up overseas campuses, typically in Asia. A good number are already active in China and building successful positions there.

Australian secondary schools

Australian secondary schools are entering the Chinese market in several different ways.

Hamilton College and Caulfield Grammar have opened campuses in Jiangsu.

Haileybury College, in conjunction with several Chinese host schools, is building a co-certificate program in China. Haileybury trains host teachers to deliver the Victorian Certificate of Education. Students graduate with both the Victorian and Chinese high school certificates, satisfying typical university entry requirements in both Australia and China. Haileybury vice-principal Nicholas Dwyer says this approach enables Haileybury to leverage its intellectual capital with minimal further financial investment.

Travel and tourism

Market-based reforms and intense foreign interest will drive significant and rapid growth in China's tourism industry.

In 2002, China was the world's fifth most popular tourist destination, with 37 million international visitors. In 2003, 245,000 Australians alone visited China. With inbound tourism expected to grow 80 per cent more

In 2002, China was the world's fifth most popular tourist destination, with 37 million international visitors. In 2003, 245,000 Australians alone visited China.

quickly than world tourism, China will be the world's most popular international tourist destination by 2020, with 130 million arrivals.⁷

Significant increases in disposable incomes are forecast to drive annual growth of 12 per cent in outbound tourist numbers from China. From a base of 12 million in 2001, 100 million Chinese are expected to holiday overseas by 2020.

Australia is an increasingly popular destination for Chinese tourists. Tourism Research Australia forecasts that Chinese tourist numbers in Australia will climb from 220,000 in 2004 to 960,000 in 2013. With Chinese visitors to Australia spending \$6000 each in 2003, the opportunity is substantial.

The challenge of China

The scale of the economic expansion underway in China has no parallels in history. It means that the economy that was the world's largest and most powerful for nearly all of the last 10,000 years is returning to that position at a remarkable pace.

While China's economic renaissance has been powered by the manufacturing sector, services are not far behind. This is where we are likely to see dramatic growth over the next decade and beyond. In many parts of the services sector, industry structures are still developing and opportunities for foreign players are only now emerging.

For Australian investors, China's size, distance and cultural and linguistic differences can make it a daunting prospect. Coupled with that, rapid growth is rarely smooth in any economy, and many aspects of China's business practices, corporate governance models and legal systems retain a "frontier" flavour. China still attracts high scores in corruption indices.

Developing a China strategy therefore presents some particular challenges:

- When is the right time to enter? Should we go now and take advantage of lower entry costs but potentially expose ourselves to higher risk? Or should we wait until the economic infrastructure is better developed but risk much higher entry costs?
- How do we make China a manageable proposition? How do we target markets and positions that make sense in relation to the initial investment we want to make?
- How do we find the people to build and maintain a position in China? How will we manage the distance, as well as the differences in language, culture and business practices?
- How will we manage the growth of the business? How will we fund growth? What is the right trade-off between growth and profitability?
- How do we explain our strategy to markets and investors? Will they be supportive? Will they concur with what we see as a realistic timeframe for a return on our China investment?

Australian services firms need to be able to answer these questions. The reality of China for many of them is "when" and "how", not "if". A good number of foreign firms operate very successfully in China today and that number is steadily increasing.

"Should we develop a China strategy?" has been a regular question in Australian executive committees and boardrooms for the last decade. For much of that time, the prudent answer has often been "no", informed by the

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significant losses suffered by many foreign firms early in China's economic development. Our sense is that the conversation is changing, with many Australian firms now looking at China with a real sense of opportunity, and with boards and chief executives elevating the China question to near the top of their agendas.

Conclusion

In our view, that optimism is well placed. China offers extraordinary market opportunities in the services sector. Within the sector, many Australian firms have the capabilities needed for success.

Despite its spectacular promise, China still represents substantial challenges and difficulties for foreign investors. If Australian service firms can master those challenges and difficulties, China may well become Australia's largest services export market.

END NOTES

¹ Several notable tax havens have unusually high service sector shares. Other nations with an historical focus on industrial development have unusually low service sector shares.

² Economist Intelligence Unit, figures from May to July 2004.

³ For example, central bank enforced lending rate controls and increasing governmental focus on cleaning up non-performing loans.

⁴ Bohm, A., Fallari, M., Hewett, A., Jones, S., Kemp N., Meares, D., Pearc, D., Van Cauter, K., 2004, *Vision 2020: Forecasting International Student Mobility*, British Council, London.

⁵ Dahlman, C. J. and Aubert, J. 2001, *China and the Knowledge Economy*, The World Bank, Washington.

⁶ "AEI Releases 2004 Annual International Student Enrolment Data", Australian Education International, <http://aei.dest.gov.au/AEI/MIP/ItemsOfInterest/05Interest05.htm>, accessed 16 February 2005.

⁷ World Tourism Organization, 2001, *Tourism 2020 Vision – East Asia and Pacific*, World Tourism Organization Publications, Madrid.



OPPORTUNITIES IN HIGHER VALUE

manufacturing and other collaborations

RICHARD MARTIN

7

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Introduction

China wants the best. This applies as much to imported capital and consumer goods as it does to technologies and production systems from developed countries, and to areas like consulting and advisory services. This is despite the fact that the country's dominant dynamic, both now and for the next decade, will remain the production of ultra low-cost basic products and services.

Responding to this challenge can be particularly tough for a foreign firm. Traditional China problems like very weak intellectual property protection, a key issue in higher value manufacturing, are getting more government attention, but do not look like reducing significantly this decade. For global giants, like IBM or Proctor and Gamble, that want a major position in China's domestic market there is also the complex challenge of developing a product/production strategy that can bridge from the massive low-value segment of the market to a smaller but still valuable higher value segment. And for the higher value manufacturers outside China there is the challenge of working out when some of their production needs to be moved into China to cope with pricing pressures and to tap into China's own demand for such goods.

Despite such problems, China looks set to transform the global market for higher value manufacturing over the next decade in the same way that it has transformed the global market for low-value manufacturing over the last decade. From a macroeconomic viewpoint the key drivers for this change will be its own growing demand for sophisticated goods, a rapidly growing pool of highly skilled manufacturing workers, rapid growth in its industrial structure with the participation of most of the world's major industrial companies, and favourable government policies.

From a corporate standpoint the track record of the last few years suggests that the decision to locate higher value manufacturing in China will come down to four factors that will vary in priority and importance to each company:

- the need to respond to global price pressures
- a desire to tap China's local market
- the need to expand global production capacity
- the potential for joint technology development.

The last point is, for some firms, debatable. The classic commercial problem confronting the movement of higher value manufacturing to China today, as it was for US firms considering expansion in Japan 40 years ago, is technology protection and the related issue of who has ownership of any joint technology developments and the right to take them to international markets. In one recent example, Leif Ostling, chief executive of Scania, the world's fifth-largest – and most profitable – maker of trucks, restated his refusal to move production to China as the government requires all foreign automotive firms to form 50:50 joint ventures with local firms. Yet it is also

in this fourth area that the greatest change is likely over the next decade, driven more by commercial imperatives than major improvements in China's protection of intellectual property.

What is higher value manufacturing?

Higher value manufacturing refers to the margin over materials, labour and (though this varies by industry) entry-level fixed costs that can be obtained in manufacturing by adding greater amounts of capital and/or technology to the process. Classic examples are the latest generation of medical devices, machine tools, most other types of capital goods, and entertainment systems such as the flat screen digital TV. As labour costs are a relatively small component of overall cost, there is little if any incentive to transfer production to low labour cost locations such as China.

By contrast, low value-added manufacturing is characterised by a relatively small margin that can be obtained on top of labour, materials and fixed costs with clothing and footwear manufacture being classic examples. With few capital or technology barriers to entry into these industries, competitive strength and profitability is substantially determined by labour cost, which is a significant component of final product cost. This does not

As labour cost is a relatively small component of overall cost, there is little if any incentive to transfer production to low labour cost locations such as China.

necessarily mean that such low-margin industries cannot benefit from technology and capital. Hong Kong's Li and Fung has demonstrated the competitive advantages to be gained from a high-tech, multi-country clothing production system while US retailer Wal-Mart has demonstrated the competitive advantages of bringing massive scale and capital to the sourcing, inventory and logistics areas of low-margin manufacturing.

Between these two ends of the value-added spectrum lie a multitude of points at which the balance shifts from the importance of ultra-low labour cost to the importance of the latest technology or massive applications of capital to underpin competitive advantage. Seeing how companies manage this trade-off in China can best be done with several brief case examples.

Mercury Marine and Scitex Vision set up in China

Over the last decade thousands of foreign firms have made the decision to move some of their manufacturing to China. In the majority of these cases the decision has been made to move lower value added and older technology products to China. There are at least a dozen examples of this every month in China's inward foreign direct investment (FDI) with that of US outboard engine-maker Mercury Marine being typical. In February 2005, Mercury announced it would shift production of its older 40-to 60-horse power outboards (typically used by recreational boaters) to a new US\$30 million plant in Suzhou.

For Mercury this shift was the only way it could respond to the price challenge starting to emerge in the global market for outboard engines. In part the pricing challenge was temporarily dealt with by obtaining an anti-dumping ruling – with a 19 per cent duty imposed – against Japanese manufacturers in late 2004. But with anti-dumping actions being a temporary fix at best (the ruling was overturned in late January 2005) a long-term solution was needed. In announcing the decision to

However, commoditisation does not account for all of the production transfer to China. There is a small but growing number of examples of companies moving higher value production to China.

move some production to China, company president Patrick Mackey stated: "We wanted to make an engine at the lowest possible price, and China seemed to be a place that we should be for the future."¹ He also noted that Mercury was unable to drive prices any lower at its US facility due to the high cost of labour, health care and other factors. Moving the older products into China would also free up Mercury's US plants to retool for production of the latest generation of their outboards (the "Verado") with Mackey reassuring the US press that "... all of the high-tech products will stay in America ... that's where we have the competitive edge".

The Mercury Marine example demonstrates an increasingly important aspect of the decision to relocate production to China that is often termed the "commoditisation" of a product or production process. Presumably, Mercury's 40–60 horse power engines that will be produced in Suzhou were once considered reasonably high-tech with considerable value added in the manufacturing process. Yet, with Japanese producers undercutting Mercury prices for such engines by as much as 40–50 per cent in late 2004 the focus quickly shifted to

labour cost and the need to move production to China.

However, commoditisation does not account for all of the production transfer to China. There is a small but growing number of examples of companies moving higher value production to China. In these cases, labour cost is not the dominant factor, although it is a consideration. Greater importance is attached to tapping China's domestic market and, in a few instances, to tapping R&D skills in China, as can be seen in the recent decision of Scitex Vision to launch production of digital printing machinery in China.

Scitex Vision, headquartered in Israel, is a global technology leader in digital printing presses for industrial applications, including wide format graphic arts, packaging and textiles. One of its major strategic challenges in 2004 was to expand its production capacity to cope with strong demand in Europe and the US, while also coping with an increasingly competitive environment. Its search for a solution led it to announce a broad ranging alliance with Bieren Group Corp, China's largest maker of printing equipment and the only one out of some 250 PRC firms producing printing machinery – all analogue based – that holds most of the ISO accreditations that are viewed as essential for winning significant sales in developed countries.

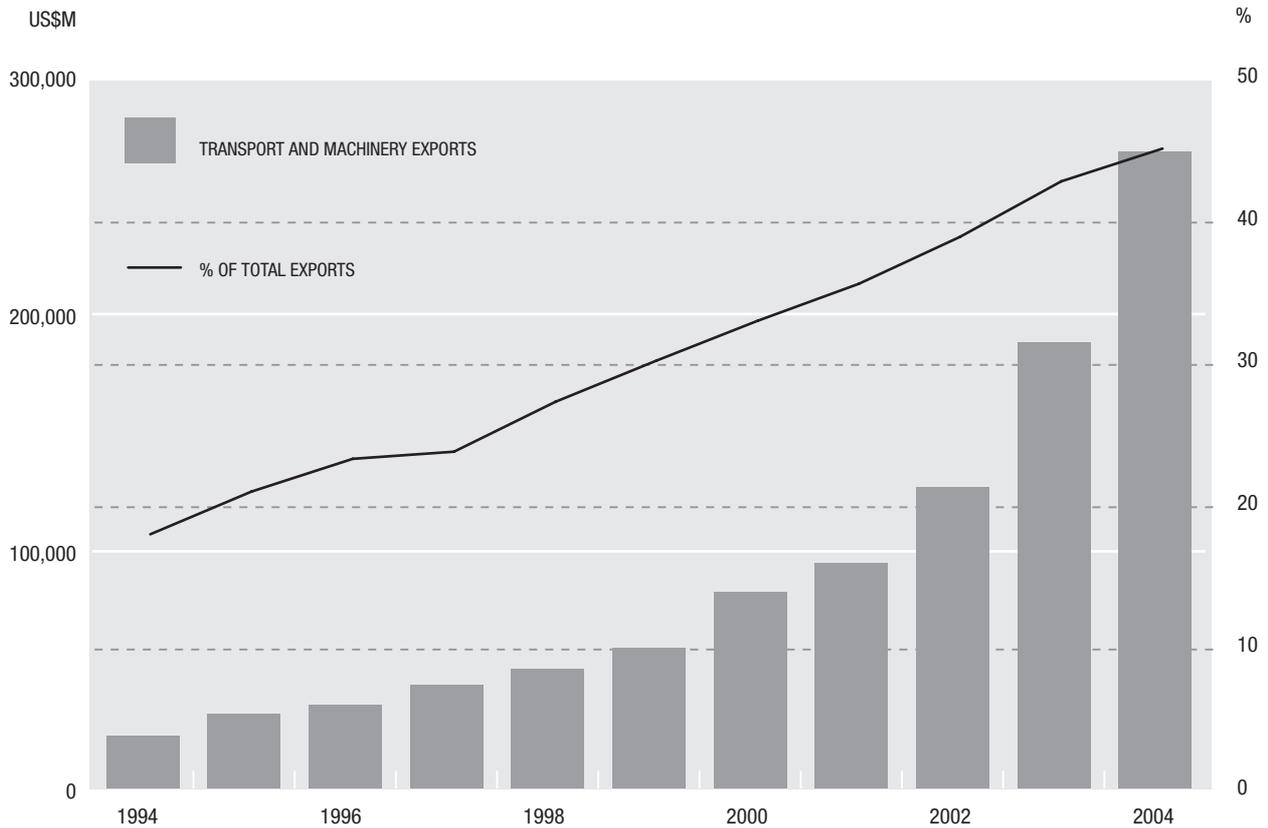
As a first step in the venture, which was announced in February 2005, Scitex has transferred production of its entry-level super-wide format digital printing system to a new state-of-the-art factory built at Bieren's existing site near Beijing. Bieren's interest in the deal was to gain access to leading-edge digital printing technology. For Scitex a major attraction was the potential to gain Bieren's support in expanding in China, considered one of the fastest

The Scitex case example illustrates a trend that is likely to blossom over the next few years. This is the role of strategic alliances with major Chinese manufacturers that focus not just on China's domestic market but also on global markets.

growing markets for printing machinery in the world. According to Scitex, the partners believe they will both benefit from joint technology development for various analogue and digital products that will be marketed to global and PRC customers (www.scitexvision.com).

The Scitex case example illustrates a trend that is likely to blossom over the next few years. This is the role of strategic alliances with major Chinese manufacturers that focus not just on China's domestic market but also on

FIGURE 7.1
CHINA'S TRANSPORT AND MACHINERY EXPORTS



Source: CEIC data, IMA Asia

global markets. US firms started testing such alliances with Japanese firms some 40 years ago (Fuji–Xerox) and more recently with Korean firms (Lexmark–Samsung Electronics). Chinese partners are now emerging as valuable candidates in the global strategic alliance game and in some industries, like cellular phone production, financial analysts now consider the correct choice of a Chinese alliance partner as being crucial to the outcome of global

Chinese partners are now emerging as valuable candidates in the global strategic alliance game

competition between leading players such as Nokia, Motorola, Ericsson and Sony. Current market forecasts suggest China will manufacture some 250 million mobile phones in 2006; there were some 334 million mobile phone users in China in 2004.

Somewhat oddly for those Western firms who quite rightly are concerned about intellectual protection in China, several firms from the People's Republic are now emerging as important technology partners. In one

recent example, Marconi of Britain has struck a joint technology development deal (formalised in March 2005) with Huawei Technologies, China's largest telecommunications equipment-maker. The technology deal may pave the way to joint production later in 2005 or 2006 with financial analysts speculating that Huawei may eventually acquire Marconi. Marconi, which is still recovering from near-collapse a few years ago, wants Huawei to help it take its latest generation of access radio products into China, while Huawei wants Marconi's help in expanding into Europe.

How big is higher value manufacturing in China?

China has been moving up the value-added chain for longer and far quicker than many foreign firms recognise. In 2004 the International Monetary Fund (IMF) released an occasional paper, which among other issues examined this phenomenon (“Occasional Paper 232 – China's Growth and Integration into the World Economy” – is a free download from the IMF website). As the report's title implies, the IMF is urging both countries and firms to come to grips with China's ability to transform global industries.

As a measure of China's progress into higher value manufacturing, the IMF notes that at the 2-digit level in the Standard International Trade Classification (SITC) level, China has expanded the number of segments in which it accounts for more than 10 per cent of the US import market from 5 categories in 1990 to 16 in 2002. Another way of looking at this is to note that the proportion of China's exports represented by machinery and transport, which includes electronics, has increased from 17 per cent in 1993 to 45 per cent in 2004 (see Figure 7.1).

The role of multi-country vertical specialisation

While Western companies have played a significant role in transferring higher value manufacturing to China, the dominant players have come from East Asia, particularly Taiwan. The IMF notes that during 2000–2002 Asia's four newly industrialised countries (South Korea, Taiwan, Hong Kong and Singapore) plus Japan accounted for about 60 per cent of all FDI into China with the US and Europe accounting for only 20 per cent.

The key development in this regard has been the rapid emergence of vertical specialisation in East Asia, in which cross-border manufacturing value chains have replaced single-country manufacturing propositions. The critical issue in vertical specialisation is not simply China's ability

While Western companies have played a significant role in transferring higher value manufacturing to China, the dominant players have come from East Asia, particularly Taiwan.

to contribute low labour cost to one part of the production process, but also China's slashing of import duties and barriers under the WTO process and the rapid scaling up of large-capacity, high-speed logistics. In this regard, China's decision to more fully open up its domestic logistics market to 100 per cent-foreign owned firms at the end of 2004 will further improve its advantage as a key player in vertical specialisation.

The basic pattern for the vertical specialisation that is emerging in East Asia is for countries like Malaysia, Thailand, Singapore and the Philippines to ship electronic components and sub assemblies to China, while Japan, Taiwan and South Korea ship a mix of components and capital goods. As a result, the proportion of imports for processing has jumped from 35 per cent of all of China's imports in the early 1990s to 50 per cent in 1997, and has stayed at around that level since then according to the IMF.

Yet even here the game is changing, particularly for manufacturers of capital goods. Japan's makers of machine tools have had booming exports sales to China for over five years, yet now they are starting to shift from an export strategy to a local manufacturing strategy. The main factor pushing them in this direction is flat or

China's own firms want to win global market share and their track record to date has generally been poor, reflecting a lack of global marketing and business management skills.

declining demand for machine tools in their home market. As a result, Mitsubishi Electric Corp. plans to lift its China sales from 27 billion yen in the financial year 2004 to 70 billion yen in the financial year 2006, with the establishment of seven new factory automation service centres in China, which will take its total to 16. Toshiba Machine Co. and Fanuc Ltd have made similar commitments.

There are similar trends also apparent in the US and Europe. Leading German toolmaker Bosch Rexroth Corporation has just announced a US\$111 million expansion of its production facilities in China to produce axial piston machines, among other products, for the Asian market. The company will also expand its existing plant at Wujin for hydraulic, pneumatic and linear assembly technologies.

Conclusion: What lies ahead?

Forecasting what lies ahead is relatively easy. Unless there is a disruptive event – such as another and larger outbreak of SARS – the trends that have emerged in the last two years will consolidate.

Continued expansion of low-value manufacturing

Low value-added manufacturing is expected to remain the dominant dynamic in China's industrial sector, particularly with the expected growth in the textile and clothing sector following the end of quota restrictions in this sector between all WTO members from January 2005. Given its vast workforce, China has the capacity to hold on to low-value manufacturing for much longer than Japan or Asia's four newly industrialised economies did during their 40-year-long industrial expansions.

Even faster growth of higher value manufacturing

As China's own export data make clear, the transition into higher value manufacturing has been under way since the mid-1990s. Foreign firms from East Asia and the West are the main contributors to the trend, although several hundred local firms are starting to play a role.

Joint technology development

A small but growing number of Western firms, particularly SMEs, are going to be attracted to the opportunity to develop technology with Chinese partners. The Chinese partners will be able to bring massive scale (including access to the local market), capital and R&D staff to the table.

Joint development of global markets

China's own firms want to win global market share and their track record to date has generally been poor, reflecting a lack of global marketing and business management skills. They are looking for foreign partners who are willing to discuss cooperation in global marketing.

The most important aspect of these developments is that the technology, production and marketing deals struck over the next decade will increasingly be between equals who view partnership with the other side as essential to prospering in the global market.

END NOTE

¹ Barrett, R., 17 February 2005, "Mercury Marine to open plant in China", *Milwaukee Journal Sentinel*, available at: www.jsonline.com/bym/news/feb05/302646.asp (viewed 26 April 2005)



emerging

political

and security

relationships

“... two countries with very different political systems, very different histories, very different cultures can build a strong future together if they focus on the things that they have in common rather than the things that they don’t have in common.”

Prime Minister John Howard¹

PETER JENNINGS

8

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Introduction

Australia’s bilateral relationship with China is going through a period of redefinition. Driven by a massive growth in trade and fuelled by expectations of even larger economic dividends in the future, the Australian government is pondering the strategic and political implications of closer ties with Beijing. Seldom have prospects for the relationship looked more promising. As Prime Minister Howard said in December 2004 to a gathering of Sydney’s Chinese–Australian community, the aim is to focus on the things the two countries have in common. Yet, although political statements about the relationship remain unceasingly upbeat, a number of strategic and political issues have the potential to complicate matters.

The worrying 1990s

The positive state of Sino–Australian relations in 2005 contrasts with the period of greater uncertainty over China’s role in Asia-Pacific security during the 1990s. In the early years of that decade the Australian government held some concerns about the US’s longer term commitment to play an active role in regional security. The numbers of US military personnel based in the region were reduced from 130,000 to around 100,000. As China’s economy grew and as Beijing invested heavily in modernising its military forces, Australia’s concern was about the strategic role a more assertive China might play.

In 1995 Chinese military forces occupied Mischief Reef in the Spratly Islands. The reef was claimed but unoccupied by the Philippines. Between August 1995 and March 1996 China staged missile tests and held large-scale military exercises in the vicinity of the Taiwan Straits. These were designed to demonstrate Beijing’s opposition to pro-independence moves in Taiwan. As concerns grew about the prospects of a cross-straits war, Australia and Japan were alone in the Asia-Pacific to openly support a US decision to sail two aircraft carrier battle groups close to the Taiwan Straits.

Chinese political statements during this time argued very strongly against a US military presence in the Asia-Pacific and, in particular, against America’s alliances. Beijing reacted negatively to Australia’s public support of the US during the Taiwan Straits missile tests. In 1997 China briefly but decisively put political relations with Australia on hold. Commentaries in the government-controlled Chinese press argued that the Australia–US alliance was the southern pincer of “two crab claws” directed against China. The northern pincer was, of course, the US alliance with Japan. In 1996 both alliances had been formally reviewed by their members and both had issued strong statements reaffirming their central importance to regional security – a view that flatly contradicted Beijing’s view of the world.

In December of 1997 a Howard government statement, titled “Australia’s Strategic Policy”, expressed serious concern about the potential for regional instability as a result of increased competition between a rising China and the US and its allies. The statement said: “China will need to work hard to assure the rest of the region that its national objectives and the means it uses to achieve them will be consistent with the basic interests of its neighbours”.³ At its most optimistic the statement conceded that “such competition is not inevitable”, but the general tone was one of concern about China’s future role.

The optimistic 2000s

From the perspective of 2005, the concerns of the mid-1990s seem over-stated. Now, Australian policy statements emphasise the strengths of the bilateral relationship. A White Paper produced by the Department of Foreign Affairs and Trade in 2003 says that Australia seeks to “... build a common understanding of how we can manage relations in a way that makes the most of our shared interests while acknowledging our differences”. The aim, the White Paper claimed, was to build “... a strategic economic relationship with China similar to those Australia has established with Japan and Korea”.⁴

In late 2004 the foreign minister, Alexander Downer, took the relationship one step further by claiming at a media conference in Beijing that:

*... we agreed that Australia and China would build up a bilateral strategic relationship, that we would strengthen our economic relationship and we would work together closely on Asia-Pacific issues, be they economic or security issues.*⁵

The implications of the phrase “strategic relationship” will be examined shortly, but first, it is important to ask how the bilateral relationship could so dramatically move from the diplomatic chill of 1997 to the warmth of bilateral ties in 2005.

Three major developments contributed to the rapid improvement in the bilateral relationship. The first of these was a substantial shift in the character and content of Chinese diplomacy in the late 1990s. Beijing had made it clear that its greatest priority was internal development and, from an observer’s perspective, it appears to have taken a

... it is important to ask how the bilateral relationship could so dramatically move from the diplomatic chill of 1997 to the warmth of bilateral ties in 2005.

deliberate decision to avoid any actions that might threaten that growth path because of international instability. China has developed more effective security relations with the nations of South-East Asia and has avoided any further military actions like the Mischief Reef occupation. The anti-alliance language of the 1990s is no longer being used. China has not changed its core position on the non-acceptance of Taiwan pursuing independence, but Beijing has eased the situation by refraining from using high-profile military manoeuvres during Taiwanese political events. There was no repeat of the 1996 Straits crisis, for example, during the 2004 Taiwanese presidential elections.

A second positive development has been the warming of Sino–US relations. The Bush administration has, on a number of occasions, strongly reaffirmed its support for the One China policy. Beijing’s condemnation of Al Qaeda’s attacks in the US on September 11, 2001 was appreciated by Washington, as has China’s continued support for the “war on terror”. This policy may well reflect Chinese self-interest as it examines the potential for Islamic fundamentalism to cross its western borders, but it provides a pragmatic basis for current cooperation with the US. China has also worked cooperatively with the US on the dangerous question of North Korean nuclear weapons, by using its influence with Pyongyang to force it to negotiations. Both Washington and Beijing have an immediate pragmatic interest in containing North Korea’s nuclear activities, even though they may have different views about what might constitute the best long-term outcome on the Korean peninsula.

The third factor contributing to the warming of Sino–Australian relations has been the growth of extensive bilateral economic links, and a happy outbreak of pragmatic policy thinking in both capitals. The two factors are connected. In August 2002 Prime Minister John Howard

The third factor contributing to the warming of Sino–Australian relations has been the growth of extensive bilateral economic links, and a happy outbreak of pragmatic policy thinking in both capitals.

announced that Australia’s North West Shelf Venture was chosen by China to be the sole supplier of liquefied natural gas (LNG) to Guangdong province. This remains Australia’s largest single export deal, worth between \$20–\$25 billion in export income.

The LNG deal made it clear that Australia and China have the potential to develop an economic relationship that, in its scope, goes well beyond simple trade ties. Australia offers China a combination of essential resources and long-term political stability underpinning a guaranteed supply. China offers Australia almost limitless demand and the potential to broaden the relationship beyond providing raw materials to include a huge requirement for services. Neither country can afford to let this economic potential be compromised by a failure to address the political and security dimensions of the relationship.

Is pragmatism enough?

Australia and China have sought to secure their economic relationship by tacitly agreeing not to stress the issues that either party finds difficult to handle. For example, Australia has strongly reaffirmed its own support for the One China policy. Indeed, practically every time the prime minister or foreign minister speak about China, they will reaffirm the One China policy. For its part, Beijing no longer argues that the ANZUS alliance is an impediment to Australia’s role in Asia. By this means both countries have been able to move beyond two key bilateral sticking points.

From time to time Australia has also been prepared to show some measured differences with the US in ways that promote our position in Beijing. One example of this was Australia’s refusal in early 2005 to support US calls for the European Union (EU) to continue its arms export embargo on China. Canberra’s ability to have any real impact on the EU’s position was negligible, but the pro-China stance probably earned some credit in Beijing.

There is no doubt that this pragmatic approach – as John Howard puts it, focusing on the things Australia and China have in common – is yielding substantial benefits for both countries. However, it would be wrong to suggest that the issues over which potential differences remain could not still have some dangerous implications for the relationship. The most important of these concerns is how Australia balances its links between China and the US.

Prime Minister Howard appears to take some pleasure in refuting claims made early in the life of his government that he would not be able to maintain a close alliance with the US at the same time as more closely integrating Australia’s strategic interests with Asia. He told a conference in August 2004:

I count it as one of the great successes of this country’s foreign relations that we have simultaneously been able to strengthen our long-standing ties with the United States of America, yet at the same time continue to build a very close relationship with China.⁶

But this strategy remains a success only for so long as China and the US are able to keep their interests aligned. If, for some reason, these interests begin to diverge, it will become more difficult for Australia to maintain this policy. Presently, both Washington and Beijing are working to minimise any potential for diverging views, especially on Taiwan. The US retains a policy of studied ambiguity about the extent to which it would provide practical support to Taiwan in a crisis, and it works hard to pressure Taipei not to push the independence bandwagon too far. For its part, Beijing keeps a lid on the inflammatory rhetoric of the type heard in 1996. However, the potential for a military clash over Taiwan remains a realistic danger.

When visiting Beijing in August 2004, Foreign Minister Alexander Downer was asked about Australia's ANZUS alliance obligations as they might apply to a crisis over Taiwan. Mr Downer replied:

Well, the ANZUS Treaty is a treaty which of course is symbolic of the Australian alliance relationship with the United States, but the ANZUS Treaty is invoked in the event of one of our two countries, Australia or the United States, being attacked. So some other military activity elsewhere in the world, be it in Iraq or anywhere else for that matter, does not automatically invoke the ANZUS Treaty. It is important to remember that we only invoked the ANZUS Treaty once, that is after the events of 9/11, because there was an attack on the territory of the United States. It is very important to remember that in the context of your question.⁷

At best, Mr Downer's answer might be said to have evaded a key point for the sake of not offending his hosts. It is not correct to say that the alliance only provides for a response when either Australia or the US is directly

At best, Mr Downer's answer might be said to have evaded a key point for the sake of not offending his hosts.

attacked. An attack on US military forces in the Pacific would, in the terms of the treaty, trigger a requirement for Australia and the US to consult on how to respond.⁸ If conflict seemed likely to break out over Taiwan it is highly likely that the US would ask Australia to contribute military forces to a coalition operation in defence of the island.

Recently, some Australian observers have argued that Mr Downer's comments point to a more substantial reshaping of Australian strategic policy by, in effect, signalling to Washington that Australia might not be willing to provide direct military support in the event of a crisis over Taiwan. However, it would be very unlikely for Australia to take such a momentous step in its alliance relations with the US, in the form of a single answer to a question at a Beijing media conference. In fact, what Mr Downer's comments point to is the enormous importance that Australia, China, the US and Taiwan all have on finding strategies to prevent a potential crisis threatening regional stability.

Australian strategic policy will suffer a strategic failure if we are ever forced into the position of having to decide between support for the US alliance or the viability of our relationship with China. The option Australia would choose would depend largely on the circumstances of the day, and the government's consideration in particular of the causal factors that had led the region to the brink of a major war. It is pointless to speculate on the decision,

but what is clear is that Australia has a vital strategic interest in making sure we do everything we can to avoid such a situation.

Prime Minister Howard has said, "our aim is to see calm and constructive dialogue between the United States and China. ... Australia is well placed to promote that constructive dialogue."⁹ His comment offers an intriguing clue to the likely next stage in Australia's relations with China.

Building a "bilateral strategic relationship"

Over the last generation the major focus in Australia's bilateral relationship with China has been on trade and economics. That will remain a central preoccupation, but increasingly Canberra will need to find ways to engage China in a sustained and substantive dialogue about strategic issues in the Asia-Pacific. Too often in the past these issues have been put to one side, either for the sake of pragmatism or because the strength of the rhetorical positions on key security issues make practical dialogue very difficult. This situation is changing. The rate of China's economic growth is rapidly turning the People's Republic into a key strategic power in the Asia-Pacific. On Taiwan, North Korea, the disputed sovereignty claims in the South China Sea and on the broader strategic balance in the Asia-Pacific, China is increasingly the single most important factor in deciding whether the region will remain stable.

Looking to the longer term it seems unlikely that Australia will be able to indefinitely rely on the hope that the bilateral relationship needs only to focus on the things the two countries have in common. The challenge is to broaden the connection, from what the 2003 Foreign Policy White Paper called a "strategic economic relationship" into what, in 2004, Mr Downer called a "bilateral strategic relationship".

The Australian government should take four essential steps to broaden its relations with China, all focused on building a more substantial dialogue with Beijing on critical security issues.

First, a significantly enhanced effort must go into improving our understanding of Chinese strategic thinking. We need to know the Chinese mind much more closely on issues like North Korea; nuclear proliferation; its relations with major powers like Russia, India and Japan; and on Chinese military strategy. A tiny fraction of the Australian resources currently being devoted to counter-terrorism analysis would help to significantly boost the government's capacity to study China. Building our analytical capabilities in key departments such as Foreign Affairs and Trade and Defence, as well as in the intelligence agencies, would be a sound long-term investment.

Second, the government should look for new opportunities to open discussions on strategic and security issues with China. This should not be limited to people in government service. A private-sector Australia–China dialogue similar to the one run annually between influential Australian and US citizens would be a major step forward (and one, I should declare, that the Australian Strategic Policy Institute is working to establish). There are already many occasions in which cabinet ministers and senior officials meet to discuss bilateral issues, but there is a need to create a specific closed-door forum for officials to discuss longer term strategic matters in the Asia-Pacific.

Third, defence and intelligence exchanges between Australia and China should be increased. It is time to review the level of seniority of our Defence Attache in Beijing and to address opportunities for more substantive intelligence exchanges, some military exercising and dialogues on defence doctrine and strategic plans. There are already some useful defence contacts, including visits at

Interestingly enough, the Chinese have, on several occasions, indicated that they would value Australia playing a more decisive hand in helping to influence US thinking.

service chief level and training exchanges. The need, however, is to move beyond the types of cooperation that traditionally are considered to be at the easy end of the engagement spectrum, and to take on some of the harder challenges involving practical exchanges of thinking on tough strategic issues.

Finally, Canberra needs to look at what more can be done to help shape US thinking on China. The prime minister says that we are well positioned to do this, but the reality is that Australia has not yet sought to engage with the US in a sustained discussion of China's strategic future. Interestingly enough, the Chinese have, on several occasions, indicated that they would value Australia playing a more decisive hand in helping to influence US thinking. When China's President Hu Jintao addressed the Australian parliament in October 2003 he said in relation to Taiwan that "the Chinese government and people look to Australia for a constructive role in China's peaceful reunification".¹⁰ One reading of this comment was to suggest that the Chinese thought Australia could usefully influence US policy. The message was reinforced when Mr Downer visited Beijing in August 2004. Downer told his media conference:

*... and I think now there is a recognition by Chinese leadership that the significant role that Australia plays in the region, for all sorts of reasons, [has] value for both of us, not just for one of us, but for both of us, to work much more closely together on political and security issues in the region.*¹¹

One option would be for the Australian government to explore the idea of a trilateral strategic dialogue involving Beijing, Canberra and Washington. There is already a regular trilateral dialogue involving Australia, the US and Japan. A similar dialogue involving China would usefully address a number of security concerns in North Asia.

One should not expect quick results from any of these proposals. In some respects these four suggestions seem far removed from the practicalities of LNG contracts. But each suggestion here is designed to overcome significant gaps in the current bilateral relationship. To reinforce longer term economic engagement with China, we need urgently to deepen our knowledge of Chinese strategic thinking and to make our dialogue on these issues more thorough and substantive.

Conclusion

One final thing the Australian government should do in relation to China is to test current policy settings by seeing how effective they would be against a range of different scenarios of China's future. For all the optimism that the government and the Australian business community have about China's continuing economic prospects, it is useful to remember that there is absolutely no guarantee that strong and stable growth will continue. The 1997 assessment, *Australia's Strategic Policy*, was a high-quality document, but it was weakened by its failure to imagine a world where South-East Asian economic growth might falter. The statement focused on how to shape Australian policy in a region of high and continuing economic growth. Even as it was released towards the end of 1997, few people in Canberra realised that the key strategic challenges Australia would face in the next eight years would stem from the failure of that growth to be sustained.

By whatever means Australia chooses to develop its China policy now, it would be a tragedy if we limited our thinking to address only the best case scenario about China's future. There is no question that a China experiencing high growth and simultaneously modernising its infrastructure and political system is the outcome most likely to maintain stability in the Asia-Pacific. Australia has a direct economic stake in promoting that outcome. Equally though, a range of less positive scenarios need to be considered.

The internal challenges to China's prospects for high, steady growth are well known and they include serious problems relating to China's infrastructure, demographic profile, environmental outlook, health and social welfare

system. These can be added to the potential international security flash-points of North Korea, Taiwan and the South China Sea. Korea and Taiwan, in particular, raise the frightening possibility not only of large-scale conventional conflict but also the use of nuclear weapons. We cannot rule out the potential for miscalculation and misperception to lead to conflict.

Governments find it difficult, especially in public, to speculate about less-pleasant scenarios in international security, and that would certainly be true in the case of China. However, it is necessary that at least some thinking be done on worst-case scenarios in the Australian

By whatever means Australia chooses to develop its China policy now, it would be a tragedy if we limited our thinking to address only the best case scenario about China's future.

government system, if only to see what challenges Australia would face in those circumstances. No sensible business operation would make major investment decisions without first considering the risks, as well as the potential rewards of the investment. While the prospects for Australia's relations with China are currently very bright, governments also need to think about hedging strategies just in case current trends do not continue.

END NOTES

¹ Howard, J. 2004a, *Address to Sydney's Australian Chinese Community*, 22 December, Sydney (available at: www.pm.gov.au).

² This chapter reflects Peter's personal views.

³ Australian Government 1997, "Australia's Strategic Policy", Canberra, December, pp. 14–15.

⁴ Australian Government 2003, *Advancing the National Interest: Australia's Foreign Affairs and Trade Policy White Paper*, Canberra, pp. 79–80.

⁵ Downer, A. 2004, media conference, Beijing, 17 August (transcript).

⁶ Howard, J. 2004b, "Australia's Engagement with Asia: A New Paradigm" (transcript), address to the Asialink-ANU National Forum, 13 August.

⁷ Downer, A. 2004.

⁸ The relevant ANZUS Treaty articles read as follows: Article IV "Each Party recognises that an armed attack in the Pacific Area on any of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes. . . . Article V: For the purpose of Article IV, an armed attack on any of the Parties is deemed to include an armed attack on the metropolitan territory of any of the Parties, or on the island territories under its jurisdiction in the Pacific or on its armed forces, public vessels or aircraft in the Pacific."

⁹ Howard, J. 2004b.

¹⁰ President Hu Jintao 2003, Address to the parliament, *Hansard*. 24 October, pp. 21,695–701.

¹¹ Downer, A. 2004.

A PERSPECTIVE ON

intellectual property

protection

in China

IAN HEATH

9

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He was previously, First Assistant Secretary, IT Group, Department of Health and Family Services. His responsibilities included the management of technology services for the department and participation in the planning and development of national health information management and national health IT. Prior to this he was the manager of the Victorian State Office of the Department of Health and Family Services. He has also worked at senior levels in the fields of immigration and indigenous affairs. His academic qualifications are in history, law and education.

Introduction

China is becoming a major economy and its entry into the World Trade Organization (WTO) in 2001 has enabled greater market access for foreign companies. It has also provided a more predictable commercial environment. But exploiting commercial opportunities in China is not without its pitfalls. This includes the area of intellectual property protection. Even though China as a member of the WTO has in place an intellectual property protection regime that complies with international standards, counterfeiting and infringement of intellectual property rights is a major issue. Consequently, an understanding and consideration of its intellectual property protection system is important when planning to take advantage of commercial and business opportunities in China.

The importance of intellectual property protection

Intellectual property is simply the intellectual input that goes into the products and services that a firm or company provides. And intellectual property protection systems such as copyright, patents, trademarks and so on provide mechanisms to guard against others making use of this property. Consequently, with these systems available, companies are able to make the necessary investments into technical developments without others riding freely on their efforts. And for governments, having intellectual property protection systems available enables them to encourage innovation and investment in their country. Without these systems, economic development may be confined to more basic sectors where competition is based primarily on the cost of labour rather than the more sophisticated industries where the margins are higher.

In recent years, the importance of intellectual property has risen significantly because of the changing nature of trade. Trade has shifted from primary products to trade with a greater emphasis on manufactured goods involving

Trade has shifted from primary products to trade with a greater emphasis on manufactured goods involving higher levels of technology and services.

higher levels of technology and services. The world has moved into an era where it is the products of the mind, or intellectual property, rather than unprocessed resource-based products, that are the driving forces creating wealth for countries. Moreover, even traditional industries like mining and agriculture are now becoming more dependent on advanced technology if they are to be competitive.

This illustrates why in most cases, resource-based economies are no longer the leading economies in terms of growth or living standards. To be a leading economy in this century will mean that countries will have to focus on and shift to trading their intellectual property and products with a high intellectual content. For example, Mr Tom Gorman, president of Ford Australia, recently said that there will be opportunities to export to China, but this will not be in the traditional sense of cars and trucks, but in the export of intellectual property.¹

In addition to this trend, we now have more of a global economy than ever before. Our market places are becoming less constrained by national borders. The impact of geographical separation is declining. It is now common for research to occur in one country, design in another and manufacture in yet another to supply markets throughout the world.

In this environment it is important that firms and companies have a good awareness of the intellectual property they own or have access to, and have appropriate strategies in place to protect these assets. Also, governments need to have in place robust protection systems that assist in encouraging innovation, investment and trade.

Intellectual property protection systems

There are many forms of protection available to protect intellectual property. These take the form of registered rights or non-registered rights. Registered rights include patents, trademarks, designs and plant breeder's rights. Unregistered rights include copyright, trade secrets and know-how. Which form of protection should be used will very much depend on the situation and the type of intellectual property. For example, keeping an innovation secret as a trade secret can be a very effective form of protection, but if the end product can easily be reverse-engineered, then having it protected with a patent would be more effective.

For the purposes of this chapter I will concentrate on the protection regimes of patents and trademarks.

Patents

Patents generally cover any device, substance, method or process that is new, inventive and useful. This covers a very broad field and over recent times has come to include, for some countries, gene technology, business systems and software. The protection is of limited duration of up to 20 years, depending on payment of annual maintenance fees. As it is a registered right, an application for protection has to be made with a patent office. There the invention will be examined to see if it is new, inventive and meets other statutory requirements for a patent. If it meets these requirements a patent will be granted. In exchange for obtaining an exclusive right, the applicant has to disclose the invention and this disclosure is published. This is an important feature of the patent system as the public is provided with information about the advances in technologies.

The terminology used around the world to describe a patent can be slightly different with, for example, Australia referring to it as a standard patent, China as an invention patent and the United States (US) as a utility patent.

In addition to granting patents for inventions, many countries provide a form of second-tier protection for lower level innovations. These forms of protection are usually called utility models or petty patents, and are generally characterised by being restricted to utilitarian-type devices, and having a shorter protection period than for a normal or standard patent. In Australia, we have available second-tier protection in the form of the innovation patent that replaced the petty patent in 2002. The innovation patent system has many of the

characteristics that utility model systems used in other countries, except that it is substantially less restrictive on what can be protected.

Trademarks

A trademark is a sign that can distinguish goods and services of one trader from those of another. In other words it enables consumers to identify the source of particular goods. A trademark can be a letter, number, word, phrase, sound, smell, shape, logo, picture, aspect of packaging or any combination of these. As it has to distinguish the goods and services between traders, a trademark cannot be descriptive of the goods or service – on the basis that if descriptive, then all traders should be allowed to use the word. To obtain rights for a trademark a good or service has to be registered. The term is unlimited, unlike for patents, provided payment of maintenance fees (usually every 10 years) are made. In addition to obtaining rights through registration, common law countries like Australia also allow for rights to a mark to be established through use of the mark in trade.

It should be pointed out that protection for intellectual property rights are restricted to each individual country. There is no such thing as a world patent. There are international mechanisms available that assist with seeking protection in multiple countries. For patents, this is through the Patent Cooperation Treaty (PCT) and for trademarks, the Madrid Protocol is available.

It should be pointed out that protection for intellectual property rights are restricted to each individual country. There is no such thing as a world patent.

(China is a signatory to both of these.) Primarily, these provide an easier way to file applications in a number of countries. But ultimately, a patent or a trademark will have to be granted or registered by each individual country in which protection is sought. So obtaining protection of intellectual property rights in Australia will have no effect on any other country, say, like the US – separate protection will need to be sought and granted in each of these other countries.

China in general

Before looking at the Chinese regime in some detail it is important to have some perspective on the country. China in relative terms is slightly larger in area than Australia, but has 65 times our population with about 1.3 billion people. Its economy is developing very rapidly with an average GDP growth rate of 8.1 per cent for the last five years. In 2003, China's external trade reached US\$851 billion; ranked fourth in the global economy, up from fifth in 2002. It has about 50 million (approximately 4 per cent of its population) regarded as middle class with approximately 150 million regarded as aspiring middle class. The rapid growth of the economy and the increases in personal incomes has attracted international business and investment into China, including many Australian companies.

Despite this, however, China is still very much a developing country. It has a large number of well-developed cities, particularly in the eastern parts of the country. However, this is not uniform across the country; there are large areas where people are living at subsistence levels. China has about 800 million people either unemployed or underemployed, which could be said to be a fertile environment for pirating and counterfeiting.

An important aspect of Chinese culture is *guanxi* (connections). It would appear that having good connections is a vital ingredient to being successful in business in China. However, in the area of enforcement of intellectual property, these *guanxi* can play a negative role – sometimes infringers may use their connections with local officials and administrators to avoid prosecutions or fines.

Intellectual property in China.

The development of the intellectual property protection regime in China has been quite rapid. China has been transformed from a regime with little concept of private property to a regime that now adheres to international principles and standards. It became a member of the PCT in 1994,² the Madrid Protocol in 1995 and the WTO in 2001.

From this historical perspective and mentality, the extent of change in intellectual property (IP) protection law is almost paradoxical. Although laws have been promulgated to be compliant with international standards, there is the issue of changing the attitude and views of a society that has been subjected to a different view on intellectual property. "The traditional Chinese concept of intellectual creation and protection differs significantly from what modern intellectual property protection provides. Knowledge, according to Confucian thoughts, cannot be owned or controlled. It cannot be used as a tool for profits."³ In Imperial China, laws were enacted to protect the purity of knowledge rather than being concerned with the rights of authors. Even during the time of the Cultural Revolution the philosophy was

espoused that if steel workers could not put their name on their product, then members of the intelligentsia should not have the privilege of having their name on their intellectual product. Added to this is just the sheer size of China's population. Changing these cultural attitudes in a population of that size makes for a very great challenge indeed.

So while there is much published criticism of Chinese intellectual property protection, it needs to be remembered that the regime has only been in place for a relatively short period of time. The systems in most Western countries have matured over centuries. So to some extent it would be harsh and unrealistic to expect China's intellectual property protection regime to be the same as that in developed countries like Australia.

IP administration in China

China has a much more devolved and compartmentalised system of administration of intellectual property than other countries, with different agencies being responsible for specific areas. There is the State Intellectual Property Office (SIPO), which is responsible for examination and registration of applications for patents, and designs, while trademark registrations are handled by the Chinese Trademark Office (CTMO) under the State Administration for Industry and Commerce (SAIC). Copyright is administered by the National Copyright Administration. These agencies operate at the central government level. But there are many related agencies operating at the local level in the provinces.

At the local level, in each province and some large and medium-sized cities, there are similar government agencies in charge of intellectual property administration work, such as the local Administrative Authority for Patent Affairs (AAPA), local Administration for Industry

China has a much more devolved and compartmentalised system of administration of intellectual property than other countries, with different agencies being responsible for specific areas.

and Commerce (AIC), and local copyright offices. However, these agencies have very different functions from the central agencies. The AAPA's are not responsible for receiving and examining patent applications, but are responsible for the publicity of intellectual property laws and regulations, raising public awareness of intellectual

property protection, dissemination of patent information, and administrative enforcement of passing-off and counterfeiting actions relating to patents. Similarly, the local AICs are not responsible for trademark registration, but responsible for administrative enforcement of counterfeited trademark activities. For local copyright offices, they handle piracy and copyright infringement activities. These local agencies are under the control of the local governments, not the central agencies like SIPO or SAIC.

IP registration

With China being a member of the WTO and a signatory to the Trade-Related Aspects of Intellectual Property Rights Agreement, plus a number of specific intellectual

China will refuse granting a patent if an invention contains immoral or anti-public interest subject matter.

property agreements, its systems for registering and granting of intellectual property rights are very similar to most other countries.

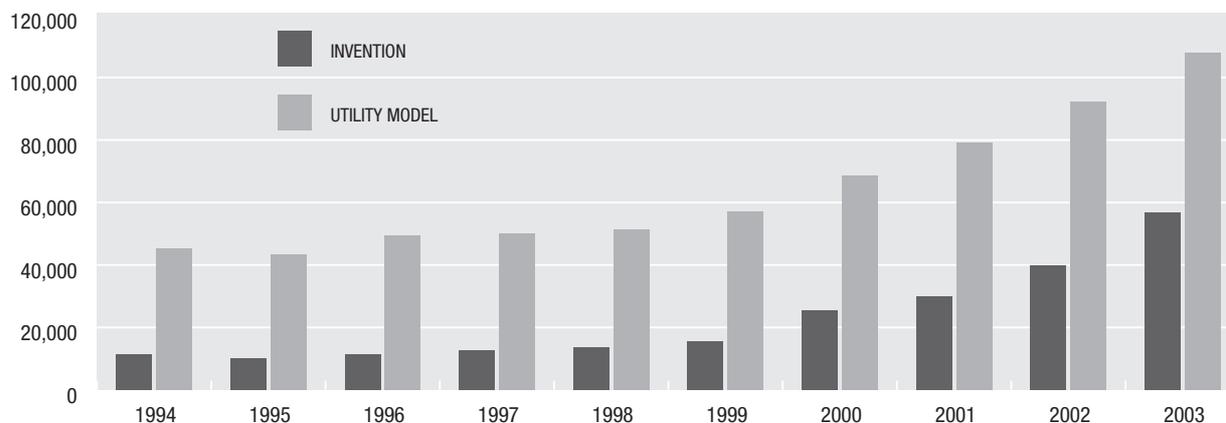
For invention patents, China has a "first to file"⁴ system (which means that patents are granted to those that file first), the same as almost all other countries including Australia. Like a number of countries it has a prescriptive list of subject matter that is not patentable. These are:

- scientific discoveries
- rules and methods for mental activities
- methods for the diagnosis or for the treatment of diseases
- animal and plant varieties
- substances obtained by means of nuclear transformation.

(This is different to the situation in Australia where we have a less prescriptive test, which is more flexible to deal with modern developments in technology.) In addition to these, China will refuse granting a patent if an invention contains immoral or anti-public interest subject matter.

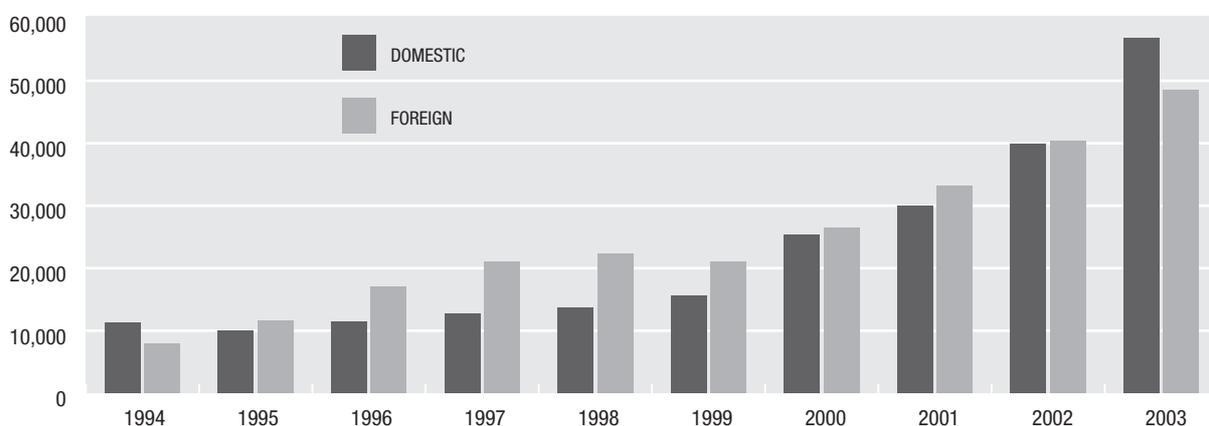
Similar to Australia, substantive examination of an application is not automatic, but must be requested within three years of the priority date. Many patent offices around the world at the moment are currently experiencing difficulty in handling the demand in workload. SIPO appears to be no different, and examinations of applications can take place about three to six years from the request. The examiner will issue up to two reports, which means there is limited opportunity, compared with the situation in Australia, to have the application in order. If the application is refused, there are mechanisms for review.

FIGURE 9.1
CHINESE DOMESTIC APPLICATIONS – INVENTIONS VS UTILITY MODELS



Source: SIPO

FIGURE 9.2
PATENT APPLICATIONS IN CHINA



Source: SIPO

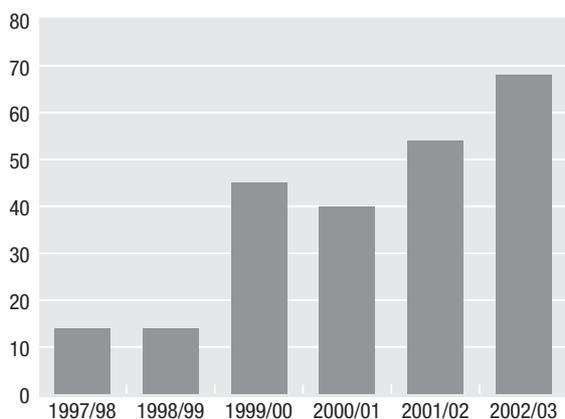
China also has a utility model protection system. This provides a cheaper and shorter protection for those inventions that do not meet the higher technical requirements for a standard patent. Like most utility model systems around the world, applications for utility model protection are granted without substantive examination.

For trademarks, to obtain exclusive rights to use one in China requires registration of the mark. There appears to be no equivalent of the common law rights that can be acquired through use of a mark. The exception is that an unregistered famous mark may block registration of similar marks if it can be proved the mark is well known in China. The examination process for trademarks is similar to that for invention patents, except that there is no requirement to request examination.

One issue that is causing some criticism of the CTMO is its lack of transparency. One aspect of this is that the register is not open to the public, which means that it is not possible to check whether a would-be trademark has already been registered. The other is that the lack of published examination criteria opens the perception of a lack of consistency in decision-making. According to An Qinghu, Director General CTMO, examination criteria have been documented and should be released in the first half 2005.⁵

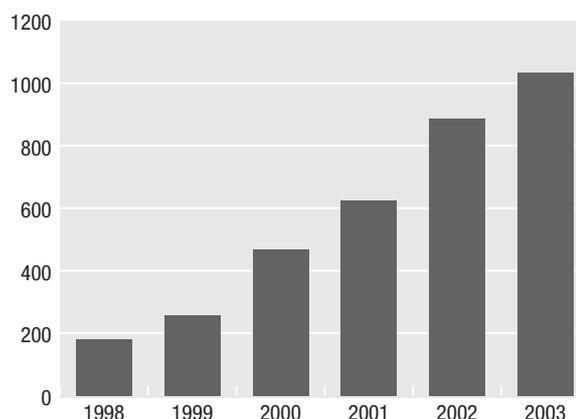
When applying for intellectual property rights in other countries, it is often prudent to employ local agents who understand the particular system of that country. For China this is no different, except that Chinese legislation stipulates that foreigners cannot deal directly with the office and must use state-approved agents – even for simple things such as paying fees. Some commentators

FIGURE 9.3
CHINESE PATENT FILINGS IN AUSTRALIA



Source: IP Australia

FIGURE 9.4
CHINESE PATENT FILINGS IN THE US



Source: USP TO

have suggested that this is a hang-up from the old communist regime that tried to keep foreigners separate. Feedback from some of our clients suggests that the standard of work of these agents is very high and comparable with those in other countries.

Understandably, applications have to be written and filed in Chinese. As a result, applications will have to be translated; however, using the mechanisms of the PCT or Madrid can delay the need for this. One issue with translations appears to be that, based on some feedback IP Australia has received, translations prepared by Taiwanese persons may not be accepted.

Chinese IP activity

In the patents field, Chinese nationals have predominantly been using the utility model protection system instead of the patent system. This is consistent with other developing societies that tend to be adaptors of technology rather than innovators.

If one looks back over the development of Japan, it was once seen very much as an adaptor, but it is now very much regarded as an innovator. And this is reflected in its filings of utility models and patents, with higher filings of the utility models early on and shifting over time to higher filings of patents. China appears to be following the same path. It is still a country that has a higher usage of utility models than standard patents, but there appears to be a trend emerging with growth in applications for invention patents being higher in recent years (see Figure 9.1).

A significant aspect to note here is that in most countries utility model applicants have traditionally only sought protection in their domestic market, while those seeking standard patent protection have sought to protect their invention not only in their domestic market, but

also in overseas countries as well. Given the trend in the growth of patent applications, there should be (as will be discussed later) a growing trend in Chinese applicants seeking to exploit their inventions in overseas markets.

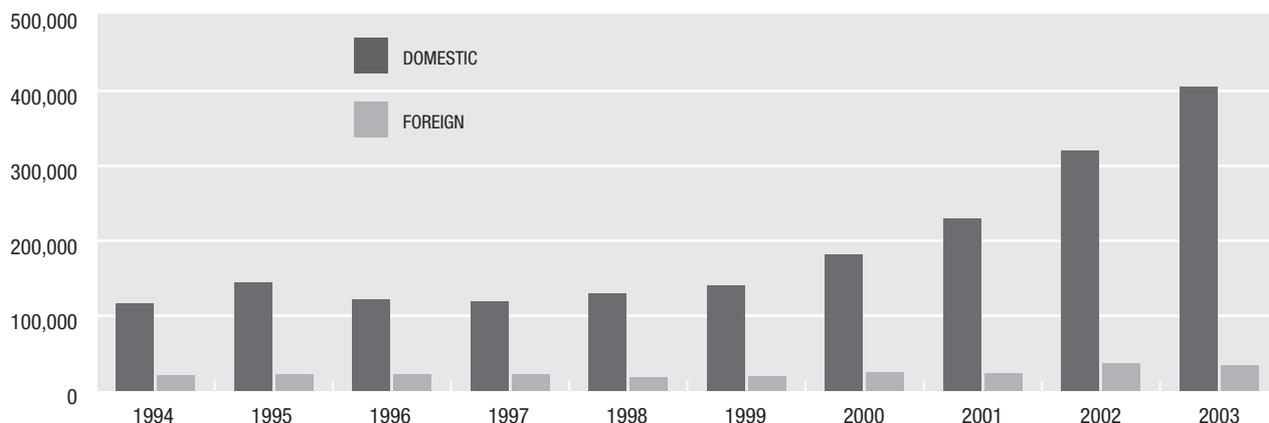
Over the past decade the number of applications for invention patents filed by foreign applicants has outnumbered those filed by domestic applicants. However, that pattern has now been reversed with the number of Chinese domestic applicants being higher than foreign

Over the past decade the number of applications for invention patents filed by foreign applicants has outnumbered those filed by domestic applicants.

applicants (see Figure 9.2). As will be discussed later in this chapter, this trend will have some impact on enforcement issues in China as these domestic applicants exert pressure in relation to these issues.

As seen before, the filings of domestic applications for patents have been fairly static until the past couple of years. This trend is to some extent reflected in terms of Chinese applicants seeking protection for patents in other countries with filings being quite low in Australia and similarly in the US. But this level of activity seems to be changing with growth on average of about 40 per cent per annum since 1999 in filings in the US (which coincides with the growth of domestic applications in China.) Similar levels of growth in Chinese applications is being seen in Australia (see Figures 9.3 and 9.4). Based

FIGURE 9.5
TRADEMARK APPLICATIONS IN CHINA



Source: SAIC

on the discussion of the growth in Chinese domestic filings, the increase in filings in overseas countries like Australia should continue.

In relation to trademarks, domestic filings have over the last decade out-numbered foreign filings (see Figure 9.5). But this is not unusual as in just about all countries domestic applicants outnumber foreign applicants.

But it is interesting to see that these domestic applicants appear to have been very much focused on the domestic market. The level of filings by Chinese applicants in both

In terms of filings in Australia, it is interesting to note that China was until recently ranked as about the twentieth most active country – it is now ranked eleventh. Similar shifts are being seen in the US.

Australia and the US has been very low (see Figures 9.6 and 9.7). But this is changing, with Chinese applicants showing a lot more interest in the Australian and US markets. In terms of filings in Australia, it is interesting to note that China was until recently ranked as about the twentieth most active country – it is now ranked eleventh. Similar shifts are being seen in the US.

Enforcement of intellectual property rights

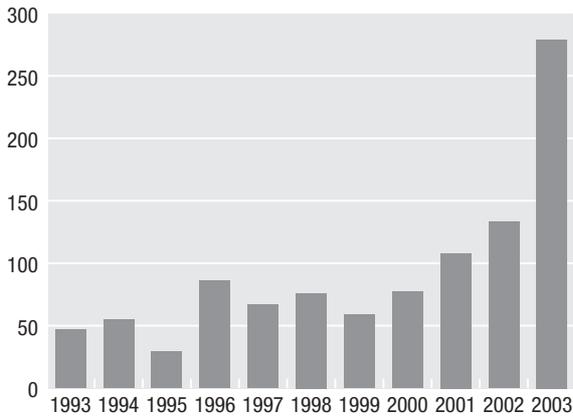
Enforcement of intellectual property rights and pirating in China is seen by many as the major issue. To some extent, expectations are a bit unreal, given the short history of intellectual property protection in China, as stated above. While there has been a lot of negativity in the media about pirating and enforcement, it must be remembered that these issues are not confined to China, or indeed Asia. Pirating does go on in many developed countries. There have been some well-publicised instances of CDs being pirated in this country.

However, this is not to dismiss the extent that pirating and infringement of intellectual property rights does go on in China. Counterfeiting is rife across most industrial sectors, particularly pharmaceuticals, chemicals, information technology, consumer goods and electrical equipment, and it is rising in the auto sector. The sale of counterfeit goods has been estimated as contributing between 15 and 20 per cent to China's gross national income, with further estimates that up to 30 per cent of all goods sold in China are "imitation products". The US Department of Commerce (DOC) estimates that losses to US, European and Japanese firms due to counterfeiting and piracy are in excess of US\$50 billion annually.

The extent of counterfeiting in China is due to the ingrained culture, the support given to infringers by local officials who genuinely want to support local industries, the lucrative gains to be made, the limited resources and training available to enforcement officials, and the lack of public education regarding the economic and social impact of counterfeiting and piracy. Attitudes are changing and many foreign companies are being successful in stopping pirating and infringement.

The attitude at the top levels of the Chinese government seems to be encouraging. Vice-Premier Wu Yi has been named as the head of the "National Leading Group

FIGURE 9.6
CHINES TRADEMARK APPLICATIONS IN AUSTRALIA

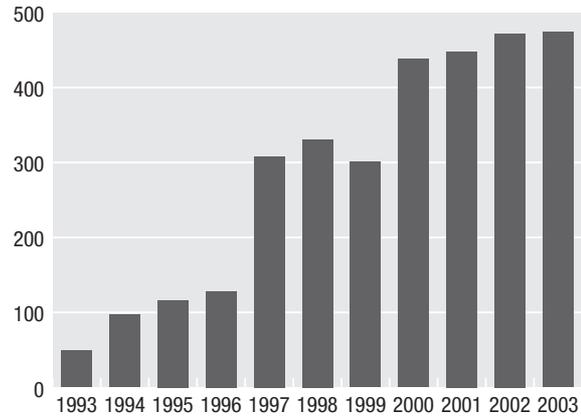


Source: IP Australia

for the Fight against Counterfeiting and Intellectual Property Infringement”, which aims to better coordinate policy and enforce protective measures. There appears to be an appreciation of the problems that IP right holders still face in China and a commitment to engage in further reforms to strengthen the systems to address these problems.⁶ So, China is making concerted efforts in generating awareness, establishing the necessary institutions, educating personnel and enforcing harsher remedies to combat these shortcomings because it realises stringent intellectual property rights protection is important to encourage foreign investment confidence in, and support of, China’s economic development.⁷ The Supreme People’s Court implemented in December 2004 new legal thresholds that now treat infringement of intellectual property rights as a major criminal offence rather than a minor one.⁸ Also, police departments have launched the “Eagle Programme”, a year-long crackdown on crimes relating to intellectual property, particularly those relating to public safety and violations of well-known brands.⁹

In relation to public education, it has to be realised that this will be a huge task for China to undertake. For example, in Australia we have had a well-developed intellectual property protection regime in place for over 100 years. Yet even though this is so, the general level of understanding within the broader community of intellectual property is quite low. IP Australia has introduced a number of different programs over the past ten years to address this issue. While these programs are having an impact, there is still some way to go. When one considers the size and profile of China’s population, and its cultural history, one can gauge the enormity of the task confronting the Chinese government. As Zhao Tianwu, Director of the Intellectual Property Centre of the Ministry of Information Industry, said recently, “For common Chinese people, IPR protection is a brand new topic

FIGURE 9.7:
CHINESE TRADEMARK APPLICATIONS IN THE US



Source: USPTO

since the opening up and reform drive began more than 20 years ago. Thus it may take more time for them to get full understanding of the issue.”¹⁰

But an event that will greatly impact on enforcement issues will be the Olympic Games in Beijing in 2008. If the Sydney Olympics can be a guide, the Beijing Olympics will very much raise the awareness of the public in China to the issues of intellectual property and pirating. Certainly, this will be a high-profile event that

If the Sydney Olympics can be a guide, the Beijing Olympics will very much raise the awareness of the public in China to the issues of intellectual property and pirating.

will be an international showcase for China. Given this profile, the central government will not want to see China’s reputation tarnished in any way. This will flow through to the general population as well.

Another aspect – which to some extent is linked to the Olympic games – that will have some impact is the point in time when local Chinese-owned enterprises will find their intellectual property rights infringed on. At the moment, proportionally these are few in number, but as we have seen previously the number of Chinese organisations seeking protection for their intellectual property is growing substantially.



Enforcement arrangements

China has a much more complex arrangement than Australia through which enforcement issues are dealt with. In Australia, actions relating to infringement and enforcement are largely dealt with through civil actions within the court system. The administrative areas, like IP Australia, do not have any direct role or involvement in enforcement of intellectual property rights. In China, intellectual property rights can be enforced through the administrative agencies or through the courts.

One key aspect of the enforcement system is that any action should take place before the agency or court that has authority for the area where the infringement occurred, or in the locality of the infringer. This could mean that an infringement action may possibly have to be taken in one of the provinces where experience in dealing with intellectual property issues is not high and/or local officials have some influence. Also, infringers may have very good connections (*guanxi*) with local officials who may have some sway on the outcome. However, “the place where the infringement took place” has a very broad meaning, so intellectual property owners may have some choice as to the locality of the agency or court they use.

Administrative actions

As discussed earlier, the local administrative agencies are responsible for enforcement of intellectual property rights. If the primary objective of the right holder is to stop an infringement, they provide an effective, reasonably cheap and relatively quick way to achieve this. The administrative agencies can impose fines on the infringer, but cannot make any determination regarding damages. However, they can mediate on the amount of damages if the parties request this. It is not always necessary for these administrative agencies to wait for someone to put forward a complaint. An agency can start an investigation of its own volition if it considers that infringement could possibly be occurring.

The inability to impose damages is one criticism of this administrative option, as often the fines imposed do not match the losses incurred. Also, while it may stop a particular infringement, it does not always discourage the infringer from re-entering a highly profitable business again.

A common criticism from foreign companies concerns the influence that local governments may have on decisions. As the local administrative authorities are organised under the authority of local governments, enforcement issues may sometimes be affected by local protectionism. Decisions may not always be made on the merits of a case if there could be an impact on the local economy. However, decisions of the administrative agencies are appealable to the courts. Another aspect, as mentioned before, is that specific agencies deal with specific areas of intellectual property. This makes it complex to find the

right agency to deal with any infringements. This division of responsibility does open the Chinese system up to criticisms of consistency between the various agencies and the decisions they make.

Yet while there have been foreign criticisms of this process, Chinese officials have also complained that sometimes foreign companies have not always been helpful in assisting these agencies carrying out their investigations. They believe that in a number of cases, if they'd had more assistance from overseas companies, there would have been more cases resolved.¹¹

Civil actions

The alternate path that can be taken is to file a civil lawsuit through the court system. The remedies that are available include injunctions, elimination of infringement, a public apology and compensation for damages. While this process is much more effective in compensating for damages, it is not without its critics. Most of this is focused around the inconsistency across the various courts. However, China is making efforts to address these through the education of judges and publication of decisions. But it needs to be kept in mind that there is not a clearly defined separation of the judiciary from other arms of government as there is in Australia. Most of the courts are under the control of provincial governments and the judges are often equivalent to government officials and this leaves them open to perceptions of tending to protect local interests.

The granting of injunctions by the courts in relation to intellectual property matter is relatively new in China. Because of this, it appears that the judges do not have a great deal of experience in deciding these and so injunctions are difficult to get. The perception among judges seems to be that injunctions are very powerful tools and so they appear to be reluctant to impose these as they have the very real possibility of closing down an operation of a company.¹²

Criminal actions

In addition to the administrative or court paths, criminal action can be taken. This can be instigated by requesting police to investigate. It may also come about as a result of the investigation by an administrative agency, which may decide that a crime has been committed and refer the matter on to the police. Whether the police investigate can be another matter. But that is really no different to the situation in many other countries where police regard other criminal matters of a higher priority. But in the past five years the number of criminal cases has increased tenfold. This statistic, along with initiatives like the “Eagle Programme”, seems to suggest that the police agencies are being more committed to undertaking investigations.

The Criminal Law of the China stipulates seven kinds of intellectual property right infringement crimes. These are:

- passing off on another's registered trademark
- selling products bearing a counterfeit trademark
- illegally producing and/or selling produced representations of a registered trademark
- counterfeiting a patent
- copyright infringements
- selling infringing reproductions
- infringing on business secrets.

The criminal sanctions for these is a fine and/or imprisonment of up to three years for serious cases and up to seven years, but not less than three years, of imprisonment for exceptionally serious cases. However, what is regarded as serious and exceptionally serious is not defined in the legislation. But as mentioned earlier, new legal thresholds have been implemented that set out the sales volumes which determine if an infringement is exceptionally serious. The lowering of the threshold should see harsher sentences being issued in criminal cases. For China, the problem is the number of people who could potentially be sent to prison if the laws are strictly enforced and how its system could cope with this. Furthermore, according to Professor Zheng Chengsi, Director of the Intellectual Property Centre, China Academy of Social Sciences, some people are not afraid of going to prison – they perhaps have *guanxi* (connections) and can get released within a short space of time.¹³

One can get the feeling from what has been said above, that enforcement of intellectual property rights in China is not all that effective. But that would be giving the wrong impression. China has dealt with a large number of cases in which rights have been recognised, infringements stopped, fines or imprisonment imposed, and damages compensated for. And a large number of cases has involved foreign intellectual property right owners. Recent statistics show that Chinese enterprises have paid over RMB10 billion (AU\$1.5 billion) in compensation for patent infringements and patent licensing fees. But the system in China is not perfect, or indeed is it anywhere else (for example, Australia's protection system is not without its critics). So, operating in China should be no different to operating in any other country. It is prudent to have an understanding of the regulatory and enforcement systems – and their imperfections – of that particular country, and to employ other measures that support and complement the strategies for protecting the intellectual property rights.

Conclusion

China has in place an intellectual property legislative framework that is compatible with international standards. This has developed over a very short period of time when compared with Western countries, which have had longstanding intellectual property regimes. Because of this short development time, there are some shortcomings in the Chinese system, especially in its practical application. China is making concerted efforts to address the criticisms through raising public awareness, establishing the necessary institutions, educating personnel and enforcing harsher penalties. Two additional factors that should have a positive impact in relation to enforcement will be Olympic Games in Beijing in 2008 and the increasing number of Chinese nationals obtaining intellectual property rights, particularly those seeking to export their inventions into other countries. These will take some time to have an impact and so in the interim, Australian companies exporting products and services to China need to be aware of the enforcement arrangements in place and take additional precautionary measures to protect their intellectual property.

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