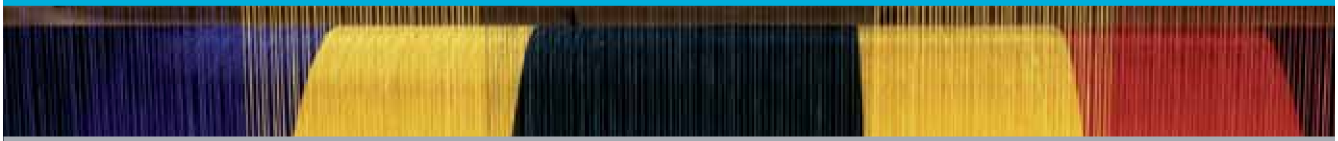

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india’s economic prospects

and implications for australia’s commodity exports

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» *India’s strong economic growth in recent years — averaging more than 8 per cent a year since the early 2000s — places it among the world’s fastest growing economies. The main drivers of this growth have been economic reforms and opening up to the global economy.*

» *Key economic reforms have covered trade, investment, industrial policy and foreign exchange. However, further reforms, especially in the areas of infrastructure provision, business operating environment and public finances, are still required for India to sustain high economic growth into the future.*

» *Continued strong economic growth in India will have important implications for Australia’s commodity exports. There is great potential for Australia to increase exports of commodities such as wheat, wool, livestock products, fruit and vegetables, coal and LNG to India. This potential would be enhanced if India’s government continues to reform its economic policies, including those relating to protected domestic and trade sectors.*

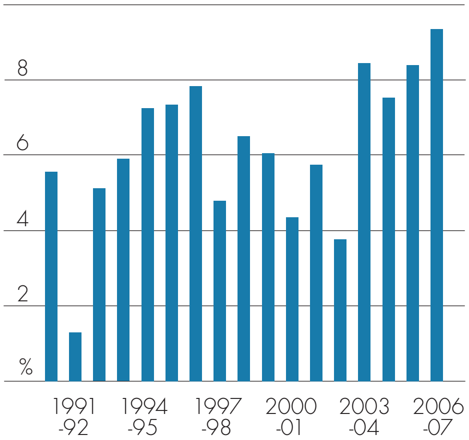
Economic reforms initiated in the early 1990s have put India’s economy on a higher growth path. Opening up the economy to foreign trade and investment has led to a substantial increase in output, rise in capital inflows, expansion of exports and a competitive corporate sector. Together with strong economic growth in China, India’s economic performance has become a major driver of growth in the global economy.

The importance of India as a destination for Australia’s commodity exports has increased. While income growth and industrialisation are expected to remain strong in India, the opportunities for Australia to expand its commodity exports significantly to this market depend, to a large extent, on India’s ability to address a number of key challenges relating to international trade, investment, industrial policy and foreign exchange.

India’s economic performance

India has emerged as one of the world’s fastest growing economies in recent years. Since the early 2000s, economic growth, measured by gross domestic product (GDP), has increased to an annual average of more than 8 per cent, compared with average growth of around 6 per cent in the 1990s (figure A; ADB 2007). This strengthening in economic performance mainly reflects a period of economic reforms after decades of isolationist

fig A **annual economic growth** India
april–march years



economic policies, and an increased openness of the economy to global markets (see box 1). In 2006, India accounted for around 7 per cent of total world output on a purchasing power parity basis. This compares with a share of around 4 per cent in 1990.

main contributors to growth – services and industrial sectors

Economic growth in India has been driven mainly by the services sector, particularly the development of software, information technology and other business services. Since the early 2000s, the services sector has grown, on average, by close to 10 per cent a year, compared with an average of around 7 per cent a year in the 1990s. In 2006-07, India's services

box 1 progress of economic reforms in India

In the early 1990s, significant reforms were undertaken in the Indian economy, driven largely by fiscal and balance of payments difficulties. Major reform areas included industrial policy, international trade, foreign investment, foreign exchange, taxation and the financial sector.

In the area of industrial policy, the system under which government approval was required for any investment in all but a few selected industries was changed to one where approval was required for only a small number of industries, such as alcohol, tobacco and defence related industries. All industries have now been opened to private sector participation, except for defence and industries with a national interest, such as railways, mining, petroleum refining and atomic energy.

Major reforms to international trade and foreign exchange policies included floating the exchange rate, tariff reductions and the abolition of import controls and licensing (prior to the reforms, India maintained quantitative import restrictions and licensing of capital goods, intermediate goods and consumer products). Although applied tariffs fell from an average of around 35 per cent in 1997-98 to around 16 per cent in 2006-07, India's tariffs remain relatively high by international standards. There is also a significant difference between the average tariffs for nonagricultural products (12 per cent) and agricultural products (almost 41 per cent) (WTO 2002, 2007). The Indian Government has expressed its intention to lower tariffs to the ASEAN average (currently around 9 per cent) by 2010.

The rules governing foreign direct investment have been eased, with the creation of an automatic clearance system for foreign direct investment and increases in caps on foreign ownership across a range of industries. Although foreign ownership of up to 100 per cent is permitted in many sectors (table 1), the overall regulatory environment – including regulatory restrictions, price distortions, deficiencies in legal practice, problems in getting access to finance and infrastructure bottlenecks – is the main reason why levels of investment in many industries have been relatively low compared with other countries.

In the area of taxation, key reforms entailed significant reduction of marginal tax rates for individuals and companies, simplification of indirect taxes such as excises, and broadening of the tax base through the introduction of a service tax. Reforms in the financial sector resulted in improvements in the balance sheets of commercial banks, lower entry barriers and the introduction of new supervisory bodies.

1 restrictions on foreign direct investment, by sector

	permitted equity held by a foreign company %
agriculture	0
coal mining – own use	100
coal mining – other	0
manufacturing	100
newspaper publication	26
electricity generation	100
airports **a**	100
distribution of petroleum products	100
pipelines	100
roads, highways, ports	100
civil aviation **b**	49
telecommunication services	74
banking	74
insurance	26
retail distribution	0
retail distribution (single brand)	51

a FDI of more than 74 per cent in existing airports requires government approval. **b** Provided there is no direct or indirect participation by foreign airlines.
Source: OECD (2007).

sector accounted for around 55 per cent of gross domestic product – compared with 44 per cent in 1990-91 (figure B; ADB 2007; IMF 2007).

Following relatively weak growth in the 1990s, the industrial sector has joined services as a major driver of India's economic growth, underpinned by solid performance in manufacturing. Growth in the industrial sector has averaged around 9.4 per cent a year since the early 2000s, with manufacturing achieving growth in excess of 12 per cent in 2006-07.

In contrast, growth in agriculture has been relatively subdued, averaging only around 3 per cent a year between 1990-91 and 2006-07. Agricultural production in India has varied significantly from year to year, mainly reflecting varying seasonal conditions (figure C; ADB 2007). The share of agriculture in India's GDP declined from 29 per cent in 1990-91 to 17 per cent in 2006-07.

increased openness promotes international trade

Recent strong economic performance in India has been accompanied by a higher degree of openness of its economy. The combined share of imports and exports in gross domestic product has more than doubled since the early 1990s, reaching around 35 per cent in 2006-07.

Exports have been growing at an average rate of 28 per cent a year since the early 2000s – compared with an average of 8 per cent in the 1990s (figure D; RBI 2007a). India's export markets have become more diverse (figure E; GoI 2007). Over the past decade, Asia has increased its position as the main destination for Indian exports, accounting for nearly half of its total merchandise exports. The European Union currently is the destination for about 21 per cent of Indian exports, down from 26 per cent a decade ago. The share of the United States has fallen from around 21 per cent to 16 per cent over the same period.

In contrast, exports to the Middle East, Africa and Latin America have increased. Diversity of trading partners has helped India to sustain a rapid pace of export growth even as demand in some key individual markets has weakened in recent years.

Despite a significant strengthening in export performance, India's share of global merchandise

fig B **sector shares in India's economy**
% of GDP at current factor cost

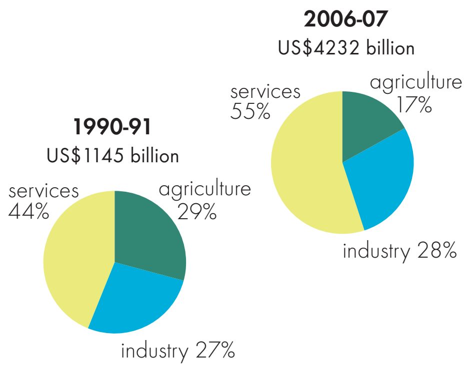


fig C **growth in sector outputs**
India

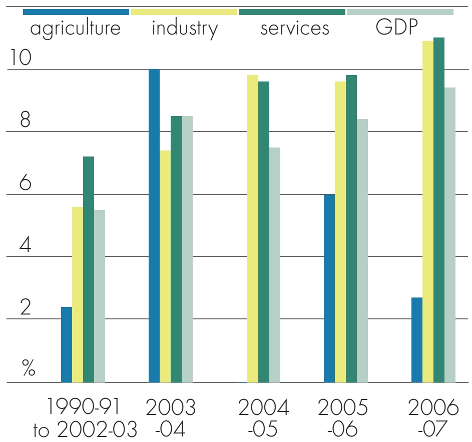


fig D **exports of goods and services**
India

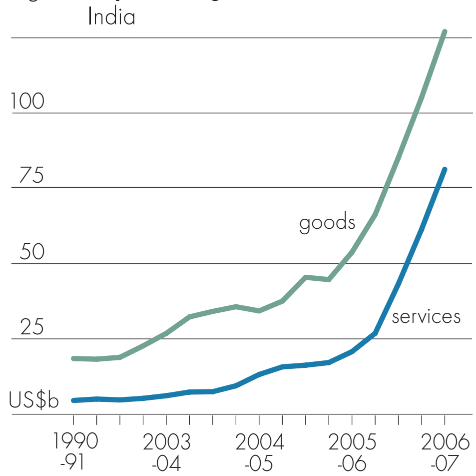
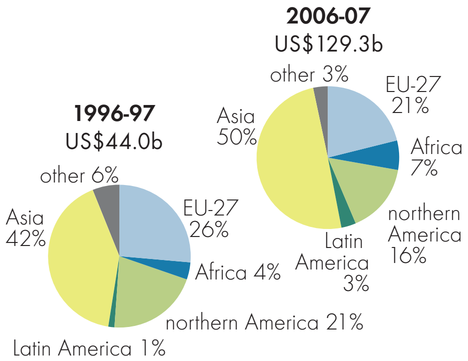


fig E **India's export markets**
in 2007 US dollars



exports remains relatively small (at around 0.9 per cent in 2005). Although India has a larger share of global services exports (2.3 per cent in 2005), the country's share in total global exports of goods and services is only around 1.2 per cent. This is markedly lower than the 6.6 per cent for China in 2005 (WTO 2006).

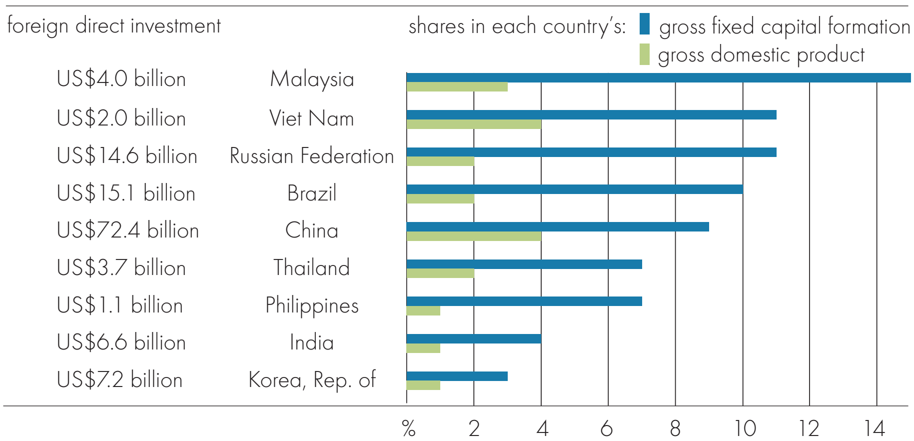
Reflecting stronger economic growth, import growth in India has also increased markedly in recent years, averaging around 36 per cent a year in the three years ended 2006-07. India's main imports are gold, petroleum and some capital goods, such as electronics and nonelectrical machinery. However, strong import growth has resulted in an increase in India's trade imbalance, with a deficit of US$64.9 billion, or around 7 per cent of GDP, in 2006-07. Despite the increase in the trade imbalance, the current account deficit remains relatively low, reflecting significant income transfers from overseas. In 2006-07, the current account deficit was US$9.6 billion, equivalent to around 1.1 per cent of India's gross domestic product.

foreign investment has increased but remains low

Foreign investment in India has been increasing, driven mainly by rising portfolio investments and external commercial borrowings. Although foreign direct investment (FDI) has risen in recent years, it remains low compared with that in other emerging market economies (figure F; UNCTAD 2006). In 2005, for example, India received FDI inflows of around 1 per cent of GDP, compared with around 4 per cent of GDP for China. In absolute terms, FDI in China was around 11 times higher than India in 2005. There is potential for a significant increase in FDI inflows to India if the Indian Government continues to reform and deregulate the economy. It will be essential for India to attract a substantially higher level of foreign investment in order to sustain high economic growth.

Continued foreign direct and portfolio investment inflows have led to a sustained rise in India's foreign exchange reserves, from around US$6 billion in 1990-91 to around

fig F **foreign direct investment in selected countries, 2005**



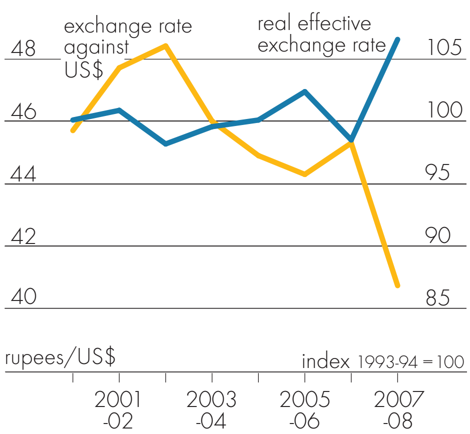
US$200 billion at the end of March 2007, equivalent to around twelve months of imports of goods and services.

inflationary pressures have emerged

India's rapid economic expansion has been assisted by the availability of spare capacity in the economy. However, excess capacity is being gradually absorbed as strong economic growth continues, and inflationary pressures have begun to emerge. In response to increased demand growth and inflationary pressures, the Reserve Bank of India (RBI) has been tightening monetary policy in the past two years. Prime lending rates were 12.75 per cent in mid-2007, compared with 10.25 per cent in 2005. India's monetary policy aims to achieve an inflation rate of close to 5 per cent in 2007-08 and around 4.0–4.5 per cent a year over the medium term.

The value of the Indian rupee fluctuated between 44 and 48 rupees against the US dollar in the first half of the 2000s, before appreciating to an average of 41 rupees against the US dollar in the first seven months of 2007-08. After declining by nearly 4 per cent in 2006-07, the real effective exchange rate (on a trade weighted basis) has also appreciated by around 8 per cent since the beginning of 2007-08 (figure G; RBI 2007b).

fig G **movements in India's exchange rates**



Note: 2007-08 data is April-October for the exchange rate and April-July for the real effective exchange rate.

increasing labour force to support economic growth

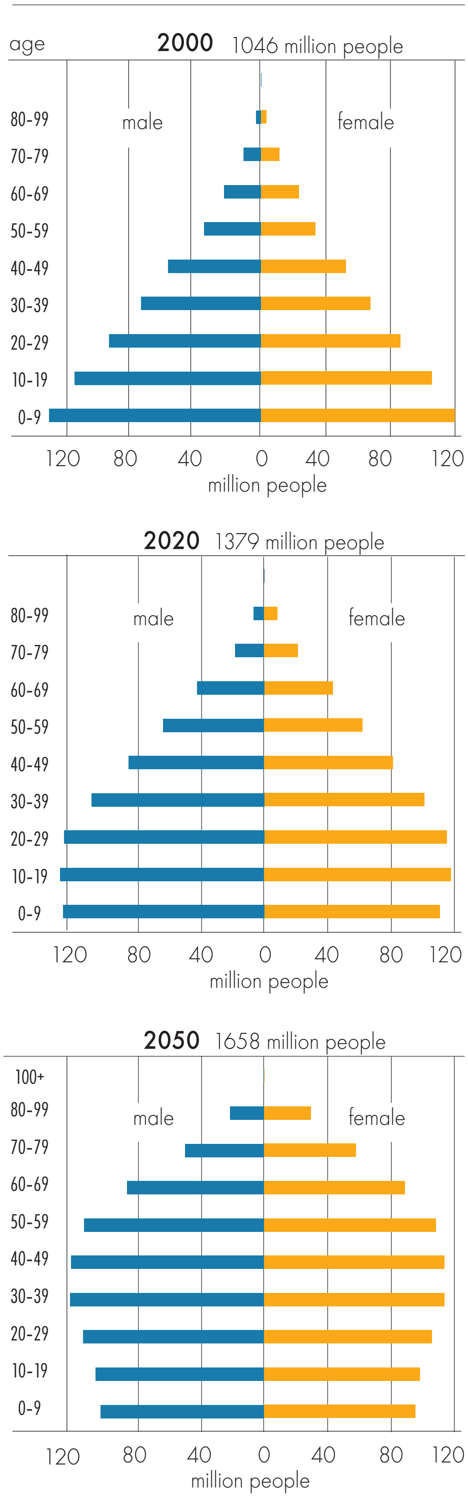
Looking ahead, the strong economic performance in India is expected to continue, supported by a rapidly increasing labour force. While India is the world's second most populous country, it is also one of the few countries for which the share of the labour force in total population is projected to grow over the longer term. Based on the United Nations projections, the working age population (aged 15–64 years) in India will increase from 632 million in 2000 to around 918 million by 2020 and to 1.1 billion by 2050. As a share of total population, the labour force is projected to increase from a current share of around 60 per cent to around 67 per cent by 2020 and 2050 (figure H; UN 2007). India's increasing labour force underlines the potential for an extended period of rapid economic growth.

challenges for sustaining rapid economic growth

Although India's economy has performed strongly in recent years, significant challenges remain for sustaining rapid economic growth, especially over the medium to longer term.

infrastructure – a major constraint on economic growth

The limited availability of modern infrastructure is a major constraint on future economic prospects. The demand for infrastructure has increased rapidly across a range of sectors, driven mainly by rapid economic growth. On the supply side, although private sector capital formation has been growing strongly in recent years, capital investment in the fig H **population distribution in India**



public sector has increased at a much slower pace. By world standards, public infrastructure access is relatively low in India.

Inadequate infrastructure, particularly in the transport and electricity sectors, has been a factor contributing to the weaker growth in manufacturing compared with the services sector. For example, the stability of the power network and the reliability of electricity supply are significantly weaker than in other emerging market economies, with frequent interruptions (both planned and unplanned) and high voltage fluctuations. On average, there are around seventeen major power outages a month in India's manufacturing sector. This compares with less than five in China (World Bank 2004).

insufficient power supply adversely affects production

Insufficient power supply is having an important impact on the productive capacity of India's economy. As a result of power failures and outages, it is estimated that around 9 per cent of the total value of manufacturing production has been lost annually. As an output share, this is significantly higher than the estimated 2 per cent in China (World Bank 2004).

In an attempt to overcome this shortfall, around 60 per cent of Indian manufacturing firms have their own power generators, compared with an estimated 27 per cent in China. This clearly has an adverse impact on production costs of manufacturing in India. The power shortage is even more severe in rural areas, with around 66 per cent of rural households having no access to electricity.

The underperformance of the electricity sector is largely a consequence of an inefficient transmission and distribution network and high levels of theft. As a result of sustained underinvestment, the power network is overloaded and suffers from large losses of electricity (estimated to be around 32–35 per cent by the IEA 2007).

Cross subsidisation is another major issue in the electricity sector. While household consumers are supplied with electricity below cost or, in some cases, without a meter, industrial users are charged with tariffs that are significantly above the cost of supply, and about ten times greater than the tariffs for agricultural users. The price of electricity for Indian households is among the lowest in the world, whereas that for industrial users is among the highest (OECD 2007).

weakness in the transport sector

While infrastructure facilities in India, such as ports, railways, airports and roads, are seriously overstretched, they also appear to be less productive than in many other countries. For example, Delhi and Mumbai international airports typically handle 25–28 flights per runway an hour. This compares with around 40 in a number of OECD countries and the Beijing international airport.

India’s rail network is also much less efficient than China’s. Additions and improvements in the Indian rail network have been significantly less relative to China in recent years (OECD 2007).

The Indian Government is taking measures to address infrastructure constraints in order to improve productivity. Private sector participation in infrastructure provision has increasingly been the focus of government policy. The government has established a Viability Gap Fund and the India Infrastructure Finance Company to provide grants and funding, respectively, for the private sector in infrastructure projects. It is also aiming to improve the regulatory framework and overall investment climate in the country.

Despite the initiatives taken by the Indian Government, insufficient infrastructure provision is expected to remain a major issue for economic development over the short to longer term. Unless substantial inroads in infrastructure support can be achieved, bottlenecks and production constraints will become major impediments to economic growth.

fiscal deficits limit the scope of public services

India’s fiscal deficit and public sector debt are significant as a share of gross domestic product, constraining its ability to finance major projects to improve infrastructure, education and basic services, which are critical to raising the potential for economic growth and reducing poverty.

Over the past few years, there has been a gradual improvement in public sector finances. For example, as a share of gross domestic product, the public sector deficit has been reduced from 10 per cent in 2003 to around 7 per cent in 2006. The Fiscal Responsibility and Budget Management legislation adopted by the Indian Government in 2003 aims for a reduction of the public sector deficit to 6 per cent of GDP by 2008-09.

income inequality poses a risk to economic prospects

Despite relatively high economic growth in recent years, income inequality has widened across states. The higher income states (also the most economically reformist), including Punjab, Gujarat, Maharashtra, Haryana and Tamil Nadu, have achieved stronger income growth than the lower income states, such as Bihar, Uttar Pradesh, Orissa and Rajasthan. Increasing economic openness and a more favourable business operating environment have made the former states more attractive to domestic and foreign investors, with higher investment spending underpinning economic growth, employment and poverty reduction.

As the poorer states are relatively more populous, there is concern that an increasing proportion of the population will remain in poverty, despite continued strong economic growth. The rising income inequality could potentially lead to social unrest and difficulties for further economic reform of the Indian economy.

food supplies an issue for long term development

India needs to raise growth in food supplies in order to achieve food security and poverty alleviation, especially over the longer term. India has been targeting 4 per cent growth in agricultural production since 1996-97, but the actual growth over the past decade has fallen below this target, averaging only around 3 per cent a year.

Volatility of agricultural production continues to have a significant impact on the levels and stability of food supplies. Slower growth in agricultural production compared with growth in the rest of the economy has also led to an increase in the disparities between rural and urban incomes.

Achieving food security and self sufficiency has been a major focus of Indian agricultural policy. The major policy measures currently in place were largely introduced in the mid-1960s and include subsidies on fertiliser, irrigation water and power, minimum price support, public food distribution to supply low income families with certain staples at subsidised prices, and trade protection. Given the increased demand for resources to sustain strong economic growth in India, it is likely that maintaining the food self sufficiency policy is not the best option for long term economic development.

Australian exports to India

If successful in addressing its economic challenges, the Indian economy could sustain economic growth at rates similar to those achieved in recent years in the foreseeable future. Rapid growth in the Indian economy will provide increased opportunities for Australian primary producers and exporters. The main Australian exports to India have so far been minerals and energy commodities.

India is one of Australia's major trading partners, with merchandise trade (exports plus imports) amounting to nearly $11.5 billion in 2006-07. India is the fourth largest market for Australian merchandise exports, behind the United States, Japan and China, accounting for around 6 per cent of total Australian merchandise exports. In 2006-07, Australian merchandise exports to India grew by 37 per cent to $10.1 billion, following average annual growth of around 34 per cent in the previous five years. Merchandise imports from India increased by 6 per cent in 2006-07 to around $1.3 billion.

Australian exports of minerals and energy commodities to India were around $8.8 billion in 2006-07. Among primary products, gold has become the major export, overtaking coal in recent years (table 2). The value of Australian agricultural exports to India remains relatively low, at around $0.8 billion in 2006-07.

2 Australian merchandise trade with India, 2006-07

major exports to India	$m	major imports from India	$m
nonmonetary gold	4 728	pearls and gems	105
coal	2 490	jewellery	44
copper ores	1 043	floor coverings	38
wool	162	medicaments (incl. veterinary)	36
vegetables	150	tea and mate	29
other ores	115	food and live animals	27
machinery and transport equipment	103	crustaceans	26
chemicals and related materials	98	travel goods	23
nonferrous metals	94	pharmaceutical products	18
electrical machinery and appliances	59	textile yarn	17
total exports	10 104	total imports	1 314

Source: DFAT (2007).

agricultural exports

India is a major world producer of many agricultural products, including milk, pulses, sugar, rice, cotton, wheat, eggs, meat, fruit and vegetables. In recent years, Australian agricultural exports to India have been gradually increasing.

changing consumption patterns present opportunities

As seen elsewhere around the world, the sustained increase in disposable incomes and urbanisation has led to a diversification in consumption patterns in India away from traditional diets, mostly based on rice, coarse grains and pulses, toward more wheat based products, livestock products, fruit and vegetables. Currently, per person consumption of coarse grains and pulses is about a third to a half of their levels in the early 1960s. In contrast, consumption of fruit increased from 26 kilograms per person in the early 1960s to 38 kilograms in the early 2000s, while consumption of vegetables increased from 38 kilograms per person to 70 kilograms over the same period.

Similarly, there has been an increase in consumption of livestock products, in particular dairy products. Liquid milk is a major form of dairy product consumed in India, with milk consumption growing from 36 kilograms per person in the early 1960s to 53 kilograms in the early 2000s.

Rapid economic and population growth together with the expanding middle income class and increased urbanisation are likely to drive further changes in food consumption patterns in India, including a shift toward livestock products, such as cheese and other dairy products, higher value fresh fruit and vegetables, and processed food products.

Australian wheat exports are influenced by Indian production

Crop production, which dominates India's agricultural output, is heavily dependent on seasonal conditions. Also, an inefficient distribution system has led to an extremely high level of post harvest losses for grains, fruit and vegetables of around 25–30 per cent (OECD 2007). This makes Australian agricultural exports to India, such as wheat, vary considerably from year to year. In 2006-07, for example, Australia exported almost 1.6 million tonnes of wheat to India as a result of a significant decline in Indian production. This compares with 93 000 tonnes in 2005-06 and almost no exports to India in the previous five years. Wheat is becoming an important part of the Indian diet, gradually replacing coarse grains in the staples segment.

Although improvements in infrastructure, particularly in bulk commodity silos and grain transport links, would increase grain import and distribution capacity, more efficient internal grain transport also has the potential to reduce domestic waste and lead to a reduction in wheat import demand (DFAT 2001).

potential for wool and raw cotton demand

India is a major producer, processor and exporter of woollen products, although it does not have an apparel grade wool growing industry. Australia is an important supplier of wool to India. In 2006-07, India was the third largest destination for Australian wool, with an export value of $162 million. Further expansion of India's imports of wool would be possible if important reforms in labour markets, investment and infrastructure were undertaken. If successful, such reforms would allow India to attract more investment in the textile industry, enhance productivity, reduce delivery times and lead to higher volumes of textiles and clothing exports. Higher production of textiles and clothing will induce an increase in demand for wool.

Although the domestic production of cotton is sufficient for India's textile industry, high levels of contamination as a result of local farming and harvesting practices support the demand for imported cotton to produce high quality cotton fabrics and value added ready made garments. Thus, there is potential demand for raw cotton. However, similar to wheat, it depends on the level of domestic production. Australia's exports of raw cotton to India in recent years have been relatively low, averaging around 3600 tonnes a year over the past five years, compared with 60 500 tonnes in the early 2000s.

import regulations affect Australian livestock and horticultural exports

In addition to changing consumption patterns, the demand for fruit and vegetables, both in fresh and processed form, in India is supported by the growth of the organised retailing segment (supermarkets and shopping malls), in contrast to the kiosks and small shops through which many Indians traditionally purchase food.

Similarly, the market for high value dairy products, such as skimmed milk powder, whole milk powder, cheese, butter oil, whey powder and yoghurts, is also growing.

The efficiency of domestic production of dairy products and fruit and vegetables is low in India compared with other major producers. As mentioned earlier, a large proportion of fruit and vegetables is wasted or destroyed as a result of inefficient post harvest practices, and transport, refrigeration and processing infrastructure, while the average productivity of dairy animals in India is low (less than a fifth of that in Australia). There is also minimal processing after the farm gate, apart from some small scale operations (Rabo India Finance 2007).

However, tariffs and other import restrictions on food items, such as dairy products, meat products, fruit and vegetables, are maintained at a relatively high level. Partly reflecting these import restrictions, Australian exports of dairy products, such as cheese, to India have been low, averaging 157 tonnes a year between 2000 and 2004. In contrast, commodities in short supply, including pulses, edible oil and dried fruit, are comparatively easy to import as there are practically no import restrictions and tariffs are low (Austrade 2007).

prospects for agricultural exports depend on trade reforms

Apart from a few exceptions, Australia's exports of agricultural products to India have been dependent on the size of domestic production and stocks in India. Currently, India remains a relatively minor participant in world agricultural trade. And productivity in the Indian agricultural sector is relatively low by world standards.

The Indian Government's policy of food self sufficiency has caused a growing divergence between the generally higher output of crops such as rice and shortfalls in domestic production of other crop varieties that are increasingly in demand, such as wheat, oilseeds and pulses.

National production of food grains has expanded, with India now being among the major world rice exporters as well as being a small but somewhat intermittent wheat exporter (for example, India exported 5.4 million tonnes of wheat in 2003-04, compared with 0.1 million tonnes in 2006-07). However, it is not clear how much of this increased production has been based on the availability of subsidised inputs of fertiliser, power and water.

There are concerns that these input subsidies are increasingly becoming environmentally and financially unsustainable. The natural resource base is being affected, with ground water tables falling and soil salination increasing. Excessive use of fertilisers is also causing soil damage. India's food subsidy, which includes the costs of price support and food distribution, is estimated to have been around 232 billion rupees, or US$5.2 billion, in 2005-06. Expenditure on subsidies is also 'crowding out' much needed investment and maintenance of rural infrastructure, such as roads and irrigation infrastructure, and investment in agricultural research and development.

As mentioned earlier, the current state of Indian agriculture raises a question of whether the suite of policies introduced almost forty years ago requires significant reform. India's continued high economic growth and industrialisation are likely to place considerable pressure on its goal of food self sufficiency. If India's agricultural support policies were reformed, market access for imports would improve, as would the affordability and availability of food varieties for domestic consumers. Freer trade practices in India could also lead to more efficient allocation of domestic resources to sustain high economic growth.

exports of minerals and energy commodities

Economic developments in India could follow China's industrialisation path and result in increased demand for raw materials. Given continued strong economic growth, India needs to have secure access to raw materials in markets that have become increasingly competitive.

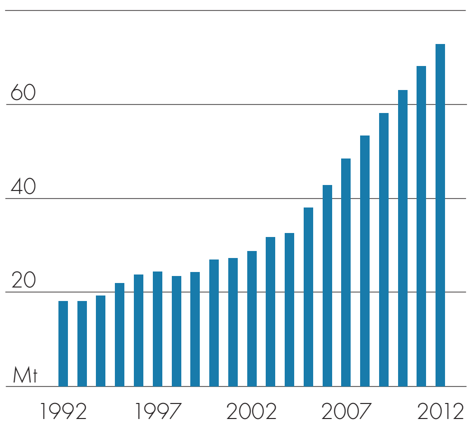
The drivers of demand for mineral resources are similar in both India and China as both countries have large populations, strong economic growth, relatively low rates of materials use per person compared with developed countries, and increasing integration into the world economy. Opportunities exist for Australia to expand metallurgical coal and gold exports, while growth in other areas could depend on the pace of infrastructure investment and mining industry reforms, and improvements in governance.

steel consumption growth to support demand for raw materials

Strong growth in steel production is underpinning increases in India's consumption of metallurgical coal and iron ore. India's steel production capacity rose from 23 million tonnes in 1990 to around 45 million tonnes in 2005, with capacity utilisation rising from 65 per cent to 85 per cent over the same period. India's iron and steel sector is expected to grow strongly in the short to medium term. ABARE projects that Indian steel production will increase at an average rate of 9 per cent a year to nearly 73 million tonnes by 2012 (figure I).

Steel consumption in India is linked primarily to manufacturing, housing and infrastructure investment. It has increased by more than 90 per cent since 1990, at an average growth rate of 4 per cent a year, second only to China. However, at around 38 kilograms in 2005, per person crude steel consumption in India remains low by world standards. For example, steel consumption in China was 270 kilograms per person in 2005 and higher in some other Asian nations, including Japan (644 kilograms), Republic of Korea (959 kilograms) and Chinese Taipei (1129 kilograms). India has the potential to increase per person steel consumption as the processes of industrialisation and urbanisation continue.

fig I **steel production**
India



domestic iron ore consumption to rise

India has significant reserves of high quality iron ore and is currently the third largest supplier of iron ore to China after Australia and Brazil. However, high transport costs stemming from a lack of infrastructure have adversely affected India's competitiveness, with mining costs also being relatively high.

Large production increases from the world's major iron ore producers are expected to enable China to source more of its requirements from Australia and Brazil rather than from higher cost Indian producers. Also, substantial investment in new steel making capacity, driven by large infrastructure investment and the growing industrial sector, are expected to induce higher domestic consumption of iron ore in India.

increasing requirement for metallurgical coal to be met by imports

Currently, just under half of India's metallurgical coal requirements are met through imports. The Indian Government is aiming to limit the steel industry's reliance on imported metallurgical coal by allocating domestic coal mines to individual steel plants to ensure supply security, and a mechanism has been established to share excess coal between steel plants.

Despite these policies, imports are expected to supply the majority of increased requirements for metallurgical coal. This is because many Indian coal reserves remain underdeveloped, and more than 97 per cent of coal reserves are of lower grade coal, implying an increased reliance on imports for higher grade metallurgical coal.

Australia, as a major metallurgical coal exporter is well placed to meet India's requirements for metallurgical coal imports. Australia is already the major supplier of metallurgical coal to India with an export value of $2.4 billion in 2006-07, accounting for around 95 per cent of India's metallurgical coal imports in 2006. Australia, because of its geographic proximity, has a substantial freight advantage in supplying metallurgical coal to India over other main competitors – the United States and Canada.

opportunities for increased thermal coal exports

Opportunities also exist for Australia to meet the increasing demand for thermal coal in the Indian electricity sector. Coal accounts for more than half of India's commercial energy consumption and almost 70 per cent of electricity generation. The 'Power for All' government program that is due for completion by 2012 aims to increase national electricity generation capacity by around 6 per cent a year, for a total capacity addition of 47 gigawatts. This compares with actual capacity expansion of just over 3 per cent a year in the five years ended 2006. The expansion of power generation capacity implies that there will be increased coal demand from the electricity sector that is unlikely to be met by domestic production alone.

import demand for LNG is expected to rise

Like other major world economies, India pursues fuel diversity in power generation. Natural gas is playing an increasingly important role in meeting India's growing energy demand because of the fuel's environmental characteristics and greater efficiency. Indian industry is also eager to secure a reliable, cost effective fuel source.

Since the commissioning of India's first LNG import terminal in 2004, LNG imports rose rapidly to 6.2 million tonnes in 2006, just under a quarter of India's natural gas consumption. LNG imports are likely to continue to play an important role in meeting India's energy demand.

To date, Australia has had a limited role in supplying LNG to India, with trade restricted to a few spot cargoes. However, India's growing gas requirements and desire for diversity in gas supply sources may lead to an increase in Australian exports of LNG to India.

There are currently a number of LNG supply projects in the Asia Pacific region, including Australia, both existing and planned, that have the capacity to meet India's long term gas requirements. However, the current world LNG market is characterised by a tight supply–demand situation. As such, competition from major LNG importing countries that are willing to pay higher prices may be a constraint to India securing long term LNG supplies (Rumley 2007).

conclusion

Economic growth in India has improved markedly in recent years, placing it among the world's fastest growing economies. Higher economic growth is mainly a result of the reform process that started in the early 1990s. Transformation of the Indian economy into a more open and market based economy has led to a significant rise in exports, imports and overall economic growth.

India's favourable demographics and attractiveness as an investment destination underlie the potential for an extended period of rapid economic growth. However, there remain major challenges, including the provision of infrastructure, raising productivity in agriculture and improving the governance and investment climate. Further reforms and opening of the Indian economy have the potential to sustain, and possibly increase, the pace of economic development into the future.

India's large population, geographic proximity and potential for strong income growth make it an increasingly important market for Australian exports. Australia's commodity exports to India have increased rapidly in recent years, and there will be further opportunities as India's economic expansion continues. The actual pace of export expansion will, however, depend on the progress of India's economic policy reforms, including those relating to protective trade policies.

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