

Australian commodities

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Postal address GPO Box 1563 Canberra ACT 2601 Australia

Switchboard +61 2 6272 2000

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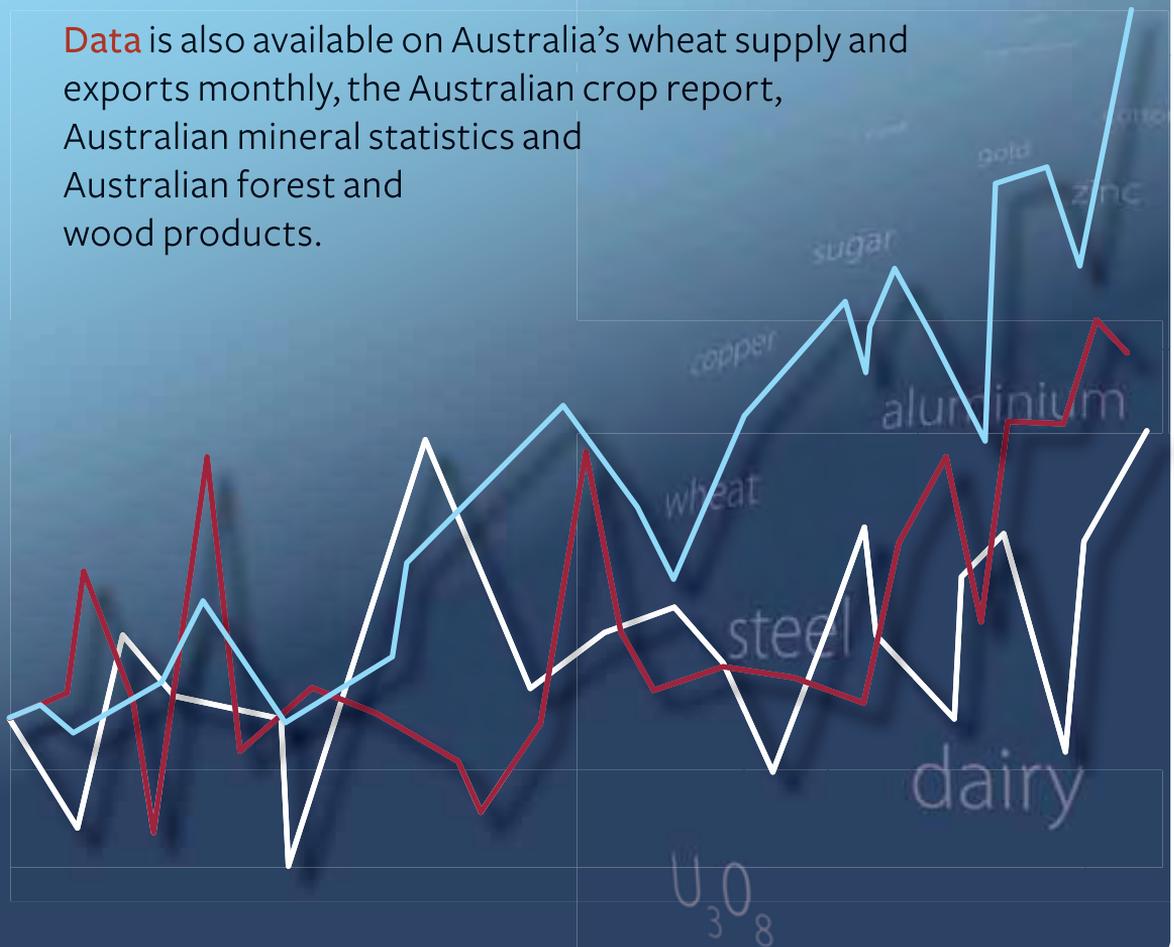
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The Marketmonitor provides daily updates of exchange rates, interest rates, share market indices and prices for major commodities including grains, livestock, base metals and crude oil.

Data is also available on Australia's wheat supply and exports monthly, the Australian crop report, Australian mineral statistics and Australian forest and wood products.



Economic overview

Prospects for world economic growth

Marina Kim and Neil Thompson

- World economic activity is assumed to contract by 1.3 per cent in 2009, mainly reflecting the adverse effect of the global financial crisis. While major OECD countries are going through a period of economic contraction, the emerging economies of China and India are still expected to achieve modest growth.
- In 2010, world economic activity is assumed to recover, albeit at a slow rate. The pace of economic recovery is expected to be more significant in the emerging economies, while OECD economic growth is likely to remain weak. In aggregate, world economic growth is assumed to be 2.1 per cent in 2010.
- A recent appreciation of the Australian dollar against the US dollar, if sustained, has the potential to adversely affect commodity export earnings. In preparing this set of commodity forecasts, the Australian dollar is assumed to average US77c in 2009-10, compared with an average of US75c in 2008-09.

The global economy

World economic growth has slowed sharply

The global financial crisis, which began in September 2008, has sharply weakened world economic activity. Major OECD economies, including the United States, Japan and many Western European countries, are going through a period of contraction, while growth in the emerging economies, including China, India and those in South-East Asia, has slowed markedly. In aggregate, global economic activity is estimated to have contracted at an annualised rate of around 6 per cent in both the December quarter 2008 and the March quarter 2009.

The slowdown has been particularly pronounced in the OECD economies, many of which are currently in recession. While the US economy has been affected by the intensified strains in credit markets and the continued downturn in the housing sector, the effect on Western Europe and Japan has been largely through the fall in export demand, in addition to difficulties in domestic housing and financial markets.

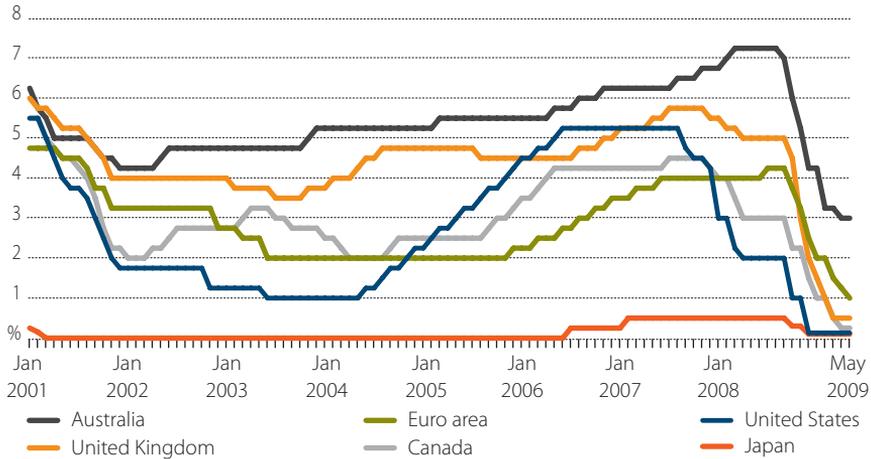
Emerging Asian economies have also been adversely affected through sharply weaker export demand and tighter credit conditions. Although economic growth in China and India has slowed, there are signs indicating that domestic demand has been holding up. The effect on Eastern Europe, the Ukraine and the Russian Federation has been severe because of their dependence on external financing for manufacturing, imports and exports. The economic downturn has also affected countries in Africa, Latin America and the Middle East. In particular, weaker commodity prices on world markets have led to a considerable decline in their export earnings.

Economic overview

Policy responses to support economic activity

To support economic activity, major world economies have introduced rapid and substantial policy measures. With inflation concerns diminishing and risks of a prolonged recession deepening, central banks worldwide have sharply loosened monetary policy. Many central banks have also directly provided liquidity to money and credit markets to support business lending.

Official interest rates



Large fiscal stimulus packages have also been introduced in many economies, including the United States, Japan, Western Europe, China and Australia. For example, as of mid-March 2009, stimulus measures announced by member countries of the Group of Twenty (G20) are estimated at around 3.5 per cent of their combined gross domestic product, which is equivalent to around US\$1.5 trillion.

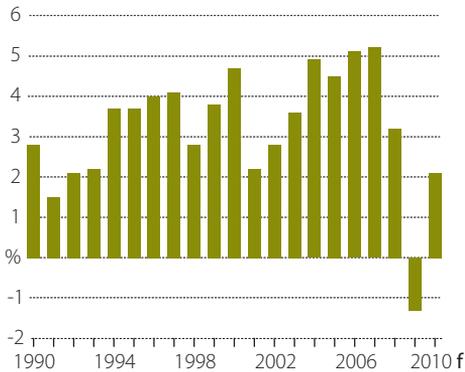
Rapid policy responses in both the OECD and emerging economies have helped support financial market conditions and consumer and business sentiment. While there have been recent signs of improvement in global financial markets, consumer and business confidence remains fragile.

World economic growth assumed to recover gradually

In the next few quarters, global economic activity is expected to remain weak, despite the significant policy support in major world economies. Overall world economic activity is assumed to contract by 1.3 per cent in 2009. This compares with growth of 3.2 per cent in 2008.

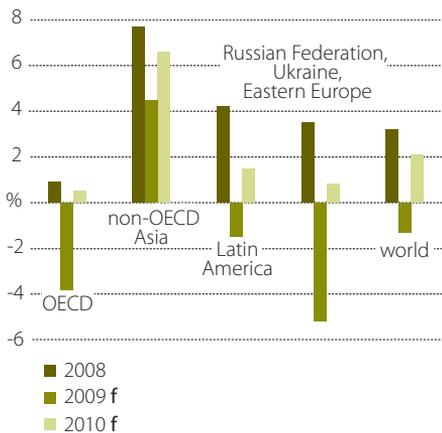
World economic growth is assumed to begin a modest recovery from late 2009 and into 2010. Given current weakness in business investment and consumer spending, the economic recovery is expected to be gradual in the short term. For 2010 as a whole world economic growth is assumed to average 2.1 per cent.

World economic growth



In the OECD area, economic activity is assumed to contract by 3.8 per cent in 2009, before recovering slowly to a modest 0.5 per cent in 2010. Among the major OECD economies, the credit constraints are expected to be most severe in the United States and the United Kingdom because of the problems in their financial sectors and relatively high levels of household borrowing. In Japan, the economic downturn in 2009 is likely to be even deeper than in the United States because of Japan's substantial reliance on exports to other OECD and Asian economies.

Regional economic growth



The emerging economies in aggregate are assumed to achieve growth of around 2.7 per cent in 2009, before recovering to 4.9 per cent in 2010. This compares with growth of 6.5 per cent in 2008. The fall in global demand for manufacturing products is expected to adversely affect the emerging economies which rely on exports to support growth. China and India are assumed to maintain positive economic growth in the short term, although the pace of economic expansion is expected to be weaker than that achieved in the past few years.

Prospects for economic recovery

Key assumptions which underpin expectations of world economic recovery in 2010 are the restoration of consumer and investor confidence and the return of stability in financial markets.

These assumptions are expected to be realised only gradually in the short term because of the high level of bad debts in the banking sector and rising unemployment in major world economies.

The pace of world economic recovery in the short term also depends on the effectiveness of stimulus packages introduced by government authorities around the world. Monetary policy settings are expected to remain accommodating in the short term and there remains a distinct possibility major OECD countries will implement more fiscal spending to support economic growth.

The substantial fiscal stimulus packages, both existing and forthcoming if any, are expected to place a large burden on government finances in the foreseeable future, with fiscal deficits projected to increase rapidly in both the OECD and emerging economies. The credibility of government plans to restore fiscal balances could have an influence on financial market sentiment in the next few years.

Economic overview

Risks to the world economic outlook

Despite broad-based efforts to restore financial market confidence and to support consumer demand, considerable risks remain in the current world economic outlook. On the downside, there is uncertainty about the effectiveness of policy responses in restoring private sector demand and consumer confidence. Another major risk involves the possibility that banking

Key macroeconomic assumptions

World		2007	2008	2009 f	2010 f
Economic growth					
OECD	%	2.7	0.9	- 3.8	0.5
United States	%	2.0	1.1	- 2.8	0.5
Japan	%	2.4	- 0.6	- 6.2	0.7
Western Europe	%	2.7	0.9	- 4.2	- 0.2
- Germany	%	2.5	1.3	- 5.6	- 1.0
- France	%	2.1	0.7	- 3.0	0.4
- United Kingdom	%	3.0	0.7	- 4.1	- 0.4
- Italy	%	1.6	- 1.0	- 4.4	- 0.4
Korea, Rep. of	%	5.1	2.2	- 4.0	1.5
New Zealand	%	3.2	0.3	- 2.0	0.5
Developing countries	%	8.6	6.5	2.7	4.9
- non-OECD Asia	%	10.6	7.7	4.5	6.6
South-East Asia a	%	6.3	4.9	- 0.7	2.5
China b	%	13.0	9.0	7.0	8.0
Chinese Taipei	%	5.7	0.1	- 7.5	0.1
India	%	9.3	7.3	4.8	6.0
- Latin America	%	5.7	4.2	- 1.5	1.5
Russian Federation	%	8.1	5.6	- 5.0	0.5
Ukraine	%	7.9	2.1	- 7.0	1.0
Eastern Europe	%	5.4	2.9	- 3.7	0.8
World c	%	5.2	3.2	- 1.3	2.1
Industrial production					
OECD	%	2.3	- 2.5	- 14.5	4.5
Inflation					
United States	%	2.9	3.8	- 0.9	0.1
Interest rates					
US prime rate d	%	6.6	5.1	3.3	3.3
US exchange rates e					
Yen/US\$		118	104	100	108
Euro/US\$		0.73	0.68	0.75	0.70
		2006	2007	2008	2009
Australia		-07	-08	-09 s	-10 f
Economic growth	%	3.2	3.7	0.0	-0.5
Inflation	%	2.9	3.4	1.8	1.8
Interest rates g	%	6.9	7.7	6.0	5.0
Australian exchange rates					
US\$/A\$		0.78	0.90	0.75	0.77
Yen/A\$		93	99	74	80
TWI for A\$ h		65	70	60	62

a Indonesia, Malaysia, the Philippines, Singapore and Thailand. b Excludes Hong Kong. c Weighted using 2008 purchasing-power-parity (PPP) valuation of country GDPs by the IMF. d Commercial bank prime lending rates in the United States. e Average of daily rates. g Large business weighted average variable rate on credit outstanding. h Base: May 1970 = 100. f ABARE assumptions.

Sources: ABARE; ABS; IMF; OECD; RBA.

sector problems could be deeper than currently assumed. If this were the case, it would extend the necessary adjustment in the financial sector and weaken the prospects for world economic recovery.

There are also specific risk factors associated with economic activity in the major OECD economies. For example, in the United States and Western Europe continued weakness in the national housing markets is a major concern. Rising unemployment could also result in a further decline in consumer demand and an increase in foreclosures, leading to a delay in economic recovery.

However, there are also upside risks to the current world economic outlook. For example, the unprecedented monetary and fiscal stimulus worldwide could have a more significant effect on business and consumer confidence, translating into higher economic growth in 2010 than currently assumed. Indeed, partial indicators released recently provide tentative signs that business and consumer confidence may be improving in a number of major world economies, including China and a few other Asian countries. If the momentum of the recovery strengthens, economic growth in these countries could recover more quickly than currently assumed, leading to higher economic growth in 2010.

Influenza A(H1N1) (human swine flu): a serious health issue

The current outbreak of human-to-human transmitted influenza A(H1N1) originated in North America. As of mid-June 2009, there were 108 deaths reported in Mexico, 45 deaths in the United States, four deaths in Canada, two deaths in Chile and one death each in Colombia, Costa Rica, the Dominican Republic and Guatemala. The virus has spread to other countries, with 76 countries reporting 35 928 laboratory confirmed human cases of infection. In Australia, there were 1542 confirmed cases of influenza A(H1N1), with the majority of cases registered in Victoria. Recognising the continuing spread of the virus around the world, on 11 June 2009 the World Health Organisation raised the level of influenza pandemic alert from phase 5 to phase 6. It indicates there is sustained human to human, community level transmission. The World Health Organisation has also acknowledged that at this time the influenza A(H1N1) is a moderate disease.

The outbreak of influenza A(H1N1) has prompted several countries, including China, the Ukraine, the Russian Federation, Kazakhstan, the Philippines, Thailand and the United Arab Emirates, to ban the import of meat and pork products from some parts of the United States, Canada, Central America and the Caribbean. Regions such as the United States and the European Union have also recommended their citizens avoid non-essential travel to outbreak areas. Australia, Japan, Singapore and the Republic of Korea have introduced measures to screen trans-border passengers, while China has limited flights from Mexico.

At this stage, it is difficult to quantify precisely the effect of the influenza A(H1N1) outbreak on world economic activity. The current outbreak has the potential to affect consumer confidence, and hence, the demand for agricultural commodities in some countries. In particular, it could lead to lower consumption of pig meat, despite the fact that influenza A(H1N1) is not known to be transmissible to people through eating properly handled and prepared pig meat or other products derived from pigs. A decline in pig meat consumption,

Economic overview

should it occur, would lower the demand for feed grains. In contrast, the demand for other meats could rise reflecting the effect of substitution.

Economic prospects in Australia's major export markets

The United States

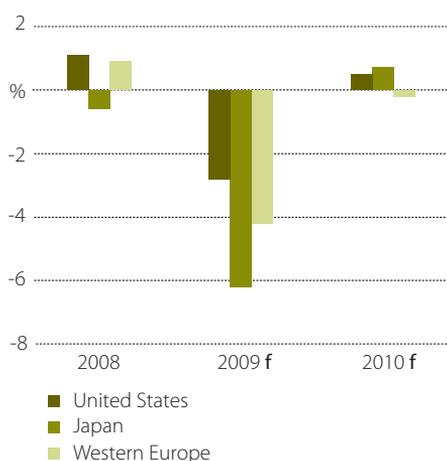
Since late 2008, economic downturn in the United States has deepened sharply. Gross domestic product, in real terms, is estimated to have contracted at an annualised rate of 5.7 per cent in the March quarter 2009, following a decline of 6.3 per cent in the December quarter 2008. The decline in gross domestic product in early 2009 primarily reflected the falls in exports, business spending and non-residential and residential investment.

Partial indicators released recently suggest economic activity in the United States remains weak. Despite rising slightly in the March quarter 2009, consumer spending is expected to be under considerable downward pressure in the near term. The constraints on consumer spending include tighter bank lending conditions and a sizeable reduction in household wealth as a result of significant declines in real estate and equity prices. Labour market conditions are also expected to remain weak, with 7 million jobs lost since December 2007. The unemployment rate in the United States reached 9.4 per cent in May 2009.

While residential investment has been in decline since early 2006, there are tentative signs that home sales and residential construction activity could be stabilising. However, the inventory adjustment process in the housing and other industries, including manufacturing, is likely to continue for some time. Once the excess inventories are cleared, production is expected to rise gradually if growth in consumer demand can be restored.

US authorities have taken aggressive steps to support economic activity, with the Federal Reserve lowering its official interest rate to nearly zero and implementing measures to address key credit market problems. On the fiscal side, the US Government has introduced a broad range of measures which are estimated to provide stimulus of around 3.8 per cent of gross domestic product in the short term.

OECD economic growth



In preparing this set of commodity forecasts, the US economy is assumed to contract by 2.8 per cent in 2009 before achieving weak growth of 0.5 per cent in 2010.

There are both downside and upside risks surrounding the current economic outlook for the United States. On the downside, there is a distinct possibility that credit market conditions would remain difficult and that employment, and hence consumer demand, would decline significantly in the short term. On the upside, the pace of

economic recovery could be stronger than currently assumed, particularly if consumer and business confidence improves quickly in response to significant stimulus.

China

Reflecting the adverse effect of the economic downturn on global export demand, economic growth in China decelerated markedly over the past few quarters. Real gross domestic product grew at a year on year rate of 6.1 per cent in the March quarter 2009, after expanding by 6.8 per cent in the December quarter 2008. This compares with an average growth rate of 9.9 per cent in the first three quarters of 2008.

China's exports contracted for a seventh month in May 2009, with a year on year fall of 26.4 per cent in that month. Exports of mechanical and electrical products, textiles, and toys have been among the most affected. The decline in imports has also been pronounced in recent times (see box).

Partial indicators released recently suggest economic growth may be strengthening in response to increased public infrastructure spending. For example, urban fixed asset investment rose year on year by 32.9 per cent in the first five months of 2009, while bank lending to the private sector reached RMB5.8 trillion (around US\$854 billion) over the same period. Retail sales, in volume terms, have also been holding up, with a strong increase in auto sales.

Inflationary pressures have eased markedly, with the consumer price index falling year on year by 1.4 per cent in May 2009, after a decline of 1.5 per cent in April. Looking forward, inflationary pressures are likely to remain subdued providing the scope for further expansionary measures if necessary. The People's Bank of China has lowered its official interest rate by 216 basis points since September 2008.

In November 2008, the Chinese Government announced a RMB4 trillion (US\$586 billion) stimulus package to support domestic demand. New fiscal measures announced since the beginning of this year include plans to spend RMB850 billion (US\$124 billion) in the short term to improve healthcare, RMB600 billion (US\$88 billion) for research and technical innovation, and a price subsidy of 13 per cent to stimulate rural consumption of household appliances. Specific industrial policies designed to support the adjustment and revival of key industries, such as steel, automobiles and textiles, have also been released.

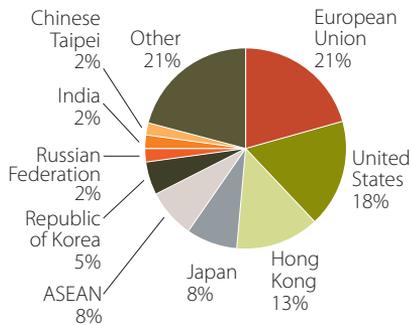
Against this backdrop, economic growth in China is assumed to strengthen in the next few quarters, averaging around 7 per cent in 2009 and 8 per cent in 2010. While export demand is likely to remain weak in the short term, the main stimulus to economic growth in China is expected to come from the domestic demand, supported by a significant increase in infrastructure investment. A strengthening in economic growth in China should also provide some support to economic activity in the neighbouring countries, particularly Japan, Chinese Taipei, the Republic of Korea and some South-East Asian countries.

The effect of the global downturn on China's trade

Since China joined the World Trade Organisation in 2001, its merchandise exports have almost quadrupled, while imports have more than tripled. As a result of the strong growth in merchandise trade, China became the second largest exporter and the third largest importer in the world. In 2007, China accounted for 8.9 per cent of world merchandise exports and 6.8 per cent of world merchandise imports, with its trade surplus reaching US\$262 billion (WTO 2008). Around 40 per cent of China's merchandise exports are destined for the rest of Asia, while the European Union and the United States account for 21 per cent and 18 per cent of China's exports, respectively.

China's main export markets

2008



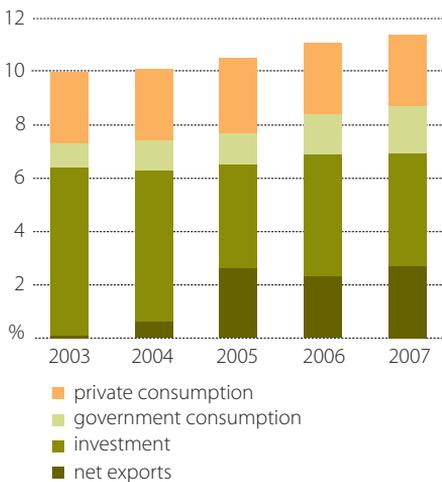
Source: National Bureau of Statistics of China.

China's importance in world commodity markets has risen even more significantly over the past decade. For many commodities, China's import demand has expanded sharply, leading to a marked increase in its share of world trade. For example, in the three years ended 2007 China accounted for 47.4 per cent of world lead concentrates imports, 42.4 per cent of world iron ore imports and 22.3 per cent of world copper concentrates imports. Over the same period, China made up 50.2 per cent of world thermal coal consumption, 48 per cent of world metallurgical coal consumption and 40 per cent of world iron ore consumption.

Trade has been an important driver of China's rapid economic growth in recent years. Gross exports of goods and services accounted for 40.7 per cent of China's gross domestic product in 2007, with the share of imports of goods and services estimated at 31.4 per cent of gross domestic product in that year (ADB 2008). Net exports contributed 2.7 percentage points to China's economic growth in 2007, but the contribution fell to 1.8 percentage points in 2008 as a result of a significant decline in exports toward the end of that year. The development of the export sector attracted significant amounts of foreign direct investment to the country and had positive spillover effects in the form of increased investment in supporting infrastructure and employment.

As the demand in China's main export markets has been affected by the global economic downturn, China's exports have fallen sharply since late 2008. The rate of decline accelerated in the first few months of 2009, before moderating recently. Imports have also been falling over the same period, largely as a result of weaker processing demand and the effect of inventory accumulation in upstream industries.

Contributions to growth



Sources: National Bureau of Statistics of China; ADB.

Despite the decline in imports, domestic demand in aggregate has remained resilient in China. This is largely because policy measures taken to mitigate the effect of the global slowdown on China's economy have shifted the demand away from manufacturing investment toward public infrastructure spending. The resilience of household consumption has not had a large effect on trade, as consumer goods account for only a small share of imports. Moreover, weaker imports may have reflected, to some extent, the re-direction of exports to the domestic market and import substitution.

Since mid-2008, when the slowdown in world economic growth intensified, manufacturing firms in China began to reduce inventories of raw materials, while inventories of finished goods increased. A substantial fall in demand has induced manufacturing firms to cut production, notably in such industries as steel, heavy machinery, textiles, toys and automobiles. The pace of destocking accelerated in late 2008 before moderating in early 2009.

Recent trade indicators



In line with a more moderate pace of inventory adjustment, imports of raw materials to China appear to have recovered in recent months. For example, China's net imports of refined copper were 1.1 million tonnes in the first four months of 2009, compared with 486 000 tonnes in the same period in 2008. China imported 313 000 tonnes of refined zinc between January and April 2009, compared with 4000 tonnes in the same period a year earlier. Net iron ore imports reached 188.5 million tonnes in the first four months of 2009, from 153.5 million tonnes in the same period a year earlier.

While higher raw material imports indicate the relative strength of China's economy compared with the rest of the world, they may also reflect some stock building, particularly by the state reserves bureaus and

local governments. In addition to speculative and strategic considerations, China's recent restocking may also reflect an expected increase in consumption underpinned by the Chinese Government's stimulus package.

A more pronounced effect of the stimulus package should provide an additional impetus to China's commodity demand in the coming quarters. Indeed, the recent purchasing manager indices (PMIs) indicate that industrial production is recovering in China. In May 2009, the official PMI remained above 50 for the third consecutive month, which indicates an expansion in industrial production activity. The new orders component of the PMI remained strong at 56.2, while the export component rose to 50.1 from 49.1 a month earlier.

In the face of the current global economic downturn, China continues to play an important role in world commodity markets. It has provided support to world commodity demand, while demand in other parts of the world remains relatively subdued.

Sources: World Trade Organisation (WTO) 2008, *International Trade Statistics 2008*, Geneva; Asian Development Bank (ADB) 2008, *Key Indicators for Asia and the Pacific 2008*, Manila.

Economic overview

India

Economic growth in India has also slowed sharply since late 2008, with a year on year rate of 5.8 per cent recorded in both the March quarter 2009 and the December quarter 2008. This compares with the average growth of 8 per cent in the first three quarters of 2008.

The slowdown in the Indian economy has occurred largely in response to reduced foreign investment flows and weaker export performance, including the information technology and business processing industries. As a result, industrial production has also declined markedly.

The Indian Government has announced three stimulus packages since late 2008, including reduced consumption taxes on goods and services, capital injections to banks and higher infrastructure spending. In addition, the Reserve Bank of India reduced its official interest rate by 425 basis points between October 2008 and May 2009.

Economic growth in India is assumed to average 4.8 per cent in 2009, before recovering to around 6 per cent in 2010. Major downside risks to this outlook relate to the subdued prospects for foreign investment spending and continued weak global demand for exports. These risk factors could have an adverse effect on employment and consumer spending leading to even weaker economic activity in the short term.

Japan and the Republic of Korea

Economic activity in Japan and the Republic of Korea has been adversely affected by sharply weaker external demand, especially from other OECD economies. In Japan, real gross domestic product contracted at an annualised rate of 14.2 per cent in the March quarter 2009, following a decline of 13.5 per cent in the December quarter 2008. The fall in economic activity in the Republic of Korea has also been significant, with real gross domestic product declining year on year by 4.2 per cent in the March quarter 2009, after a contraction of 3.4 per cent in the December quarter 2008.

Partial indicators released recently suggest economic activity in these two countries could begin to stabilise in the near term. While export performance continues to be subdued in both countries, there are tentative signs that industrial production may be stabilising and that consumer and business confidence is gradually improving.

However, labour market conditions remain weak, suggesting continued downward pressure on consumer spending. In April 2009, the unemployment rate rose to 5 per cent in Japan and 3.7 per cent in the Republic of Korea, their highest levels in around five and four years respectively.

The Japanese Government announced a 15.4 trillion yen (US\$158 billion) stimulus plan in April 2009, the third since September 2008, to mitigate the effect of the global downturn. In March 2009, the Korean Government announced a fiscal package of 17.7 trillion won (US\$14 billion) to support domestic demand, following a 50 trillion won (US\$40 billion) stimulus in late 2008.

Looking forward, weak external demand is expected to continue detracting from economic growth in the short term. For the Japanese economy, activity is assumed to contract by 6.2 per

Economic growth in Asia



cent in 2009, before recovering gradually to the average growth of 0.7 per cent in 2010. For the Republic of Korea, the economy is assumed to contract by 4 per cent in 2009, before recording modest growth of 1.5 per cent in 2010.

Non-OECD Asia

The global economic downturn has had a significant effect on economic activity in non-OECD Asia, with a substantial fall in output across a number of regional economies. The declines in output mainly reflect substantially weaker export demand for consumer durables and capital goods from the OECD economies and, to a lesser extent, the tightening in world credit market conditions.

The decline in global demand has led to a sharp fall in regional exports and industrial production. For example, in Singapore industrial production contracted for the seventh consecutive month in April 2009, although a year on year fall of around 0.5 per cent was less than a 32.8 per cent decline in March 2009. Singapore's exports declined for the twelfth consecutive month in April 2009, while the rate of contraction also appears to be slowing. Similar trends are occurring in other South-East Asian economies. As a result of the global financial crisis, domestic credit conditions have also tightened and capital inflows have declined.

In response to the weakening economic conditions, central banks in many emerging Asian economies, including Indonesia, Malaysia, the Philippines and Thailand, have lowered their official interest rates and took a range of measures to inject liquidity into money markets. A number of regional economies have also implemented substantial fiscal stimulus to support domestic demand. In March 2009, for example, the Malaysian authorities announced a second stimulus package totaling RM60 billion (US\$16 billion) over the next two years.

In preparing this set of commodity forecasts, economic activity in non-OECD Asia is assumed to slow to 4.5 per cent in 2009 from 7.7 per cent in 2008, before recovering to 6.6 per cent in 2010.

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A key risk to the current regional outlook relates to the economic performance of the OECD economies. A deeper or longer downturn in the OECD economies than currently assumed could have a further adverse effect on economic growth in non-OECD Asia through reduced export demand and foreign investment flows. In addition, further worsening in global credit conditions, if it were to occur, could place considerable pressure on financial markets and the corporate sector in the region.

Western Europe

Following a significant tightening in credit market conditions and a sharp fall in external demand, economic contraction in Western Europe has deepened over the past few months. On a seasonally adjusted basis, real gross domestic product in the euro area declined year on year by 4.8 per cent in the March quarter 2009, following a contraction of 1.7 per cent in the December quarter 2008.

Reflecting weaker regional economic activity, inflation in the euro area fell from a year on year rate of 4 per cent in July 2008 to 0 per cent in May 2009. Moderating price pressures have provided scope for the European Central Bank to reduce its benchmark interest rate by 325 basis points since September 2008. Many regional economies have also introduced fiscal measures to support domestic demand. For example, the European Economic Recovery Plan endorsed by the European Council in December 2008 is estimated to provide stimulus of around 1.5 per cent of gross domestic product in the euro area in the short term.

Economic activity in Western Europe is assumed to contract by 4.2 per cent in 2009, reflecting significant declines in both external and domestic demand. In 2010, economic activity is assumed to contract by a further 0.2 per cent. Considerable downside risks remain in the economic outlook for Western Europe, given the current weakness in domestic demand and balance sheet issues of the regional financial institutions. In particular, declining economic activity could increase bad debts and intensify pressures on the profit outlook of the regional financial institutions, which could lead to a further tightening in consumer and business lending.

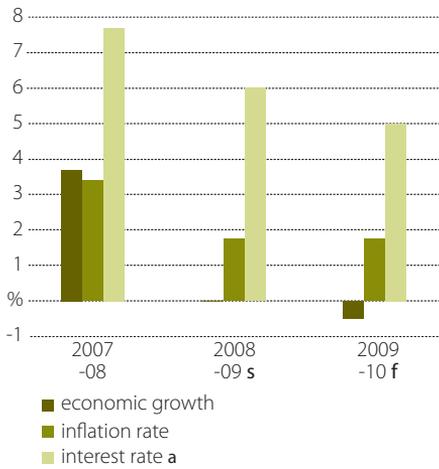
Economic prospects in Australia

After contracting in late 2008, the Australian economy expanded modestly in early 2009. In seasonally adjusted terms, real gross domestic product rose by 0.4 per cent in the March quarter 2009, following a contraction of 0.6 per cent in the December quarter 2008. Compared with the same quarter a year earlier, gross domestic product increased by 0.4 per cent in the March quarter 2009.

In seasonally adjusted terms, non-farm gross domestic product increased by 0.5 per cent in the March quarter 2009. The main positive contributors to growth in gross domestic product were lower imports (1.6 percentage points), higher exports (0.6 percentage points) and increased household final consumption expenditure (0.3 percentage points). The largest negative contribution came from a decline in private business investment (-1.1 percentage points).

In May 2009, the Australian Government announced a \$22 billion Nation Building Infrastructure investment program, which provides funding for roads, rail, ports, the Clean Energy Initiative,

Australian economic indicators



a Large business weighted average variable rate on credit outstanding.

universities, research, hospitals and broadband. The stimulus packages announced since late 2008 are expected to raise the level of gross domestic product by 2.75 per cent in 2009-10 and 1.5 per cent in 2010-11.

Economic activity in Australia is estimated to have remained largely unchanged for 2008-09 as a whole. In 2009-10, economic activity in Australia is assumed to contract by 0.5 per cent.

Assuming an improvement in seasonal conditions, the volume of farm production is forecast to increase by 0.3 per cent in 2009-10. The volume of crop production is forecast to expand by 1.1 per cent, while livestock production is forecast to fall slightly by 0.7 per cent in 2009-10. For minerals and energy, the volume of mine production is forecast to increase by 2.7 per cent in 2009-10.

Inflation

Inflationary pressures in Australia have moderated. The consumer price index rose year on year by 2.5 per cent in the March quarter 2009, after an increase of 3.7 per cent in the December quarter 2008 and 5 per cent in the September quarter 2008. Contributing most to the slower inflation rate in the March quarter were deposit and loan facilities (-14.1 per cent), automotive fuel (-8.1 per cent), domestic holiday travel and accommodation (-5.1 per cent) and overseas holiday travel and accommodation (-4.0 per cent).

Looking forward, inflationary pressures in Australia are likely to ease further, reflecting the weaker outlook for economic growth. For 2009-10 as a whole, Australia's inflation rate is assumed to average around 1.75 per cent, largely unchanged from the estimated rate in 2008-09.

US-Australian exchange rate



Exchange rate

After depreciating significantly in late 2008 and early 2009, the Australian dollar has appreciated both against the US dollar and on a trade weighted basis in recent months. The Australian dollar was trading around US80c and TWI 64 in early June 2009. This compares with US70c in late March 2009, a recent low of US60c in late October 2008 and a recent high of US98c in mid-July 2008.

The recent appreciation of the Australian dollar appears to reflect an improvement in financial market sentiment toward the prospects for

Commodity outlook

world economic recovery, the likely effect of stronger world economic activity on commodity demand and prices, and the implications of the above developments for Australia's terms of trade and export performance.

Another factor which has affected movements in the Australian dollar is a weakening of the US dollar against major international currencies. The US dollar was trading around €0.72 and ¥96 in early June 2009, compared with €0.74 and ¥98 in late March 2009, and €0.80 and ¥102 in late October 2008.

Looking forward, an assumed improvement in world economic activity is expected to provide support to the Australian dollar in the short term. Judging by its historical movements, the Australian dollar has a tendency to appreciate strongly in the beginning phase of world economic recovery. This mainly reflects market expectations of stronger commodity prices on world markets, especially for minerals and energy, in response to improved prospects for world economic growth. Therefore, there is a distinct possibility the Australian dollar could remain at its current level or even appreciate further against the US dollar in the near term. This would especially be the case if economic indicators continue pointing to a stronger than expected world economic recovery.

In preparing this set of commodity forecasts, the Australian dollar is assumed to average around US77c and TWI 62 in 2009-10. This compares with an average of US75c and TWI 60 in 2008-09.

There is considerable uncertainty surrounding the short-term outlook for the Australian dollar. This is because movements in the Australian exchange rate can be significantly influenced by changes in financial market sentiment, leading to strong volatility in the Australian exchange rate. As discussed above, over the past 12 months the Australian dollar has fluctuated from a high of US98c and TWI 74 in mid-July 2008 to a low of US60c and TWI 51 in late October 2008. Since the floating of the Australian dollar in December 1983, it has had an average annual fluctuation range of more than US10c. Consequently, it remains important for primary producers and exporters to manage the risks associated with fluctuations in the Australian exchange rate.

Outlook for Australia's commodity sector

Commodity export prices

The index of unit export returns for Australian commodities, in aggregate, is forecast to fall by 21.6 per cent in 2009-10, following an estimated rise of 30.1 per cent in 2008-09. While world prices for some commodities are expected to rise during the course of 2009-10, the recent significant appreciation of the Australian dollar, especially against the US dollar, if sustained, has the potential to adversely affect commodity export earnings.

For farm commodities, the index of unit export returns is forecast to increase by a further 0.5 per cent in 2009-10, after rising by 1.6 per cent in 2008-09. Unit export returns for Australian mineral resources are forecast to fall by 25.4 per cent in 2009-10, following an estimated rise of 36.2 per cent in 2008-09. The fall in 2009-10 largely reflects the effects of lower negotiated prices for coking coal, thermal coal and iron ore.

Unit returns for energy exports are forecast to decline by 36.3 per cent in 2009-10, compared with an increase of 69.4 per cent in 2008-09. Unit export returns for metals and other minerals are forecast to decrease by 15 per cent in 2009-10, after rising by 13.8 per cent in 2008-09.

Commodity export earnings

The value of Australian commodity exports is forecast to be around \$160.5 billion in 2009-10, a fall of 18.1 per cent from an estimated \$195.9 billion in 2008-09.

Assuming a return to more favourable seasonal conditions, export earnings for farm commodities are forecast to be around \$32.5 billion in 2009-10, a rise of 2 per cent from an estimated \$31.8 billion in 2008-09. Farm commodities for which export earnings are forecast to be higher in 2009-10 include wheat, barley, lupins, peas, rice, raw cotton and sugar. For forest and fisheries products, export earnings are forecast to be around \$3.6 billion in 2009-10, a decline of 3.2 per cent from their estimated value in 2008-09.

Export earnings for Australian mineral and energy commodities are forecast to be around \$124.4 billion in 2009-10, compared with an estimated \$160.4 billion in 2008-09. The value of energy exports is forecast to fall by 34.1 per cent to \$49.8 billion in 2009-10. For metals and other minerals, export earnings are forecast to decline by 12 per cent to \$74.6 billion in 2009-10.

Commodity outlook

Major indicators of Australia's commodity sector

		2004	2005	2006	2007	2008	2009	change from previous year	
		-05	-06	-07	-08	-09 s	-10 f	2008-09 %	2009-10 %
Commodity exports									
Exchange rate	US\$/A\$	0.75	0.75	0.78	0.90	0.75	0.77	-16.7	2.7
Unit returns a									
Farm	index	100.0	99.5	104.5	115.5	117.4	118.0	1.6	0.5
Mineral resources	index	100.0	132.1	145.1	151.7	206.6	154.2	36.2	-25.4
- energy minerals	index	100.0	135.5	123.6	140.7	238.3	151.7	69.4	-36.3
- metals and other minerals	index	100.0	129.3	162.2	160.4	182.6	155.3	13.8	-15.0
Total commodities	index	100.0	123.4	134.3	141.7	184.3	144.4	30.1	-21.6
Value of exports									
Farm	A\$m	27 902	27 801	27 788	27 528	31 847	32 485	15.7	2.0
- crops	A\$m	13 679	13 968	12 974	13 025	16 653	18 192	27.9	9.2
- livestock	A\$m	14 223	13 833	14 815	14 503	15 194	14 293	4.8	-5.9
Forest and fisheries products	A\$m	3 660	3 687	3 849	3 813	3 718	3 597	-2.5	-3.2
Mineral resources	A\$m	69 511	92 611	107 976	117 791	160 377	124 387	36.2	-22.4
- energy minerals	A\$m	29 696	39 328	39 427	45 591	75 605	49 817	65.8	-34.1
- metals and other minerals	A\$m	39 816	53 283	68 549	72 199	84 772	74 570	17.4	-12.0
Total commodities	A\$m	101 073	124 099	139 613	149 132	195 942	160 470	31.4	-18.1
Farm sector									
Gross value of farm production b	A\$m	36 537	38 695	36 247	44 098	44 958	44 462	1.9	-1.1
- crops	A\$m	18 717	20 900	17 995	24 184	25 151	25 421	4.0	1.1
- livestock	A\$m	17 820	17 796	18 252	19 913	19 806	19 041	-0.5	-3.9
Farm costs	A\$m	29 243	31 276	31 413	36 969	36 248	35 577	-2.0	-1.9
Net cash income c	A\$m	12 582	11 308	9 980	11 444	13 899	13 608	21.4	-2.1
Net value of farm production d	A\$m	7 294	7 419	4 833	7 128	8 710	8 885	22.2	2.0
Farmers' terms of trade	index	91.7	91.0	94.1	91.6	94.0	95.6	2.6	1.7
Volume of farm production	index	107.8	111.7	95.2	105.7	110.6	110.9	4.6	0.3
- crops	index	111.3	119.7	84.3	107.3	119.0	120.3	10.9	1.1
- livestock	index	103.1	103.0	105.5	102.5	100.4	99.7	-2.0	-0.7
Crop area and livestock numbers									
Crop area (grains and oilseeds)	'000 ha	23 808	22 197	21 054	23 077	22 893	23 076	-0.8	0.8
Sheep	million	100.6	91.0	85.7	76.9	73.2	69.9	-4.8	-4.5
Cattle	million	28.2	28.4	28.0	27.3	27.4	27.6	0.4	0.7
Minerals and energy sector									
Volume of mine production	index	118.6	118.1	121.2	120.5	118.8	122.0	-1.4	2.7
- energy	index	113.4	111.6	118.5	116.4	117.8	117.2	1.2	-0.5
- metals and other minerals	index	123.5	124.2	124.3	124.7	119.6	127.6	-4.1	6.7
Gross value of mine production	A\$m	66 731	88 907	103 657	113 079	153 962	119 412	36.2	-22.4
New capital expenditure e	A\$m	10 253	18 608	22 119	27 353	34 478	37 880	26.0	9.9
Exploration expenditure	A\$m	2 073	2 503	3 940	5 496	5 328	na	-3.1	na
- energy	A\$m	1 192	1 484	2 533	3 501	3 161	na	-9.7	na
- metals and other minerals	A\$m	881	1 018	1 407	1 995	2 167	na	8.6	na
Employment									
Agriculture, forestry and fishing	'000	361	353	355	359	na	na	na	na
Mining	'000	93	115	120	127	na	na	na	na
Australia	'000	9 533	9 857	10 123	10 366	na	na	na	na

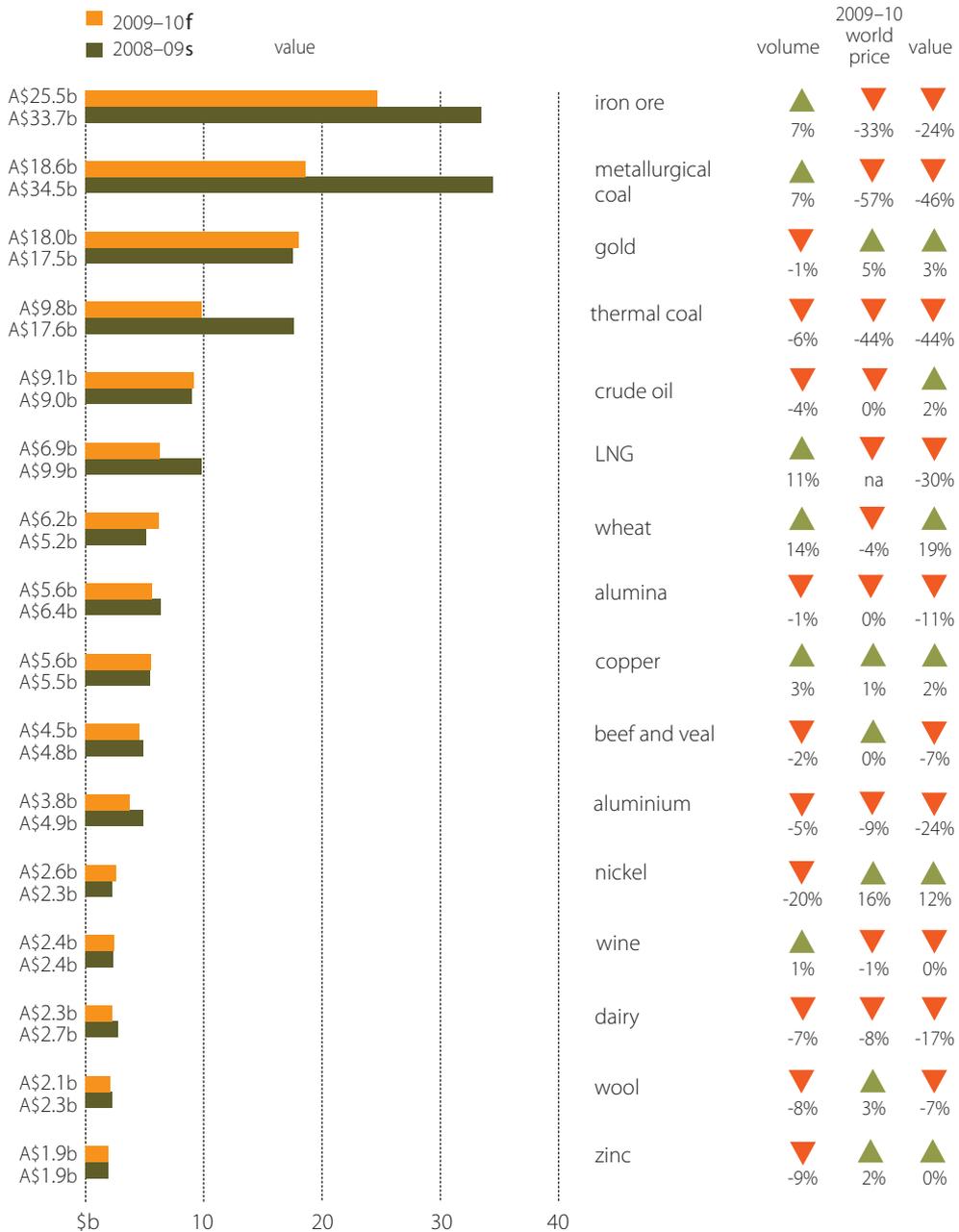
a Base: 2004-05 = 100. b For a definition of the gross value of farm production see table 21. c Gross value of farm production less increase in assets held by marketing authorities and less total cash costs. d Gross value of farm production less total farm costs. e Mining industry (ANZSIC subdivision B) only. s ABARE estimate. f ABARE forecast. na Not available.

Note: ABARE revised the method for calculating farm price and production indexes in October 1999. The indexes for the different groups of commodities are calculated on a chain weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

Sources: Australian Bureau of Statistics; ABARE.

Major Australian commodity exports

World prices are in US\$ for all commodities except wool, beef, veal and wine which are in \$A.
 For export value, annual forecasts are the sum of quarterly forecasts. As a result, annual averages for export values do not necessarily reflect variations in export volumes, world prices and exchange rates.



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Crops

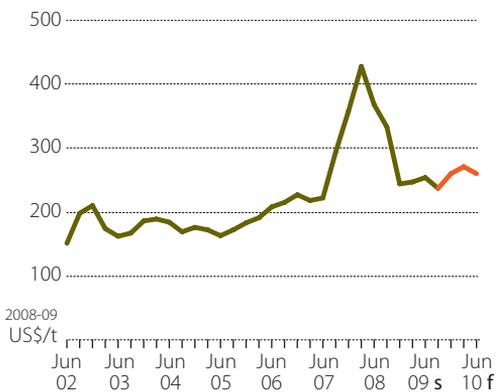
Wheat

Phantipa Puangsumalee

In 2009-10, world wheat production is forecast to decline by 40 million tonnes and world wheat consumption is forecast to remain largely unchanged. While lower world production and relatively stable world consumption could provide support for price, the average world wheat indicator price (US hard red winter, fob Gulf ports) is forecast to decline by 4 per cent in the 2009-10 season mainly because of increased stocks.

World wheat indicator price

quarterly



The world wheat indicator price at the beginning of the 2008-09 season was more than US\$300 a tonne, but fell to around US\$250 a tonne in early 2009, as global production was estimated to increase to a record 687 million tonnes in the year. For 2008-09 as a whole, the world wheat indicator price is estimated to average around US\$270 a tonne. As world wheat production is forecast to decline in 2009-10, there will be some support from lower world production for the world indicator price. Nevertheless, world stocks have increased from their recent historical lows and are forecast to continue to increase in the short term. As a result, the world wheat indicator price is forecast to average lower in the 2009-10 season, compared with 2008-09.

World wheat production lower in 2009-10

The area sown to wheat is forecast to fall by around 1 per cent in 2009-10. The lower area planted to wheat is largely the result of easing world prices and relatively high farm input costs. World wheat production is forecast to fall by around 40 million tonnes in 2009-10 under the assumption that yields will be lower than the highs achieved in the previous season. Taking into account opening season stocks, global wheat supplies are forecast to be 3 million tonnes lower in 2009-10 compared with 2008-09.

In the five major wheat exporting economies (Argentina, Australia, Canada, the European Union and the United States), production is forecast to decline in 2009-10 by around 20 million tonnes. Although production is expected to increase in Argentina and Australia, the effect is likely to be more than offset by forecast lower production in the European Union, the United States and Canada.

Wheat

In the Russian Federation, production is forecast to be around 11 per cent lower in 2009-10, at 55 million tonnes. Spring sowing in the Russian Federation was delayed because of unfavourable seasonal conditions. This is expected to have an adverse effect on yields and total wheat production in 2009-10.

In the European Union, the mandatory set aside rate (land left fallow) has been abolished. Despite the increased area available to be planted to crops, lower wheat prices are expected to lead to a 3 per cent fall in the area planted to wheat. Assuming average seasonal conditions, production in the European Union is forecast to be around 137 million tonnes in 2009-10, around 13 million tonnes less than the record achieved in 2008-09.

In the United States, the area sown to wheat is forecast to fall by around 7 per cent in 2009-10, compared with 2008-09. Production in the United States is forecast to decline by around 18 per cent in 2009-10 at 56 million tonnes. The major variety produced in the United States is winter wheat, with spring wheat representing only around 30 per cent of total wheat production. The United States Department of Agriculture reported on 16 June 2009 that around 29 per cent of the winter wheat crop was rated 'poor or below' and 44 per cent was rated 'good or above'. This compares with a rating of 22 per cent for 'poor or below' and 47 per cent for 'good or above' at the same period a year earlier. Spring wheat planting for the 2009-10 season was delayed because of adverse seasonal conditions. The delay in spring sowing and a poorer rating for winter wheat growing conditions are factors contributing to a forecast decline in production of 12 million tonnes in 2009-10.

World wheat consumption to remain unchanged in 2009-10...

World wheat consumption is forecast to remain largely unchanged in 2009-10 at around 641 million tonnes. Wheat used for human consumption is forecast to rise. However, this increase is expected to be largely offset by lower use of wheat for livestock feed.

The use of wheat for human consumption accounts for more than 70 per cent of global wheat consumption. Wheat used for human consumption has been increasing by around 1 per cent a year over the past 10 years. In 2009-10, human wheat consumption is forecast to increase again by around 1 per cent.

The major contributor to changes in world wheat consumption has been the use of wheat for feed. In 2009-10, the feed use of wheat is forecast to fall by around 7 per cent. The largest consumers of feed wheat are the European Union and the Russian Federation, accounting for a total of 70 per cent of global feed wheat consumption.

The use of wheat for livestock feed in the European Union increased to a record 57 million tonnes in 2008-09. In 2009-10, feed wheat supplies in the European Union are forecast to decline and the use of wheat in livestock feed is expected to fall. Livestock numbers in the European Union are expected to decline in 2009-10 compared with 2008-09, which will contribute to lower demand for feed wheat.

Feed wheat consumption in the Russian Federation is also forecast to be lower in 2009-10. In the Russian Federation, livestock producers are forecast to substitute corn for wheat in livestock feed as a result of the price differential and the changes in availability.

The use of wheat for industrial purposes (mainly biofuel production) is relatively small compared with overall world wheat consumption. Over the past five years, industrial use of wheat has averaged around 2 per cent of total wheat consumption. In 2009-10, industrial use of wheat is forecast to increase to around 18 million tonnes, reaching around 3 per cent of total world wheat consumption.

....and world trade to decline in 2009-10

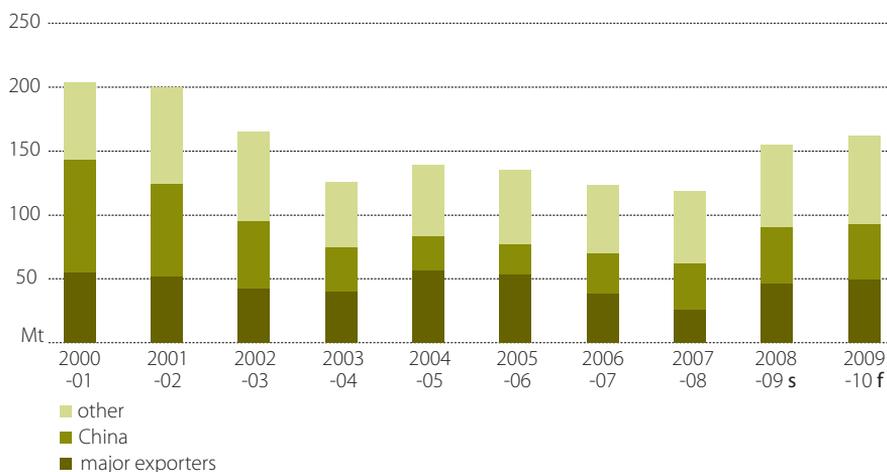
World wheat trade is forecast to decline by around 3 million tonnes (3 per cent) in 2009-10. Import demand is forecast to be lower in a number of key importing countries as domestic supplies increase. While total world trade is forecast to fall, the shipments from the five major exporting economies (Argentina, Australia, Canada, the European Union and the United States) in aggregate are forecast to rise slightly in 2009-10.

Import demand by Iran is forecast to fall in 2009-10 as domestic production is expected to increase. In Pakistan, production is also forecast to increase in 2009-10, largely because of government incentives. On 30 September 2008, the Pakistan Government announced an increase in the support price offered to domestic wheat growers from 625 rupee per 40 kilograms to 950 rupee per 40 kilograms. This has led to an increase in the area planted to wheat. In India, wheat production is forecast to be more than 75 million tonnes for the third consecutive year. This means the Indian Government will be able to purchase from domestic growers to satisfy its public distribution needs. There is speculation that the India Government will lift the ban on wheat exports, allowing the private sector to export wheat in 2009-10. However, there has so far been no official announcement.

Wheat stocks increasing

Global wheat stocks at the end of the 2009-10 season are forecast to be around 162 million tonnes, 7 million tonnes more than the closing stocks in the previous season. Despite this forecast increase, world wheat stocks remain at a relatively low level from a historical perspective.

Wheat stocks



Wheat

Stocks of high quality milling wheat held by the five major exporters are forecast to increase in 2009-10 to around 49 million tonnes, an increase of around 3 million tonnes from the previous season. Much of the forecast increase is expected to be in the European Union and the United States.

China has traditionally held a large amount of wheat stocks, although the level of its holding has declined in recent years. In 2009-10, China's wheat stocks are forecast to be around 44 million tonnes, accounting for 27 per cent of total world wheat stocks. This compares with a holding of 88 million tonnes, or around 43 per cent of total world stocks in 2000-01.

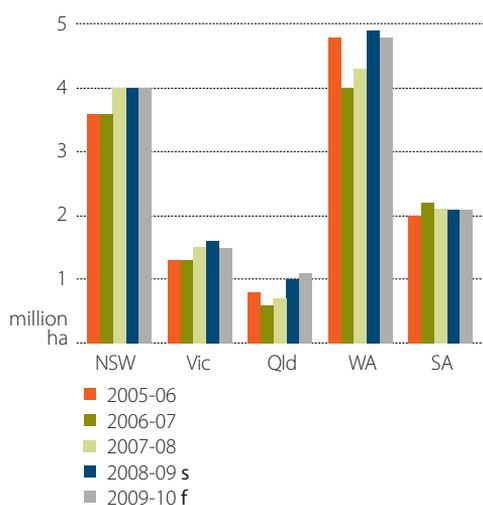
Australian production to rise in 2009-10

The area sown to wheat in Australia in 2009-10 is forecast to fall slightly to 13.5 million hectares. However, assuming a higher average yield for the coming year, wheat production in 2009-10 is forecast to be 22 million tonnes, nearly 572 000 tonnes more than the previous year.

Most of Queensland, northern and central New South Wales, western Victoria and South Australia have had relatively good starts to the 2009-10 winter cropping season. Average autumn rainfall was received in most areas and with further rain in early June, most farmers

were able to finish sowing their winter crops. In southern New South Wales, eastern Victoria and Western Australia the start to the season has been poor, with below average rainfall received throughout autumn. The lack of autumn rainfall in these regions meant that many winter crops were dry sown or not sown during the optimal planting window as growers waited for rain. However, widespread early June rainfall has provided some relief, boosting crops that have been dry sown and enabling further planting to occur in these regions.

Australian wheat area



The Bureau of Meteorology in its latest season rainfall outlook (26 May 2009) for the June to August period indicates a slight increase in the odds towards below average rainfall in the grain growing regions of Western Australia, South Australia, Victoria and south-west New South Wales.

Domestic wheat prices to fall but remain relatively high

Forecast lower global wheat prices and an expected increase in domestic production are likely to result in Australian wheat prices being lower in 2009-10. The pool return for Australian premium white wheat (APW 10) is forecast to decline from an estimated A\$300 a tonne in 2008-09 to an average of A\$291 a tonne in 2009-10. Despite the forecast fall in price for the 2009-10 season, this is still a relatively high price from an historical perspective .

Australian exports to increase

Reflecting an expected better harvest than in 2008-09, Australian wheat exports (October to September marketing year) are forecast to increase to around 15.2 million tonnes in 2009-10. The value of these exports in fiscal year 2009-10 (July to June) is forecast to rise to A\$6.2 billion.

Wheat outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
World					
Production	Mt	609	687	647	-5.8
- China	Mt	110	113	108	-4.4
- EU 27	Mt	120	150	137	-8.7
- India	Mt	76	78	78	0.0
- Russian Federation	Mt	49	62	55	-11.3
- United States	Mt	56	68	56	-17.6
Consumption	Mt	615	642	641	-0.2
- human	Mt	446	446	451	1.1
- feed	Mt	87	111	103	-7.2
Closing stocks	Mt	118	155	162	4.5
Trade	Mt	110	118	115	-2.5
Exports					
- Argentina	Mt	10	8	7	-12.5
- Australia	Mt	7	13	15	15.4
- Canada	Mt	16	18	19	5.6
- EU 27	Mt	11	17	16	-5.9
- United States	Mt	34	26	25	-3.8
Price	US\$/t	362	270	259	-4.1
Australia					
Area	'000 ha	12 578	13 552	13 508	-0.3
Production	kt	13 569	21 397	21 969	2.7
Exports	kt	7 408	12 815	14 620	14.1
- value	A\$m	2 990	5 160	6 157	19.3
APW 10 net pool return ^a	A\$/t	423	300	291	-3.0

^a Australian premium white wheat, 10 per cent protein. From 2008-09, the pool return is an estimated average across the major companies offering grain pools.

Coarse grains

Henry To

The world coarse grain indicator price (US corn, fob Gulf) is forecast to increase in 2009-10, driven largely by continued strong demand for corn in the production of ethanol. The world coarse grain indicator price is forecast to increase by US\$5 in 2009-10 to average US\$182 a tonne.

Despite the forecast increase in world prices, Australian feed and malting barley prices are forecast to fall in 2009-10 as higher domestic production places downward pressure on prices. Australian feed barley prices are forecast to fall by 4 per cent to average A\$194 a tonne, while malting barley is forecast to average A\$232 a tonne in 2009-10 which is a slight decrease from 2008-09. These prices are the lowest since the 2005-06 season.

World production to decrease but supplies unchanged

World coarse grains production in 2009-10 is forecast to fall slightly to around 1.07 billion tonnes from last season's record 1.1 billion tonnes. World corn and barley production are each forecast to fall by 9 million tonnes in 2009-10. While lower global production is forecast, higher opening season stocks are expected to result in global coarse grains supplies in 2009-10 being largely unchanged from 2008-09.

World coarse grains price



In the United States, corn is the major coarse grain produced, accounting for 95 per cent of total US coarse grain production. The area planted to corn is forecast to fall by 1 per cent in 2009-10 because of an expected increase in plantings for soybean production. Corn production in the United States is forecast to decline to 303 million tonnes in 2009-10, compared with 307 million tonnes in 2008-09.

In China, planting of corn traditionally takes place in April and May. The area sown to corn is estimated to have increased slightly to 29.5 million hectares for the 2009-10 season as farmers have moved away from soybean production. Larger oilseeds stocks in China

have put downward pressure on domestic oilseed prices, making the returns for corn relatively favourable. Despite the higher planting area in 2009-10, the effect on corn production is likely to be more than offset by an expected decline in yields. Corn yields in China rose markedly in 2008-09 to a record of 5.63 tonnes a hectare, significantly higher than the average of 5.31 tonnes a hectare over the past five years. Corn production in China is forecast to be around 161 million tonnes in 2009-10, around 5 million tonnes less than 2008-09.

In the European Union, the area planted to coarse grains is forecast to be 3 per cent lower in 2009-10 than in the previous season. Lower corn and barley prices, and relatively high farm

input costs are likely to result in the area planted to corn and barley being switched into the production of oilseeds (mainly canola/rapeseed) which is relatively cheaper to plant. A lower area planted to corn and barley in 2009-10, combined with an expected decline in yields, is forecast to result in EU corn and barley production being 9 per cent and 4 per cent lower, respectively, than the previous year.

Throughout parts of Argentina and Brazil, severe drought was experienced in the 2008-09 season resulting in significantly lower yields than historical averages. In 2009-10, yields are forecast to improve, assuming favourable growing conditions. Corn production in Argentina is forecast to increase by 2 million tonnes to be 15 million tonnes in 2009-10. In Brazil, corn production is forecast to be 54 million tonnes in 2009-10, up from 51 million tonnes in 2008-09.

World barley production is forecast to fall by 9 million tonnes in 2009-10 to be 145 million tonnes. The majority of the forecast decline is expected to be in the Russian Federation and the Ukraine. Yields in these two countries in 2008-09 were around 30 per cent higher than the five year averages.

Barley prices in the Russian Federation have fallen significantly throughout 2008-09 because of an increase in supplies. At the beginning of the 2009-10 season, Russian domestic barley stocks were around 4.8 million tonnes, compared with 736 000 tonnes at the start of the 2008-09 season. The lower domestic prices are expected to lead to lower area planted to barley in 2009-10. Assuming a return to average yields in the Russian Federation, barley production is forecast to fall by 31 per cent to be around 16 million tonnes in 2009-10.

Barley production in the Ukraine is forecast to decline by 25 per cent to be 9.5 million tonnes in 2009-10. Despite a forecast increase of 8 per cent in area planted to barley, yields are expected to be significantly lower as the authorities in the Ukraine have reduced support for farm inputs (machinery and capital). There have also been reports of some farmers experiencing difficulties obtaining credit in the Ukraine.

In Canada, coarse grains production is forecast to decline by 8 per cent to 25 million tonnes in 2009-10. Barley production is forecast to fall 9 per cent to 10.7 million tonnes because of forecast lower yields and area sown to barley. Corn production is forecast to be 10.3 million tonnes in 2009-10, compared with a harvest of 10.6 million tonnes in 2008-09.

Consumption at record highs

World coarse grain consumption is forecast to increase by 14 million tonnes to a record 1.09 billion tonnes in 2009-10. If this is achieved, it will be the fourth consecutive year that global consumption has exceeded 1 billion tonnes. The recent significant increase in coarse grain consumption has been largely driven by strong growth in demand for corn in ethanol production. Feed use of coarse grains is forecast to remain largely unchanged in 2009-10.

Ethanol driving the record coarse grains consumption

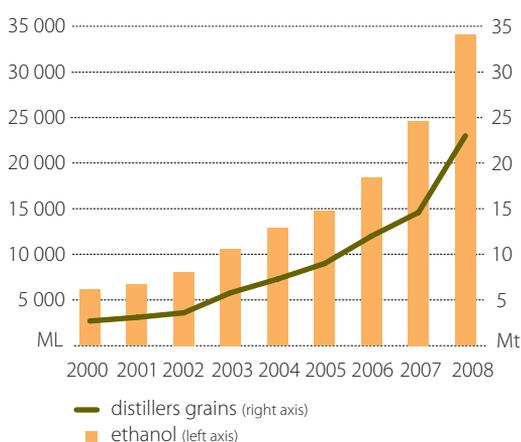
Industrial use of coarse grains (primarily for ethanol production) is forecast to increase to a record 442 million tonnes in 2009-10, a 14 million tonne increase on the previous year.

The growth of distillers grains

Distillers grain is a by-product from ethanol production which can be used as a high protein ingredient in livestock feed rations. Distillers grains are marketed in three forms: distillers wet grains (DWG), distillers dried grains (DDG) and distillers dried grains with solubles (DDGS).

DDGS is the main distiller grain produced and exported by the United States (the largest producer and exporter). DDGS has a 90 per cent dry matter content, which extends its shelf life allowing it to be transported over longer distances and stored for longer periods. DWG is produced with a moisture content of around 65 per cent. It is commonly used on farms within close proximity to an ethanol plant because of its shorter shelf life. The moisture content of the grain limits its transportation and storage possibilities which makes exporting DWG difficult.

Distillers grains and ethanol production



Production of distillers grains in the United States has increased with a significant rise in ethanol production. Ethanol production and use in the United States is mandated to increase under the Energy Independence and Security Act 2007.

In 2008 the United States produced around 23 million tonnes of DDGS, 8 million tonnes more than 2007. Exports of DDGS were 4.5 million tonnes in 2008, up from 2.4 million tonnes in 2007. Export volumes are expected to grow further as supplies and import demand continue to rise.

The largest importers of DDGS are Mexico, Canada and Turkey while many other countries in the Asia Pacific region are beginning to use DDGS in their animal feed. China is also a producer, exporter and importer of DDGS. In 2008, China produced 2.5 million tonnes of DDGS and exported 200 000 tonnes to Japan, the Republic of Korea and Chinese Taipei.

Trials of distillers grains in feed are being undertaken in many countries by US agriculture groups such as the US Grains Council (USGC) and the Distillers Grains Technology Council (DGTC). The Asia Pacific

DDGS major importers

importing country	2007	2008	% change
Mexico	kt 708	1 189	68
Canada	kt 319	772	142
Turkey	kt 136	465	242
Japan	kt 114	198	74
Chinese Taipei	kt 134	189	41
China	kt 22	67	205

region has been a focus for these trials. Of the major 20 consuming countries of corn-based feed, half are located in the Asia Pacific region. Some of the trials include:

- dairy farms in Australia, Chile, China and Indonesia
- broilers in New Zealand
- catfish in Viet Nam
- milkfish in the Philippines
- swine in the Republic of Korea.

The United States is the largest consumer of coarse grains for industrial use. Consumption of corn for ethanol production in the United States was around 16 million tonnes in 2000-01, but has increased markedly in the past few years, reaching 95 million tonnes in 2008-09. In 2009-10, the use of corn in ethanol production in the United States is forecast to increase by a further 9 million tonnes to be 104 million tonnes, accounting for 34 per cent of total corn use. This compares with 31 per cent in 2008-09 and 23 per cent in 2007-08.

At the end of January 2009, the US ethanol industry had a production capacity of 47.8 billion litres, with an estimated 7 billion litres of additional capacity under construction. The rapid expansion of the ethanol industry has been the result of the US Government's policies. Under the Energy Independence and Security Act of 2007 (EISA), mandated use of biofuels in transport will be around 11.1 billion gallons (or 42 billion litres) in 2009, before rising to 12.95 billion gallons (49 billion litres) in 2010.

Feed use to remain largely unchanged

The use of coarse grains for livestock feed is forecast to be 645 million tonnes in 2009-10, largely unchanged from the previous year. Increases in feed use are forecast in China, the Middle East and northern Africa, while reduced feed use is expected in the United States and the European Union.

In the United States, the use of corn in the livestock industry is forecast to fall to around 133 million tonnes in 2009-10, the lowest level since 1996-97. The economic contraction in that country is likely to result in a reduction in meat consumption, which is expected to lower the feed demand for corn. Another factor contributing to the expected reduction in feed demand for corn is the increased supply of distillers grains (a by-product from the production of ethanol). This increase is expected to reduce the use of corn in feeding rations.

The use of coarse grains for feed is forecast to increase in China, albeit at a slower pace than in the past few years because of the assumed easing of income growth and expected weaker growth in demand for livestock products. Feed use of coarse grains in China is forecast to increase by 1 per cent to 112 million tonnes in 2009-10, compared with average growth of 2.3 per cent over the past five years.

In the European Union the consumption of coarse grains in the livestock sector is forecast to fall by 2 per cent to 110 million tonnes in 2009-10. Despite an overall decline in feed use, the share of corn use in feed is forecast to increase at the expense of feed wheat as the availability of low-quality feed wheat is expected to decline. Total feed grain use (including wheat) in the European Union is forecast to decline by 2 per cent to 170 million tonnes in 2009-10.

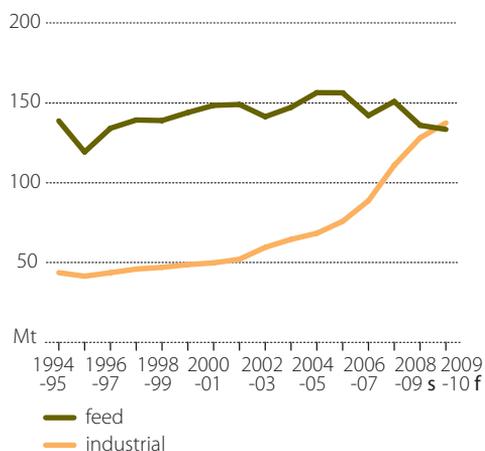
International coarse grain trade to increase

World coarse grain trade is forecast to be 106 million tonnes in 2009-10, up from 102 million tonnes in 2008-09. World corn trade is forecast to increase by 3 million tonnes in 2009-10 to be around 80 million tonnes. However, international trade for barley is expected to decline in 2009-10.

Corn exports from the United States are forecast to increase by 4 million tonnes to 48 million tonnes in 2009-10. Canada, Mexico, Malaysia and the Republic of Korea are each

Coarse grains

US corn use



forecast to increase their corn imports by around 500 000 tonnes in the year, in response to shortfalls in their domestic supplies.

World barley trade in 2009-10 is forecast to decline by 1.8 million tonnes to 16.6 million tonnes. Exportable supplies from the Russian Federation and the Ukraine are forecast to decline in 2009-10, while import requirements are also forecast to be lower in some key markets. Import demand from the Middle East and northern Africa is forecast to decline in response to increases in their domestic supplies. The Russian Federation and the Ukraine are the largest suppliers of barley to the Middle East and northern Africa.

Stocks to fall in 2009-10

Ending season coarse grain stocks are estimated to be around 186 million tonnes in 2008-09, the highest since 2001-02. In 2009-10, global stocks are forecast to be around 173 million tonnes, a 7 per cent decline on the previous year. While barley stocks are forecast to increase by around 1.8 million tonnes, world corn stocks are expected to decline by around 9 million tonnes in 2009-10.

The majority of the forecast increase in world barley stocks is expected to occur in the European Union, with an increase of 2.7 million tonnes for the region to around 13 million tonnes in 2009-10. For the Russian Federation and the Ukraine, barley stocks are forecast to decline by a total of 2.6 million tonnes to be around 3 million tonnes by the end of the 2009-10 season.

Corn stocks in the United States are forecast to fall by 11 million tonnes in 2009-10, while China's corn stocks are expected to rise by 4 million tonnes to 57 million tonnes. The Chinese Government has been purchasing corn to support farm-gate prices.

Australian winter coarse grains production to increase in 2009-10

The area sown to barley is forecast to fall slightly to 4.5 million hectares in 2009-10. Barley yields in Australia are forecast to increase to 1.73 tonnes per hectare in 2009-10 from 1.51 tonnes per hectare in 2008-09. Barley production is forecast to increase by 13 per cent to 7.7 million tonnes in 2009-10, the highest since 2004-05.

Recently harvested 2008-09 grain sorghum crops are estimated to be 2.3 million tonnes, compared with the record 3.1 million tonnes in 2007-08. However, the 2008-09 harvest is the second highest on record. The area planted to grain sorghum fell by 15 per cent in 2008-09, which was the result of lower grain prices and the reduced availability of fallow land.

Trade to increase in 2009-10

Total coarse grain exports are forecast to increase by 0.5 per cent to 5.6 million tonnes in 2009-10, driven by a forecast increase in barley production. The value of Australian coarse grains exports is forecast to increase to A\$2.2 billion in 2009-10 from the A\$1.9 billion in the previous year. The increase in export volumes is forecast to outweigh a forecast decline in barley and sorghum prices in 2009-10.

Coarse grains outlook

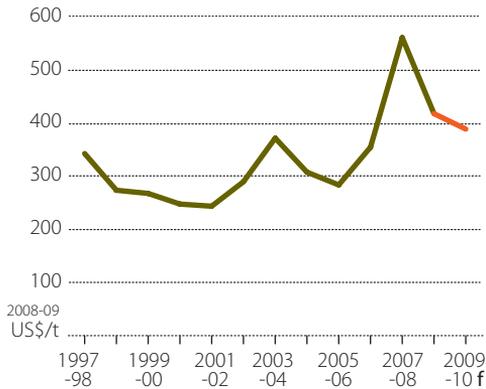
		2007 -08	2008 -09 s	2009 -10 f	% change
World					
Production	Mt	1 076	1 098	1 074	-2.2
– barley	Mt	133	154	145	-5.8
– corn	Mt	792	788	779	-1.1
Consumption	Mt	1 056	1 073	1 087	1.3
Trade	Mt	127	102	106	3.9
Closing stocks	Mt	160	186	173	-7.0
US corn price (fob Gulf, Sept–Aug)	US\$/t	218	177	182	2.8
Australia					
Area	'000 ha	7 413	6 563	6 529	-0.5
– barley	'000 ha	4 902	4 506	4 469	-0.8
– sorghum	'000 ha	845	717	728	1.5
Production	kt	12 571	11 277	11 917	5.7
– barley	kt	7 159	6 820	7 713	13.1
– sorghum	kt	3 072	2 319	1 941	-16.3
Exports	kt	4 428	5 578	5 607	0.5
– value	A\$m	1 620	1 915	2 152	12.4
Feed barley price	A\$/t	308	202	194	-4.0
Malting barley price	A\$/t	350	233	232	-0.4

Oilseeds

Gayathiri Bragatheswaran

The world oilseed indicator price (soybeans, cif, Rotterdam) declined from the historical high achieved in 2007-08, averaging lower in 2008-09. In 2009-10 prices are forecast to decline further, as an expected significant increase in production will outweigh any

World oilseed prices



increase in consumption. The world oilseed indicator price is forecast to average around US\$396 a tonne in 2009-10. This compares with an estimated average of US\$417 a tonne in 2008-09.

World oilseed production at record level

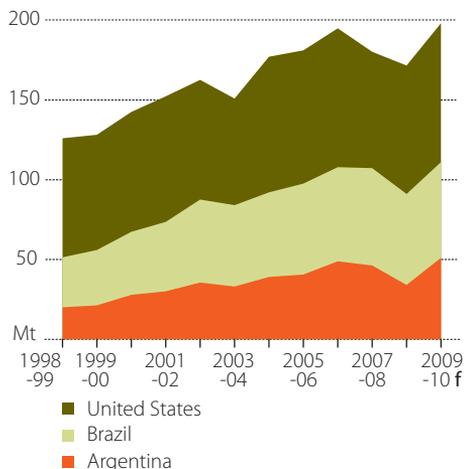
World oilseed production is forecast to rise to a record 422 million tonnes in 2009-10, a 7 per cent increase on the previous year. Production of soybeans (accounting for around 57 per cent of total oilseed production) is forecast to increase by 14 per cent to 242 million tonnes in 2009-10.

In the United States, the largest oilseed producing country, the area sown to soybeans is forecast to increase in 2009-10, to a record 31 million hectares. The relatively high soybean price over the past few years has provided incentives for producers to increase plantings, mostly at the expense of corn.

Brazil is the second largest soybean producer, accounting for around 26 per cent of global production. The area sown to soybeans in Brazil is forecast to increase by 3 per cent in 2009-10. Assuming favourable seasonal conditions, yields are expected to be around the five year average of 2.7 tonnes a hectare. If such an outcome is achieved, soybean production in Brazil is expected to reach 60 million tonnes in 2009-10, an increase of 5 per cent from the 2008-09 season.

Harvest of the 2008-09 soybean crop in Argentina has recently been completed. Production is estimated at 34 million tonnes, the lowest harvest since 2003-04, and yields are estimated at around 2.1 tonnes a hectare, a significant decline from the five year average of 2.7 tonnes a hectare. Assuming a return to more favourable seasonal conditions, yields are forecast to increase in 2009-10. As a result, soybean production in Argentina is expected to increase in the coming year.

Soybean production



Canola/rapeseed production in the European Union is expected to reach a record 19.1 million tonnes in 2009-10. The increase in production is largely attributable to a forecast increase of 5 per cent in area planted.

In Canada, the largest canola/rapeseed exporter, record production was achieved in the 2008-09 season. In 2009-10, the area planted to canola/rapeseed is forecast to decline by 8 per cent compared with the previous season. Yields are expected to return closer to historical averages in 2009-10 even under the assumption of favourable seasonal conditions. Canada's canola/rapeseed production is forecast to be around 10.3 million tonnes in 2009-10, compared with 12.6 million tonnes in the previous year.

Demand for vegetable oil underpinned by support for biofuels

World oilseed consumption is forecast to increase by 3 per cent in 2009-10 to be 413 million tonnes. Vegetable oil consumption is forecast to increase by 3 per cent to 135 million tonnes, and oilseed meal consumption is also forecast to rise by 3 per cent to 236 million tonnes.

Industrial use (mainly biodiesel) of vegetable oil is forecast to increase by 6 per cent, to a record 26 million tonnes in 2009-10. Continued support through mandated biodiesel use in South America, North America, and the European Union is keeping biodiesel production growth strong.

The European Union is the largest biodiesel producer. The major feedstock used in the region is canola/rapeseed oil. Industrial consumption of vegetable oil in the European Union has grown from 1.5 million tonnes in the late 1990s to 9 million tonnes in 2008-09. In 2009-10, industrial consumption in the region is forecast to increase by 6 per cent to 10 million tonnes.

Industrial consumption in the United States has grown from 400 000 tonnes in the mid-1990s to 1.4 million tonnes in 2008-09. In 2009-10, industrial consumption is forecast to increase by 11 per cent to 1.6 million tonnes.

Human consumption of vegetable oil continues to grow

The use of vegetable oil for human consumption has been growing steadily and is forecast to rise by a further 3 per cent in 2009-10, to 108 million tonnes.

Oilseeds

China is the largest consumer of vegetable oil for human consumption. As a result of strong income growth, per person consumption of vegetable oil in China has increased markedly, and in the past five years has risen by an average rate of 4 per cent a year. In 2009-10, Chinese per person consumption is forecast to rise by a further 3 per cent to around 17 kilograms. China is forecast to consume a total of 23 million tonnes of vegetable oil in 2009-10.

Oilseed meal to grow, but at a slower pace than previous years

World oilseed meal consumption is forecast to increase by 3 per cent in 2009-10 to 236 million tonnes. Demand for oilseed meal is driven by its use in livestock feed. While world oilseed meal consumption is forecast to increase in 2009-10, it will be at a slower rate than the past few years. The global economic downturn is expected to weaken growth in demand for livestock products, which will adversely affect the use of oilseeds and oilseed meal in feed.

China is the largest oilseed meal consumer, accounting for around 22 per cent of world consumption. In 2009-10, oilseed meal consumption in China is forecast to increase by 4 per cent, around one-half of the growth rate achieved in the past five years.

Higher ending season stocks in prospect

World ending season stocks are forecast to increase by around 15 per cent to 63 million tonnes in 2009-10. This represents a significant increase from a stock level of around 20 million tonnes in the early 1990s. While the level of world oilseed stocks has increased, the stocks to use ratio in 2009-10 is forecast to be around 15 per cent, which is relatively low in comparison with other grains such as wheat and coarse grains. The relatively low stocks to use ratio is expected to provide support for world oilseed prices in the short term.

Australian production lower in 2009-10

Variable rainfall across the Australian grains belt has resulted in a mixed outlook for canola plantings in different regions. The total area sown to canola is forecast to increase by 7 per cent to be 1.2 million hectares in 2009-10.

The area planted to canola in Western Australia, Australia's major canola growing state, is forecast to decline from the record area planted in the 2008-09 season. Below average rainfall and a late break to the season is likely to see farmers move out of canola production. In New South Wales, especially northern New South Wales, and South Australia, a good start to the season has resulted in a forecast increase in area sown to canola. The area sown to canola in New South Wales, Victoria and South Australia is forecast to increase in 2009-10. In New South Wales, the area sown is forecast to increase by 21 per cent; in South Australia, 9 per cent; and in Victoria, 20 per cent.

Canola production is forecast to decline by 9 per cent in 2009-10 to be 1.7 million tonnes, compared with 1.9 million tonnes in 2008-09. Much of this decline is forecast to come from Western Australia, after record production was achieved in the previous season. Canola production in that state is estimated to have reached a record 1.1 million tonnes in 2008-09.

Australian canola exports to decrease

Australian canola exports (November to October) are forecast to fall by 9 per cent to 1.1 million tonnes in 2009-10. This forecast decline is the result of forecast lower production reducing exportable supplies. The value of Australia's canola exports (July to June) is forecast to increase by 15 per cent to around A\$747 million in 2009-10.

Oilseeds outlook

		2007	2008	2009	%
		-08	-09 s	-10 f	change
World					
Production	Mt	392	396	422	6.6
Consumption	Mt	400	402	413	2.7
– oilseed meal	Mt	230	229	236	3.1
– vegetable oil	Mt	126	131	135	3.1
Closing stocks	Mt	63	55	63	14.5
Soybeans indicator price	US\$/t	549	417	396	-5.0
Australia					
Total production	kt	1 577	2 564	2 497	-2.6
– winter	kt	1 241	1 907	1 736	-9.0
– summer	kt	337	656	761	16.0
Canola					
Production	kt	1 214	1 878	1 704	-9.3
Exports	kt	519	1 017	1 138	11.9
– value	\$m	303	651	747	14.7
Price (Nov–Oct) (delivered Melbourne)	A\$/t	696	591	562	-4.9

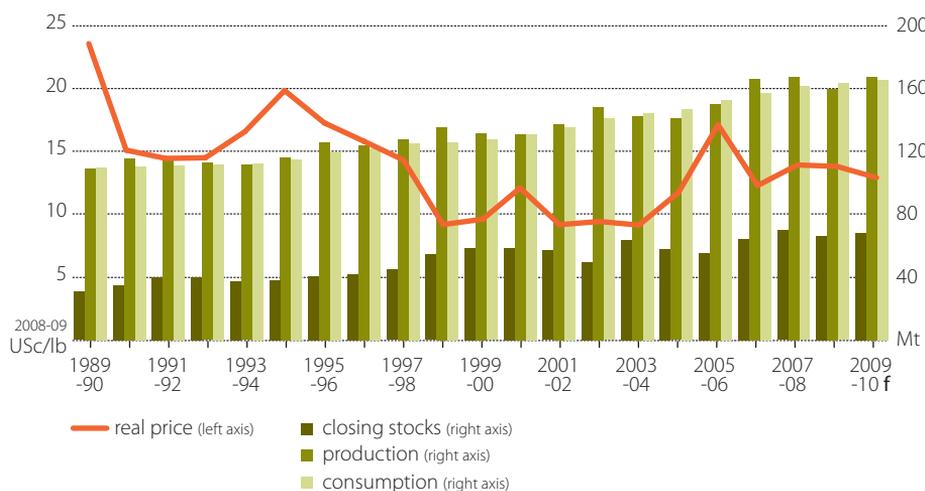
Sugar

Max Foster

Sugar prices to come off high levels in 2009-10

The world sugar indicator price (International Commodities Exchange, no. 11 spot, fob Caribbean) is forecast to average US12.9 cents a pound in 2009-10 (October to September), compared with US13.8 cents a pound in 2008-09. This easing in world sugar prices reflects that world production and consumption of sugar is forecast to return to surplus in 2009-10, after the large sugar production shortfall in 2008-09.

World sugar indicators



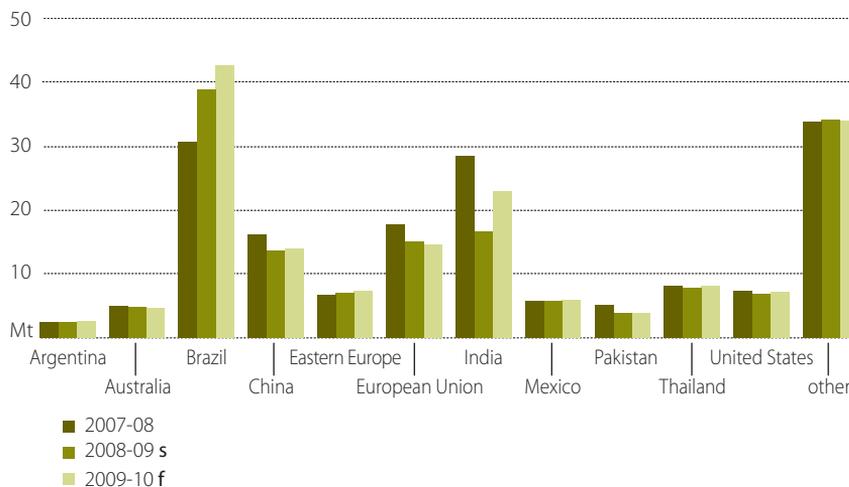
Most countries to increase sugar production in 2009-10

World production of sugar is forecast to be 167.5 million tonnes in 2009-10, nearly 8 million tonnes higher than in 2008-09. Increases in production are forecast for most major producing countries, but the increases are likely to be particularly large in Brazil and India.

The level of sugar production in Brazil depends on the extent to which cane production is diverted to ethanol production. Brazilian cane production is forecast to increase by a further 8 per cent in 2009-10.

Brazilian sugar production in 2009-10 is forecast to increase by 10 per cent, to a record 42.7 million tonnes. This forecast increase in sugar production also reflects that the proportion of sugar cane used for sugar production is expected to rise to 42 per cent in 2009-10, the first increase since 2002-03. Lower world oil prices have been causing weaker demand for Brazilian ethanol, both domestically and in export markets. In Brazil, there has been a rapidly growing fleet of flexifuel cars that can run on any mix between ethanol and petrol, leading to an increased substitution between ethanol and petrol. As well, the global economic downturn has caused a marked slowdown in new investments in ethanol production capacity in Brazil.

World sugar production, by region



Brazilian sugar cane production and allocation



An increase in Indian sugar production to 23 million tonnes is forecast for 2009-10, as land is returned to sugar production because of high domestic sugar prices and the expectation of lower returns for alternative land uses (mainly cereals and pulses). India has shifted from being a subsidiser of its sugar exports in 2007-08, to being a large importer of sugar in 2008-09 and is expected to continue importing sugar in 2009-10, albeit at a lower volume than the previous year.

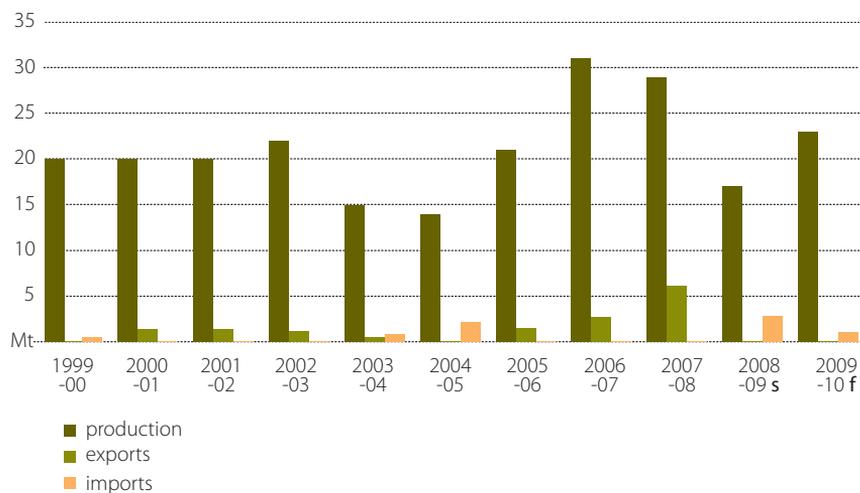
Reform of sugar arrangements in the European Union under the Common Agricultural Policy is now largely complete. EU sugar production is forecast to decline only slightly in 2009-10, following the large declines in each of the previous three years. With the decline in domestic production, the European Union has shifted to being a substantial net importer of sugar since 2006-07.

Growth in world sugar consumption in 2009-10

World consumption of sugar is forecast to grow by 1.3 per cent in 2009-10, a slightly faster rate than in 2008-09, because of expected increased sugar demand as a result of a recovery in the world economy.

Sugar

Indian sugar production and trade



World sugar exports are forecast to be 49 million tonnes in 2009-10, down from the record 50.1 million tonnes in 2008-09. The current high level of world sugar trade reflects the domestic production shortfall in India in 2008-09 and increasing dependence by the European Union on sugar imports. The increases in import requirements will be met by increased exports from Brazil.

World sugar stocks to increase in 2009-10

There were substantial drawdowns in world sugar stocks in 2008-09, because of lower world production and a steady increase in world sugar consumption. However, large sugar stocks were carried into 2008-09, because of two years of bumper world sugar production. Given current expectations of world sugar production, world carryover stocks are expected to grow to around 68.2 million tonnes in 2009-10, 2 million tonnes higher than in 2008-09. There is likely to be some rebuilding of sugar stocks in India in 2009-10.

Higher sugar returns in Australia

Higher world sugar prices and the relatively low Australian dollar mean favorable prices for Australian cane growers and sugar marketers for the 2008-09 and 2009-10 harvests. Indications at 15 June 2009 for Queensland Sugar Limited's seasonal pool were \$332 to \$338 a tonne, IPS (International Polarity Scale) for 2008-09 production (harvested in the second half of 2008), rising to \$421 to \$461 a tonne IPS, for 2009-10 production. This compares with a realised return for 2007-08 of \$275.80 a tonne IPS. The average return to Australian growers for cane in 2009-10 is forecast to be \$40 a tonne, compared with \$29.87 a tonne in 2008-09 and \$27.50 in 2007-08.

Sugar reforms in the European Union

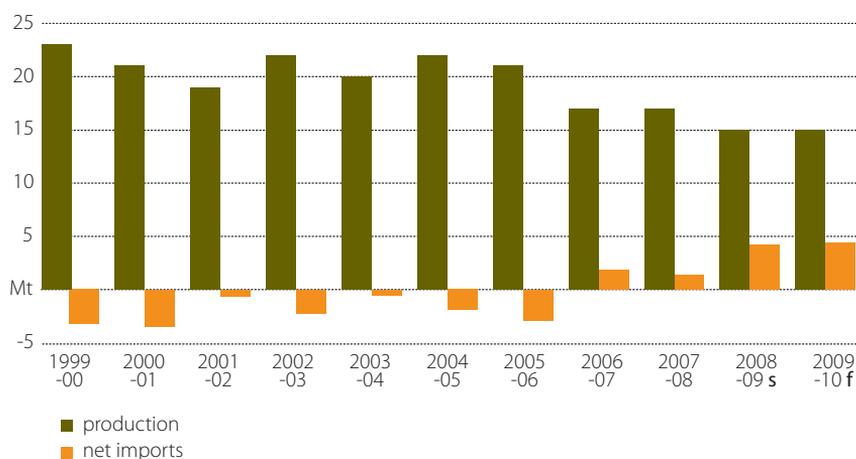
The European Union instituted a number of reforms to the Common Market Organisation for sugar, starting in 2006-07 and aimed at reducing the level of European beet production to sustainable levels. The measures include lower guaranteed minimum prices to beet growers, lower market intervention (guaranteed) prices and reduced quotas to which the guaranteed prices apply.

There are compensation arrangements for beet growers and various incentive arrangements to encourage individuals to voluntarily give up quota entitlements of around 6 million tonnes. If target quota cuts are not reached by 2010, compulsory cuts to quotas will be made.

Prior to the reform, the intervention price for white sugar was €632 a tonne. The intervention price was replaced by a reference price for white sugar, which was lowered to €505 in 2006-07, €458 in 2007-08, €428 in 2008-09 and €404 in 2009-10. A private storage system was introduced to provide a safety net in the event the market price falls below the reference price.

By mid-2007, only 2.2 million tonnes of quotas had been renounced, so the European Union decided in September 2007 to provide additional incentives to attract a further 3.8 million tonnes of quota renunciations. The quota renunciations have now reached 5.8 million tonnes, so compulsory cuts in 2010 will probably not be necessary.

European Union sugar production and net imports



The reforms have adversely affected sugar producers in less developed countries, which have traditionally benefited from EU prices for sugar which have been inflated by EU support measures. The European Union is shifting from the long standing EU-ACP Protocol — which guaranteed certain African, Caribbean and Pacific countries quota-limited, duty free access to the EU market — to Economic Partnership Agreements (EPA) which are believed to be compatible with World Trade Organisation rules. Under the EPA, which will commence in October 2009, access to the EU market for raw sugar will still be duty free. However, a safeguard clause will be in place to limit potential imports to about 3.5 million tonnes a year until 2015.

The reforms have caused markedly lower EU sugar production and exports, and lower EU domestic sugar prices. The latter could also mean lower sugar production in some less developed countries which have traditionally had access to the EU sugar market.

Sugar

Excessive rain reduces Australian cane production in 2009-10

Australian cane production in 2009-10, the harvest of which commenced in June 2009, is forecast to be 31.3 million tonnes, down 0.4 million tonnes on 2008-09 and the smallest Australian crush since 2000-01. Growing conditions for the 2009-10 Australian sugar cane crop were adversely affected by excessive rain, including floods in early 2009 in the Herbert, Burdekin and far north regions of Queensland and, more recently in northern New South Wales. As a consequence, Australian cane yields are forecast to decline to 82.7 tonnes a hectare in 2009-10, compared with 83.5 tonnes a hectare in 2008-09 and the 10 year average of 83.6 tonnes.

Australian sugar production is forecast to decline to 4.4 million tonnes in 2009-10, down 0.2 million tonnes on 2008-09. This is expected to lead to a decline of 0.2 million tonnes in Australian sugar exports in 2009-10, to around 3.2 million tonnes. Reflecting the effect of higher prices in Australian dollar terms, the value of Australian sugar exports is forecast to increase by \$188 million, to be around \$1.32 billion in 2009-10.

Sugar outlook

		2007	2008	2009	%
		-08	-09 s	-10 f	change
World					
Production	Mt	167.3	159.7	167.5	4.9
– Brazil	Mt	30.7	38.9	42.7	9.8
Consumption	Mt	161.3	163.3	165.4	1.3
Closing stocks	Mt	69.7	66.1	68.2	3.2
Change in stocks	Mt	5.2	– 3.6	2.1	
Price	USc/lb	13.7	13.8	12.9	– 6.5
Australia					
Area	'000 ha	381	380	379	– 0.3
Production	kt	4 763	4 634	4 425	– 4.5
Exports	kt	3 493	3 394	3 168	– 6.7
– value	A\$m	1 006	1 136	1 324	16.5

Cotton

Max Foster

Improving world cotton prices in 2009-10

The world indicator price for cotton (Cotlook 'A' index) is forecast to increase to US72.5 cents a pound in 2009-10 (August to July), compared with US62.5 cents a pound in 2008-09. This forecast increase reflects a rebound in world demand because of an assumed recovery in the world economy and relatively tight world cotton supply. The cotton indicator price has been volatile in 2008-09 in response to the effects of the global financial crisis. The indicator declined from a season high of US80.35 cents a pound in early August 2008, to a low of US50.15 cents a pound in March 2009, before recovering to US60.35 cents a pound on 17 June 2009.

World cotton indicators



The temporal price pattern in the key futures market for cotton reflects the expectation of improving world cotton demand and continuing tightness of world cotton supply, particularly in the United States. At 17 June 2009, cotton futures prices on the International Commodity Exchange were US52.03 cents a pound for July 2009 delivery, rising to US61.52 cents a pound for May 2010 delivery.

The relatively low value of the Australian dollar and favourable cottonseed prices are maintaining returns to Australian cotton growers. At 17 June 2009, the cash price for Australian cotton growers was \$350 for a 2008-09 (227 kilograms) bale of lint, with a forward price for 2009-10 crop of \$404 a bale.

Cotton

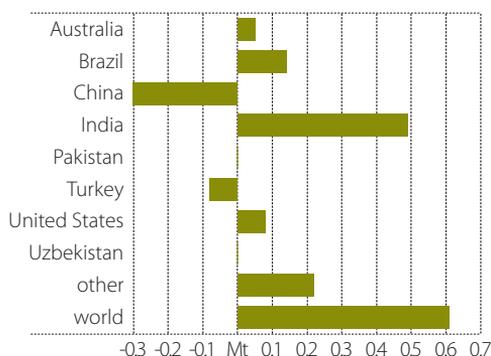
World production to increase in 2009-10

World production of cotton is forecast to increase to 24.2 million tonnes in 2009-10, compared with 23.5 million tonnes in 2008-09. While low current world prices for cotton on their own mean there is no strong incentive to increase cotton production in 2009-10, returns to alternative land uses (soybeans and corn) have also retreated from their buoyant levels in the previous year. Production increases are expected in 2009-10 in the United States, India, Brazil and Australia, with low current prices deterring plantings in China.

US production is forecast to increase slightly in 2009-10, despite a further fall in the area planted, because of the assumption of a return to more normal abandonment levels compared with 2008-09. The 2008 US farm program operating from 2008 to 2012 will continue to provide benefits which insulate US cotton growers from low world cotton prices.

Change in world production

2009-10 f



Cotton plantings in China in 2009-10 are nearing completion and are estimated to be down by 7 per cent. In India, cotton plantings are up slightly in 2009-10, because of the expectation of lower returns for alternative crops. Higher cotton yields are forecast for India in 2009-10, because of an increased adoption of improved cotton varieties arrived at through genetic modification.

Cotton demand growth to resume in 2009-10

The effect of the global economic downturn on the demand for apparel fibres resulted in a fall in world cotton consumption of 8.2 per cent in 2008-09, the largest annual decline on record. A relatively weak recovery in cotton demand is forecast for 2009-10, reflecting an assumed return to modest growth in the world economy. However, because of tighter world cotton supplies, higher cotton prices will restrict consumption growth to a forecast 1.2 per cent increase in 2009-10.

Buyers of apparel fibres in world markets are adopting a cautious approach to their purchases. The global economic downturn has also led to low prices for the synthetic fibres which compete in the world fibre markets with cotton.

Low world cotton stocks by the end of 2009-10

World closing stocks of cotton are forecast to decline by 5.6 per cent, to 11.8 million tonnes in 2009-10. This represents a stocks to use ratio of 48 per cent, which is the lowest level since 2002-03.

Price aspects of the 2008 US farm program for cotton

The 2008 US farm program operating from 2008 to 2012 is set out in the Food, Conservation and Energy Act 2008. As with previous US farm program legislation, the 2008 farm program provides for direct payments, marketing loan benefits and counter-cyclical payments. A new feature of the 2008 farm program is a form of crop revenue insurance, called the average crop revenue election (ACRE) program, which begins operating at the start of the 2009 crop year on 1 August 2009.

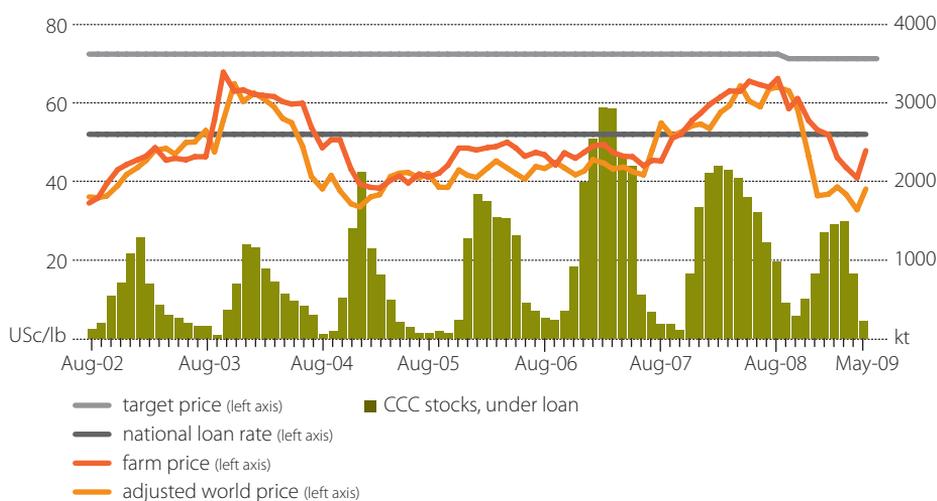
For each grower, all direct and counter-cyclical payments are made on a specified proportion of their eligible historical cotton area and yield bases. For direct payments, the specified proportions are 85 per cent in crop years 2008 and 2012 and 83.3 per cent in crop years 2009 to 2011. For counter-cyclical payments, the specified proportion is 85 per cent in all years from 2008 to 2012.

For growers of upland cotton, direct payments in the period 2008 to 2012 are made at the rate of US6.67 cents a pound. The direct payments are made even if growers do not produce cotton, provided they do not plant fruit, vegetables or wild rice.

In effect, the marketing loan arrangements provide US cotton growers with a first advance as well as a subsidy when cotton prices are low. Even in years where farm-gate cotton prices are above the loan rate, large quantities of US cotton are put under loan. US cotton growers can receive marketing loan benefits in either of two ways.

The first marketing loan arrangement is that growers can put their cotton under loan at the loan rate. The base quality loan rate for upland cotton is US52 cents a pound for the period 2008 to 2012, a level unchanged from the previous farm program. Cotton under loan can be forfeited to the Commodity Credit Corporation (CCC, a government agency), rather than the loan being repaid. The loan can also be repaid at the adjusted world price (AWP), which is related to world prices by a formula specified in the farm program legislation, when the AWP is less than the loan rate. The difference between the loan rate and the AWP is called the marketing loan gain (MLG).

US farm program prices and CCC stocks



continued...

Price aspects of the 2008 US farm program for cotton *continued*

The second marketing loan arrangement is that participating growers can opt, instead of putting their cotton under loan, to receive a one-time payment on eligible production when the AWP is below the loan rate. This loan deficiency payment (LDP) is calculated as the difference between the loan rate and the AWP.

Counter-cyclical payments are made whenever the target price is greater than the effective price for cotton. Under the farm program legislation, the target price for upland cotton is set at US71.25 cents a pound for the crop years 2008 to 2012, which was reduced from US72.1 cents a pound with the previous US farm program. The effective price is equal to the direct payment (US6.67 cents a pound) plus the higher of the loan rate (US52 cents a pound) and the national average farm price.

Growers can elect to receive payments under the ACRE program, but this extinguishes their right to receive counter-cyclical payments from the date of signup in the ACRE program through to 2012, the last year covered by the 2008 farm legislation. ACRE participation also means 20 per cent lower direct payments and a 30 per cent lower marketing loan rate.

ACRE provides participating growers with a revenue guarantee each year based on national market prices (average of past two years) and state-level planted yields (a five year 'Olympic' average, whereby the two years with the highest and lowest yields are dropped). ACRE payments are made when the actual state-level revenue falls below the state guarantee per acre, and the actual farm revenue per planted acre falls below the farm benchmark revenue per acre.

The subsidy effect of the US farm program in 2008-09 in periods of low prices is illustrated in this following hypothetical example based on actual prices published by the US Department of Agriculture. A grower of base quality upland cotton puts their cotton under loan in September 2008 and receives the loan rate of US52 cents a pound, plus the direct payment of US6.67 cents a pound, implying a minimum effective price of US58.67 cents a pound. The grower repays the marketing loan in January 2009 at the adjusted world price of US38.6 cents a pound, making a marketing loan gain of US13.4 cents a pound. The grower then immediately sells the cotton at the farm-gate price of US46.1 cents a pound. Based on the current forecast by the US Department of Agriculture for a national average farm-gate price in 2008-09 of US49 cents a pound, the grower will also receive a counter-cyclical payment in 2008-09 of US12.58 cents a pound. In total, the US cotton grower has realised a farm-gate price in 2008-09 of US78.75 cents a pound on 83.3 per cent of their historical production base. This US farm-gate price is roughly equivalent to a Cotlook 'A' indicator price of US86 cents a pound, in a year when the Cotlook 'A' indicator price is estimated to average around US62.5 cents a pound.

Given the average US farm price for upland cotton forecast by the US Department of Agriculture for 2009-10 of US54 cents a pound, the average US grower of upland cotton in 2009-10 is guaranteed a minimum price of US71.25 cents a pound on their eligible upland cotton production. They will also receive a direct payment of US6.67 cents a pound. Depending on the seasonal pattern of US prices, the grower may also realise a marketing loan gain, but not if the farm-gate price remains above the loan rate of US52 cents a pound throughout the season.

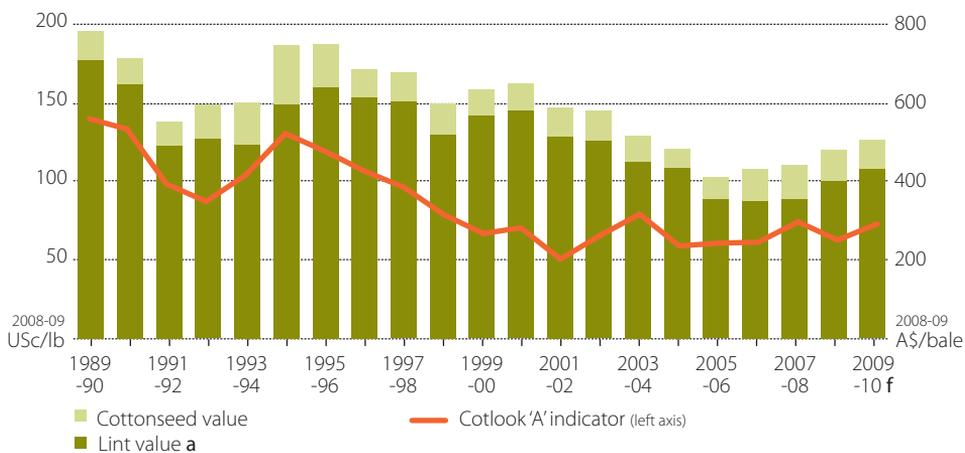
Fibre prices

weekly



A consequence of the global economic downturn and, hence, weaker cotton prices, was unusually large interventions by governments in China and India to buy cotton from their 2008-09 cotton harvests to support domestic prices. These intervention stocks are now being sold off again as buyers reappear in world cotton markets and are expected to be largely disposed of by the end of 2008-09.

Australian returns



^a Net of ginning costs.

Sources: Australian Bureau of Statistics 2008; ABARE 2009.

Cotton

Favourable returns to Australian cotton growers in 2009-10

Despite the decline in world cotton prices, the devaluation in the Australian dollar and a relatively high price for cottonseed have provided support for returns to Australian cotton growers. The value of lint and associated cottonseed, net of ginning costs, is forecast to increase to the equivalent of \$506 a bale in 2009-10, compared with \$480 a bale in 2008-09.

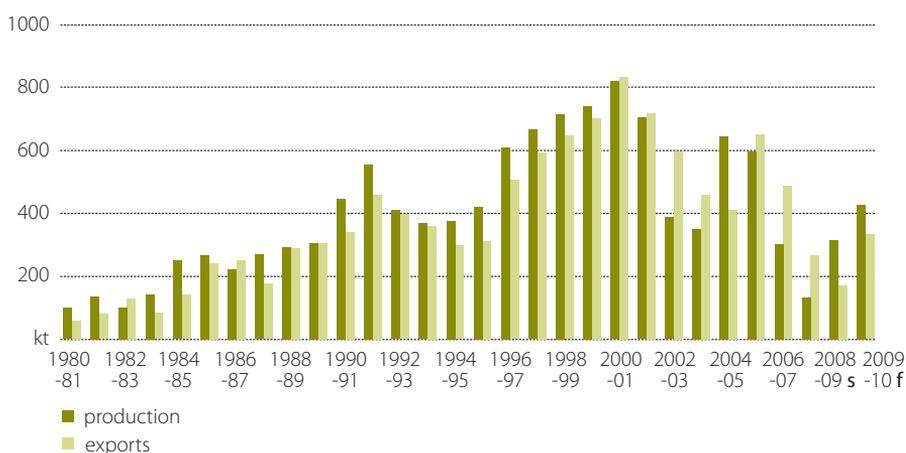
Improved outlook for Australian cotton production

Australia's 2008-09 cotton harvest has just been completed, with improved supplies of irrigation water enabling slightly better than average cotton yields. Australian cotton production in 2008-09 is forecast to be 315 000 tonnes, 137 per cent higher than in 2006-07.

Cotton remains the most profitable crop to grow in the traditional cotton growing regions of Queensland and New South Wales. Forecast returns to alternative irrigated crops in 2009-10, mainly wheat in winter and sorghum in summer, are likely to be less favourable compared with 2008-09.

The irrigation water situation in Australia's traditional cotton growing regions in 2009 is slightly better than at the same time last year, mainly in Queensland and the Namoi region in New South Wales. On a production weighted basis, the main irrigation dams serving the cotton growing regions in New South Wales and Queensland are 32 per cent full, compared with 29 per cent at the same time in 2008. However, the Murray-Darling Basin irrigation water situation deteriorated further from June 2008, because of record low winter run-offs. Moreover, relatively high prices for wheat in 2008 favoured increased use of available irrigation water with wheat production. Assuming more normal winter run-offs into the irrigation dams in 2009, Australian cotton plantings in 2009-10 are forecast to be 230 000 hectares, 41 per cent higher than in 2008-09. Assuming an increase in yields, Australian cotton production in 2009-10 is forecast to be 427 000 tonnes, 112 000 tonnes more than in 2008-09.

Australian production and exports



The increase in Australian production also means a recovery in Australian cotton exports in 2009-10 from the low levels of 2008-09. Because Australian cotton is largely harvested in the period February to June each year, the level of exports in any one financial year reflects production from two harvests. Australian cotton exports in 2009-10 are forecast to increase by 47 per cent in volume terms, reflecting higher forecast production in both 2009-10 and 2010-11. Nevertheless, forecast Australian cotton exports of 332 000 tonnes in 2009-10 will still be only around 40 per cent of the record exports of 834 000 tonnes in 2000-01.

Cotton outlook

		2007	2008	2009	%
		-08	-09 s	-10 f	change
World					
Production	Mt	26.2	23.5	24.2	3.0
Consumption	Mt	26.7	24.5	24.8	1.2
Closing stocks	Mt	13.6	12.5	11.8	- 5.6
Stocks to consumption ratio	%	50.8	51.0	47.7	- 6.5
Cotlook 'A' index	USc/lb	72.9	62.5	72.5	16.0
Australia					
Area harvested	'000 ha	63	163	230	41.1
Lint production	kt	133	315	427	35.6
Exports	kt	266	226	332	46.9
- value	A\$m	466	464	727	56.7

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Livestock

Beef and veal

Sally Fletcher

The Australian weighted average saleyard price of cattle is forecast to be largely unchanged at an average of 296 cents a kilogram in 2009-10. This price forecast has been revised down since that presented in the March quarter 2009 *Australian commodities*, largely reflecting an upward revision to the assumed Australian exchange rate for 2009-10.

The forecast weighted average saleyard price in 2009-10 is contingent on the assumption of an improvement in seasonal conditions. Alternatively, if dry conditions in southern Australia persist, turn-off could be higher than expected and prices could be lower than currently forecast.

Herd rebuilding in southern Australia delayed

An estimated 5 per cent increase in the number of beef cows and heifers in 2007-08 indicates that producers were holding on to females with the intention of rebuilding herds. This occurred despite a 2 per cent decline during that year in the total number of beef cattle. Since mid-2008, dry conditions have continued across much of southern Australia, leading to a delay in herd rebuilding.

Cow and heifer slaughter in southern Australia was much higher for the first 10 months of 2008-09 than in the corresponding months in 2007-08. Female cattle slaughter was 19 per cent higher in Victoria and 9 per cent higher in New South Wales. Part of the increase is likely to be attributed to higher dairy cow slaughterings in recent months because of an expected decline in farm-gate milk prices, dry seasonal conditions and low water availability in some irrigated areas. However, it is likely that dry conditions have also led to an increase in the slaughter of beef cows and heifers. Assuming seasonal conditions improve across southern Australia, the number of cows and heifers slaughtered is expected to fall.

In Queensland, cow and heifer slaughter was 6 per cent lower in the first 10 months of 2008-09 than for the same period in the previous year. This suggests that some producers have already begun rebuilding herds in response to an improvement in seasonal conditions in much of the state. Partly offsetting the effect of this rebuilding activity are stock losses from the February 2009 floods in some parts of north-west Queensland, the full extent of which is not yet known.

The Australian beef cattle herd is forecast to increase by 1 per cent in 2009-10 to 25.1 million head as producers begin to rebuild herds. This represents a downward revision from that presented in the March quarter 2009 *Australian commodities*, largely as a result of a downward revision by the Australian Bureau of Statistics on the beef cattle numbers in 2007-08, continued dry conditions across much of southern Australia and the effect of floods in some regions of Queensland.

Beef and veal

Beef production to remain largely unchanged

The total number of cattle slaughtered in 2009-10 is forecast to remain around 8.8 million head. Steer slaughter is forecast to increase, particularly in Queensland and northern New South Wales. Seasonal conditions in these areas have been favourable and it is expected there will be an increase in the turn-off of grass-fed cattle if these conditions persist. This is likely to offset the expected decline in cow slaughter in southern Australia.

With average slaughter weights forecast to be largely unchanged from 2008-09, beef and veal production is forecast to remain around 2.2 million tonnes in 2009-10.

Australian beef exports to decline

Total Australian beef exports are forecast to fall by 2 per cent in 2009-10 to 940 000 tonnes. While exports to the United States are forecast to rise, lower export volumes are expected for the Japanese and Korean markets. Another contributing factor to the forecast decline in total exports is lower expected shipments to emerging markets. In particular, exports to the Russian Federation are forecast to be markedly lower in 2009-10.

Australian beef exports to emerging markets



Australian beef exports to markets other than the United States, Japan and the Republic of Korea were significantly higher throughout the latter half of 2007-08 and into 2008-09. However, exports to the Russian Federation (which comprise the large majority of exports to the Commonwealth of Independent States) have declined since August 2008 as a result of lower income growth because of the economic downturn and reported difficulties in accessing credit for imports.

Exports to the Russian Federation and other smaller markets are expected to increase gradually during 2009-10, particularly towards the latter half of the year. However, monthly exports to these markets are not forecast to reach the volumes seen in mid-2008.

Australian beef exports to the Republic of Korea to decline

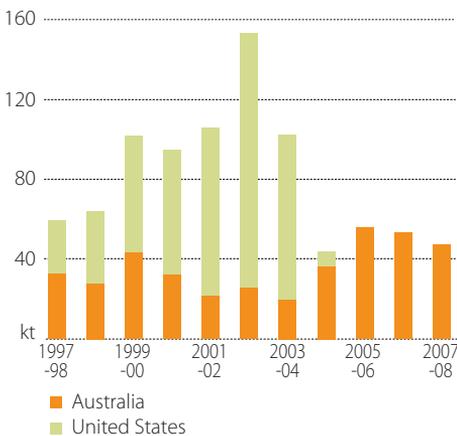
Exports of Australian beef to the Republic of Korea are estimated to be 25 per cent lower in 2008-09 than a year earlier. This is because the restrictions imposed by the Korean Government on US beef were relaxed, resulting in a loss of market share for Australian beef. Exports of Australian beef to the Republic of Korea are forecast to fall by 5 per cent in 2009-10, as competition from US beef increases further.

Prior to the discovery of bovine spongiform encephalopathy (BSE or mad cow disease) in the United States in 2003, most Koreans had a preference for US beef over Australian beef. This

Korean boneless beef imports from Australia and the United States



Korean bone-in beef imports from Australia and the United States



was evident in the higher volume of beef imports from the United States and the higher price of US beef in the Korean market. One of the main factors which distinguishes US beef from Australian beef is its higher marbling because US beef is grain-fed. Another factor is the difference in the cuts supplied by the two countries. The majority of beef cuts imported from the United States prior to 2003 were ribs, chuck and brisket, which are the cuts largely preferred by Korean consumers. Imports from Australia were comprised of these cuts as well as a range of other cuts including loin, foreshank and rump, since there is a limited market for these remaining cuts in Australia. Since 2003, most imported beef in the Republic of Korea has been sourced from Australia and still comprises the broader range of cuts.

Given the differences between the Australian and US cattle industries, Australia was limited in its capacity to meet the excess demand for grain-fed, bone-in beef after the United States was excluded from the Korean market in 2003. Imports of Australian bone-in beef more than doubled between 2003-04 and 2005-06, but were still significantly lower than Korean imports of the product from the two countries in 2003-04 and the preceding years. However, Australia was able to fill the demand for boneless beef. By 2006-07, Australia was supplying close to the volume that was imported from both Australia and the United States prior to 2003.

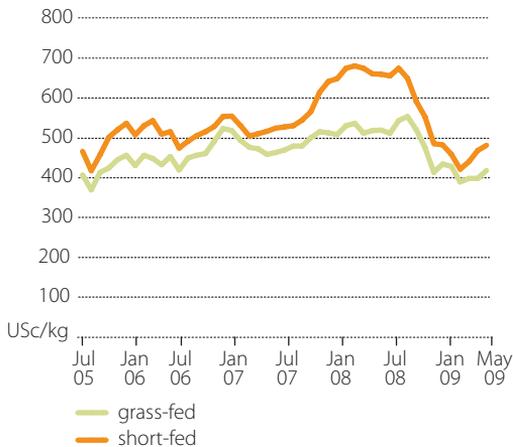
One advantage for US beef exporters trying to regain Korean market share is the flexibility to supply solely the preferred cuts. Since Australia has been unable to satisfy Korean demand for bone-in cuts, an increase in bone-in beef imports from the United States will not necessarily have a significant effect on Australia's exports. Total Korean beef imports are forecast to increase in the short term and this growth is expected to lessen the adverse effect on Australian beef of an increase of US bone-in beef in the Korean market.

Another mitigating factor which is expected to lessen the effect of the United States' return to the Korean market on Australian beef exports is the negative public reaction to US beef. The Korean Government relaxed the import restrictions on US beef in mid-2008, which led to large public protests and the refusal of major retailers to sell US beef for the following few months. This indicates that some Korean consumers distrust the quality of US beef and it is likely these consumers will continue to prefer Australian beef, which has a healthy, clean and safe image.

Beef and veal

Reflecting this, and the expected increase in total imports, Australian beef exports to the Republic of Korea are forecast to remain above pre-2003 volumes, at around 105 000 tonnes in 2009-10.

Australian export prices of chilled grass-fed and short-fed fullsets to Japan



Weaker Japanese demand for Australian beef

Export prices of Australian grass-fed and short-fed beef have fallen sharply since mid-2008. The lower prices for both types of beef reflect a steady weakening in the underlying demand for beef, as represented by the export price for beef in US dollars, the principal currency for beef trade. The weaker demand comes on the back of the global economic downturn, which has significantly affected the Japanese economy and has led to a decline in incomes.

Another factor contributing to the significant fall in the export prices of beef to Japan is a gradual increase of US beef in the Japanese market. This greater supply of beef on the Japanese market has put downward pressure on imported beef prices. Despite the significant fall in price, the quantity of Australian beef exported to Japan between July 2008 and May 2009 was only slightly below those volumes exported during the same period a year earlier.

In 2009-10, Australian beef exports to Japan are forecast to fall to 350 000 tonnes. The principal reasoning behind this forecast is twofold: increased competition from US beef for market share and dampened demand for beef arising from the economic slowdown in Japan.

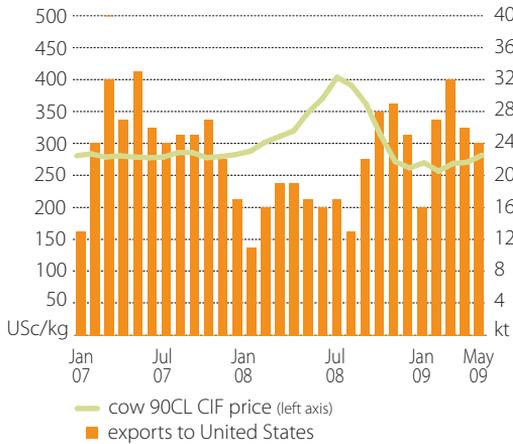
Australian beef to remain competitive in US market

Australian beef exports to the United States fell by 21 per cent in 2007-08 as the landed price of Australian beef increased in response to a significant appreciation of the Australian dollar. US imports of Australian beef began to increase in September 2008, with the appreciation of the US dollar and a strengthening of demand for cheaper beef cuts as a result of the economic downturn.

In the United States, imported manufacturing beef is usually mixed with domestically produced grain-fed trimmings to produce ground beef. The demand for cheaper meat, such as ground beef, is expected to remain strong throughout 2009-10 as consumers' willingness to buy more expensive cuts remains low.

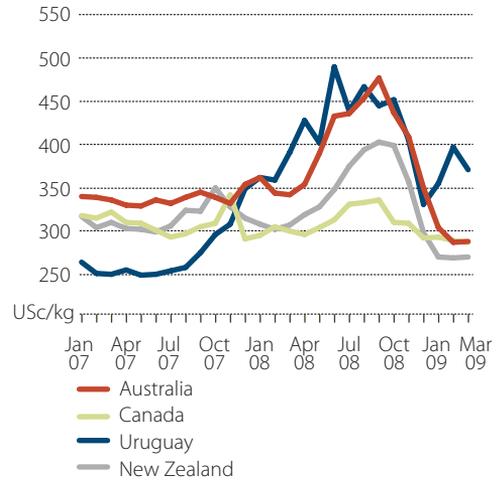
The import price of Australian beef in the United States has fallen since August 2008, making Australian beef much more competitive in the US market, particularly relative to imported Canadian and Uruguayan beef. With the value of the Australian dollar assumed to appreciate only modestly in 2009-10, Australian beef is expected to remain competitive in the US market. Reflecting this, Australian beef exports to the United States are forecast to increase by 7 per cent in 2009-10 to around 300 000 tonnes.

Australian export volumes to United States and landed price



Note: Cow 90 CL is 90 per cent chemically lean beef.

Unit values of US beef imports, from selected countries monthly



Australian live cattle exports

Australian live cattle exports are estimated to increase in 2008-09 for the third consecutive year, largely reflecting strong demand in Indonesia. However, live cattle exports to other markets are estimated to have fallen this year. Exports to these markets were down by around 7 per cent in the first 10 months of 2008-09 compared with the corresponding period in 2007-08.

With lower economic growth assumed for Indonesia, other South-East Asian countries and the Middle East in 2009 and 2010, the demand for Australian live cattle is expected to be adversely affected, albeit not significantly. Live cattle exports are forecast to decline by 2 per cent to 780 000 head in 2009-10.

Beef and veal outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
Cattle numbers	million	27.3	27.4	27.6	0.7
– beef	million	24.8	24.9	25.1	0.8
Slaughterings	'000	8 799	8 760	8 780	0.2
Production	kt	2 155	2 164	2 175	0.5
Exports (shipped weight)					
– to United States	kt	240	280	300	7.1
– to Japan	kt	365	360	350	-2.8
– to Korea, Rep. of	kt	146	110	105	-4.5
– total	kt	930	960	940	-2.1
– value	A\$m	4 190	4 850	4 520	-6.8
Live cattle	'000	713	795	780	-1.9
Price					
– saleyard	A\$/kg	286	295	296	0.3
– US import	US\$/kg	303	304	308	1.3
– Japan import	US\$/kg	510	452	440	-2.7

Sheep meat

Gwendolen Rees and Thomas Jackson

Throughout 2008-09, lamb supplies have been tight and demand has remained strong. As a result, prices during 2008-09 approached historical highs in both nominal and real terms. In 2009-10, lamb production is forecast to increase slightly and, as a result, the Australian weighted average price of lambs is expected to fall slightly by 1.7 per cent to 415 cents a kilogram. This compares with an estimated average of 422 cents a kilogram in 2008-09.

In May 2009, the Australian Bureau of Statistics released its final estimate of the size of the Australian sheep flock as of 30 June 2008, which was revised down from an earlier estimate of 79.2 million head to 76.9 million head. As a result, the forecast size of the Australian sheep flock as at 30 June 2009 and 30 June 2010 has also been revised downwards from the March quarter 2009 estimates. The size of the Australian sheep flock is now forecast to be 73.2 million head and 69.9 million head by the end of 2008-09 and 2009-10, respectively.

Australian sheep flock and sheep prices



The weighted average saleyard price of sheep is forecast to increase by 2.6 per cent in 2009-10, to average 200 cents a kilogram. This forecast increase mainly reflects continued strong demand for mutton and live sheep in export markets, combined with expected lower production of mutton. Mutton production is expected to decline in the short term as a result of the shrinking national flock and the retention of breeding animals in response to high lamb prices.

The price forecasts for lamb and sheep are dependent on a sustained improvement in seasonal conditions throughout 2009-10. Recent rains have increased re-stocker demand for lambs and sheep, which has contributed to higher prices. If seasonal conditions deteriorate, producers will turn off more animals and that will put downward pressure on saleyard prices.

Lamb production to rise as producers respond to high prices

Lamb prices have been consistently strong throughout 2008-09 and the profitability of producing lamb relative to wool has continued to increase. These high prices are expected to provide continued incentive for farmers to produce more lambs in 2009-10 by increasing the proportion of breeding ewes in flocks and joining a greater proportion of ewes to meat-breed rams. In 2008-09, lamb slaughter is estimated to fall by 2 per cent to 20.5 million head.

Australian lamb



The higher proportion of ewes joined to terminal sires in 2008-09 is expected to result in an increase in lambs marked in 2009-10, as lambing rates are typically higher with meat-breed rams. This is expected to increase the availability of lambs for slaughter in 2009-10. Lamb slaughter is forecast to increase to 20.6 million head in 2009-10.

The average slaughter weight of lambs is expected to increase by 1.5 per cent in 2009-10 compared with 2008-09. This reflects the forecast increase in the proportion of crossbred lambs slaughtered relative to merino lambs and lower feed costs, as well as an assumed improvement in seasonal conditions. As a result of increased lamb slaughter and heavier slaughter weights, lamb production is expected to increase by 2 per cent in 2009-10, to 422 000 tonnes.

Smaller flock constrains sheep slaughter

In contrast, sheep slaughter is expected to fall by around 5 per cent in 2009-10, to around 11 million head. This decline primarily reflects the lower overall number of sheep in the Australian flock, as well as the recent trend to retain breeding animals for sheep meat production.

Over the past two years, the proportion of sheep slaughtered has been around 25 per cent higher than the average between 2002-03 and 2006-07. This reflects continued poor seasonal conditions and the ongoing shift from sheep meat and wool production into cropping to benefit from relatively high grain prices. In particular, relatively low returns to wool production have contributed to the higher sheep slaughter rate, as producers turned off non-breeding adult sheep. In 2009-10, the sheep slaughter rate is expected to decline slightly in response to relatively favourable lamb prices and an assumed improvement in seasonal conditions.

Mutton production is forecast to fall by around 3 per cent in 2009-10, to 235 000 tonnes. This decline is smaller than the fall in sheep slaughter, reflecting higher expected average slaughter weights as a result of assumed greater pasture availability.

Exports to remain strong

The volume of lamb exports from July 2008 to April 2009 fell relative to the same period in 2007-08. This decline is expected to continue to the end of 2008-09, given the decline in lamb production. Lamb exports in 2008-09 are estimated to total 151 000 tonnes, a decline of 7 per cent from the previous year.

Sheep meat

Australian sheep meat exports

monthly



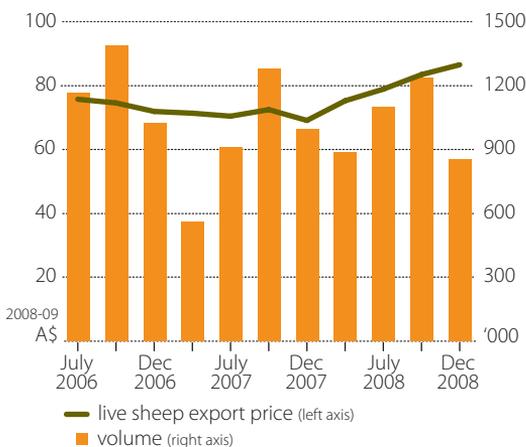
Between July and September 2008, the high value of the Australian dollar relative to the US dollar had a negative effect on export volumes of sheep meat. However, the subsequent depreciation of the Australian dollar between October and December 2008 supported the increase in sheep meat export volumes in the same period.

In 2009-10, lamb exports are forecast to increase by around 5 per cent to 158 000 tonnes, reflecting the expected increase in lamb production. Growth in world demand for Australian lamb in 2009-10 is expected to be weaker than in the past few years because of the effects of the economic slowdown in some export markets. Lamb exports to the United States are forecast to increase by around 3 per cent to 38 000 tonnes in 2009-10.

As a result of lower sheep slaughter, mutton exports in 2008-09 are estimated to fall by 7 per cent, to 147 000 tonnes. Although exports to Malaysia for the 2008-09 year to date have nearly doubled year on year, export volumes to key markets such as the Middle East and the United States are estimated to fall in 2008-09 by around 15 per cent. In 2009-10, mutton exports are forecast to fall by a further 3 per cent to 143 000 tonnes, reflecting lower domestic mutton production.

Australian live sheep exports

quarterly



Demand for live sheep unabated

Despite a 10 per cent decline in the Australian adult sheep flock during 2008-09, live sheep exports in 2008-09 are estimated to fall by 2 per cent to around 4 million head. The relatively small decline in live sheep exports reflects a significant increase in live sheep export prices. Between July 2008 and March 2009, live sheep export prices averaged around 20 per cent higher than the same period in 2007-08. The value of live exports in 2008-09 is estimated to increase by 17 per cent relative to 2007-08, to \$334 million.

In 2009-10, live sheep exports are expected to remain at a similar level relative to 2008-09. Strong export demand for live sheep, particularly from the Middle East, is expected to support live sheep exports. The value of live sheep exports in 2009-10 is forecast to be around \$336 million.

Sheep meat outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
Slaughtering					
Sheep	'000	11 929	11 650	11 050	-5.2
Lamb	'000	20 899	20 500	20 600	0.5
Production					
Mutton	kt	258	242	235	-2.9
Lamb	kt	435	414	422	1.9
Exports (shipped weight)					
Mutton	kt	158	147	143	-2.7
Lamb	kt	163	151	158	4.6
- to United States	kt	42	37	38	2.7
Total sheep meat					
- value	\$m	1 246	1 370	1 325	-3.3
Live sheep	'000	4 069	4 000	4 000	0.0
Saleyard prices					
Mutton	Ac/kg	159	195	200	2.6
Lamb	Ac/kg	335	422	415	-1.7

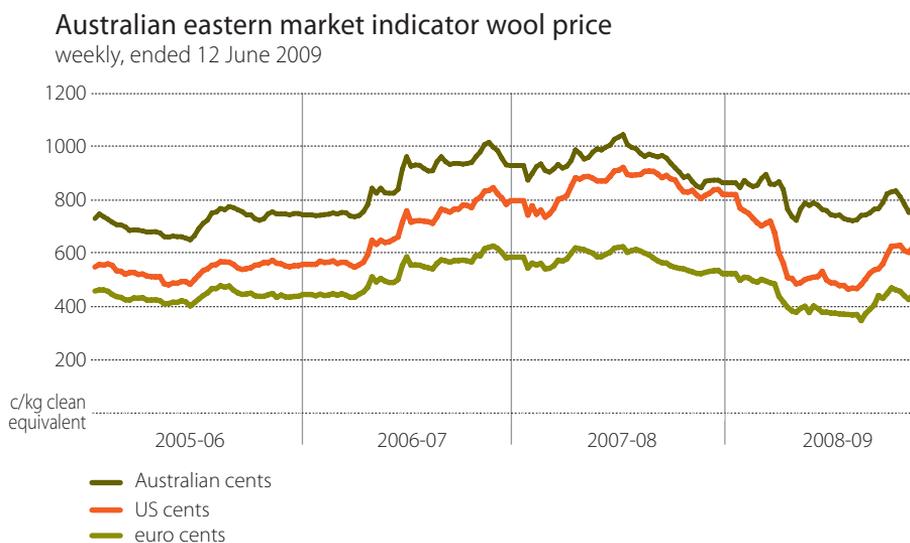
Wool

Caroline Gunning-Trant

The demand for wool has been severely affected by the global economic downturn, which has caused the eastern market indicator (EMI) price for wool to fall significantly this season. In November 2008, the EMI reached a two and a half year low of 723 cents a kilogram clean. The demand for wool began to show some signs of recovery in March 2009, given the sustained growth in the Chinese domestic retail sector and dwindling stocks in the wool processing pipeline. Between March and May 2009, the EMI increased 15 per cent despite the concurrent appreciation of the Australia to US exchange rate. Against this backdrop, the EMI is estimated to be at 795 cents a kilogram clean, which is 16 per cent lower in 2008-09 than the previous year.

In 2009-10, the EMI is forecast to be 820 cents a kilogram clean, which is a 3 per cent increase from the current financial year. This is an upward revision to the price forecast presented in the March quarter 2009 *Australian commodities* and can be attributed to expected strong growth in Chinese domestic retail sales combined with a downward revision of Australian shorn wool production.

A couple of factors mitigate any greater increase in the price for 2009-10. First is the continued effect of the global recession on retail spending in OECD countries. While there are tentative signs of recovery in several OECD countries, retail spending is expected to remain subdued through 2009 and into 2010 given increasing unemployment rates and the effect on consumer confidence. Lower retail sales growth will continue to have an effect up the supply chain, with total demand for raw apparel wool expected to remain weak in 2009-10. The second factor which could put downward pressure on the EMI is the assumed appreciation of the Australian dollar relative to the US dollar in 2009-10, which causes wool to be more expensive for foreign buyers.



Chinese retail demand supporting prices

Between July and early November 2008, the EMI dropped by 151 cents, or 17 per cent, as the global economic downturn caused demand to fall significantly. The decline in demand is best reflected in the price of wool in US dollars, the principal currency in which wool is traded on international markets. Between July and November, the decline in the EMI in US dollar terms fell from US840 cents a kilogram to US485 cents a kilogram, a fall of 42 per cent.

The EMI fluctuated around US500 cents a kilogram throughout the Australian summer, a price not seen in almost three years. The drop in the underlying demand for wool reflected the outlook for the global economy and more specifically for consumer spending in the large industrialised economies of the United States, the European Union and Japan.

While demand for China's apparel exports has fallen sharply with the global recession, domestic retail demand has grown strongly. Retail sales in China grew by more than 21 per cent in 2008, with year on year growth in November and December (the two months following the global financial crisis) still at 21 per cent and 19 per cent, respectively. Between January and April 2009, retail growth grew by an average rate of 15 per cent year on year and is expected to average about 14 per cent for 2009 as a whole. While 7 percentage points lower than 2008, this growth rate is significant and has been credited in large part to the Chinese Government's fiscal package of US\$585 billion. It is assumed that Chinese domestic demand will be the principal driver of demand for Australian exports of raw wool in 2009-10.

In the major apparel importing and consuming economies of the United States, the European Union and Japan, retail sales have been severely affected by the global recession because of increasing unemployment rates and the drop in consumers' incomes. With only a modest improvement in retail sales in these economies expected toward the end of 2009, import demand for apparel will remain sluggish. Since the demand for raw wool is derived from the demand for apparel, this outlook will put downward pressure on the demand for raw wool from Australia's two major export markets, China and Italy, in 2009-10.

Smaller sheep flock pushing down wool production

In 2008-09 the relative price of sheep meat to wool increased markedly. Demand for sheep meat persisted despite the global economic downturn and this was clearly reflected in the sustained rise in saleyard prices for lambs and sheep. Over the same period, wool prices declined significantly. As a result, producers turned off a large number of lambs, as well as non-breeding adult sheep which had previously been retained for wool production. Against this backdrop, shorn wool production is estimated to fall by 13 per cent in 2008-09, to 355 000 tonnes. This estimate has been revised downwards since March 2009 because of prolonged dry conditions for most of the season in south-east Australia and an upward revision to the number of lambs slaughtered.

The lower number of non-breeding adult sheep in the flock and the greater proportion of ewes joined to terminal sires are expected to be the principal factors keeping the cut per head unchanged in 2009-10, at about 4.25 kilograms a head. Given the downward revision to the size of the national flock to nearly 70 million head by the end of 2009-10, it is forecast that

Wool

shorn wool production will fall to around 330 000 tonnes, a 7 per cent decline relative to 2008-09 and the lowest since 1925.

The effect of the widespread autumn rainfall across most parts of the wheat-sheep zone, with the exception of Western Australia, is likely to improve pasture availability relative to last season. This could have a slight positive effect on cut per head, as well as provide an incentive for producers to turn off fewer sheep despite the high prices being offered.

China's export share increasing

Between July 2008 and April 2009, the quantity of greasy wool exported was 8 per cent lower, and export values 18 per cent lower, compared with the same period last season. The largest decline occurred in November and December following the global financial crisis, when export volumes fell nearly 25 per cent compared with a year earlier. This decline reflected expectations about future consumer spending at the time.

Australian total wool export volumes



Following the three week auction close over the Christmas break, stronger than expected retail sales growth in China and dwindling stocks in the wool processing pipeline led to a typical two month surge in demand. Interestingly, excluding November and December, total export volumes of greasy wool between July 2008 and April 2009 only fell less than 4 per cent. More than 71 per cent of the shipments over this period were destined for China, an increase of 7.9 percentage points year on year, as European demand for Australian wool fell significantly.

In 2008-09 the total volume of wool exports, which includes shorn wool, semi-processed wool and skins expressed as greasy wool equivalents, is estimated to be 10 per cent lower than 2007-08 at 442 000 tonnes. This estimate reflects the lower supply of wool available given shorn wool production and relatively low stocks of wool on-farm and in brokers' stores. Given the decline in wool prices, export returns in 2008-09 are estimated to be \$2.29 billion, 18.3 per cent lower than last season.

In 2009-10, total exports of wool are forecast to fall by a further 8 per cent, to 405 000 tonnes, in line with the decline in shorn wool production. China will continue to be the primary export market for Australian shorn wool. However, the export share is expected to decline slightly as European buyers are expected to be more active in the market in the second half of the season. Export returns are forecast to fall by 7 per cent to \$2.12 billion in 2009-10.

Wool remains competitive during economic downturn

The global economic downturn has affected the price of wool and the prices of those fibres with which wool competes. As discussed above, the price of apparel wool has fallen significantly since the beginning of 2008-09. However, the competitiveness of wool is not determined by its price in absolute terms but by its relative price to other fibres, namely cotton and polyester. Since January 2008 there has been a general downswing in the wool to Cotlook 'A' and wool to polyester price ratios, as the price of wool has fallen proportionately more than both of these fibres. This means wool has become increasingly more competitive relative to cotton and polyester.

The Cotlook 'A' indicator price fell more than 30 per cent between July 2008 and March 2009 before regaining some ground through May. Over the same period, the wool to Cotlook 'A' ratio has been quite variable: decreasing from an above-average level at the beginning of the season to an eight year low in January 2009, before regaining ground by the end of May 2009. Between July 2008 and May 2009, the average wool to Cotlook 'A' price ratio was approximately 25 per cent lower than over the same period a year earlier at 4.2:1, and 11 per cent lower than the 2000 to 2008 average. In 2009-10, the forecast modest strengthening of the price of wool relative to the stronger forecast for the Cotlook 'A' indicator price is expected to result in a decline in the wool to Cotlook 'A' ratio to approximately 3.8:1, which will further increase wool's competitiveness relative to cotton.

Price ratio of wool (21 micron) to alternative fibres

monthly, ended April 2009



Wool

The average price of polyester staple fibre also declined in 2008-09. This reflected weak consumer demand as well as the fall in petroleum prices, a key component in the production of polyester. Polyester prices fell by about 20 per cent between July 2008 and April 2009, although like cotton, they were quite volatile. The wool to polyester price ratio averaged 3.1:1, nearly 15 per cent lower than the 2000 to 2008 average ratio of 3.6:1. This reflects the relatively steeper decline in wool prices to polyester. Assuming polyester prices will increase roughly in line with crude oil prices in 2009-10 (as per the historical trend), it is expected that the wool to polyester ratio will decline further in 2009-10 given wool's more modest forecast price increase.

Wool outlook

		2007	2008	2009	%
		-08	-09 s	-10 f	change
Sheep numbers	million	77	73	70	-4.1
Sheep shorn	million	94	84	78	-7.1
Wool production (greasy)					
- shorn	kt	408 a	355	330	-7.0
- other	kt	39	34	31	-8.8
- total	kt	447	389	361	-7.2
Wool exports (balance of payments basis)					
- volume (gr. equiv.)	kt	492	442	405	-8.4
- value	A\$m	2 796	2 285	2 118	-7.3
Market indicator (clean)					
- eastern	Ac/kg	945	795	820	3.1
- western	Ac/kg	947	763	795	4.2
Auction price (greasy)	Ac/kg	599	500	525	5.0

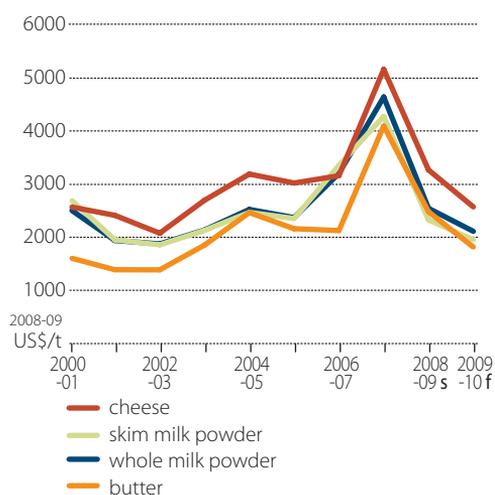
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Dairy

David Barrett

World dairy product prices declined sharply in 2008-09 following the global economic downturn, with demand for dairy products falling in many regions. World prices for butter are estimated to decline by 38 per cent to average US\$2483 a tonne in 2008-09. World prices for skim milk powder and whole milk powder are estimated to fall by around 45 per cent to US\$2329 a tonne and US\$2548 a tonne, respectively. World cheese prices are estimated to average US\$3271 a tonne, 36 per cent lower than the average price for 2007-08.

World dairy product prices



In 2009-10, world dairy prices are forecast to remain well below those of the past few years. Key factors driving this forecast are the relatively large supplies of dairy products in the major exporting countries, combined with continuing subdued demand, particularly in developing countries.

World prices for whole milk powder and skim milk powder are forecast to average US\$2152 a tonne and US\$1992 a tonne, respectively, in 2009-10. This is around 15 per cent lower than the estimated average prices for 2008-09 and nearly half of the 2007-08 average prices. World prices for butter and cheese are forecast to average US\$1850 a tonne and US\$2621 a tonne, respectively, in 2009-10, around 25 per cent and 20 per cent lower than the average prices in 2008-09.

Forecast lower prices in Australia's major dairy export markets are expected to result in the Australian farm-gate milk price declining by 17.5 per cent, to average 33 cents a litre in 2009-10. Such an outcome would represent a 33 per cent decline in farm-gate milk prices since 2007-08 and one of the largest declines in milk prices over a consecutive two year period. Farm-gate milk prices averaged around 50 cents a litre in 2007-08.

World supplies to remain high

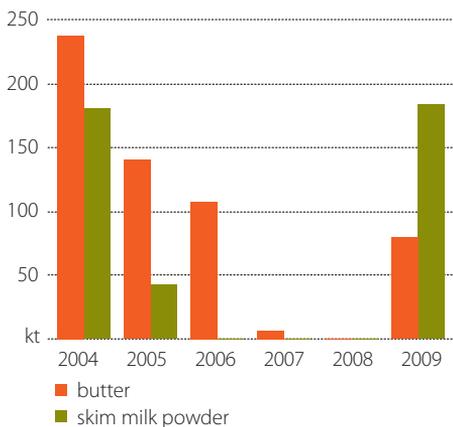
The contraction in world demand for dairy products in 2008-09, in response to the slowdown in global economic activity, has reduced export demand in major dairy producing countries. This has resulted in increased supplies to the domestic markets of major producing regions, particularly the European Union, the United States and New Zealand, putting additional downward pressure on their domestic prices.

Dairy

European Union

In 2008-09, milk production in the European Union is estimated to fall by 1 per cent. This decline is largely the result of action taken by producers in France and Germany (the two major producing countries in the region), which cut back production sharply in response to lower prices. In 2009-10, feed costs in the European Union are forecast to remain relatively high because of lower feed grain supplies. Industry restructuring and poor profitability of some smaller dairy farms will again prevent some member states from filling their national quotas. Despite a 1 per cent increase in the aggregate milk quota as agreed by the Council of Agricultural Ministers, lower farm-gate prices and higher feed costs are likely to constrain any growth in EU milk production.

EU dairy intervention stocks



In 2007, the European Union's intervention stocks of butter and skim milk powder were cleared. However, driven by the subsequent contraction of domestic and export demand, the European Union recommenced intervention purchases of butter and skim milk powder on 1 March 2009. By 4 June 2009, intervention stocks of butter and skim milk powder had reached 79 626 tonnes and 183 921 tonnes, respectively. From 1 January 2009, the European Commission recommenced the Private Storage Aid Scheme for butter. The scheme, which subsidises the private storage of butter, is used to remove surplus spring/summer butter from the domestic market and release it during winter when supplies are lower. Storage is usually for the period from 1 March to 15 August. However, for 2009 the scheme has been

extended from 1 January 2009 to 28 February 2010. By 4 June 2009, around 89 098 tonnes of butter had been accepted into private storage.

EU export refunds were re-introduced for all dairy products in early 2009 and are likely to lead to higher EU exports in 2009-10 than would otherwise be the case. This is expected to place downward pressure on world dairy product prices.

United States

In the United States, milk production is forecast to decline by 1.1 per cent in the 2009 calendar year and a further 0.9 per cent to 84.8 million tonnes in 2010. The prospect of markedly lower milk prices and relatively high feed costs are expected to lead to the continued contraction of dairy herds throughout 2009 and 2010. The average number of dairy cows is forecast to decline by 2.5 per cent to 8.95 million head in 2010.

US exports of dairy products fell sharply in the first four months of 2009, resulting in increased availability of products on the domestic market. To support domestic prices, the US Commodity Credit Corporation (CCC) purchased butter and skim milk powder. By 1 June 2009, 2090 tonnes of butter and 93 260 tonnes of skim milk powder were held as stock by the CCC. CCC's purchases of dairy products could ease toward the end of 2009 and through 2010 as the US domestic market for dairy products is expected to tighten. This is because of expected lower US production and a forecast recovery of export demand.

On 22 May 2009, the US Government re-activated its export subsidy program - the Dairy Export Incentive Program (DEIP) - by announcing allocations for the July 2008 to 30 June 2009 period. Under the DEIP, the announced allocations for 2008-09 are: 68 201 tonnes of non-fat dry milk; 21 097 tonnes of butterfat; 3030 tonnes of various cheeses; and 34 tonnes of other dairy products. As a proportion of US exports in 2008, these allocations are equivalent to around 20 per cent for butter, 2.4 per cent for cheese and 17 per cent for non-fat dry milk.

Under the Uruguay Round Agreement, the United States established annual export subsidy ceilings for specific dairy products. The ceilings specify the maximum quantities of dairy products the US Government is permitted to subsidise and the maximum budgetary expenditures on export subsidies. The announced allocations for the July 2008 to 30 June 2009 period are equal to the allowable maximum quantity limits on export subsidies.

New Zealand

Reflecting improved seasonal conditions, milk production in New Zealand is estimated to rise by 7.5 per cent in 2008-09 to 16.3 billion litres, the highest production on record. Reflecting an expected increase in the dairy herd and assuming favourable seasonal conditions, milk production in 2009-10 is expected to be close to the record output of 2008-09.

Global demand for dairy products to remain subdued

The world economic slowdown curtailed the demand for dairy products in 2008-09, especially in the latter half of the year. In 2009-10, world dairy demand is expected to be under continued downward pressure because of weak world economic activity, in particular in the Russian Federation and Asia, where it is expected to affect import demand, especially in the second half of 2009. In addition, demand for dairy products in some key OECD markets, such as Japan and the Republic of Korea, is also likely to remain subdued. However, an expected strengthening in the global economy during 2010 is expected to underpin a gradual increase in demand for dairy products.

The Russian Federation is a major importer of dairy products, with imports of 135 000 tonnes of butter and 270 000 tonnes of cheese in 2008. Relatively slow growth in Russian milk production in recent years has resulted in a greater dependence on imports. In late 2008 and early 2009, there were reports that Russian importers had difficulty gaining access to credit for import financing. Together with a depreciating currency (the Russian ruble), this contributed to a significant decline in dairy imports during that period.

Dairy

In 2009-10, Russian demand for dairy imports will be further constrained by two factors. The first is an increase in import duties on specific dairy products implemented by the Russian Government from 31 January 2009. The import duty on butter increased from 0.22 euros a kilogram to 0.35 euros a kilogram and the ad valorem import duty (calculated as a percentage of the value of the imports) on milk and cream, from 15 per cent to 20 per cent. Such increases are expected to reduce the import demand of these products and place upward pressure on domestic prices. The second factor is the effect of continued weak economic growth, which is expected to lead to weaker growth in the disposable incomes of consumers.

In South-East Asia, significantly slower economic growth is also expected to adversely affect the import demand for milk powders in 2009. South-East Asia as a whole imported 380 000 tonnes of skim milk powder and around 90 000 tonnes of whole milk powder in 2008. South-East Asia is Australia's principle market for skim milk powder and whole milk powder, accounting for around 60 per cent and 40 per cent, respectively, of Australia's total exports of these products.

Japan is Australia's largest export market for cheese, accounting for around 50 per cent of total Australian cheese exports in 2007-08. For the first nine months of 2008-09, Australian cheese exports to Japan declined by 25 per cent to 55 300 tonnes. High cheese inventories in Japan, together with an increased utilisation of new Japanese cheese production facilities, are likely to dampen cheese import demand in the first half of 2009-10.

The region encompassing the Middle East and northern Africa is a relatively large importer of dairy products. In 2007, the key importers (Algeria, Egypt, Saudi Arabia and the United Arab Emirates) in this region imported 188 000 tonnes of cheese, 331 000 tonnes of whole milk powder, 151 000 tonnes of skim milk powder and 220 000 tonnes of butter. The economic slowdown in this region is expected to be less severe relative to other parts of the world. Consequently, import demand for dairy products in this region is forecast to remain relatively stable in 2009-10.

Algeria, the largest importer of whole milk powder, has increased its imports in recent years as domestic demand has been strong, supported by domestic subsidies on consumer prices. Algeria imports around 80 per cent of its domestic requirements of dairy products. Given that the Algerian Government maintains domestic consumer prices of dairy products below world prices, consumer demand is expected to remain relatively strong in 2009-10.

Australian milk production forecast to fall slightly

Australian milk production is estimated to rise by 1.7 per cent to 9.38 billion litres in 2008-09. However, production in 2009-10 is forecast to decline by 0.9 per cent to 9.3 billion litres as farmers respond to significantly lower farm-gate prices.

Australian milk production in 2009-10 will also be significantly influenced by seasonal conditions, water allocations for irrigation and the cost of supplementary feeds. Widespread and timely rain across south-eastern Australia at the end of April 2009 provided an autumn

Australian milk production and price



break, enabling pasture growth in most southern dairying regions. Further follow-up rains will be required to sustain pastures through the winter period.

The average price of feed grains in 2009-10 is forecast to be lower than in 2008-09, but to remain relatively high. Given the weak outlook for milk prices, many farmers are expected to reduce production costs by cutting back on supplementary feeding. However, the extent to which this will occur and the effect of such a response on overall milk production will be highly dependent on seasonal conditions. Assuming improved seasonal conditions, milk yields are expected to be close to those attained in 2008-09.

The adjustments producers are able to make to accommodate lower milk prices – particularly those producers in the irrigation areas of the Murray-Darling Basin – will be critical in determining Australian milk production in 2009-10. In recent years, dairy farmers in the main irrigation regions have been adjusting their management strategies in response to significantly reduced water allocations. To maintain milk production, these farmers have become more reliant on grain and fodder purchases rather than irrigated pastures, with some selling their water allocations to become entirely dependent on purchased feeds. Without sustained, above average rainfall in the main catchment areas, water allocations in 2009-10 are unlikely to return to the relatively high levels of previous years.

Dairy outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
Cow numbers	'000	1 640	1 645	1 620	-1.5
Milk yields	L/cow	5 624	5 702	5 741	0.7
Production					
Total milk	ML	9 223	9 380	9 300	-0.9
– market sales	ML	2 188	2 240	2 276	1.6
– manufacturing	ML	7 035	7 140	7 024	-1.6
Butter	kt	128	150	135	-10.0
Cheese	kt	359	348	350	0.6
Whole milk powder	kt	142	141	147	4.3
Skim milk powder	kt	164	208	184	-11.5
Farm-gate milk price	Ac/L	49.6	40.0	33.0	-17.5
Value of exports	A\$m	2 763	2 724	2 261	-17.0
World prices					
Butter	US\$/t	4 027	2 483	1 850	-25.5
Cheese	US\$/t	5 073	3 271	2 621	-19.9
Skim milk powder	US\$/t	4 204	2 329	1 992	-14.5
Whole milk powder	US\$/t	4 562	2 548	2 152	-15.5

Australian exporters to face strong competition in 2009-10

Reflecting the lower expected returns for dairy products, Australian dairy manufacturers are expected to shift their product mix away from butter and skim milk powder to cheese and whole milk powder. With world dairy product prices forecast to remain relatively low in 2009-10, the recent significant appreciation of the Australian dollar, if sustained, is likely to place further downward pressure on returns to Australian dairy product exporters.

The total value of dairy product exports is estimated to decline by 1.4 per cent to \$2.7 billion in 2008-09. In 2009-10, the value of dairy product exports is forecast to fall further, by 17 per cent to \$2.3 billion. As a result of lower export volumes and prices, the value of Australian butter exports is forecast to decline by 40 per cent to \$141 million. The values of Australian cheese and whole milk powder exports are forecast to decline by 10 per cent and 17 per cent to \$691 million and \$411 million, respectively, and the value of skim milk powder exports is forecast to fall by 25 per cent to \$450 million.

Energy and minerals overview

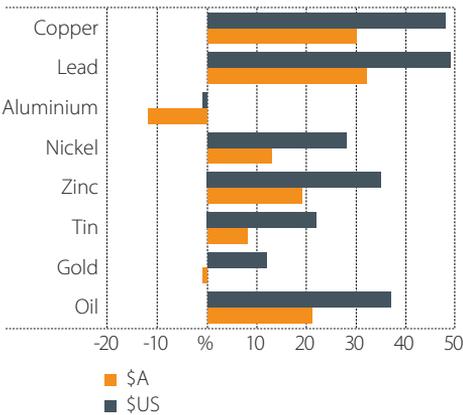
Robert New

Positive signals from the market

In the three months since mid-March 2009, prices for the majority of energy and mineral commodities have risen significantly. The rise of commodity prices has been paralleled by an increase in share market indices around the world. These trends reflect market expectations that economic conditions will begin to recover later in 2009 and 2010, and that demand for energy and mineral commodities is likely to increase.

Commodity price movements

December 08 to May 09

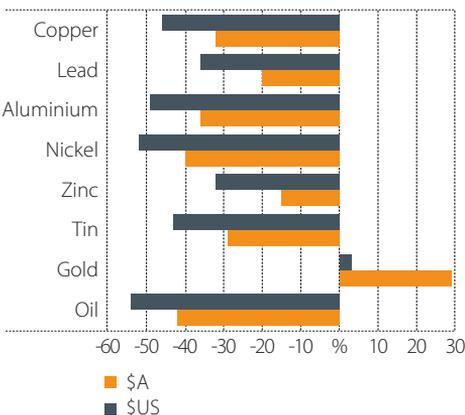


Much of the optimism, particularly around commodity markets, has been driven by China's strong growth in imports for commodities such as coal, iron ore and copper in the first half of 2009. Also providing optimism to the market is the stabilisation of credit markets, which was seen as a necessary step prior to a return to global economic growth, especially in North America and Europe.

The extent to which recent price gains are maintained will depend on the economic recovery occurring at a similar rate and trajectory as expected by the market. This is a source of considerable risk to energy and mineral commodity price forecasts. For example, if economic recovery proves to be weaker than assumed, there will be downward pressure on commodity prices. In comparison, if economic recovery proves to be stronger than assumed, demand for commodities will grow more strongly than anticipated, resulting in prices significantly higher than currently forecast.

Commodity price movements

May 08 to May 09



Despite the recent price increases, commodity prices are still generally below levels observed at the same time in 2008. For example, contract prices for Japanese fiscal year 2009 (April 2009 to March 2010) declined by 44 per cent for thermal coal and 57 per cent for metallurgical coal. With respect to iron ore prices, some Australian producers have settled fines contract prices with Japanese, Korean and Taiwanese steel mills at a 33 per cent discount for JFY 2009.

Energy and minerals overview

Strong demand in China...

In the March quarter 2009, China's imports of some energy and mineral commodities, such as iron ore, metallurgical coal and copper, increased significantly compared with the corresponding period in 2008. The resilience of China's commodities demand provided some support for prices, which were adversely affected by weak demand from Japan, the Republic of Korea and the European Union. The surge in China's imports was underpinned by low commodity prices and lower freight rates compared with 2008, which increased the competitiveness of imports against domestically produced commodities. China's import rebound was also partly driven by the restocking of depleted inventories by consumers, in anticipation of sustained demand from infrastructure investment, and the build-up of strategic reserves.

It is uncertain whether this rate of import demand from China for some commodities, such as coal, iron ore and copper, can be maintained in the second half of 2009 and through 2010. Recent increases in commodity prices and freight rates will increase the cost of imports and may encourage the restart of some domestic production capacity. This will in turn place downward pressure on imports, as consumers have the option to either source inputs from domestic suppliers or use the recent build-up of inventories. Conversely, China's domestic demand is anticipated to increase over the next 18 months, underpinned by the US\$586 billion stimulus package. The stimulus will target construction of infrastructure such as railways, freeways and electricity grids, which will support demand for minerals and energy commodities.

...partly offsetting weaker demand in developed nations

Despite resilient Chinese demand, world trade of many commodities is forecast to decline in 2009. For example, metallurgical coal trade is forecast to decline by 18 per cent, iron ore trade by 3 per cent and thermal coal trade by 2 per cent. The decline in trade reflects weaker global demand for construction materials and consumer durables, which tend to be energy and mineral intensive. In 2010, stronger consumption is forecast for most commodities, including iron ore (3 per cent), metallurgical coal (6 per cent) and thermal coal (3 per cent), supported by increasing economic growth rates.

Production cutbacks

Global supply of energy and mineral commodities is expected to contract in 2009. A number of mines, particularly those developed in response to high prices over the past few years, have shut down or idled capacity since September 2008. While world production of most commodities is forecast to fall in 2009, nickel and aluminium are expected to be among the worst affected.

In 2010, global supply of most energy and mineral commodities is expected to expand in response to stronger demand and higher prices. The increased production will be sourced either from new projects or the restart of operations which had been idled in response to falling demand. For example, world production of refined nickel is forecast to increase by 10 per cent, aluminium by 3 per cent, and refined copper by 2 per cent.

Australian export earnings

Australian production of metals and other minerals is estimated to contract by 1.4 per cent in 2008-09, reflecting reduced production of zinc, nickel and lead, which is forecast to more than offset increased production of iron ore. In response to increased demand and higher prices, total production is forecast to increase by 2.7 per cent in 2009-10, supported by increased production of iron ore and metallurgical coal.

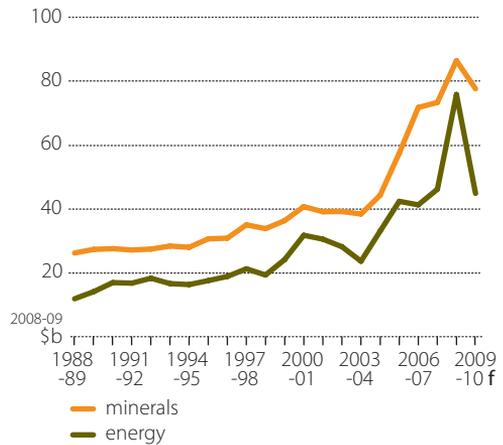
Production of energy commodities is forecast to increase by 1.2 per cent in 2008-09, reflecting increased production of thermal coal, oil and natural gas. Energy commodity production is forecast to contract by 0.5 per cent in 2009-10, as lower thermal coal and crude oil production is partially offset by increased gas production. Lower crude oil production reflects the natural decline from mature fields, while thermal coal production is expected to fall in response to weak demand in major importing economies such as Japan.

In 2008-09, Australian export earnings from energy and mineral commodities are estimated to increase by 36 per cent to \$160 billion. Underpinning this increase are higher export volumes and record high prices for bulk commodities for JFY 2008, supported by a 17 per cent depreciation of the Australian dollar against the US dollar. In 2009-10, export earnings are forecast to decline by 22 per cent to \$124 billion, primarily reflecting declines in bulk commodity contract prices for JFY 2009.

Australian mine production



Australian export earnings



Oil

Alan Copeland

In mid-June 2009, oil prices in West Texas Intermediate (WTI) terms, traded above US\$70 a barrel, compared with US\$135 a barrel a year earlier. Recently, oil prices traded as low as US\$35 a barrel in February 2009, but have subsequently increased, being supported by lower OPEC production and expectations within financial and commodity markets that there may be a global economic recovery in late 2009 or early 2010. In addition, it is possible that the recent increase in prices has been supported by increased investment or speculative demand for commodities and the depreciation of the US dollar against other major currencies.

In the second half of 2009, the interplay of several factors could result in the oil price experiencing significant volatility. Global oil demand in the second half of 2009 is forecast to be significantly lower than the corresponding period in the past few years and OECD stocks are at their highest levels on record. This is expected to place downward pressure on prices. Conversely, the US dollar could continue to depreciate which would place upward pressure on oil prices, which are denominated in US dollars. On balance, oil prices in the second half of 2009 are expected to average around US\$70 a barrel and average US\$60 a barrel for 2009 as a whole.

In 2010, oil prices are forecast to average around US\$70 a barrel, 17 per cent higher than in 2009, but similar to the level forecast for the second half of 2009.

Weak growth in global oil demand in 2010 and a supply overhang associated with high levels of OECD stocks are likely to continue to place downward pressure on oil prices. These factors may dissipate during 2010 as the global economic recovery gathers pace.

While oil prices are forecast to average around US\$70 a barrel over the course of the second half of 2009 and 2010 as a whole, there could be significant volatility around this price. The volatility will reflect the interaction of downward pressure associated with economic fundamentals (weak demand and increased supply) and upward pressure from financial drivers such as increased investment demand for commodities, including oil.

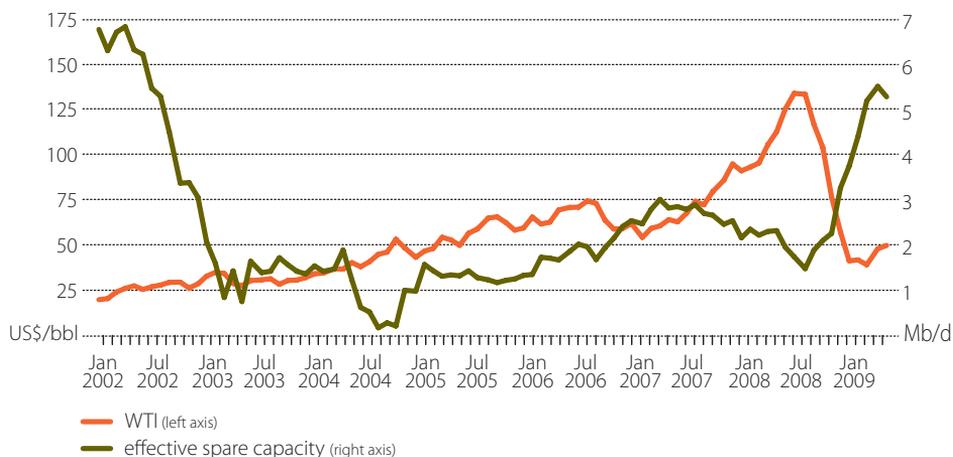
OECD stocks at record levels

At the end of March 2009, OECD stocks were equivalent to 98 days of consumption, the highest level on record. Industry stocks were at 62 days of consumption, which is a 15 per cent increase from the corresponding period in 2008. The high levels of stocks in OECD economies should act as a buffer from unanticipated supply disruptions or spikes in demand.

Uncertainty around future OPEC production

Effective OPEC spare capacity, which excludes Iraq, Nigeria and Venezuela, was more than 5 million barrels a day in May, the highest level since August 2002. Since July 2008, spare capacity has increased by a factor of three and a half as OPEC reduced production in response to falling prices. OPEC has stated its intention to influence the world supply-demand balance,

WTI oil price vs OPEC spare production capacity



implying that official production quota increases will be in response to changes in demand and stocks. OPEC is unlikely to change production quotas in response to higher oil prices driven by investment or speculative demand. However, as prices increase, some OPEC members are likely to be tempted to exceed their production quotas, in turn increasing world supply. Over the short term, official OPEC production quotas may not change significantly. However, the extent to which quotas are adhered to by individual members may depend on the extent to which oil prices rise.

US dollar movements could affect oil prices

The recent devaluation of the US dollar against other major internationally traded currencies has supported higher prices for commodities such as crude oil.

US dollar vs oil price (WTI)



Because the world oil price is denominated in US dollars, a depreciation of the US dollar against other international currencies will lead to a higher oil price denominated in US dollars, as a weaker US dollar will lead to an increase in purchasing power of other world currencies (assuming other factors remain unchanged). There is the potential that the US dollar could depreciate more significantly than currently assumed in the short term, which in turn would lead to higher oil prices.

Today's reduced investment a medium-term issue

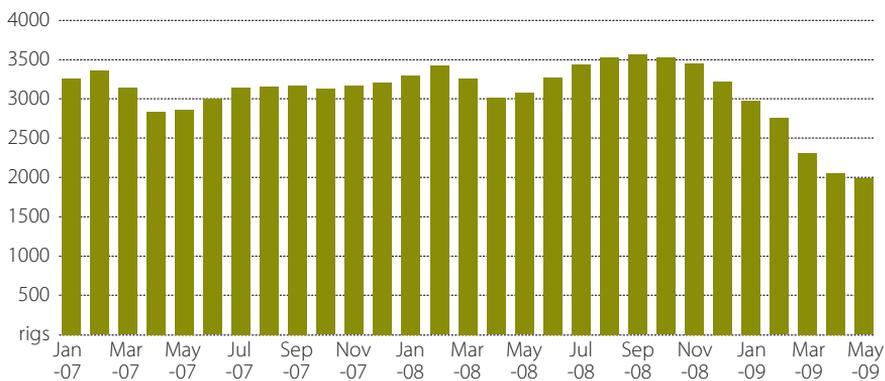
Historically, economic downturns have led to cuts in exploration and development

Oil

budgets. There are already indications that the recent downturn in oil prices is flowing through to planned capital expenditure, particularly exploration and development expenditure.

For example, the *Oil and Gas Journal's* recent annual upstream capital investment survey, found that exploration and development expenditure in the United States was expected to be 29 per cent less in 2009 than in 2008. Further evidence of reduced development expenditure can be found in the Baker Hughes worldwide drilling rig count. In April 2009, the Baker Hughes rig count fell below 2000 for the first time since May 2003. This compares with a rig count of 3500 in mid-2008.

Worldwide drilling rig count



Source: Baker Hughes.

The lower exploration and development expenditure is unlikely to have implications for oil production within the next 18 months given the current spare capacity. However, the slow down in investment could result in demand growth exceeding supply growth over the medium term, if the world economy recovers rapidly.

World oil consumption to grow in 2010

In 2009, world oil consumption is forecast to fall by 3 per cent to 83.4 million barrels a day. Non-OECD oil consumption in aggregate is forecast to remain at a similar level to 2008, while OECD consumption is forecast to fall by 5 per cent to 45.1 million barrels a day. World oil consumption in 2010 is forecast to increase by 1 per cent to 84.5 million barrels a day. An assumed modest recovery in world economic growth in 2010 is expected to limit any significant growth in world oil consumption, particularly in OECD economies.

Non-OECD economies to underpin world growth in 2010...

For the remainder of 2009 and 2010, growth in world oil consumption is expected to be centred on non-OECD economies, particularly China and countries in the Middle East.

In 2009, China's oil consumption is forecast to increase by less than 1 per cent. The modest growth reflects reduced consumption in the first half of 2009 offset by increased consumption in the second half of the year. Falling oil demand was underpinned by lower consumption of naphtha and gasoil, two petroleum products predominantly used in industrial processes such as chemical and plastic manufacturing and electricity generation. With China's economic activity assumed to pick-up in the second half of 2009, oil consumption is expected to increase, offsetting the decrease in the first half of 2009. For 2009 as a whole, China's oil consumption is forecast to average 7.8 million barrels a day.

In 2010, economic growth in China is expected to gather pace, resulting in oil consumption increasing by 3 per cent to an average of 8 million barrels a day. A significant proportion of increased demand is expected to come from the transport sector, which could result in increased consumption of gasoline and diesel.

Oil consumption in the Middle East is forecast to average 7.2 million barrels a day in 2009 and then increase in 2010 by 4 per cent to 7.5 million barrels a day. Higher oil consumption is expected to be underpinned by the continued use of oil as an energy source for heavy industries such as chemical manufacture and mineral processing, and for electricity generation when gas shortages arise.

...as OECD demand continues to fall

OECD oil consumption is forecast to fall in 2009, reflecting the severe recession in most OECD economies. Oil consumption is forecast to increase modestly in 2010 to 45.3 million barrels a day as economic growth resumes at a modest rate in North America and Japan.

In North America, oil consumption in 2009 is forecast to decline by 3 per cent to 23.3 million barrels a day. In the first quarter of 2009, oil consumption in the United States fell by 5 per cent. However, during the second half of 2009, oil consumption is expected to increase, compared with the first half of the year, being underpinned by an improved economic performance. In addition, higher consumption is anticipated during the 2009 driving season (July to mid-September), reflecting lower gasoline prices. Despite stronger growth in the second half of the year, US oil consumption is forecast to average considerably lower in 2009 which reflects the effect of a severe recession on demand for aviation fuel, diesel and gasoline. In 2010, higher oil consumption in North America is expected to be supported by the resumption of economic growth.

The European Union's oil consumption is forecast to decline by 4 per cent in 2009 to 13.8 million barrels a day. In the first quarter of 2009, oil consumption fell by around 3 per cent, which reflected lower demand for transport fuels. Partially offsetting this was strong demand for heating oil associated with below average winter temperatures. In the absence of support from heating oil demand, European oil consumption is expected to continue falling throughout 2009.

In 2010, weak economic activity throughout the European Union is expected to be the major influence on oil demand and hence growth is forecast to be relatively weak in 2010, at less than 1 per cent.

Oil

Japan's oil demand in 2009 is forecast to fall by 15 per cent to around 4 million barrels a day. There are three factors underpinning lower oil consumption: a contraction of Japan's economy is expected to result in lower demand for petroleum products such as gasoline, naphtha and gasoil; the restart of nuclear power generation capacity during the year will reduce the need for oil fired electricity generation; and, third, above average temperatures during the recent winter have reduced the demand for fuel oil and direct burning crude oil.

In 2010, oil consumption is forecast to grow moderately, reflecting modest economic growth and the assumption of average winter temperatures.

World production to fall...

In 2009, world oil production is forecast to decline by 4 per cent, as producers reduce output in response to falling world demand. Production is forecast to average around 83 million barrels a day, which is equivalent to the quantity produced in 2004. Oil production in 2010 is forecast to increase by 1 per cent to 84.5 million barrels a day as producers respond to increased demand and higher prices.

...as OPEC bears the brunt

OPEC is expected to account for the majority of falling production, reflecting decisions in late 2008 to cut production. The decisions were made in an effort to support falling prices. OPEC's general adherence to these reduced quotas has resulted in its production falling by around 10 per cent year on year in the first quarter of 2009.

Saudi Arabia accounted for the largest fall in production, however almost all OPEC producers, bound by quotas (except for Iraq), produced less crude oil in the first quarter of 2009 compared with the corresponding period in 2008. This is significant because a number of OPEC producers have a history of not adhering to quota reductions.

While uncertainty surrounds its future production quotas, OPEC has the potential to significantly increase production during 2009 and 2010. In addition to high levels of spare capacity at existing fields, a number of new fields, particularly in Saudi Arabia, are scheduled to commence operation or increase production.

In Saudi Arabia, the Khursaniyah field could increase production to 500 000 barrels a day, while the Khurais development (capacity 1.2 million barrels a day), Nuayyim field (100 000 barrels a day) and Shaybah expansion (250 000 barrels a day) are scheduled to start production over the next 18 months.

In Iraq, production and exports continue at a strong rate. Since late 2007, oil production has averaged around 2.4 million barrels a day, compared with 1.8 and 1.9 million barrels a day in 2006 and 2005 respectively. There is the potential for Iraqi production to increase further in the second half of 2009 and for 2010. Recently, the Iraqi Government and Kurdistan Regional Government reached an agreement to allow crude oil from the Kurdish-controlled Tawke and Taq Taq fields to flow through the Kirkuk Ceyhan pipeline. This could enable exports at a rate of up to 250 000 barrels a day within the next 18 months.

Non-OPEC production flat

Non-OPEC production in 2009 and 2010 is expected to be similar to 2008, reflecting additional production from new fields being offset by production declines at mature fields.

In North America, higher oil production in the Gulf of Mexico is expected to offset falling production in Mexico. Increased oil production in the Gulf of Mexico, in the second half of 2009 and in 2010, will be supported by production from new fields such as Thunder Horse (capacity of 250 000 barrels a day) and Tahiti (125 000 barrels a day).

Mexico's production is expected to be lower as a result of the natural decline in production from the Cantarell field, which is the world's second largest producing field.

The United Kingdom and Norway's oil production is also expected to continue falling. A number of field outages in the North Sea, planned and unplanned, in the first half of 2009 are expected to result in total 2009 production from the regions falling by 9 per cent to 3.6 million barrels a day. Reflecting natural field decline, production from the North Sea in 2010 is forecast to fall by a further 5 per cent to 3.5 million barrels a day.

Brazil is expected to be one of the fastest growing oil producers in 2009 and 2010. Production growth in 2009 will be underpinned by fields which started during 2008 and are ramping up to capacity during 2009. The start-up of new fields such as Jabuti (100 000 barrels a day) and Piranha in 2010 will support further crude oil production growth. In addition, first production from the Tupi field is due in early 2010 at a rate of around 30 000 barrels a day.

Australian production to fall

In 2008-09, Australia's production of crude oil and condensate is estimated to increase by 6 per cent to 27 giga litres. The increased production reflects the start-up of the Angel (capacity

50 000 barrels a day) and Vincent (50 000 barrels a day) fields and the ramp up of capacity at the Stybarrow field (80 000 barrels a day). A fire on the floating, production, storage and offtake vessel at the Vincent field in April halted production for much of the June quarter and limited further increases in crude oil production.

Australian crude oil and condensate exports



In 2009-10, Australia's oil production is forecast to decline by around 4 per cent to around 26 giga litres. The only significant addition to production is expected to come from the Pyrenees oil field, which is scheduled to start during the first quarter of 2010. Despite the Pyrenees field being large by Australian

Oil

standards (peak production of 96 000 barrels a day), initial production is expected to be offset by natural decline from mature fields.

Reflecting increased production in 2008-09, Australia's crude oil and condensate exports are estimated to increase by 3 per cent to 16.5 gigalitres. It is assumed a significant proportion of production from fields in the Bonaparte and Carnarvon Basins has been exported given their proximity to Asian refining markets. In 2009-10, Australia's crude oil export volumes are forecast to decline by 4 per cent to 15.9 gigalitres, reflecting lower production. The value of crude oil and condensate exports in 2009-10 is forecast to increase by 2 per cent to \$9.1 billion.

Oil outlook

		2008	2009 f	2010 f	% change
World					
Production	mbd	86.5	83.4	84.5	1.3
Consumption	mbd	85.7	83.4	84.5	1.3
Trade weighted crude oil price	US\$/bbl	94.60	58.00	67.57	16.5
West Texas Intermediate crude oil price	US\$/bbl	98.62	60.75	70.93	16.8
		2007	2008	2009	
Australia		-08	-09 s	-10 f	
Crude oil and condensate					
Production	ML	25 537	26 977	26 020	-3.5
Exports	ML	15 975	16 517	15 872	-3.9
- value	A\$m	10 484	8 970	9 121	1.7
Imports	ML	26 223	24 665	26 502	7.4
LPG					
Production	ML	3 971	3 880	5 550	43.0
Exports	ML	2 589	2 523	3 218	27.5
- value	A\$m	1 182	1 082	1 306	20.7

Natural gas

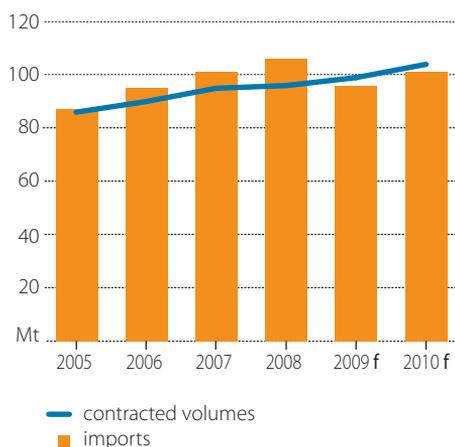
Suwin Sandu

In 2009, world liquefied natural gas (LNG) trade is forecast to remain at around 171 million tonnes. The steady trade volume reflects falling demand in northern Asia being counterbalanced by increased demand in the European Union as buyers take advantage of low prices to fill storage tanks. World LNG trade is forecast to increase by 6 per cent in 2010 to 181 million tonnes, as gas consumption increases in line with improved economic conditions.

Imports into northern Asian market to decline in 2009...

The global economic downturn has resulted in lower energy demand in the northern Asian gas market, which has led to lower gas consumption and LNG imports into countries such as Japan, the Republic of Korea and Chinese Taipei. Reflecting this, imports into the northern Asian market in the first quarter of 2009 were 9 per cent lower year on year. Lower gas imports were achieved through fewer purchases of LNG spot cargoes from the Middle East and by applying the downward quantity tolerance clause to shipments under long-term contracts from Indonesia. Under this clause, buyers can request sellers to either postpone or cancel the deliveries of LNG cargoes.

LNG imports and contracted volumes in northern Asian market



Japan, the world's largest LNG buyer, imported 17 million tonnes of LNG in the first quarter of 2009, a decline of 6 per cent compared with the same period in 2008. The economies of Japan and its major trading partners have been negatively affected by the global economic downturn. With Japan's economy assumed to contract by around 6 per cent in 2009, lower gas consumption is expected for both electricity generation and industrial production.

In addition, the utilisation rate of nuclear electricity generation is expected to improve in 2009 as the world's largest nuclear plant, Kashiwazaki-Kariwa, is scheduled to restart this year. For a large part of 2008, Japan's nuclear generation sector operated at a utilisation rate of

less than 50 per cent, which supported increased LNG imports. The restart of the Kashiwazaki-Kariwa-7 (1350 megawatts) and Tomari-3 (920 megawatts) reactors in early 2009 will increase nuclear generation capacity utilisation throughout the year and reduce demand for other fuels, including natural gas. Reflecting these developments, Japan's LNG imports are forecast to decline by 10 per cent in 2009 to 62 million tonnes.

In 2010, LNG imports by Japan are forecast to increase by 3 per cent to 64 million tonnes as economic conditions begin to improve.

Natural gas

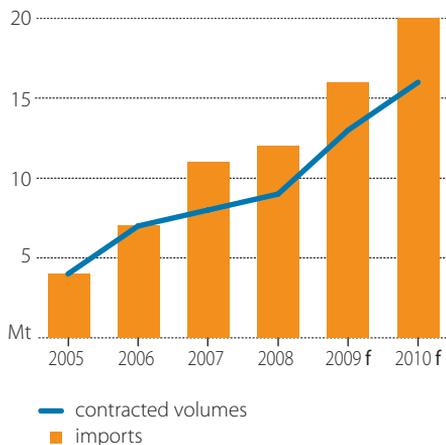
LNG imports by the Republic of Korea in the first quarter of 2009 were at 9 million tonnes, largely unchanged from the same period in 2008. LNG import demand is expected to be weak in the second half of 2009, consistent with an assumed annual contraction in the economy of 4 per cent. In addition, new coal-fired electricity generation capacity has been brought into operation over the past 12 months and is expected to result in gas losing its share of electricity generation input. For 2009 as a whole, LNG imports by the Republic of Korea are forecast to fall by 4 per cent to 26 million tonnes.

Imports for 2010 are forecast to recover to 2008 levels as the Korean economy is assumed to recover moderately. Increased gas imports in 2010 will be supplied by new long-term contracts with suppliers in Indonesia, the Russian Federation and Yemen.

...but China and India remain key drivers of demand

LNG imports are anticipated to continue to grow for China and India during 2009 and 2010. China and India have the potential to absorb some of the surplus LNG supply, as the gap between demand and contracted supply could increase to almost 4 million tonnes in 2009 and 2010.

LNG imports and contracted volumes in China and India



Reflecting continued economic growth in China, energy imports, including LNG, are expected to be strong in 2009. In the first quarter of 2009, China's LNG imports increased year on year by around 70 per cent to 0.9 million tonnes. For 2009 as a whole, China's LNG imports are forecast to double from 2008 levels, to 6.4 million tonnes.

In 2010, China's LNG imports are forecast to increase to 9 million tonnes, reflecting increased energy consumption in a growing economy. The increased LNG imports will be supplied to the Dapeng (6.2 million tonnes), Fujian (2.6 million tonnes) and Shanghai (1.1 million tonnes) LNG terminals through long-term contracts with Australia, Indonesia, Qatar and Malaysia.

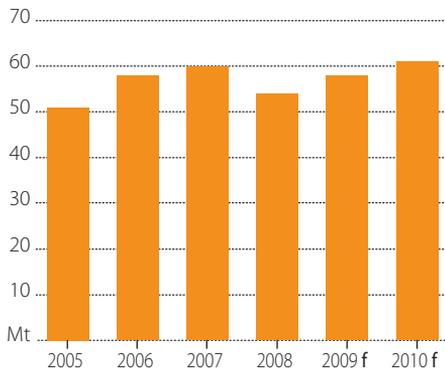
India's LNG imports in 2008 declined by around 3 per cent, reflecting a switch from natural gas to naphtha in fertiliser production and electricity generation, because oil prices fell faster than LNG prices in the second half of 2008. However, imports are expected to increase in 2009. This is a result of surplus LNG from spot market suppliers to the Asia Pacific region, which could increase the competitiveness of spot LNG supply relative to naphtha and domestically-produced gas. In addition, the slower than expected ramp-up of domestic gas production from the Krishna-Godavari Basin and a decline in production from the Panna-Mukta-Tapti fields are expected to support LNG imports in 2009.

In 2010, India's LNG imports are forecast to increase by about 26 per cent to 10 million tonnes and will be supplied primarily through a long-term contract with Qatar. India's LNG import capacity is expected to reach 13.6 million tonnes, which will be supported by the expansion of the Dahej terminal (from 6.5 million tonnes to 10 million tonnes).

Atlantic market also to absorb surplus LNG

Despite an expected decline in natural gas consumption in the Atlantic market in 2009 associated with the economic downturn, LNG imports by the region are expected to rise. Lower spot LNG prices and the availability of natural gas storage capacity in the European Union are expected to underpin LNG imports in this market. In the European Union, natural gas storage capacity has been increasing as a measure to mitigate potential supply disruptions, such as that occurred in early 2009 as a result of the dispute between the Russian Federation and the Ukraine.

LNG imports in the Atlantic market



In the first quarter of 2009, LNG imports by the Atlantic market were around 15 million tonnes, which is a year on year increase of 8 per cent. For 2009 as a whole, LNG imports by this region are forecast to increase by 7 per cent to 58 million tonnes.

In 2010, Atlantic LNG imports are forecast to increase by a further 5 per cent to 61 million tonnes, as gas demand increases with improved economic conditions.

2008, two new LNG trains were commissioned: the fifth train at the North West Shelf project in Australia (annual capacity of 4.4 million tonnes) and a sixth train at Nigeria’s NLNG project (annual capacity of 4.1 million tonnes).

World LNG supply

Global LNG production capacity at the end of 2008 was around 202 million tonnes. During

Oversupply of LNG to persist in 2009 and 2010

In 2009, the global economic downturn, coupled with the recent start-up of new liquefaction capacity, is expected to create a surplus of LNG supply.

World LNG production capacity could increase by 24 per cent to 251 million tonnes by the end of 2009, under the assumption that projects scheduled for completion will be completed on time. About two-thirds of these additional supplies are located in the Middle East, including Qatar (23.4 million tonnes) and Yemen (6.8 million tonnes). Additional capacity scheduled to be completed in 2009 is located in the Asia Pacific region, including the Russian Federation (9.6 million tonnes), Indonesia (7.6 million tonnes) and Malaysia (1.3 million tonnes).

In 2010, world LNG production capacity could increase by a further 12.1 million tonnes, underpinned by the addition of a seventh train at Qatar’s RasGas project (7.8 million tonnes) and the start-up of the Pluto project (4.3 million tonnes) in Australia.

Natural gas

Over the next two years, some of the older LNG production plants could reduce their output in response to an oversupplied market. For example, some LNG plants in Brunei, Malaysia, Indonesia, Nigeria and Oman have reduced production to either carry out maintenance or divert natural gas for domestic consumption. However, it is unlikely that a reduction in supply from these plants will offset increased capacity associated with the start-up of new capacity.

Australia's gas production and exports

Australia's gas production (including coal seam methane) in 2008-09 is estimated to increase by 5 per cent to 45 billion cubic metres. The increased production largely reflects the start-up of production from the Angel gas field, which will supply the North West Shelf's LNG trains. Production from the Angel field commenced in October 2008, with an annual production capacity of 8.3 billion cubic metres.

In 2009-10, Australia's gas production is forecast to increase by another 13 per cent to 50.7 billion cubic metres. Supporting this increase will be the start-up of new gas fields, such as: Blacktip (an initial volume of 650 million cubic metres) off the north-west coast of Australia; Henry (300 million cubic metres) and Longtom (670 million cubic metres) off south-east Australia; and Pyrenees (620 million cubic metres) off Western Australia.

Coal seam methane is also expected to make an important contribution to higher gas production in Australia. A number of projects are under construction and scheduled for completion in 2009-10, which could increase production of coal seam methane by 40 per cent. These projects include the Spring Gully and Talinga fields (with a combined annual production capacity of 1.2 billion cubic metres) and the Lacerta field (160 million cubic metres) in Queensland.

Australia's LNG exports in 2008-09 are estimated to have been 16.4 million tonnes, which is an increase of 11 per cent from the previous year. This reflects the start-up of the fifth processing train at the North West Shelf project in September 2008.

In 2009-10, Australian LNG exports are forecast to increase by another 11 per cent to 18.2 million tonnes. This forecast increase reflects a full year of operation at the fifth train at the North West Shelf project.

Although the global economic downturn is not expected to affect the volumes of Australia's LNG exports because the bulk of the exports are under long-term contracts, it will have an effect on Australia's value of LNG exports in the short term. The value of exports is estimated to be around \$9.9 billion in 2008-09 and is projected to fall to \$6.9 billion in 2009-10.

Natural gas outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
Australia					
Production	Gm ³	42.9	45.0	50.7	12.7
LNG exports	Mt	14.80	16.40	18.20	11.0
- value	A\$m	5 854	9 929	6 904	- 30.5

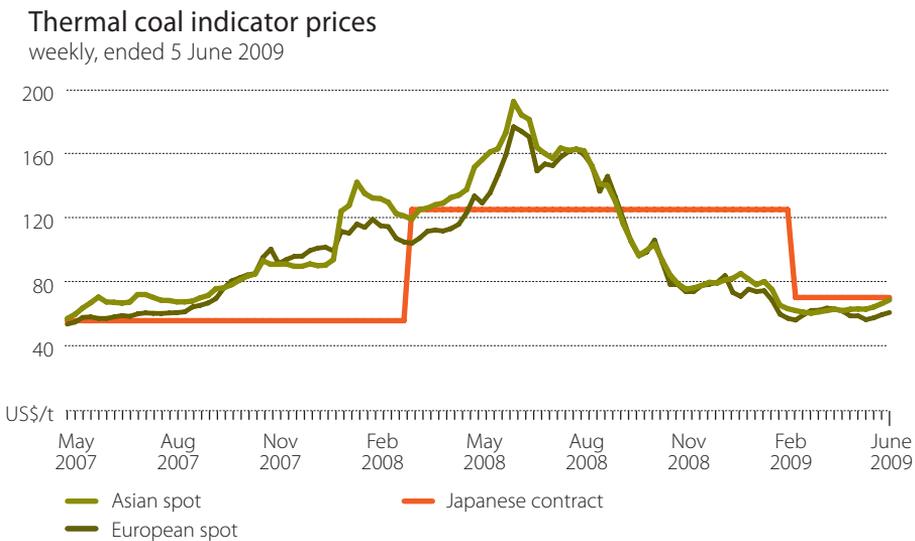
Thermal coal

Rebecca Petchey

Contract prices decrease significantly in 2009

In March 2009, the contract price for thermal coal between Australian suppliers and Japanese power utilities was settled at around US\$70 to US\$72 a tonne for the Japanese fiscal year 2009 (JFY, April to March), which was a 44 per cent decrease from JFY 2008. The fall in contract prices reflects falling electricity demand across Asia and expansions to export capacity in major regional coal suppliers such as Australia and Indonesia. Despite the significantly lower settlement, contract prices for the JFY 2009 in real terms remain the second highest since JFY 1986.

In late June, the spot price for Newcastle thermal coal exports was \$71 a tonne. This is 65 per cent less than the record price of \$201 a tonne traded in July 2008 at the peak of the commodity price cycle. Over the past five years, coal producers have increased production and export capacity in response to higher prices. Falling electricity demand associated with the global economic downturn has resulted in lower thermal coal import demand, which in turn has created excess capacity, placing downward pressure on prices. However, recent import demand from China and India has provided some support for prices.



World trade to remain constant

World thermal coal trade in 2009 is forecast to remain steady at around 700 million tonnes. In 2009, Japanese and European electricity demand, and hence thermal coal imports, are forecast to fall, reflecting the effects of the global economic downturn. However, this is expected to be largely offset by increased imports into China, India and the Republic of Korea.

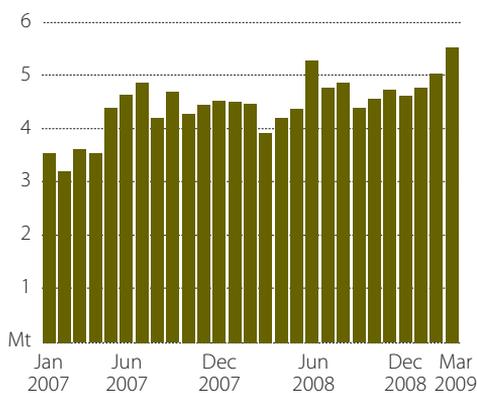
Thermal coal

Thermal coal trade is forecast to increase by 3 per cent to 723 million tonnes in 2010, reflecting the assumed economic recovery in Asia and Europe by that time.

Japan's imports to decrease

In 2009, Japan's thermal coal imports are forecast to fall by 14 per cent to 115 million tonnes. This forecast decline reflects falling electricity consumption associated with economic contraction. Thermal coal is primarily used in electricity generation. The fall in demand for electricity in the first quarter of 2009 contributed to the decrease in imports, as highlighted by a build-up of stocks at Japan's 10 largest power utilities.

Coal stocks of Japan's 10 largest electricity generators



The recent restart of several nuclear power plants in Japan – including Kashiwazaki-Kariwa no. 7, Ohi no. 4 and Hamaoka no. 5 – has also contributed to the decline in output from coal-fired power stations and, hence, thermal coal import demand.

Japan's thermal coal imports are expected to remain around 115 million tonnes in 2010, reflecting subdued economic growth prospects.

In the Republic of Korea, increases in thermal coal imports in 2009 are expected to be supported by the completion of new coal-fired electricity generation capacity in late 2008 and early 2009. The growth in imports is expected to occur despite falling electricity demand and could

result in thermal coal increasing its share of electricity generation. The increased share of coal-fired electricity generation in the short term reflects its cost competitiveness compared with other fuels such as nuclear and gas. Imports are forecast to increase by 2 per cent to 75 million tonnes in 2009 and a further 5 per cent to 79 million tonnes in 2010.

India is expected to be one of the fastest growing thermal coal importers in 2009. New generation capacity commissioned in late 2008 and early 2009, and requests by the Indian Government for electricity generators to increase stocks to enhance the security of supply, will support this growth. Imports are forecast to increase by 18 per cent to 40 million tonnes in 2009 and by a further 18 per cent to 47 million tonnes in 2010.

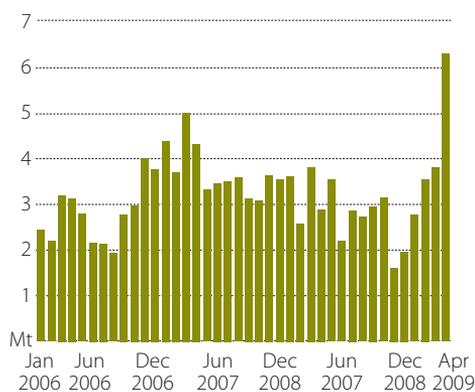
Imports by the European Union to decrease

Falling thermal coal demand in a number of countries in the European Union will be partially offset by declining domestic production, which will support imports. For example, thermal coal production in Germany, the United Kingdom and Italy has been decreasing, reflecting relatively high production costs. This has led to an increase in imports over the past six years. However, across the continent, economic contraction is expected to result in lower electricity output and, hence, thermal coal demand. The net effect is that imports are expected to fall by 3 per cent to 187 million tonnes in 2009.

China's imports to increase

China's imports of thermal coal are forecast to increase by 6 per cent to 36 million tonnes in 2009. A fall in the international price of coal and lower freight rates have increased the competitiveness of imports relative to domestic production. The majority of coal imports have been destined for the southern coastal areas, which are distant from the major coal producing regions in China's north. In addition, coal production at a number of small and medium sized mines was halted as a result of safety issues. For the remainder of 2009, growth in China's thermal coal imports is forecast to slow as a result of expected higher freight rates and increased production from large coal producers such as Shenhua and China Coal.

China's imports of thermal coal monthly



In 2010, China's imports are forecast to increase by a further 11 per cent to 40 million tonnes. Economic growth in China is assumed to strengthen in 2010, resulting in increased demand for electricity. Construction of new coal-fired generation capacity in 2009 and 2010 is expected to support this increase in demand.

China's exports to decrease

China's thermal coal exports are managed by a quota system, where licences are allocated to coal exporting companies on an annual basis. This mechanism allows the government to control the volume of coal exported. The first block of export licences for 2009, released in December 2008, was for 26 million tonnes. A second block of licences is expected to be released later in the year.

In the first quarter of 2009, China's coal exports decreased by 25 per cent to 7 million tonnes compared with the same period in 2008. The fall in exports reflects weaker domestic production and falling international spot prices. In 2009, China's exports are forecast to decrease by 6 per cent to 40 million tonnes. Exports are forecast to decline by a further 1 per cent to 39 million tonnes in 2010.

Export capacity expansions to meet demand from China and India

In 2009, increased thermal coal supply from Indonesia is expected to offset lower exports from Australia, Colombia and South Africa.

South Africa's exports in 2009 are expected to remain around 68 million tonnes because of weak demand in the Atlantic market. In 2010, exports are expected to increase by 3 per cent to 70 million tonnes. This will be supported by the completion of the Phase V expansion project at the Richards Bay Coal Terminal.

In 2009, Colombia's exports are expected to remain at approximately 69 million tonnes. This reflects weak demand in the Atlantic market, where the majority of Colombia's coal is sold. Exports are forecast to increase to 74 million tonnes in 2010 as demand rebounds in the United States.

Thermal coal

Exports from the United States are expected to decline by 28 per cent to 25 million tonnes in 2009. The United States is considered to be a swing supplier of coal in the Atlantic market, filling in any supply shortages. With ample supply available from South Africa and Colombia over the forecast period, US exports are forecast to decrease by 5 per cent to 24 million tonnes in 2010.

Indonesia's exports are forecast to increase by 3 per cent in 2009 to 203 million tonnes, and by a further 4 per cent to 212 million tonnes in 2010. Higher exports from Indonesia will mainly be sourced from increased production capacity at existing mines, as uncertainty created by a new mining law is affecting investment in new mines. Given the dominance of road transport, lower fuel prices have improved the economic viability of mine expansions, even in the face of rapidly falling prices.

Indonesia's new mining law

In December 2008, the Indonesian Government passed new mining legislation to reform the existing regulatory framework. This resulted in the abolition of the *Contract of Work*, a long-term contract which gave investors the necessary approvals to run the mine for its life, including exploration, construction and production. The new system requires separate licences for each activity over the life of the mine.

Even though the new mining law was passed late last year, it could take some time for the implementing regulations to be finalised. As such, at this stage it is not clear how the new law will work in practice.

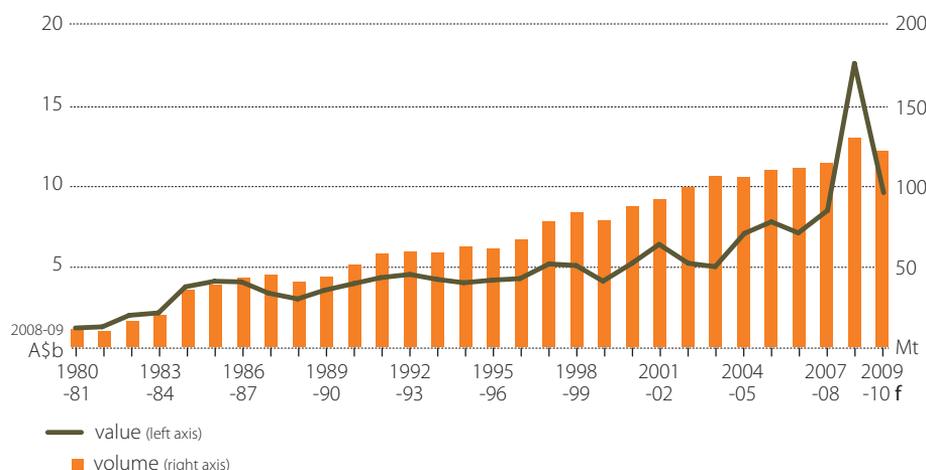
Australia's production to increase in 2008-09

In 2008-09, Australia's thermal coal production is estimated to increase by 8 per cent to 201 million tonnes. The completion of a number of mines in the past 18 months, including the Liddell coal upgrade, Rocglen and Abel underground, has supported this increase. Weak demand from Asia is expected to support a decrease in production by 5 per cent to 191 million tonnes in 2009-10.

In 2008-09, the volume of Australia's thermal coal exports is estimated to increase by 13 per cent, to 131 million tonnes. The increase in exports has been driven by strong demand for coal in the second half of 2008. In 2009-10, Australia's exports of thermal coal are forecast to fall by 6 per cent to 123 million tonnes. The fall in exports reflects weak demand from major trading partners, particularly Japan.

Earnings from thermal coal exports in 2008-09 are estimated to increase by 110 per cent to \$A17.6 billion. Contributing to this increase were record prices and large export volumes associated with strong demand in the early part of the year. With the decline in contract prices for JFY 2009 and weak demand, export revenue is forecast to decline by 44 per cent to \$A9.8 billion in 2009-10.

Australia's thermal coal exports



Thermal coal outlook

		2008	2009 f	2010 f	% change
World					
Total trade	Mt	714.5	700.8	722.6	3.1
Imports					
Asia	Mt	387.8	374.9	395.1	5.4
– China	Mt	34.0	36.0	40.0	11.1
– Chinese Taipei	Mt	60.3	59.0	62.0	5.1
– India	Mt	34.0	40.0	47.0	17.5
– Japan	Mt	133.0	115.0	115.0	0.0
– Korea, Rep. of	Mt	73.5	75.0	79.0	5.3
– Malaysia	Mt	16.5	15.0	16.9	12.7
– other Asia	Mt	36.5	34.9	35.2	0.9
Europe	Mt	233.5	226.9	225.1	-0.8
– EU 27	Mt	193.4	187.0	185.2	-1.0
– other Europe	Mt	40.1	39.9	39.9	0.0
Other	Mt	93.2	99.0	102.4	3.4
Exports					
Australia	Mt	126.4	122.0	130.0	6.6
China	Mt	41.8	39.5	39.0	-1.3
Colombia	Mt	68.7	69.0	74.0	7.2
Indonesia	Mt	198.0	203.0	212.0	4.4
Russian Federation	Mt	80.0	75.0	75.5	0.7
South Africa	Mt	67.0	68.0	70.0	2.9
United States	Mt	34.9	25.0	23.8	-4.8
Other	Mt	97.7	99.3	98.4	-0.9
		2007	2008	2009	
		-08	-09 s	-10 f	
Australia					
Production	Mt	185.1	200.5	190.7	-4.9
Exports	Mt	115.1	130.5	122.5	-6.1
– value	A\$m	8 365	17 589	9 815	-44.2

across Australia in 2009

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Metals

Steel and steel-making raw materials

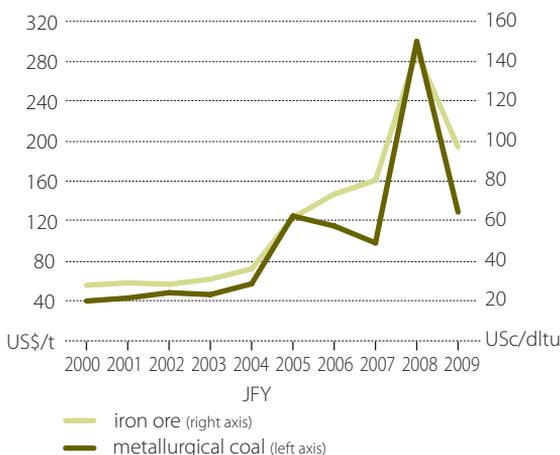
Robert New

Weaker demand for steel and steel products in the short term is expected to result in weak demand for steel-making raw materials (iron ore and metallurgical coal). High cost producers of raw materials who responded to high commodity prices during the past two years are expected to shut down production, while lower cost producers are expected to idle some production capacity until there is a demand recovery. Demand for steel, and therefore iron ore and metallurgical coal, is expected to strengthen in response to a global economic recovery, assumed to begin in late 2009 and to continue to gain strength through 2010.

Global production of steel is forecast to decline by 11 per cent in 2009 to 1.2 billion tonnes, before increasing by 6 per cent to 1.3 billion tonnes in 2010. The forecast decline in production in 2009 is a result of sharply weakening demand for steel, associated with the global economic slowdown and the slowing of world industrial production growth. In 2010, the forecast resumption of steel production growth reflects growth in steel consumption in line with the assumed recovery in world economic growth.

As China has accounted for the majority of steel production growth over the past five years, the aggregate production figures mask the increasing polarisation of global steel production. In the first quarter of 2009, world steel production fell by 23 per cent year on year, while over the same period China's steel production increased by 1 per cent, to account for around 48 per cent of world production. Therefore, the ability of the world steel industry to support demand for steel-making raw materials is highly dependent on China's steel industry, which in turn is dependent on economic growth in China and China's key trading partners.

Negotiated iron ore and metallurgical coal prices nominal



Iron ore prices

In late May, Rio Tinto settled the Japanese fiscal year 2009 (JFY April 2009 to March 2010) contract prices with Japan's Nippon Steel Corporation. Contract prices for fines were settled at around 33 per cent lower compared with JFY 2008 prices, and lump prices were settled at around 44 per cent lower. The same terms were subsequently agreed on for contracts with the Republic of Korea's POSCO, and with Chinese Taipei's China Steel Corporation and Dragon. Negotiations continue between Rio Tinto and its customers in China.

Steel and steel-making raw materials

Metallurgical coal prices down, but still strong

In mid-March, premium hard coking coal prices for JFY 2009 were settled at \$129 a tonne. This represents a 57 per cent decline from JFY 2008 prices, however it is still the second highest contract price on record. Lower quality hard coking coals were settled at prices between \$115 and \$125 a tonne, while semi-soft prices were settled at around \$80 a tonne. The fall in coking coal prices is a direct result of the weak outlook for steel production in 2009.

Declining global steel consumption supported by developing Asia

World crude steel consumption is forecast to decline by 10 per cent to 1.21 billion tonnes in 2009, as steel consumption in all major consuming regions is forecast to fall, with the exception of China.

In the OECD, steel consumption is forecast to decrease by 21 per cent, reflecting the recessions in the United States, the European Union and Japan. However, steel consumption growth is expected to gather pace from late 2009 or early 2010, as various economic stimulus packages take effect. For example, in the United States a significant part of the economic stimulus package is being directed toward steel intensive transport infrastructure, such as bridges and roads.

In 2010, OECD steel consumption is forecast to increase by 4 per cent to 333 million tonnes under the assumption of improved economic conditions.

China's steel consumption in 2009 is forecast to increase by 3 per cent to 466 million tonnes, the only major steel consumer with a forecast increase in consumption.

The Chinese Government is committed to implementing spending programs, with the aim of mitigating the effects of reduced demand for exports from its major trading partners. The main driver of the increased domestic consumption of steel is the government's stimulus package, a significant part of which is directed to the construction of steel intensive infrastructure such as railways, bridges and freeways. The effects of the stimulus package are expected to support steel consumption in 2010, underpinning a 9 per cent increase to 508 million tonnes.

Similarly, the Indian Government has maintained its commitment to invest in steel intensive infrastructure. This will aid the country in absorbing the global economic downturn and enhance its ability to respond strongly and quickly to a return to strong economic growth.

Steel production also a China-centric story

In response to falling global steel demand, world steel production in 2009 is forecast to decline by 11 per cent to 1.2 billion tonnes. Since October 2008 there have been significant cuts to steel production, particularly in OECD economies, which is reflected in the forecast for 2009 steel production. For example, steel production is forecast to decline in the United States, the European Union and Japan by 25 per cent, 25 per cent and 20 per cent, respectively. Steel production in China in 2009 is forecast to increase by 4 per cent, supported by the increase in domestic consumption.

World steel outlook

	2007	2008	2009	2010
Crude steel consumption (Mt)				
EU 27	221	215	161	169
United States	114	103	77	79
Brazil	25	25	22	23
Russia	47	48	45	48
China	427	452	466	508
Japan	86	82	66	67
Korea, Rep. of	56	59	53	56
Chinese Taipei	22	23	19	21
India	55	60	60	65
World steel consumption	1 332	1 347	1 209	1 287
Crude steel production (Mt)				
EU 27	210	199	159	165
United States	98	91	59	62
Brazil	34	34	27	28
Russia	72	69	63	65
China	489	502	520	561
Japan	120	119	75	77
Korea, Rep. of	51	53	45	46
Chinese Taipei	20	20	17	19
India	53	55	57	62
World steel production	1 344	1 329	1 189	1 261

In 2010, world steel production is forecast to increase by 6 per cent to 1.3 billion tonnes, underpinned by a moderate increase in economic activity. Reflecting moderate economic growth, the United States, the European Union and Japanese steel production are forecast to increase by 5 per cent, 4 per cent and 3 per cent, respectively. In China, steel production is forecast to increase by 8 per cent as a result of an expected upturn in industrial production and economic growth rates in the second half of 2009.

Raw materials

Global iron ore production down in 2009

Lower forecast steel production in 2009 will have a flow-on effect to the production of steel-making raw materials including iron ore and metallurgical coal. Global production of iron ore is expected to decline in 2009 in response to weakening demand. Most of the cutbacks in production volumes are expected to be in countries which have higher cost operations, while lower cost producers are not expected to be as adversely affected by the weaker demand.

Australian iron ore export volumes remain strong...

Australian exports of iron ore are forecast to increase by 8 per cent in 2009 to 333 million tonnes and by a further 5 per cent in 2010 to 348 million tonnes. China accounted for 78 per cent of Australian exports in the March quarter 2009, providing the basis for continuing growth of Australian production. The increase in exports in 2009 is largely because of the continued ramp up of production at Fortescue Metal Group's Pilbara operation, which began production in the second quarter of 2008, and a return to capacity production at Cliffs Natural Resources' Koolyanobbing operation. These expansions are forecast to more than offset lower production resulting from rain interrupted production at Rio Tinto's Pilbara iron ore operations in February 2009, and from other operations affected by the fall in iron ore demand in late 2008 and early 2009.

...and Brazilian exports to decline in 2009

Brazilian exports are forecast to decline by 11 per cent in 2009 to 252 million tonnes, reflecting a contraction in Brazil's 2009 production and significantly lower steel production in Brazil's traditional export markets in North America and Europe. For example, Vale's decision to cut production in 2009 by 9 per cent is a key factor in lower export volumes. Brazilian iron ore

Steel and steel-making raw materials

World iron ore trade outlook

	2007	2008	2009	2010
Iron ore imports (Mt)				
EU 27	170	171	128	133
Japan	139	140	89	92
China	384	444	527	529
Korea, Rep. of	47	49	41	42
Chinese Taipei	16	16	13	14
World imports	829	883	859	885
Iron ore exports (Mt)				
Australia	267	309	333	348
Brazil	269	282	252	275
India	94	81	65	58
Canada	28	27	26	29
South Africa	32	33	34	37
Sweden	18	11	13	14
World exports	829	883	859	885

exports in 2010 are forecast to increase by 9 per cent to 275 million tonnes, reflecting stronger demand from developed economies, and continuing strong demand from China. Prices are assumed to remain above Brazilian operating costs, and it is therefore expected that Brazilian miners will be in a strong position to respond rapidly to an assumed recovery in global demand through a return to capacity at existing mines.

Reduction of production capacity expected in Asia

Chinese and Indian producers of iron ore are generally situated higher on the cost curve than Australian and Brazilian producers. Therefore, the significant fall in spot prices is expected to affect the profitability of some of these miners, particularly those new entrants who responded

to the record high prices in the first half of 2008. In addition, it is expected that the Chinese Government will take the opportunity of lower demand growth to further consolidate the mining industry, by either shutting down, or bringing under government management, smaller mines with poor safety records. China's steel mills are expected to increase their reliance on imported iron ore, as continuing domestic infrastructure congestion and lower import prices increase the competitiveness of imported Australian and Brazilian ore.

Metallurgical coal trade to fall in 2009

World metallurgical coal trade is forecast to decline by 18 per cent to 195 million tonnes in 2009. The decrease in traded metallurgical coal in 2009 is largely a result of lower steel production, stemming from the global economic slowdown.

Imports of metallurgical coal by the European Union in 2009 are forecast to decrease by 13 per cent to 45 million tonnes, while Japan's imports are forecast to decline by 39 per cent to 33 million tonnes. This reflects a sharp reduction in steel production in these countries, resulting from weaker demand and an increasing reliance on imports of steel products from China.

China's imports of metallurgical coal increase

China's imports of metallurgical coal increased by 260 per cent in the first four months of 2009 compared with the same period in 2008. This is the result of the combined effect of stable underlying demand for steel and a restocking process. Lower freight rates and lower world coal prices have increased the competitiveness of imported coal compared with domestically-produced coal. In addition, significant coking coal production capacity in Shanxi has been shut down for safety reasons. While demand for coal resulting from stable demand for steel is expected to be maintained throughout 2009, imports are forecast to decrease once the restocking process is complete. The uncertain timeframe for the completion of restocking is a risk to the forecast.

World metallurgical coal trade outlook

	2007	2008	2009	2010
Metallurgical coal imports (Mt)				
EU 27	55	52	45	53
Japan	54	54	33	33
China	6	7	14	14
Korea, Rep. of	23	24	20	20
Chinese Taipei	8	6	6	6
Brazil	10	12	9	10
World imports	227	237	195	206
Metallurgical coal exports (Mt)				
Australia	138	135	115	120
Canada	27	29	21	22
United States	29	38	29	29
Russia	15	20	19	21
World exports	227	237	195	206

Australian metallurgical coal exports



cent depreciation of the Australian dollar against the US dollar, while an assumed 3 per cent appreciation of the Australian dollar in 2009-10 is expected to reinforce declines in export earnings for these commodities.

Earnings from iron ore are estimated to increase by 64 per cent in 2008-09, reflecting record high contract prices for JFY 2008, a 7 per cent increase in export volumes and a depreciation of 17 per cent in the Australian exchange rate against the US dollar. A significant reduction in prices for JFY 2009, in addition to the assumed Australian dollar appreciation, is forecast to result in a 24 per cent reduction in Australian export earnings from iron ore in 2009-10 to

Australian metallurgical coal exports to fall in 2009

Australian metallurgical coal exports, which accounted for 57 per cent of world trade in 2008, are expected to decline by 15 per cent to 115 million tonnes in 2009, as a result of expected lower global crude steel production.

In 2009, metallurgical coal exports from Canada and the United States are forecast to fall by 28 per cent and 24 per cent, respectively. The larger fall in exports from North American suppliers reflects the higher cost of production in North American mines compared with Australian mines.

In 2010, in response to improving economic conditions and increasing demand, Australian exports are forecast to increase by 4 per cent to 120 million tonnes. Exports from Canada are forecast to increase by 5 per cent to 22 million tonnes, and US exports are forecast to remain largely unchanged at 29 million tonnes.

Australian export earnings

Volatility in the prices of steel-making raw materials over the past two years has driven significant changes in Australian export earnings from these commodities. While export volumes have been negatively affected by weaker demand, changes in export earnings for 2008-09 and 2009-10 primarily reflect changes in prices. Supporting increases in earnings for both iron ore and metallurgical coal in 2008-09 is a 17 per

Steel and steel-making raw materials

Australian iron ore exports



a value of \$25 billion. The effect of the price reduction is forecast to more than offset a 7 per cent increase in export volumes.

In JFY 2008, metallurgical coal contract prices increased by 200 per cent, which resulted in an estimated 115 per cent increase in export earnings in 2008-09 to \$34 billion. The effect of the price increase more than outweighed a 13 per cent reduction in export volumes, driven largely by weaker demand in the last quarter of 2008 and the first quarter of 2009. However, in 2009-10, export earnings are forecast to decrease by 46 per cent to \$19 billion. This reduction in export earnings from metallurgical coal is mainly driven by a 57 per cent decline in contract prices for JFY 2009.

Steel and iron ore outlook

		2007 -08	2008 -09 s	2009 -10 f	% change
Production					
Iron and steel s	Mt	8.12	6.21	7.59	22.2
Iron ore	Mt	324.7	339.4	363.8	7.2
Metallurgical coal	Mt	140.1	124.8	133.7	7.1
Exports					
Iron and steel	Mt	2.13	1.61	1.89	17.4
– value	A\$m	1 562	1 371	1 183	– 13.7
Iron ore	Mt	294.3	315.0	338.4	7.4
– value	A\$m	20 511	33 670	25 468	– 24.4
Metallurgical coal	Mt	137	119	128	7.6
– value	A\$m	16 038	34 464	18 628	– 45.9

Gold

Andrew Schultz

The gold price rose by 14 per cent to an average of US\$908 an ounce in the March quarter 2009, compared with US\$797 an ounce in the December quarter 2008. This increase in price in the March quarter reflected strong retail demand in the form of gold bullion coins, bars and gold bought through exchange-traded funds listed on worldwide stock markets. Retail demand largely grew in response to the sharp fall in value of other asset classes, such as property and equities, and the perception of relatively low and volatile returns from these assets. Gold purchases in the March quarter followed a widespread sale of commodity holdings by hedge funds in late 2008, as a result of the rapid weakening in the world economic outlook.



Historically, institutional investors buy gold as a hedge against a decline in the value of the US dollar. Although the relationship between the price of gold and the value of the US dollar was not apparent in the March quarter 2009, the recent decline in the value of the US dollar against other internationally traded currencies contributed to the rise of the gold price to more than US\$950 an ounce in early June 2009.

With a relatively weak world economic outlook and expected volatility in world equity markets, the gold price is forecast to remain relatively high in the remainder of 2009, averaging around US\$910 for 2009 as a whole.

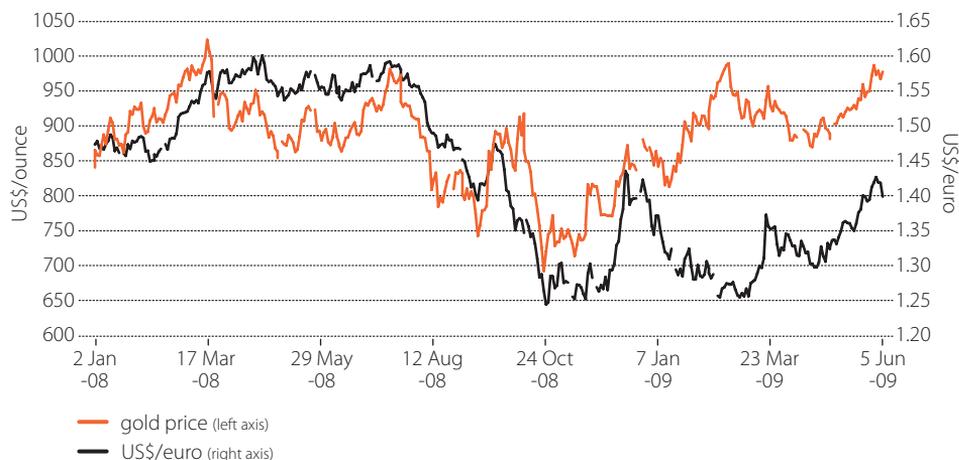
The gold price to remain high in 2010

In 2010, the gold price is forecast to remain relatively high in the first half of the year, before easing gradually during the second half. A gradual improvement in global economic

Gold

Gold and the US dollar

daily, ended 5 June 2009



performance during 2010 is expected to result in investors changing their focus to other asset classes, especially in the latter half of 2010. Although investors' sentiment toward other asset classes is expected to improve, the assumption of a gradual world economic recovery is expected to sustain the appeal of gold as a lower risk asset, and hence sustain its price. For 2010 as a whole, the price of gold is forecast to average slightly higher at US\$930 an ounce.

A major risk factor to this price outlook is the assumed pace of the world economic recovery. For investors, the appeal of gold as a store of value increases during periods of market volatility and uncertainty. As such, any weakening in confidence in global financial markets, downgrading of world economic prospects, or a further sharp decline in the value of the US dollar against other currencies all have the potential to place significant upward pressure on the gold price. Conversely, if the pace of the world economic recovery proves to be markedly rapid and stronger than currently expected, considerable downward price pressure could emerge on gold, as investors' confidence in other asset classes returns.

World mine production to increase in 2009

World gold mine production in 2009 is forecast to increase by 2 per cent to 2456 tonnes, however production is likely to remain well below the record of 2640 tonnes in 2001. Increases in production in Indonesia, Australia, the Russian Federation and China are expected to more than offset a decline in South Africa.

In Indonesia, reflecting the mining of higher grade ores, an increase of around 31 tonnes to 68 tonnes is expected from Grasberg, the world's largest producing mine. Growth in gold production from the Russian Federation is expected to stem from the first full year of production from Kinross' Kupol project (producing around 20 tonnes in 2009) and increasing production from Peter Hambro Mining's Pioneer project. In China, growing production from numerous small and medium sized gold producers is expected to continue in response to the relatively high gold price.

The long-term trend of falling mine production in South Africa is forecast to continue in 2009, but at a reduced rate compared with 2008. Declining ore grades, power supply rationing because of electricity shortages, and underground mining labour shortages reduced production in 2008. These factors are expected to persist across the industry. Modest production increases from Gold Fields' Kloof and Driefontein projects are forecast to be more than offset by production declines from the South African operations of AngloGold Ashanti and Harmony Gold.

In 2010, global mine production is forecast to remain at a level similar to 2009. Although production is forecast to increase in Australia, China, the Russian Federation and Africa, this is expected to be largely offset by falling production in Indonesia as a result of lower grade ores.

Gold fabrication demand to decline in 2009

Gold fabrication consists of gold used in jewellery, electronics, dental applications, medals, coins and other industrial uses. In the March quarter 2009, gold for use in jewellery, the largest component of gold fabrication, is estimated to have fallen by around 26 per cent as consumer demand for jewellery declined in response to weaker economic conditions and a high gold price. Demand in India, historically the largest market for jewellery, fell by more than 50 per cent in the quarter. Reflecting falling demand for consumer goods worldwide, gold used in electronics and other industrial applications also declined. Total gold fabrication demand is estimated to have fallen year on year by around 27 per cent in the quarter.

For 2009 as a whole, gold fabrication demand is forecast to fall by more than 16 per cent to 2403 tonnes, its lowest since 1988.

With an assumed modest recovery in world economic growth in 2010, gold fabrication is forecast to rise by 6 per cent to 2555 tonnes. In response to expected stronger economic recovery in developing countries, demand from India and China is expected to drive fabrication consumption growth through an increase in domestic jewellery expenditure. Reflecting its reliance on export markets for jewellery, gold fabrication consumption in the large Middle Eastern wholesale markets is forecast to grow only modestly in 2010.

Official sector sales to fall in response to global economic uncertainty

Net sales of gold by the official sector in 2009 are forecast to fall by around 24 per cent to 186 tonnes, contributing to weaker growth in gold supplied to the market. This forecast fall is largely a result of reduced net sales by central banks which are signatories to the European Central Bank Gold Agreement (CBGA).

The CBGA places a collective limit of 500 tonnes a year on the quantity of gold which signatories (comprising 15 European central banks, including the European Central Bank) are permitted to sell from their reserves. The current CBGA began in 2004 and is set to expire in September 2009.

For the first three months of 2009, CBGA members, predominantly France and the European Central Bank, have completed net sales of around 78 tonnes of gold. Increased buying of gold has been reported in 2009 from non-CBGA central banks, especially from the Russian

Gold

Federation (12 tonnes to March 2009) and Venezuela (7 tonnes in January 2009). After recently reporting updated gold reserves estimates, China's central bank has indicated an increase in gold reserves since 2003 of more than 450 tonnes, to 1054 tonnes.

With a high proportion of reserves comprised of gold, central banks in many European countries are expected to continue net gold sales over the outlook period. However, reflecting gold's current appeal as a low-risk asset, net official sector sales are forecast to continue to decline to around 166 tonnes in 2010.

Producer dehedging to diminish in importance

Producer hedging involves gold producers borrowing gold from central banks and selling it on the spot market, to reduce their exposure to the risk of lower gold prices at the time of actual production. As a result, the value of future mine production of gold is effectively brought forward.

Dehedging, through the buying back or unwinding of these hedged positions, has largely occurred because of producers' expectations of an increasing gold price. Net dehedging, occurring when gold repayments to central banks exceed new producer hedging, imposes upward pressure on the current gold price through the reduction of gold supplied to the spot market.

Dehedging is forecast to decrease by more than 200 tonnes to 142 tonnes in 2009, and to fall by a further 90 tonnes in 2010. The extent to which future dehedging can take place is limited by the existing industry hedge book. Nevertheless, the prospect of the gold price remaining historically high is expected to encourage companies with existing hedged positions, such as AngloGold Ashanti and Barrick Gold, to continue dehedging.

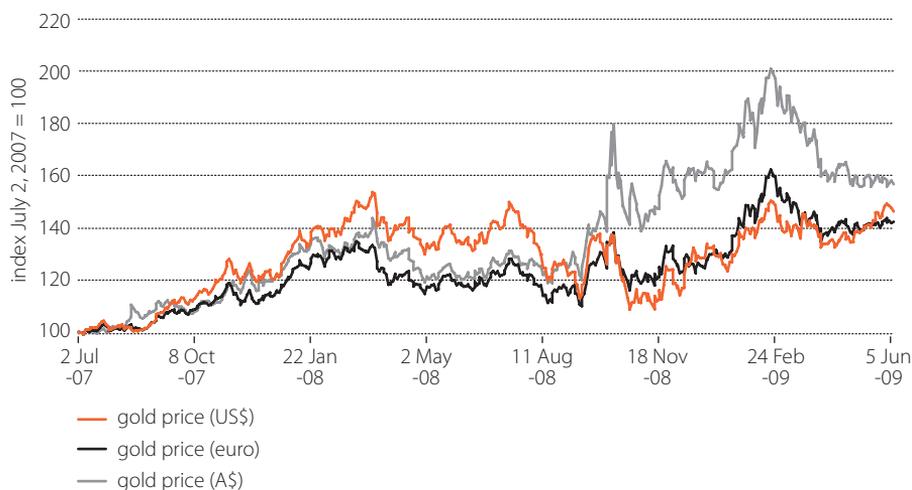
Development projects to boost Australian gold production

Australian gold mine production in 2008-09 is estimated to fall by 4 per cent to 219 tonnes. The main contributor to this decrease is AngloGold Ashanti's Sunrise Dam, where the cessation of mining in a large open pit will lead to an estimated fall of more than 4 tonnes. Significant decreases will also occur at Newcrest's Cadia Valley operations (down by 5 tonnes) while the cessation of mining at Harmony Gold's previously owned Mt Magnet project will result in an estimated 3 tonne decrease in 2008-09. Partly offsetting these falls are increases in production from the Kalgoorlie Joint Venture Super Pit (up 2 tonnes) and Tasmania's Beaconsfield mine (up 1 tonne). The start-up of St Barbara's Leonora operations, Avoca's Higginsville project and Apex Minerals' Wiluna redevelopment during the year is estimated to contribute 7.5 tonnes to total production.

An increase in Australian gold production of 9 per cent to 239 tonnes is forecast for 2009-10, reflecting the expected start-up of around 14 new gold projects and the ramping up of several others. The AngloGold Ashanti/Newmont redevelopment of Boddington (28 to 33 tonnes a year) and Newcrest's Ridgeway Deeps (6 tonnes a year) are the largest projects to begin producing during the outlook period. Production from Apex Minerals' Wiluna redevelopment and OzMinerals' Prominent Hill are forecast to increase in 2009-10 as these operations

Gold price indexes

daily, ended 5 June 2009



approach full capacity. The strong rise in the Australian dollar denominated gold price since late 2008 has improved the economic viability of many existing operations and encouraged the development of several small to medium sized gold projects.

Historical highs for Australian gold exports

The volume of Australian gold exports is estimated to rise by 23 per cent to 469 tonnes in 2008-09. This is the highest annual volume of gold exports on record, and has been driven by strong growth in the export of refined gold derived from scrap sourced mainly from Asian markets. In 2009-10, gold export volumes are forecast to decline slightly to 466 tonnes. The demand for Australia's gold refining capacity within the Asian region is expected to continue.

Australian gold exports

nominal



Gold

The value of Australian gold exports is estimated to increase by 61 per cent to \$17.5 billion in 2008-09, which is the highest annual value of gold exports on record. Despite growth in export volumes, a 30 per cent rise of the Australian dollar denominated gold price is the main factor driving this forecast increase. In 2009-10, export earnings from gold are forecast to rise by a further 3 per cent to \$18.0 billion.

Gold outlook

		2008	2009 f	2010 f	% change
World					
Fabrication consumption	t	2 850	2 403	2 555	6.3
Mine production	t	2 415	2 456	2 473	0.7
Scrap sales	t	1 218	1 050	950	-9.5
Net stock sales	t	- 783	-1 103	- 868	- 21.3
- official sector	t	246	186	166	- 10.8
- private sector	t	(671)	(1147)	(982)	
- producer hedging	t	(358)	(142)	(52)	
Price	US\$/oz	873	908	930	2.4
		2007	2008	2009	
		-08	-09 s	-10 f	
Australia					
Mine production	t	228	219	239	9.1
Exports	t	382	469	466	-0.6
- value	A\$m	10 903	17 516	18 033	3.0
Price	A\$/oz	917	1186	1203	1.4

Aluminium

Rebecca McCallum

World aluminium prices averaged US\$1360 a tonne in the March quarter 2009, the lowest since September 2002. Aluminium prices more than halved between September 2008 and February 2009 as the global economic downturn reduced consumption of consumer durables and motor vehicles, which are both significant drivers of aluminium demand. Despite cuts to production worldwide, rapidly declining consumption is expected to result in production exceeding consumption by around 1.2 million tonnes in 2009. World stocks of aluminium are forecast to be 8.6 weeks of world consumption at the end of 2009, as production exceeds consumption for the third consecutive year.

Prices to recover slowly

Weak consumption and expectations of substantial stock increases resulted in prices averaging around US\$1400 a tonne in the first half of 2009. World aluminium prices are expected to increase gradually during the second half of 2009, averaging around US\$1590 a tonne, as signs of economic recovery become more pronounced and consumers anticipate rapid future increases in demand. However, there are considerable downside risks to this forecast. The expected improvement in prices will be dependent on the extent to which expectations

of improving demand are met during the period. Despite this forecast price improvement in the second half of the year, for 2009 as a whole, prices are forecast to average around US\$1500 a tonne, a fall of almost 40 per cent from 2008.

World aluminium prices and stocks

nominal



In 2010, aluminium consumption is anticipated to grow faster than production, as world economic growth increases. Stocks are expected to decline during the course of the year, to around 7.8 weeks of consumption by year end. In line with falling stocks, prices are forecast to increase by 16 per cent to US\$1750 a tonne. Nevertheless, high levels of stocks will remain during 2010, potentially limiting any significant upward movement in prices.

World consumption declining again in 2009

World aluminium consumption is forecast to decline by around 12 per cent in 2009, to 32.5 million tonnes. Substantial cuts to production of consumer durables and automobiles globally are anticipated to result in aluminium consumption declining rapidly in most countries, including China, Japan, Germany, Italy and the Republic of Korea.

Aluminium

Lower industrial activity globally is also reducing demand for aluminium in applications such as ship building, cladding and commercial construction. This situation is expected to continue until late 2009 when economic conditions are assumed to begin improving.

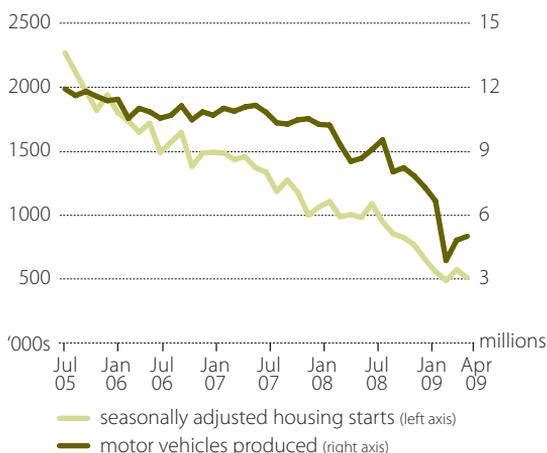
In the first quarter of 2009, China's consumption contracted by 10 per cent, compared with the same period in 2008. Despite the government's economic stimulus package, aluminium consumption in China is anticipated to be affected by reduced demand for exports, particularly for consumer durables. As economic conditions improve during the second half of 2009, consumption is expected to increase and annual consumption is forecast to total 11.5 million tonnes for 2009 as a whole. However, this still represents a 7 per cent decline from 2008.

In 2010, world aluminium consumption is forecast to increase by 8 per cent, to 35 million tonnes. The largest increases in demand are anticipated to be in the European Union and China. In the European Union, demand for lightweight, fuel efficient vehicles is expected to support consumption, while in China, infrastructure construction is anticipated to account for the majority of the increase in demand. Consumption in China is forecast to increase by around 9 per cent, to 12.5 million tonnes.

Production cuts still flowing through

World aluminium production is forecast to decline by 14 per cent to 33.8 million tonnes in 2009. The expected 5.7 million tonne fall in aluminium production in 2009 is equivalent to the total additions to capacity between 2006 and 2008.

United States indicators



In response to falling prices, a number of producers have closed smelters or reduced production. This includes some of the world's largest aluminium producers such as Chalco, Alcoa, Rio Tinto Alcan and UC Rusal. For example, Chalco has reduced annual production by more than 750 000 tonnes, while Rio Tinto Alcan has made cuts equivalent to more than 500 000 tonnes a year.

However, production in a number of countries, particularly in the Middle East, is expected to increase. In countries such as Oman and Qatar, relatively cheap energy prices make aluminium production costs lower relative to production in the United States and Western Europe.

In 2010, world aluminium production is forecast to increase by around 3 per cent, to 34.9 million tonnes. A number of smelters which have previously reduced output or shut down are expected to restart or increase production during the year, because of increasing consumption and the subsequent increase in world prices.

Australian production lower in 2009-10

In 2008-09, Australian aluminium production is estimated to have remained steady, at around 1.96 million tonnes.

Australian aluminium exports

nominal



Australia's aluminium production is forecast to decline by around 3 per cent, to 1.9 million tonnes in 2009-10, as a result of reduced production at Alcoa's Portland smelter in Victoria. Alcoa announced cuts to production in November 2008 and again in April 2009, in response to the weak outlook for aluminium.

In line with lower production, Australian exports of aluminium are forecast to decline by 5 per cent in 2009-10, to 1.63 million tonnes. Lower export volumes and lower export prices are forecast to result in the value of exports declining to around \$3.8 billion, from an estimated \$4.9 billion in 2008-09.

Alumina

Most sales of alumina worldwide take place as part of contractual agreements, where the contract price is linked to the aluminium price, or are accounted for as internal transactions within vertically integrated companies. Any remaining alumina is sold on the spot market. As a result, world alumina prices generally reflect the availability of alumina spot sales and not necessarily movements in aluminium prices.

In 2009, world alumina prices are forecast to average around US\$225 a tonne, 40 per cent lower than in 2008. Lower production of aluminium in 2009 is expected to reduce demand for alumina, placing downward pressure on alumina prices. As aluminium production is forecast to recover gradually in late 2009 and into 2010, alumina demand and spot prices are forecast to increase, resulting in alumina spot prices averaging around US\$310 a tonne in 2010.

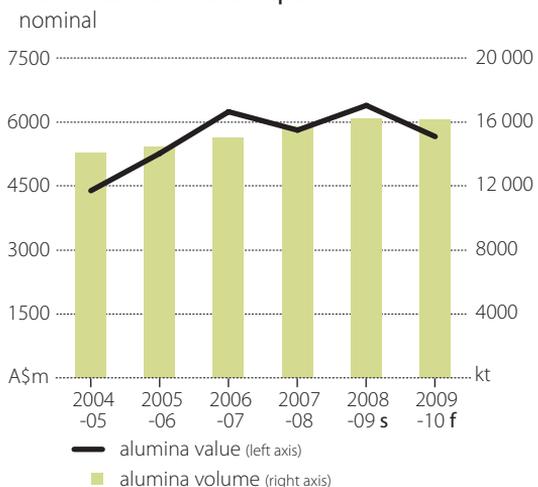
Australian export values declining

Australian alumina production is estimated to be around 19.5 million tonnes in 2008-09, slightly higher than in 2007-08. In 2009-10, production is forecast to increase by around 1 per cent, to 19.7 million tonnes. Increased production is expected to be underpinned by the completion of the ramp up phase at Rio Tinto Alcan's Gove refinery. Projects to expand alumina production capacity currently underway are not scheduled to be completed before 2010.

Australian exports of alumina are forecast to be around 16.1 million tonnes in 2009-10, around 0.5 per cent lower than the estimate for 2008-09. In year average terms, alumina export

Alumina

Australian alumina exports



prices for 2009-10 are forecast to be lower than in 2008-09. Although export prices are forecast to increase in the first half of 2010, this increase is only expected to be modest, which is forecast to lead to the price for 2009-10 averaging 10 per cent lower than the estimate for 2008-09. As a result, alumina export values in 2009-10 are forecast to be \$5.6 billion.

Aluminium and alumina outlook

		2008	2009 f	2010 f	% change
World aluminium					
Production	kt	39 430	33 750	34 904	3.4
Consumption	kt	36 912	32 521	35 018	7.7
Closing stocks	kt	4 139	5 368	5 254	-2.1
- weeks consumption		5.8	8.6	7.8	-9.3
Price	US\$/t	2 487	1 510	1 745	15.6
	USc/lb	112.8	68.5	79.2	15.6
World alumina					
Spot price	US\$/t	381	225	310	37.8
Australia					
Production					
Bauxite	Mt	63.5	64.9	64.3	-0.9
Alumina	kt	19 359	19 527	19 725	1.0
Aluminium	kt	1 964	1 956	1 899	-2.9
Exports					
Alumina	kt	15 739	16 230	16 145	-0.5
- value	A\$m	5 809	6 379	5 648	-11.5
Aluminium	kt	1 650	1 719	1 626	-5.4
- value	A\$m	4 967	4 914	3 754	-23.6

Nickel

Rebecca McCallum

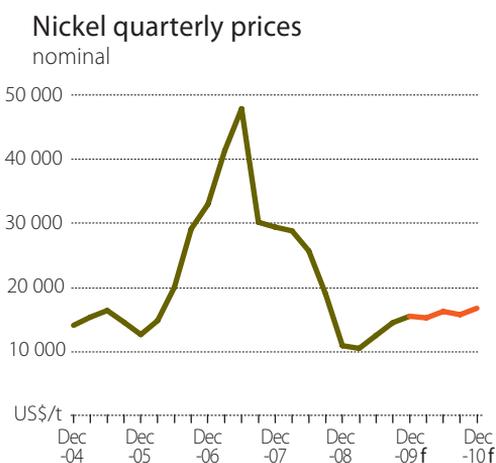
Nickel prices averaged around US\$11 500 a tonne in the first five months of 2009 after falling to average US\$10 500 a tonne in the March quarter 2009, the lowest since the September quarter 2003. Nickel prices increased steadily through April and May in response to an improvement in market sentiment toward the world economic outlook, and hence the demand for nickel in the short term.

The global economic downturn contributed to rapidly declining nickel consumption in late 2008 and early 2009, and announced substantial production cuts were not sufficient to prevent world nickel prices continuing to fall in the first quarter of 2009. Despite weak consumption, nickel prices started to recover gradually during the June quarter 2009, averaging an estimated US\$12 900 a tonne. The recent price increase appears to have largely been driven by market expectations of a recovery in world demand during the second half of 2009 and further cuts to production. The extent to which recent increases in nickel prices are maintained will depend on market expectations of future demand and supply being met.

Lower prices in 2009, beginning to recover in 2010

Nickel prices are forecast to average around US\$15 000 a tonne in the second half of the year, as world economic conditions are assumed to improve, leading to an increase in nickel consumption. If these expectations of increased demand are not met and consumption remains lower than currently assumed, prices could fall from current levels and average lower in the second half of the year. Alternatively, a stronger than anticipated recovery in nickel demand would result in prices rising beyond the current forecast.

For 2009 as a whole, refined nickel production is expected to exceed consumption, resulting in stocks increasing to more than seven weeks of world consumption, 16 per cent higher than at the end of 2008. Reflecting weak demand and increasing stocks, the nickel price for 2009 as a whole is forecast to average US\$13 300 a tonne, a decrease of around 40 per cent from 2008.



As nickel consumption is expected to recover in 2010, nickel prices are forecast to average higher at around US\$16 000 a tonne for the year. World stocks are anticipated to decline to around 6.6 weeks of world consumption, as consumption growth is likely to outpace production growth.

A significant risk to this forecast is the rate at which closed nickel mines and refineries reopen. If these mines and refineries restart more quickly than currently anticipated, prices could fall below current forecasts. Alternatively, if restarts occur more slowly, stocks may fall more quickly than forecast and prices rise faster.

Nickel

Consumption remaining weak in 2009

Nickel consumption in Japan, Chinese Taipei, the United States and the EU 27 declined by more than one-third, and world consumption fell by 25 per cent in the first two months of 2009, compared with the same period in 2008. Declining production of consumer durables, motor vehicles and industrial buildings contributed to lower stainless steel demand and falling stainless steel mill utilisation rates. Consumption also fell in China on a year on year basis, but by a comparatively moderate 7 per cent over the same period.

Nickel consumption is forecast to grow moderately in the second half of 2009, in response to an assumed improvement in the economic outlook. However, the moderate increase is not expected to offset the significant fall in consumption in the first half of the year. For 2009 as a whole, world nickel consumption is forecast to decline by an estimated 8 per cent to 1.2 million tonnes.

In 2010, nickel consumption is forecast to increase to around 1.3 million tonnes, reflecting an expected rapid recovery in consumption in Asia and forecast moderate growth in Europe and North and South America.

As a result of significant increases in nickel prices between mid-2003 and mid-2007, a number of stainless steel producers substituted other less expensive input materials such as manganese for nickel. Despite a significant decline in nickel prices, many stainless steel producers have not switched back to nickel in stainless steel production. If this trend continues in the short term, it could limit any significant nickel demand growth, particularly in OECD economies.

In some applications such as hot water services, the current low nickel price has resulted in some substitution back to nickeliferous stainless steel. However, in other applications, for example in cutlery, substitution is yet to happen. Consumption of nickel in developing Asia is expected to increase by around 10 per cent in 2010, as economic growth recovers, particularly in applications where other grades of stainless steel are not as suitable such as in industrial kitchens.

Rapid decline in nickel production as mines close

Nickel mine production is forecast to decline by around 13 per cent in 2009, as around 250 000 tonnes of capacity has been shut down or placed on care and maintenance since August 2008. Rapid declines in world nickel prices have made production at some mines uneconomic. All major nickel producers including the Russian Federation, Canada, Australia, Indonesia and New Caledonia have been affected by the closure or downsizing of mining operations. As a result, nickel mine production is forecast to be around 1.3 million tonnes in 2009, down from 1.5 million tonnes in 2008. This forecast nickel mine production in 2009, if realised, will be the lowest since 2003.

In 2010, nickel mine production is expected to begin increasing in line with the forecast of a moderate rise in world prices. At these forecast prices, comparatively low cost mines are likely to begin restarting some or all of their capacity. As a result, production is forecast to increase by 6 per cent to 1.4 million tonnes in 2010.

Nickel mine closures and capacity reductions

project	company	country	estimated annual capacity reduction (t)
Ravensthorpe	BHP Billiton	Australia	50 000
Various	Norilsk	Australia	35 000
Falcondo	Xstrata	Dominican Republic	29 000
SLN	Société Le Nickel	New Caledonia	20 000
Various		China	20 000
Ufaleynickel	Ufaleynickel	Russian Federation	15 000
Loma de Niquel	Anglo American	Venezuela	15 000
Munali	Albidon	Zambia	10 000
Craig, Thayer Lindsay	Xstrata	Canada	8 200
Avebury	OZ Minerals	Australia	8 000
Copper Cliff	Vale	Canada	8 000
Trojan, Shanghai	Bindura	Zimbabwe	8 000
Berong	Toledo Mining	Philippines	6 000
Sudbury	Vale	Canada	5 000
Talvivaara	Talvivaara Mining	Finland	5 000
Hitura	Belvedere	Finland	2 500
Radio Hill	Fox Resources	Australia	1 500
Lockerby	First Nickel	Canada	500

Sources: estainlesssteel.com, ABARE.

Refined production also lower

As a result of lower prices and reduced world mine production, refined nickel production is forecast to decline by around 15 per cent, to 1.2 million tonnes in 2009. Refineries in countries such as the Ukraine, the Dominican Republic and Finland have closed or significantly reduced output. Production is also anticipated to decline in Canada, Japan and the Russian Federation.

In 2010, refined production is forecast to increase by around 9 per cent to 1.3 million tonnes, as higher prices are expected to encourage increased production.

Australia's production declining

Australian nickel mine production is estimated to have declined by approximately 7 per cent in 2008-09, to 177 000 tonnes. Falling nickel prices have resulted in around 100 000 tonnes of Australia's mine capacity being shut down since mid-2008. The full effect of these mine closures is not expected to be realised until the 2009-10 financial year, when Australia's mine production is forecast to decline by a further 24 per cent, to 135 000 tonnes.

Australia's refined nickel production declined by an estimated 13 per cent in 2008-09, to around 105 000 tonnes, as a result of disruptions at BHP Billiton's Kalgoorlie smelter in Western Australia. In 2009-10, refined production is expected to increase by 5 per cent, to around 110 000 tonnes. Despite mine closures, current rates of production of nickel ores and concentrates are expected to be sufficient to meet this forecast increase in production. However, refined nickel production is not expected to return to full capacity (more than 120 000 tonnes) until mine production increases, because feed for refineries will be limited.

Nickel

Australian nickel exports

nominal



For example, lower production is expected at Yabulu in Queensland following the closure of the Ravensthorpe mine, its Australian source of feed.

Export volumes down

Reflecting lower production and lower world prices, nickel export volumes are estimated to decline by 16 per cent to 177 000 tonnes in 2008-09, with the value of those exports declining by an estimated 60 per cent to \$2.3 billion. In 2009-10, volumes are expected to decline by a further 20 per cent, to 141 000 tonnes, as a result of lower production. However, export values are forecast to increase to \$2.6 billion as a result of a forecast higher Australian dollar nickel price.

Nickel outlook

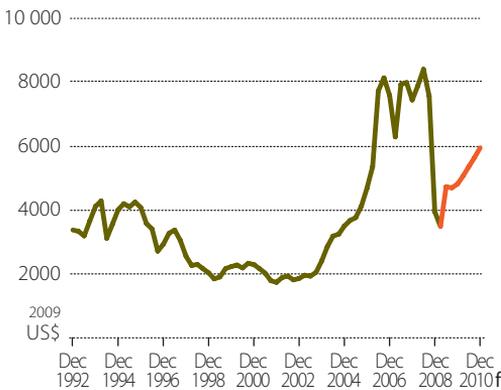
		2008	2009 f	2010 f	% change
World					
Production	kt	1 396	1 183	1 288	8.9
Consumption	kt	1 278	1 174	1 288	9.7
Closing stocks	kt	155	164	163	-0.6
– weeks consumption		6.3	7.3	6.6	-9.6
Price	US\$/t	21 116	13 277	16 000	20.5
	US\$/lb	958	602	726	20.5
Australia					
Production					
Mine	kt	190	177	135	-23.7
Refined	kt	121	105	110	4.8
Intermediate	kt	45	21	16	-23.8
Exports	kt	210	177	141	-20.3
– value	A\$m	5 775	2 283	2 561	12.2

Copper

Michael Lampard

World spot copper prices averaged US\$3840 a tonne in the first five months of 2009, a decline of 45 per cent on the 2008 average price of US\$6976 a tonne. However, the copper price increased by nearly 90 per cent from its low in December 2008, to US\$5240 a tonne in early June. The sharp rise in copper prices during the first half of 2009 is largely attributable to a significant increase in China's demand for refined copper and the closure of mine capacity in late 2008.

World copper price quarterly



In the first five months of 2009, China imported 1.4 million tonnes of refined copper, which was an increase of 130 per cent compared with the same period last year. China's imports of primary refined copper have been supported by a range of factors including: the Chinese Government's US\$586 billion stimulus package; reported strategic stock building by the State Reserves Bureau; reduced scrap availability; and a positive arbitrage between the Shanghai Futures Exchange and the London Metals Exchange.

Given the large forecast contraction in non-Chinese copper demand during 2009, copper prices in the second half of this year are likely to remain dependent on growth in China's refined copper imports.

Chinese demand supporting prices in 2009 and 2010

For 2009 as a whole, world copper prices are forecast to average US\$4416 a tonne, a decline of 37 per cent relative to 2008. The fall in prices reflects sharp contractions in global copper demand and the associated increase in world stocks to around 5 weeks of consumption.

In 2010, the world copper price is forecast to increase by 24 per cent to average \$5488 a tonne, as an expected increase in copper demand leads to declining copper stocks. At present, there is a significant amount of idled copper production capacity, which could be restarted relatively quickly in the event of sustained higher prices. As a result, the rate at which idled capacity is restarted represents a risk to this price forecast. A quicker and larger than forecast restart of idled capacity could place downward pressure on prices.

Global copper demand to contract in 2009 before increasing in 2010

World copper consumption is forecast to decline by around 4 per cent in 2009 to 17.2 million tonnes, as world economic activity contracts. Excluding China, world copper consumption is forecast to fall by 12 per cent to 11.3 million tonnes in 2009. In 2010, global refined copper consumption is forecast to increase by 7 per cent to 18.4 million tonnes, as copper

Copper

consumption increases in most developed economies reflecting an assumed gradual improvement in economic growth.

China's demand to remain strong

In the first three months of 2009, China's apparent consumption of refined copper increased by 33 per cent year on year. China's stimulus package, which targeted infrastructure development,

Shanghai Futures Exchange - London Metal Exchange price differential and its effect on China's imports of refined copper

The London Metals Exchange (LME) is the world's largest non-ferrous metals market with aluminium, copper, nickel, tin, zinc and lead traded on the exchange. Reflecting the volume of metal traded on the LME, daily metal prices settled on the exchange are commonly referred to as world metal prices. Other major exchanges where non-ferrous metals are traded include the New York Mercantile Exchange (NYMEX) and the Shanghai Futures Exchange (SHFE). The SHFE is China's principle commodity market with oil, gold, steel, aluminium, copper and zinc traded on the exchange. Trade on the SHFE is restricted to Chinese firms and commodities held on mainland China.

While metal prices on the LME and the NYMEX move together, copper prices on the LME and the SHFE (net of taxes) often differ. Historically, the price differential between the two exchanges (net of taxes) has been sufficient to influence China's imports of refined copper. That is, when copper prices on the SHFE are higher than those on the LME (net of taxes), China's imports of refined copper increase as Chinese firms source cheaper copper from other countries. Conversely, when copper is cheaper on the SHFE than on the LME (net of taxes), China's imports of refined copper decline as firms switch to domestic copper.

Since August 2008 the SHFE copper price has been higher than the LME copper price, supporting China's increased imports of refined copper, and in turn providing support to the LME copper price. While future movements of the SHFE-LME price differential are difficult to forecast, a continuation of this trend in the short term will continue to underpin China's imports of refined copper and the LME copper price.

Shanghai Futures Exchange - London Metals Exchange price differential (net taxes) and China's imports of refined copper



has increased demand for copper for use in electrical distribution networks, and residential and commercial construction. For 2009 as a whole, China's copper consumption is forecast to increase by 15 per cent to nearly 6 million tonnes, as construction activity remains strong and strategic stock building continues throughout the year. Reduced availability of copper scrap is also likely to support Chinese consumption of refined copper in 2009. In the past few years, China has imported large volumes of copper scrap for reprocessing into secondary refined copper for domestic consumption. In the first five months of 2009, China's imports of copper scrap declined by 40 per cent year on year. With scrap availability likely to remain constrained in 2009, continued substitution of refined copper for copper scrap is likely to occur.

China's copper consumption is forecast to continue to grow in 2010 as construction of urban infrastructure, such as buildings and electrical grids, continues and export demand for copper intensive goods increases associated with a recovery in OECD economies.

OECD consumption to decline in 2009

OECD consumption of refined copper in 2009 is forecast to fall by 12 per cent to 7.7 million tonnes before increasing in 2010 to 8 million tonnes. Demand for refined copper in OECD countries is forecast to remain weak throughout 2009 and into 2010, as reduced construction activity lowers copper consumption. In 2009, OECD countries forecast to have the largest declines in copper consumption include France, Germany, the Republic of Korea, Canada and the United States.

In the United States, the world's second largest copper consumer, consumption is forecast to decline by 12 per cent as demand for residential construction and household appliances continues to decline. Housing permits, a leading indicator of future residential construction, reached an historic low in 2009, declining 49 per cent year on year in the first four months of 2009. During 2009, US housing starts and permits are expected to remain at low levels, placing downward pressure on US copper demand.

In 2010, copper consumption in the United States is forecast to increase by 3 per cent to 1.8 million tonnes, when an assumed recovery in the housing market and domestic demand for copper intensive goods begins.

Mine production to increase in 2009 and 2010

In 2009, world copper mine production is forecast to increase by 1 per cent to 15.7 million tonnes, reflecting increased production in Africa, Indonesia and Australia. In Africa, mine production is forecast to increase by 18 per cent to around 1.2 million tonnes, supported by the start-up of Equinox Minerals' Lumwana mine (170 000 tonnes) in Zambia and Freeport's Tenke-Fungurume mine (110 000 tonnes) in the Democratic Republic of Congo in the first quarter of 2009. Production at Freeport's Grasberg mine in Indonesia is expected to increase in 2009 and 2010 by around 100 000 tonnes, as the mine processes higher grade ore. Also in Indonesia, Newmont's Batu Hijau operation is expected to increase production by more than 50 000 tonnes in 2009, reflecting increased mill availability and higher ore grades. In Chile, the world's largest copper producer, mine production in 2009 is forecast to decline slightly to around 5.2 million tonnes. Lower production at Escondida, as a result of equipment failure, is expected to more than offset increased production at Codelco's Norte Division.

Copper

In 2010, world mine production is forecast to increase by 3 per cent to 16.1 million tonnes as a number of new projects commence operations. The largest of these projects include Xstrata's El Teniente expansion (100 000 tonnes) in Chile and Vedanta's Konkola Deep mining project (150 000 tonnes) in Zambia. Production is also forecast to be higher, as a number of mines closed in 2008 as a result of low prices are expected to reopen.

Refined production to decline in 2009 but increase in 2010

World refined copper production is forecast to decline by 2 per cent to 18 million tonnes in 2009, reflecting lower Solvent Extraction Electrowinning (SX-EW) production and a reduction in secondary refined production because of reduced availability of scrap. Despite production remaining flat at around 3.8 million tonnes in 2009, China is forecast to remain the world's largest producer of refined copper. In the European Union and most developed economies, refined production is forecast to remain steady as weak local demand and low profit margins constrain production. Pressure on the profitability of refineries remains as low spot treatment and refining charges (the payment received by refineries for refining copper) have coincided with falling world sulphur prices (sulphur is a by-product of the smelting process). In 2009, the most significant increases in world refining capacity are forecast to come from Africa where the commissioning of Freeport's Tenke Fungurume operation is expected to add around 110 000 tonnes to SX-EW capacity.

In 2010, refined production is expected to increase by 2 per cent to 18.4 million tonnes, as an increase in demand for refined copper supports higher production. Increased refined production is forecast to come from the restarting of small SX-EW operations, closed as a result of low prices, and increased secondary refined production as higher prices lead to an increased availability of copper scrap.

Australian production to increase

Australian mine production is estimated to have increased by 4 per cent in 2008-09 as higher production at BHP Billiton's Olympic Dam offset mine closures late in 2008. Closures included Compass Resources Browns Oxide SX-EW (10 000 tonnes), Barmenco's Eloise (16 000 tonnes), Matrix Metals' Leichhardt SX EW (9000 tonnes) and CopperCo's Lady Annie SX-EW (20 000 tonnes). Despite significant closures to Australia's SX-EW capacity in 2008-09, refined production is estimated to have increased by 11 per cent to 494 000 tonnes, reflecting higher production at the Townsville Copper Refinery and increased production at SX-EW operations in the first half of the financial year, prior to their closure.

In 2009-10, copper mine production is forecast to increase by 13 per cent to 1 million tonnes, attributable to new production at Oz Minerals' Prominent Hill mine and Newmont's Boddington gold mine.

Refined production is forecast to decline by 6 per cent to 467 000 tonnes in 2009-10, reflecting lower SX-EW production as a result of closures of capacity in 2008.

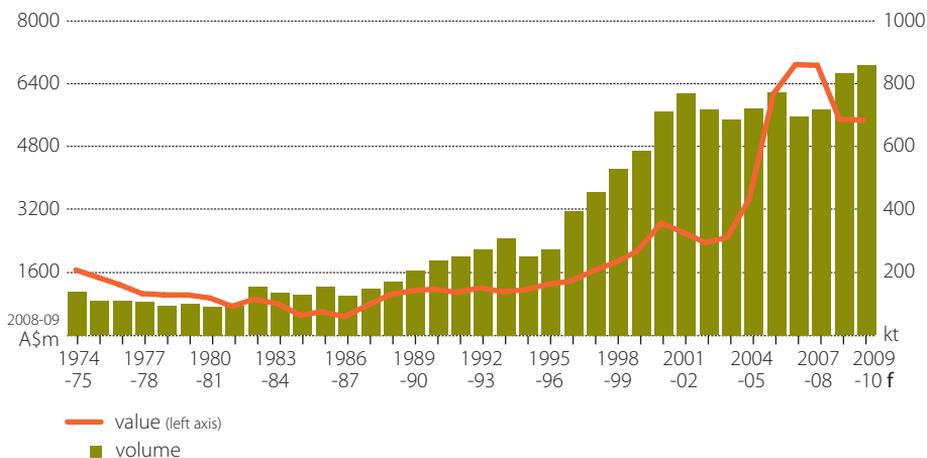
The metallic content of copper exports is estimated to have increased by 16 per cent to 831 000 tonnes in 2008-09. This reflects a significant increase in both refined copper and copper concentrate exports. In 2009-10, the metallic content of exports is forecast to increase by 3 per cent to 857 000 tonnes as increased concentrate exports compensate for lower refined exports.

Export earnings to increase in 2009-10

Australia's export earnings from copper are estimated to decrease by 19 per cent to \$5.5 billion in 2008-09. This fall in export earnings has occurred as an increase in export volumes and a sharp depreciation of the Australian dollar have been offset by a significant decline in world copper prices. An increase in both export volumes and prices in 2009-10 is forecast to result in a 2 per cent increase in copper export earnings, to \$5.6 billion.

Australia's copper exports

metal equivalent



Copper outlook

		2008	2009 f	2010 f	% change
World					
Production					
– mine	kt	15 556	15 672	16 148	3.0
– refined	kt	18 475	18 018	18 435	2.3
Consumption	kt	18 032	17 235	18 382	6.7
Closing stocks	kt	808	1 591	1 643	3.3
– weeks consumption		2.3	4.8	4.6	–4.2
Price	US\$/t	6 976	4 416	5 488	24.3
	US\$/lb	316.4	200.3	248.9	24.3
		2007	2008	2009	
		–08	–09 s	–10 f	
Australia					
Mine output	kt	863	901	1 017	12.9
Refined output	kt	444	494	467	–5.5
Exports					
– ores and concentrates	kt	1 694	1 778	2 039	14.7
– refined	kt	296	351	307	–12.5
– total value	A\$m	6 730	5 452	5 568	2.1

Zinc

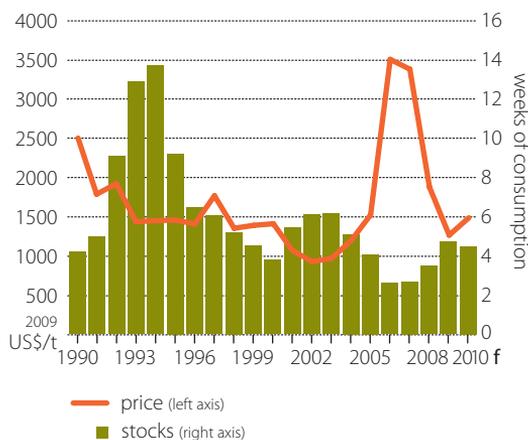
Apsara Maliyasena

Zinc prices to decline markedly in 2009

In the first five months of 2009, world spot zinc prices averaged US\$1223 a tonne on the London Metal Exchange, around 35 per cent lower than the 2008 average zinc price of US\$1878 a tonne. For 2009 as a whole, the spot price of zinc is forecast to average around US\$1272 a tonne, 32 per cent lower than the average for 2008. The lower price forecast for 2009 mainly reflects weak demand associated with the global economic downturn.

In recent months, zinc prices have increased significantly, although they remain significantly lower than the same period a year earlier. In early June 2009, zinc prices had improved by 36 per cent from December 2008. However, there is currently a significant amount of idled zinc mine and smelter capacity, following closures since mid-2008. The potential restart of this spare mine and smelter capacity could limit any significant price increases in the short term.

World zinc prices and stocks



For 2009 as a whole, zinc production is forecast to exceed consumption by around 226 000 tonnes, leading to zinc stocks increasing by 36 per cent, to 4.7 weeks of consumption.

Zinc consumption is expected to begin recovering in early 2010, consistent with an assumed recovery in the global economy. As a result, prices are expected to average higher and stocks to decline in 2010. Zinc prices are forecast to average around US\$1518 a tonne in 2010, an increase of 19 per cent from the forecast average for 2009.

World zinc consumption to fall in 2009...

World refined zinc consumption increased by 1 per cent to 11.5 million tonnes in 2008, but is forecast to fall by around 5 per cent to 10.9 million tonnes in 2009. Underpinning the forecast lower consumption in 2009 are the negative effects on construction activity and motor vehicle production of the current global economic downturn. More than two-thirds of zinc consumption is used in the form of galvanised (zinc coated) steel to prevent corrosion. Galvanised steel is used for many products such as roofing, gutters, consumer appliances and automotive body parts. Therefore, the demand for zinc is highly responsive to a weakening in construction activity and motor vehicle production.

World zinc mine production cuts

operation	company	country	closure /downsize	approx output loss 2009 ('000 tonnes)
Lennard Shelf	Teck Resources / Xstrata	Australia	closure	75
Hellyer	Intec	Australia	closure	30
McArthur River	Xstrata	Australia	downsize	32
Rasp	CBH Resources	Australia	closure	35
Potosi	Perilya	Australia	closure	55
Broken Hill	Perilya	Australia	downsize	50
Golden Grove	OZ Minerals	Australia	downsize	75
Handlebar Hill	Xstrata	Australia	closure	45
Endeavor	CBH Resources	Australia	downsize	16
Mt Garnet	Kagara	Australia	downsize	35
Century	OZ Minerals	Australia	downsize	20
Perkoa	AIM Resources	Burkina Faso	closure	50
Langlois and Myra Falls	Breakwater Resources	Canada	closure	115
Caribou and Restigouche	Blue Note Mining	Canada	closure	50
Chisel North	HudBay Minerals	Canada	closure	24
Galmoy	Lundin Mining	Ireland	closure	47
Kentau	ShalkiyaZinc	Kazakhstan	closure	na
Rosaura	Glencore	Peru	closure	30
Iscaycruz	Glencore	Peru	closure	145
Neves-Corvo and Aljustrel	Lundin Mining	Portugal	closure	105
Gordonsville	Strategic Resources Acquisition	United States	closure	54
Pend Oreille	Teck Resources	United States	closure	18
East Tennessee	East Tennessee Zinc Company	United States	closure	70
Mid-Tennessee zinc mining complex	Strategic Resource Acquisition	United States	closure	50
Balmat mine and concentrator	HudBay Minerals	United States	closure	30

Refined zinc consumption in developed economies such as the European Union, the United States and Japan is forecast to decrease in 2009. Declining construction activity, automobile sales and industrial production in these economies have lowered the demand for galvanised steel. For example, in Japan, zinc consumption is forecast to be less than 500 000 tonnes in 2009, the lowest since 1967.

In comparison, refined zinc consumption in China and India is forecast to increase in 2009. The increase in China is supported by sharply higher public sector spending on infrastructure and stock rebuilding by some provincial governments. Zinc consumption in India is also expected to rise in 2009 as a result of increased demand for infrastructure development and construction. The growing demand for motor vehicles in India has emerged as an important driver of zinc consumption in the past few years.

Zinc

...before picking up in 2010

Under the assumption of strengthening world economic growth in 2010, world refined zinc consumption is forecast to increase, rising by around 3 per cent to 11.3 million tonnes. The majority of this forecast increase is expected to occur in China and India. Economic growth in OECD economies is also assumed to recover modestly in 2010, which should support a corresponding pick up in OECD zinc consumption.

Significant cuts in world production in 2010

Global zinc mine production is forecast to decline by 4 per cent in 2009 to 11.3 million tonnes. The forecast decline in production is expected to limit the size of inventory build-up. Reflecting the recent downward price movements, there have been a number of closures of existing mines and new projects being placed on hold. In May 2009, Lundin Mining announced it will close its Galmoy zinc-lead mine in Ireland earlier than planned because of low zinc prices. Glencore's Iscaycruz lead and zinc mine in Peru was put on care and maintenance in early March. As of April 2009, more than 400 000 tonnes of Australia's zinc mine capacity had been closed.

As a result of lower mine production and lower revenues at refineries, world refined zinc production is also forecast to decline in 2009, with significant reductions in Belgian, Canadian, German, and Dutch refineries. Nyrstar, the world's largest producer of zinc metal, has cut refined zinc production by 30 per cent in the first quarter of this year. Weak demand for sulphuric acid has also affected zinc smelters since late 2008. Zinc smelters produce sulphuric acid as a by-product.

World refined zinc production cuts

operation	company	country	closure /downsize	approx output loss 2009 ('000 tonnes)
Balen smelter	Nyrstar	Belgium	downsize	130
Trail	Teck Resources	Canada	downsize	30
Kidd Creek refinery	Xstrata	Canada	downsize	20
several zinc smelters	Zhuzhou Smelter Group	China	downsize	60
several zinc smelters	Huludao Zinc	China	downsize	100
Kokkola	Boliden	Finland	downsize	30
Datteln refinery	Ruhr-Zinc	Germany	closure	140
Balkhash	Kazakhmys	Kazakhstan	closure	48
several zinc smelters	Korea Zinc	Korea, Rep. of	downsize	45
Budel smelter	Nyrstar	Netherlands	downsize	35
Odda	Boliden	Norway	downsize	30
Copsa Mica	Mytilineos	Romania	closure	60
Chelyabinsk	Chelyabinsk Zinc	Russian Federation	downsize	45
Clarksville	Nyrstar	United States	downsize	25
Monaca	Horsehead Industries	United States	downsize	20

Production resuming in 2010

In 2010, world zinc mine production is forecast to increase slightly to 11.4 million tonnes, in response to recovering world demand. Forecast higher zinc prices and falling stocks in 2010 are expected to encourage some mine and refined producers to resume production or return to full capacity. For 2010 as a whole, world output of refined zinc is also forecast to increase slightly to 11.3 million tonnes.

Australian zinc production to decline in 2008-09

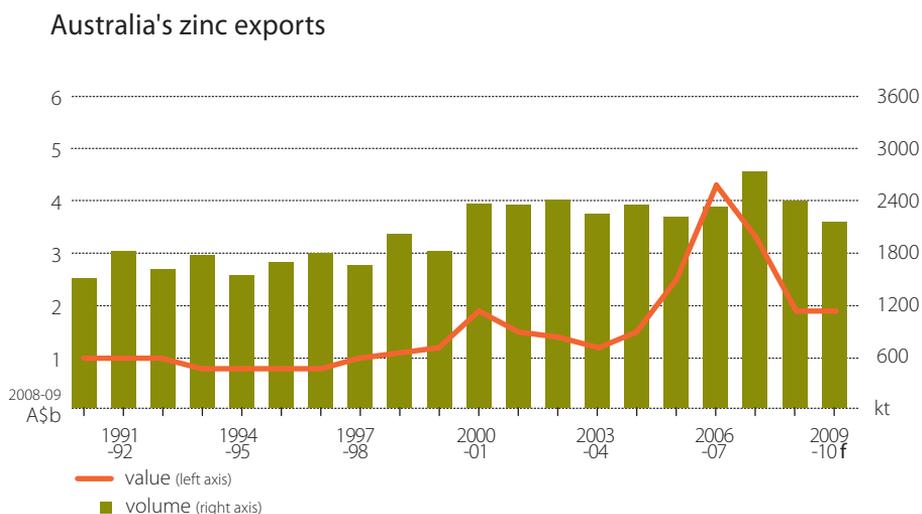
Australian zinc mine production is estimated to decline by 12 per cent to around 1.38 million tonnes in 2008-09. This forecast decline partly reflects significant decreases in zinc production at the Century and Mount Garnet mines in Queensland, because of flooding. Zinc production at the Golden Grove mine in Western Australia fell significantly, in line with previously announced plans to increase copper production at the mine. There was also reduced zinc output at Xstrata's Mount Isa operations because of lower mined grades and higher input costs.

In 2009-10, Australia's zinc mine production is forecast to decrease by a further 3 per cent to 1.35 million tonnes. The sharply lower zinc prices have resulted in a number of producers cutting production or placing mines on care and maintenance.

Australia has the capacity to produce around 500 000 tonnes of refined zinc annually. With no additions scheduled to Australia's zinc refining capacity, refined zinc production is forecast to remain around 500 000 tonnes in 2008-09. Refined zinc production is forecast to decrease slightly to 476 000 tonnes in 2009-10, reflecting the forecast lower mine production.

Australian export earnings to fall in 2008-09

Exports of zinc ores and concentrates are projected to decrease by 15 per cent in 2008-09 to around 2.0 million tonnes, while refined zinc exports are estimated to increase to 415 000 tonnes. In line with lower production, exports of ores and concentrates and refined



Zinc

zinc are forecast to decrease by 12 per cent to 1.8 million tonnes and by 5 per cent to 396 000 tonnes, respectively in 2009-10.

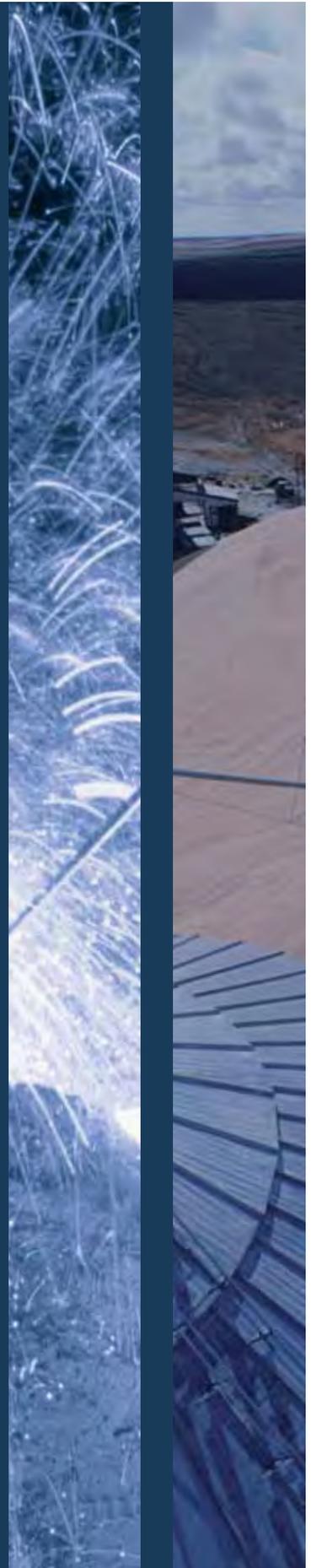
In 2008-09, lower export volumes and world prices are forecast to result in the total value of Australian zinc exports declining by 44 per cent to \$1.9 billion. In 2009-10, the total value of zinc exports is forecast to be around \$1.9 billion, as lower export volumes are expected to be offset by the effect of higher forecast world zinc prices.

Zinc outlook

		2008	2009 f	2010 f	% change
World					
Production	kt	11 683	11 149	11 261	1.0
Consumption	kt	11 468	10 923	11 283	3.3
Closing stocks	kt	764	990	968	-2.2
- weeks consumption		3.5	4.7	4.5	-4.3
Price	US\$/t	1 878	1 272	1 518	19.3
	USc/lb	85.2	57.7	68.8	19.2
		2007	2008	2009	
		-08	-09 s	-10 f	
Australia					
Mine output	kt	1 571	1 381	1 346	-2.5
Refined output	kt	507	495	476	-3.8
Exports					
- ores and concentrates	kt	2 323	1 979	1 750	-11.6
- refined	kt	411	415	396	-4.6
- total value	A\$m	3 350	1 874	1 881	0.4

Australian commodities

Statistical tables



GDP, imports

Contribution to GDP

Australia reference year 2007-08

1997-98
\$769.7b



2007-08
\$1084.1b

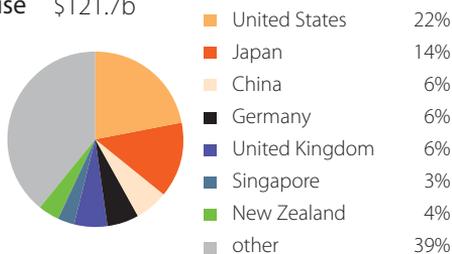


Share of Australian imports in 2007-08 dollars

1997-98

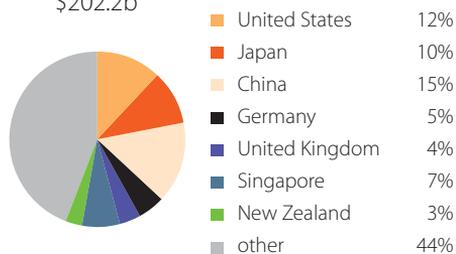
Total merchandise

\$121.7b



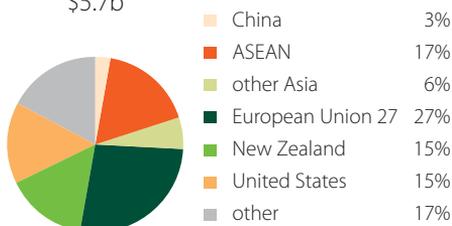
2007-08

\$202.2b

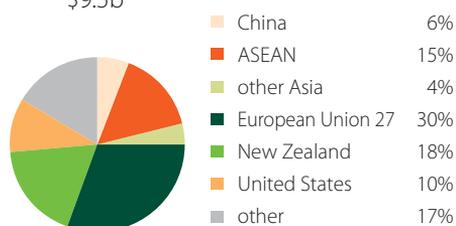


Rural

\$5.7b



\$9.5b



Minerals and energy \$11.5b



\$42.6b



Markets for Australian exports in 2007-08 dollars

1997-98

2007-08

Total merchandise \$113.1b

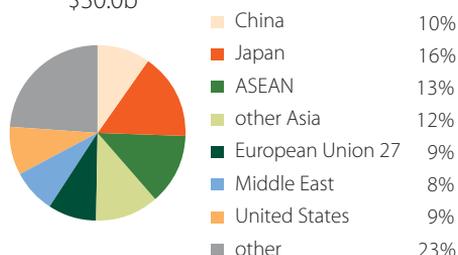
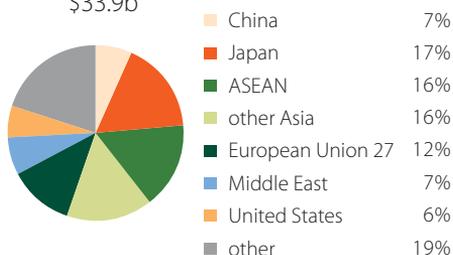
\$182.8b



Rural

\$33.9b

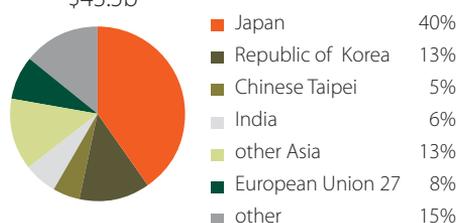
\$30.0b



Energy

\$20.0b

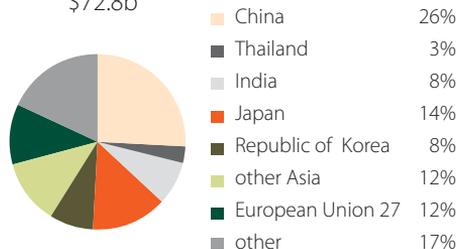
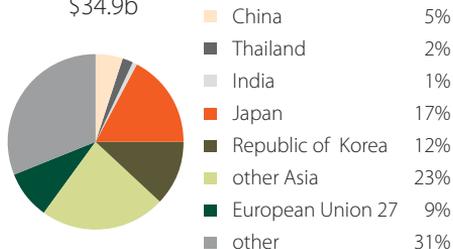
\$43.5b



Minerals

\$34.9b

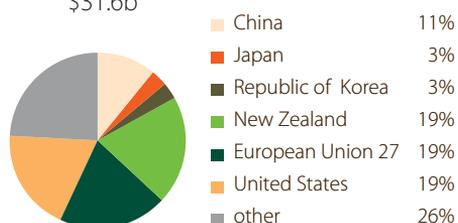
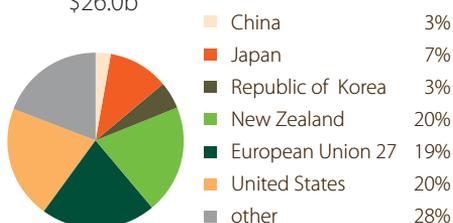
\$72.8b



Manufacturing

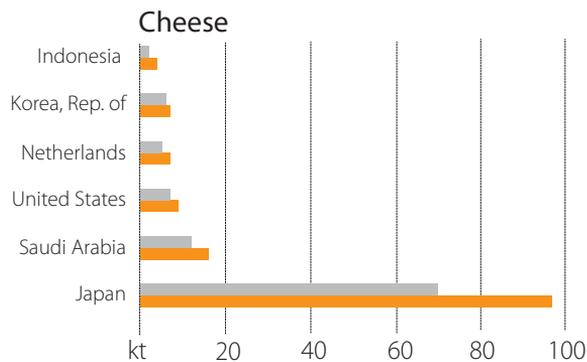
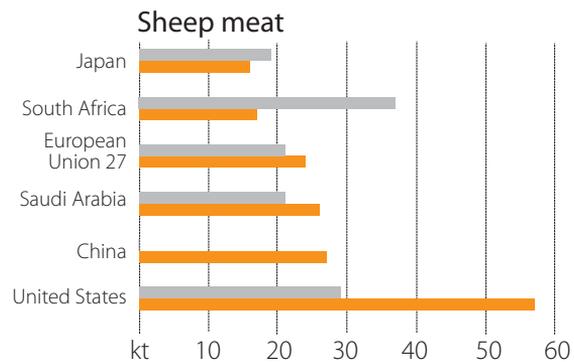
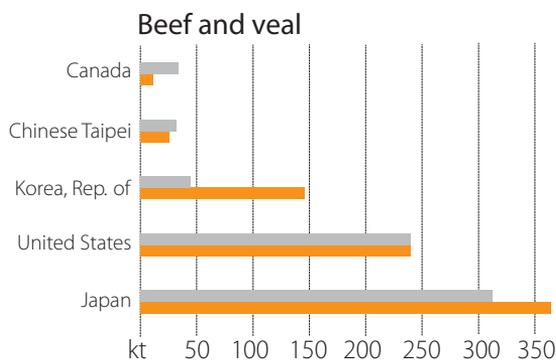
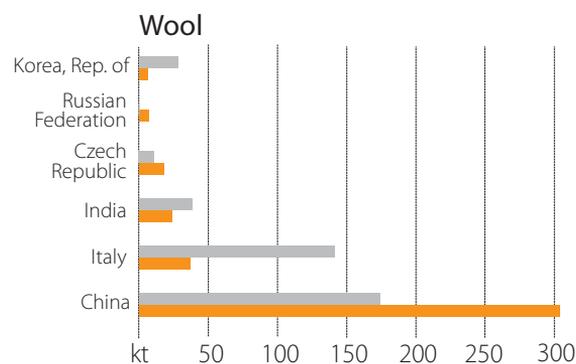
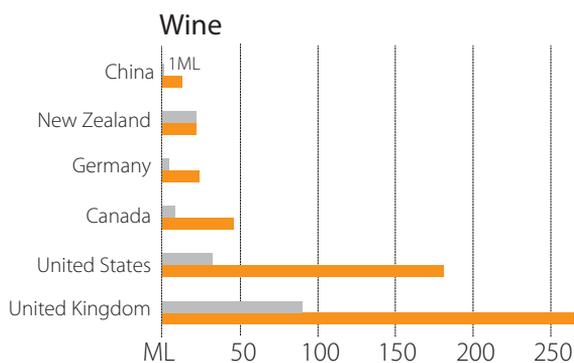
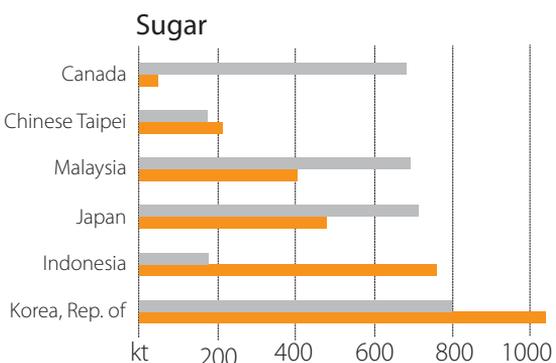
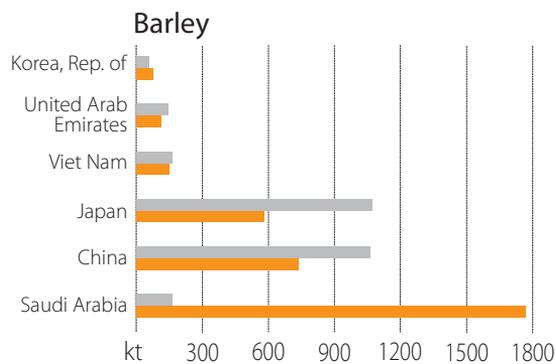
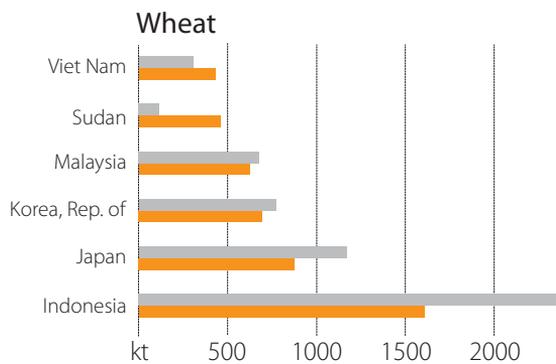
\$26.0b

\$31.6b



Agriculture

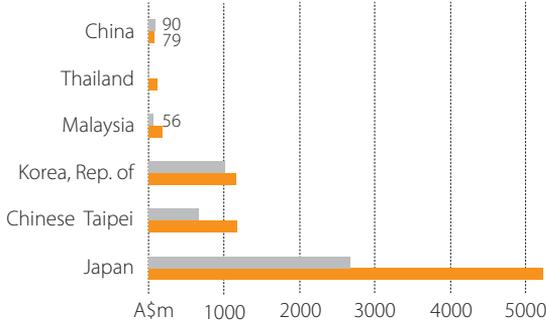
Principal markets for Australian agricultural exports ■ 2007-08 ■ 1997-98



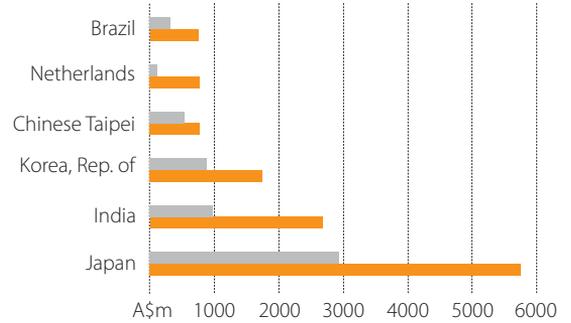
Principal markets for Australian mineral and energy exports
in 2007-08 dollars

2007-08 1997-98

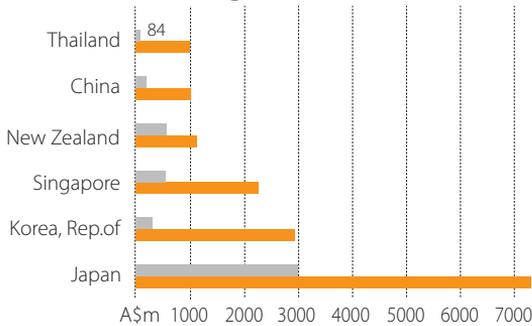
Thermal coal



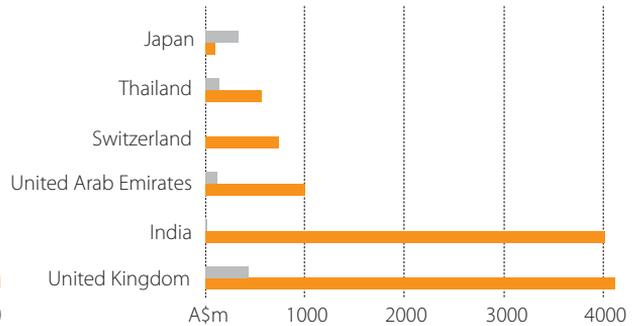
Metallurgical coal



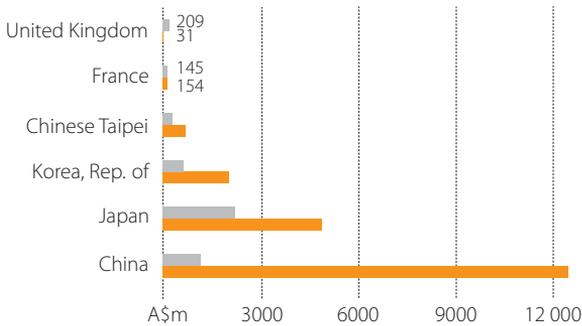
Oil and gas



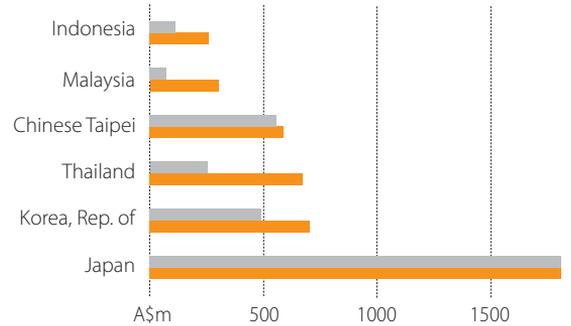
Gold



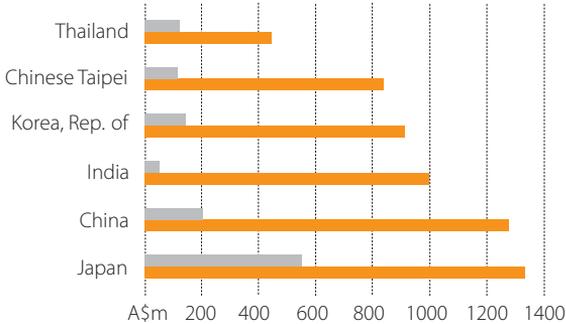
Iron ore



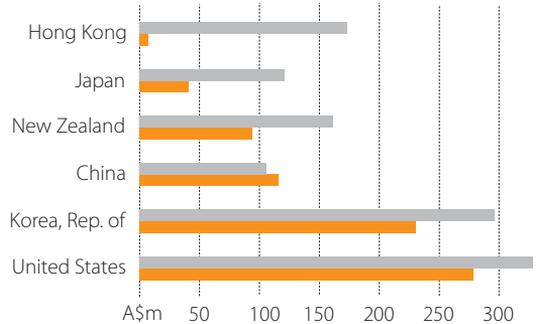
Aluminium



Copper



Iron and steel



1 Indexes of prices received by farmers

Australia

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Crops sector							
Grains							
Winter crops							
barley	105.9	100.1	93.9	153.3	196.1	128.7	126.6
canola	104.4	84.5	86.5	102.8	123.3	104.8	99.5
lupins	120.4	105.2	99.8	135.8	85.7	68.6	67.9
oats	101.1	98.1	107.8	176.6	193.7	133.9	129.7
wheat	109.1	99.6	102.5	122.4	190.5	169.3	159.2
Summer crops							
sorghum	93.8	79.4	84.6	126.1	153.1	179.8	172.8
Total grains ^a	105.2	95.8	97.2	126.9	173.9	147.0	139.8
Cotton	88.2	87.0	85.0	86.2	87.3	97.2	104.4
Sugar	76.3	84.1	90.9	105.0	84.0	91.3	126.4
Hay	125.0	128.0	143.7	151.8	165.1	169.2	173.5
Fruit	123.9	114.3	127.6	169.8	136.9	140.3	143.9
Vegetables	124.6	122.2	137.3	145.0	157.7	161.7	165.7
Total crops sector	106.9	99.9	103.3	123.2	135.1	125.8	125.9
Livestock sector							
Livestock for slaughter							
cattle	160.4	177.2	181.3	174.3	166.6	176.2	177.0
lambs ^b	190.1	184.5	177.7	165.7	165.9	211.9	208.5
sheep	230.3	196.1	202.7	156.4	178.1	221.9	227.3
live sheep for export	178.0	164.1	176.1	179.1	180.7	214.2	215.6
pigs	109.4	117.8	115.6	124.8	120.7	192.7	177.3
poultry	97.7	91.9	83.5	84.5	108.7	110.9	109.8
total	149.2	157.4	157.5	152.6	152.9	172.1	170.7
Livestock products							
wool	116.5	107.4	97.7	115.5	148.7	127.1	133.4
milk	93.4	105.7	111.0	111.1	166.1	134.0	110.6
eggs	89.2	85.4	86.3	95.2	100.3	105.3	115.8
total	101.6	104.6	104.0	111.5	153.5	129.1	118.5
Store and breeding stock	149.3	157.4	157.6	152.6	153.0	172.1	170.7
Total livestock sector	129.3	135.4	135.2	135.1	150.5	153.8	149.2
Total prices received	117.0	115.9	117.7	127.8	141.4	137.8	135.9

^a Total for the group includes commodities not separately listed. ^b Lamb saleyard indicator weight 18-20kg to 2002-03, from 2003-04 18-22kg. ^s ABARE estimate. ^f ABARE forecast.

Note: 1 ABARE revised the method for calculating these indexes in October 1999. The indexes for commodity groups are calculated on a chained weight basis using Fisher's ideal index with a reference year of 1997-98 = 100. Indexes for most individual commodities are based on annual gross unit value of production. 2 Prices used in these calculations exclude GST.

Source: ABARE.

2 Indexes of prices paid by farmers, and terms of trade

Australia

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Farmers' terms of trade ^a	95.2	91.7	91.0	94.1	91.6	94.0	95.6
Materials and services							
Seed, fodder and livestock							
fodder and feedstuffs	148.3	140.4	126.4	151.0	189.1	168.6	165.2
seed, seedlings and plants	104.9	95.3	93.8	109.5	131.6	122.6	120.7
store and breeding stock	144.0	159.5	157.6	152.6	154.3	168.9	170.7
total	142.0	140.3	130.8	146.7	174.1	163.2	161.3
Chemicals	110.0	111.9	114.6	124.7	149.7	131.7	121.2
Electricity	100.0	101.3	104.6	107.6	111.3	113.2	115.2
Fertiliser	102.8	108.8	111.6	121.4	220.4	232.1	185.7
Fuel and lubricants	144.3	167.2	210.6	208.3	243.7	208.8	213.8
Total	125.3	128.7	130.9	140.2	169.1	162.4	156.6
Labor	121.6	125.7	129.7	133.5	138.0	140.4	142.9
Marketing	118.7	121.5	125.4	129.1	143.2	134.6	138.6
Overheads							
Insurance	128.8	131.9	135.1	139.4	143.5	148.4	150.9
Interest paid	118.1	120.9	123.8	127.8	142.6	111.1	92.6
Rates and taxes	121.9	124.8	128.9	132.7	137.3	139.7	142.1
Other overheads	118.1	121.0	124.8	128.5	132.8	135.2	137.5
Total	120.6	123.5	126.8	130.8	141.8	122.0	110.1
Capital items	121.3	124.4	128.4	132.3	136.8	139.6	142.5
Total prices paid	123.0	126.3	129.4	135.8	154.3	146.5	142.2
Excluding capital items	123.1	126.5	129.4	136.1	156.4	147.4	142.2
Excluding capital and overhea	123.7	127.2	129.9	137.5	160.5	154.9	151.9
Excluding seed, fodder and store and breeding stock	119.2	123.6	129.2	133.6	150.2	143.0	138.2

^a Ratio of index of prices received by farmers and index of prices paid by farmers. ^s ABARE estimate. ^f ABARE forecast.

Note: 1 ABARE revised the method for calculating these indexes in October 1999. The indexes for commodity groups are calculated on a chained weight basis using Fisher's ideal index with a reference year of 1997-98 = 100. 2 Prices used in these calculations exclude GST.

Sources: Australian Bureau of Statistics; ABARE.

Costs and returns

3 Farm costs and returns

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Costs							
Materials and services							
chemicals	\$m	1 691	1 749	1 545	1 861	1 651	1 534
fertiliser	\$m	1 851	1 843	1 659	2 986	3 175	2 565
fuel and lubricants	\$m	1 765	2 223	2 199	2 518	2 179	2 253
marketing	\$m	3 433	3 612	2 748	3 214	3 758	3 858
repairs and maintenance	\$m	2 493	2 602	2 466	3 162	3 323	3 388
seed and fodder	\$m	4 267	3 827	4 921	6 005	5 378	5 323
other	\$m	3 473	3 692	3 543	3 753	3 887	3 964
total	\$m	18 974	19 548	19 081	23 497	23 351	22 886
Labor	\$m	3 410	3 778	3 654	3 577	3 676	3 777
Overheads							
interest paid	\$m	2 306	3 249	3 848	4 901	4 125	3 712
rent and third party insurance	\$m	432	446	447	462	470	479
Total	\$m	6 148	7 473	7 950	8 940	8 271	7 968
Total cash costs	\$m	25 122	27 021	27 031	32 438	31 622	30 854
Depreciation ^a	\$m	4 122	4 255	4 383	4 532	4 626	4 722
Total farm costs	\$m	29 243	31 276	31 413	36 969	36 248	35 577
Returns							
Gross value of farm production	\$m	36 537	38 695	36 247	44 098	44 958	44 462
Gross farm cash income ^b	\$m	37 703	38 329	37 011	43 882	45 521	44 462
Net returns and production							
Net value of farm production ^c	\$m	7 294	7 419	4 833	7 128	8 710	8 885
Real net value of farm production ^d	\$m	8 153	8 036	5 087	7 256	8 710	8 730
Net farm cash income ^e	\$m	12 582	11 308	9 980	11 444	13 899	13 608
Real net farm cash income ^d	\$m	14 064	12 248	10 504	11 649	13 899	13 370

^a Based on estimated movements in capital expenditure and prices of capital inputs. ^b Gross value of farm production less increase in farmers' assets held by marketing organisations. ^c Gross value of farm production less total farm costs. ^d In 2008-09 Australian dollars. ^e Gross farm cash income less total cash costs. ^s ABARE estimate. ^f ABARE forecast.

Note: Prices used in these calculations exclude GST.

Sources: Australian Bureau of Statistics; ABARE.

4 Unit export returns

Australia

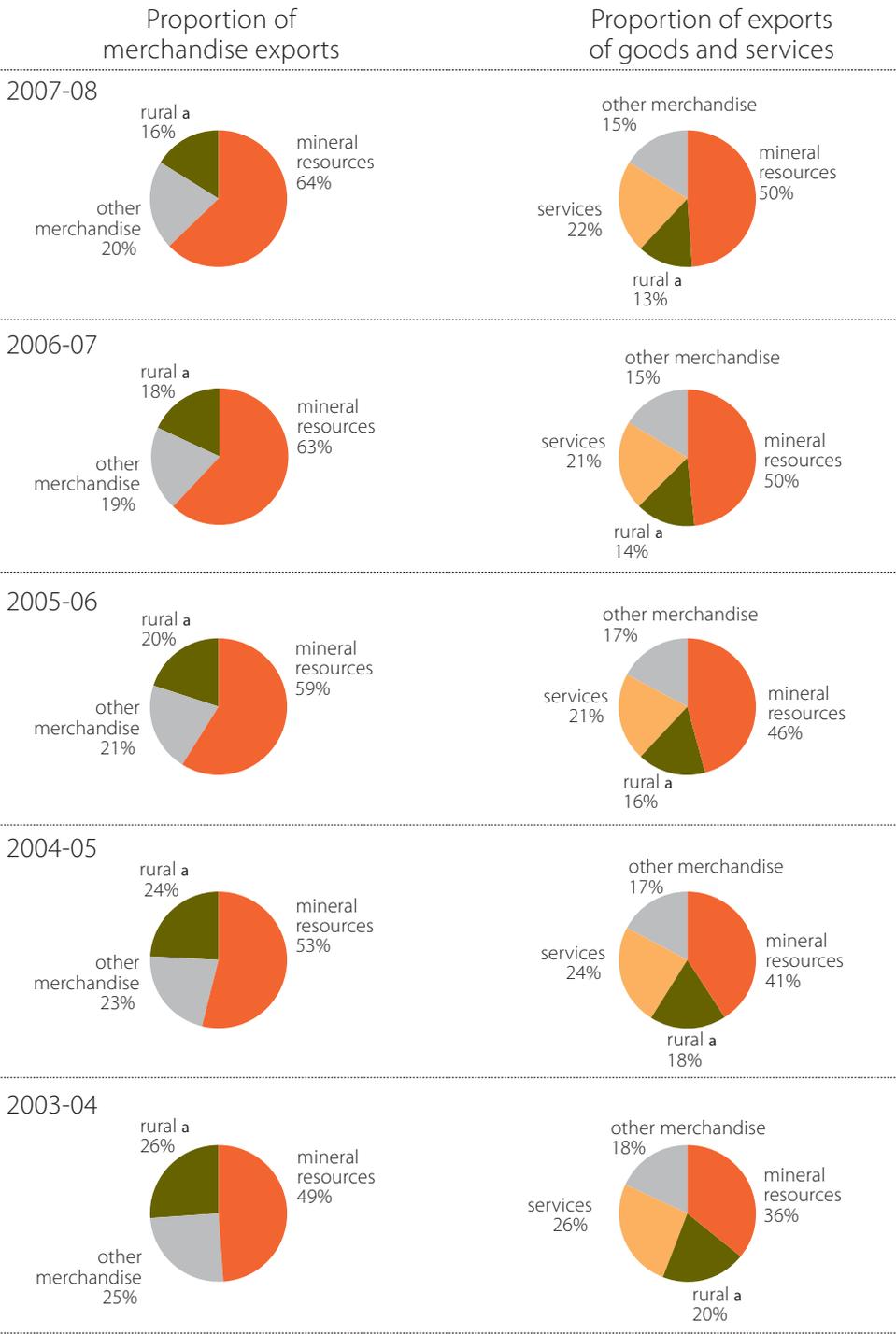
Annual indexes ^a	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f		
Farm	105.7	105.0	104.4	109.7	121.2	123.2	123.9		
Energy minerals	120.2	166.0	224.9	205.1	233.6	395.6	251.9		
Metals and other minerals	106.1	125.5	162.2	203.5	201.2	229.1	194.9		
Total mineral resources	111.7	141.2	186.5	204.9	214.3	291.8	217.7		
Total commodities	110.1	129.8	160.2	174.4	183.9	239.2	187.5		
	2007-08	2008-09		2009-10					
Quarterly indexes ^b	June	Sep.	Dec.	Mar. ^p	June ^s	Sep. ^f	Dec. ^f	Mar. ^f	June ^f
Farm	123.8	128.6	135.6	112.7	112.6	126.6	123.3	121.0	121.4
Energy minerals	323.3	431.1	524.2	435.3	287.7	272.1	264.8	267.6	263.9
Metals and other minerals	235.3	250.9	273.6	252.7	215.2	211.3	211.1	212.3	209.5
Total mineral resources	270.4	326.9	373.3	316.7	238.2	227.3	223.6	244.5	241.0
Total commodities	218.9	258.5	292.0	247.3	195.7	191.1	187.6	201.0	198.8

^a In Australian dollars. Base: 1989-90 = 100. ^b In Australian dollars. Base: 1994-95 = 100. ^p Preliminary. ^s ABARE estimate. ^f ABARE forecast.

Source: ABARE.

5 Contribution to exports by sector, balance of payments basis

Australia



^a Includes farm, forest and fisheries products. Sources: Australian Bureau of Statistics; ABARE.

6 Annual exports summary, balance of payments basis

Australia

	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m	2008-09 <i>s</i> \$m	2009-10 <i>f</i> \$m
At current prices						
Rural						
Cereal grains and products	5 160	4 852	4 171	4 976	7 249	8 908
Sugar and honey	1 292	1 763	1 674	1 153	1 297	1 517
Meat and meat preparations	6 933	6 709	7 078	6 540	7 429	7 033
Wool and sheepskins	2 838	2 544	3 065	2 796	2 285	2 118
Other rural <i>a</i>	14 082	14 561	14 400	14 485	15 495	15 254
Total	30 305	30 429	30 388	29 950	33 756	34 830
Mineral resources						
Coal, coke and briquettes	17 240	24 352	21 928	24 599	52 296	28 671
Other mineral fuels	11 154	13 218	15 642	18 889	21 145	18 970
Metalliferous ores and other minerals <i>bs</i>	20 535	29 770	36 041	42 001	52 560	43 071
Gold	6 472	9 087	10 740	12 272	19 092	20 297
Other metals <i>cs</i>	13 159	14 862	22 329	18 572	13 711	12 000
Total <i>s</i>	68 561	91 289	106 680	116 333	158 804	123 008
Total commodities sector <i>s</i>	98 866	121 718	137 068	146 283	192 560	157 838
Other merchandise <i>s</i>	29 001	32 707	32 446	36 533	na	na
Total merchandise <i>s</i>	127 867	154 425	169 514	182 816	na	na
Services	39 695	41 849	46 181	51 019	na	na
Total goods and services	167 562	196 274	215 695	233 835	na	na
Chain volume measures <i>d</i>						
Rural						
Cereal grains and products	5 810	5 492	4 170	3 349	5 034	6 149
Sugar and honey	1 787	1 766	1 674	1 553	1 493	1 392
Meat and meat preparations	6 660	6 506	7 079	6 839	6 891	6 842
Wool and sheepskins	3 060	2 906	3 066	2 481	2 309	2 212
Other rural <i>a</i>	14 109	14 345	14 400	13 648	13 974	13 636
Total	31 426	31 015	30 389	27 870	29 700	30 231
Mineral resources						
Coal, coke and briquettes	20 844	20 729	21 928	22 714	21 925	21 303
Other mineral fuels	13 547	12 977	15 642	15 618	16 402	17 671
Metalliferous ores and other minerals <i>bs</i>	34 361	35 613	36 041	40 442	41 025	43 888
Gold	9 674	10 533	10 740	11 070	12 875	12 219
Other metals <i>cs</i>	21 741	21 987	22 329	22 112	21 689	20 274
Total <i>s</i>	100 168	101 839	106 680	111 956	113 916	115 355
Total commodities sector <i>s</i>	131 593	132 854	137 069	139 826	143 616	145 586
Other merchandise <i>s</i>	28 744	31 454	32 446	35 257	na	na
Total merchandise <i>s</i>	160 337	164 308	169 515	175 083	na	na
Services	42 546	43 326	46 182	49 391	na	na
Total goods and services	203 408	207 887	215 695	224 473	na	na

a Includes other farm, forest and fisheries products. Includes exports of wine and of paper and paperboard, which are not included in this balance of payments item by the ABS. *b* Includes diamonds, which are not included in this balance of payments item by the ABS. *c* Includes ABARE estimates for steel and nickel which were confidentialised by the ABS. *d* For a description of chain volume measures, see ABS, *Introduction of chain volume measures*, in the Australian National Accounts, cat. no. 5248.0, Canberra. Reference year is 2006-07. *s* ABARE estimate. *f* ABARE forecast. *na* Not available.

Sources: ABS, *Balance of Payments, Australia*, cat. no. 5302.0, Canberra; ABARE.

7 Quarterly exports summary, balance of payments basis

Australia

	2007-08		2008-09			2009-10			
	June \$m	Sep. \$m	Dec. \$m	Mar. p \$m	June s \$m	Sep. f \$m	Dec. f \$m	Mar. f \$m	June f \$m
At current prices									
Rural									
Cereal grains and products	1 829	1 362	1 399	2 234	2 254	2 222	2 087	2 321	2 277
Sugar and honey	267	404	391	223	279	546	425	243	303
Meat and meat preparations	1 788	1 787	2 241	1 705	1 696	1 706	1 871	1 614	1 842
Wool and sheepskins	656	535	701	562	487	473	605	516	524
Other rural a	3 751	3 801	4 232	3 876	3 586	3 929	3 955	3 589	3 780
Total	8 291	7 889	8 964	8 600	8 303	8 877	8 943	8 283	8 727
Mineral resources									
Coal, coke and briquettes	9 299	14 191	18 303	12 672	7 130	7 096	7 287	7 407	6 880
Other mineral fuels	5 393	6 054	6 512	4 522	4 057	4 629	4 557	4 653	5 131
Metalliferous ores and other minerals bs	12 869	14 686	14 225	12 966	10 682	10 748	11 265	10 451	10 606
Gold	3 044	4 027	4 280	5 747	5 038	4 511	4 917	5 371	5 497
Other metals cs	4 652	4 178	3 857	2 820	2 857	3 102	2 972	2 961	2 965
Total s	35 256	43 136	47 177	38 727	29 764	30 087	30 999	30 844	31 079
Total commodities sector s	43 547	51 025	56 141	47 327	38 067	38 963	39 942	39 126	39 806
Other merchandise s	9 696	10 281	11 191	8 930	na	na	na	na	na
Total merchandise s	53 243	61 306	67 332	56 257	na	na	na	na	na
Services	13 045	13 285	13 699	14 018	na	na	na	na	na
Total goods and services	66 288	74 591	81 031	70 275	na	na	na	na	na
Chain volume measures d									
Rural									
Cereal grains and products	1 072	816	842	1 692	1 684	1 383	1 451	1 668	1 647
Sugar and honey	337	464	450	257	321	501	390	223	278
Meat and meat preparations	1 837	1 692	1 887	1 612	1 700	1 649	1 808	1 573	1 812
Wool and sheepskins	603	502	598	578	631	512	595	555	549
Other rural a	3 539	3 562	3 546	3 569	3 297	3 408	3 474	3 353	3 400
Total	7 388	7 036	7 323	7 708	7 633	7 454	7 718	7 372	7 686
Mineral resources									
Coal, coke and briquettes	5 980	6 161	5 959	5 080	4 725	5 228	5 289	5 348	5 438
Other mineral fuels	3 787	3 863	4 438	4 141	3 960	4 119	4 472	4 523	4 557
Metalliferous ores and other minerals bs	10 222	10 581	10 298	9 738	10 408	10 876	11 363	10 473	11 175
Gold	2 646	3 450	3 013	3 434	2 978	2 779	3 029	3 237	3 175
Other metals cs	6 001	5 250	5 951	5 558	4 930	5 156	5 002	5 103	5 013
Total s	28 636	29 304	29 659	27 951	27 002	28 158	29 156	28 684	29 357
Total commodities sector s	36 025	36 341	36 982	35 659	34 634	35 612	36 874	36 056	37 044
Other merchandise s	8 905	9 263	8 523	6 994	na	na	na	na	na
Total merchandise s	44 930	45 604	45 505	42 653	na	na	na	na	na
Services	12 485	12 520	12 746	13 010	na	na	na	na	na
Total goods and services	57 415	58 124	58 251	55 663	na	na	na	na	na

a Includes other farm, forest and fisheries products. Includes exports of wine and of paper and paperboard, which are not included in this balance of payments item by the ABS. b Includes diamonds, which are not included in this balance of payments item by the ABS. c Includes ABARE estimates for steel and nickel which were confidentialised by the ABS. d For a description of chain volume measures, see ABS, *Introduction of chain volume measures*, in the Australian National Accounts, cat. no. 5248.0, Canberra. Reference year is 2006-07. p Preliminary. s ABARE estimate. f ABARE forecast. na Not available.

Sources: ABS, *Balance of Payments, Australia*, cat. no. 5302.0, Canberra; ABARE.

8 Industry gross value added^a

Australia

	unit	2003-04	2004-05	2005-06	2006-07	2007-08
Agriculture, forestry and fishing						
agriculture	\$m	25 223	26 328	27 122	21 899	23 471
forestry and fishing	\$m	1 240	1 259	1 275	1 254	1 272
total	\$m	26 280	27 362	28 146	23 152	24 744
Mining						
mining (excludes services to mining)	\$m	66 860	69 622	70 455	75 739	77 057
services to mining	\$m	4 763	5 152	5 161	5 677	6 363
total	\$m	71 521	74 793	75 613	81 416	83 420
Manufacturing						
food, beverage and tobacco	\$m	19 635	19 812	19 668	19 847	19 769
textile, clothing, footwear and leather	\$m	4 156	3 380	3 153	3 102	2 961
wood and paper products	\$m	7 274	7 331	7 044	6 875	6 591
printing, publishing and recorded media	\$m	10 871	10 600	10 400	10 645	10 949
petroleum, coal, chemical, etc.	\$m	15 528	15 528	14 896	14 704	15 061
non-metallic mineral products	\$m	4 402	4 618	5 148	5 257	5 533
metal products	\$m	17 241	16 751	16 582	18 322	20 350
machinery and equipment	\$m	19 577	19 681	20 560	20 509	21 020
other manufacturing	\$m	4 850	4 463	4 032	4 028	4 490
total	\$m	103 093	101 845	101 319	103 293	106 724
Building and construction	\$m	60 602	63 491	68 746	72 407	77 079
Electricity, gas and water supply	\$m	21 656	21 827	22 117	21 854	21 843
Taxes less subsidies on products	\$m	77 229	79 285	80 906	83 173	84 919
Statistical discrepancy	\$m	0	0	0	- 1	74
Gross domestic product	\$m	956 018	982 786	1 012 268	1 045 674	1 084 145

^a Chain volume measures, reference year is 2006-07.

Source: ABS, *National Income, Expenditure and Product*, cat. no. 5206.0, Canberra.

9 Volume of production indexes

Australia

	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Farm						
Grains and oilseeds	113.2	133.1	58.2	86.3	112.9	115.0
Total crops	111.3	119.7	84.3	107.3	119.0	120.3
Livestock slaughtering	109.3	108.5	115.5	113.9	112.7	113.8
Total livestock	103.1	103.0	105.5	102.5	100.4	99.7
Total farm sector	107.8	111.7	95.2	105.7	110.6	110.9
Forestry ^a						
Broadleaved	126.2	121.8	123.6	132.9	121.6	120.6
Coniferous	128.9	130.5	132.0	135.0	133.2	134.0
Total forestry	127.6	126.2	127.9	133.9	127.6	127.5
Mine ^b						
Energy minerals	113.4	111.6	118.5	116.4	117.8	117.2
Metals and other minerals	123.5	124.2	124.3	124.7	119.6	127.6
Total minerals	118.6	118.1	121.2	120.5	118.8	122.0

^a Volume of logs harvested excluding firewood. ^b Uranium is included with energy. ^s ABARE estimate. ^f ABARE forecast.

Note: ABARE revised the method for calculating production indexes in October 1999. The indexes for the different groups of commodities are calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

Sources: Australian Bureau of Statistics; ABARE.

10 Employment ^a

Australia

	2002-03 '000	2003-04 '000	2004-05 '000	2005-06 '000	2006-07 '000	2007-08 ^p '000
Agriculture, forestry and fishing						
agriculture	323	319	310	303	308	303
forestry and logging	10	12	12	11	11	13
commercial fishing	17	16	14	12	10	13
total (including services)	374	372	361	353	355	359
Mining						
coal	21	21	23	28	27	26
oil and gas extraction	4	6	7	9	10	10
metal ore	35	38	35	43	46	47
other mining (including services)	26	27	29	34	37	43
total	86	92	93	115	120	127
Manufacturing						
food, beverages and tobacco	183	171	196	182	192	205
textiles, clothing, footwear and leather	73	65	55	56	50	49
wood and paper product	74	78	71	72	72	64
printing, publishing and recorded media	115	110	109	106	110	107
petroleum, coal and chemical product	112	100	91	88	89	96
non-metallic mineral product	47	44	36	38	35	42
metal product	164	157	139	163	164	159
other manufacturing	323	309	294	297	292	298
total	1 091	1 033	991	1 002	1 003	1 019
Other industries	7 769	7 933	8 088	8 387	8 644	8 861
Total	9 320	9 430	9 533	9 857	10 123	10 366

^a Average employment over four quarters. ^p Preliminary.

Source: ABS, *The Labour Force, Australia*, cat. no. 6291.0, Canberra.

11 Business income

Australia

	2003-04	2004-05	2005-06	2006-07	2007-08
	\$m	\$m	\$m	\$m	\$m
Farm					
Net value of farm production	8 380	7 294	7 419	4 833	7 128
Company profits in selected industries a					
Mining	12 133	17 599	35 013	38 474	38 114
Manufacturing					
food, beverages and tobacco	4 440	5 507	5 571	4 875	5 893
textiles, clothing and footwear	655	332	329	341	313
wood and paper products	1 482	1 169	1 045	1 114	1 052
printing, publishing and recorded media	2 274	2 292	1 873	2 509	2 987
petroleum, coal and chemical product	3 846	4 433	4 957	3 680	5 880
non-metallic mineral product	1 173	1 082	1 428	1 218	1 478
metal product	3 974	5 618	5 262	9 976	8 075
machinery and equipment	2 802	3 119	3 095	2 294	2 880
other manufacturing	879	710	523	676	699
total	21 525	24 262	24 083	26 683	29 257
Other industries (including services)	51 616	58 381	55 201	62 523	72 738
Total (including services)	85 274	100 242	114 297	127 680	140 109

a Company profits before income tax. na Not available.

Sources: ABS, *National Income and Expenditure and Product*, cat. no. 5206.0, Canberra; ABS, *Company Profits, Australia*, cat. no. 5651.0, Canberra; ABS, *Business Indicators*, cat. no. 5676.0, Canberra; ABS, *Australian Industry*, cat. no. 8155.0, Canberra; ABARE.

12 All banks lending to business a

Australia

	2006-07		2007-08				2008-09		
	Mar. \$b	June \$b	Sep. \$b	Dec. \$b	Mar. \$b	June \$b	Sep. \$b	Dec. \$b	Mar. \$b
Agriculture, fishing and forestry	44.5	47.2	49.9	51.0	52.1	53.7	54.1	56.0	56.8
Mining	8.1	9.6	11.3	12.3	12.8	11.7	13.0	14.4	14.1
Manufacturing	39.4	41.1	43.0	42.5	45.5	45.2	48.2	49.0	48.6
Construction	23.9	24.8	26.5	27.4	31.1	30.5	31.6	30.8	33.2
Wholesale, retail trade, transport and storage	70.5	75.3	77.3	83.6	85.5	87.8	93.2	96.0	93.7
Finance and insurance	82.8	92.4	113.9	126.6	139.4	134.8	143.7	152.4	126.8
Other	240.5	248.9	263.3	284.8	290.3	299.5	315.7	320.8	320.4
Total	509.7	539.2	585.3	628.3	656.7	663.3	699.6	719.4	693.5

a Includes variable and fixed interest rate loans outstanding plus bank bills outstanding.

Source: Reserve Bank of Australia, *Bank Lending to Business - Selected Statistics*, Bulletin Statistical Table D8.

13 Rural indebtedness to financial institutions ^a

Australia

	2002-03 \$m	2003-04 \$m	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m
Rural debt						
All banks ^a	28 957	34 115	39 261	43 546	47 188	53 743
Other government agencies ^b	867	891	977	1 073	1 293	1 417
Pastoral and other finance companies	1 628	3 379	3 112	3 352	2 542	3 076
Large finance institutional debt	31 452	38 385	43 350	47 971	51 023	58 236
Other farm debt ^{cs}	2 017	2 067	na	na	na	na
Total rural debt	33 469	40 452	na	na	na	na
Deposits						
Farm management deposits	2 480	2 619	2 792	2 797	2 782	2 879

^a Derived from all banks lending to agriculture, fishing and forestry. ^b Includes the government agency business of state banks and advances made under War Service Land Settlement. Prior to 1996 includes loans from the Queensland Industry Development Corporation. From 1996 these loans are included in bank lending. ^c Includes loans from life insurance companies, lease agreements and indebtedness to hire purchase companies, trade creditors, private lenders and small financial institutions. ^s ABARE estimate. ^{na} Not available.

Sources: Department of Agriculture, Fisheries and Forestry; Reserve Bank of Australia, *Estimated Rural Debt to Specified Lenders*, Bulletin Statistical Table D9; ABARE.

14 Capital expenditure of private enterprises

Australia

	2003-04 \$m	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m
At current prices					
Gross fixed capital formation a					
All sectors	213 760	231 738	260 762	283 787	314 645
New capital expenditure					
Mining b	9 282	10 253	18 608	22 119	27 353
Manufacturing					
food, beverages and tobacco	2 274	2 418	2 472	2 305	2 489
textiles, clothing, footwear and leather	200	268	187	163	140
wood and paper products	912	711	802	737	950
printing, publishing and recorded media	538	558	867	593	598
petroleum, coal and chemical product	2 090	2 423	2 473	1 959	2 429
non-metallic mineral products	590	711	837	720	740
metal products	2 689	3 390	4 804	4 590	3 788
machinery and equipment	1 877	1 875	2 503	1 734	1 459
other manufacturing	257	328	483	461	645
total	11 423	12 681	15 428	13 264	13 237
Total surveyed industries	51 247	57 554	72 642	77 552	86 478
Chain volume measures c					
Gross fixed capital formation a					
All sectors	233 564	247 997	269 936	284 706	312 847
New capital expenditure					
Mining	10 609	11 272	19 518	22 118	26 251
Manufacturing	11 604	12 905	15 560	13 264	13 195
Other selected industries	29 200	33 943	38 464	42 169	46 479
Total surveyed industries	51 707	58 590	73 574	77 551	85 923

a Estimates taken from ABS national accounts, which include taxation based statistics. **b** Includes industries covered by Division B (for example, the metallic and nonmetallic minerals, coal, oil and gas, construction materials and other nonmetallic minerals industries) as defined in the 1993 edition of the Australian New Zealand Standard Industrial Classification (ANZSIC). **c** Reference year is 2006-07.

Sources: Australian Bureau of Statistics; ABARE.

15 Private mineral exploration expenditure

Australia

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
	\$m	\$m	\$m	\$m	\$m	\$m
At current prices						
Energy						
Petroleum						
onshore	191.3	230.5	270.1	355.8	498.2	493.8
offshore	803.8	713.6	774.6	906.1	1 727.3	2 541.1
total	995.1	944.1	1 044.7	1 261.9	2 225.5	3 034.9
Coal	77.8	81.5	126.8	166.4	193.2	234.8
Uranium	6.9	10.6	20.7	56.1	114.1	231.5
Total	1 079.8	1 036.2	1 192.2	1 484.4	2 532.8	3 501.2
Metals and other minerals a						
Gold	378.4	397.1	391.7	399.6	455.9	592.6
Iron ore	44.5	63.7	137.9	161.3	285.4	449.8
Base metals, silver and cobalt b	142.4	151.9	261.3	356.7	555.0	783.2
Mineral sands	27.3	23.8	27.6	29.2	37.3	37.0
Diamonds	29.9	25.9	23.7	22.6	26.9	21.7
Other	25.6	32.2	38.7	48.8	46.8	110.8
Total metals and other minerals a	648.1	694.6	880.9	1 018.2	1 407.3	1 995.1
Total expenditure	1 727.9	1 730.8	2 073.1	2 502.6	3 940.1	5 496.3

a Uranium is included with energy. b Base metals include copper, lead, nickel and zinc.

Sources: Australian Bureau of Statistics; ABARE.

16 Annual world indicator prices of selected commodities

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 s	2009-10 f
Crops							
Wheat a	US\$/t	154	176	212	362	270	259
Corn b	US\$/t	97	104	151	201	189	181
Rice c	US\$/t	278	301	320	551	606	594
Soybeans d	US\$/t	275	261	335	549	417	396
Cotton e	USc/lb	52.4	56.0	58.1	72.9	62.5	72.5
Sugar g	USc/lb	10.5	15.8	11.7	13.7	13.8	12.9
Livestock products							
Beef h	USc/kg	286	276	282	303	304	308
Wool i	Ac/kg	767	713	864	945	795	820
Butter j	US\$/t	2 208	1 998	2 023	4 027	2 483	1 850
Cheese j	US\$/t	2 856	2 792	3 004	5 073	3 271	2 621
Skim milk powder j	US\$/t	2 210	2 175	3 188	4 204	2 329	1 992
Energy							
Crude oil							
Dubai	US\$/bbl	40.29	57.75	60.86	90.19	63.88	63.72
West Texas Intermediate	US\$/bbl	48.78	64.24	63.32	96.73	68.83	69.25
brent	US\$/bbl	46.16	62.47	63.93	95.37	67.18	66.88
world trade weighted average k	US\$/bbl	41.18	57.25	59.45	91.97	66.05	66.00
Uranium (U ₃ O ₈) l	US\$/lb	22.20	36.79	81.17	80.75	51.17	60.17
Minerals and metals m							
Aluminium	US\$/t	1 807	2 245	2 692	2 665	1 784	1 633
Copper	US\$/t	3 151	5 062	7 087	7 791	4 936	4 963
Gold n	US\$/oz	422	527	639	823	875	920
Iron ore (negotiated) o	USc/dmtu	35.99	61.72	73.45	80.43	144.67	na
Lead	US\$/t	964	1 061	1 694	2 891	1 367	1 294
Manganese (negotiated) q	US\$/mtu	2.45	3.98	3.00	2.70	11.20	4.80
Nickel	US\$/t	14 961	15 510	37 909	28 564	13 245	15 375
Silver r	USc/oz	695	928	1 274	1 544	1 292	1 478
Tin	US\$/t	8 491	7 403	11 455	18 529	14 568	14 275
Zinc	US\$/t	1 171	2 118	3 672	2 599	1 345	1 371

a US hard red winter wheat, fob Gulf. b US no. 2 yellow corn, delivered US Gulf. c Prices previously reported by the Thailand Board of Trade are no longer available. From September 1998 the price quoted is the USDA sourced nominal quote for Thai white rice, 100 per cent, Grade B, fob, Bangkok (August–July basis). d US cif Rotterdam (October–September basis). e Cotlook 'A' index. g Average of monthly averages of New York no.11 spot price; basis: fob Caribbean ports (October–September basis). h US cif price. i Australian Wool Exchange eastern market indicator. j Average of traded prices (excluding subsidised sales). k World trade weighted average price compiled by the US Department of Energy. Official sales prices or estimated contract terms for major internationally traded crude oils. l Average of weekly restricted spot prices over the period, published by Ux Consulting. m Average LME spot price unless otherwise stated. n London gold fix, London Bullion Market Association. o Australian hematite fines to Japan (fob) for Japanese fiscal year commencing 1 April. q Japanese fiscal year commencing 1 April. r London silver fix, London Bullion Market Association. Prior to March 2001, Handy and Harman, commercial bar price used. s ABARE estimate. f ABARE forecast. na Not available.

Sources: Australian Bureau of Statistics; Australian Dairy Corporation; Meat and Livestock Australia; Australian Wool Exchange; Cotlook Ltd; Food and Agriculture Organisation; General Agreement on Tariffs and Trade; International Energy Agency; International Wheat Council; ISTA Mielke and Co.; London Bullion Market Association; The London Metal Exchange Ltd; New York Board of Trade; Reuters Ltd; Ux Consulting Company; Platts Oilgram; US Department of Agriculture; US Department of Energy; World Bureau of Metal Statistics; ABARE.

17 Quarterly world indicator prices of selected commodities

	unit	2007-08		2008-09			2009-10			
		June	Sep.	Dec.	Mar. p	June s	Sep. f	Dec. f	Mar. f	June f
Crops										
Wheat a	US\$/t	368	333	244	247	255	237	260	272	267
Corn b	US\$/t	260	246	169	167	176	173	166	188	198
Rice c	US\$/t	889	722	584	609	567	537	524	595	692
Soybeans d	US\$/t	585	566	377	394	459	423	371	406	406
Cotton e	US\$/lb	74.9	76.3	57.4	54.7	60.7	68.0	73.0	74.0	75.0
Sugar g	US\$/lb	13.1	15.1	12.9	13.6	15.8	13.0	12.9	12.9	12.9
Livestock products										
Beef h	US\$/kg	347	386	283	266	282	298	314	312	306
Wool i	Ac/kg	893	864	786	746	785	796	798	852	834
Butter j	US\$/t	4 058	3 683	2 592	1 792	1 867	1 843	1 825	1 858	1 875
Cheese j	US\$/t	5 050	4 625	3 333	2 533	2 592	2 550	2 608	2 642	2 683
Skim milk powder j	US\$/t	3 517	3 300	2 183	1 833	2 000	1 933	1 933	1 983	2 117
Energy										
Crude oil										
Dubai	US\$/bbl	117.23	108.53	52.00	39.19	55.81	66.55	62.84	61.20	64.30
West Texas										
Intermediate	US\$/bbl	123.97	114.50	58.80	41.70	60.31	72.00	69.00	66.25	69.75
brent	US\$/bbl	122.13	114.51	54.50	41.20	58.52	69.98	65.96	64.10	67.47
world trade weighted average k	US\$/bbl	118.79	110.10	56.50	40.25	57.34	68.80	65.60	63.10	66.50
Uranium (U ₃ O ₈) l	US\$/lb	61.33	60.67	51.00	45.00	48.00	55.00	60.00	61.67	64.00
Minerals and metals m										
Aluminium	US\$/t	2 940	2 787	1 490	1 360	1 500	1 570	1 610	1 650	1 700
Copper	US\$/t	8 448	7 692	3 940	3 435	4 678	4 700	4 850	5 000	5 300
Gold n	US\$/oz	897	869	797	908	925	900	900	920	960
Lead	US\$/t	2 306	1 912	1 292	1 141	1 170	1 200	1 230	1 347	1 400
Nickel	US\$/t	25 730	18 980	10 889	10 475	12 634	14 500	15 500	15 250	16 250
Silver o	US\$/oz	1 717	1 504	1 018	1 261	1 386	1 450	1 470	1 500	1 490
Tin	US\$/t	22 650	20 551	13 131	11 024	13 566	14 100	14 200	14 300	14 500
Zinc	US\$/t	2 113	1 771	1 186	1 174	1 250	1 325	1 340	1 380	1 440

a US hard red winter wheat, fob Gulf. b US no. 2 yellow corn, delivered US Gulf. c Prices previously reported by the Thailand Board of Trade are no longer available. From September 1998 the price quoted is the USDA sourced nominal quote for Thai white rice, 100 per cent, Grade B, fob, Bangkok. d US cif Rotterdam. e Cotlook 'A' index. g Average of monthly averages of New York no.11 spot price; basis: fob Caribbean ports. h US cif price. i Australian Wool Exchange eastern market indicator. j Average of traded prices (excluding subsidised sales). k World trade weighted average price compiled by the US Department of Energy. l Average of weekly restricted spot prices over the period, published by Ux Consulting. m Average LME spot price unless otherwise stated. n London gold fix, London Bullion Market Association. o London silver fix, London Bullion Market Association. Prior to March 2001, Handy and Harman, commercial bar price used. p preliminary. s ABARE estimate. f ABARE forecast.

Sources: Australian Bureau of Statistics; Australian Dairy Corporation; Meat and Livestock Australia; Australian Wool Exchange; Cotlook Ltd; Food and Agriculture Organisation; General Agreement on Tariffs and Trade; International Energy Agency; International Wheat Council; ISTA Mielke and Co.; Reuters Ltd; London Bullion Market Association; The London Metal Exchange Ltd; New York Board of Trade; Ux Consulting Co.; Platts Oilgram; US Department of Agriculture; US Department of Energy; World Bureau of Metal Statistics; ABARE.

18

Gross unit values or prices of farm products ^a

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Crops ^b							
Grains and oilseeds							
Winter crops							
barley	\$/t	159	149	244	312	205	202
canola	\$/t	326	334	397	475	404	384
field peas	\$/t	235	222	284	409	306	300
lupins	\$/t	206	195	266	168	134	133
oats	\$/t	134	147	241	265	183	177
triticale	\$/t	152	176	223	252	177	173
wheat	\$/t	197	203	242	377	335	315
Summer crops							
maize	\$/t	193	186	248	232	185	179
rice	\$/t	297	283	346	450	495	531
sorghum	\$/t	134	143	213	259	304	292
soybeans ^c	\$/t	283	301	353	600	570	542
sunflower seed ^c	\$/t	341	428	706	908	890	845
Industrial crops							
Cotton lint ^d	c/kg	167	179	176	191	199	220
Sugar cane (cut for crushing)	\$/t	26	28	34	27	30	40
Wine grapes	\$/t	715	615	643	787	690	676
Livestock for slaughter							
Beef ^e	c/kg	320	322	292	286	295	296
– yearling ^e	c/kg	359	366	329	324	329	330
– ox ^e	c/kg	331	332	318	308	314	312
– cow ^e	c/kg	289	288	255	253	269	272
Lamb ^g	c/kg	360	347	326	335	422	415
Mutton ^e	c/kg	164	175	136	159	195	200
Pig ^e	c/kg	243	232	255	240	332	315
Poultry ^h	c/kg	525	498	490	534	550	540
Livestock products							
Wool ⁱ	c/kg	767	713	864	945	795	820
Milk ^j	c/L	31.5	33.1	33.2	49.6	40.0	33.0

^a Average gross unit value across all grades in principal markets, unless otherwise indicated. Includes the cost of containers, commission and other expenses incurred in getting the commodities to their principal markets. These expenses are significant. ^b Average unit gross value relates to returns received from crops harvested in that year, regardless of when sales take place, unless otherwise indicated. ^c Price paid by crusher. ^d Australian base price for sales in the financial year indicated. ^e Average saleyard price (dressed weight). ^g Lamb saleyard weight indicator 18-22kg. ^h Retail price, fresh whole chickens. ⁱ Australian Wool Exchange eastern market indicator. ^j Weighted average farmgate price. ^s ABARE estimate. ^f ABARE forecast.

Note: Prices used in these calculation exclude GST.

Sources: Australian Bureau of Statistics; ABARE.

19 World production, consumption, stocks and trade for selected commodities ^a

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Farm							
Grains							
Wheat							
production	Mt	628	621	598	609	687	647
consumption	Mt	615	624	611	615	642	641
closing stocks	Mt	139	135	122	118	155	162
exports ^b	Mt	110	109	110	110	118	115
Coarse grains							
production	Mt	1 015	979	985	1 076	1 098	1 074
consumption	Mt	977	989	1 007	1 056	1 073	1 087
closing stocks	Mt	179	166	139	160	186	173
exports ^b	Mt	101	107	117	127	102	106
Rice							
production ^c	Mt	402	418	421	434	444	448
consumption ^c	Mt	407	413	418	426	432	440
closing stocks ^c	Mt	73	76	75	81	90	95
exports ^{bd}	Mt	28	30	31	31	29	30
Oilseeds and vegetable oils							
Oilseeds							
production	Mt	382	391	404	392	396	422
consumption	Mt	367	384	393	400	402	413
closing stocks	Mt	58	65	74	63	55	63
exports	Mt	74	76	83	93	89	91
Vegetable oils							
production	Mt	112	119	122	128	132	137
consumption	Mt	108	116	122	126	131	135
closing stocks	Mt	11	11	10	10	10	10
exports	Mt	43	47	49	52	53	56
Vegetable protein meals							
production	Mt	207	216	224	231	229	237
consumption	Mt	204	216	223	230	229	236
closing stocks	Mt	8	8	8	7	6	6
exports	Mt	61	66	68	71	68	71
Industrial crops							
Cotton							
production	Mt	26	25	27	26	23	24
consumption	Mt	24	25	27	27	25	25
closing stocks	Mt	13	14	14	14	13	12
exports	Mt	8	10	8	8	6	7
Sugar							
production	Mt	141	150	166	167	160	168
consumption	Mt	147	153	157	161	163	165
closing stocks	Mt	58	56	65	70	66	68
exports	Mt	48	48	49	47	47	48

Continued

19 World production, consumption, stocks and trade for selected commodities ^a

continued

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Livestock products							
Meat ^{deg}							
production	Mt	238	240	243	249	251	255
consumption	Mt	231	236	240	246	250	253
closing stocks	Mt	2.3	2.3	2.3	2.3	2.1	2.0
exports ^b	Mt	20.7	20.8	21.8	23.8	24.0	24.3
Wool ^h							
production	kt	1 218	1 234	1 202	1 170	1 050	1 025
consumption ^{di}	kt	1 225	1 196	1 210	1 165	970	1 000
closing stocks ^j	kt	163	165	75	55	65	70
exports ^k	kt	578	567	590	515	440	430
Butter ^{dg}							
production	kt	6 783	7 023	7 437	7 773	8 169	8 267
consumption	kt	6 359	6 711	7 159	7 430	7 760	7 869
closing stocks	kt	347	283	178	191	260	290
exports	kt	792	754	801	683	650	670
Skim milk powder ^{gl}							
production ^d	kt	3 317	3 235	3 419	3 536	3 579	3 633
consumption ^d	kt	3 346	3 094	3 112	3 156	3 207	3 303
closing stocks ^d	kt	369	279	244	343	430	450
exports	kt	1 008	1 013	1 137	1 106	1 099	1 100
Energy ^d							
Crude oil							
Production							
world ^m	mbd	84.5	85.4	85.6	86.5	83.4	84.5
OPEC ⁿ	mbd	34.2	34.4	35.4	36.5	36.4	38.8
Consumption ^m	mbd	83.6	84.7	86.1	85.7	83.4	84.5
Closing stocks							
OECD ^o	days	51.0	53.0	51.0	na	na	na
Coal ^d							
Production							
hard coal ^q	Mt	4 816	5 083	5 410	5 750	5 900	6 050
brown coal	Mt	929	937	945	950	955	937
Exports							
metallurgical coal	Mt	206	210	227	237	195	206
thermal coal	Mt	610	673	696	715	701	723
Uranium (U₃O₈) ^d							
Production ^{rs}	kt	49.2	46.9	48.6	50.0	54.4	58.5
Consumption	kt	78.8	77.2	77.7	76.2	79.8	81.2
Metals ^d							
Bauxite production	kt	176 930	191 231	209 679	153 885	147 500	153 400
Alumina production	kt	66 692	72 790	79 619	55 958	50 000	52 000
Aluminium							
production	kt	32 021	33 965	38 108	39 430	33 750	34 904
consumption	kt	31 709	31 709	33 995	36 912	32 521	35 018
closing stocks ^t	kt	3 010	2 764	2 960	4 139	5 368	5 254
exports	kt	17 018	17 699	18 326	18 274	20 090	21 907

Continued

19 World production, consumption, stocks and trade for selected commodities ^a

continued

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Iron and steel ^d							
Production							
iron ore ^u	Mt	1 315	1 498	1 631	1 757	1 629	1 700
pig iron	Mt	801	881	948	956	884	941
crude steel	Mt	1 146	1 250	1 344	1 329	1 189	1 261
Iron ore trade	Mt	715	762	823	857	853	890
Gold ^d							
Mine production	t	2 546	2 486	2 481	2 415	2 456	2 473
Supply	t	4 107	3 984	3 923	3 879	3 692	3 589
Fabrication consumption ^v	t	3 291	2 936	3 076	2 850	2 403	2 555
Base metals ^d							
Copper							
production ^w	kt	16 610	17 343	17 980	18 475	18 018	18 435
consumption	kt	16 639	16 974	18 098	18 032	17 235	18 382
closing stocks	kt	547	703	668	808	1 591	1 643
Lead							
production ^w	kt	7 632	7 925	8 122	8 670	8 385	8 594
consumption	kt	7 805	8 071	8 190	8 648	7 958	8 370
closing stocks	kt	287	270	265	306	774	833
Nickel							
production ^w	kt	1 293	1 352	1 430	1 396	1 183	1 288
consumption	kt	1 248	1 392	1 326	1 278	1 174	1 288
closing stocks	kt	112	87	125	155	164	163
Tin							
production ^w	kt	350	351	349	334	305	307
consumption	kt	345	363	359	338	302	312
closing stocks	kt	38	33	15	33	36	30
Zinc							
production ^w	kt	10 229	10 658	11 353	11 683	11 149	11 261
consumption	kt	10 635	10 979	11 317	11 468	10 923	11 283
closing stocks	kt	828	548	580	764	990	968
Mineral sands ^d							
Production							
ilmenite ^x	kt	11 028	11 624	12 075	11 934	12 598	13 470
titaniferous slag	kt	2 274	2 419	2 525	2 530	2 570	2 610
rutile concentrate	kt	413	532	600	615	752	869
zircon concentrate	kt	1 189	1 288	1 301	1 246	1 312	1 394

a Some figures are not based on precise or complete analyses. **b** Includes intra-EU trade. **c** Milled equivalent. **d** On a calendar year basis, e.g. 1991-92 = 1992. **e** Beef and veal, mutton, lamb, goat, pig and poultry meat. **g** Selected countries. **h** Clean equivalent. **i** Virgin wool at the spinning stage in 65 countries. **j** Held by marketing bodies and on-farm in five major exporting countries. **k** Five major exporting countries. **l** Nonfat dry milk. **m** Includes crude oil, marine bunkers, refinery fuel, nonconventional oil and natural gas liquids. 1 million litres a year equals about 17.2 barrels a day. **n** Includes OPEC natural gas liquids. **o** Industry stocks in OECD countries at the start of the financial year. **q** Includes anthracite and bituminous coal, and for the United States, Australia and New Zealand, sub-bituminous coal. **r** World production data has been revised to exclude reprocessed uranium. **t** LME and producer stocks. **u** China's iron ore production adjusted to world average. **v** Includes jewellery consumption. **w** Primary refined metal. **x** Excludes some small producers and large tonnages produced from ilmenite-magnetite ore in the Commonwealth of Independent States. **s** ABARE estimate. **f** ABARE forecast. **na** Not available.

Sources: Australian Bureau of Statistics; Meat and Livestock Australia; Commodities Research Unit; Commonwealth Secretariat; Consolidated Gold Fields; Department of Agriculture, Fisheries and Forestry Australia; Economic Commission for Europe; Fearnleys; Food and Agriculture Organisation; Gold Fields Mineral Services; International Atomic Energy Agency; International Energy Agency; International Iron and Steel Institute; International Lead-Zinc Study Group; International Nickel Study Group; International Sugar Organization; International Wheat Council; ISTA Mielke and Co.; Metallgesellschaft A.G.; Ministry of Agriculture, Forestry and Fisheries (Japan); New Zealand Dairy Board; New Zealand Wool Board; UNCTAD Trust Fund on Iron Ore; United Nations; Uruguayan Association of Wool Exporters; US Department of Agriculture; World Bureau of Metal Statistics; ABARE.

20 Commodity production

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 s	2009-10 f
Crops							
Grains and oilseeds							
Winter crops							
barley	kt	7 740	9 482	4 257	7 159	6 820	7 713
canola	kt	1 542	1 419	573	1 214	1 878	1 704
chickpeas	kt	116	123	232	313	378	386
field peas	kt	289	585	140	268	252	307
lupins	kt	937	1 285	470	662	484	505
oats	kt	1 282	1 688	748	1 503	1 267	1 331
triticale	kt	611	676	199	450	503	567
wheat	kt	21 905	25 150	10 822	13 569	21 397	21 969
Summer crops							
cottonseed s	kt	912	844	388	188	446	604
maize	kt	420	380	240	387	368	365
rice	kt	339	1 003	163	18	66	70
sorghum	kt	2 011	1 929	1 283	3 072	2 319	1 941
soybeans	kt	54	55	32	35	102	63
sunflower seed	kt	62	98	18	73	72	56
other oilseeds a	kt	70	64	46	68	66	68
Total grains and oilseeds	kt	38 291	44 780	19 611	28 977	36 417	37 651
Industrial crops							
Cotton lint	kt	645	597	301	133	315	427
Sugar cane (cut for crushing)	kt	37 822	37 128	36 397	32 621	31 732	31 338
Sugar (tonnes actual)	kt	5 234	5 063	5 026	4 763	4 634	4 425
Wine grapes	kt	1 925	1 902	1 397	1 837	1 594	1 820
Livestock slaughterings							
Number slaughtered							
Cattle and calves	'000	8 853	8 401	9 081	8 799	8 760	8 780
Cattle exported live b	'000	574	549	638	713	795	780
Sheep	'000	11 443	11 830	13 271	11 929	11 650	11 050
Lambs	'000	17 331	18 666	20 158	20 899	20 500	20 600
Sheep exported live b	'000	3 233	4 248	4 138	4 069	4 000	4 000
Pigs	'000	5 342	5 370	5 322	5 217	4 550	4 700
Meat produced							
Beef and veal c	kt	2 162	2 077	2 226	2 155	2 164	2 175
Lamb c	kt	354	382	413	435	414	422
Mutton c	kt	237	244	271	258	242	235
Pig meat	kt	389	389	382	377	325	336
Poultry meat c	kt	792	817	855	840	871	890
Total	kt	3 934	3 909	4 147	4 067	4 016	4 058

Continued

20 Commodity production *continued*

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Livestock products							
Wool ^d	kt	520	520	502	447	389	361
Milk ^e	ML	10 127	10 089	9 583	9 223	9 380	9 300
Butter ^g	kt	147	146	133	128	150	135
Cheese	kt	388	373	364	359	348	350
Casein	kt	13	12	8	10	11	11
Skim milk powder ^h	kt	189	205	191	164	208	184
Whole milk powder	kt	189	158	135	142	141	147
Buttermilk powder	kt	17	16	14	13	16	14
Forestry							
Logs	'000 m ³	26 998	26 734	27 182	28 461	27 108	27 093
Fisheries ⁱ							
Tuna ^j	kt	11.3	12.7	13.1	14.7	12.2	13.3
Salmonids ^k	kt	17.1	21.0	25.6	25.5	29.0	28.4
Other fish ^l	kt	155.4	128.4	118.8	120.0	122.4	120.4
Prawns	kt	23.7	23.6	20.8	22.8	21.5	21.0
Rock lobster	kt	17.9	16.2	13.5	13.7	12.4	12.2
Abalone	kt	6.0	5.5	5.5	5.3	5.1	5.2
Scallops	kt	15.5	9.0	10.6	10.3	10.6	12.8
Oysters	kt	11.8	12.1	14.4	12.5	13.6	14.0
Other molluscs	kt	10.3	8.6	9.4	6.7	9.1	9.2
Other crustaceans	kt	7.9	6.7	7.0	6.6	7.2	7.1
Energy							
Coal							
black, salable	Mt	305.0	307.0	325.2	326.8	325.3	320.7
black, raw	Mt	393.4	398.9	414.4	421.2	422.4	416.5
brown	Mt	67.2	67.7	65.6	72.4	72.9	73.2
Petroleum							
crude oil and condensate	ML	27 311	24 315	28 555	25 537	26 977	26 020
petroleum products ^m	ML	44 555	40 679	43 652	44 086	43 864	42 636
natural gas ⁿ	Gm ³	41.3	42.2	42.3	42.9	45.0	50.7
LPG (naturally occurring)	ML	4 628	4 722	4 550	3 971	3 880	5 550
Uranium (U ₃ O ₈)	t	10 964	9 974	9 594	10 101	10 130	10 590
Metalliferous minerals and metals ^o							
Aluminium							
bauxite	Mt	57.6	60.9	62.7	63.5	64.9	64.3
alumina	kt	17 161	17 826	18 506	19 359	19 527	19 725
aluminium (ingot metal)	kt	1 890	1 912	1 954	1 964	1 956	1 899
Copper							
mine production ^q	kt	895	936	859	863	901	1 017
refined, primary	kt	486	461	435	444	494	467
Gold							
mine production ^q	t	265.2	249.4	250.7	228.2	219.2	239.4

Continued

20 Commodity production *continued*

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 <i>s</i>	2009-10 <i>f</i>
Metalliferous minerals and metals (continued)							
Iron and steel							
ore and concentrate <i>r</i>	Mt	251.9	263.9	287.7	324.7	339.4	363.8
iron and steel	Mt	7.4	7.9	8.0	8.1	6.2	7.6
Lead							
mine production <i>q</i>	kt	682	762	642	641	608	636
refined <i>s</i>	kt	234	234	191	203	207	200
bullion	kt	153	141	114	152	156	148
Manganese							
ore, metallurgical grade	kt	3 563	4 088	5 071	5 436	3 923	5 225
metal content of ore	kt	1 710	1 962	2 434	2 609	1 883	2 508
Nickel							
mine production <i>q</i>	kt	192	186	191	190	177	135
refined, class I <i>u</i>	kt	117	105	104	105	89	98
refined, class II <i>v</i>	kt	10	10	15	15	16	12
total ore processed <i>w</i>	kt	229	224	225	223	217	180
Silver							
mine production <i>q</i>	t	2 303	2 218	1 674	1 867	1 794	1 950
refined	t	722	655	618	605	702	663
Tin							
mine production <i>q</i>	t	2 055	1 805	2 061	1 631	3 818	5 350
refined	t	445	736	321	0	0	120
Titanium							
ilmenite concentrate	kt	1 993	2 185	2 383	2 205	2 091	2 714
leucoxene concentrate	kt	68	87	169	156	167	202
rutile concentrate	kt	173	184	279	333	375	527
synthetic rutile <i>t</i>	kt	751	711	729	672	741	739
titanium dioxide pigment <i>t</i>	kt	204	208	207	201	221	266
Zinc							
mine production <i>q</i>	kt	1 352	1 380	1 375	1 571	1 381	1 346
refined	kt	464	446	496	507	495	476
Zircon concentrate	kt	432	442	557	580	576	664
Other minerals							
Diamonds	'000 ct	32 471	25 354	24 632	16 528	18 022	12 600
Salt	kt	12 254	11 467	10 857	11 243	11 202	11 413

a Linseed and safflowerseed. **b** Excludes animals exported for breeding purposes. **c** In carcass weight and includes carcass equivalent of canned meats. **d** Greasy equivalent of shorn wool (includes crutching), dead and fellmongered wool and wool exported on skins. **e** Includes the wholemilk equivalent of farm cream intake. **g** Includes the butter equivalent of butteroil, butter concentrate, ghee and dry butterfat. **h** Includes mixed skim and buttermilk powder. **i** Liveweight. **j** Tuna captured under joint venture or bilateral agreements or transhipped at sea is included. **k** Includes salmon and trout production. **l** Includes an estimated value of aquaculture but excludes inland commercial fisheries. **m** Includes production from petrochemical plants. **n** Includes ethane, methane and noncommercial natural gas. **o** Uranium is included with energy. **q** Primary production, metal content. **r** Excludes iron oxide not intended for metal extraction. **t** Includes lead content of lead alloys from primary sources. **v** Products with a nickel content of 99 per cent or more. Includes electrolytic nickel, pellets, briquettes and powder. **w** Products with a nickel content of less than 99 per cent. Includes ferronickel, nickel oxides and oxide sinter. **v** Includes imported ore for further processing. **s** ABARE estimate. **f** ABARE forecast.

Sources: Australian Bureau of Statistics; Australian Dairy Corporation; Consolidated Gold Fields; Coal Services Pty Limited; DRET; International Nickel Study Group; Queensland Government, Department of Natural Resources and Mines; Raw Cotton Marketing Advisory Committee; ABARE.

21 Gross value of farm and fisheries production

Australia

	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m	2008-09 s \$m	2009-10 f \$m
Crops						
Grains and oilseeds						
Winter crops						
barley	1 233	1 417	1 039	2 236	1 398	1 555
canola	503	473	227	577	759	654
chickpeas	36	57	153	195	162	167
field peas	68	130	40	109	77	92
lupins	193	251	125	111	65	67
oats	172	249	181	398	232	236
triticale	93	119	44	114	89	98
wheat	4 317	5 099	2 619	5 113	7 163	6 917
Summer crops						
maize	81	71	60	90	68	65
rice	101	284	56	8	32	37
sorghum	270	276	274	796	705	567
soybeans	15	17	11	21	58	34
sunflower seed	21	42	13	66	64	48
other oilseeds a	36	30	25	50	51	50
Total grains and oilseeds	7 364	8 824	5 080	10 168	11 186	10 861
Industrial crops						
Cotton lint and cotton seed b	1 222	995	542	253	667	971
Sugar cane (cut for crushing)	980	1 032	1 221	897	948	1 254
Wine grapes	1 377	1 172	898	1 446	1 100	1 230
Total industrial crops	3 578	3 199	2 661	2 595	2 715	3 455
Horticulture						
Table and dried grapes	220	207	240	172	198	213
Fruit and nuts (excl grapes)	2 547	2 627	3 499	3 006	3 024	3 300
Vegetables	2 315	2 833	3 103	3 427	3 501	3 376
Other horticulture	1 372	1 675	1 730	1 777	1 880	1 922
Total horticulture	6 454	7 342	8 572	8 382	8 603	8 811
Other crops nei c	1 321	1 536	1 683	3 039	2 647	2 294
Total crops	18 717	20 900	17 995	24 184	25 151	25 421

Continued

21 Gross value of farm and fisheries production *continued*

Australia

	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m	2008-09 ^s \$m	2009-10 ^f \$m
Livestock slaughterings						
Cattle and calves ^d	7 455	7 327	7 550	6 986	7 419	7 490
Cattle exported live ^e	374	358	437	451	531	510
Sheep ^g	418	444	380	413	482	479
Lambs ^{gh}	1 327	1 378	1 387	1 466	1 782	1 786
Sheep exported live	207	291	289	286	334	336
Pigs	906	890	944	902	1 240	1 180
Poultry	1 304	1 223	1 294	1 637	1 730	1 750
Total livestock slaughterings ^k	12 033	11 960	12 335	12 191	13 569	13 583
Livestock products						
Wool ⁱ	2 166	2 054	2 282	2 612	1 943	1 894
Milk ^j	3 194	3 341	3 178	4 572	3 751	3 069
Eggs	328	376	388	464	463	425
Honey and beeswax	100	65	70	75	80	70
Total livestock products	5 788	5 836	5 917	7 722	6 237	5 458
Total farm	36 537	38 695	36 247	44 098	44 958	44 462
Forestry products						
Roundwood	1 653	1 673	1 713	1 872	1 787	1 821
Fisheries products ^l						
Tuna ^m	172	175	161	210	167	206
Salmonids ⁿ	147	231	291	299	339	337
Other fin fish ^o	412	367	397	416	393	402
Prawns	307	305	267	271	269	258
Rock lobster	415	477	443	407	458	434
Abalone	233	225	217	189	172	181
Scallops	47	23	29	33	31	35
Oysters	74	75	91	89	99	104
Pearls	122	122	124	114	140	139
Other molluscs ^q	67	66	69	60	67	67
Other crustaceans	66	60	75	70	66	68
Total fish ^r	2 086	2 166	2 211	2 191	2 190	2 198

^a Linseed, safflowerseed and peanuts. ^b Value delivered to gin. ^c Mainly fodder crops. ^d Includes dairy cattle slaughtered. ^e Excludes animals exported for breeding purposes. ^g Excludes skin values. ^h Lamb saleyard indicator weight 18-22kg. ⁱ Shorn, dead and fellmongered wool and wool exported on skins. ^j Milk intake by factories and valued at farmgate. ^k Total livestock slaughterings includes livestock disposals. ^l Value to fishermen of product landed in Australia. ^m Tuna captured under joint venture or bilateral agreements or transhipped at sea is included. ⁿ Includes salmon and trout production. ^o Includes an estimated value of aquaculture. ^q Includes Northern Territory aquaculture production. ^r Also includes fish and aquaculture values not elsewhere included. ^s ABARE estimate. ^f ABARE forecast.

Note: The gross value of production is the value placed on recorded production at the wholesale prices realised in the market place. The point of measurement can vary between commodities. Generally the market place is the metropolitan market in each state and territory. However, where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the market place.

Note: Prices used in these calculations exclude GST.

Sources: Australian Bureau of Statistics; ABARE.

22 Crop areas and livestock numbers

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Crop areas							
Grains and oilseeds							
Winter crops							
barley	'000 ha	4 645	4 406	4 182	4 902	4 506	4 469
canola	'000 ha	1 377	971	1 052	1 214	1 165	1 246
chickpeas	'000 ha	113	105	244	306	313	373
field peas	'000 ha	413	366	384	293	279	285
lupins	'000 ha	845	809	736	752	420	456
oats	'000 ha	894	931	1 003	1 238	915	914
triticale	'000 ha	389	347	369	360	355	350
wheat	'000 ha	13 399	12 443	11 798	12 578	13 552	13 508
Summer crops							
maize	'000 ha	72	76	49	68	70	68
rice	'000 ha	51	102	20	2	9	8
sorghum	'000 ha	755	766	613	845	717	728
soybeans	'000 ha	26	24	14	15	45	29
sunflower seed	'000 ha	46	79	17	48	43	47
other oilseeds ^a	'000 ha	55	54	43	49	43	42
Total grains and oilseeds	'000 ha	23 808	22 197	21 054	23 077	22 893	23 076
Industrial crops							
Cotton	'000 ha	321	336	144	63	163	230
Sugar cane ^b	'000 ha	434	398	409	381	380	379
Winegrapes	'000 ha	153	158	163	166	168	171
Livestock numbers ^c							
Cattle							
beef	million	25.32	25.61	25.37	24.78	24.86	25.09
dairy	million	2.86	2.79	2.66	2.54	2.52	2.48
milking herd ^d	million	1.94	1.88	1.80	1.64	1.65	1.62
total	million	28.18	28.39	28.04	27.32	27.38	27.57
Sheep	million	100.6	91.0	85.7	76.9	73.2	69.9
Pigs	million	2.71	2.73	2.61	2.41	2.45	2.50

^a Linseed and safflowerseed. ^b Cut for crushing. ^c At 30 June. ^d Cows in milk and dry. ^s ABARE estimate. ^f ABARE forecast.

Sources: Australian Bureau of Statistics; ABARE.

23 Average farm yields

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Crops							
Grains and oilseeds							
Winter crops							
barley	t/ha	1.67	2.15	1.02	1.46	1.51	1.73
canola	t/ha	1.12	1.46	0.54	1.00	1.61	1.37
chickpeas	t/ha	1.02	1.17	0.95	1.02	1.21	1.04
field peas	t/ha	0.70	1.60	0.36	0.91	0.90	1.08
lupins	t/ha	1.11	1.59	0.64	0.88	1.15	1.11
oats	t/ha	1.43	1.81	0.75	1.21	1.38	1.46
triticale	t/ha	1.57	1.95	0.54	1.25	1.42	1.62
wheat	t/ha	1.63	2.02	0.92	1.08	1.58	1.63
Summer crops							
maize	t/ha	5.83	5.03	4.90	5.69	5.25	5.32
rice	t/ha	6.60	9.83	8.15	8.50	7.30	8.81
sorghum	t/ha	2.66	2.52	2.09	3.64	3.23	2.67
soybeans	t/ha	2.07	2.33	2.35	2.34	2.27	2.15
sunflower seed	t/ha	1.35	1.24	1.06	1.51	1.65	1.19
Industrial crops							
Cotton (lint)	t/ha	2.01	1.78	2.10	2.12	1.93	1.86
Sugar cane (for crushing)	t/ha	87	93	89	86	84	83
Winegrapes	t/ha	12.6	12.0	8.6	11.1	9.5	10.7
Livestock							
Wool ^a	kg/sheep	4.57	4.25	4.21	4.24	4.25	4.25
Whole milk	L/cow	5 215	5 367	5 336	5 624	5 702	5 741

^a Shorn (including lambs). ^s ABARE estimate. ^f ABARE forecast.

Sources: Australian Bureau of Statistics; ABARE.

24 Volume of commodity exports

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 s	2009-10 f
Farm							
Grains and oilseeds							
Winter crops							
barley a	kt	6 499	5 315	3 135	4 050	3 902	4 359
canola	kt	1 019	884	238	519	1 017	1 138
chickpeas	kt	151	211	244	218	355	296
lupins	kt	419	469	174	76	219	261
oats (unprepared)	kt	165	190	62	115	154	158
peas b	kt	116	156	248	142	133	172
wheat c	kt	15 780	15 168	11 196	7 408	12 815	14 620
Summer crops							
cottonseed	kt	214	204	104	18	32	75
rice	kt	271	258	491	78	32	66
sorghum	kt	513	173	46	251	1 427	1 063
other oilseeds d	kt	28	18	13	11	12	17
Total grains and oilseeds	kt	25 175	23 048	15 950	12 886	20 099	22 225
Industrial crops							
Raw cotton e	kt	410	650	487	266	226	332
Sugar	kt	4 153	3 883	3 719	3 493	3 394	3 168
Wine	ML	661	736	798	709	735	740
Meat and live animals for slaughter							
Beef and veal gh	kt	948	892	974	930	960	940
Live cattle i	'000	574	549	638	713	795	780
Lamb g	kt	123	143	150	163	151	158
Live sheep i	'000	3 233	4 248	4 138	4 069	4 000	4 000
Mutton g	kt	137	145	162	158	147	143
Pig meat g	kt	43	44	41	39	33	35
Poultry meat g	kt	20	22	28	30	37	40
Wool							
Greasy js	kt	372	377	402	358	318	289
Semi-processed	kt (gr.eq.)	114	91	82	67	60	58
Skins	kt (gr.eq.)	61	75	83	67	64	59
Total js	kt (gr.eq.)	547	543	566	492	442	405
Dairy products							
Butter k	kt	69	83	81	57	69	53
Cheese	kt	228	202	213	203	139	142
Casein	kt	13	8	12	9	8	8
Skim milk powder	kt	141	181	164	123	170	143
Whole milk powder	kt	105	110	94	82	122	126

Continued

24 Volume of commodity exports *continued*
Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 s	2009-10 f
Forest products							
Woodchips	kt	5 598	5 363	5 952	6 166	4 898	4 884
Fisheries products							
Tuna l	kt	10.9	11.7	11.6	12.6	11.3	12.1
Other fish	kt	15.0	11.6	11.4	9.8	14.9	9.6
Prawns m							
headless	kt	0.4	0.1	0.1	0.4	0.5	0.4
whole	kt	9.6	8.4	6.0	3.9	4.6	3.5
Rock lobster							
tails	kt	1.8	1.6	1.5	1.0	1.0	0.9
whole	kt	10.2	9.9	8.3	8.1	8.5	8.3
Abalone							
fresh, chilled or frozen	kt	2.0	2.1	2.2	2.1	2.1	2.2
prepared or preserved	kt	2.0	1.5	1.7	1.4	1.2	1.4
Scallops n	kt	1.2	1.5	1.4	1.1	1.2	1.2
Mineral resources							
Energy							
Crude oil o	ML	15 731	13 026	15 965	15 975	16 517	15 872
LPG	ML	2 844	2 800	2 824	2 589	2 523	3 218
LNG qs	Mt	10.589	12.495	15.200	14.800	16.400	18.200
Bunker fuel r	ML	2 207	2 163	2 156	2 169	2 192	2 160
Petroleum products	ML	1 864	2 102	1 762	1 807	1 169	1 439
Metallurgical coal	Mt	124.9	120.5	132.0	136.9	119.2	128.0
Thermal coal	Mt	106.4	110.8	111.6	115.1	130.5	122.5
Uranium (U ₃ O ₈)	t	11 249	10 253	9 519	10 139	9 820	10 590

Continued

24 Volume of commodity exports *continued*

Australia

	unit	2004-05	2005-06	2006-07	2007-08	2008-09 ^s	2009-10 ^f
Mineral resources (continued)							
Metalliferous minerals and metals ^t							
Aluminium							
alumina	kt	14 073	14 499	15 056	15 739	16 230	16 145
aluminium (ingot metal)	kt	1 512	1 617	1 638	1 650	1 719	1 626
Copper							
ore and concentrate ^u	kt	1 326	1 635	1 493	1 694	1 778	2 039
refined	kt	322	314	290	296	351	307
Gold ^v	t	309	315	400	382	469	466
Iron and steel							
iron ore and pellets	Mt	228.5	239.4	257.4	294.3	315.0	338.4
iron and steel ^w	kt	2 338	2 428	2 648	2 131	1 612	1 885
Lead							
ores and concentrates	kt	417	502	422	308	347	382
refined	kt	243	244	215	193	227	201
bullion	kt	164	140	112	169	140	148
Manganese							
ore ^s	kt	3 128	3 215	4 667	5 105	3 029	4 605
Nickel ^{vs}	kt	214	207	207	210	177	141
Titanium							
ilmenite concentrate ^x	kt	633	722	999	894	1 538	2 895
leucoxene concentrate	kt	93	86	123	56	23	24
rutile concentrate	kt	158	169	307	399	550	777
synthetic rutile ^s	kt	517	472	508	513	512	513
titanium dioxide pigment	kt	175	177	171	175	125	149
Refined silver	t	517	482	431	335	420	470
Tin ^v	t	1 529	1 556	1 867	3 079	3 976	5 470
Zinc							
ores and concentrates ^u	kt	1 953	1 821	1 948	2 323	1 979	1 750
refined	kt	397	388	374	411	415	396
Zircon concentrate ^y	kt	428	438	555	637	685	786
Other minerals							
Diamonds	'000 ct	32 471	25 354	24 632	16 528	16 618	12 600
Salt	kt	12 128	10 776	10 749	10 686	10 978	11 185

a Includes the grain equivalent of malt. **b** Includes field peas and cowpeas. **c** Includes the wheat equivalent of flour. **d** Includes soybeans, linseed, sunflowerseed, safflowerseed and peanuts. Excludes meals and oils. **e** Excludes cotton waste and linters. **g** In shipped weight. Fresh, chilled or frozen. **h** Includes meat loaf. **i** Excludes breeding stock. **j** ABS recorded trade data adjusted for changes in stock levels held overseas by Wool International. **k** Includes ghee, dry butterfat, butter concentrate and butteroil, dairy spreads, all expressed as butter. **l** Exports of tuna landed in Australia. Tuna captured under joint venture or bilateral agreements or transhipped at sea is not included. **m** Excludes volume of other prawn products. **n** Includes crumbed scallops. **o** Includes condensate and other refinery feedstock. **q** 1 million tonnes of LNG equals about 1.31 billion cubic metres of gas. **r** International ships and aircraft stores. **t** Uranium is included with energy. **u** Quantities refer to gross weight of all ores and concentrates. **v** Quantities refer to total metallic content of all ores, concentrates, intermediate products and refined metal. **w** Includes all steel items in ABS, *Australian Harmonized Export Commodity Classification*, ch. 72, 'Iron and steel', excluding ferrous waste and scrap and ferroalloys. **x** Excludes leucoxene and synthetic rutile. **y** Data from 1991-92 refer to standard grade zircon only. **s** ABARE estimate. **f** ABARE forecast.

Sources: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra; Australian Mining Industry Council; Department of Foreign Affairs and Trade; Department of Agriculture, Fisheries and Forestry; International Nickel Study Group; ABARE.

Export values

25 Value of commodity exports (fob)

Australia

	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m	2008-09 s \$m	2009-10 f \$m
Farm						
Grains and oilseeds						
Winter crops						
barley a	1 275	1 108	833	1 496	1 376	1 597
canola	397	331	108	303	651	747
chickpeas	65	106	168	139	216	145
lupins	89	99	38	31	88	104
oats	36	47	20	37	53	49
peas b	33	43	80	61	72	94
wheat c	3 488	3 296	2 765	2 990	5 160	6 157
Summer crops						
cottonseed	55	53	31	8	18	36
rice	173	171	347	71	31	63
sorghum	96	33	13	76	458	495
other oilseeds d	33	21	22	27	27	37
Total grains and oilseeds	5 739	5 308	4 426	5 240	8 149	9 525
Industrial crops						
Raw cotton e	771	1 137	823	466	464	727
Sugar	1 098	1 454	1 510	1 006	1 136	1 324
Wine	2 748	2 799	2 988	2 682	2 370	2 360
Total	4 617	5 391	5 321	4 153	3 970	4 410
Other crops	3 322	3 270	3 226	3 632	4 535	4 257
Total crops	13 679	13 968	12 974	13 025	16 653	18 192
Meat and live animals for slaughter						
Beef and veal	4 584	4 272	4 634	4 190	4 850	4 520
Live cattle g	374	358	437	451	531	510
Lamb	673	767	748	803	890	865
Live sheep g	207	291	289	286	334	336
Mutton	398	432	458	443	480	460
Pig meat	150	143	142	128	125	130
Poultry meat	20	21	26	32	42	43
Total	6 405	6 284	6 734	6 333	7 252	6 863
Wool						
Greasy h	1 994	1 868	2 316	2 115	1 666	1 559
Semi-processed	505	389	393	362	280	276
Skins	339	287	356	319	339	283
Total h	2 838	2 544	3 065	2 796	2 285	2 118
Dairy products						
Butter	188	225	179	195	236	141
Cheese	877	837	824	968	768	691
Casein	116	89	113	125	114	89
Skim milk powder	420	529	505	533	600	450
Whole milk powder	324	334	275	392	498	411
Other dairy products	559	556	542	550	508	481
Total	2 485	2 569	2 438	2 763	2 724	2 261
Other livestock exports	2 496	2 436	2 577	2 611	2 932	3 050
Total livestock exports	14 223	13 833	14 815	14 503	15 194	14 293
Total farm exports	27 902	27 801	27 788	27 528	31 847	32 485

Continued

25 Value of commodity exports (fob) *continued*

Australia

	2004-05	2005-06	2006-07	2007-08	2008-09 s	2009-10 f
	\$m	\$m	\$m	\$m	\$m	\$m
Forest products						
Woodchips	858	839	950	1 072	938	927
Pulp and paper products	854	872	949	1 005	916	892
Other e	406	429	455	394	339	309
Total	2 119	2 140	2 355	2 471	2 193	2 127
Fisheries products						
Tuna i	166	179	162	206	167	199
Other fish	139	115	118	119	158	103
Prawns j						
headless	7	3	2	6	8	5
whole	153	129	89	56	81	55
Rock lobster						
tails	101	97	102	63	63	59
whole	330	387	357	333	417	395
Abalone						
fresh, chilled or frozen	124	132	139	124	118	136
prepared or preserved	139	114	107	93	93	105
Scallops k	33	39	35	28	30	31
Pearls	291	290	314	264	350	346
Other fisheries products	61	62	69	49	43	35
Total	1 542	1 547	1 494	1 342	1 525	1 470
Total rural exports l						
Derived as sum of above	31 562	31 488	31 637	31 342	35 565	36 083
On balance of payments basis m	30 305	30 429	30 388	29 950	33 756	34 830
Mineral resources						
Energy						
Crude oil n	6 330	6 638	8 317	10 484	8 970	9 121
LPG	804	1 002	1 038	1 182	1 082	1 306
LNG	3 199	4 416	5 222	5 854	9 929	6 904
Bunker fuel o	951	1 322	1 295	1 457	1 573	1 379
Other petroleum products	844	1 195	1 098	1 323	1 095	1 593
Metallurgical coal	10 758	17 003	15 039	16 038	34 464	18 628
Thermal coal	6 336	7 206	6 758	8 365	17 589	9 815
Uranium (U ₃ O ₈)	475	546	660	887	903	1 070
Total						
derived as sum of above	29 696	39 328	39 427	45 591	75 605	49 817
on balance of payments basis (excl. bunker fuel)	28 394	37 570	37 570	43 488	73 441	47 641
Metalliferous minerals and metals						
Aluminium						
bauxite s	123	127	153	206	202	182
alumina	4 383	5 262	6 243	5 809	6 379	5 648
aluminium (ingot metal)	3 726	4 788	5 650	4 967	4 914	3 754
Copper p						
ore and concentrate	1 750	3 492	3 914	4 151	3 298	3 577
refined	1 332	2 161	2 612	2 579	2 154	1 991

Continued

Export values

25 Value of commodity exports (fob) *continued* Australia

	2004-05 \$m	2005-06 \$m	2006-07 \$m	2007-08 \$m	2008-09 <i>s</i> \$m	2009-10 <i>f</i> \$m
Mineral resources (continued)						
Metalliferous minerals and metals (continued)						
Gold <i>p</i>	5 523	7 089	10 320	10 903	17 516	18 033
Iron and steel						
iron ore and pellets	8 120	12 854	15 512	20 511	33 670	25 468
iron and steel	2 031	1 674	1 743	1 562	1 371	1 183
Lead <i>p</i>						
ores and concentrates	490	711	855	757	545	618
refined	305	350	457	674	479	395
bullion	246	235	268	595	376	341
Manganese						
ore <i>s</i>	473	424	482	1 532	1 394	921
Titanium						
ilmenite concentrate <i>q</i>	63	76	113	104	171	316
leucoxene concentrate	25	25	35	15	12	10
rutile concentrate	114	138	259	277	335	449
synthetic rutile <i>s</i>	306	321	361	305	258	237
titanium dioxide pigment	422	441	408	375	337	365
Nickel <i>s</i>	3 749	3 642	8 469	5 775	2 283	2 561
Refined silver	161	197	221	187	252	292
Tin <i>p</i>	8	12	25	42	65	98
Zinc <i>p</i>						
ores and concentrates	852	1 542	2 590	2 031	950	987
refined	614	998	1 707	1 319	924	893
Zircon concentrate <i>r</i>	319	398	478	421	540	467
Total	35 136	46 957	62 876	65 099	78 426	68 785
Other minerals						
Diamonds <i>s</i>	683	836	726	664	506	378
Salt	226	229	239	232	237	247
Other	3 770	5 262	4 708	6 204	5 603	5 161
Total mineral resources exports	69 511	92 611	107 976	117 791	160 377	124 387
Total commodity exports						
Derived as sum of above	101 073	124 099	139 613	149 132	195 942	160 470
On balance of payments <i>t</i>	98 866	121 718	137 068	146 283	192 560	157 838

a Includes the grain equivalent of malt. **b** Field peas and cowpeas. **c** Includes the wheat equivalent of flour. **d** Includes soybeans, linseed, sunflowerseed, safflowerseed and peanuts. Excludes meals and oils. **e** Excludes cotton waste and linters. **g** Excludes breeding stock. **h** On a balance of payments basis. ABS recorded trade data adjusted for changes in stock levels held overseas by Wool International. **i** Exports of tuna landed in Australia. Tuna captured under joint venture or bilateral agreements or transhipped at sea is not included. **j** Other prawn products included in other fisheries products. **k** Includes crumbed scallops. **l** Sum of farm, forest and fisheries products. **m** The value of exports derived as the sum of published detailed items differs from the balance of payments aggregates shown in table 6 for two main reasons: the ABS makes special adjustments to some recorded trade data for balance of payments purposes; and ABARE derives its own estimates, (using non-ABS sources), for several items as footnoted. For more detail on a balance of payments basis, see table 7. **n** Includes condensate and other refinery feedstock. **o** International ships and aircraft stores. **p** Value of metals contained in host mine and smelter products are not available separately and are included in the value of the mineral product or metal in which they are exported. **q** Excludes leucoxene and synthetic rutile; data from 1991-92 refer to bulk ilmenite only. **r** Data refers to standard grade zircon only. **t** As derived in table 6. **s** ABARE estimate. **f** ABARE forecast.

Sources: ABS, *International Trade, Australia*, cat. no. 5465.0, Canberra; DRET; ABARE.

26 Value of imports and exports of selected commodities

Australia

	2003-04	2004-05	2005-06	2006-07	2007-08
	\$m	\$m	\$m	\$m	\$m
Vegetable oilseeds and products a					
Imports	520	504	532	771	756
Exports	605	552	472	240	490
Dairy products					
Imports					
cheese	160	190	229	278	377
other dairy products	118	137	140	178	280
total	279	326	369	456	656
Horticulture					
Imports					
fruit	587	704	741	846	928
vegetables	527	512	528	621	731
Exports					
fruit	690	791	829	774	760
vegetables	399	340	365	410	384
Edible fisheries products					
Imports					
shellfish b	360	412	426	483	417
fin fish	545	547	602	701	715
total	905	959	1 028	1 184	1 132
Exports					
shellfish b	909	932	943	878	741
fin fish c	410	304	295	280	325
total	1 319	1 236	1 237	1 158	1 065
Forest products					
Imports					
sawnwood	502	492	419	418	492
wood based panels	190	216	228	276	284
pulp and paper products	2 717	2 807	2 839	3 007	3 049
other d	586	589	530	569	586
total	3 995	4 104	4 017	4 271	4 412
Mineral resources					
Imports					
aluminium (ingot metal)	16	17	20	11	10
diamonds	309	347	403	397	444
ferroalloys	71	137	123	116	154
gold (refined and unrefined)	2 559	2 462	4 800	5 309	7 311
ingot steel	1 353	2 041	2 075	2 479	2 225
iron ore	140	145	222	338	311
phosphate rock	41	49	42	32	80
silver	70	30	33	98	80
Energy resources					
Imports					
crude oil e	6 594	9 995	12 820	13 360	17 149
natural gas	0	0	152	800	724
petroleum products g	3 595	5 123	8 609	7 784	12 730

a Includes peanuts, oilseeds, vegetable oils and vegetable protein meals. b Includes all crustaceans and molluscs including canned. c Excludes tuna transhipped at sea or captured under joint venture or bilateral agreements. d Includes roundwood, other processed wood and minor forest products. e Includes condensate and other refinery feedstock. g Includes LPG. s ABARE estimate.

Sources: Australian Bureau of Statistics; Department of Agriculture, Fisheries and Forestry; ABARE.

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Editor: Debra Mewett

Assistant editor: Emma Rossiter