Australian commodities

September quarter 2010

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Abbreviations

a ABARE–BRS macro assumption
f ABARE–BRS forecast
s ABARE–BRS estimate

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Science and economics for decision-makers

Economic overview

Jammie Penm and Neil Thompson

- World economic growth is assumed to moderate to 3.7 per cent in 2011, following an expected strong performance of 4.3 per cent in 2010.
- Emerging economies, particularly China and India, remain the key driver of global economic activity, providing support for economic recovery in non-OECD Asia.
- Economic growth in Australia is assumed to average around 3 per cent in 2010–11, a rate similar to the average achieved over the past decade.

The global economy

Global economic recovery to continue but at a slower pace

Global economic recovery has continued into the second half of 2010, led by strong economic activity in emerging Asia, particularly China and India. In contrast, OECD economic growth has been modest. While the threat of a sovereign debt crisis in Europe appears to have eased, renewed concerns have emerged about the sustainability of economic recovery in the United States and Japan.

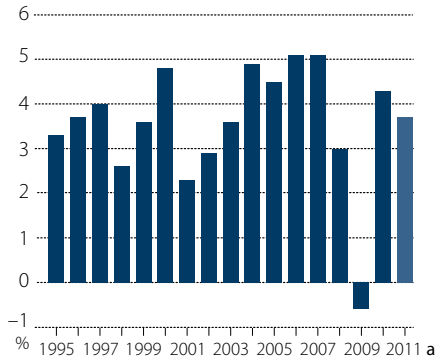
Despite large fiscal and monetary packages implemented since late 2008, consumer spending and business investment has not improved significantly in major OECD countries. Substantial budget deficits and high levels of public sector debt (as a percentage of gross domestic product) could limit further government spending to stimulate private sector demand. In the absence of a significant improvement in private sector demand, economic activity in major OECD economies could weaken during 2011, as the effects of stimulus spending gradually wear off.

While the outlook for OECD economic growth has weakened, the prospects for emerging economies, particularly China, India and others in non-OECD Asia, remain strong. As in the past 12 months, activity in emerging economies is expected to be underpinned by strong domestic demand, supported by government spending and manufacturing production as a result of inventory rebuilding.

Against this backdrop, world economic growth is assumed to ease in the short term. For 2011 as a whole, world economic growth is assumed to average around 3.7 per cent, compared with an assumed growth rate of 4.3 per cent in 2010.

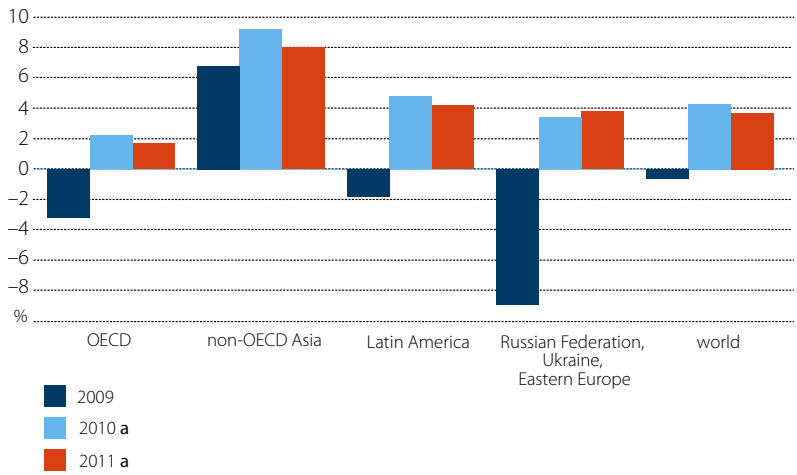
Although non-OECD Asia is expected to be the key driver of world economic activity in the short term, considerable uncertainty remains in the current outlook for world economic growth. This is because the weakening pace of recovery in OECD economies could have a significant 'spillover' effect on growth in emerging economies through trade and investment links. Because the United States, Japan and Western Europe are major export destinations for

World economic growth



emerging economies, a significant slowdown in major OECD economies could adversely affect export performance, and hence economic growth, in emerging economies. Sharply weaker OECD economic growth could also have an adverse effect on consumer and business confidence in emerging economies, leading to weaker than expected growth in consumer spending and business investment.

Regional economic growth



Economic prospects in Australia's major export markets

The United States

In the first half of 2010, the economic recovery in the United States proceeded at a modest pace. Real gross domestic product rose by a seasonally adjusted annualised rate of 1.6 per cent in the June quarter, following growth of 3.7 per cent in the March quarter. Consumer spending, which accounts for around 70 per cent of real gross domestic product, increased at an annualised rate of 2 per cent in the June quarter, after expanding by 1.9 per cent in the March quarter.

However, partial indicators released recently suggest that the pace of economic expansion may have slowed. There have been emerging signs that growth in consumer spending could

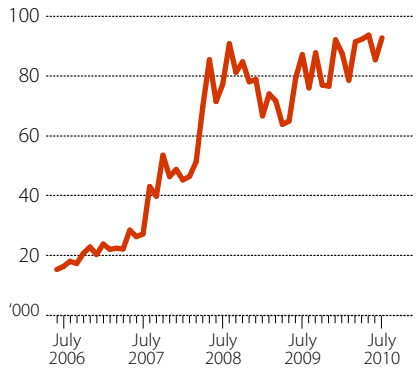
ease, because of high unemployment and household debt. The unemployment rate stood at 9.6 per cent in August 2010, compared with 9.7 per cent in early 2010. In the first seven months of 2010, more than 600 000 homes were repossessed, compared with around 500 000 over the same period in 2009. Continued weakness in the labour market is expected to place considerable downward pressure on consumer spending.

Key macroeconomic assumptions

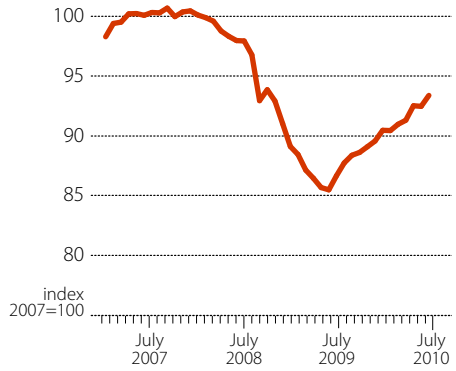
World		2008	2009	2010 a	2011 a
Economic growth					
OECD	%	0.3	– 3.2	2.2	1.7
United States	%	0.0	– 2.6	2.8	2.0
Japan	%	– 1.2	– 5.2	2.2	1.5
Western Europe	%	0.6	– 4.0	1.2	1.0
– Germany	%	1.3	– 4.7	2.4	1.5
– France	%	0.2	– 2.5	1.3	1.3
– United Kingdom	%	0.5	– 4.9	1.0	1.3
– Italy	%	– 1.3	– 5.0	0.7	0.8
Korea, Rep. of	%	2.3	0.2	5.8	5.0
New Zealand	%	– 0.1	– 1.6	2.9	3.2
Developing countries	%	6.5	4.0	7.4	6.6
– non-OECD Asia	%	7.8	6.8	9.2	8.0
South-East Asia b	%	4.7	1.7	6.4	5.3
China c	%	9.6	9.1	10.3	9.0
Chinese Taipei	%	0.7	– 1.9	8.8	4.8
Singapore	%	1.4	– 1.3	13.2	5.1
India	%	7.3	6.7	8.3	8.2
– Latin America	%	4.3	– 1.8	4.8	4.2
Russian Federation	%	5.6	– 7.9	3.5	4.0
Ukraine	%	2.1	– 15.1	3.6	4.0
Eastern Europe	%	3.0	– 3.7	3.2	3.5
World d	%	3.0	– 0.6	4.3	3.7
Industrial production					
OECD	%	– 2.8	– 13.1	6.9	4.4
Inflation					
United States	%	3.8	– 0.4	1.6	1.3
Interest rates					
US prime rate e	%	5.1	3.3	3.3	3.3
		2007	**2008**	**2009**	**2010**
Australia		**–08**	**–09**	**–10 s**	**–11 a**
Economic growth	%	3.7	1.2	2.3	3.0
Inflation	%	3.4	3.1	2.3	3.2
Interest rates g	%	7.7	6.3	6.0	6.6
Australian exchange rates					
US$/A$		0.90	0.75	0.88	0.90
TWI for A$ h		70	60	69	70

a ABARE–BRS assumption. **b** Indonesia, Malaysia, the Philippines, Thailand and Vietnam. **c** Excludes Hong Kong. **d** Weighted using 2009 purchasing-power-parity (PPP) valuation of country GDPs by the IMF. **e** Commercial bank prime lending rates in the United States. **g** Large business weighted average variable rate on credit outstanding. **h** Base: May 1970 = 100.
s ABARE–BRS estimate.
Sources: ABARE–BRS; ABS; IMF; OECD; RBA.

US housing repossessions
monthly



US industrial production
monthly



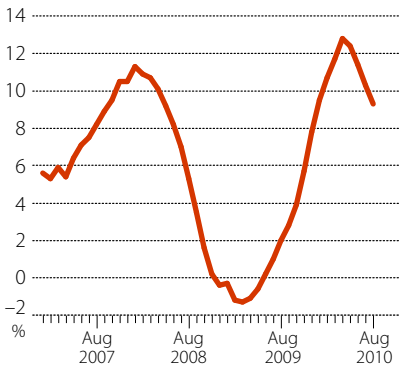
Despite the subdued outlook for consumer spending, the recovery in US manufacturing activity is continuing, with industrial production increasing year on year by 7.7 per cent in July 2010. Export performance has also been improving, with a year on year rise of 17.7 per cent in the first six months of 2010. This compares with a rise of 22.7 per cent for imports over the same period.

In preparing this set of commodity forecasts, economic growth in the United States is assumed to average 2 per cent in 2011, following assumed growth of 2.8 per cent in 2010.

China

Economic growth in China has moderated from the unsustainably high rate achieved in early 2010, with real gross domestic product expanding at a year on year rate of 10.3 per cent in the June quarter 2010, compared with growth of 11.9 per cent in the March quarter. Domestic demand, supported by significant fiscal stimulus, continues to be the major driver of economic activity.

Changes in house prices, China
monthly, 70 major cities



Consumer spending has grown relatively strongly in 2010, albeit at a slower rate than in 2009. Retail sales grew at a year on year rate of 18.4 per cent in August and 17.9 per cent in July 2010. Investment in fixed assets remains high, with a year on year increase of 24.8 per cent in the first eight months of 2010, compared with an average of 30.1 per cent in 2009.

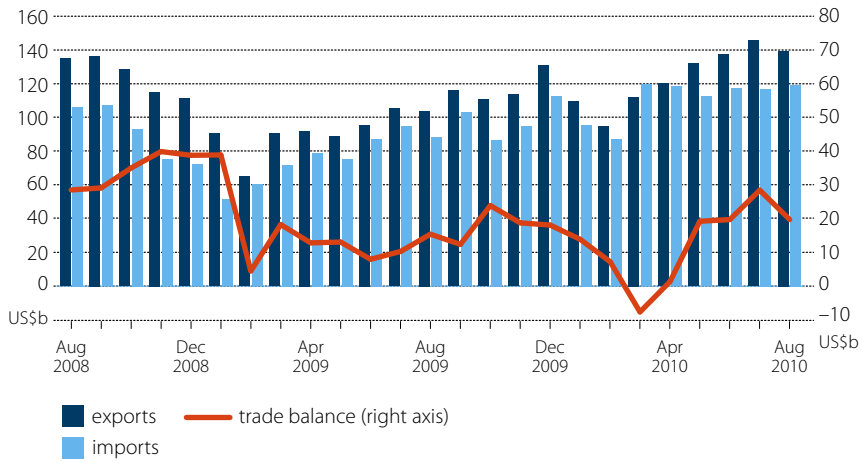
Indicators released recently suggest that measures introduced to ease upward pressure in asset markets may be working. Price increases for residential property in major cities slowed to a year on year rate of 9.3 per cent in August 2010, from a recent high of 12.8 per cent in April. Loans to finance new property fell year on year by 26 per cent in the first six months of the year. If the

Chinese Government maintains its policies to curb speculation in the property market, inflation in asset prices is likely to ease further.

Following a recent slowdown, as a result of the global financial crisis, China's trade performance has recovered, with the value of exports rebounding to pre-crisis levels. In July 2010, exports rose year on year by 34.4 per cent to US$139.3 billion, following an increase of 38.1 per cent in July. Looking forward, growth in exports could moderate, reflecting weaker demand growth from the OECD region and an expected slowdown of inventory rebuilding in major export markets.

In preparing this set of commodity forecasts, economic growth in China is assumed to remain strong. While the tightening measures implemented by the Chinese Government pose a downside risk to the current outlook, the probability of a significant slowdown in domestic demand remains low at this stage. Nevertheless, the withdrawal of government stimulus measures is expected to moderate economic growth for the remainder of 2010 and into 2011. Economic growth in China is assumed to be 9 per cent in 2011, following assumed growth of 10.3 per cent in 2010.

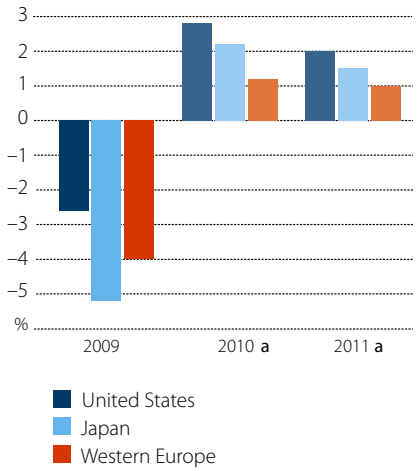
Recent trade indicators for China



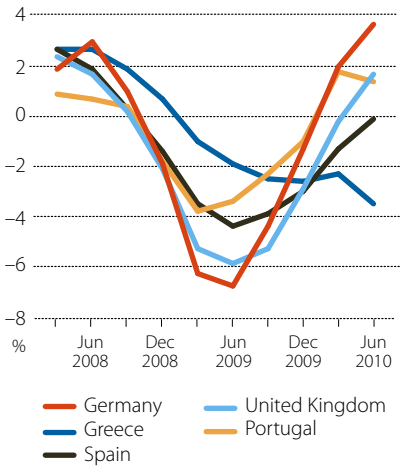
Japan and Western Europe

In Japan, export demand, particularly from China, has been the main driver of economic growth. Gross domestic product, in real terms, increased year on year by 2.4 per cent in the June quarter 2010, with a contribution of 1.8 percentage points from net exports. Despite the support from export demand, weakness in the labour market and subdued business confidence pose major downside risks to the economic outlook. The unemployment rate, seasonally adjusted, reached 5.2 per cent in July 2010 from a recent low of 4.9 per cent in February.

OECD economic growth



Quarterly GDP growth in selected euro area economies
2008–2010



A major uncertainty associated with the economic outlook for Japan is whether private sector demand will increase sufficiently in the short term to support general economic activity as the effects of government stimulus measures gradually subside. Any opportunity for further large stimulus spending appears limited, given a US$10 trillion public sector debt. The scope of a further monetary easing is also limited, with the official interest rate currently at a low of 0.1 per cent.

For 2011, economic growth in Japan is assumed to average 1.5 per cent. This compares with assumed economic growth of 2.2 per cent in 2010.

Economic activity in Western Europe was strengthening before the threat of a sovereign debt crisis in mid-2010. Real gross domestic product grew year on year by 1.9 per cent in the June quarter 2010, compared with an expansion of 0.8 per cent in the March quarter.

Nevertheless, the pace of recovery across the region varied considerably. Exporting economies, particularly Germany, benefitted from inventory restocking and a depreciation of the euro. In contrast, high unemployment continued to stifle activity in other regional economies, such as Spain and Portugal. Greece has remained in recession.

Looking forward, economic prospects appear brighter for larger regional economies, including Germany, France and the United Kingdom, despite the measures taken by various governments to reduce spending. However, the outlook remains relatively weak for other regional economies, including Greece, Spain and Italy. For Western Europe as a whole, economic growth is assumed to average 1 per cent in 2011, following assumed growth of 1.2 per cent in 2010.

Non-OECD Asia

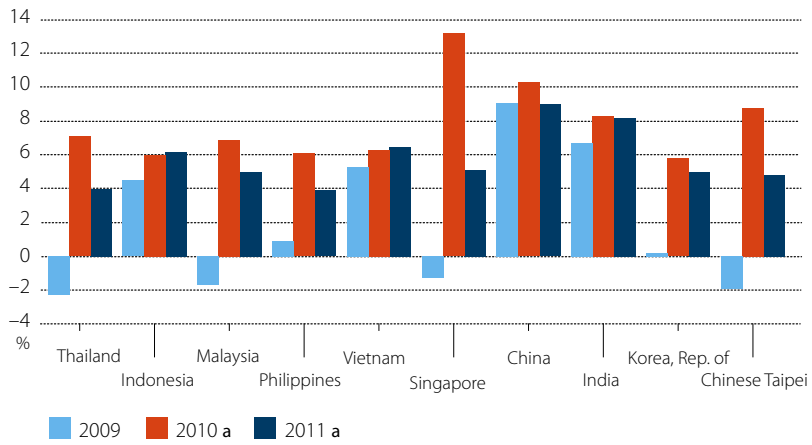
Economic performance in many countries in non-OECD Asia has accelerated in recent months. In Singapore, real gross domestic product expanded at a year on year rate of 18.8 per cent in the June quarter 2010, following growth of 16.9 per cent in the March quarter. In India and Indonesia, domestic demand continues to strengthen, with growth in general economic activity of 8.8 per cent and 6.2 per cent, respectively, in the June quarter 2010.

In the short term, governments in the region are expected to gradually adjust policy settings in order to avoid inflationary pressures. Domestic demand is expected to be a major source of economic growth, while export performance is likely to remain robust, under the assumption that strong import demand will continue in China.

Despite this positive regional outlook, an easing of economic growth in 2011 is assumed for some export-oriented regional economies, mainly in response to the weakening OECD outlook. In particular, economic growth in Chinese Taipei is assumed to average 4.8 per cent in 2011, compared with assumed growth of 8.8 per cent in 2010. In Malaysia, economic growth is assumed to be 5 per cent in 2011, compared with 6.9 per cent in 2010. In contrast, economic growth in India is assumed to remain strong at 8.3 per cent in 2010 and 8.2 per cent in 2011, mainly because of the importance of domestic demand to general economic activity.

For non-OECD Asia as a whole, economic growth is assumed to be 8 per cent in 2011, following assumed growth of 9.2 per cent in 2010.

Economic growth in Asia

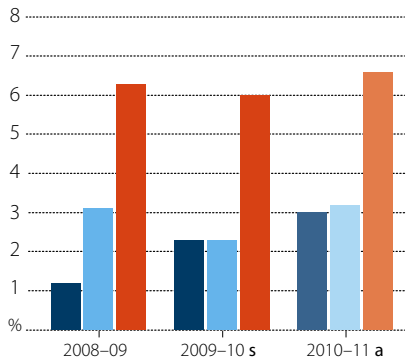


Economic prospects in Australia

In Australia, real gross domestic product, seasonally adjusted, rose by 3.3 per cent in the June quarter 2010, following growth of 2.6 per cent in the March quarter. For 2009–10 as a whole, the Australian economy expanded by 2.3 per cent.

Looking forward, growth in domestic demand is assumed to gradually strengthen, while export performance is expected to be strong. Business and consumer surveys released recently indicate improvements in confidence, while the unemployment rate remains low. Economic growth in Australia is assumed to average around 3 per cent in 2010–11.

Australian economic indicators



b Large business weighted average variable rate on credit outstanding.

Inflation

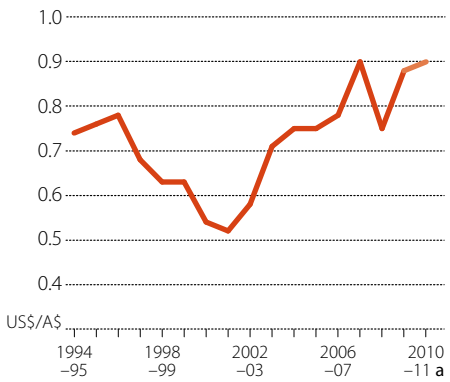
Inflationary pressures in Australia have increased modestly. The consumer price index rose year on year by 3.1 per cent in the June quarter 2010, following an increase of 2.9 per cent in the March quarter. Contributing most to the price rises in the June quarter were tobacco; hospital and medical services; automotive fuel; and rents and house purchases. Partially offsetting these rises were price falls for domestic holiday travel and accommodation; fruit; audio, visual and computing equipment; vegetables; and overseas holiday travel and accommodation.

Looking forward, inflationary pressures are expected to remain relatively moderate. The inflation rate is assumed to be around 3.2 per cent in 2010–11, compared with an average of 2.3 per cent in 2009–10.

Australian exchange rate

Following the onset of the European debt crisis, there has been increased volatility in the value of the Australian dollar, especially against the US dollar. The Australian dollar was trading around US94c in mid-September 2010, compared with a recent low of US82c in early June. The Australian dollar averaged around US88c in 2009–10.

Australian exchange rate



In addition to uncertainty associated with the effects of the European debt situation, the recent volatility in the Australian dollar also reflects financial market concerns about the ability of major OECD economies, especially the United States, to sustain economic recovery. Given the increased downside risks to world economic growth, there is a strong possibility that the Australian dollar will remain volatile, at least in the short term.

There could be considerable downward pressure for the Australian dollar in the near term, as economic growth in major OECD countries eases from the relatively high rates achieved in the first half of the year. However, as world economic recovery proceeds into 2011, as currently assumed, there could be renewed interest in the Australian dollar in the latter part of the outlook period,

especially if strong demand for mineral resources continues in China. Under the assumption that world economic growth in 2011 will ease only marginally from the assumed rate for 2010, the Australian dollar is expected to remain relatively strong on year average terms in 2010–11.

Taking the above into account, the Australian dollar is assumed to average around US90c and TWI 70 in 2010–11. Although the Australian dollar is assumed to average US90c for 2010–11 as a whole, significant volatility is likely to continue in the remainder of 2010–11, as discussed above. It is important for primary producers and exporters to manage the risks associated with fluctuations in the Australian exchange rate during the outlook period.

Outlook for Australia's commodity sector

Commodity export prices

The index of unit export returns for Australian commodities, in aggregate, is forecast to rise by 18.7 per cent in 2010–11, following an estimated decline of 20.1 per cent in 2009–10. The forecast increase in 2010–11 largely reflects the effects on prices of rising commodity demand, especially for energy and minerals.

For farm commodities, the index of unit export returns is forecast to increase by 5.3 per cent in 2010–11, following an estimated fall of 11.1 per cent in 2009–10. Forecast higher world indicator prices in 2010–11 for wheat, corn, cotton, beef, wool and dairy products are expected to more than offset forecast lower prices for rice, soybeans and sugar.

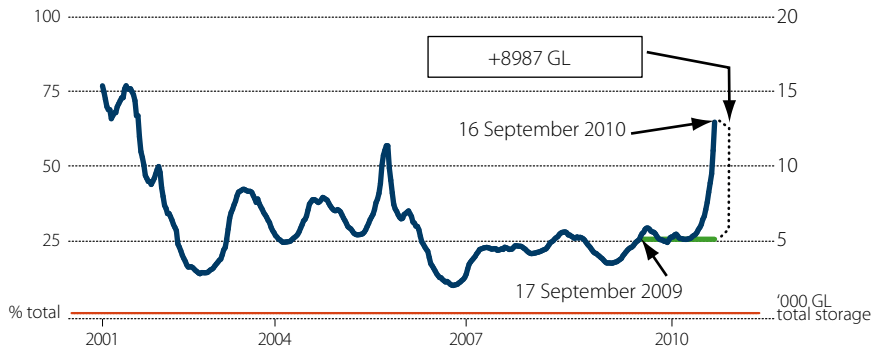
Unit export returns for Australian mineral resources are forecast to rise by 21.2 per cent in 2010–11, compared with an estimated fall of 21.7 per cent in 2009–10. Unit returns for energy exports are forecast to increase by 17.2 per cent in 2010–11, following an estimated decline of 34.8 per cent in 2009–10. Unit export returns for metals and other minerals are forecast to increase by 24.1 per cent in 2010–11, after falling by 8.2 per cent in 2009–10.

Commodity export earnings

Ideal growing conditions in eastern Australia over winter and early spring are forecast to significantly increase winter crop production in 2010–11, by 16 per cent to 40.7 million tonnes. Prospects for summer crop production have also improved significantly, with high soil moisture levels and rapidly rising water storage levels (also see the accompanying box). In the Murray–Darling Basin, water storage levels reached 65 per cent of capacity in mid-September, the highest level since January 2002. For agriculture as a whole, production is forecast to increase by 8.1 per cent in 2010–11, following a decline of 1.1 per cent in 2009–10.

Export earnings for farm commodities are forecast to be around $31.4 billion in 2010–11, an increase of 10 per cent from an estimated $28.5 billion in 2009–10. Agricultural commodities for which export earnings are forecast to be higher in 2010–11 include wheat, barley, oilseeds, rice, cotton, beef, lamb, mutton and dairy products.

Water storage in the Murray–Darling Basin
(New South Wales, Victoria and Queensland)



The green line indicates the storage level at the same time last year.
The orange line indicates the amount of 'dead' or unusable storage.

For forestry and fisheries products, export earnings are forecast to be around $3.7 billion in 2010–11, a 4.2 per cent increase from the value in 2009–10.

Export earnings from minerals and energy commodities are forecast to be around $179.9 billion in 2010–11, compared with $138.5 billion in 2009–10. For energy commodities, export earnings are forecast to increase by 28.2 per cent to $73.7 billion in 2010–11, being largely driven by higher negotiated contract prices for coal. For metals and other minerals, export earnings are forecast to rise by 31 per cent to $106.1 billion in 2010–11. Higher export shipments and prices for Australian iron ore are the main supporting factors.

The value of Australia's total commodity exports is forecast to be around $214.9 billion in 2010–11, an increase of 26 per cent from $170.6 billion in 2009–10.

Seasonal conditions and water availability

Emily Slatter

Rainfall

August and early September 2010 rainfall was generally average or above average across Australia, with the exception of south-west Western Australia, where there were widespread rainfall deficiencies.

The rainfall across most of Australia's eastern winter cropping region has improved soil moisture profiles in the upper soil layer, resulting in favourable production conditions. As a result, producers in the eastern states have retained their stock, which has limited supply of young cattle and light lambs to meet restocker and feeder demand.

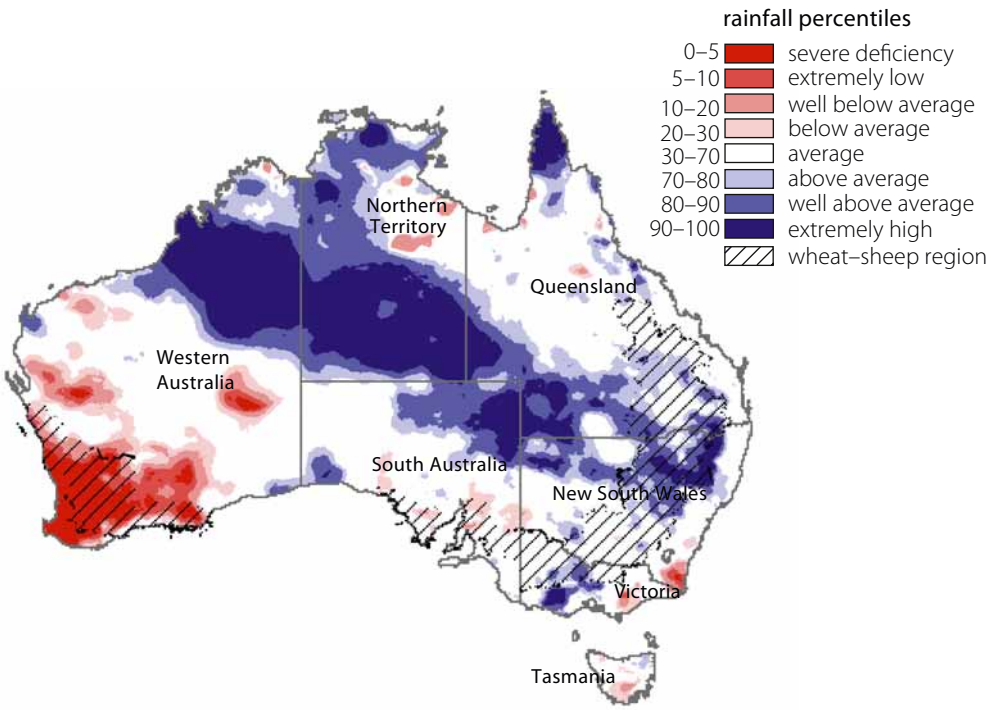
In south-west Western Australia, the lack of August rainfall has led to variable production conditions and winter crop prospects are less positive at this stage. Rain is needed to improve soil moisture in this area.

A La Niña event is now well established in the Pacific Ocean, with major models indicating that the event will persist until at least early 2011. La Niña conditions could result in above average rainfall over much of Australia. Wetter conditions, in combination with the forecast warmer temperatures, could benefit pasture and crop growth, as well as improve water storage levels in the Murray–Darling Basin (MDB).

continued...

Seasonal conditions and water availability continued

Australian rainfall percentiles: 1 June to 31 August 2010



Water storages

Regional water storage volumes in early September are summarised in the table. The snow melt in the upper parts of the Murray catchment is likely to keep storage levels rising for at least another month.

Regional water storage volumes

current at 16 September 2010

region	total capacity GL	current volume %	volume September 2009 %
Murray–Darling Basin (MDB) a	22 645	65	25
Snowy Scheme	5 744	30	29
Murray–Darling Basin Authority (MDBA)	9 352	61	17
Queensland MDB	185	96	46
Central Queensland	3 155	93	89
South-east Queensland	3 517	81	53
New South Wales MDB	13 937	55	24
Coastal New South Wales	1 073	80	77
Victoria MDB	8 538	56	26

a This category includes MDB water not managed by the MDBA.

continued...

Seasonal conditions and water availability continued

Water allocations

Water allocations are updated progressively throughout the season, in response to changes in water storage availability. Based on the continued rainfalls across much of the Victorian MDB, it is anticipated that allocations in those catchments that are not yet at 100 per cent will continue to increase.

Water allocations

early September 2010

	closing allocations 2009–10 (%)		allocations at 1 September 2010 (%)	
	high security [a]	general security	high security [a]	general security
NSW Murray Valley	97	27	97	8
NSW Murrumbidgee Valley	95	27	95	9
NSW Lower Darling	100	100	100	100
NSW Macquarie Valley	100	0	100	47
NSW Hunter Valley	100	100	100	100
NSW Lachlan Valley	10	0	30	15
NSW Border Rivers	100	4.4	100	37
NSW Peel Valley	100	100	100	80
Victoria Murray Valley	100	na	57	na
Victoria Goulburn	71	na	41	na
Victoria Campaspe	0	na	90	na
Victoria Loddon	3	na	41	na
Victoria Bullarook	19	na	100	na
Victoria Broken	17	na	100	na
SA Murray Valley	62	na	41	na

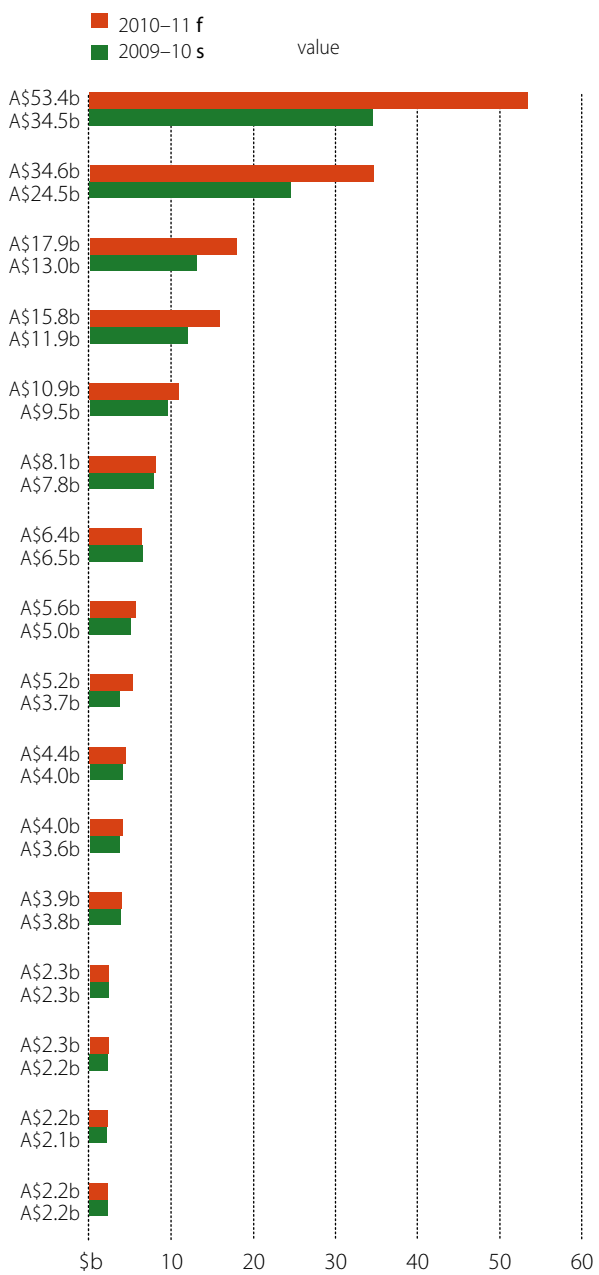
a In Victoria this type of entitlement is referred to as high reliability. **na** Not applicable.

Water trading

Because of the high rainfall and high water allocations currently being experienced across eastern Australia, the volume of water trades is down significantly on historical trends. Water prices are also down, with the maximum price in the week of 8 September 2010 being $178 per million litres in the Goulburn 1A Trading Zone. This compares with a median price of $401 per million litres in the same period in 2009.

Major Australian commodity exports

LNG, alumina, wine, wool, beef and veal and dairy are unit export returns or domestic prices in $A. All other commodities are world indicator prices in US$. For export value, annual forecasts are the sum of quarterly forecasts. As a result, annual export values do not necessarily reflect variations in export volumes, world prices and exchange rates. Iron ore, metallurgical coal and thermal coal prices are for the Japanese Fiscal Year running April 2010 to March 2011.



	volume	2010–11 world price	value
Iron ore and pellets	▲ 6%	▲ 114%	▲ 55%
Metallurgical coal	▲ 6%	▲ 63%	▲ 41%
Gold	▲ 18%	▲ 14%	▲ 38%
Thermal coal	▲ 19%	▲ 39%	▲ 33%
Crude oil	▲ 9%	▲ 3%	▲ 15%
LNG	▲ 6%	▼ -2%	▲ 4%
Copper	▲ 1%	▲ 11%	▼ -2%
Alumina	● 0%	▲ 13%	▲ 12%
Wheat	▲ 33%	▲ 20%	▲ 41%
Beef and veal	▲ 1%	▲ 5%	▲ 10%
Nickel	▲ 6%	▲ 1%	▲ 12%
Aluminium	▲ 1%	▲ 6%	▲ 2%
Wool	● 0%	▲ 2%	▲ 2%
Wine	▲ 4%	▲ 1%	▲ 5%
Dairy	▲ 2%	▲ 6%	▲ 8%
Zinc	▲ 4%	▼ -6%	▼ -1%

Major indicators of Australia's commodity sector

		2005–06	2006–07	2007–08	2008–09	2009–10 s	2010–11 f	change from previous year 2009–10 %	change from previous year 2010–11 %
Commodity exports									
Exchange rate	US$/A$	0.75	0.78	0.90	0.75	0.88	0.90	*17.3*	*2.3*
Unit returns b									
Farm	index	100.0	105.4	117.0	117.6	104.6	110.1	*– 11.1*	*5.3*
Mineral resources	index	100.0	110.0	115.0	155.6	121.9	147.7	*– 21.7*	*21.2*
– energy minerals	index	100.0	91.4	104.4	176.3	114.9	134.7	*– 34.8*	*17.2*
– metals and other minerals	index	100.0	125.5	123.8	139.4	128.0	158.9	*– 8.2*	*24.1*
Total commodities	index	100.0	109.0	115.0	148.6	118.7	140.9	*– 20.1*	*18.7*
Value of exports									
Farm	A$m	27 824	27 900	27 530	32 052	28 537	31 403	*– 11.0*	*10.0*
– crops	A$m	13 996	13 086	13 027	16 886	15 134	17 250	*– 10.4*	*14.0*
– livestock	A$m	13 828	14 815	14 503	15 166	13 404	14 153	*– 11.6*	*5.6*
Forest and fisheries products	A$m	3 687	3 849	3 813	3 872	3 525	3 672	*– 9.0*	*4.2*
Mineral resources	A$m	92 616	107 976	117 635	161 758	138 509	179 857	*– 14.4*	*29.9*
– energy minerals	A$m	39 328	39 427	45 591	77 892	57 512	73 717	*– 26.2*	*28.2*
– metals and other minerals	A$m	53 288	68 549	72 043	83 865	80 997	106 141	*– 3.4*	*31.0*
Total commodities	A$m	124 127	139 725	148 978	197 682	170 572	214 932	*– 13.7*	*26.0*
Farm sector									
Gross value of farm production c	A$m	38 676	36 652	43 708	41 984	40 982	45 995	*– 2.4*	*12.2*
– crops	A$m	20 881	18 400	24 194	22 709	21 875	26 183	*– 3.7*	*19.7*
– livestock	A$m	17 796	18 252	19 514	19 275	19 107	19 813	*– 0.9*	*3.7*
Farm costs	A$m	31 339	31 443	37 137	36 409	34 798	37 625	*– 4.4*	*8.1*
Net cash income d	A$m	11 226	10 356	10 790	6 142	10 978	13 320	*78.7*	*21.3*
Net value of farm production e	A$m	7 337	5 209	6 571	5 575	6 184	8 370	*10.9*	*35.4*
Farmers' terms of trade	index	91.3	95.6	91.4	88.3	91.5	90.9	*3.6*	*– 0.7*
Volume of farm production	index	110.9	95.0	104.3	108.6	107.4	116.1	*– 1.1*	*8.1*
– crops	index	118.7	84.5	104.5	113.9	114.5	132.6	*0.5*	*15.8*
– livestock	index	102.4	105.2	102.5	101.3	98.4	98.6	*– 2.9*	*0.2*
Crop area and livestock numbers									
Crop area (grains and oilseeds)	'000 ha	22 333	21 187	23 237	24 084	23 126	23 330	*– 4.0*	*0.9*
Sheep	million	91.0	85.7	76.9	72.7	69.9	68.8	*– 3.9*	*– 1.6*
Cattle	million	28.4	28.0	27.3	27.9	28.2	28.4	*1.1*	*0.7*
Minerals and energy sector									
Volume of mine production	index	118.0	121.3	120.7	121.3	124.3	139.1	*2.5*	*11.9*
– energy	index	111.6	118.8	116.7	122.5	124.6	141.7	*1.7*	*13.7*
– metals and other minerals	index	124.2	124.2	124.7	119.9	123.9	136.3	*3.3*	*10.0*
Gross value of mine production	A$m	88 912	103 657	112 929	155 288	132 969	172 663	*– 14.4*	*29.9*
New capital expenditure g	A$m	19 659	23 621	29 201	37 977	34 756	na	*– 8.5*	*na*
Exploration expenditure	A$m	2 503	3 940	5 496	6 034	5 727	na	*– 5.1*	*na*
– energy	A$m	1 484	2 533	3 501	4 293	3 984	na	*– 7.2*	*na*
– metals and other minerals	A$m	1 018	1 407	1 995	1 741	1 742	na	*0.1*	*na*
Employment									
Agriculture, forestry and fishing	'000	348	350	353	358	363	na	*1.5*	*na*
Mining	'000	129	135	145	167	170	na	*1.9*	*na*
Australia	'000	10 088	10 374	10 644	10 767	10 890	na	*1.1*	*na*

b Base: 2005–06 = 100. **c** For a definition of the gross value of farm production see table 19. **d** Gross value of farm production less increase in assets held by marketing authorities and less total cash costs. **e** Gross value of farm production less total farm costs. **g** Mining industry (ANZSIC subdivision B) only. **s** ABARE–BRS estimate. **f** ABARE–BRS forecast. **na** Not available.

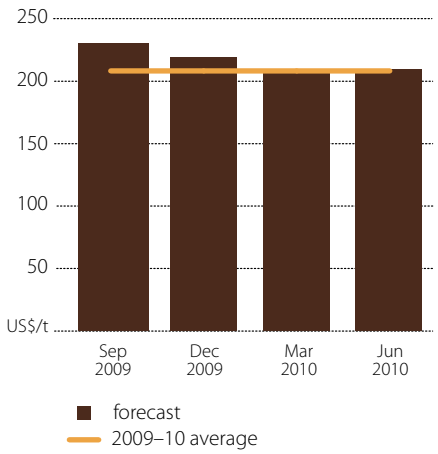
Note: ABARE revised the method for calculating farm price and production indexes in October 1999. The indexes for the different groups of commodities are calculated on a chain weight basis using Fishers' ideal index with a reference year of 1997–98 = 100.

Sources: ABARE–BRS; Australian Bureau of Statistics.

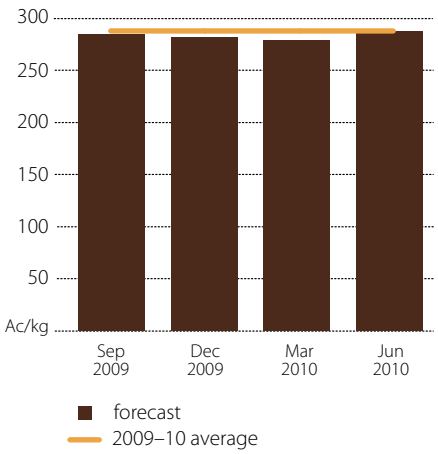
Understanding the nature of ABARE–BRS's commodity forecasts

ABARE–BRS presents its forecasts of production, consumption, prices and exports of specific commodities as point forecasts. These point forecasts are based on an economic assessment of data and information from a variety of sources available at the time the forecasts are made, supported by discussions with industry experts, the use of quantitative analytical tools, and professional judgment. The nature of forecasts made by ABARE–BRS is such that actual outcomes can sometimes differ significantly from the initial point forecasts. Some examples are in figures a1 to a5.

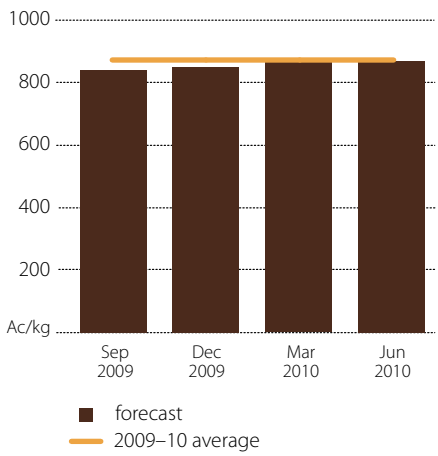
a1 Wheat (world price)



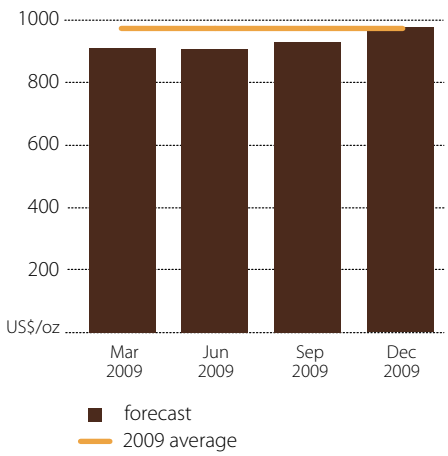
a2 Beef (saleyard price)



a3 Wool (EMI)



a4 Gold (world price)

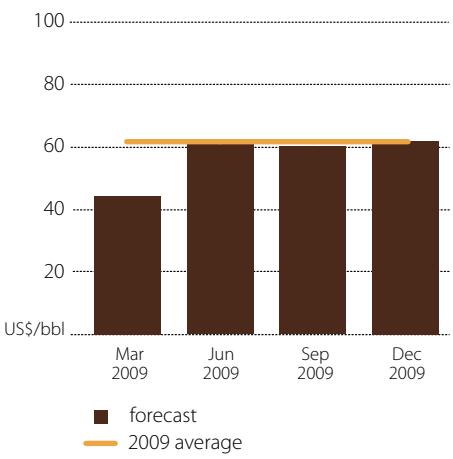


Note: The bars indicate ABARE–BRS's forecasts made in the corresponding quarter during the financial year 2009–10 or the calendar year 2009, while the line shows the actual average price for that commodity in the associated financial or calendar year.

continued...

Understanding the nature of ABARE–BRS's commodity forecasts continued

a5 WTI oil price



A key reason for the differences between forecasts and actual outcomes is that ABARE–BRS is often required to make assumptions about factors that have the potential to affect actual outcomes. As more information becomes available over time, earlier assumptions are updated and forecasts are revised. ABARE–BRS forecasts are therefore conditional on the information available at the time they were made.

Differences between forecasts and actual outcomes also reflect the effects of factors that are 'unforeseeable'. These can include unanticipated policy changes, unpredictable macroeconomic developments, changing climatic or seasonal conditions (especially for agricultural commodities) and unplanned production or supply disruptions (particularly for energy and minerals commodities).

Using the world indicator price for crude oil (West Texas Intermediate) as an example, ABARE–BRS's forecast for 2009 was significantly influenced by the perceived and actual speed of world economic recovery following the onset of the global financial crisis.

As a result of the global financial crisis, world oil prices declined sharply from a high of around US$150 a barrel in mid-2008 to a low of US$37 a barrel in early February 2009. At that time, the assessment of world economic outlook from major international agencies was very pessimistic. Against this backdrop ABARE–BRS, in its March 2009 issue of *Australian commodities* (see figure a5), forecast a gradual rise in world oil prices over the course of 2009, with an overall average price for the year of US$44 a barrel.

In response to substantial fiscal and monetary stimuli implemented by major world economies, signs of world economic improvement began to emerge around mid-2009, significantly earlier than previously expected. Taking into account this development, ABARE–BRS re-assessed the outlook for oil prices and markedly revised upward its short-term forecasts in the June 2009 issue of *Australian commodities* (figure a5). In following issues the forecast remained relatively unchanged.

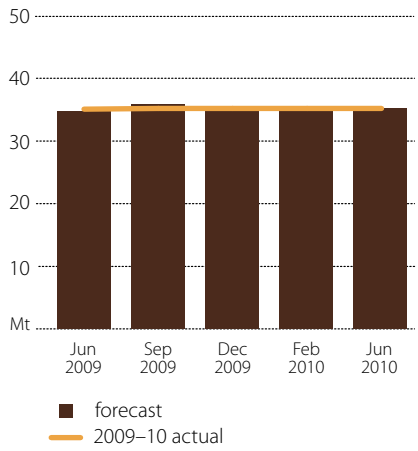
For agricultural commodities, unforeseen changes in seasonal conditions over the forecast period present a major risk in forecasting production, and hence prices. For example, in forecasting the major non-irrigated crops in Australia, ABARE–BRS takes into account information on the seasonal outlook released by the Australian Government Bureau of Meteorology and yield forecasts provided by the Agricultural Production Systems Research Unit of the Queensland Department of Employment, Economic Development and Innovation. Any variation in these outlooks/forecasts from the actual outcomes will affect ABARE–BRS's assessment of variables ranging from commodity production to prices. Forecasts and actual outcome for 2009–10 winter crop production are in figure b.

Exchange rate movements can also have a significant effect on the actual outcomes of commodity prices and export earnings. Because most commodity prices are denominated in US dollars on world markets, a significant decline or increase in the value of the US dollar against other floating international currencies (including the Australian dollar) can markedly influence movements in

continued...

Understanding the nature of ABARE–BRS's commodity forecasts continued

b Forecasts and actual outcome of winter crop production



world agricultural, minerals and energy prices (see Penm et al. 2002). Movement in the Australian dollar against the US dollar is also an important factor. A significant appreciation of the Australian dollar against the US dollar has the potential to markedly reduce earnings for commodity exporters and producers.

There is considerable uncertainty surrounding any exchange rate outlook. This is because exchange rate movements can be significantly affected by changes in financial market sentiment, leading to strong volatility. For example, after appreciating significantly, from a low of US63c in early March 2009 to a high of US94c in mid-April 2010, the Australian dollar declined sharply to US82c in early June 2010, before recovering partially to around US93c in mid-September 2010.

The occurrence and effect of events such as extreme seasonal conditions, political upheavals, supply disruptions and sharp exchange rate fluctuations cannot be predicted and incorporated into commodity forecasts before the event. While ABARE–BRS forecasts attempt to balance a range of upside and downside risks, some of the key judgments relating to forecasts will inevitably be different from the actual outcomes.

Despite being largely unpredictable, information about the potential risks to the point forecasts that some of these factors pose will be useful for decision-makers in the commodity sector. For this reason, ABARE–BRS incorporates discussions on the risk factors in the associated notes presented in *Australian commodities*. Decision-makers are encouraged to read the notes in full in order to gain a comprehensive understanding of the context of ABARE–BRS's commodity forecasts.

References

Penm, J, Maurer, A, Fairhead, L and Tran Qt 2002, 'US dollar – impacts of a depreciation of the US$ on Australian commodities', *Australian commodities*, vol. 9, no. 3, pp. 485–94, ABARE, Canberra.

Crops

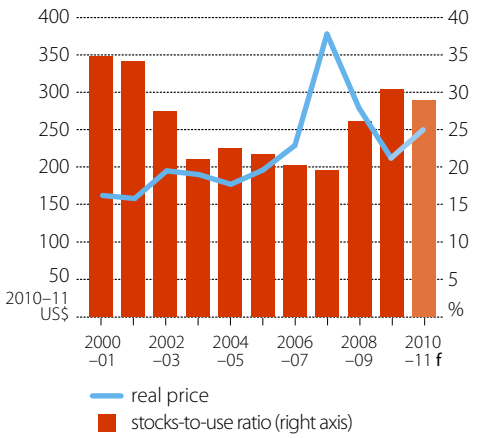
Wheat

James Fell

The world wheat indicator price (US hard red winter, fob Gulf) is forecast to increase by 20 per cent in 2010–11 to average US$250 a tonne. This forecast increase mainly reflects an anticipated decline in world stocks as consumption is expected to exceed production for the first time since 2007–08.

Following a gradual decline in the first half of 2010, the world wheat indicator price rose from a recent low of US$176 a tonne in late June to a high of US$314 a tonne in mid-September. The sharp increase in world wheat prices was in response to expectations of lower world wheat supplies as a result of adverse seasonal conditions in major producing countries in the northern hemisphere, including the Russian Federation, Ukraine and Canada. Notwithstanding the recent significant price rise, world wheat production in 2010–11 is still forecast to be the third highest on record, with closing stocks remaining the second highest since 2001–02. Reflecting this forecast supply situation, the world indicator price is expected to ease gradually. There could be more downward pressure on world prices in the latter part of the outlook period, especially when information about the harvest of the southern hemisphere wheat crop and about actual plantings in the northern hemisphere for next season becomes available.

Stocks-to-use ratio and price



However, upside risks also exist for prices to average markedly higher than currently forecast. In eastern Australia, significant locust egg laying occurred in autumn. Widespread hatching is expected, with considerable uncertainty associated with the effect on production at this stage. In Argentina, production could also be lower than currently forecast if the dry conditions in some major producing provinces in late August continue into the growing period of September and October before the November–January harvest. In addition, Russian winter wheat is currently being planted. Current dry conditions have the potential to adversely affect growers' planting intentions and lead to relatively low production for the next season, placing upward pressure on world prices.

World wheat production to fall

World wheat production is forecast to decline by around 4 per cent in 2010–11 to 648 million tonnes, but will still be the third highest on record. Wheat production in most major producing regions is forecast to fall after producers planted lower areas to wheat in response to weaker

world wheat prices at planting time. In addition, adverse seasonal conditions in key northern hemisphere growing regions are expected to lead to lower production.

Wheat production in the Black Sea region is forecast to fall markedly in 2010–11. Production in the Russian Federation is forecast to fall by 34 per cent to 41 million tonnes as a result of dry and hot weather that significantly reduced yields. Parts of Kazakhstan also experienced dry conditions and production is forecast to fall by around 35 per cent to 11 million tonnes. Some areas of Ukraine received above average rainfall, but parts of eastern Ukraine were dry and production from the July–August harvest is estimated to be around 14 per cent lower than 2009–10 at around 18 million tonnes.

In the European Union, wheat production is forecast to be around 138 million tonnes in 2010–11, largely unchanged from the previous year. The European Commission's Joint Research Centre has forecast average wheat yields to be around 5.3 tonnes a hectare, around 2 per cent lower than in 2009–10. Wheat in south-eastern EU states suffered from heavy rains, while wheat in Germany and Poland suffered from dry conditions.

Total spring and winter wheat area in Canada is estimated to have been around 8.5 million hectares and production is forecast to be around 23 million tonnes in 2010–11, down from 27 million tonnes in 2009–10. Inclement weather in western Canada at planting time resulted in many growers failing to complete their spring wheat sowing programs, limiting the spring planted area to around 7.9 million hectares.

In contrast to most other growing regions, wheat production in the United States is forecast to increase by 3 per cent in 2010–11 to 62 million tonnes. In early September the United States Department of Agriculture reported that the harvest of winter wheat was largely complete. Additionally, the harvest of 6.7 million hectares of spring wheat (including durum) was around 76 per cent complete.

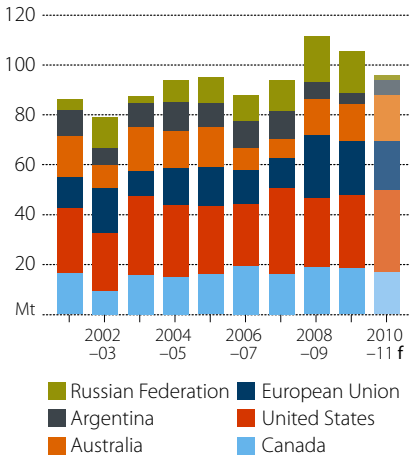
Production in Argentina is forecast to be around 12 million tonnes in 2010–11, despite dry conditions experienced in some producing regions in August. This compares with production of 8 million tonnes in 2009–10.

Consumption to exceed production

World wheat consumption is forecast to increase by 1 per cent in 2010–11 to around 655 million tonnes. This increase is driven by human consumption, which is forecast to increase by 1 per cent to around 457 million tonnes, largely reflecting world population growth. Feed use is forecast to fall by 1 per cent to 107 million tonnes in response to higher wheat prices. The use of wheat in ethanol production is expected to increase.

The use of feed wheat is forecast to fall in East Asia and the European Union, with ample supplies of alternative feed grains allowing substitution away from wheat. However, feed use in the Russian Federation, the world's second biggest feed wheat consumer, is forecast to increase slightly to around 16 million tonnes as supplies of alternative feed grains are constrained. A small decrease in feed wheat consumption by the cattle industry is expected to be more than offset by an increase in use by the expanding pig industry.

Export volume from major exporters



Trade to fall

World trade of wheat is forecast to fall by 7 per cent in 2010–11 to 118 million tonnes. This largely reflects lower exports from countries in the Black Sea region. Exports from the Russian Federation are forecast to fall by 89 per cent to 2 million tonnes because of lower production and a ban on grain exports from 15 August. Lower production is also forecast to reduce exports from Ukraine and Kazakhstan by 32 per cent and 26 per cent, respectively, to around 6 million tonnes each.

In contrast to the Black Sea countries, Australia, the United States and Argentina are forecast to increase exports in 2010–11. Australia is forecast to increase exports by 33 per cent to 18 million tonnes. US exports are forecast to increase by 38 per cent to 33 million tonnes, with forecast increased production and high opening stocks. Argentina is forecast to export around 6 million tonnes in 2010–11, up from 5 million tonnes in 2009–10.

The biggest falls in imports in 2010–11 are forecast to occur in the Middle East and East Asia, where higher wheat prices, especially relative to rice, are expected to result in lower consumption. Additionally, domestic production in Iran was higher than its domestic consumption requirements. Imports are forecast to fall by 6 million tonnes to 16 million tonnes in the Middle East and by 3 million tonnes to 24 million tonnes in East Asia.

Stocks to remain high

World wheat closing stocks are forecast to fall by 4 per cent in 2010–11 to 190 million tonnes. The stocks-to-use ratio is forecast to fall to around 29 per cent, which is the second highest since 2001–02.

The forecast fall in stocks is largely the result of the United States, Canada, the European Union and Australia drawing down stocks for exports in response to higher world prices. Stocks in the Russian Federation are also forecast to fall, as consumption is forecast to exceed production. In contrast, stocks in Argentina are forecast to increase, mainly as a result of higher domestic production and the government's restrictive export policy.

Australia

In light of ideal seasonal conditions across the eastern Australian wheat belt, Australian wheat production is forecast to increase by 16 per cent in 2010–11 to 25.1 million tonnes.

Wheat growers in eastern Australia have experienced the best seasonal conditions in many years, as a result of average to well above average rainfall in July and August, followed by

widespread rainfall in early September. In contrast, most of the wheat belt in Western Australia received below average rainfall during winter. Forecast lower wheat production in Western Australia is expected to be more than offset by an increase in production in eastern states, particularity in New South Wales.

In its latest release (on 24 August 2010) for the period September to November, the Bureau of Meteorology indicates the outlook is neutral for most of the country, with the odds favouring neither wetter nor drier conditions. In south-west Western Australia there is a chance of exceeding median rainfall of between 60 and 65 per cent.

Damage from locusts, mice and stripe rust pose downside risks to the forecast increase in production in the eastern states. Locust activity is present every year, but reports of a high incidence of egg laying in autumn have raised the prospects of above average locust numbers in spring. Although locust outbreaks can seriously damage crops for some producers, the effect on aggregate wheat production in the past has tended to be small.

There were reports of early season damage to crops from mice in a number of areas, but recent rainfall is expected to have helped reduce mice populations in most of these areas. The wet conditions have increased the risk of fungal diseases, such as stripe rust, and growers in affected regions will need to undertake additional spraying to minimise any yield reductions.

On the upside, the continuation of good rainfall in the eastern states and/or improved conditions in Western Australia could lead to higher than expected yields.

The average return in mid-September for the 2010–11 Australian premium white wheat pool (APW10) was around $319 a tonne, representing a 30 per cent increase on 2009–10. This reflects, in large part, the effect of higher world wheat prices.

Australian wheat and wheat flour export volumes are forecast to increase by 33 per cent in 2010–11 to 18.2 million tonnes, and the value of exports is forecast to increase by 41 per cent to $5.2 billion. This reflects the higher production forecast for wheat along with the forecast recovery in world prices in 2010–11.

Wheat outlook

		2008–09	2009–10 s	2010–11 f	% change
World					
Production	Mt	686	677	648	*– 4.2*
– China	Mt	113	115	114	*– 1.0*
– European Union 27	Mt	151	138	138	*– 0.3*
– India	Mt	79	81	81	*0.5*
– Russian Federation	Mt	64	62	41	*– 33.5*
– United States	Mt	68	60	62	*2.8*
Consumption	Mt	639	647	655	*1.2*
– human	Mt	447	452	457	*1.2*
– feed	Mt	106	108	107	*– 0.8*
Closing stocks	Mt	168	197	190	*– 3.6*
Trade	Mt	136	127	118	*– 7.1*
Exports					
– Argentina	Mt	7	5	6	*22.2*
– Australia	Mt	13	14	18	*32.6*
– Canada	Mt	18	18	16	*– 10.1*
– European Union 27	Mt	25	19	23	*20.3*
– Russian Federation	Mt	18	19	2	*– 89.3*
– United States	Mt	27	24	33	*40.4*
Price	US$/t	271	209	250	*19.6*
Australia					
Area	'000 ha	13 530	13 788	13 374	*– 3.0*
Production	kt	21 420	21 656	25 099	*15.9*
Exports **a**	kt	13 410	13 705	18 168	*32.6*
– value	A$m	5 028	3 688	5 216	*41.4*
APW 10 net pool return **b**	A$/t	324	246	319	*29.7*

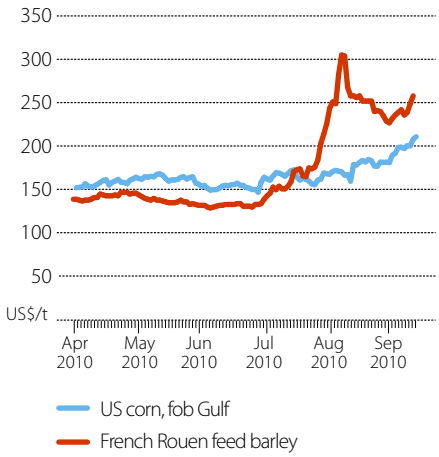
a July–June years. **b** Australian premium white wheat, 10 per cent protein. From 2008–09, the pool return is an estimated average across the major companies offering grain pools.
Sources: Australian Bureau of Statistics; International Grains Council; ABARE–BRS; US Department of Agriculture.

Coarse grains

Henry To

The world indicator price for coarse grains (US Corn, fob Gulf) is forecast to increase by 12 per cent in 2010–11 to US$180 a tonne, after averaging US$161 a tonne in 2009–10. World consumption is expected to reach a new record in 2010–11, while production is expected to grow at a relatively slower rate.

World coarse grains prices
daily, ended 13 September 2010



Following increases in world coarse grains prices, the Australian feed barley price is forecast to increase by 25 per cent in 2010–11 to $238 a tonne. This compares with $190 a tonne for 2009–10. The malting barley price is forecast to increase by 17 per cent to $280 a tonne.

Higher coarse grains production in sight

World coarse grains production in 2010–11 is forecast to be the highest on record at around 1.1 billion tonnes. World corn production is forecast to rise to a record 828 million tonnes, 3 per cent higher than last season. This is driven by forecast higher production in the United States and China. Partially offsetting this is a forecast decline in world barley production owing to adverse seasonal conditions in major producing regions in the northern hemisphere.

The United States is forecast to produce a record 336 million tonnes of corn in 2010–11, rising 1 per cent from 333 million tonnes last season, reflecting ideal growing conditions in the Midwest. According to the latest United States Department of Agriculture (USDA) Crop Progress report, around 70 per cent of the corn crop is rated as either 'good' or 'excellent'.

Corn production in China is forecast to increase by 7 per cent in 2010–11 to 166 million tonnes as yields recover from last season's drought. The drought reduced production by 7 per cent to 155 million tonnes in 2009–10. In mid-August 2010, flooding occurred in the Yellow River basin, but at this stage the extent of damages to crops remains uncertain.

The area planted to corn in Latin America is forecast to decline in 2010–11 as a result of more favourable returns to oilseeds than corn. Brazil is the largest producer of corn in Latin America and its corn plantings are forecast to be 4 per cent lower at around 13 million hectares in 2010–11. Production is forecast to be around 51 million tonnes, assuming yields are slightly below the record of last season.

World barley production is forecast to decline by 15 per cent in 2010–11 to 126 million tonnes, the lowest since 1971–72.

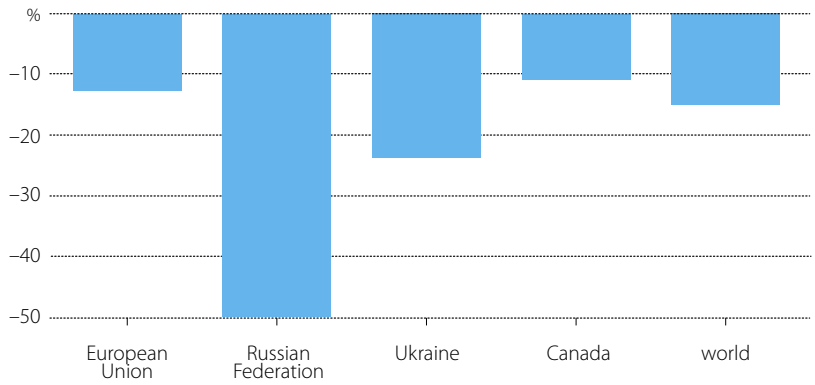
In the Russian Federation, barley production is forecast to be around 9 million tonnes in 2010–11, 50 per cent lower than the 18 million tonnes produced last season. Severe drought in the major producing regions has reduced yield potential and the area planted to spring barley.

In neighbouring Ukraine, barley production is forecast to decline by 24 per cent in 2010–11 to 9 million tonnes. Dry conditions have affected production prospects.

In Canada, cold and wet planting conditions during May and June restricted the area planted to barley in the Prairies. The area planted is estimated to have been around 2.6 million hectares, around 13 per cent lower than last season. The cold weather has reportedly also slowed crop development. As a result, yield potential is expected to be lower than the past seasons and production is forecast to be around 11 per cent lower at 8.5 million tonnes, the lowest since 2002–03.

Barley production in the European Union is forecast to decline by 13 per cent in 2010–11 to 54 million tonnes. The European Union experienced adverse seasonal conditions in the first half of 2010, with flooding in parts of eastern Europe and dry and warmer conditions in northern and western Europe. The dry conditions have affected the major barley producers of France, Germany and Spain.

Change in barley production in major exporting countries in 2010–11



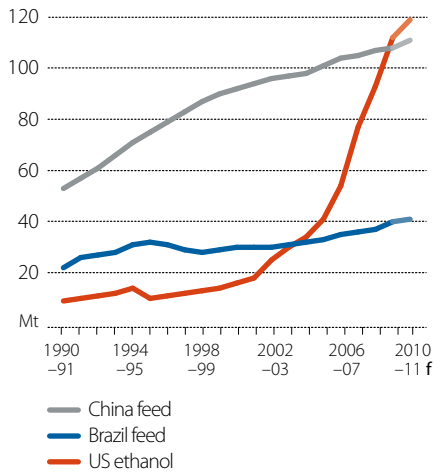
Growth in consumption continues unabated

Global coarse grains consumption is forecast to rise to a record of 1.1 billion tonnes in 2010–11, 2 per cent higher than last season. Global industrial use is again expected to lead the growth in consumption, offsetting a decline in global feed use.

Ethanol production in the United States is mandated to increase further in 2010–11 under the Energy Independence and Security Act 2007. In the 2010 calendar year, around 49 billion litres is mandated to be produced, of which a maximum of 45 billion litres may be produced from corn. In 2011, the total mandated production and the maximum that may be produced from corn will rise to 53 billion litres and 48 billion litres, respectively.

Given the mandate, the amount of corn used for ethanol production in the United States is forecast to rise by 7 per cent in 2010–11 to 119 million tonnes. This expected growth rate is well below the 20 per cent achieved over the previous two years. This slowing in the growth

Corn consumption in key markets



rate will continue as corn-based ethanol production approaches its mandated limit of 57 billion litres, which is expected by 2015.

Global feed grain demand is forecast to fall in 2010–11, driven by reduced consumption in the United States and the European Union.

Feed consumption of corn in the United States is forecast to decline by around 3 million tonnes in 2010–11 to 133 million tonnes. Beef cattle are the largest consumers of feed corn in the United States and the US herd is at its smallest since 1949. According to the USDA, the size of the beef cattle herd is unlikely to increase before 2013.

In the European Union, the world's largest consumer of feed barley, consumption is forecast to decline by 1 per cent in 2010–11 to 43 million tonnes. EU livestock numbers are forecast to decline and reduce demand for feed grain in 2010–11. More importantly, feed barley prices have risen in response to adverse seasonal conditions in continental Europe and the nearby Black Sea region, leading to a substitution for barley in feed rations.

In contrast, feed grain consumption in East Asia and Latin America is expected to increase in 2010–11. Corn consumption in China is forecast to grow by 3 per cent to 111 million tonnes and the growing livestock industry in Brazil is forecast to increase its consumption of feed corn by 5 per cent to 41 million tonnes. Rising incomes and a greater variation in diets have led to an increase in meat consumption in these regions.

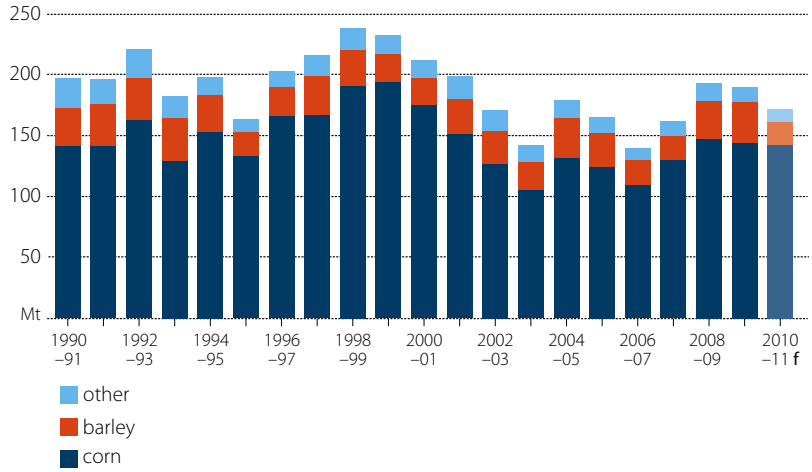
Barley drives lower closing stocks

Closing stocks of world coarse grains are forecast to decline by 10 per cent in 2010–11 to 172 million tonnes, driven by lower barley stocks. Nevertheless, closing stocks would still be higher than in 2006–07 and 2007–08, despite the forecast fall.

World corn stocks are forecast to fall by 1 per cent in 2010–11 to be around 142 million tonnes. Higher ethanol use in the United States is forecast to result in corn stocks in that country declining by 5 million tonnes to 43 million tonnes. Also, greater feed use in Brazil is forecast to result in stocks in that country falling by a similar amount, to 9.3 million tonnes in 2010–11. These declines will be offset by forecast higher production in China, which is expected to increase stocks by 7 million tonnes to around 56 million tonnes.

World barley stocks at the beginning of the current season were at their highest since 1993–94. Adverse growing conditions in major producing regions are forecast to result in a decline in world barley stocks to 19 million tonnes in 2010–11, around 44 per cent lower than last season and the lowest since 1983–84.

World closing stocks



Higher corn trade to lead world coarse grains exports

World coarse grains trade is forecast to rise by 5 per cent in 2010–11 to 116 million tonnes. Higher corn exports are expected to more than offset a forecast decline in world barley trade. Global corn exports are forecast to rise by 7 per cent to 92 million tonnes in 2010–11. This will be driven by higher exportable supplies from the United States. In contrast, world barley trade is forecast to decline by 1 per cent to 16 million tonnes.

Lower barley exports are expected from the Russian Federation, Ukraine and Canada in 2010–11. On 15 August, the Russian Federation implemented a ban on the export of grain and grain products. The Russian Federation was the world's third largest exporter of barley in 2009–10, behind Ukraine and Australia. Adverse seasonal conditions have also affected production in Ukraine and exports are forecast to fall by 33 per cent in 2010–11 to around 4 million tonnes. Barley exports from Canada are forecast to fall by 7 per cent to 1.4 million tonnes, as a result of the reduced plantings and forecast lower production.

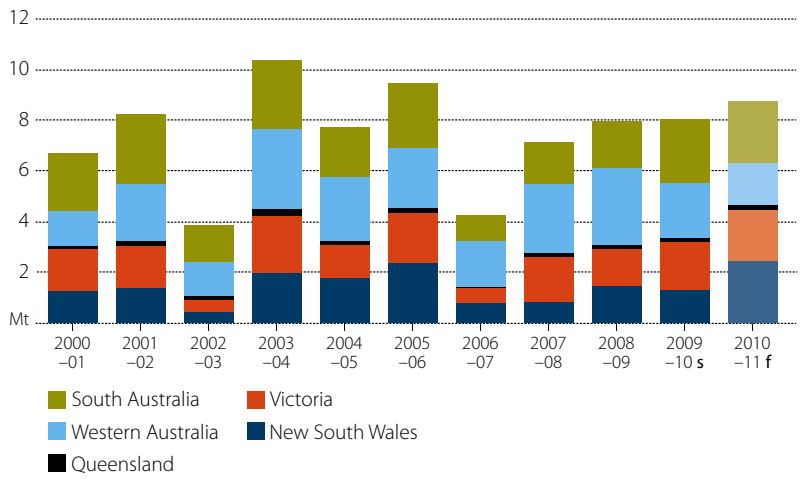
Australian production to rise

Coarse grains production in Australia is forecast to increase by 15 per cent in 2010–11 to around 13 million tonnes. Ideal seasonal conditions over winter and early spring in the eastern states have boosted coarse grain yield expectations, which are expected to more than offset forecast lower production in Western Australia.

Barley production is forecast to rise by 9 per cent in 2010–11 to 8.8 million tonnes. This will be driven by higher production in New South Wales, which is forecast to nearly double from last year's drought-affected crop. Production is also forecast to rise in Victoria and Queensland. In contrast, the dry conditions in Western Australia are expected to lead to a 23 per cent decline in production in that state.

Most summer cropping regions have historically high soil moisture levels. The area sown to grain sorghum is forecast to recover from last year's below average plantings and increase by 55 per cent in 2010–11 to 602 000 hectares. This expected increase is partly because of dry conditions in June, particularly in the Darling Downs, which did not allow some farmers to complete their winter planting programs, leading to some land being left fallow. Grain sorghum production is forecast to be 1.7 million tonnes in 2010–11, assuming average yields.

Australian barley production



Exports to rise in 2010–11

The expected rise in domestic barley production, coupled with a significant reduction in exportable supplies from Australia's major competitors, is forecast to lead to increased export shipments and values in 2010–11.

Barley exports are forecast to increase by 13 per cent in the 2010–11 marketing year (November to October) to around 5 million tonnes. This compares with 4.4 million tonnes last season. The value of barley exports is forecast to rise by 35 per cent to around $1.5 billion, in line with increased export shipments and higher world prices. The total value of coarse grains exports is forecast to increase by 33 per cent in 2010–11 to around $1.7 billion (July–June year).

Coarse grains outlook

		2008–09	2009–10 s	2010–11 f	% change
World					
Production	Mt	1 100	1 102	1 102	*0.0*
– barley	Mt	155	148	126	*– 14.9*
– corn	Mt	795	806	828	*2.7*
Consumption	Mt	1 073	1 102	1 120	*1.6*
Trade	Mt	113	111	116	*4.5*
Closing stocks	Mt	189	190	172	*– 9.5*
US corn price (fob Gulf, Sept–Aug)	US$/t	173	161	180	*11.8*
Australia					
Area	'000 ha	7 039	6 196	6 009	*– 3.0*
– barley	'000 ha	5 015	4 479	4 077	*– 9.0*
– sorghum	'000 ha	767	389	602	*54.8*
Production	kt	12 587	11 392	13 099	*15.0*
– barley	kt	7 997	8 048	8 771	*9.0*
– sorghum	kt	2 692	1 228	1 707	*39.0*
Exports **a**	kt	5 560	4 995	5 837	*16.8*
– value	A$m	1 820	1 286	1 707	*32.7*
Feed barley price	A$/t	227	190	238	*25.3*
Malting barley price	A$/t	290	240	280	*16.7*

a July–June years.

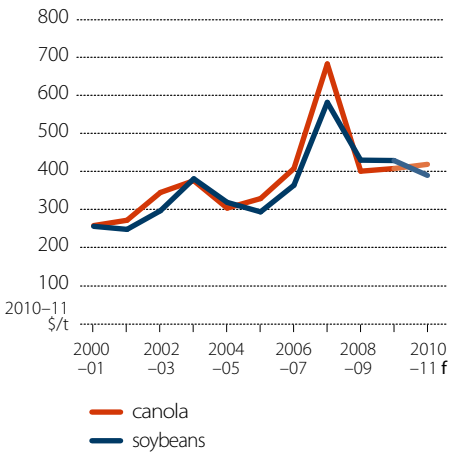
Oilseeds

Stephen Hooper

Price outlook for oilseeds varies

The world indicator price for soybeans (cif Rotterdam) is forecast to average around 8 per cent lower in the 2010–11 marketing year (October to September) at around US$391 a tonne. Although soybean production is forecast to decline slightly in 2010–11, the effect on prices is expected to be more than offset by large carryover stocks from 2009–10, particularly in Latin America.

World indicator prices for soybeans and canola



In contrast to soybeans, the average canola price (cif Hamburg) is forecast to increase by 4 per cent in 2010–11 to around US$420. This forecast rise reflects the combined effects of reduced canola production, relatively low stocks and strong processor demand for canola. The average canola price is forecast to rise above the soybean indicator price for the first time in two years.

Oilseed production to fall

Total world oilseed production is forecast to fall by 1.3 million tonnes in 2010–11 to 440 million tonnes, because of lower expected production of soybeans and canola more than offsetting a forecast increase in the production of cottonseed, peanuts and sunflower seed.

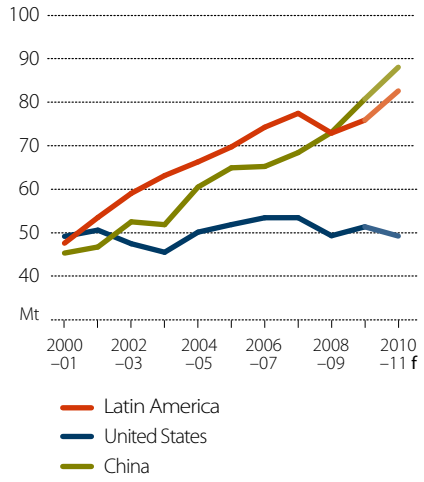
Global production of soybeans is forecast to fall by 6 million tonnes in 2010–11 to 254 million tonnes. In Latin America—principally Brazil, Argentina and Paraguay—soybean production is forecast to fall by 7 per cent (or 9 million tonnes) to 125 million tonnes, mainly because of lower yields. However, production in the world's largest producing country, the United States, is forecast to rise by 2 million tonnes to 93 million tonnes as a result of the area planted increasing to a record 31.6 million hectares.

Canola production is forecast to fall by 5 per cent in 2010–11 to 57 million tonnes. Production in the European Union, China and Canada is forecast to be lower as a result of lower yields and a reduction in the area harvested.

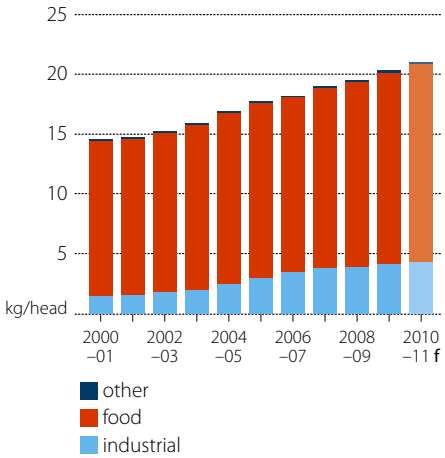
Production of sunflower seed is forecast to increase by 4 per cent in 2010–11 to 32 million tonnes. Following two years of dry conditions in Argentina, improved seasonal conditions this year and high world sunflower seed prices are forecast to result in the area planted increasing by almost one-third to 2 million hectares. Combined with an expected recovery in yields, sunflower seed production is forecast to rebound by 48 per cent to 3.4 million tonnes. Hot and dry conditions in the Black Sea region are expected to adversely affect sunflower yields in the

three main producing countries—the Russian Federation, Ukraine and Kazakhstan—leading to production of sunflower seed being forecast to fall by only 3 per cent to 13.4 million tonnes, despite an 8 per cent increase in the area planted.

Oilseed processing
by selected countries and regions



Global per capita consumption of vegetable oils



Oilseed processing capacity expands further

World oilseed crush is forecast to increase by 5 per cent in 2010–11 to 374 million tonnes. Since 2000–01 the total volume of oilseeds crushed has increased by 47 per cent, as high crusher profit margins encouraged investment in new crushing capacity, particularly in China and Latin America.

In 2010–11, China and Latin America are forecast to account for 24 per cent and 22 per cent of total world oilseed processing, respectively. In contrast, the United States—which in the 1990s was the largest oilseed crushing country—is forecast to account for only around 13 per cent of global oilseed crush in 2010–11.

Vegetable oil consumption to increase

World vegetable oil consumption is forecast to increase by 5 per cent in 2010–11 to 145 million tonnes, led by continued growth in human consumption. Per capita consumption of vegetable oil is forecast to increase by 3 per cent to 16.5 kilograms, primarily because of growing incomes, particularly in Asia. Growth in industrial demand for vegetable oils is expected to slow as demand for biodiesel eases in response to lower oil prices.

Protein meal consumption to increase

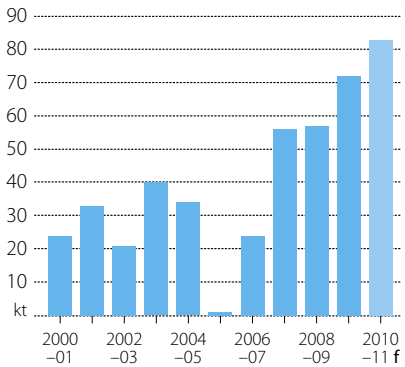
World oilseed meal consumption is forecast to increase by 7 per cent to 250 million tonnes in 2010–11 in response to higher demand from the intensive livestock sector and lower protein meal prices. China is expected to account for almost half the forecast growth in global oilseed meal consumption, as continued growth in swine and poultry numbers is expected to boost feed demand for protein meals. In Europe and the United States oilseed meal consumption is expected to continue to grow modestly.

Australian production recovers

Australian canola production is forecast to rise by 17 per cent in 2010–11 to 2.2 million tonnes. Favourable planting conditions and a strong price outlook at the time of planting compared with alternative winter crops (principally wheat and barley) resulted in the area planted increasing by 16 per cent from 2009–10. Favourable growing conditions in eastern and southern Australia are expected to result in higher yields than last season in these regions. In contrast, the dry conditions in late autumn and winter in Western Australia are expected to result in yields falling to an average of 1.1 tonnes a hectare compared with 1.3 tonnes a hectare in 2009–10.

Australia's net canola oil exports

November–October marketing year



Record Australian exports of canola products

Australian canola seed exports are forecast to increase by 26 per cent in the 2010–11 marketing year (November–October) to a record 1.6 million tonnes. The value of Australian canola exports in 2010–11 is forecast to be around $740 million, which is $157 million more than in 2009–10.

In recent years, Australia's net exports of canola oil have been increasing rapidly. In the first nine months of the 2009–10 marketing year, Australia exported 77 000 tonnes of canola oil, 15 per cent more than in the 2008–09 marketing year as a whole. Currently, the main export markets are the Republic of Korea, Chinese Taipei and Malaysia. Previously, Japan accounted for more than half of Australia's canola oil exports, but since 2004–05 exports to that market have fallen sharply and in the first eight months of 2009–10 exports to Japan accounted for just 1.7 per cent of total exports. Although the volume of canola oil exports is forecast to rise by 19 per cent for the 2009–10 marketing year as a whole, the value of canola oil exports is expected to fall by 26 per cent to $71 million, because of lower world prices and a stronger Australian dollar.

Australian canola oil exports by destination

'000 tonnes, November–October marketing year

	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10 a
Chinese Taipei	0.0	0.0	2.0	9.8	1.0	5.9
Japan	19.3	7.4	1.8	2.1	3.7	1.3
Korea, Republic of	1.2	0.0	1.0	13.0	23.4	30.0
Malaysia	6.6	8.3	11.0	2.2	11.3	12.4
New Zealand	14.2	13.8	16.8	18.8	18.5	15.6
Singapore	0.4	0.2	1.0	5.6	5.8	6.2
Other	1.9	2.1	2.7	16.2	3.3	5.6
Total	43.7	31.8	36.3	67.7	67.0	77.0

a Year to July 2010.

In 2010–11 (marketing year), canola oil exports are forecast to increase by a further 6 per cent to 85 000 tonnes. The value of canola oil exports is forecast to rise by 7 per cent in 2010–11, mainly as a result of higher world prices.

Oilseeds outlook

		2008 –09	2009 –10 s	2010 –11 f	% change
World					
Production	Mt	396	441	440	*– 0.2*
Consumption	Mt	401	422	441	*4.5*
– oilseed meal	Mt	223	233	250	*7.3*
– vegetable oil	Mt	130	138	145	*5.1*
Closing stocks	Mt	56	76	72	*– 5.3*
Soybeans indicator price	US$/t	421	426	391	*– 8.2*
Australia					
Total production	kt	2 479	2 599	3 300	*27.0*
– winter	kt	1 858	1 923	2 243	*16.6*
– summer	kt	620	676	1 057	*56.4*
Canola					
Production	kt	1 844	1 910	2 229	*16.7*
Exports **a**	kt	973	1 238	1 565	*26.4*
– value	$m	595	583	740	*26.9*
Price (Nov–Oct) (delivered Melbourne)	A$/t	525	431	439	*1.9*

a July–June years.

Sugar

Max Foster

World sugar prices to remain favourable

The world indicator price for sugar (Intercontinental Commodities Exchange no.11 spot, fob Caribbean) is forecast to be US5c a pound lower in 2010–11 (October to September), although it is expected to remain favourable and average US18.5c a pound. The forecast price decline is because world sugar production is forecast to exceed consumption for the first time in two years.

The world sugar indicator price is forecast to ease from its current high of US31.9c a pound after the 2010–11 world cane and beet harvest is completed. The expectation of current prices declining is evident in the ICE futures prices recorded on 14 September 2010. The October 2010 contract for sugar (no. 11) closed at US24.36c a pound, compared with US19.13c a pound for the October 2011 contract.

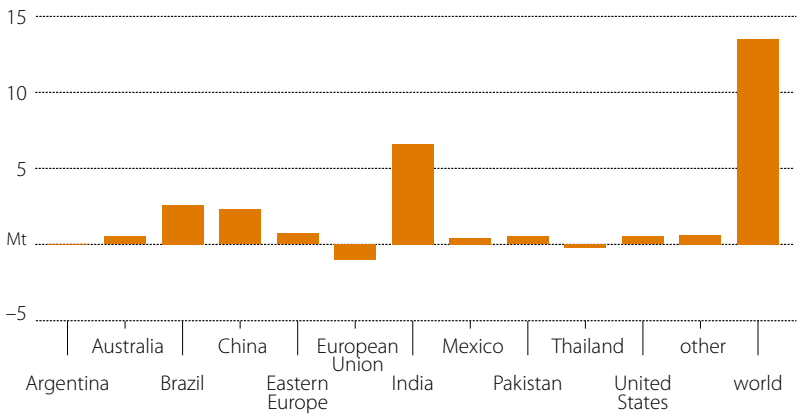
World sugar indicators

Record world sugar production in 2010–11

World sugar production is forecast to increase by 13.5 million tonnes in 2010–11 to a record 172.3 million tonnes. Higher world sugar prices at the time of planting and improved seasonal conditions in India and Brazil are the main drivers for the expected increase in world sugar production. Increased production in Brazil, India and China is expected to more than offset lower production in the European Union and Thailand.

Brazilian sugar production (October to September) is forecast to increase by 2.6 million tonnes in 2010–11 to a record 42 million tonnes. This forecast encompasses production from the second half of Brazil's 2010–11 April to March crop year and the first half of its 2011–12 crop

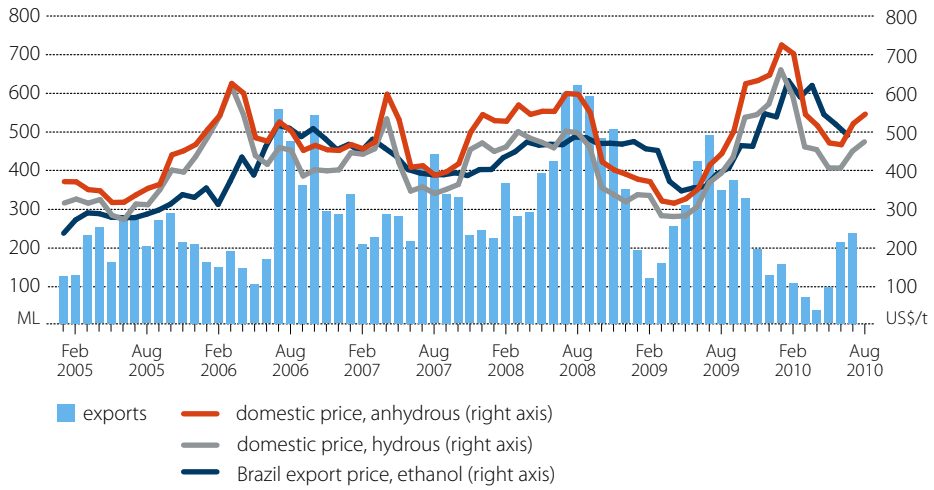
Change in world sugar production, 2010–11



year. This forecast increase in sugar production is a result of an expected 9 per cent increase in cane production and an 8 per cent rise in sugar content. In addition, Brazil's forecast returns for sugar compared with ethanol in 2010–11 favour an increased proportion of Brazilian cane being allocated to sugar production.

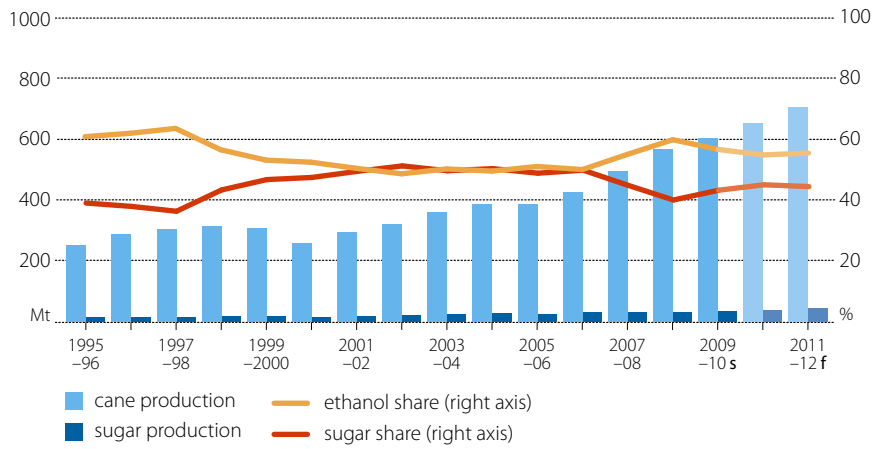
Ethanol prices are an important determinant of world sugar production because they influence how much Brazilian cane is allocated to ethanol rather than to sugar production. Domestic and export prices for Brazilian ethanol declined sharply from early 2010, as cane from the 2010–11 (April to March) Brazilian harvest became available.

Brazilian ethanol prices and exports



European Union production of sugar beet is forecast to decline by 1 million tonnes (6 per cent) in 2010–11 to 16.5 million tonnes. This forecast production decline is mainly because of lower yields.

Brazilian allocation of sugar cane



Indian sugar production is forecast to increase by 6.5 million tonnes in 2010–11 to 27 million tonnes. Rainfall from the 2010 Indian monsoon has so far been around the long-term average. In contrast, the 2009–10 harvest was adversely affected by a poor 2009 Indian monsoon season.

Increased growth in world sugar consumption in 2010–11

World consumption of sugar is forecast to increase by 2 per cent in 2010–11. This is higher than the 1.7 per cent growth in 2009–10, but still lower than the average annual growth in consumption of 2.5 per cent over the past 10 years.

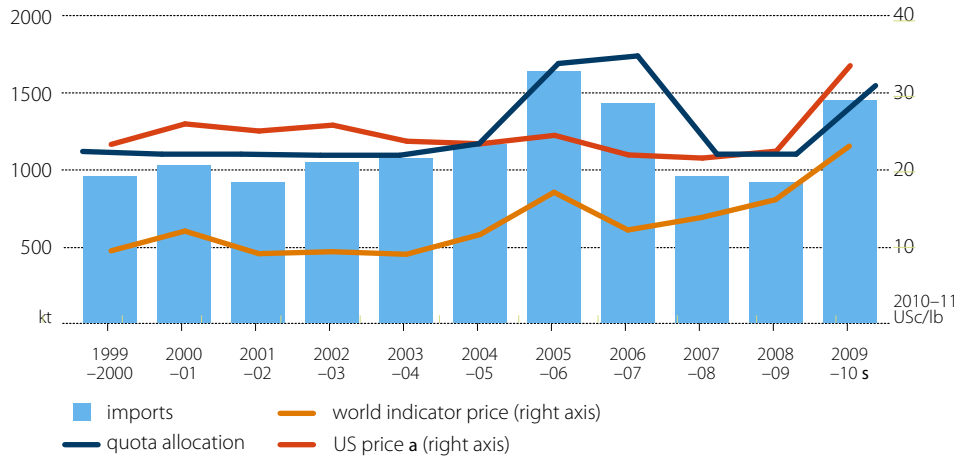
High sugar prices constrained the growth of world sugar consumption in 2009–10 and will continue to dampen demand in 2010–11. Growth in sugar consumption has been lower than the historical average, despite a number of countries introducing policies to limit the effect of high world sugar prices on domestic consumers. For example, in 2009–10 India removed the 60 per cent tariff on its raw sugar imports and introduced policies aimed at preventing undue stockholding of sugar.

Lower Indian sugar imports in 2010–11

World sugar exports are forecast to decline by 2.1 million tonnes in 2010–11 to 50.6 million tonnes. This is mainly because India—which was a large sugar importer in 2009–10 (3.7 million tonnes)—may have almost no sugar imports in 2010–11, owing to an expected rebound in domestic sugar production. There is also a possibility of India returning to being an exporter of sugar in 2010–11 if production is higher than the 27 million tonnes currently forecast.

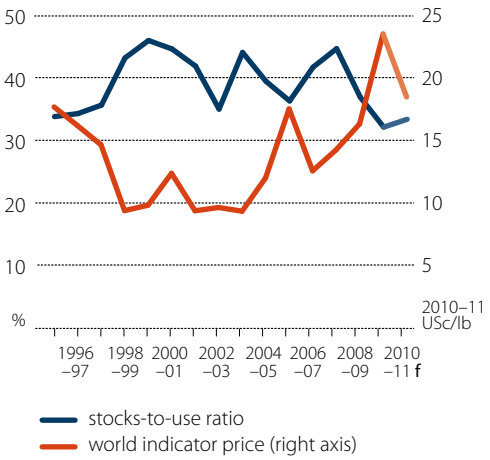
The United States increased its import tariff quota for raw sugar in 2009–10 (October to September) to 1.571 million tonnes in response to rising domestic sugar prices. The agreed minimum tariff rate quota for raw sugar in the United States is 1.117 million tonnes under its World Trade Organization (WTO) obligations. Raw sugar imports within the quota are tariff free, while the out-of-tariff quota rate is US15c a pound. In August 2010, the US raw sugar import quota for 2010–11 was reset at the WTO minimum.

US sugar imports and domestic price



a US raw sugar price, duty fee paid, New York.

Sugar indicator price and world closing stocks of sugar



Shares of the US sugar quota are allocated to countries on the basis of their past imports. Because US sugar prices are considerably higher than world prices, there is a strong incentive for countries to fill their quotas. However, logistical and administrative difficulties encountered by some countries in exporting sugar to the United States sometimes results in quota not being filled. Australia's share of the expanded US quota in 2009–10 was 142 000 tonnes of raw sugar, compared with Australia's country-specific minimum entitlement of 87 000 tonnes.

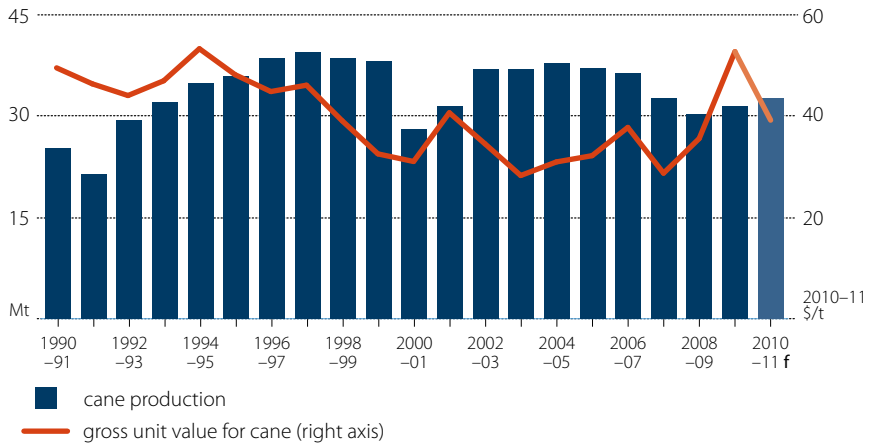
Modest rebuilding of world sugar stocks

The expected increase in world sugar production is forecast to result in a 4.2 million tonnes build-up of world sugar stocks by the end of 2010–11. The stocks-to-use ratio is forecast to increase modestly to 35 per cent in 2010–11, compared with 33 per cent in 2009–10. In comparison, the average stock-to-use ratio over the past 20 years has been higher at 38 per cent. The forecast relatively low stocks-to-use ratio provides support for the favourable price outlook for 2010–11, although prices are expected to decline from current highs.

Australian sugar returns favourable in 2010–11

The indicative price outcome at 13 September 2010 for the 2010–11 seasonal pool of Queensland Sugar Limited was $440 to $500 a tonne, International Polarity Scale (IPS). This compares with the indicative 2009–10 seasonal pool outcome of $506 to $510 a tonne, IPS.

Australian cane production and pool return



The average return to Australian cane growers from cane production in 2010–11 is forecast to be $40 a tonne of cane, compared with an estimated $49 a tonne in 2009–10.

Apart from Australian cane growers receiving favourable returns, the recent high world sugar prices have also resulted in an increase in the profitability of Australian sugar millers and refiners.

Rain adversely affects Australian sugar production in 2010–11

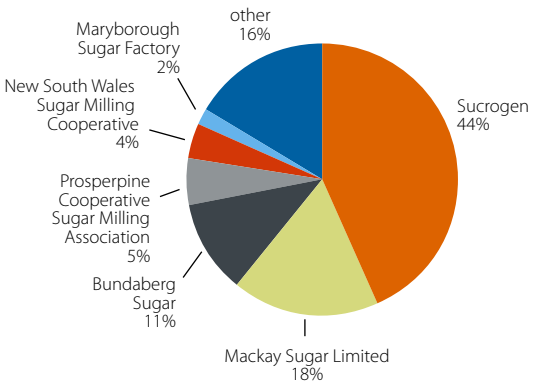
Australian cane production is forecast to increase by 1.1 million tonnes in 2010–11 to 32.5 million tonnes. The Australian sugar cane harvest typically commences in June and extends through to December. It is estimated that the 2010–11 sugar cane harvest was around 50 per cent complete by mid-September 2010.

Australian sugar production is forecast to increase slightly in 2010–11 to 4.55 million tonnes. Although the area of cane harvested in Australia is forecast to increase, excessive rainfall in 2010 is expected to result in lower sugar yields.

Financial performance of the Australian sugar milling and refining industry

There are 25 sugar mills and four sugar refineries in Australia, operated by a total of 12 private companies and grower-owned cooperatives. The three largest millers/refiners are Sucrogen (the sugar division of the publicly listed Australian company CSR Limited), Mackay Sugar Limited and Bundaberg Sugar Limited (a subsidiary of the Finasucre Group, Belgium). These companies accounted for nearly three-quarters of raw sugar production in Australia in the three years to 2008–09. An agreement was reached in July 2010 with a Singapore company, Wilmar International Limited, to acquire Sucrogen, subject to approval by the Foreign Investment Review Board.

Shares of Australian raw sugar production, by organisation a



a Average of the three years to 2008–09.

The sugar processing industry in Australia is a multiproduct one, producing not only raw and refined sugar from cane, but also molasses, fertiliser, mulch and electricity for sale to the national grid. Sucrogen also produces around 60 million litres of ethanol a year, using molasses as a feedstock rather than sugar cane, which is used in Brazil to produce ethanol. In 2009, Proserpine Cooperative Sugar Milling Association began commissioning a plant that uses bagasse to produce furfural, a chemical that can be used as a solvent, feedstock for resin manufacture and soil conditioner. Some millers/refiners—Sucrogen, Bundaberg Sugar and Mackay Sugar—also own sugar cane farms.

Data on the financial performances of sugar millers and refiners in the Australian sugar industry are publicly available for: Sucrogen; Bundaberg Sugar Limited; Mackay Sugar Limited; Maryborough Sugar Factory; Proserpine Cooperative Sugar Milling Association; and New South Wales Sugar Milling Cooperative. Together, these companies accounted for around 85 per cent of the sugar cane crushed in Australia in 2009–10 and all of the refined sugar manufacture.

The individual and aggregate financial data indicate that the profitability of the Australian sugar industry has improved in 2009–10 in response to high sugar prices. The profit margin of these companies—calculated as earnings before interest and income tax (EBIT), divided by turnover—averaged 8.7 per cent in 2009–10. This compares favourably with the average of 5.3 per cent over the past decade.

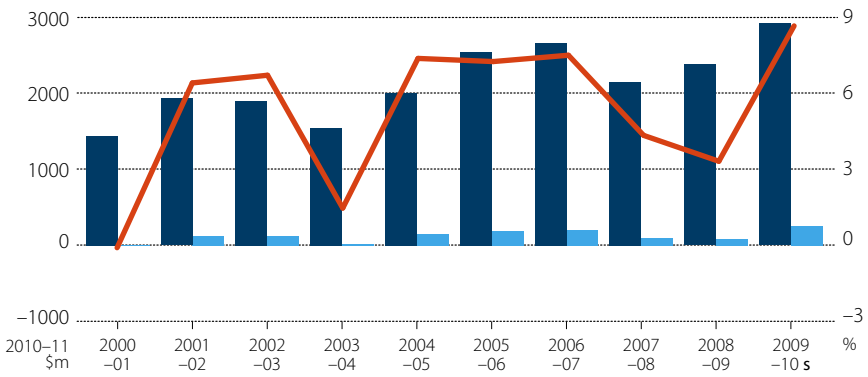
The financial data of Sucrogen also show the sectoral contributions of ethanol, cane products (raw sugar, molasses and electricity sales) and sweeteners (refining) to Sucrogen's overall profitability. Much of the variation in Sucrogen's profitability over the past few financial years was because of variations in cane product prices. Variations in the profitability of sweeteners (refining) were relatively small. The increase in Sucrogen's EBIT from sweeteners after 2003–04 can be accounted for by Sucrogen's increased share in a joint venture with Mackay Sugar Limited to produce refined sugar. The contribution of the ethanol sector to the overall profitability of Sucrogen was relatively small in 2009–10.

continued...

Financial performance of the Australian sugar milling and refining industry

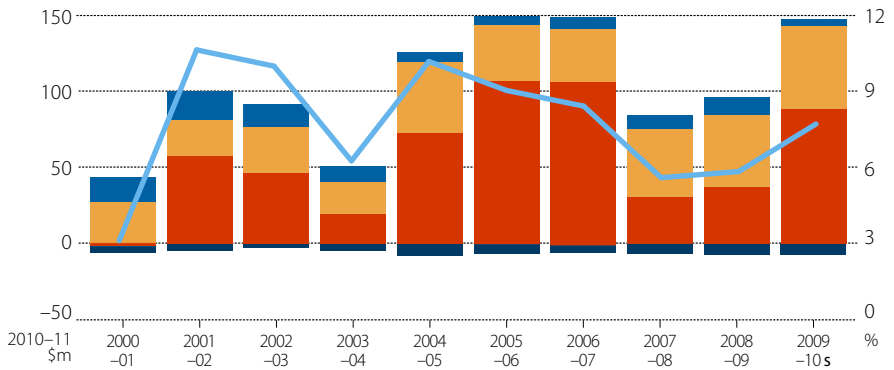
continued

Aggregate financial performance of the Australian sugar processing industry a



a Years ended 31 March for Sucrogen and Bundaberg Sugar, and 30 June for others.
b EBIT is earnings before interest and taxation.
c EBIT margin is EBIT divided by sales revenue.
Sources: Company annual reports.

Sucrogen earnings (EBIT) a
by sector



a Earnings before interest and taxation divided by turnover.
Source: CSR Limited.

Sugar outlook

		2008–09	2009–10 s	2010–11 f	% change
World					
Production	Mt	150.0	158.8	172.3	*8.5*
– Brazil	Mt	35.1	39.4	42.0	*6.6*
Consumption	Mt	162.0	164.8	168.1	*2.0*
Exports	Mt	49.2	52.7	50.6	*– 4.0*
Closing stocks	Mt	59.8	53.8	58.0	*7.8*
Change in stocks	Mt	– 10.0	– 6.0	4.2	
Stocks-to-use ratio	%	37	33	35	*6.1*
Price	USc/lb	15.9	23.5	18.5	*– 21.3*
Australia					
Area	'000 ha	367	391	403	*3.1*
Production	kt	4 634	4 519	4 550	*0.7*
Exports	kt	3 268	3 249	3 232	*– 0.5*
– value	A$m	1 338	1 770	1 729	*– 2.3*

Cotton

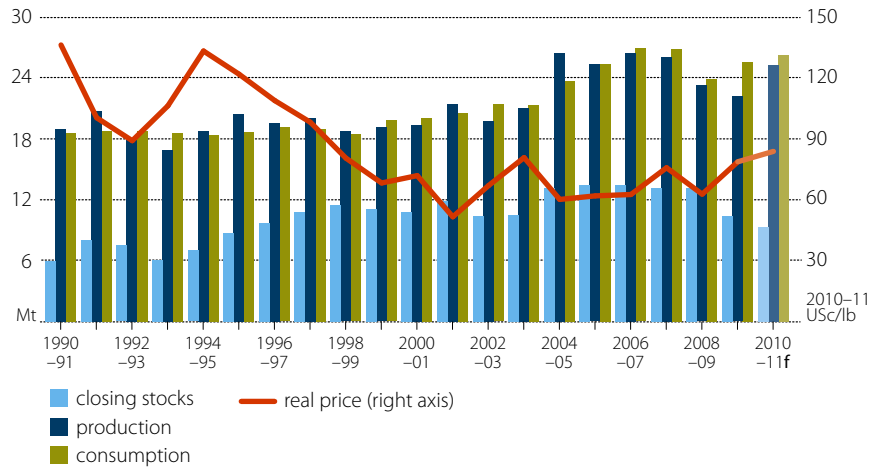
Max Foster

Higher world cotton prices in 2010–11

The world indicator price for cotton (the Cotlook 'A' index) is forecast to average US84c a pound in 2010–11 (August to July), up from around US77.5c a pound in 2009–10. This forecast higher price reflects the effect of world cotton consumption exceeding production for six consecutive years, leading to a significant decline in the stocks-to-use ratio. Although world cotton production is forecast to increase in 2010–11, it is expected to again be lower than world consumption, resulting in a further decline in stocks.

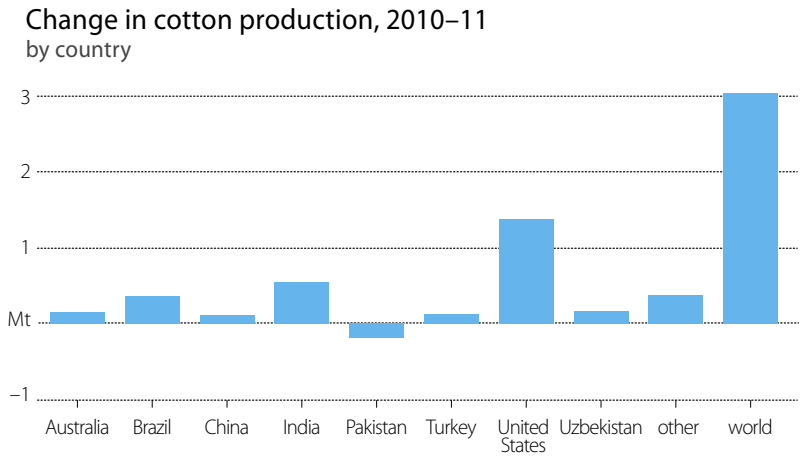
The world cotton price is expected to ease from its recent high of US102c a pound as the 2010–11 northern hemisphere cotton crop becomes available. The expectation of declining prices is consistent with Intercontinental Exchange (ICE) futures prices recorded on 14 September 2010. The October 2010 contract recorded a closing price of around US93.8c a pound, compared with around US90.9c a pound for the July 2011 contract.

World cotton indicators

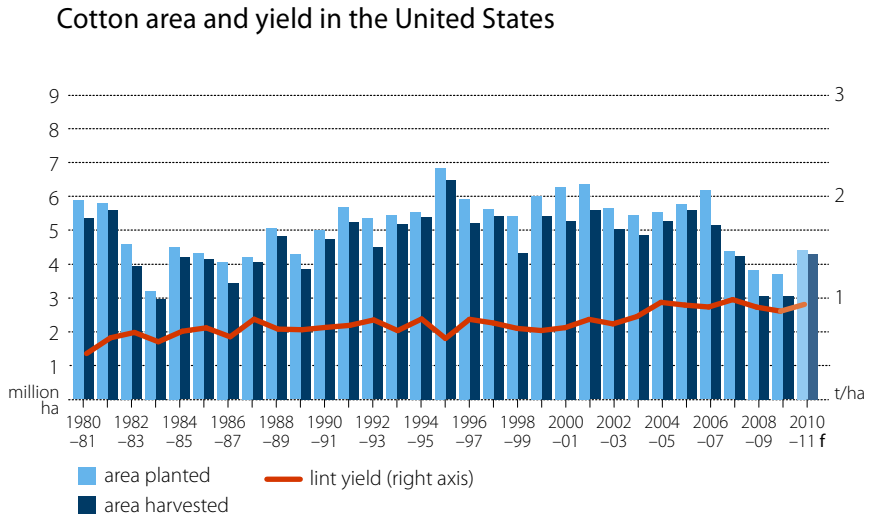


World cotton production to respond to higher prices

World cotton production is forecast to increase by 14 per cent in 2010–11 to 25.3 million tonnes. This, if achieved, will be 3.1 million tonnes higher than in 2009–10 and the first increase since 2006–07. All major cotton producing countries, with the exception of Pakistan, are expected to increase production in 2010–11. The increase in world cotton production is expected to occur in response to higher world cotton prices and favourable returns to cotton compared with alternatives such as soybeans and corn.



US cotton production is forecast to increase by 55 per cent in 2010–11 to 4.1 million tonnes, the first increase since 2005–06. Favourable seasonal conditions are expected to result in a marked reduction in the rate of abandonment (planted area not harvested) to 2.6 per cent, compared with the 10-year average of 11.6 per cent.



Indian cotton production is forecast to increase by 12 per cent in 2010–11 to a record 5.7 million tonnes. This expected increase is mainly because of higher plantings that have been stimulated by higher cotton prices and higher yielding cotton varieties. Cotton plantings and yields have been assisted by the 2010 monsoon, which has to date delivered around average rainfall.

Floods in Pakistan are forecast to reduce production by around 9.5 per cent in 2010–11 to 1.9 million tonnes, 15 per cent below the pre-flood forecast.

Cotton production in Uzbekistan, the second largest cotton exporting country, is forecast to increase by 23 per cent in 2010–11 because of higher cotton prices and improved water availability.

Higher prices likely to constrain growth in world cotton consumption

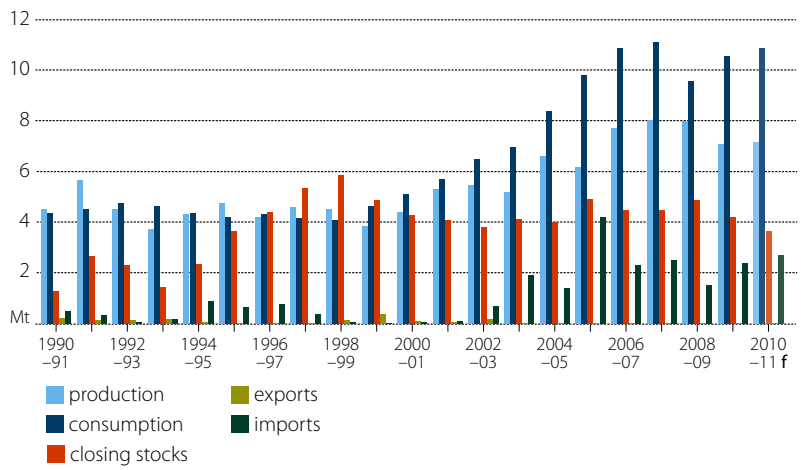
World cotton consumption is forecast to increase by 2.7 per cent in 2010–11, driven by forecast income growth in the world economy, but constrained by higher cotton prices and relatively low prices for competing synthetic fibres.

Cotton industry in China

China is a major player in the world cotton market, accounting for 32 per cent of world production in the three years to 2009–10, 41 per cent of world mill consumption and 28 per cent of world cotton imports. Chinese cotton production has declined in recent years because of production alternatives earning higher returns, particularly soybeans.

China's mill consumption of cotton and its textile exports have been boosted in the 2000s by the phasing out in 2005 of the World Trade Organization (WTO) Agreement on Textiles and Clothing—better known as the Multi Fibre Arrangement (MFA). The MFA imposed quotas on the volume of textiles developing countries could export to developed countries from 1974 to 2004. The real value of Chinese exports of cotton, and cotton blend yarns and fabrics, grew at an average of nearly 10 per cent a year over the 10 years to 2009.

Supply and disposal of raw cotton, China

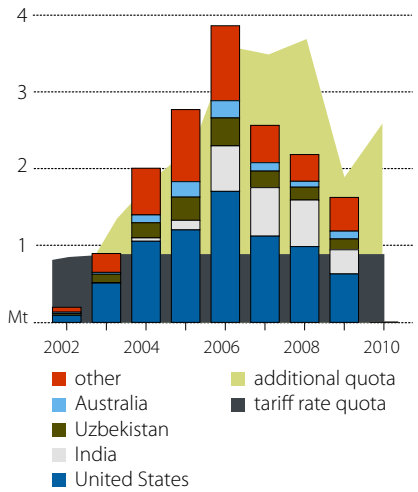


The National Development and Reform Commission (NDRC) manages state reserves of cotton and other commodities and has the broad aim of stabilising domestic prices. Large amounts of cotton were purchased for the state reserve in 2008–09 to support prices received by Chinese cotton growers, but these reserves have since been drawn down.

continued...

Cotton industry in China continued

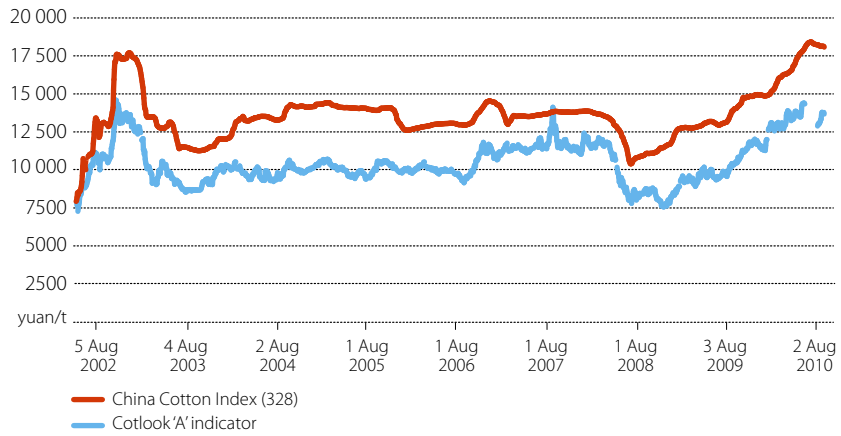
Raw cotton imports, China



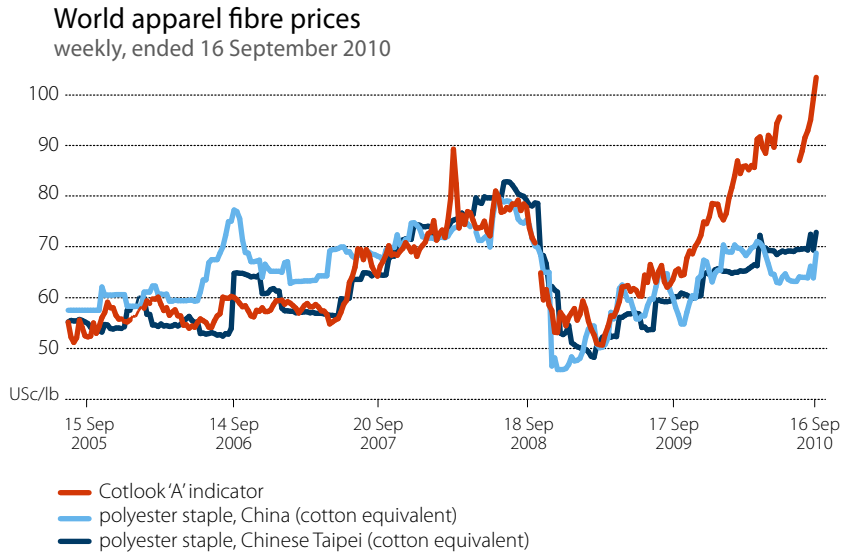
Under its Protocol of Accession to the WTO, China operates a tariff quota. The tariff quota for raw cotton imports has been 894 000 tonnes since 2004, with an in-quota tariff rate of 1 per cent.

However, China's imports of raw cotton are well over the WTO-agreed quota. The NDRC also sets quotas for additional imports in each year, to which a variable tariff rate is applied. The out-of-quota tariff rate is currently 570 yuan a tonne (5 per cent of the import price) if the import price is greater than 11 397 yuan a tonne, increasing by a set formula to a maximum of 1926 yuan a tonne (40 per cent of the import price) if the import price is less than 4815 yuan a tonne.

Daily cotton prices in China



There has been a growing gap between cotton and polyester prices in 2010. The relatively tight market for cotton has resulted in higher prices, while polyester prices have been largely flat since April 2010, after increasing in 2009 and early 2010. The flattening of polyester prices is partly explained by the decline in the price of naphtha. Naphtha is the oil derivative that is the main feedstock for polyester, nylon and acrylic fibre production. There are signs that the current world oversupply of naphtha, caused by increases in refining capacity in China and the Middle East, could be easing with a small increase in naphtha prices in August 2010.



Further decline in world cotton stocks in 2010–11

World cotton stocks are forecast to decline to 9.3 million tonnes in 2010–11, 1.1 million tonnes lower than in 2009–10. The world cotton stocks-to-use ratio is forecast to be 35.4 per cent in 2010–11, the lowest since 1993–94. China is expected to continue to run down its state reserves in 2010 to reduce the effect of higher world cotton prices on Chinese textile manufacturers.

Favourable Australian cotton prices in 2010–11

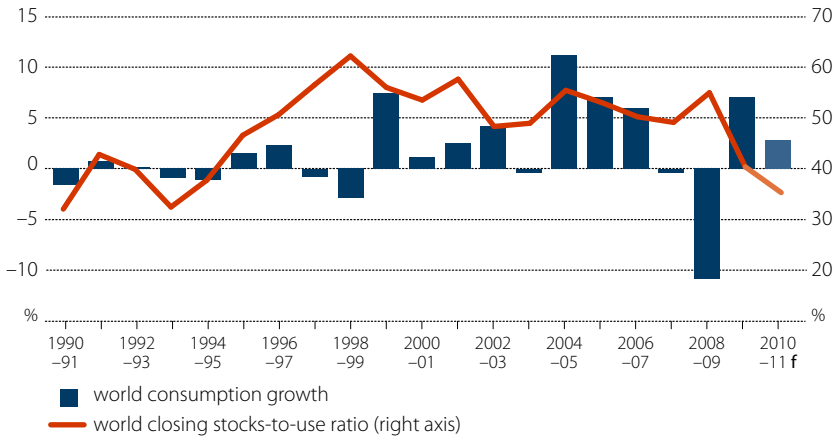
Returns to Australian cotton growers at the gin gate are forecast to be $530 a bale of lint (including the value of cottonseed and net of ginning costs) in 2010–11, up from an estimated $514 a bale in 2009–10. Australian cotton growers' abilities to benefit from the increases in world cotton prices since mid-2009, which are denominated in US dollars, have been dampened by the relative high value of the Australian dollar. Nevertheless, the return to Australian cotton growers in 2010–11 is forecast to be the highest in constant dollar terms since 2003–04.

Forward cash prices on offer to Australian cotton growers on 14 September 2010 were around $522 a bale for 2011 (2010–11 crop) delivery, $470 a bale for 2012 delivery, and $466 for 2013 delivery. It is estimated that around 30 per cent of expected Australian cotton production in 2010–11 has been sold forward at an average price of around $485 a bale.

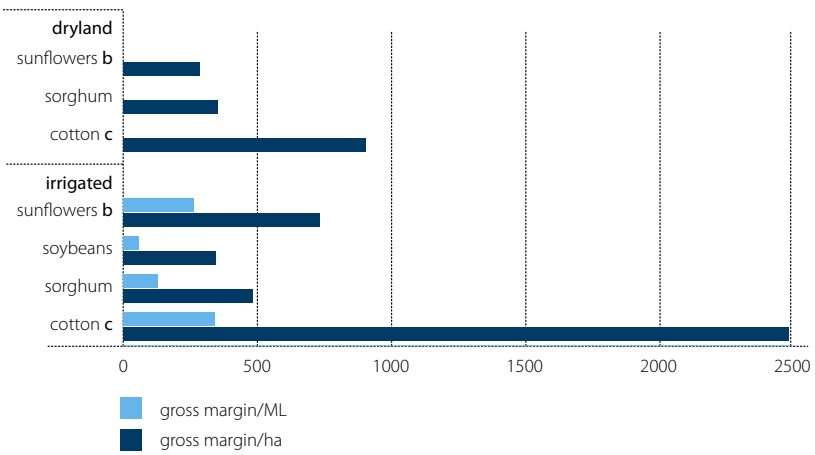
Large increase in Australian cotton production

Australian cotton production is forecast to increase by 69 per cent in 2010–11 to 653 000 tonnes, the highest production since 2001–02. This expected increase is in response to a number of factors, including higher cotton prices, relatively low prices for production alternatives, and improved availability of irrigation water.

Growth in world mill consumption of cotton



Estimated gross margins for selected summer crops in Australia a

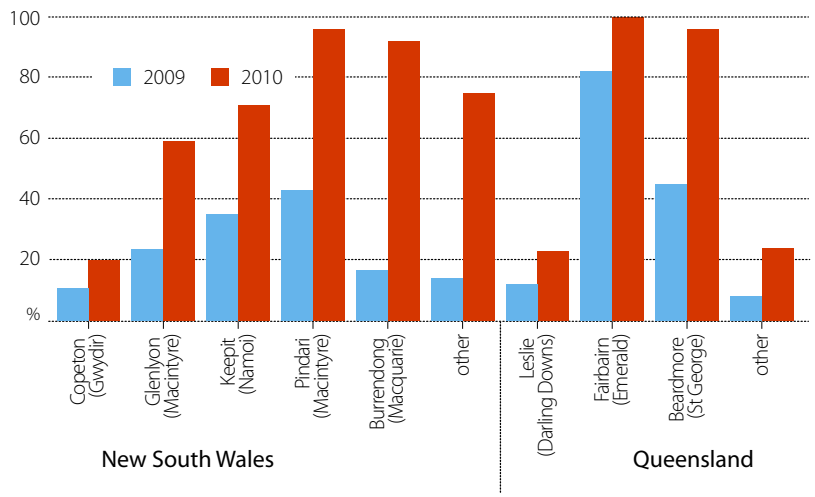


a Based on production cost data published by Cotton Seed Distributors and a survey of forward prices for 2010–11 for northern New South Wales delivery. **b** Mono-unsaturated. **c** With the stacked GM traits of herbicide tolerance and insect resistance.

Heavy rainfall in late July and August 2010 boosted the water levels of the public irrigation dams that supply the Australian cotton industry. On 16 September 2010, these dams were estimated to be at 62 per cent capacity compared with 27 per cent at the same time in 2009. Only in the Gywdir and Darling Downs regions, which together accounted for around 30 per cent of irrigated Australian cotton production in the 10 years to 2009–10, has the availability of irrigation water from public dams in 2010 not improved markedly.

Excellent soil moisture profiles in most of the summer cropping regions of New South Wales and Queensland are forecast to enable record dryland cotton plantings of 144 000 hectares in 2010–11, accounting for around 35 per cent of total Australian cotton plantings.

Capacity, major irrigation dams for cotton
as at 16 September 2010



Cotton outlook

		2008 –09	2009 –10 s	2010 –11 f	% *change*
World					
Production	Mt	23.3	22.2	25.3	*14.0*
Consumption	Mt	23.9	25.6	26.3	*2.7*
Closing stocks	Mt	13.2	10.4	9.3	*– 10.6*
Stocks-to-use ratio	%	55.1	40.4	35.4	*– 12.4*
Cotlook 'A' index	USc/lb	61.2	77.5	84.0	*8.4*
Australia					
Area harvested	'000 ha	164	208	408	*96.2*
Lint production	kt	329	387	653	*68.7*
Exports	kt	260	395	461	*16.7*
– value	A$m	500	755	1 007	*33.4*

Livestock

Beef and veal

Peter Berry

The Australian saleyard price for beef is forecast to increase by 5 per cent in 2010–11 to an average of around 301 cents a kilogram (dressed weight), in response to strong domestic restocker demand and improved consumer demand in Australia's key export markets. However, the outlook for slower income growth in these export markets, particularly the United States and Japan, represents a downside risk to the forecast price, if beef consumption is adversely affected in these markets.

Beef production to increase marginally

Although beef cattle slaughter is forecast to be largely unchanged in 2010–11 at 8.5 million head, beef production is forecast to increase by around 1 per cent to 2.2 million tonnes.

Average carcass weights are forecast to increase by around 1 per cent in 2010–11, as a result of favourable seasonal conditions across eastern and parts of northern Australia. Also contributing to higher carcass weights is an expected rise in the number of cattle turned off from feedlots. Cattle turned off from feedlots are generally heavier than cattle turned off from pastures.

Between late 2007 and mid-2010, the number of cattle in feedlots increased by around 35 per cent to 791 000 head, in line with stronger demand from Japan and the Republic of Korea. The marbled character of feedlot beef is attractive to Japanese and Korean consumers and demand for Australian beef in these two markets is expected to increase in 2010–11.

Australian cattle slaughter and real prices

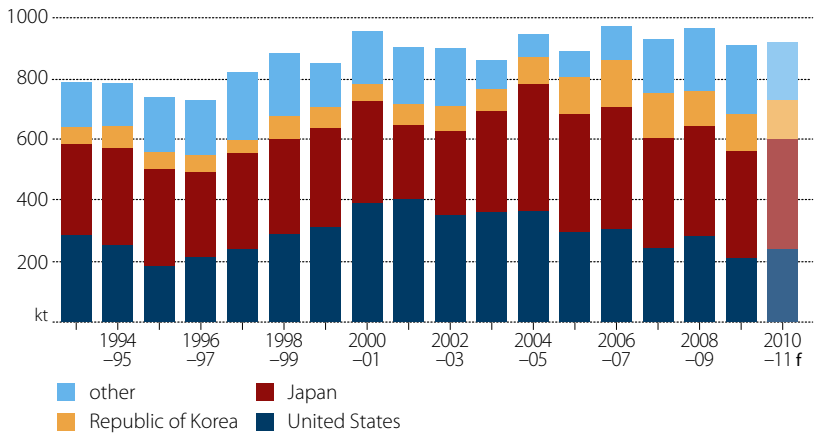
Strong restocker demand for cattle has been evident in reduced beef cattle slaughter. In 2009–10, beef cattle slaughter declined by 3 per cent nationally, as producers expanded herds and increased stocking rates in response to improved seasonal conditions, particularly in regions of southern Australia that were affected by drought in previous years. Cattle slaughter decreased by 14 per cent and 8 per cent in Victoria and Tasmania, respectively. Slaughter in Western Australia also fell by around 6 per cent.

In contrast, cattle slaughter increased in South Australia in 2009–10, by 22 per cent. Dry conditions in the north of the state in late 2009 encouraged some producers to increase cattle turn-off. More recently, there has been an increase in cattle transported to abattoirs in South Australia from regions in northern Australia. Some of these cattle were originally intended for live export, but were redirected to southern markets after the Indonesian Government enforced restrictions on the import of live cattle.

Exports to major markets to increase

In 2010–11, export volumes of beef to each of Australia's major export markets (Japan, the United States and the Republic of Korea) are forecast to increase, despite forecast reductions of exports to other smaller markets. Total beef exports are forecast to increase by only 1 per cent in 2010–11 to 920 000 tonnes.

Australian beef exports by destination



The United States

Australian beef exports to the United States are forecast to increase by 14 per cent in 2010–11 to 240 000 tonnes. Despite an assumed easing of US income growth, import demand for beef is expected to rise as the US beef herd has declined to a historic low. US producers will be unable to increase beef production significantly to meet domestic consumption.

The United States Department of Agriculture has forecast that US beef imports will grow by around 2 per cent in 2010–11 to around 1.3 million tonnes. The scope of the increase will be

constrained by limited growth in beef supplies in the major producing countries that are certified to export beef to the United States. This is expected to help underpin US domestic and import prices, and thereby offer Australian exporters the prospect of favourable unit export returns.

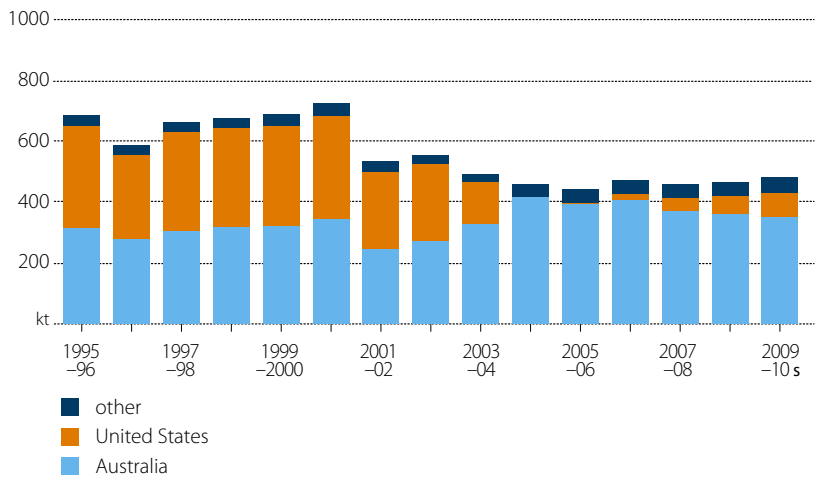
The forecast increase in Australian beef exports to the US market in 2010–11 represents a partial recovery of performance compared with 2009–10, when beef exports to the United States declined by 25 per cent to 210 000 tonnes.

Japan

Australian beef exports to Japan are forecast to increase by 3 per cent to 360 000 tonnes in 2010–11. Assumed modest income growth in Japan is expected to lead to higher Japanese beef consumption and increased demand for imports.

The increase in Australian exports to Japan is expected to be constrained by limited export supplies and higher competition from the United States as it recovers market share lost to Australia in the mid-2000s. US beef has been increasing its share of Japanese beef imports by around 4 percentage points a year since being permitted back into the Japanese market in 2006–07. A weaker US exchange rate relative to the Australian dollar is likely to assist the United States to further increase its share of the Japanese market in the short term. However, Japanese import regulations that apply to countries at risk of bovine spongiform encephalopathy (BSE)—and which restrict beef imported from the US to cattle that do not exceed 20 months of age and not containing any brain or spinal material—will constrain the pace of this increase.

Japanese beef imports by origin



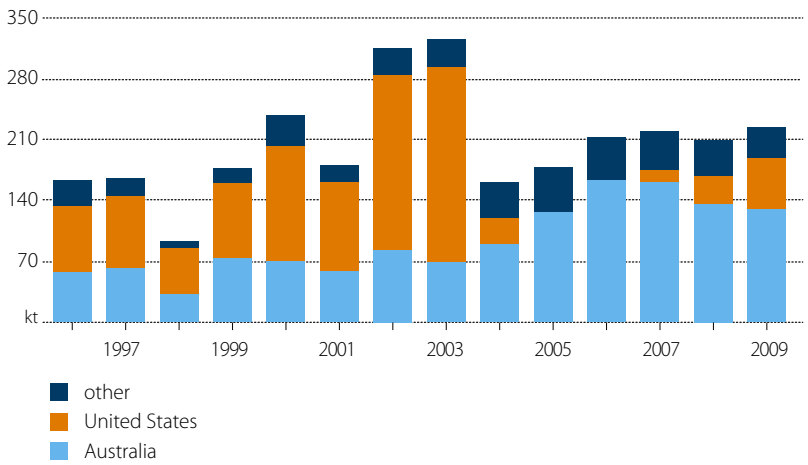
Republic of Korea

Australian beef exports to the Republic of Korea are forecast to increase by around 5 per cent to 130 000 tonnes in 2010–11. This is expected to be driven by continued income growth and an expansion of the Republic of Korea's fast food sector, leading to higher beef imports.

As with exports to Japan, the growth in Australian exports to the Korean market will be constrained by limited export supplies and increased competition from US beef.

The United States has been increasing its share of Korean beef imports at an average of 9 percentage points a year since being permitted back into the Korean market in 2007. In 2009, US beef accounted for around 26 per cent of total Korean beef imports, compared with 69 per cent before the BSE ban on US beef.

Korean beef imports by origin



Despite increased competition from US beef, Australian exports to the Republic of Korea in 2009–10 increased by 10 per cent to 124 000 tonnes. Australian exports of boneless beef to the Republic of Korea rose by 18 per cent, largely reflecting higher import demand for manufacturing beef, while exports of bone-in beef declined by around 1 per cent.

Live cattle exports to fall

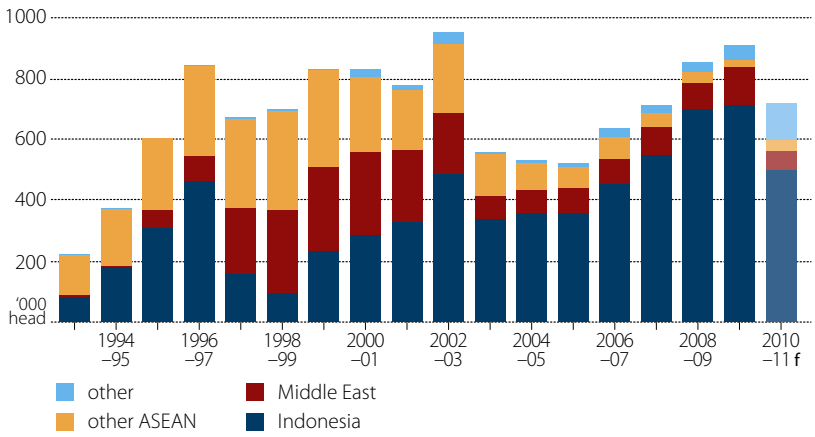
Australian live cattle exports are forecast to fall by 21 per cent to 720 000 head in 2010–11. This forecast export decline mainly reflects an expected fall in live cattle exports to Indonesia of 30 per cent to around 500 000 head. While live exports to other markets in ASEAN and the Middle East are expected to rise, this will only partially offset the effect of lower exports to Indonesia.

Indonesia is the main market for Australian exports of live cattle, accounting for around 79 per cent of total live exports in 2009–10. Australian live exports to Indonesia have been growing strongly, with shipments almost doubling to 710 000 head in the five years to 2009–10. Strong growth in Indonesia's beef consumption, along with a significant expansion in feedlots, increased demand for live cattle imports.

However, in early 2010, Australian live exports declined sharply as a result of Indonesia enforcing a weight limit on imported cattle and a reduction in import permits. The Indonesian Government has also enacted a policy to boost local beef production.

Cattle originally intended for export to Indonesia from northern Australia, which cannot be redirected to other live export markets, are expected to be diverted to domestic slaughter. However, the numbers are likely to be small compared with total Australian slaughter (at a forecast 8.5 million head in 2010–11).

Australian live cattle exports

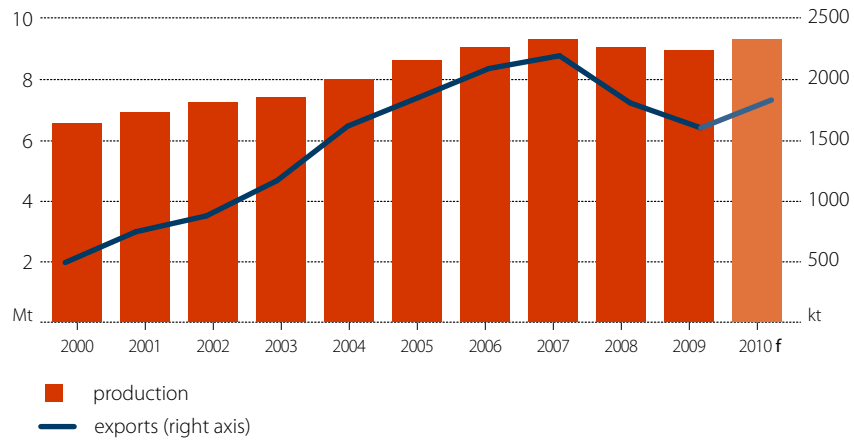


The Brazilian beef industry

Brazil is the world's largest exporter of beef and the second largest beef producer after the United States. The Brazilian beef industry has grown strongly over the past decade, with production increasing by 36 per cent to 8.9 million tonnes in 2009. Exports have grown at a much faster rate, increasing by 227 per cent to 1.6 million tonnes over the same period. The domestic market of 195 million people in Brazil consumed around 83 per cent of total beef production in 2009.

The strong growth of Brazil's beef industry has been the result of considerable new investment in cattle genetics and infrastructure, and this is expected to drive further growth in the foreseeable future. Brazilian beef has a strong competitive position in world markets to which it has access, largely as a result of the industry's lower cost structure.

Brazilian beef industry



Concerns about foot-and-mouth disease (FMD) in a number of Brazil's provinces have limited the export potential of Brazilian beef. Precautionary vaccinations against FMD are regularly carried out in Brazil, although some regions, such as Santa Catarina, are widely accepted as being free of FMD.

The Russian Federation is Brazil's major beef export market, with 304 000 tonnes shipped in 2009–10. Iran is Brazil's second largest export market, with imports of 159 000 tonnes in the same year. Other markets in Asia and the Middle East are significant, particularly Hong Kong and Egypt, with imports from Brazil of around 99 000 tonnes and 68 000 tonnes, respectively.

The European Union provides Brazil with its highest unit export returns for beef. However, shipments have declined markedly in recent years, from 291 000 tonnes in 2005–06 to 47 000 tonnes in 2009–10, as a result of food safety concerns.

At present, Brazil is not a competitor for Australian beef in Japan, the Republic of Korea and the United States because of its FMD risk. Nevertheless, if Australia were to expand its presence in other markets, particularly in the Russian Federation, Asia and the Middle East, it would face significant competition from Brazil.

Beef and veal outlook

		2008 –09	2009 –10 s	2010 –11 f	% change
Cattle numbers	million	27.9	28.2	28.4	*0.7*
– beef	million	25.3	25.7	25.9	*0.8*
Slaughterings	'000	8 702	8 483	8 485	*0.0*
Production	kt	2 148	2 132	2 150	*0.8*
Exports (shipped weight)					
– to United States	kt	282	210	240	*14.3*
– to Japan	kt	363	350	360	*2.9*
– to Korea, Rep. of	kt	113	124	130	*4.8*
– total	kt	968	910	920	*1.1*
– value	A$m	4 857	4 003	4 401	*9.9*
Live cattle	'000	856	909	720	*– 20.8*
Price					
– saleyard	Ac/kg	296	288	301	*4.5*
– US import	USc/kg	307	319	350	*9.7*
– Japan import	USc/kg	452	511	523	*2.3*

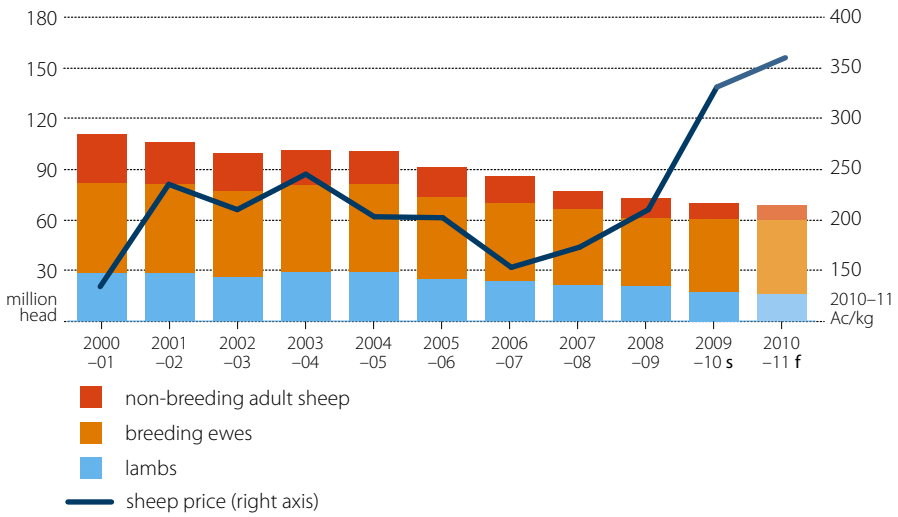
Sheep meat

Gwendolen Rees

The Australian weighted average saleyard price of lambs is forecast to increase marginally in 2010–11 to 470 cents a kilogram. Strong demand for lamb in key export markets and for restocking will underpin this forecast price increase, because lamb production is expected to increase slightly in the short term.

The Australian weighted average saleyard price of sheep is forecast to rise by 12 per cent in 2010–11 to 360 cents a kilogram. This will be the second highest price on record (going back to 1969–70) in real terms (after the high of 1973–74), if achieved, and follows on from a 62 per cent increase in 2009–10. The forecast strong price reflects the supply side situation of a sharp decline in adult sheep numbers in recent years and strong demand for breeding ewes in response to improved seasonal conditions. In addition, rising competition between slaughter and live exporters for adult sheep is also expected to support prices.

Australian sheep flock and price



Lamb slaughter is expected to rise in 2010–11 to around 20 million head, consistent with an expected increase in lambs marked and forecast higher lamb slaughter rates. The number of marked lambs is expected to increase because of increased ewe joinings and higher marking rates. These factors reflect the increased importance of meat production to the sheep industry.

Increased ewe joinings are the result of estimated higher opening ewe numbers for the 2010–11 season. Additionally, producers are expected to join ewe lambs or hoggets at earlier ages, as well as more mature ewes.

The expected increase in lamb marking rates reflects improved seasonal conditions in 2009–10 and the higher fertility and survival rates of meat breeds relative to merinos. ABARE–BRS farm survey data indicate that average lamb marking rates per farm have risen in the past two years across all sheep enterprises. The higher lamb marking rates allow for a higher average slaughter rate across the sheep industry.

Lamb production is forecast to increase by 1.4 per cent in 2010–11 to 426 000 tonnes. Favourable seasonal conditions and an increased focus on meat production by sheep enterprises are expected to result in a small increase in slaughter weights on average.

Sheep slaughter is expected to fall by 3 per cent in 2010–11 to 7.85 million head, mainly because producers are retaining sheep for flock rebuilding. High lamb prices are expected to result in producers retaining older ewes, which would have been turned off in previous seasons, in order to maximise lamb markings. Favourable seasonal conditions are also expected to allow producers to achieve higher stocking rates. However, the prospect of locust plagues in south-eastern Australia presents a small downside risk to the availability of pasture during spring and summer in these areas.

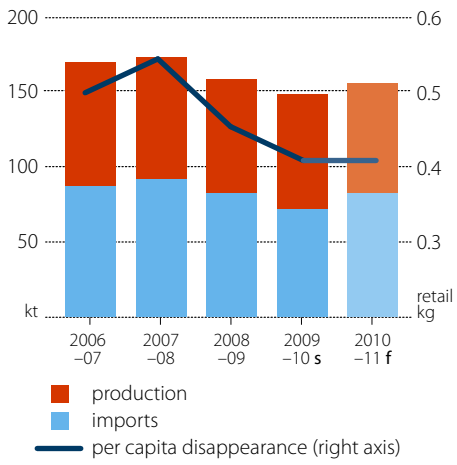
Mutton production is expected to follow the downward trend of sheep slaughter and fall by 4 per cent in 2010–11 to around 170 000 tonnes. The continued rise in ewe numbers as a proportion of the adult breeding flock is expected to result in average slaughter weights falling slightly.

Australia to improve share in US lamb market

Lamb exports to the United States are forecast to increase by around 6 per cent to around 37 000 tonnes. This is in response to improved US demand and higher export prices received from that market. The United States Department of Agriculture has forecast an increase of 14.5 per cent in US imports of sheep meat in 2010–11, in part because of lower US lamb production.

The forecast increase in lamb exports to the United States in 2010–11 is in contrast to 2009–10, when Australian lamb exported to that country fell and its share in total lamb exports declined by 7 per cent. Export returns from the US market were among the highest for Australian lamb exports. However, the average unit value to the United States fell by around 11 per cent in 2009–10 and, reflecting this, Australian lamb exports were diverted to other markets such as China, Papua New Guinea and the United Arab Emirates, where unit export values grew strongly in 2009–10.

US annual sheep meat production and imports



Source: United States Department of Agriculture.

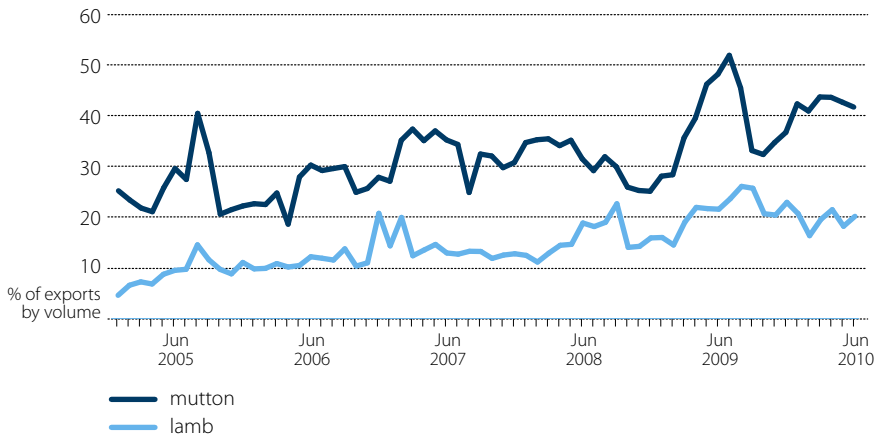
Increasing importance of the Middle East

While the Middle East is the most important destination for Australian live sheep exports, its importance as a destination for Australian sheep meat exports has also been increasing.

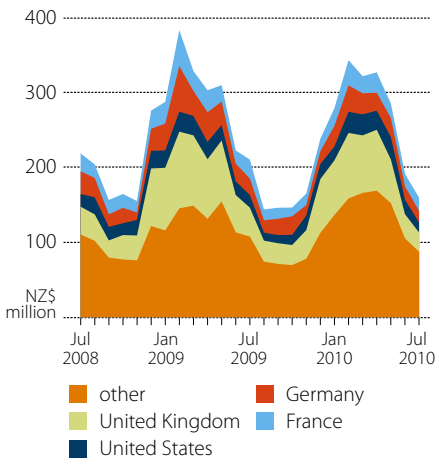
In 2009–10, the Middle East accounted for 41 per cent of Australian mutton exports and 21 per cent of lamb exports, by volume. This compares with 26 per cent and 11 per cent, respectively, in 2005–06.

This increase is attributable to rising incomes and demand for proteins in many Middle Eastern countries. The Australian industry has increased the marketing of halal-slaughtered sheep meat in the Middle East in an attempt to improve recognition of, and demand for, Australian product relative to alternatives.

Australian sheep meat exports to the Middle East



New Zealand sheep meat exports to key markets



Source: Statistics New Zealand.

Lamb exports from New Zealand

Lamb exports from New Zealand are expected to decline in 2010–11. According to data from Statistics New Zealand and Beef + Lamb New Zealand, the total volume of sheep meat exports from New Zealand grew by 3.6 per cent in 2009–10, but the total export value declined by around 7 per cent. The New Zealand sheep flock is estimated to have grown by 2.5 per cent in 2009–10, but the 2010 spring lamb markings will be around 2.5 per cent lower than in 2009 as a result of the ongoing decline in the New Zealand breeding ewe flock. This is expected to lead to a 2 per cent fall in lamb production. Mutton production is also expected to fall, by around 3.5 per cent.

The diversion of Australian product from the US market in 2009–10 resulted in New Zealand gaining a higher share of US lamb imports. It is expected that Australia will regain some of the lost market share in 2010–11, given expected lower New Zealand lamb exports.

Value of Australian sheep meat exports to rise

The volume of Australian lamb exports is forecast to remain largely unchanged in 2010–11 at around 158 000 tonnes shipped weight. Higher demand for Australian lamb in key export markets such as the United States, China and the Middle East is expected to result in higher average export unit values and an increase of 4 per cent in the total value of lamb exports in 2010–11, to around $953 million.

Shipments of Australian mutton are forecast to decline by 5 per cent in 2010–11, reflecting the expected fall in slaughter. The effect of falling volumes is expected to be more than offset by increased export unit values, as demand for mutton in the Middle East and China is expected to remain strong. The total value of Australian mutton exports is forecast to increase by 9 per cent in 2010–11, to around $470 million.

Live sheep export volumes to remain low

Australian live sheep export volumes are forecast to remain low in 2010–11 at around 3.1 million head. Although demand from the Middle East is forecast to be strong, shipments are expected to be constrained by sheep availability in 2010–11. This is the result of competition between restockers, live exporters and sheep meat processors. Average export prices for live sheep grew by 14 per cent in 2009–10, and were 31 per cent higher in real terms than the average for the previous 10 years. Reflecting the continued tight supply situation, live export prices are expected to increase further in 2010–11, and the value of Australian live sheep exports is forecast to increase by 11 per cent to around $329 million.

Australian live sheep exports

Sheep meat outlook

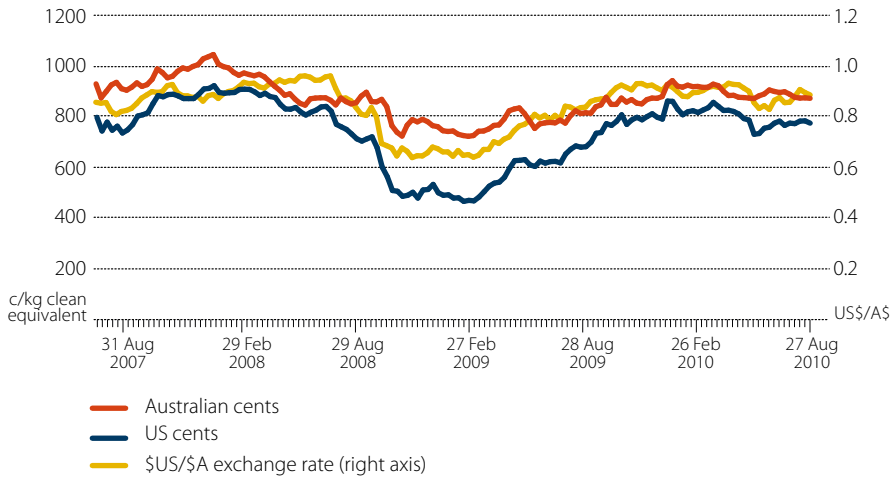
		2008 –09	2009 –10 s	2010 –11 f	% change
Slaughterings					
Sheep	'000	11 282	8 102	7 850	*– 3.1*
Lamb	'000	20 767	19 850	20 000	*0.8*
Production					
Mutton	kt	235	177	170	*– 4.0*
Lamb	kt	423	420	426	*1.4*
Exports (shipped weight)					
Mutton	kt	146	111	105	*– 5.4*
Lamb	kt	156	157	158	*0.6*
– to United States	kt	38	35	37	*5.7*
Total sheep meat	kt	302	268	263	*– 1.9*
– value	$m	1 407	1 348	1 423	*5.6*
Live sheep	'000	4 064	3 055	3 100	*1.5*
– value	$m	339	297	329	*10.8*
Saleyard prices					
Mutton	Ac/kg	199	321	360	*12.1*
Lamb	Ac/kg	424	464	470	*1.3*

Wool

Gwendolen Rees

The Australian Eastern Market Indicator (EMI) price for wool is expected to average around 890 cents a kilogram clean in 2010–11, an increase of 2 per cent from 2009–10. Relatively stable shorn wool production in Australia and a marginal increase in demand for wool products are expected to lead to a small rise in prices.

Australian eastern market indicator wool price
weekly, ended 27 August 2010



The outlook for weaker economic growth in the European Union and the United States is a key downside risk to the current price forecast. Although imports of wool products have increased in these regions since late 2009, there are emerging signs that consumer spending could weaken in the short term. If this were to occur, there would be a dampening effect on the demand for raw wool in the latter part of 2010–11, leading to lower prices than currently forecast.

Shorn wool production to stabilise

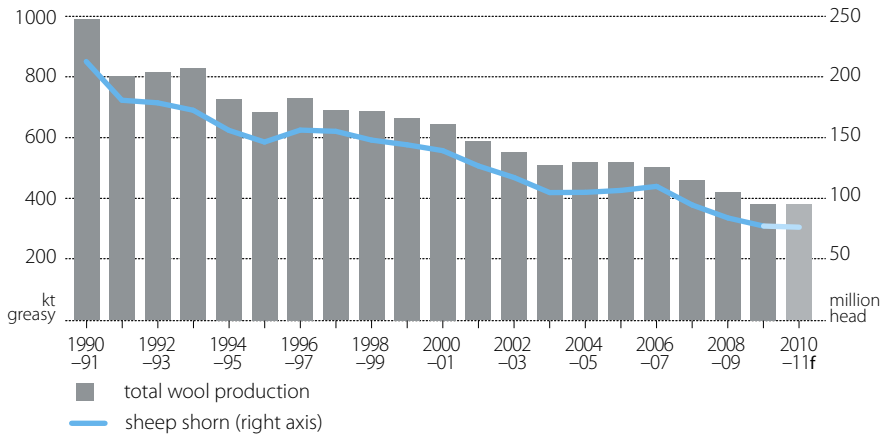
Shorn wool production in Australia is expected to remain largely unchanged in 2010–11 at around 341 000 tonnes. This reflects the forecasts of a small decline in the number of sheep shorn and marginally higher fleece weights.

The Australian sheep flock is forecast to decline by less than 2 per cent in 2010–11 to 69 million head. This forecast represents an expected slowing of the recent declines in sheep numbers, as producers respond to favourable seasonal conditions. However, large declines in breeding ewe numbers in recent years, combined with an incentive for producers to maintain slaughter in response to high lamb and sheep prices, mean a significant increase in the sheep flock appears unlikely in the short term.

Reflecting the slowing in the decline of sheep numbers, the number of sheep shorn is forecast to fall by 1 per cent in 2010–11 to around 76.5 million head. This compares with an average annual decline of 6 per cent over the previous five years.

Wool cut per head is expected to increase slightly in 2010–11 to around 4.45 kilograms. Improved seasonal conditions and a favourable rainfall outlook for most wool growing regions, with the exceptions of south-western Victoria and northern Tasmania, are expected to increase average fleece weights for all sheep types. This increase will largely offset the negative effects of a higher proportion of meat breeds in the sheep flock and increased lamb and ewe proportions relative to wethers.

Australian wool



Increasing segmentation of the wool market

The profile of the Australian wool clip has changed significantly in recent years. Superfine and coarse wool production has increased as a proportion of the clip, with a lower share for mid-micron wools. Although the total volume of wool produced has declined in recent years, the Australian Wool Testing Authority's (AWTA) Key Test Data indicate that the total weight of superfine (<19.5µm) bales tested in 2009–10 increased by 21 per cent relative to 2000–01 levels, to around 139 200 tonnes. The proportion of coarse (>26.5µm) wools in the clip increased from 8 per cent to 12 per cent over the same period.

The micron profile has moved toward a bimodal distribution, which is consistent with increased specialisation within sheep enterprises. Some producers have increased their focus on superfine wool production, and others on lamb production with crossbred sheep (leading to an increase in coarser wool production). According to the Australian Wool Exchange (AWEX), the proportion of crossbred bales offered rose from 8 per cent of total offerings in 1999–2000 to 15 per cent in 2008–09.

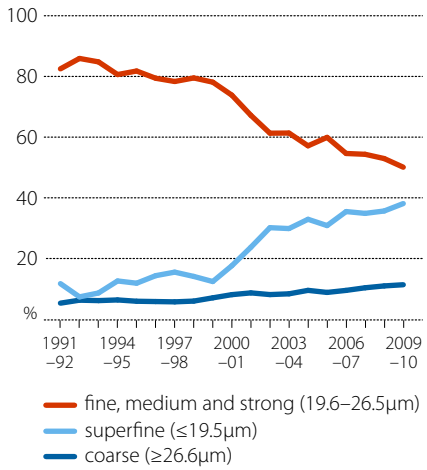
The wool market is becoming increasingly segmented in response to the changed profile of the wool clip, with distinctions between demand for superfine, medium and coarse wools becoming more visible.

continued...

Increasing segmentation of the wool market continued

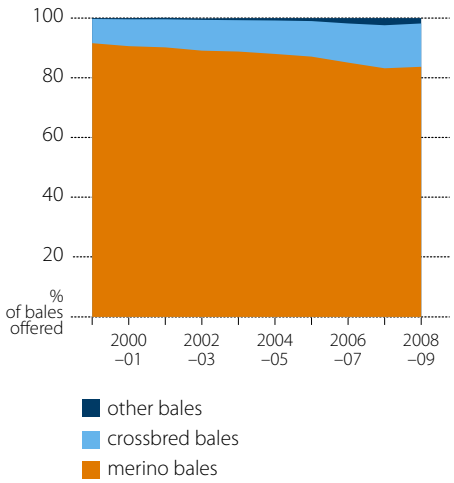
According to the Australian Wool Innovation Wool Production Forecasting Committee, overall micron profiles for 2010–11 will be slightly coarser relative to 2009–10, reflecting favourable seasonal conditions and the increased breeding of crossbred sheep. AWEX is reportedly due to review the structure of the EMI prior to the opening of the 2011–12 season, and indications are that new weightings could have more emphasis on coarser wools.

Australian wool clip – micron profile



Source: AWTA.

AWEX offerings by wool breed



Source: AWEX.

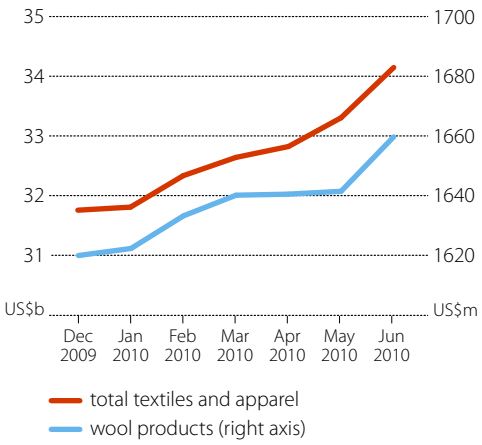
World demand for raw wool and wool products

World demand for wool and wool products, in aggregate, improved in 2009–10, but demand in some apparel-importing countries such as the European Union and the United States remained weak.

Demand for wool and wool products has been improving in China and this trend is likely to continue. Textile manufacture output in China grew year on year by 11 per cent in the first seven months of 2010, while domestic consumption of garments, hats and footwear grew by 24 per cent. The Nanjing Wool Market Price Composite Index, which combines prices for both domestically produced and imported wools, rose steadily in the second half of 2009–10. Over the first five months of 2010, China's total wool imports increased year on year by around 15 per cent.

Total imports of wool products in the United States grew strongly in the latter half of 2009–10. However, for the year as a whole, imports fell by 18 per cent, mainly because of sharply weaker demand in the first half of the year. Declines in US imports of general textiles were

US imports from China



Source: United States Office of Textiles and Apparels.

much smaller than for wool products because relatively weak consumer demand affected more severely discretionary consumption of luxury items, including many types of wool products. The demand recovery in the latter half of 2009–10 is expected to continue into 2010–11, albeit at a slower pace. This is expected to provide some support for raw wool demand.

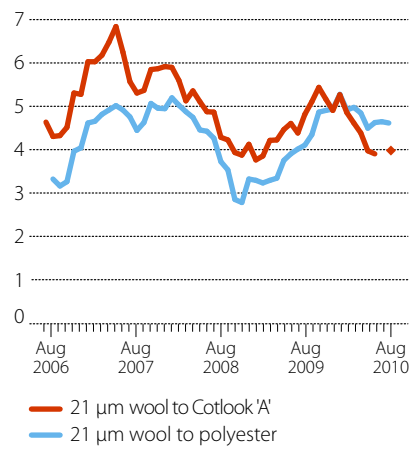
Demand for wool and wool apparel in the European Union has been subdued and is expected to remain weak. Australian wool exports to the European Union declined by 25 per cent and 32 per cent in volume and value terms, respectively, in 2009–10. EU imports of wool and wool products from China have also been subdued.

Supplies of other producing countries

World wool production is forecast to remain largely unchanged in 2010–11, in contrast to declines in recent years. South African wool production is expected to remain relatively stable in 2010–11. The South African wool clip has been progressively improving in quality, with around 51 per cent of fleeces offered in 2009–10 being less than 20.6 µm, compared with only 17 per cent in 1999–2000.

Wool production in New Zealand is estimated to have been around 195 000 tonnes greasy in 2009–10. Production is expected to increase marginally further in 2010–11, reflecting an estimated increase in the sheep flock of 2.5 per cent in 2009–10, after three consecutive years of decline.

Wool to alternative fibre ratios



In Argentina, wool production is forecast to rise by 3000 tonnes to 57 000 tonnes greasy in 2010–11. This will more than offset a forecast decline in wool production in Uruguay of 2000 tonnes to around 35 000 tonnes.

Wool to gain competitiveness against cotton

The competitiveness of wool relative to cotton is expected to improve in 2010–11 with forecast higher world cotton prices. Although world cotton production is forecast to increase in 2010–11, it is expected to again be lower than world consumption, resulting in a further decline in stocks.

However, the competitiveness of wool relative to man-made fibres will remain largely unchanged, as prices of both fibre types are expected to increase modestly. Prices of man-made fibres such as polyester rose in the first half of 2009–10, before flattening out from around January 2010 as feedstock supplies increased. In comparison, prices for the 20 to 23 micron range, which are most closely substitutable with polyester, rose by around 15 per cent in 2009–10.

Australian wool export volumes

Value of wool exports to rise

Consistent with the forecast of shorn wool production, total Australian wool exports are expected to remain largely unchanged in 2010–11 at 401 000 tonnes greasy equivalent. This compares with an average annual decline of 6 per cent over the five years to 2009–10. China is expected to remain the key destination for Australian wool exports, accounting for 77 per cent of total Australian wool exports by volume in 2009–10. India and the Czech Republic accounted for 7 per cent and 3 per cent, respectively.

The total value of Australian wool exports is forecast to increase by 1.8 per cent in 2010–11 to $2.3 billion. This mainly reflects a forecast increase in the export unit value of all wool types. In 2009–10, the average export unit values for Australian greasy, semi-processed and woolskins exports grew by 2.4 per cent, 2.3 per cent and 4.1 per cent, respectively.

Wool outlook

		2008 –09	2009 –10 s	2010 –11 f	% change
Sheep numbers	million	73	70	69	*– 1.4*
Sheep shorn	million	84	78	77	*– 1.3*
Wool production (greasy)					
– shorn	kt	371	341	341	*0.0*
– other	kt	50	41	41	*0.0*
– total	kt	420	382	382	*0.0*
Wool exports (balance of payments basis)					
– volume (gr. equiv.)	kt	439	401	401	*0.0*
– value	A$m	2 322	2 308	2 349	*1.8*
Market indicator (clean)					
– eastern	Ac/kg	794	872	890	*2.1*
– western	Ac/kg	762	863	881	*2.1*
Auction price (greasy)	Ac/kg	499	556	570	*2.5*

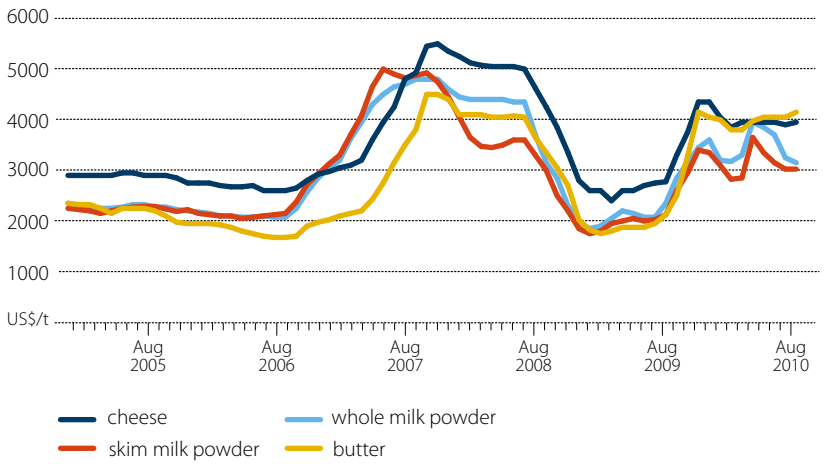
Dairy

David Barrett

World prices for dairy products are forecast to average slightly higher in 2010–11 than in 2009–10. The world indicator price for cheese is forecast to increase by 3.5 per cent to average around US$3880 a tonne. World prices for skim milk powder and whole milk powder are both forecast to increase by 4 per cent in 2010–11 to average US$3072 a tonne and US$3350 a tonne, respectively. World butter prices are forecast to increase by 6.4 per cent to average US$3700 a tonne.

Growth in global demand for dairy products, particularly in Asia, the Middle East and North Africa, is expected to support prices in 2010–11. However, forecast higher production in the major producing and exporting countries is expected to partially offset the effect of increased demand and moderate the pressure for price increases.

World dairy prices



World butter prices recovered in the second half of 2009, and have since remained closer to the highs of 2007–08. Firm import demand in the Russian Federation and the Middle East and a run-down in butter stocks in the major producing and exporting countries have placed upward pressure on butter prices.

World prices for milk powders fluctuated in the first eight months of 2010, and since May 2010 have fallen by 18 per cent in response to an easing of world demand and the prospect of higher production in key exporting countries, particularly New Zealand.

Global milk output to increase

European Union

Although EU dairy farmers are likely to face higher feed grain prices in 2010–11 as a result of reduced grain export supplies in the Russian Federation, Ukraine, Kazakhstan and Canada, EU milk output is forecast to increase slightly in response to higher farm-gate milk prices. EU milk production declined by 2 per cent in the 2009–10 marketing year (April to March), as a result of unfavourable seasonal conditions in the second half of the year.

Since early June 2010, the European Union has undertaken a program to release butter and skim milk powder from intervention stores. By mid-September 2010, 23 435 tonnes of butter and 1700 tonnes of skim milk powder had been sold. Meanwhile, between May and the end of September 2010 the European Union plans to allocate 51 148 tonnes of butter and 65 290 tonnes of skim milk powder from intervention stocks under the 'deprived persons' program. Excluding products allocated under the 'deprived persons' scheme, as at mid-September 2010 the European Union held 1500 tonnes of butter and 190 300 tonnes of skim milk powder in intervention stores.

United States

US milk production is forecast to rise by 1.3 per cent to 88.3 million tonnes in 2011, being driven by an increase in milk yield per cow. Since mid-2009, milk prices received by US farmers have increased by nearly 30 per cent, providing an incentive for some producers to expand herds. However, forecast higher feed grain prices in 2010 and 2011 are likely to limit the expansion in dairy cow numbers.

The dairy herd in the United States is forecast to decline by 2.4 per cent to 9.09 million head in the two years ending 2010. The fall in dairy cow numbers can be partly attributed to the herd retirement programs undertaken by Cooperatives Working Together. Around 200 000 dairy cows were slaughtered under this program in 2009 and it was announced in July 2010 that a further 34 000 cows would be slaughtered.

Commodity Credit Corporation stocks of skim milk powder, which had accumulated during 2009, declined from 120 000 tonnes in September 2009 to 725 tonnes in July 2010. These stocks were disposed of through domestic food aid programs.

The United States increased its exports of dairy products in the first half of 2010 in response to a pick-up in export demand. However, with the prospect of increased exports of milk powders from New Zealand in 2010–11, US exporters are expected to face increased competition in key Asian markets, which will constrain growth in US exports.

New Zealand

Milk production in New Zealand is expected to increase by around 6 per cent in 2010–11. Over the past decade, milk production in New Zealand has grown by around 40 per cent. Most of the growth has occurred in the South Island, where beef and sheep farms have been converted to dairying.

The New Zealand dairy herd reached a record 4.6 million cows in June 2009, 5.4 per cent higher than in 2008. Dairy cow numbers are expected to rise by a further 2.4 per cent in 2010.

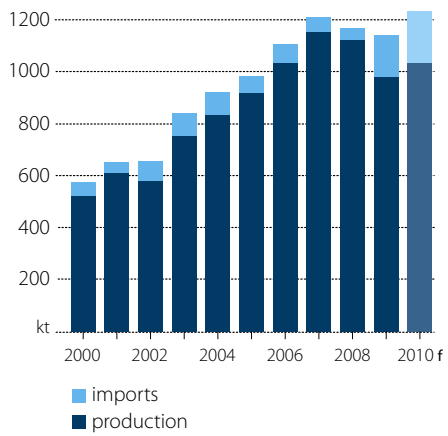
In line with the increase in dairy cow numbers, New Zealand exports of whole milk powder have more than doubled since 2000, reaching 893 000 tonnes in 2009–10. This has been driven mainly by the strong growth in demand for milk powders in developing economies.

Global demand underpins dairy markets

Global consumption of dairy products increased in the second half of 2009–10, mainly reflecting continuing economic recovery in emerging and developing economies, such as the Russian Federation, non-OECD Asia, the Middle East and North Africa. Despite an assumed slowing in world economic activity in the second half of 2010–11, global demand and trade in dairy products is expected to remain relatively firm.

World trade in milk powders in 2010–11 will depend on further increases in import demand in ASEAN and China. China's imports of whole milk powder increased nearly fourfold to 176 000 tonnes in 2009, representing around 12 per cent of global trade in whole milk powder. The Chinese melamine contamination in 2008 affected consumer confidence in domestically produced dairy products and, as a result, milk production fell sharply in 2009.

China: whole milk powder

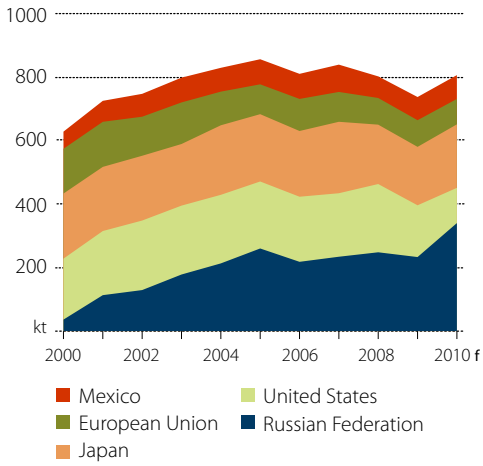


Demand for imports remained strong in the first four months of 2010 and were 80 per cent higher than the corresponding period in 2009. Strong Chinese demand for whole milk powder is expected to continue for the remainder of 2010, with imports expected to exceed those in the same period of 2009. However, China's milk production is beginning to recover from the sharp decline in 2008 and farmers are likely to rebuild herds. Further growth in milk production in 2011 may reduce the demand for imported milk powders.

The world cheese market is expected to be supported by further increases in imports by the Russian Federation and Japan in 2010–11. However, imports of cheese by the United States are forecast to decline by around 30 per cent in 2010, as a result of the accumulation of relatively high stocks and weak domestic demand.

The Russian Federation is forecast to import around 340 000 tonnes of cheese in 2010. The recovery in Russian demand for dairy products has been reflected in higher cheese imports since early 2010, particularly from the European Union.

Major cheese importers



Unseasonably hot weather and drought conditions in some of the main agricultural areas of the Russian Federation in mid-2010 have led to a reduction in milk production. As a result, it is likely that imports of cheese, butter and milk powders will increase further over the remainder of 2010–11.

Despite generally weak demand for dairy products in Japan, Japanese cheese imports are forecast to rise by 9 per cent to 200 000 tonnes in 2010. Australian exports of cheese to Japan increased by 20 per cent to 89 850 tonnes in 2009–10, accounting for slightly more than half of total Australian cheese exports.

Australian milk production

Australian farm-gate milk prices are forecast to rise by 3.2 per cent in 2010–11 to average 38.5 cents a litre, as a result of a continued recovery in global demand for dairy products. Opening prices for manufacturing milk set by dairy processors in Victoria for the 2010–11 season averaged around 34 cents a litre. This is well above the opening price of 26 cents a litre for the 2009–10 season.

Australian milk production is forecast to rise by 2.6 per cent in 2010–11 to 9250 million litres in response to higher farm-gate milk prices and higher per cow yields as a result of favourable seasonal conditions.

The capacity of the Australian dairy industry to increase milk production is strongly linked to seasonal conditions, the availability of water for irrigation and the cost of feeds. Above average autumn and winter rains in 2010 were received in the main dairying regions of south-east Australia and, given the seasonal outlook for spring, there is expected to be favourable spring and early summer pasture growth. For irrigation-dependent farms in the Murray–Darling Basin, water levels in the main storage dams have improved considerably and water availability is expected to be well above that of recent years. The price of traded water has also declined, reducing the cost of water purchased by irrigators.

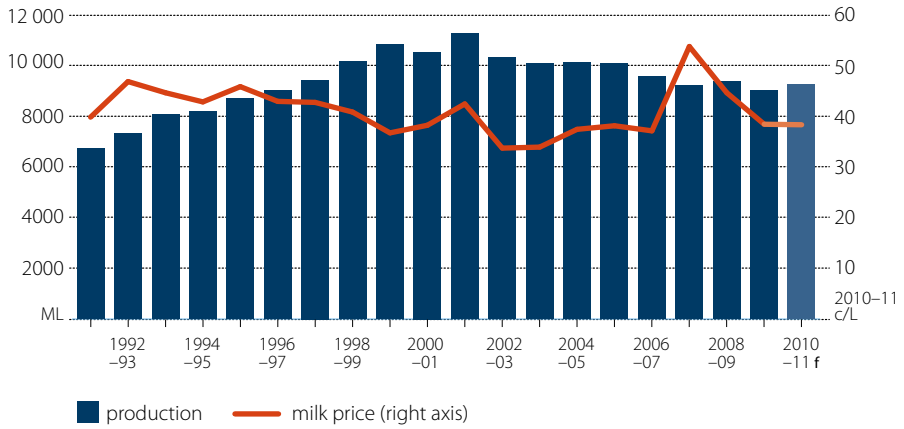
With purchased grain and concentrates accounting for around one-third of the cash costs of dairy farmers, forecast higher domestic feed grain prices in 2010–11 have the potential to constrain milk yield increases and temper the expected rise in milk production.

Australian dairy export earnings to increase in 2010–11

The value of Australian dairy product exports is forecast to increase by 8 per cent in 2010–11 to $2.23 billion. The value of butter and cheese exports is forecast to increase by 17 per cent

and 8 per cent to $248 million and $772 million, respectively. The export values of skim milk powder and whole milk powder are forecast to be $404 million and $311 million in 2010–11, 13 per cent and 5 per cent higher, respectively, than in 2009–10.

Australian milk production and price



Dairy outlook

		2008–09	2009–10 s	2010–11 f	% change
Cow numbers	'000	1 676	1 630	1 630	*0.0*
Milk yields	L/cow	5 602	5 531	5 675	*2.6*
Production					
Total milk	ML	9 388	9 016	9 250	*2.6*
– market sales	ML	2 229	2 269	2 310	*1.8*
– manufacturing	ML	7 159	6 747	6 940	*2.9*
Butter	kt	148	128	133	*3.9*
Cheese	kt	342	345	354	*2.6*
Whole milk powder	kt	148	126	127	*0.8*
Skim milk powder	kt	212	190	198	*4.2*
Farm-gate milk price	Ac/L	42.5	37.3	38.5	*3.2*
Value of exports	A$m	2 679	2 066	2 231	*8.0*
World prices					
Butter	US$/t	2 485	3 477	3 700	*6.4*
Cheese	US$/t	3 281	3 748	3 880	*3.5*
Skim milk powder	US$/t	2 333	2 948	3 072	*4.2*
Whole milk powder	US$/t	2 546	3 221	3 350	*4.0*

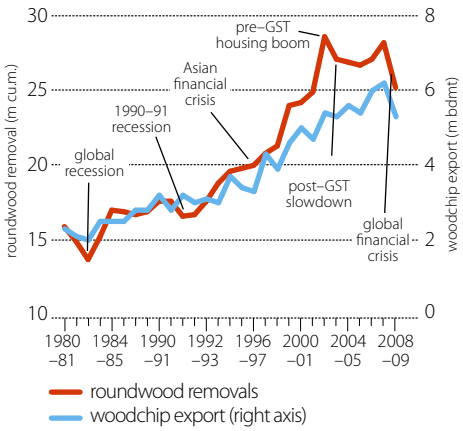
Forestry

Phil Townsend

- Australia's total industrial roundwood harvest and woodchip exports both declined in 2008–09 and 2009–10, but are forecast to achieve modest growth in 2010–11.
- The outlook for Australia's industrial roundwood harvest and woodchip exports will depend on demand growth in the domestic and major overseas wood markets, including Japan and China, wood availability from other international suppliers, and the degree of competition for wood fibre from the renewable energy sector.

Australia's industrial roundwood harvest from native forests and plantations is used to supply the domestic sawnwood, engineered wood product, pulp and paper and woodchip sectors. Woodchips derived from native forests and plantations are used to make various grades of paper products both within Australia and overseas. The fibres extracted from native forest and plantation hardwood chip sources are blended to produce a range of paper products and paper grades. As such, the native forest and plantation hardwood chips are not perfect substitutes for each other and the demand for those resources will be determined by a range of global and domestic market factors.

a Australia's industrial roundwood harvest and woodchip exports, 1980–81 to 2008–09



The domestic industrial roundwood harvest has been increasing by an average of approximately 500 000 cubic metres a year since 1980–81 (figure a). During this period, logs harvested to produce woodchips for export have grown from around 30 per cent to 36 per cent of the country's total industrial roundwood harvest.

Factors affecting Australia's industrial roundwood harvest include domestic and global economic developments and the availability of wood from Australia's native forests and plantations. As a result of the economic slowdown in major export markets, especially Japan, Australia's industrial roundwood harvest and woodchip exports declined by 10 per cent in 2008–09. Total roundwood harvest fell marginally further in 2009–10, to around 25 million cubic metres (table 1).

While Australia's total wood harvest fell by around 12.4 per cent over the two years to 2009–10, the gross value of log production was reduced by 7.8 per cent. The smaller percentage reduction for log value was because of an increase in the prices of domestically consumed sawlogs and pulp wood harvested from Australia's plantations and native forests. Over the same period, the export price for woodchips remained relatively stable, with export woodchip shipments declining by 21.8 per cent and the value of exports by 20.2 per cent.

1 Australia's industrial roundwood production and woodchip and forest product exports

	2007–08	2008–09	2009–10 s	2010–11 f
Industrial roundwood (million cu.m) a	28.2	25.3	25.0	25.7
Woodchip exports (million bdmt) b	6.17	5.26	4.82	5.03
Woodchip exports ($) c	1 072	997	855	889
Other products exports ($) c	1 399	1 346	1 423	1 471
Total exports	2 471	2 343	2 278	2 360

a Million cubic metres. **b** Woodchip export volume in million bone dry metric tonnes (bdmt). **c** Fob, $ million. **f** Forecast. **s** Estimate.

Australia's industrial roundwood harvest in 2010–11

The forecast future industrial roundwood harvest takes into account the previous domestic production of logs, demand in domestic and overseas markets and wood availability from native forests and plantations. Australia's total industrial roundwood harvest is forecast to increase by 2.8 per cent to 25.7 million cubic metres in 2010–11.

Taking into account Australia's plantation expansion over the past 15 years, the volume of hardwood logs available for harvest could increase from around 5 million cubic metres in 2009 to a potential 13 million cubic metres a year from 2010 onward. There is also capacity, albeit limited, to increase the harvest of softwood plantation resources.

b Economic growth and hardwood chip imports in Japan, 1999 to 2009

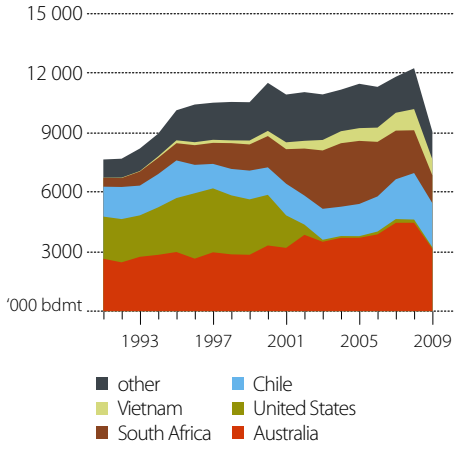
Japan as a major importer of woodchips

Japan is the world's major market for woodchips, accounting for 53 per cent of global trade of hardwood chips and 15 per cent of softwood chips. According to the Japan Paper Association, Japan's imports of hardwood chips were around 18–19 million cubic metres a year over the period 2004 to 2008. In 2009, Japan's hardwood chip imports fell to 15.1 million cubic metres, associated with a sharp decline in economic growth (figure b).

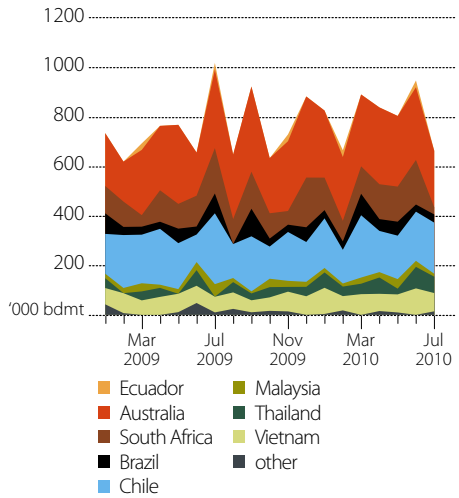
Total paper production in Japan is around 18–19 million tonnes a year, with exports accounting for up to 5 per cent of annual output. The drivers of paper production and woodchip demand in Japan are important for the Australian industry, as Japan is by far the biggest market for Australian woodchips.

From Japan Custom's data, woodchip import trends over the period 1990 to 2009 show increased hardwood chip imports but reduced softwood chip imports (figures c and e, measured in bdmt). Both hardwood and softwood chip imports declined markedly in 2009, by 26 per cent and 46 per cent, respectively.

c Major suppliers of hardwood woodchips to Japan, 1991 to 2009



d Monthly hardwood chip imports by Japan, January 2009 to July 2010



Since early 2009, hardwood chip imports in Japan have shown weak growth, with Australia continuing to be the largest supplier (figure d). Given the relatively weak economic outlook for Japan, it is unlikely that demand for wood chips will increase significantly in Japan in 2010–11 .

Softwood chip trade with Japan

Despite declining import demand in Japan for softwood chips from the mid-1990s to 2009, Australia has maintained its position as a major supplier to Japan (figure e).

While softwood chip import demand in Japan has been generally increasing since early 2009 (figure f), pace of a further recovery is likely to be modest in the short term.

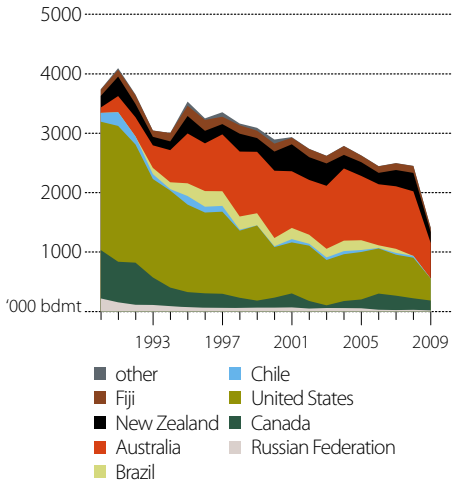
Another factor that has the potential to significantly influence Japan's short and long-term demand for woodchips is the competitiveness of the industry relative to pulp and paper manufacturers in competing countries. Two-thirds of Japan's pulp mills have been rated among the least competitive in the world. Unless Japan significantly restructures its pulp and paper manufacturing industry, there could be significant implications for the import demand for woodchips over the medium and longer term as global competition increases.

Australia's supply of hardwood and softwood woodchips

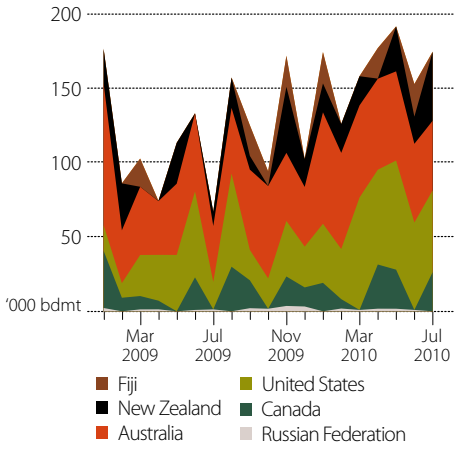
Around 50 per cent of Australia's log harvest is used to produce woodchips from native forest and plantation resources for use in domestic and overseas pulp and paper production. Hardwood chips make up 90 per cent of Australia woodchip exports, with the majority supplied to the Japanese market (figure g).

Australia's plantation hardwood chip exports exceeded native forest chip exports for the first time in 2008–09 (table 2). Hardwood chip exports derived from native forests declined by 17.3 per cent in that year.

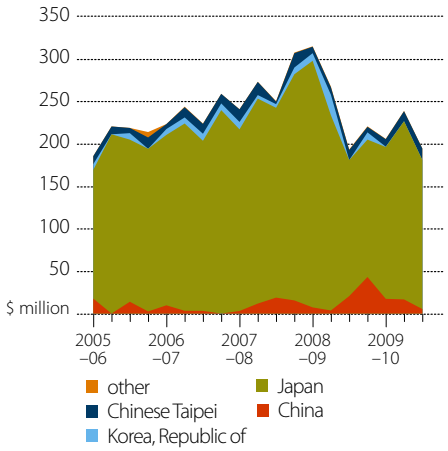
e Major suppliers of softwood chips to Japan, 1990 to 2009



f Monthly softwood chip imports by Japan, January 2009 to July 2010



g Australia's quarterly hardwood chip exports by destination, 2005–06 to 2009–10



2 Australian exports of native forest and plantation hardwood chips, 2001–02 to 2008–09

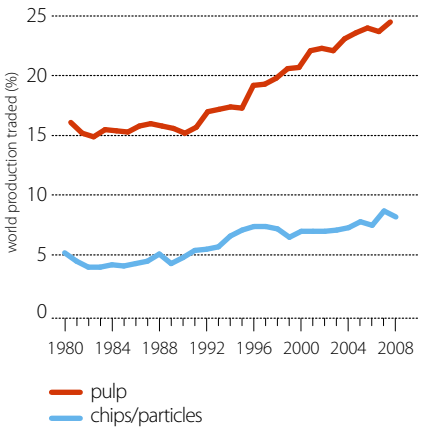
	native forest chip export (m cu.m.)	plantation chip export (m cu.m.)
2001–02	5.2	0.9
2002–03	5.9	1.6
2003–04	5.6	1.8
2004–05	5.6	2.9
2005–06	4.6	3.8
2006–07	4.7	4.1
2007–08	5.2	4.2
2008–09	4.3	4.5

While total imports of woodchips into Japan are forecast to remain largely unchanged in 2010, the increased availability of Australia's hardwood plantation resources could lead to Australia obtaining a larger share of that market. The higher fibre yields from Australia's hardwood plantation resources and combined high fibre yield and density of even-age native forest woodchips are expected to lead to Australian woodchips replacing some of the lower fibre-yielding plantation and native forest woodchips sourced from tropical countries. However, this substitution is likely to occur only gradually, as Japanese importers will maintain long-term relationships with wood suppliers in tropical countries for security of supply.

Other key market influences affecting Australia's woodchip sector

Other factors that could influence the outlook for Australia's woodchip markets include the relocation of global pulp mill capacity, availability of native forest and plantation pulpwood resources in the Asia–Pacific region (particularly in China), and the growing markets for renewable energy products in Europe.

h Proportion of global woodchips/particles and pulp production traded



Since 1990, the relocation of pulp mill capacity to regions with increased wood availability has led to the proportion of global pulp production being traded increasing from 15 per cent of global output in 1990 to almost 25 per cent in 2008 (figure h). Other factors contributing to the increased trade of pulp include improved efficiency in the transportation of pulp, and paper mills utilising pulp from multiple sources for manufacturing paper.

As a consequence of the global financial crisis, there has been a significant redistribution of global pulp production. Mills have closed in North America and Europe, while production has increased in recently commissioned mills in Latin America (in close proximity to large plantation resources and to produce market pulp) and in newly commissioned mills in China (which require fibre from domestic and overseas sources) (Wood Resources Quarterly 2009).

There remains a possibility that this redistribution of global pulp capacity may extend to Australia, utilising a significant proportion of the emerging hardwood plantation resources. Most Australian hardwood plantations grow the premium chip species (in terms of high fibre yields and relatively low costs of processing into pulp). Nevertheless, the potential for a pulp mill development in Australia will depend on a range of factors affecting the relative advantages of processing in Australia versus other countries.

From China's plantation resources, the hardwood timber harvest is expected to increase from around 75 million cubic metres in 2006 to 90 million cubic metres by 2012 and the softwood harvest from around 60 million to 95 million cubic metres over the same period (Flynn 2008). Even with growth in plantation outputs, China's hardwood chip imports are expected to rise from around 1.1 million bone dry tonnes in 2007 to 3.5 million bone dry tonnes in 2012 to supply the new mill capacity (Flynn 2008). China's wood pulp imports have been falling since mid-2009 and prices paid for bleached hardwood kraft pulp in that country have also been falling. These changes are consistent with increased demand for wood fibre and a slowing in growth in demand for market pulp, as China's wood fibre–based pulp mills increase their operations, especially in the presence of the Chinese Government's efforts to close down inefficient non-wood pulp mills.

Competition for wood fibre from renewable energy

Sawmilling residues and low-grade logs have traditionally been used as inputs for pulp production. However, growing competition from the renewable energy sector for low-grade wood fibre to produce wood pellets has already raised the prices being paid for sawmilling residues. With global wood pellet production of around 9 million tonnes in 2008, which is forecast to reach 16 million tonnes in 2010 (UNECE Annual Market Review 2009), wood fibre may continue to be diverted from the traditional markets, such as the United States increasing supply of wood pellets to the renewable energy market in Europe, and may alter the existing patterns of wood trade in the Asia–Pacific region.

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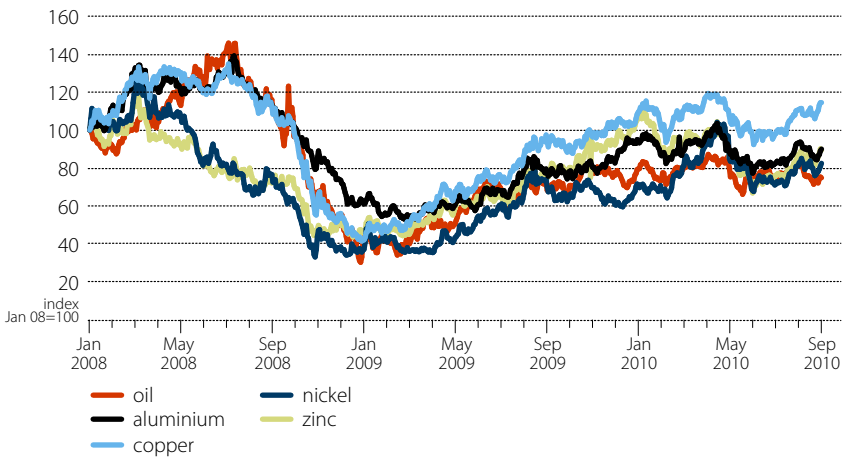
Energy and minerals overview

Alan Copeland and Farah Beaini

- Over the outlook period, global prices for many energy and minerals commodities are expected to be driven by market expectations and the actual pace of world economic growth, especially the timing and strength of OECD economic recovery.
- In the remainder of 2010, prices are generally forecast to average lower than in the first half of the year, reflecting an assumed easing of performance in many major economies. In 2011, continued strong growth in emerging economies, especially China and India, is expected to drive commodity demand and underpin prices.
- Earnings from Australian energy and minerals exports are forecast to increase by 30 per cent in 2010–11 to $180 billion, supported by higher earnings from bulk commodities.

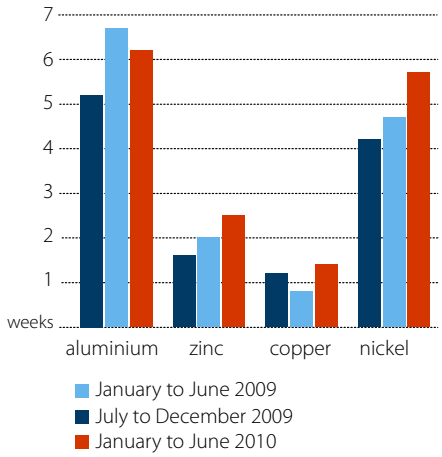
In the first half of 2010, most energy and minerals commodity prices averaged higher than in 2009. The increases in prices reflected strong demand from most regions, as a result of stronger economic growth. Restocking of inventories in many OECD economies also supported demand for energy and minerals commodities.

Commodity price movements



Over the remainder of 2010, significant increases in commodity prices appear unlikely, under the assumption that economic growth, and hence commodity demand growth, will ease in China and OECD economies. The Chinese Government has implemented measures to slow China's rapid economic growth to a more sustainable pace. In OECD economies, growth in demand for mineral resources is also expected to moderate as the effects of economic stimulus gradually subside.

Average stocks in weeks of consumption



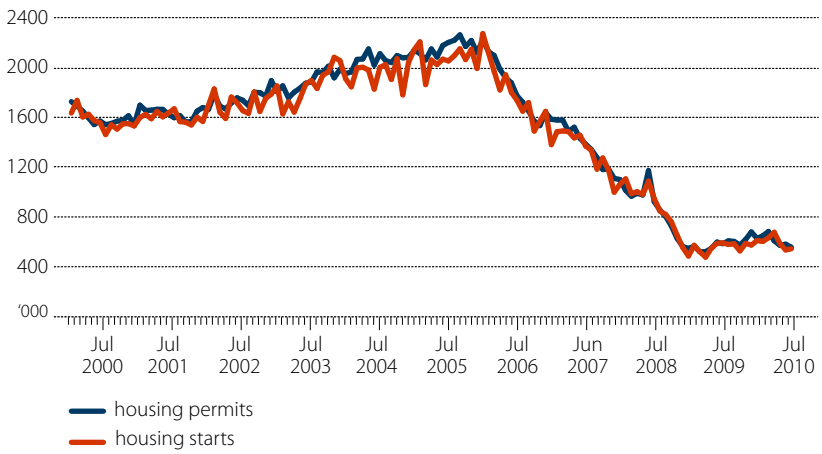
In 2011, prices for most energy and minerals commodities are forecast to remain close to 2010 levels. Minerals and energy demand in non-OECD economies is forecast to increase steadily, while OECD consumption will also grow, albeit at a modest rate. For some commodities such as coal and iron ore, further significant price increases will be limited, as world supply is forecast to increase strongly in 2011. For metals such as nickel, aluminium and zinc, high stocks on the London Metal Exchange (LME) are expected to place downward pressure on prices throughout 2011. For example, official LME zinc stocks stood at around 618 000 tonnes at the end of June 2010, the highest since June 2005. Official LME stocks of aluminium were at 4.5 million tonnes in mid-2010, more than three times the average over the five years to 2009.

Non-OECD economies to underpin demand growth...

Over the outlook period, the majority of demand growth is expected to come from non-OECD economies, especially China and India. OECD energy and minerals consumption is forecast to increase, but at a modest rate, in line with assumed weak economic growth.

In China and India, industrialisation and urbanisation will continue, leading to continued construction of infrastructure such as roads, railways and electricity networks. Production of consumer durables such as cars, electronics and white goods are also expected to underpin energy and minerals commodity demand.

US housing starts



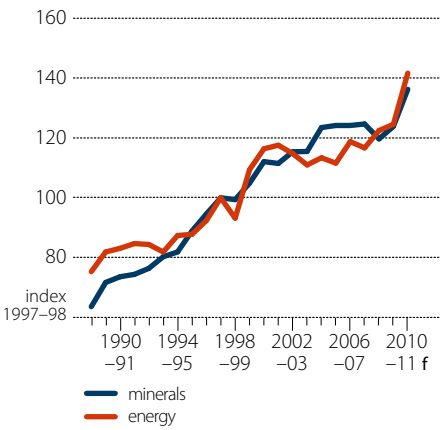
In contrast, growth in OECD demand for energy and minerals is expected to be modest. In the United States, the recovery of housing activity remains weak, with housing starts stagnating at historically low levels. Also limiting significant increases in US demand for energy and minerals has been weak non-residential construction, which is commodity-intensive.

In Europe, weak consumer and business confidence and high unemployment are assumed to result in low economic growth and are hence expected to limit any significant increases in demand for energy and minerals.

...but risks to price outlook remain

Despite assumed lower economic growth in 2011, there remain a number of downside risks to the price outlook. Considerable uncertainty surrounds the performance of key OECD economies, which is likely to have both direct and indirect effects on energy and minerals commodity demand. Weaker than assumed economic growth in major commodity consuming regions, such as the United States, Japan and Western Europe, will place significant downward pressure on world commodity prices. It also has the potential to adversely affect commodity demand in export-oriented non-OECD Asia, given the strong trade linkages that exist with OECD economies.

Australian mine production



Australian minerals and energy outlook

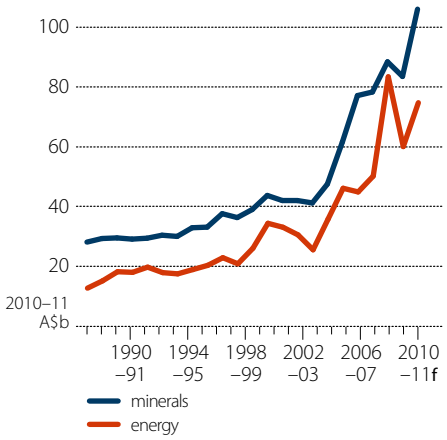
In 2009–10, Australian mine production increased by 2 per cent, reflecting higher production of iron ore, coal, gold and natural gas. These increases were partially offset by lower production of uranium, copper and nickel.

Despite higher export shipments, Australian export earnings from energy and minerals commodities in 2009–10 decreased by 14 per cent to around $138.5 billion. The decline reflects the combined effects of lower bulk commodity contract prices for Japanese Fiscal Year 2009 (April 2009 to March 2010), weaker LNG export prices and an 18 per cent appreciation of the Australian dollar against the US dollar.

In 2010–11, Australian mine production is forecast to increase by 12 per cent, in response to recent increases in demand for energy and minerals commodities in many of Australia's key export markets. Production of metals and other minerals is forecast to also increase by 10 per cent, with rises of 14 per cent for copper, 11 per cent for gold and 4 per cent for iron ore.

Higher energy production in 2010–11 will be supported by output increases of 35 per cent for uranium, 15 per cent for thermal coal, 12 per cent for gas and 9 per cent for metallurgical coal.

Australian export earnings



In 2010–11, export earnings from energy commodities are forecast to rise by 28 per cent to $73.7 billion. This increase is supported by higher export earnings for metallurgical coal and thermal coal, which are forecast to increase by 41 per cent and 33 per cent to $35 billion and $16 billion, respectively.

Export earnings from metals and other minerals are forecast to increase by 31 per cent to around $106 billion in 2010–11. Underpinning the forecast increase is expected higher export values of iron ore (up 55 per cent to $53 billion), gold (up 38 per cent to $18 billion), alumina (up 12 per cent to $6 billion) and nickel (up 12 per cent to $4 billion). In total, Australian export earnings from energy and minerals commodities in 2010–11 are forecast to increase by 30 per cent to $180 billion.

Australian minerals and energy exports

		volume				value		
		2009–10 s	2010–11 f	% change		2009–10 s	2010–11 f	% change
Oil	ML	17 986	19 669	9.4	$m	9 515	10 932	14.9
LNG	Mt	18	19	6.2	$m	7 847	8 137	3.7
Thermal coal	Mt	135	160	18.7	$m	11 887	15 813	33.0
Uranium	kt	7 156	9 685	35.3	$m	751	1 102	46.7
Iron ore	Mt	390	414	6.2	$m	34 481	53 411	54.9
Metallurgical coal	Mt	157	167	6.4	$m	24 526	34 556	40.9
Gold	t	342	405	18.4	$m	12 996	17 899	37.7
Alumina	kt	16 653	16 588	–0.4	$m	4 969	5 583	12.4
Aluminium	kt	1 624	1 638	0.9	$m	3 848	3 913	1.7
Nickel	kt	203	216	6.4	$m	3 591	4 025	12.1
Copper	kt	786	793	0.9	$m	6 491	6 357	–2.1
Zinc	kt	1 486	1 550	4.3	$m	2 218	2 202	–0.7

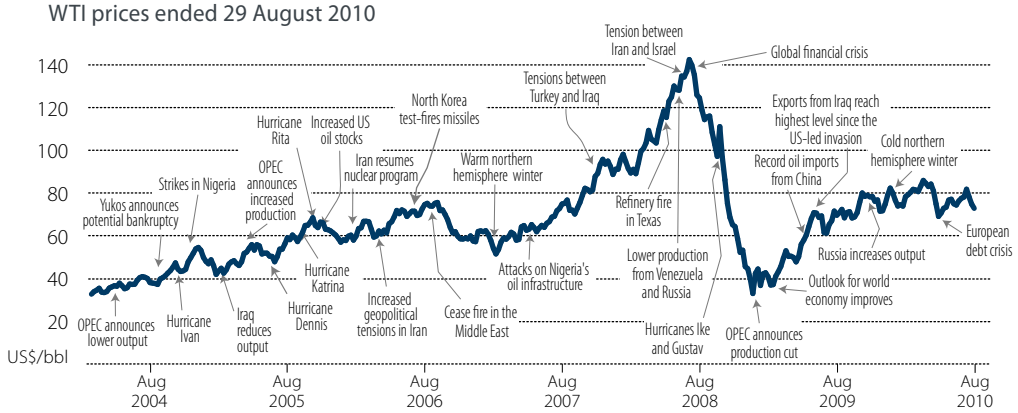
Oil

Clara Cuevas-Cubria

Oil prices have remained relatively stable over the first half of 2010. In the June quarter 2010, oil prices in West Texas Intermediate (WTI) terms averaged around US$78 a barrel, only slightly lower than the average of US$79 a barrel in the March quarter. The relatively stable price over this period appears to have been associated with fewer unexpected supply disruptions or unforeseen surges in demand.

In the second half of 2010, oil prices are forecast to average around US$77 a barrel, leading to an average of US$78 for 2010 as a whole, as growth in oil supply is expected to be sufficient to meet increases in demand.

Weekly oil prices
WTI prices ended 29 August 2010



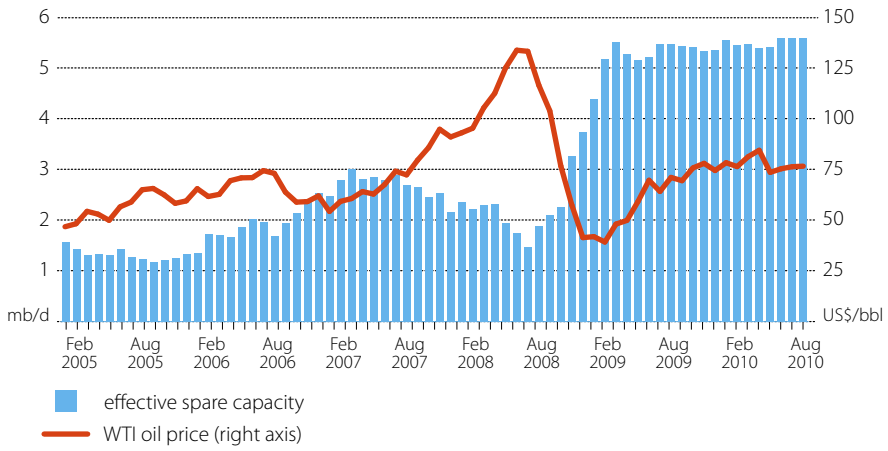
High stocks to help maintain price stability

In 2011, oil prices are forecast to average around US$77 a barrel. Oil consumption growth in non-OECD economies is forecast to slow, while OECD oil demand is forecast to remain flat.

A significant fall in oil prices from current levels appears unlikely in the short term because of forecast weaker growth in world oil production and OPEC's willingness to adhere to production quotas. Upside risks to oil prices may also be limited by relatively high OECD stocks and OPEC spare capacity. Commercial oil inventories in OECD economies increased in the first half of 2010, to reach 2.79 billion barrels in July, compared with 2.65 billion barrels at the end of 2009.

Spare production capacity in OPEC members also increased over the first half of 2010, with effective spare capacity reaching 5.6 million barrels a day in August. OPEC spare production capacity is expected to remain high, as additions to capacity will offset increases in production. Relatively high OECD stocks and OPEC spare capacity are likely to be sufficient to meet any unanticipated surges in demand or unexpected supply disruptions, dampening speculative buying on the market and helping to maintain price stability.

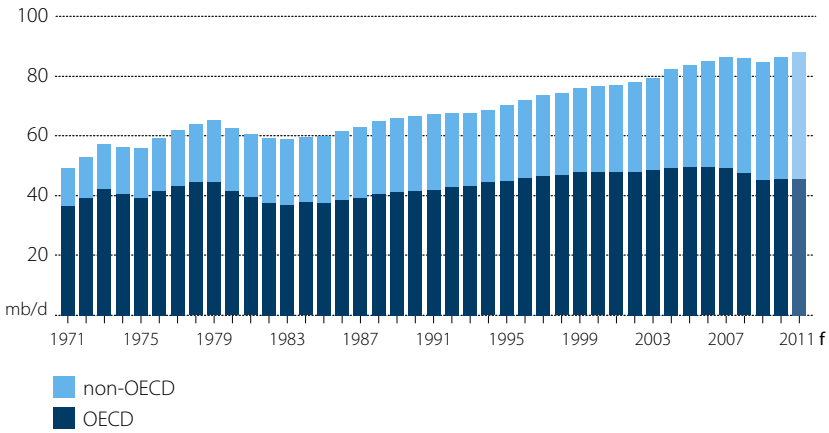
WTI vs OPEC spare production capacity
monthly, ended August 2010



Oil demand growth to moderate in 2011

World oil consumption is forecast to increase by 2.1 per cent in 2010 to average 86.5 million barrels a day, being underpinned by stronger world economic growth. In 2011, world oil consumption growth is forecast to slow to 1.7 per cent, reflecting assumed slower economic growth in key oil consuming countries and regions including China, the Middle East and the United States.

World oil consumption



Demand growth in non-OECD countries to continue...

The majority of world oil consumption growth in 2010 and 2011 is expected to come from non-OECD economies. Increasing personal vehicle use and air transport in developing Asian economies is expected to continue to be a key source of oil demand growth. In China,

oil demand increased strongly over the first half of 2010. However, given assumed slower economic growth in 2011, oil consumption growth is expected to moderate. China's oil consumption is forecast to grow by 8.7 per cent to 9.1 million barrels a day in 2010 and by 4.7 per cent to 9.5 million barrels a day in 2011.

In the first half of 2010, rapid growth in India's motor vehicle use, combined with strong industrial activity, led to a 5 per cent increase in oil consumption. In June 2010, car sales in India were 30 per cent higher than in the same month a year earlier. For 2010 as a whole, India's oil consumption is forecast to increase by 2.5 per cent to 3.3 million barrels a day. These trends are expected to continue in 2011, supporting a 3.2 per cent increase in India's oil consumption, to 3.5 million barrels a day.

The Middle East is forecast to be one of the fastest growing regions for oil consumption over the next 15 months. Over the outlook period, oil demand growth in the Middle East is expected to rise, associated with increased use of air conditioning and production of desalinated water. In addition, strong growth in the air transport, petrochemical and electricity generation sectors is forecast to result in oil consumption increasing by 5.5 per cent in 2010 and by a further 5.7 per cent in 2011, reaching 7.9 million barrels a day.

...while OECD demand is stagnant

Oil consumption in OECD economies is expected to remain relatively flat in the short term, with North America the only OECD region forecast to increase oil consumption.

Following declines over the past four years, oil consumption in the United States is forecast to increase by 1 per cent in 2010 and 0.5 per cent in 2011. Oil consumption growth is expected to remain weak in the short term, associated with assumed weak economic growth in the United States. In addition to slow growth in the manufacturing sector, the air and freight transport sectors in the United States are not expected to expand significantly in the short term.

In Europe, oil consumption is forecast to decrease by 0.4 per cent in 2010 and by 0.2 per cent in 2011, to 14.4 million barrels a day. These decreases reflect a combination of weak economic growth and recent trends of falling oil use intensity continuing. There has been some substitution of gas for oil in heating applications, as natural gas in Europe is more price competitive. In addition, environmental policies have been implemented in some European countries and have led to efficiency improvements in the household and transport sectors, which have contributed to reduced oil consumption.

Modest growth in world production

World oil production (including biofuels) is forecast to increase by 1.7 per cent in both 2010 and 2011, to reach 88.0 million barrels a day. Production growth in non-OPEC is forecast to be stronger in 2010, while OPEC is forecast to account for the majority of growth in oil production in 2011.

OPEC production to increase...

In 2010, total OPEC oil production is forecast to increase by 1.6 per cent to 34 million barrels a day. OPEC's largest producer, Saudi Arabia, is forecast to increase its oil production over the remainder of 2010 as a result of a 2 per cent increase in production capacity and slightly higher capacity utilisation. In 2011, OPEC production is forecast to increase by 3 per cent, as previously shut-in capacity is brought back into production and production from new projects begins.

Angola and Nigeria are also expected to contribute significantly to higher OPEC output in the short term. In Nigeria, production from the Qua Iboe, Forcados, and Escravos fields was restarted in June and July following an extended period of shut-ins after rebel attacks. Production from these fields is expected to continue to increase over the next 15 months. In Angola, crude oil production is expected to increase in 2011, being supported by the start-up of the Pazflor project (200 000 barrels a day).

...with limited growth in non-OPEC production

Non-OPEC production is forecast to increase by 1.7 per cent to 52.5 million barrels a day in 2010, and by a further 0.6 per cent in 2011 to average 52.9 million barrels a day. Increases in production in the United States, Brazil and Azerbaijan are expected to be the major factors driving the growth, although this effect, particularly in 2011, will be largely offset by declining production from mature fields in Europe and Mexico.

In 2010, crude oil production in the United States is forecast to increase by 2 per cent to 5.4 million barrels a day. A mild hurricane season in the United States in 2010 caused oil production to decline by a moderate 70 000 barrels a day in June and July. Also supporting higher oil production will be new projects starting up in the Gulf of Mexico over the second half of 2010 (a total increase of 120 000 barrels a day). In 2011, crude oil production in the United States is forecast to increase only marginally. This reflects a forecast decline in oil production in the Gulf of Mexico, mainly as a result of a six-month moratorium currently imposed on deepwater drilling in the Gulf of Mexico. Estimates of the effect of the moratorium on oil production in 2011 range from 80 000 to 100 000 barrels a day.

Brazil is forecast to be an important source of oil supply growth in 2011. Projects such as Cachalote (100 000 barrels a day) and Tupi (200 000 barrels a day) are scheduled to start production by the end of 2010 and support a forecast 11 per cent increase in Brazil's oil production in 2011, to 2.4 million barrels a day.

In Azerbaijan, the Azeri-Chirag-Guneshli offshore complex in the Caspian Sea is expected to add 135 000 barrels a day in 2011 to Azerbaijan's oil production. This is forecast to underpin a 10 per cent increase in Azerbaijan's oil production to 1.2 million barrels a day.

Australian production to recover in 2010–11

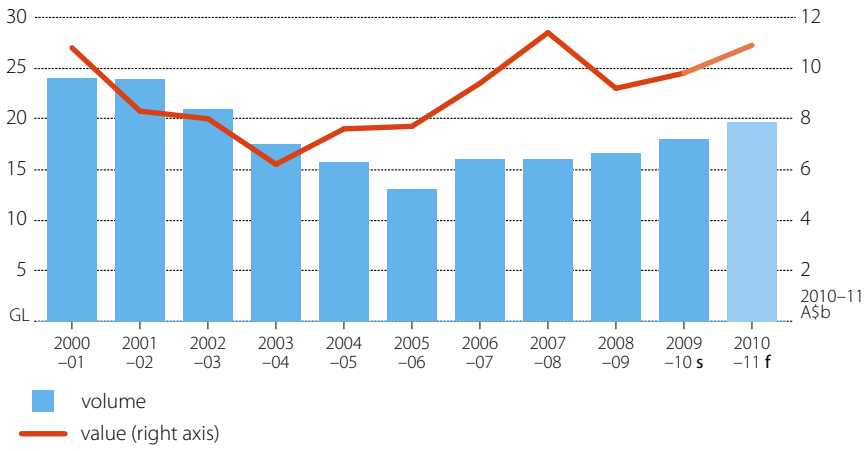
Australia's crude oil and condensate production fell by 6 per cent in 2009–10, to 26.1 gigalitres. Flooding in the Cooper Basin, combined with scheduled maintenance at some oilfields, resulted in production declines. These declines offset increases in production arising from the start-up of the Pyrenees (96 000 barrels a day) and Van Gogh (60 000 barrels a day) fields, which are both located in the Carnarvon Basin offshore of Western Australia.

In 2010–11, Australia's oil production is forecast to increase by around 15 per cent to 29.9 gigalitres. The flooding that occurred in the Cooper Basin in the first half of 2010 has continued to affect production in some fields. However, production is expected to recover by the December quarter. In addition, the ramp-up of the Pyrenees and Van Gogh fields will support higher production in 2010–11.

Despite the decline in production in 2009–10, Australia's oil exports increased by 8 per cent to 18 gigalitres. This reflects an increase in production from the Carnarvon and Bonaparte basins, which is largely destined for export to Asian refineries. The value of exports increased by 9 per cent to $9.5 billion in 2009–10.

In 2010–11, Australia's oil exports are forecast to increase by 9 per cent to 19.7 gigalitres, being underpinned by higher production from the Carnarvon Basin. Higher export volumes are forecast to lead to an increase in the value of exports to $10.9 billion in 2010–11.

Australian crude oil and condensate exports



Oil outlook

		2009	2010 f	2011 f	% change
World					
Production	mbd	85.1	86.5	88.0	*1.7*
Consumption	mbd	84.7	86.5	88.0	*1.7*
Trade weighted crude oil price	US$/bbl	59	75	74	*– 1.7*
West Texas Intermediate crude oil price	US$/bbl	62	78	77	*– 1.2*
		2008	**2009**	**2010**	
Australia		**–09**	**–10 s**	**–11 f**	
Crude oil and condensate					
Production	ML	27 787	26 084	29 944	*14.8*
Exports	ML	16 588	17 986	19 669	*9.4*
– value	A$m	8 757	9 515	10 932	*14.9*
Imports	ML	24 302	27 284	26 201	*– 4.0*
LPG					
Production	ML	3 930	4 096	4 170	*1.8*
Exports	ML	2 500	2 766	2 802	*1.3*
– value	A$m	1 044	1 108	1 145	*3.3*

Gas

Farah Beaini and Alan Copeland

World LNG trade

In the first half of 2010, increased gas consumption in many liquefied natural gas (LNG) importing countries underpinned growth in world LNG trade. In China, Japan, the Republic of Korea and the European Union, stronger economic growth during this period generated higher energy demand. In addition, gas prices were relatively low over the period, reflecting a significant increase in global liquefaction capacity, particularly in the Middle East, the Russian Federation and Indonesia. In the second half of 2010, LNG demand growth is forecast to moderate, in line with assumed weaker economic growth in major LNG importing economies. For 2010 as a whole, world LNG trade is forecast to increase by 13 per cent to 205 million tonnes.

In 2011, world LNG trade is forecast to increase by a further 4 per cent to 213 million tonnes, supported by rising gas demand in major LNG importing countries. The forecast increases in LNG import demand in 2011 will be met by higher exports from Qatar, Australia and Indonesia.

North Asian LNG imports to increase in 2010 and 2011

In the first half of 2010, Japan's LNG imports increased by 5 per cent to 34.6 million tonnes. This increase was generated by stronger economic growth, which resulted in higher electricity production and gas consumption in the industrial and retail sectors.

For 2010 as whole, Japan's Ministry of Economy, Trade and Industry forecasts electricity and gas sales to increase by 5 per cent and 6 per cent, respectively. The increase in electricity and gas consumption is expected to underpin a 4 per cent increase in Japan's LNG imports in 2010 to 66 million tonnes.

In 2011, Japan's LNG imports are forecast to increase by 2 per cent to 67.6 million tonnes, supported by growth in gas-fired electricity production. Four gas-fired power stations are scheduled to commence operation in the next 12 months, including Tohoku Electric's 507 megawatts Sendai power station (to be completed in late 2010). Gas-fired electricity generation in Japan is being encouraged by government policies aimed at reducing greenhouse gas emissions. These policies have already resulted in some LNG importers increasing gas purchases. For example, Osaka Gas has announced an increase of its LNG imports for Japanese Fiscal Year 2010 (April 2010 to March 2011), by 8 per cent to 6.9 million tonnes.

Stronger economic growth in the Republic of Korea underpinned an increase in LNG imports in the first half of 2010, with urban gas consumption increasing by 18 per cent year on year. Over the same period, gas consumption in the electricity generation sector increased by 64 per cent, underpinned by a sharp rise in electricity demand and scheduled maintenance at a number of nuclear power facilities. Korean LNG imports increased by 17 per cent in the first half of 2010, compared with the same period in 2009.

LNG import growth in the second half of 2010 is forecast to moderate, in line with expected higher utilisation of nuclear facilities. For 2010 as a whole, LNG imports by the Republic of Korea are forecast to increase by 8 per cent to 28 million tonnes.

In 2011, LNG imports by the Republic of Korea are forecast to increase by a further 7 per cent to 29.9 million tonnes, supported by increased gas consumption for electricity generation.

In the first half of 2010, China's LNG imports increased by 13 per cent to 4 million tonnes. The increase in imports was because of a combination of higher gas-fired electricity generation, new supply contracts and relatively low spot prices. For 2010 as a whole, China's LNG imports are forecast to increase by 48 per cent to 9 million tonnes.

In 2011, China's LNG imports are forecast to increase by 22 per cent to 11 million tonnes, reflecting growth in energy consumption, combined with the implementation of government policies to promote cleaner energy. The increased imports will be supplied to the Dapeng, Fujian and Shanghai LNG import terminals through long-term contracts with Australia, Indonesia, Qatar and Malaysia.

Atlantic imports to grow

In 2010, European LNG imports are forecast to increase by 4 per cent to 64 million tonnes. The forecast increase reflects assumed stronger economic growth and lower spot LNG prices, which have made LNG more competitive against coal for electricity generation. In 2011, LNG imports are forecast to increase by a further 2 per cent to 76.8 million tonnes.

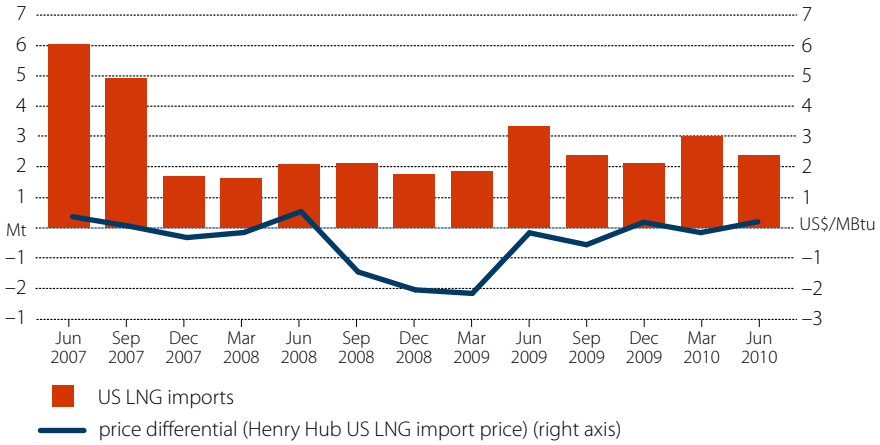
Growth in European imports in the short term will be underpinned by the start-up of a number of regasification terminals. These include the commissioning of Fos Cavaou LNG terminal (annual capacity of 6.1 million tonnes) in France as well as expansions to a number of existing terminals, including the Isle of Grain terminal (4.4 million tonnes a year) in the United Kingdom and Sagunto LNG terminal (1.3 million tonnes a year) in Spain.

US LNG imports to be largely unchanged

Since the expansion of domestic production of unconventional gas resources in 2008 (see box), the United States has been a market of last resort for LNG spot cargoes. That is, LNG spot prices need to be competitive against US domestic shale gas prices. Alternative sources of gas supply to Europe (such as pipeline gas from the Russian Federation) tend to be higher and, hence, LNG spot cargoes are generally receiving higher prices in the European market. For example, the United States' Henry Hub gas price averaged US$4.70/MBtu (Million British thermal units) in the first half of 2010, compared with around US$5.40/MBtu quoted on the UK National Balancing Point.

A number of LNG producers have long-term contracts with US importers, which supports a minimum level of imports of around 8 million tonnes a year. Higher US LNG imports in the first half of 2010 were attributable to significant storage capacity in that country, which enabled importers to take advantage of relatively low LNG prices.

US gas market



Shale gas

Shale gas is a type of unconventional natural gas that has not travelled to a reservoir rock but is still contained within organic-rich source rocks such as shales and fine-grained carbonates. Recent technological advancements—notably hydraulic fracturing and horizontal drilling—have allowed for the successful commercialisation of shale gas. Hydraulic fracturing (fraccing) is a technique that involves injecting large quantities of fluid, usually water, at a very high pressure into the shale rock. This creates fractures in the shale formations, increasing its permeability and allowing for the extraction of the trapped gas.

The successful deployment of these technologies has reversed the trend of declining domestic gas production in the United States. Production of shale gas has increased rapidly, rising from 22 million cubic metres per day in 1998 to 184 billion cubic metres per day in 2009. This has led to a restructuring of the American gas market, with a significant reduction in pipeline imports from Canada, and has placed downward pressure on domestic natural gas prices.

The rapid expansion of shale gas in the United States also has broader implications for global LNG markets. First, it has led to a delinking of US gas prices from the movements in global LNG pricing. US gas production over the past few years has largely been driven by unconventional resources, which mean that the pricing structure and the factors underpinning production in the United States differ from other markets. This has led to significantly lower prices reported on the Henry Hub than both European gas prices and LNG prices in other markets.

Second, the reversal of the decline in US gas production significantly weakened the outlook for North American LNG demand. Some projects originally targeted to the

continued...

Shale gas continued

US market, including the Russian Sakhalin LNG and Qatari RasGas LNG projects, were either delayed or diverted production to other markets. This has contributed to a supply increase in other LNG markets, resulting in downward pressure on LNG spot prices.

Global shale gas resources

region	shale gas	share of world total
	tcm	%
Middle East and North Africa	72	16
Sub-Saharan Africa	8	2
Former Soviet Union	18	4
Asia–Pacific	174	38
Central Asia and China	100	22
OECD Pacific	65	14
Other Asia Pacific	9	2
North America	109	24
Latin America	60	13
Europe	16	4
Central and Eastern Europe	1	0.20
Western Europe	14	3
World	456	100

Source: IEA 2009, *World Energy Outlook*.

Third, the successful commercialisation of shale gas has led to a reassessment of the potential of shale gas developments elsewhere. Global shale gas resources are estimated to be approximately 456 tcm (trillion cubic metres), with the Asia–Pacific region accounting for around 38 per cent. A significant proportion of global exploration activities is currently centred in Europe—most notably Poland and Ukraine. A number of international oil and gas companies have also been involved in joint ventures with Chinese partners to explore and develop unconventional resources in China. For example, PetroChina and Shell signed a joint agreement in late 2009 to develop shale gas resources in the Sichuan province, located in south-west China.

Given the global distribution of shale gas resources, these developments could have important implications for some LNG markets.

Considerable uncertainty remains about replication of US shale gas production technology in other parts of the world. There are significant challenges in extraction, with limited information available on the geological characteristics of shale plays currently being explored. Shale plays vary in permeability, thickness, organic content and gas in place, all of which could significantly affect drilling and other costs. Shale gas production is also characterised by steep decline curves. For example, in the first year of operation, some established North American wells have experienced average production declines of between 39 per cent and 86 per cent.

The technology and infrastructure required to undertake drilling in deeper basins may also inhibit shale gas production growth. The availability of horizontal gas drilling rigs, essential in the extraction of shale gas, remains limited outside North America. Local planning permissions and community acceptance, as well as significant capital, will be required to develop facilities to process, compress and transport the gas.

A tighter regulatory environment may also inhibit shale gas development in Europe. The environmental impacts of shale gas, particularly its effect on ground water, remain uncertain, and are currently subject to inquiries in the United States.

In line with this increased demand, US LNG imports are forecast to increase by 3.7 million tonnes to 10.6 million tonnes in 2010. The assumed persistence of low LNG prices in 2011 is expected to further increase LNG imports by the United States to around 11 million tonnes, around 15 per cent higher than in 2009.

Australia's gas production to increase

In 2009–10, Australia's gas production increased by 10 per cent to 49 billion cubic metres. This increase was supported by the start-up of the Blacktip and Henry fields, with a combined annual capacity of 950 million cubic metres. In addition, coal seam gas production increased in 2009–10, associated with the expansion of the Spring Gully field in south-east Queensland.

Increased gas production in 2009–10 was partially offset by extensive flooding in the Cooper Basin in Central Australia and scheduled maintenance at a number of fields, including at the BassGas Project in the Gippsland Basin. The detection of mercury forced a shutdown of the Longtom field, which was commissioned in October 2009. The field is not expected to resume production until late September 2010.

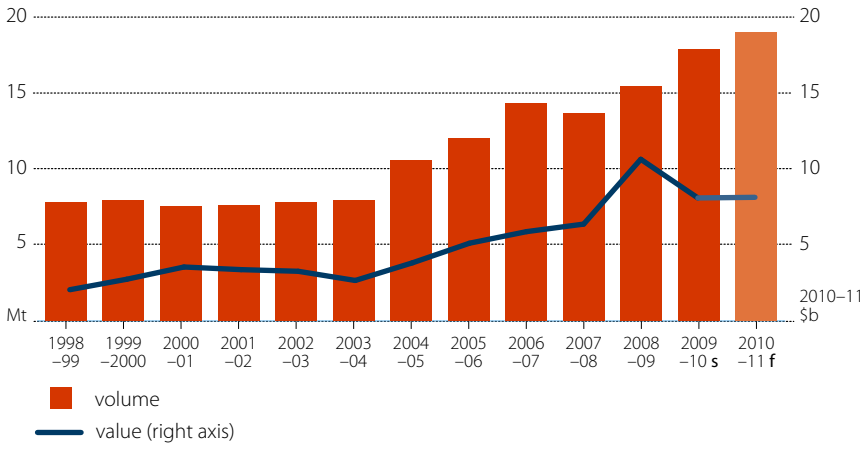
In 2010–11, Australia's gas production is forecast to increase by 12 per cent to 54.9 billion cubic metres. Underpinning this growth is initial production in late 2010 from the Xena and Pluto fields, associated with the start-up of the Pluto LNG project. The Kipper and Turrum gas fields in the Gippsland Basin are scheduled to start production in 2011, with annual production capacity of 2.9 billion cubic metres.

Australia's LNG exports to grow strongly

In 2009–10, Australia's LNG exports increased by 16 per cent to 18 million tonnes. This growth was supported by the fifth train at the North West Shelf project operating at close to capacity. In 2010–11, the start-up of Woodside's Pluto LNG project is expected to underpin a 6 per cent increase in LNG exports to 19 million tonnes. The project is scheduled to export its first cargo in early 2011 and is expected to increase Australia's LNG export capacity by 4.3 million tonnes to around 21.5 million tonnes a year.

The value of Australia's LNG exports in 2009–10 fell by 22 per cent to $7.8 billion, reflecting lower LNG export prices and an appreciation of the Australian dollar relative to the US dollar. In 2010–11, higher LNG export volumes are expected to contribute to the value of Australian LNG exports increasing by 4 per cent to $8.1 billion.

Australian LNG exports



Gas outlook

		2008 –09	2009 –10 s	2010 –11 f	% change
Australia					
Production	Gm^3	44.5	49.0	54.9	*12.0*
LNG exports	Mt	15.41	17.87	18.98	*6.2*
– value	A$m	10 079	7 847	8 137	*3.7*

Thermal coal

Michael Lampard

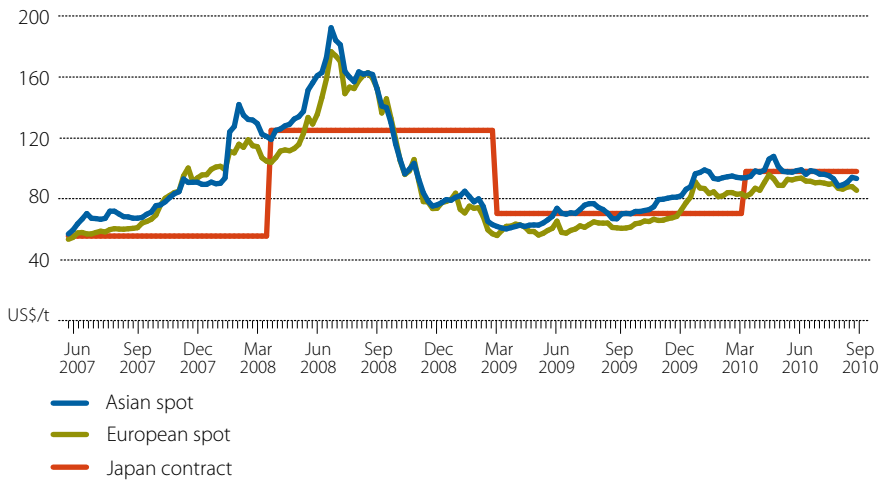
Over the outlook period (to the end of 2011), world thermal coal trade is forecast to be supported by strong demand in Asia, particularly in China and India. The scheduled expansion of coal-fired electricity generation capacity in China and India is expected to result in demand for thermal coal increasing at a faster rate than their respective domestic production, leading to an increased reliance on imports. Reflecting assumed subdued economic growth in Europe, demand in the Atlantic market is forecast to recover only gradually during 2011. The completion of export infrastructure in the Russian Federation, Australia and South Africa will enable significant increases in thermal coal exports from these countries.

Thermal coal spot prices easing

Newcastle thermal coal spot prices averaged around US$96 a tonne in the first eight months of 2010, being supported by demand from Japan and the Republic of Korea and strong import growth in China and India. The price differential between coal loaded at Newcastle (Pacific spot) and Richards Bay (Atlantic spot) narrowed to less than US$8 a tonne in September 2010, compared with around US$15 a tonne in May.

The difference between the Newcastle and Richards Bay spot prices is an indicator of the supply and demand situations in the Pacific and Atlantic markets. Since late 2008 the Newcastle spot price has remained above the Richards Bay price, reflecting stronger demand for thermal coal in the Pacific market. The narrowing of the price differential between the Atlantic and Pacific markets reflects recent reductions in import demand in some Asian countries and low freight rates, which have enabled coal to be exported from suppliers in the Atlantic market to China and India.

Thermal coal spot prices
weekly, ended September 2010



In August, the Newcastle spot price fell below US$90 a tonne for the first time in 2010, reflecting seasonally weaker demand for spot coal from the Republic of Korea and Japan, combined with lower import demand in China. For the remainder of 2010 and into 2011, spot prices are forecast to remain above US$85 a tonne, being supported by relatively strong demand for thermal coal in Asia.

World trade to increase in 2011

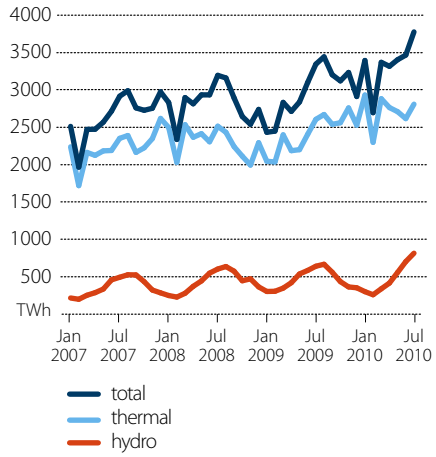
In 2010, world thermal coal trade is forecast to increase by 3 per cent to 745 million tonnes, as strong demand in Asia more than offsets lower imports in Europe. Stronger economic growth in traditional north Asian importing economies, such as Japan and the Republic of Korea, and growth in China and India have increased demand for electricity and, thus, demand for thermal coal.

In 2011, world thermal coal trade is forecast to increase by 5 per cent to 780 million tonnes. This forecast increase reflects expected growth in imports by India and an assumed gradual recovery of demand in European economies. This increase is forecast to occur despite assumed weaker economic growth in many major thermal coal importing countries.

Import demand to increase in China and India

China's electricity generation continued to increase in the first seven months of 2010, supported by large investments in new generation capacity and high growth in industrial production. Despite the increase in total electricity output, electricity generated from thermal power plants (a majority of which is coal-based) has been declining for most of 2010. This decline in thermal electricity generation mainly reflects increased utilisation of hydroelectric capacity. Recent heavy rain throughout China has led to large inflows into hydroelectric reservoirs, leading to higher levels of hydroelectricity output. Despite the decline in thermal electricity generation, China's imports of thermal coal continued to increase, reaching 68.6 million tonnes in the first seven months of 2010, a year on year rise of 55 per cent. Imports of thermal coal have been underpinned by relatively low international freight rates and continued infrastructure constraints in China's major coal transport corridors.

Electricity generation in China
ended July 2010



Increased utilisation of hydroelectric capacity is expected to place downward pressure on China's import demand for thermal coal in the near term. However, the utilisation of hydroelectric generation capacity is expected to follow a seasonal pattern and fall in late 2010. For 2010 as a whole, thermal coal imports are forecast to reach 108 million tonnes, an increase of 17 per cent from 2009.

In 2011, assumed strong economic growth, and hence continued growth in electricity demand, is forecast to support higher consumption of thermal coal. Notwithstanding this forecast increase, China's

thermal coal imports are likely to remain relatively stable as high international coal prices are expected to make domestically produced coal more competitive.

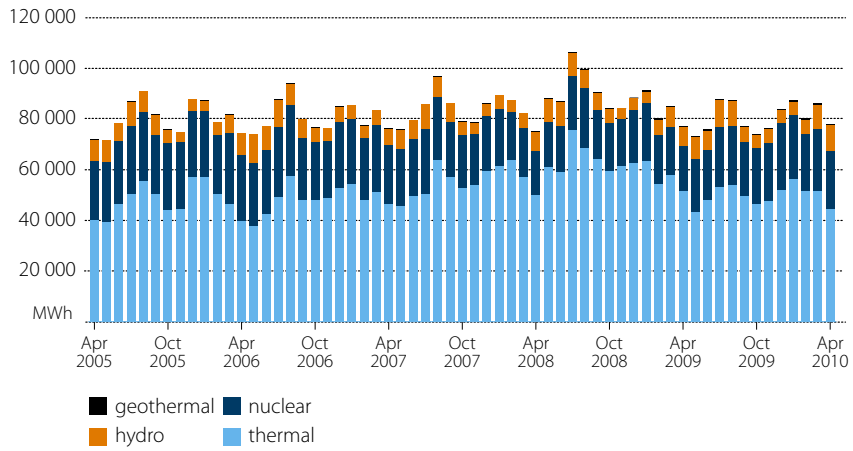
India is the fastest growing importer of thermal coal, with imports forecast to increase by 40 per cent to 68 million tonnes in 2010 and by a further 13 per cent to 77 million tonnes in 2011. Supporting India's growth in thermal coal imports is significant investment in new coal-fired generation capacity. There were 6 gigawatts of coal-fired generation capacity commissioned in the first seven months of 2010, with a further 7.3 gigawatts scheduled for completion by the end of 2010. Despite being the world's third largest producer of coal, India's coal consumption is growing at a faster rate than domestic production, increasing its reliance on imports.

Imports to remain steady in Japan but increase in the Republic of Korea

Since peaking in 2008, Japan's thermal coal–based electricity generation has declined, reflecting a combined effect of weak demand growth for electricity and increased utilisation of nuclear capacity. Coal's share of total electricity generation has declined from a peak of 73 per cent in November 2008 to 57 per cent in April 2010. Conversely, Japan's nuclear utilisation has increased in response to the reopening of a number of reactors previously closed for maintenance or repairs.

Despite lower utilisation of coal in electricity generation, Japan's imports of thermal coal increased year on year by 16 per cent to 63.4 million tonnes in the first six months of 2010. This has led to an increase in stocks held at Japan's 11 major power utilities, from 3.2 weeks of consumption in January 2010 to nearly 6 weeks of consumption in May 2010. For 2010 as a whole, Japan's imports of thermal coal are expected to increase moderately to around 120 million tonnes, as higher stocks and lower utilisation of coal-fired electricity generation are expected to lead to lower imports in the second half of 2010.

Japan's generation of electricity
monthly, ended April 2010



In 2011, any increase in demand for electricity is expected to be met by higher utilisation of nuclear capacity, supported by the phased restart of the Kashiwazaki-Kariwa reactor (8.2 GW capacity), which commenced in 2010. As a result, thermal coal imports in 2011 are forecast to remain steady at 120 million tonnes.

The Republic of Korea imported 55 million tonnes of thermal coal in the first seven months of 2010, a year on year increase of 12 per cent. Thermal coal imports have been supported by increased electricity consumption and expansions to coal-fired generating capacity. Imports for 2010 as a whole are forecast to increase by 10 per cent to 91 million tonnes, and in 2011 are forecast to increase by 1 per cent to 92 million tonnes. The forecast slower growth rate in 2011 reflects expected weaker economic growth and limited further growth of coal-fired electricity generation capacity following the recent expansion program.

Thermal coal imports by Europe to decline

In the first half of 2010, Europe's imports of thermal coal were weak, with the largest declines occurring in the United Kingdom and Spain. Collectively, import demand by these two countries fell by around 14 million tonnes, or 54 per cent, in the first six months of 2010. Offsetting some of this decline were increased imports by France and Germany, in line with improved economic activity.

Overall, thermal coal imports by Europe are expected to remain weak for the remainder of 2010 as economic growth, and thus demand for electricity, remains subdued. Relatively low gas prices have also contributed to reduced import demand for thermal coal as many utilities have increased their utilisation of gas-fired capacity. In 2010, Europe's thermal coal imports are forecast to decline by 11 per cent to 184 million tonnes, before increasing by 8 per cent to 198 million tonnes in 2011.

Indonesia and the Russian Federation to increase exports

Favourable weather conditions in the first three months of 2010 and strong demand from China and India supported large increases in Indonesia's exports of thermal coal. In the six months to June, Indonesia's exports of thermal coal reached 122.6 million tonnes, which was a year on year increase of 40 per cent. While export performance has been strong for the year to date, recent heavy rainfall has forced some coal producers such as PT Bayan Resources to delay coal shipments. Nevertheless, Indonesia's thermal coal exports are forecast to increase by 5 per cent to around 245 million tonnes in 2010. In 2011, thermal coal exports are forecast to increase by a further 2 per cent to around 250 million tonnes, with increased shipments to India.

Thermal coal exports from the Russian Federation to the key markets of China, the Republic of Korea and Japan increased year on year by 17 per cent to 10.6 million tonnes in the first half of 2010. The increase was supported by expansions to coal export infrastructure in the east coast, including the commissioning of SUEK's 11 million tonne Vanino coal export terminal and the modernisation of the Vostochny coal terminal. Once fully completed in 2011, these projects are expected to add around 14 million tonnes a year to the Russian Federation's east coast export capacity. Coal exports from the Russian Federation are forecast to increase by around 1 per cent to 93 million tonnes in 2010 and by a further 6 per cent to 98 million tonnes in 2011.

Exports from South Africa and Colombia to increase in 2011

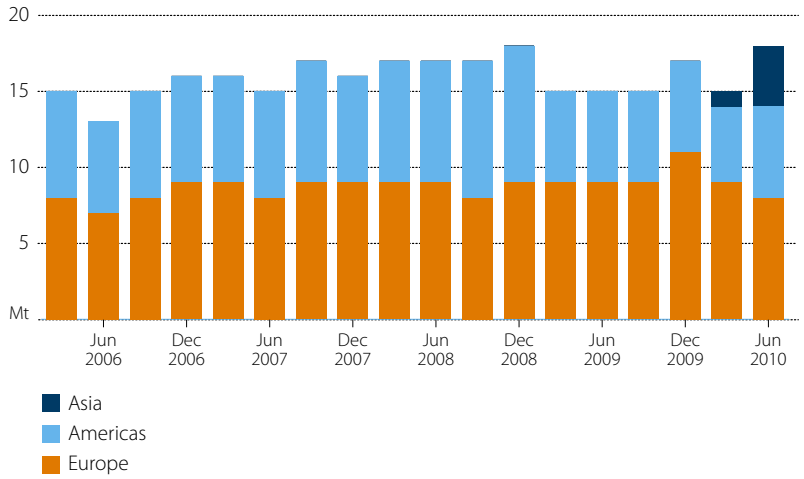
In the first seven months of 2010, South Africa's exports of thermal coal totalled 34 million tonnes, a decrease of 10 per cent year on year. Weak import demand from the Atlantic market and industrial action, which disrupted rail and port services, were the major reasons for this decline. During the remainder of 2010, South Africa's thermal coal exports are forecast to increase as rail and port services return to full capacity. For 2010 as a whole, South Africa's exports are forecast to decrease by 6 per cent to 63 million tonnes.

In 2011, South Africa's thermal coal exports are forecast to increase by 11 per cent to 70 million tonnes. The completion of the Phase V expansion project at the Richards Bay Coal Terminal and a forecast gradual increase of demand in the Atlantic market will support this increase.

Colombia's total exports of thermal coal are forecast to increase by 7 per cent to 68 million tonnes in 2010, despite lower exports to Europe and North America. Reflecting continued low freight rates, Colombia has begun to export to Asia, with 5.8 million tonnes of thermal coal in the first half of 2010, accounting for around 17 per cent of Colombia's total exports during that period. Exports to Asia are likely to be lower in the second half of 2010 as demand for thermal coal from some Asian countries is forecast to decline.

In 2011, Colombia's thermal coal exports are forecast to reach 70 million tonnes, as increased demand from the Atlantic market more than offsets an expected decline in exports to Asia. Higher domestic production is also forecast, mainly reflecting the scheduled restart of currently idled capacity at the Cerrejón and Drummond coal operations.

Colombia's exports of thermal coal
by destination, ended June 2010



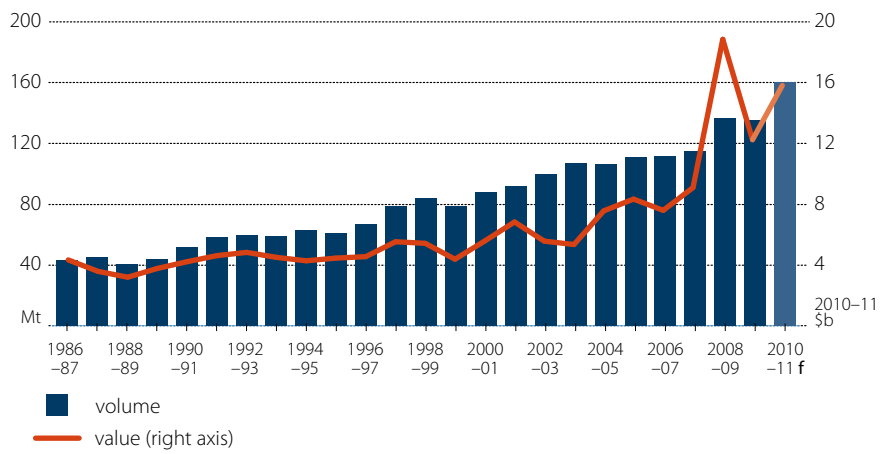
Australia's thermal coal exports to rise

In 2009–10, Australia's thermal coal production decreased by 2 per cent to 200 million tonnes. In 2010–11, thermal coal production is forecast to increase by 15 per cent to 229 million tonnes. A number of coal projects are scheduled to commence production during the year, including Yancoal's Moolarben Stage 1, Whitehaven's Narrabi coal project and Syntech Resources' Cameby Downs. Expanded port capacity in New South Wales is also expected to encourage a number of coal producers to increase capacity utilisation at existing mines.

In 2009–10, thermal coal exports decreased marginally to 135 million tonnes, as infrastructure constraints and weather-related disruptions adversely affected export growth. During 2010–11, the Newcastle Coal Infrastructure Group terminal (annual capacity of 30 million tonnes) and the expansion to the Port Waratah Coal Services Kooragang Coal Terminal (annual capacity of 11 million tonnes) are scheduled to approach full capacity. The completion of these infrastructure projects is forecast to result in thermal coal exports increasing by 19 per cent to 160 million tonnes in 2010–11.

Earnings from thermal coal exports declined by 34 per cent to $11.9 billion in 2009–10, largely as a result of lower negotiated contract prices and an appreciation of the Australian dollar. In 2010–11, the value of Australia's thermal coal exports is forecast to increase by 33 per cent to $15.8 billion, as a result of expected higher export prices and volumes.

Australia's thermal coal exports



Thermal coal outlook

		2009	2010 f	2011 f	% change
Contract prices a					
Thermal coal **b**	US$/t	70.4	98.0	100.0	*2.0*
World					
Total trade	Mt	725.1	744.9	779.8	*4.7*
Imports					
Asia	Mt	444.2	496.6	512.9	*3.3*
– China	Mt	92.1	108.0	110.0	*1.9*
– Chinese Taipei	Mt	59.4	60.2	60.5	*0.5*
– India	Mt	48.6	68.0	77.0	*13.2*
– Japan	Mt	112.5	120.0	120.0	*0.0*
– Korea, Rep. of	Mt	82.4	91.0	92.0	*1.1*
– Malaysia	Mt	16.1	16.4	17.1	*4.3*
– other Asia	Mt	33.1	33.0	36.3	*10.0*
Europe	Mt	207.4	183.7	198.2	*7.9*
– European Union 27	Mt	170.8	145.3	159.8	*10.0*
– other Europe	Mt	36.6	38.4	38.4	*0.0*
Other	Mt	73.5	64.6	68.6	*6.2*
Exports					
Australia	Mt	139.1	145.9	157.2	*7.7*
China	Mt	21.5	19.5	19.5	*0.0*
Colombia	Mt	63.4	68.0	70.0	*2.9*
Indonesia	Mt	233.5	245.0	250.0	*2.0*
Russian Federation	Mt	91.7	92.5	98.0	*5.9*
South Africa	Mt	66.9	63.0	70.0	*11.1*
United States	Mt	19.6	16.5	18.5	*12.1*
Other	Mt	89.5	94.5	96.6	*2.2*
		2008 –09	**2009 –10** s	**2010 –11** f	
Australia					
Production	Mt	203.6	200.2	229.3	*14.5*
Exports	Mt	136.4	135.0	160.2	*18.7*
– value	A$m	17 885	11 887	15 813	*33.0*

a Japanese fiscal year beginning 1 April, fob basis, Australia–Japan average contract price assessment. **b** For steaming coal with a calorific value of 6700 kcal/kg (gross air dried).

Uranium

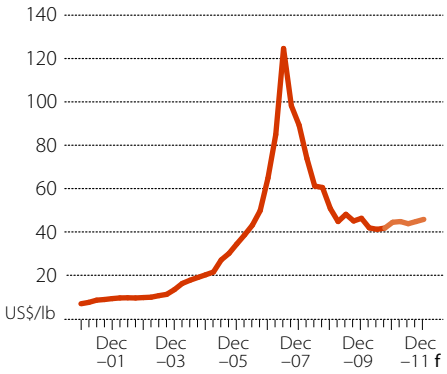
Rebecca Petchey

Uranium spot prices to increase in 2011

The uranium spot price has remained between US$40 a pound and US$45 a pound since the September quarter 2009. For 2010 as a whole, the uranium spot price is forecast to average US$43 a pound as the spot market is expected to remain balanced. The uranium spot price is forecast to average US$45 a pound in 2011, as growth in supply slows compared with growth in demand.

Over the past 18 months there has been a significant expansion in uranium supply, particularly from Kazakhstan. However, the increase in world supply has been met with an increase in discretionary uranium purchases. Discretionary purchases of uranium—defined as purchases of uranium that are not intended to be used in the short term—have made up around 85 per cent of spot market transactions in the first half of 2010, compared with 60 per cent in the same period of 2009 when uranium prices were higher. Buyers on the spot market have been taking advantage of the low prices to build stocks or make speculative investments in uranium, and provided support for prices above US$40 a pound.

Uranium spot price
quarterly



Large-scale uranium producers sell most of their output through long-term contracts rather than on the spot market, with smaller operations selling the majority of their output on the spot market. The indicative long-term contract price, quoted by Ux Consulting, has not been as volatile as the spot price in recent years, although it has increased substantially. Long-term contract prices vary between companies because of differences in contract lengths, volumes and market conditions at the time of signing. In Australia, the average long-term contract price has historically been lower than the world indicator contract price as contracts were signed at a time of lower world prices. As a result, there are considerable differences between spot prices, world indicator prices and Australian export unit prices for uranium.

Increases in nuclear power capacity to increase uranium consumption in 2010 and 2011

The only significant commercial use for uranium is as a fuel in nuclear power plants. At August 2010 there were 439 operating nuclear power plants worldwide, with a total generating capacity of around 474 gigawatts electric.

In 2010, uranium consumption is forecast to increase by 4 per cent to 80 600 tonnes, being underpinned by the start-up of seven nuclear reactors. Commissioning a reactor (based on a

Nuclear reactors scheduled for completion in 2010 and 2011

	unit	capacity Mwe
2010		
China		
Lingao	1	1 080
India		
Kudankulam	1	950
Kaiga	4	202
Rajasthan	5	202
Rajasthan	6	202
Iran		
Bushehr	1	950
Russian Federation		
Rostov (Volgodonsk)	2	990
2011		
Canada		
Bruce (rebuild)	1	769
Bruce (rebuild)	2	769
China		
Lingao	2	1 080
Qinshan	3	650
Chinese Taipei		
Lungmen	1	1 300
India		
Kudankulam	2	950
Republic of Korea		
Shin Kori	1	1 000
Pakistan		
Chashma	2	300
Russian Federation		
Kalinin	4	1 000

1 gigawatt electric light water reactor) typically requires around 600 tonnes of uranium for its initial core, after which uranium requirements are lower as the reactor reaches a steady state of operation. Of the seven reactors scheduled to be commissioned in 2010, four are in India, and one in each of China, Iran and the Russian Federation. The seven reactors will have a combined capacity of 4.6 gigawatts electric. In India, Rajasthan units 5 and 6 were commissioned in the first half of 2010, and in Iran commissioning began at the Bushehr reactor in August. The remaining four reactors are scheduled to start up in the last quarter of 2010.

Also contributing to an increase in uranium consumption in 2010 is the expected restart of two units of the Kashiwazaki-Kariwa power plant in Japan, the largest nuclear power plant in the world. Six units of the plant were shut down during an earthquake in 2007, and the reactors have since undergone maintenance and safety checks. Two units were restarted in 2009, and units 1 and 6 were restarted in January and August 2010, respectively, with the remaining two units scheduled for restart in 2011.

In 2011, the commissioning of nine nuclear reactors with total capacity of 9.8 gigawatts electric is forecast to increase uranium consumption by a further 4 per cent to around 84 000 tonnes uranium oxide (U_3O_8). Canada and China are each expected to commission two nuclear reactors in 2011, while Chinese Taipei, Pakistan, the Republic of Korea, India and the Russian Federation are expected to commission one each.

Higher production in Kazakhstan and Africa to support increasing world production

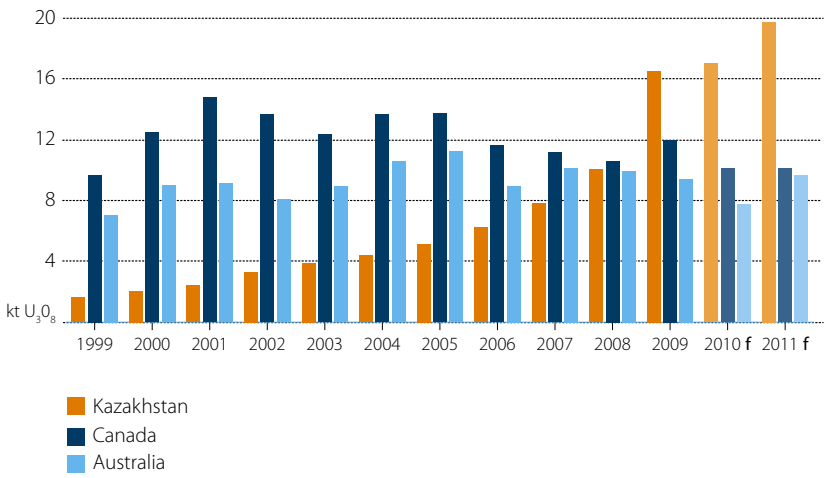
In 2010, uranium mine production is forecast to increase marginally to 58 600 tonnes U_3O_8, as increasing production in Kazakhstan, Africa and the Russian Federation is offset by lower output in Canada and Australia. Uranium production in 2011 is forecast to increase by 10 per cent to 64 400 tonnes U_3O_8, supported by increasing production in Kazakhstan, Africa and Australia.

In Kazakhstan, the world's largest uranium producer, production in 2010 is forecast to increase by 11 per cent to 18 000 tonnes, after increasing by more than 60 per cent in 2009. This reflects the start-up of Kyzylkum Joint Venture's Kharasan Two (1700 tonnes U_3O_8 annual capacity) and the ramp-up of nine mines commissioned in Kazakhstan over the past two years. In 2011, uranium production is forecast to increase by 9 per cent to 19 750 tonnes as these mines continue to approach capacity.

Africa's production of uranium is forecast to increase by around 8 per cent to 10 800 tonnes in 2010, being underpinned by the start-up of AREVA Resources' Trekkopje mine (2000 tonnes U_3O_8 annual capacity) in Namibia and First Uranium's Buffelsfontein mine (540 tonnes U_3O_8 annual capacity) in South Africa. Increasing production in Africa is also expected to be supported by a ramp-up at Paladin Energy's Kayelekera mine in Malawi (1500 tonnes U_3O_8 annual capacity). In 2011, Africa's uranium production is forecast to increase by 20 per cent to 13 000 tonnes as the abovementioned mines increase production to capacity.

Canada's uranium production in 2010 is forecast to decline by 12 per cent to 10 100 tonnes. AREVA Resources' McClean Lake mine (1500 tonnes U_3O_8 annual capacity), which had been processing stockpiled ore since 2008, was put on care and maintenance in December 2009 as stockpiled ore was depleted. The plant will not be restarted until production at the Cigar Lake mine starts, which is currently scheduled for 2013.

Production growth in the world's top three uranium producers



Since the 1990s, a significant proportion of world uranium demand has been met by secondary supply sources. These include reprocessed spent nuclear fuel, which is down-blended highly enriched uranium from nuclear weapons and mixed oxide fuels. The largest component of secondary supply has been the conversion of highly enriched uranium from dismantled nuclear weapons and government stockpiles in the United States and the Russian Federation. The supply of uranium from secondary sources is expected to remain stable at around 20 000 tonnes U_3O_8 in both 2010 and 2011.

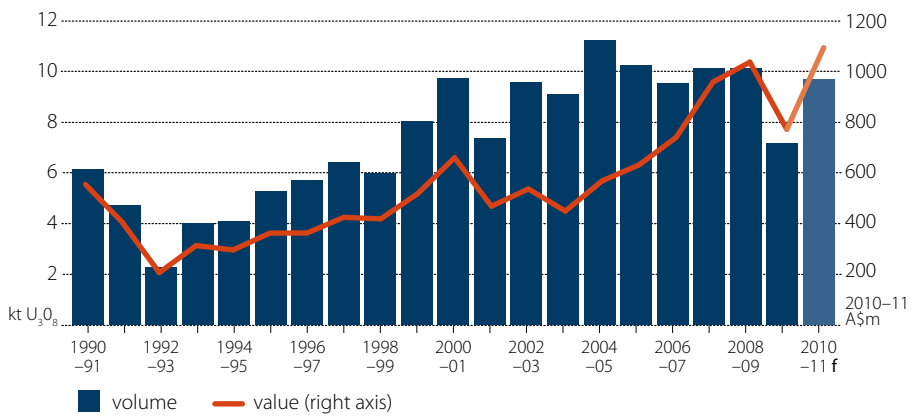
Start-up of a new mine to boost Australia's uranium production

In 2009–10, Australia's uranium production declined by 31 per cent to 7156 tonnes U_3O_8. This decrease was mainly a result of an extended maintenance outage at BHP Billiton's Olympic Dam operation following the failure of the main haulage shaft in October 2009. In addition, production at Energy Resources of Australia's Ranger mine was lower in the first two quarters of 2010, because of lower ore grades.

Australia's uranium production is forecast to increase by 35 per cent to 9685 tonnes U_3O_8 in 2010–11. This is expected to be underpinned by Olympic Dam's return to full production and the start-up of Uranium One's Honeymoon operation (400 tonnes U_3O_8 annual capacity) in the second half of 2010. The Honeymoon mine will be the first new uranium mine in Australia in 10 years.

In 2009–10, Australia's uranium exports are estimated to have declined by 29 per cent to 7156 tonnes U_3O_8, reflecting lower production. Export values are estimated to have declined by 24 per cent to $751 million, as a result of lower uranium prices and export volumes. In 2010–11, higher uranium production is forecast to underpin an increase in export volumes by 35 per cent to 9685 tonnes U_3O_8. Export values are forecast to increase by 47 per cent to $1.1 billion, supported by higher export volumes and higher uranium prices.

Australian uranium exports



Uranium outlook

		2009	2010 f	2011 f	% change
World					
Production	kt	58.0	58.6	64.4	*9.9*
Consumption	kt	77.4	80.6	83.9	*4.1*
Spot price	US$/lb	46	43	45	*4.9*
		2008–09	**2009–10 s**	**2010–11 f**	
Australia					
Production	t	10 311	7 156	9 685	*35.3*
Exports	t	10 114	7 156	9 685	*35.3*
– value	A$m	990	751	1 102	*46.7*
– average price	A$/kg	98	105	114	*8.4*

Metals

Steel and steel-making raw materials

Robert New

Growth in global demand for steel and steel-making raw materials (iron ore and metallurgical coal) is expected to continue in the short term, but at a slower rate than in the first half of 2010. Over the past few months, world steel consumption growth has moderated, and economic growth in 2011 is assumed to be weaker in China and major OECD economies.

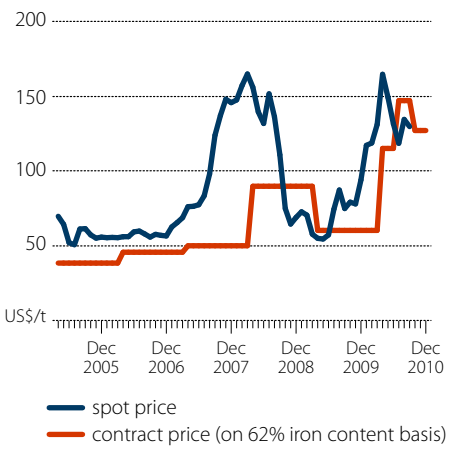
Raw material prices

Spot prices for iron ore, to which many quarterly contracts are now indexed, were volatile in the first eight months of 2010. After rising to US$186 a tonne in April (62 per cent iron content, China delivered basis), prices fell to US$116 a tonne in mid-July. The decline in prices was underpinned by increased supplies from key producers, including Australia and Brazil, combined with destocking by many Chinese steel mills in anticipation of lower prices. Prices have since rallied and in mid-September were around US$136 a tonne, partly owing to lower exports from India.

India is a significant supplier of iron ore to the Asian market, selling primarily on the spot market. However, in July 2010 a ban on exports from the state of Karnataka, which accounted for 27 per cent of India's iron ore exports in 2009, was put in place in an attempt to address illegal mining activities in the region. This reduced exports to the Asian spot market and provided support for higher spot prices in July and August.

Over the remainder of 2010 and 2011, the combination of higher Australian and Brazilian exports and the assumption that the Karnataka State Government will remove the ban on exports before the end of 2010 is expected to result in lower prices on the spot market. For calendar year 2010 as a whole, iron ore spot prices are forecast to average US$134 a tonne and then decrease in 2011 to US$105 a tonne.

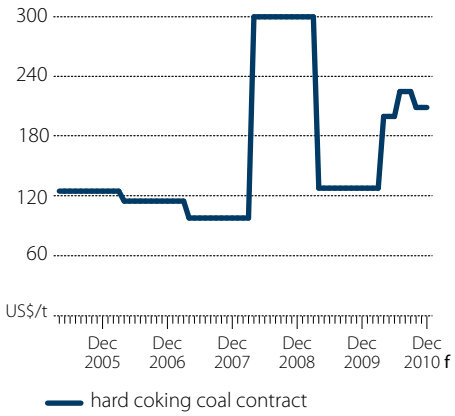
Iron ore FOB prices



Metallurgical coal prices to be sustained

In early September, high-quality hard coking coal contract prices for the December quarter 2010 were settled at US$209 a tonne, a 7 per cent decline from the September quarter. This price decline mainly reflects slower demand growth from key Asian customers, which was partially offset by lower exports from Australia's Hay Point coal terminal as a result of scheduled maintenance and from the Russian Federation. For 2010 as a whole, hard coking coal contract prices will average US$191 a tonne.

Metallurgical coal FOB price



In the first half of 2011, hard coking coal prices are forecast to average around $US200 a tonne, representing a 6 per cent increase on the 2010 average.

Steel consumption

Higher world economic growth and the effects of stimulus programs in many world economies underpinned growth in world steel consumption in the first half of 2010. While the rate of growth has moderated recently, global steel consumption is forecast to increase by 9 per cent to 1.3 billion tonnes for 2010 as a whole. In 2011, steel consumption is forecast to grow by a further 5 per cent to 1.4 billion tonnes. This forecast slower growth in 2011 mainly reflects an assumed easing of strong economic performance in China and considerably weaker economic growth in the United States.

In 2009 China was the world's largest consumer of steel, accounting for 44 per cent of global consumption. In the first half of 2010, apparent steel consumption increased by 15 per cent to 309 million tonnes. However, the effects of fiscal stimulus implemented by the Chinese Government since late 2008 will begin to weaken in the short term. For 2010 as a whole, China's steel consumption is forecast to increase by 9 per cent to 568 million tonnes.

Nevertheless, significant steel demand growth from the ongoing construction of infrastructure projects is expected to continue in China. In particular, the development of western provinces, the construction of road and rail infrastructure and increasing urbanisation will continue to underpin relatively strong growth in steel consumption. China's steel consumption is forecast to increase by a further 5 per cent to 596 million tonnes in 2011.

World steel outlook

	2008	2009	2010 f	2011 f
Crude steel consumption (Mt)				
European Union 27	198	125	142	149
United States	102	57	73	78
Brazil	27	24	26	27
Russian Federation	41	38	40	43
China	453	521	568	596
Japan	83	67	71	73
Korea, Rep. of	61	55	58	60
Chinese Taipei	20	17	18	20
India	54	54	61	69
World steel consumption	1 309	1 192	1 305	1 376
Crude steel production (Mt)				
European Union 27	198	137	169	177
United States	91	58	77	85
Brazil	34	27	32	36
Russian Federation	69	60	64	67
China	502	568	630	674
Japan	119	88	109	119
Korea, Rep. of	53	49	56	61
Chinese Taipei	20	16	24	26
India	55	57	65	71
World steel production	1 330	1 220	1 398	1 499

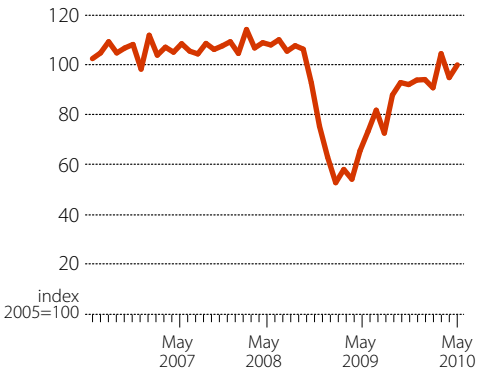
Steel consumption in OECD economies is also expected to increase over the outlook period. Following sharp declines in 2009, steel consumption in many OECD economies has rebounded significantly during 2010. For 2010 as a whole, steel consumption in the United States, the European Union and Japan is forecast to increase by 28 per cent, 14 per cent and 6 per cent, respectively. In 2011, steel consumption is forecast to increase at a slower rate in these economies, by 7 per cent, 5 per cent and 3 per cent, respectively.

Steel production

In 2010, world steel production is forecast to increase by 15 per cent to 1.4 billion tonnes. This reflects continued expansion of production capacity in China and India, and the restart of capacity in OECD economies that was idled in late 2008 and early 2009. World steel production in 2011 is forecast to increase by 7 per cent to 1.5 billion tonnes.

In the first half of 2010, China's steel production was 323 million tonnes, a year on year increase of 21 per cent. In the second half of 2010, steel production growth in China is forecast to moderate, in response to slower demand growth. For 2010 as a whole, China's steel production is forecast to increase by 11 per cent to 630 million tonnes. In 2011, growth in steel production is forecast to increase by 7 per cent to 674 million tonnes, as growth in consumption, both domestically and in key export markets, moderates.

Japanese iron and steel capacity utilisation



Source: Statistics Bureau of Japan.

In the first half of 2010, India's steel production increased year on year by 6 per cent. Growth is forecast to continue, as steel-making capacity expands to meet growing domestic demand. India's steel production is forecast to increase by 14 per cent to 65 million tonnes for 2010 as a whole. In 2011, India's steel production is forecast to increase by a further 9 per cent to 71 million tonnes.

Steel production in OECD economies is also forecast to grow over the outlook period, although a significant proportion of this growth will come from higher utilisation of existing capacity. In 2010, steel production in the United States, Japan and the European Union is forecast to increase by 33 per cent, 24 per cent and 23 per cent, respectively. In 2011, the growth rates of steel production for these economies are forecast to fall to 10 per cent, 9 per cent and 5 per cent, respectively, as production approaches operational capacity and growth in demand slows.

Iron ore

Recovery in world trade of iron ore

Reflecting higher forecast steel production, world trade of iron ore in 2010 is forecast to increase by 10 per cent to reach 1 billion tonnes. In 2011, world trade is forecast to increase by a further 8 per cent to 1.1 billion tonnes. Australia and Brazil will be the main contributors to this growth.

Chinese imports to rise modestly in 2011

In 2010, China's iron ore imports are forecast to decline by 2 per cent to 617 million tonnes, as increases in demand from steel mills are expected to be met by higher domestic production. In 2011, further increases in steel-making capacity are forecast to underpin a 10 per cent increase in iron ore imports to 677 million tonnes. China's iron ore production is expected to approach operational capacity by 2011, but further expansions to capacity will not keep pace with growth in demand.

Outlook for world iron ore trade (Mt)

	2008	2009	2010 f	2011 f
Iron ore imports				
European Union 27	162	92	132	143
Japan	140	106	132	143
China	444	628	617	677
Korea, Rep. of	50	44	51	55
Chinese Taipei	16	12	19	20
World imports	895	951	1 043	1 124
Iron ore exports				
Australia	309	363	397	437
Brazil	274	266	302	333
India	106	116	116	115
Canada	28	31	35	35
South Africa	33	45	49	53
Sweden	18	16	15	15
World exports	895	951	1 043	1 124

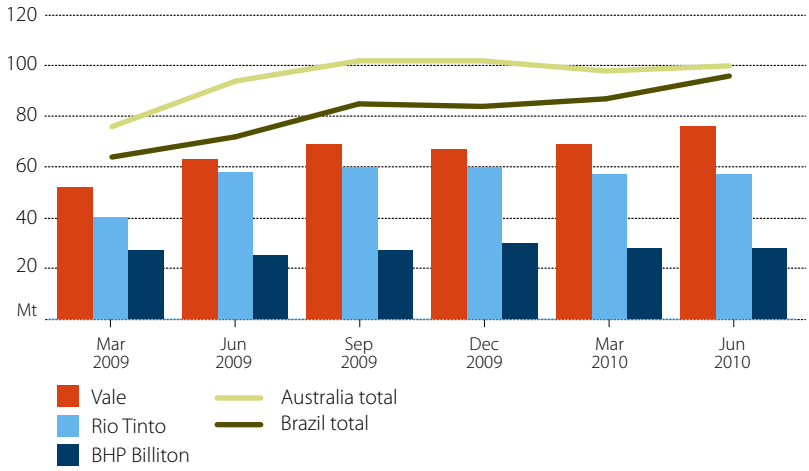
Strong growth in OECD economies in 2010

Iron ore imports by OECD steel-making economies are forecast to increase in the short term, driven by higher steel production. In 2010, Japanese and Korean imports are forecast to increase by 25 per cent and 16 per cent, respectively. Imports by the European Union are forecast to increase by 43 per cent to 132 million tonnes. The import growth is largely the result of a recovery in steel demand, together with restocking by steel mills in these countries. In 2011, iron ore imports by Japan, the Republic of Korea and the European Union are all forecast to grow by around 8 per cent, in response to forecast increases in steel production in these economies.

Brazil and Australia to increase market share in 2010

In the first half of 2010, Brazil's iron ore production increased year on year by 34 per cent. A significant proportion of this growth came from higher utilisation of Vale's production capacity, which was idled in response to weak demand in late 2008 and early 2009. Further growth in production is expected for the remainder of 2010, as higher demand from Brazil's traditional markets in Europe and stronger demand for high-quality pellets encourage further increases in capacity utilisation. For 2010 as a whole, Brazil's exports are forecast to increase by 14 per cent to 302 million tonnes. In 2011, Brazil's exports are forecast to increase by a further 10 per cent to 333 million tonnes, as pellet production is assumed to operate at full capacity and Vale's 20 million tonne annual capacity expansion in the Carajas region ramps up.

Major iron ore producers



In 2010, Australia's exports of iron ore are forecast to increase by 9 per cent to 397 million tonnes. This growth is supported by the completion of Rio Tinto's Mesa A project and BHP Billiton's Rapid Growth Project 4, both of which commenced production in early 2010. In 2011, growth will be supported by the continued ramp-up of these projects and others scheduled for completion in the fourth quarter of 2010. For example, CITIC Pacific's Sino Iron Project (26 million tonne annual capacity) and Fortescue Metals' capacity expansion at Chichester Hub to 55 million tonnes a year are both scheduled to start by the end of 2010. Reflecting recent expansions, Australia's iron ore exports are forecast to increase by 10 per cent to 437 million tonnes in 2011.

In 2010, India's exports of iron ore are forecast to remain largely unchanged at around 116 million tonnes, supported by higher domestic production, which is currently outpacing domestic demand. This is based on an assumption that exports from Karnataka will resume before the end of 2010, either through reopened ports in the state or through ports of neighbouring states. However, if the ban remains in place and effective, India's exports will be lower than currently forecast. In 2011, India's exports are forecast to be around 115 million tonnes, as higher production will be directed toward meeting increased domestic demand.

Metallurgical coal

Growth in world trade of metallurgical coal, particularly in the Asia–Pacific region, is forecast to increase over the remainder of 2010 and into 2011, with higher exports from Australia and Canada. World trade is forecast to increase by 14 per cent to 241 million tonnes in 2010 and by a further 8 per cent to 260 million tonnes in 2011.

Import demand growth will mainly come from developing Asian economies, particularly China and India. In 2010, imports by China, which increased by 386 per cent in 2009, are forecast to rise by a further 9 per cent to 37 million tonnes. China's imports in 2011 are forecast to increase by a further 19 per cent to 44 million tonnes. This forecast strong growth mainly reflects

Outlook for world metallurgical coal trade (Mt)

	2008	2009	2010 f	2011 f
Metallurgical coal imports				
European Union 27	56	42	47	49
Japan	57	46	52	57
China	7	34	37	44
Korea, Rep. of	24	15	22	25
Chinese Taipei	5	4	7	8
India	29	23	26	30
Brazil	11	9	11	13
World imports	237	211	241	260
Metallurgical coal exports				
Australia	135	135	162	169
Canada	27	22	25	27
United States	39	34	35	35
Russian Federation	16	13	12	14
World exports	237	211	241	260

imports delivered to the southern coastal regions being cost competitive against China's domestically produced coal that will be transported from the country's north, and other issues such as infrastructure bottlenecks. Imports are estimated to have accounted for only 8 per cent of China's metallurgical coal consumption in 2009.

China's import demand for metallurgical coal is sensitive to changes in domestic production. A small percentage increase in domestic production will have the potential to significantly affect demand for imports. Over the past five years, China's imports of metallurgical coal have varied markedly, ranging from 5 million tonnes in 2006 to 34 million tonnes in 2009. There are a number of factors affecting China's import demand, including the relative production costs of overseas and domestically produced coal, the relative costs of international freight and domestic transport, and infrastructure support in China.

India's imports of metallurgical coal are forecast to increase by 13 per cent to 26 million tonnes in 2010 and by a further 15 per cent to 30 million tonnes in 2011. Underpinning these increases is forecast growth in India's steel production and limited domestic metallurgical coal supply.

Imports of metallurgical coal by OECD economies have grown during 2010, associated with an increase in steel production. For 2010 as a whole, imports by the Republic of Korea, Japan and the European Union are forecast to increase by 47 per cent, 13 per cent and 12 per cent, respectively. In 2011, imports by these economies are forecast to grow by a further 14 per cent, 10 per cent and 4 per cent, respectively. Despite this forecast strong growth, import volumes of metallurgical coal in these economies in 2011 will still be similar to or below that achieved in 2008.

Australia remains the major exporter of metallurgical coal

Further growth in demand from Asian steel mills will underpin a tight market over the remainder of the outlook period. Australia will be the largest exporter of metallurgical coal over the outlook period, accounting for 67 per cent of forecast world trade in 2010. Exports from the Gladstone and Dalrymple Bay ports were affected by above average rainfall in the March quarter 2010, and further disruptions are expected in the September quarter as a result of scheduled maintenance shutdowns. For 2010 as a whole, Australia's exports are forecast to increase by 20 per cent to 162 million tonnes. In 2011, Australia's exports are forecast to increase by a further 4 per cent to 169 million tonnes, reflecting planned expansions to production capacity and an assumed return to average seasonal conditions.

Exports from the Russian Federation are forecast to decline by 8 per cent to 12 million tonnes in 2010. Methane explosions at the Russian Federation's Raspadskaya metallurgical coal mine

is the main reason for this forecast decline. The mine is assumed to resume operations in early 2011, underpinning a 17 per cent increase in exports to 14 million tonnes for 2011.

In 2010, Canada's exports of metallurgical coal are forecast to increase by 14 per cent to 25 million tonnes. Higher prices have encouraged increased production from Canadian producers. In the June quarter 2010, Teck's production was 39 per cent higher than the same period a year earlier, as a result of efforts to maximise production as opposed to the cost reduction and cash conservation measures that were undertaken in the second quarter of 2009. In 2011, Canada's exports are forecast to increase by a further 8 per cent to 27 million tonnes.

Australia's exports of steel-making raw materials to increase

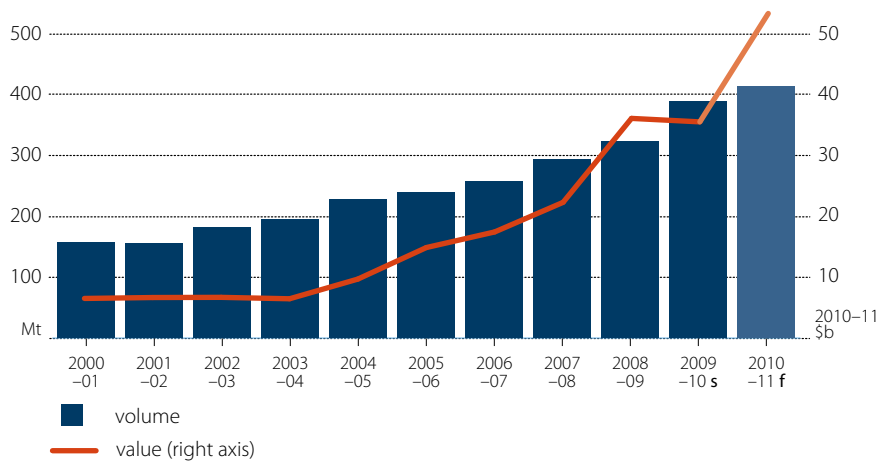
Australia's exports of iron ore increased by 20 per cent to 390 million tonnes in 2009–10, but export earnings remained largely unchanged at $34 billion. The effect of higher export volumes was offset by lower contract prices for three of the four quarters in 2009–10.

In 2010–11, a 6 per cent increase in export volumes to 414 million tonnes and higher contract prices will underpin a forecast 55 per cent increase in export earnings to $53 billion. Higher export volumes are expected to be achieved as a result of the continued ramp-up of several large operations in the Pilbara region and scheduled start of additional production capacity in late 2010.

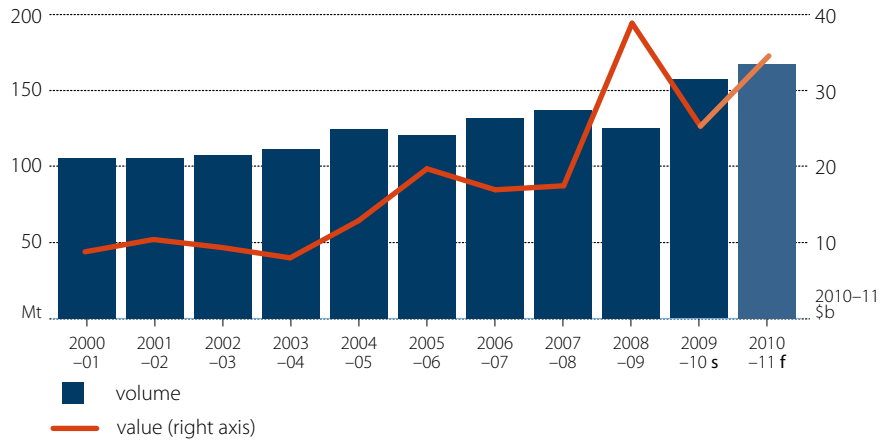
In 2009–10, Australia's metallurgical coal exports increased by 26 per cent to 157 million tonnes, reflecting recovering demand and the expansion of export capacity of 17 million tonnes a year at Dalrymple Bay. However, this increase in export shipments was more than offset by lower contract prices for the year, resulting in export earnings declining to $25 billion.

Metallurgical coal exports in 2010–11 are forecast to increase by 6 per cent to 167 million tonnes. The combined effect of higher volumes and higher contract prices is forecast to underpin a 41 per cent increase in exports earnings to $35 billion.

Australian iron ore exports



Australian metallurgical coal exports



Iron ore and steel outlook

		2009	2010 f	2011 f	% change
Contract prices a					
Iron ore b	US$/t	60	129	114	*– 11.7*
Metallurgical coal c	US$/t	128	209	200	*– 4.1*
		2008 –09	**2009 –10 s**	**2010 –11 f**	
Production					
Iron and steel s	Mt	5.57	6.89	7.93	*15.1*
Iron ore	Mt	353.0	423.4	442.1	*4.4*
Metallurgical coal	Mt	130.1	158.7	173.6	*9.4*
Exports					
Iron and steel	Mt	1.74	1.57	1.86	*18.5*
– value	A$m	1 363	1 120	1 022	*– 8.8*
Iron ore	Mt	323.5	389.8	413.8	*6.2*
– value	A$m	34 239	34 481	53 411	*54.9*
Metallurgical coal	Mt	125	157	167	*6.4*
– value	A$m	36 813	24 526	34 556	*40.9*

a Japanese fiscal year, starting April 1, FOB Australia basis, ABARE–BRS Australia–Japan average contract price assessment.
b Fines contract. 62% iron content basis. **c** High-quality hard coking coal. For example, Goonyella export coal.

Gold

Alan Copeland

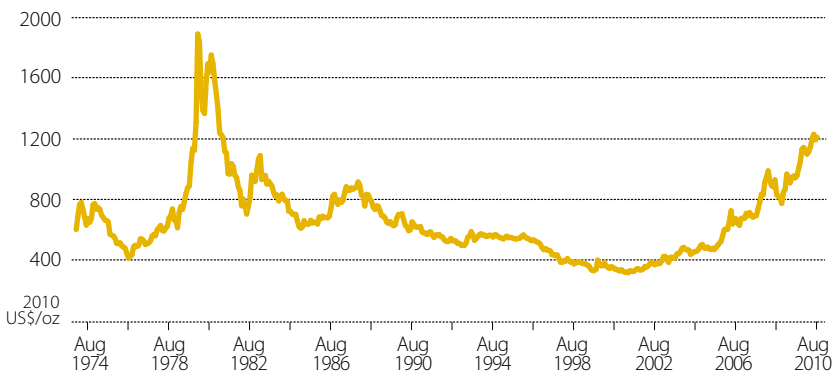
In the first three quarters of 2010, the world gold price is estimated to average US$1180 an ounce, a 20 per cent increase on the average price in 2009. Over the past nine months gold prices have been supported by gold's appeal as a low risk asset and by relatively strong jewellery demand in India and the Middle East. In 2011, gold prices are forecast to remain high, reflecting continued investor demand, limited central bank sales and relatively weak growth in world gold mine production.

Gold prices increased steadily during the June quarter and averaged around US$1200 an ounce, an increase of 30 per cent from the same period in 2009. In mid-September, gold prices were trading at US$1270 an ounce. The price increase reflected gold's appeal as a store of value because of investor concerns about the sustainability of the US economic recovery and the implications for economic growth in other parts of the world.

During the June quarter, the World Gold Council estimated that more than 270 tonnes of gold were purchased in exchange traded funds, the second largest quarterly inflow on record. At the end of June, exchange traded funds were estimated to hold a record 2040 tonnes of gold, valued at US$81.6 billion at current prices. Exchange traded funds are investment vehicles used by investors to increase their holdings of gold assets. Strong inflows of gold into exchange traded funds, as was seen during the June quarter, reflect strong investment demand for gold.

Another potential source of investor demand for gold is the possible changes to tax laws in the United Kingdom, where there is a proposal for capital gains tax to be introduced for bullion coins. This appears to have encouraged increased bullion purchases ahead of the proposed tax changes. For 2010 as a whole, gold prices are forecast to average around US$1200 an ounce.

Gold price
monthly, ended August 2010



In 2011, the world gold price is forecast to again average around US$1200 an ounce. Investor demand for low-risk assets is expected to remain high in 2011, given the uncertainty associated with the current outlook for world, and especially OECD, economic growth. In addition, relatively strong demand for gold fabrication in India, China and the Middle East is expected to support gold prices during the year.

However, there are significant risks associated with the outlook for gold because price movements are significantly influenced by macroeconomic developments. The strength, duration and composition of recovery across major world economies will influence the risk profile for investors. This will consequently affect the demand for gold as an alternative store of value and a hedge against economic and financial market uncertainty. Furthermore, the fiscal, monetary and regulatory policies of major world economies in the aftermath of the global financial crisis will have important implications for relative returns across asset classes, and will therefore affect the investment and official sector demand for gold. Prolonged interest rate differentials between regions also have the potential to stimulate speculative investment demand. The above factors could lead to a significantly different gold price for the outlook period than currently forecast.

Fabrication demand to grow in developing economies

Gold fabrication consists of gold used in jewellery, electronics, dental applications, medals, coins and other industrial uses. In the first half of 2010, gold fabrication consumption is estimated to have increased by around 17 per cent, supported by jewellery markets in India and the Middle East where demand has continued to grow despite higher prices. For 2010 as a whole, gold fabrication consumption is forecast to increase by 2 per cent to 2472 tonnes. In the mature markets of North America and Europe, gold fabrication consumption in 2010 is forecast to increase by 7 per cent to 76 tonnes. This forecast is well below the 89 tonnes consumed in 2008.

In 2011, gold fabrication consumption is forecast to increase by 3 per cent to 2549 tonnes. The forecast moderate growth reflects increased consumption in India, China and the Middle East being largely offset by lower consumption in North America and Europe. Economic growth is assumed to be relative strong in developing economies in 2011, and this will support demand for gold from Indian and Chinese consumers. Lower jewellery demand in North America and Europe reflects the assumption of weaker economic growth in 2011 and long-term shifts in preferences away from traditional gold jewellery.

World gold mine production to increase

In 2010, world gold production is forecast to increase by 3 per cent to 2637 tonnes. The start-up of new mines in China, Latin America, the Russian Federation and Australia has underpinned higher production. Partly offsetting these increases is lower production in Indonesia and South Africa.

In 2011, gold production is forecast to increase by a further 3 per cent to 2718 tonnes, as production growth continues in China, Latin America and Australia. In China, a relatively high gold price is expected to promote increases in gold production from smaller, more costly

operations. The ongoing consolidation of China's gold industry is also expected to underpin higher production because it results in larger and more efficient mines. In Peru and Argentina, the start-up of new mines in 2011 is forecast to support higher production as they ramp up to capacity. Partially offsetting some of these increases is forecast lower production in South Africa, where high costs, labour disputes and safety concerns are expected to persist, and in Indonesia, where output from the Grasberg mine is expected to continue falling.

Limited official sector activity in the short term

In the first half of 2010, net official purchases were 46 tonnes, compared with sales of 51 tonnes in the corresponding period in 2009. Traditionally, central banks, particularly European central banks, have been active sellers of their gold reserves. However, with gold currently viewed globally as an important strategic asset, many central banks have ceased sales and undertaken modest purchases. Central banks' gold purchases have placed upward pressure on the gold price, as they were previously a source of supply but now represent a source of demand.

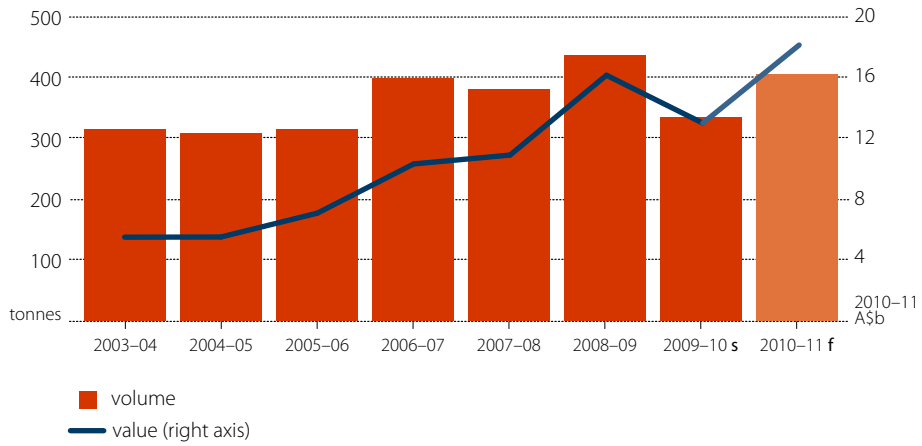
With gold expected to continue to be viewed as a strategic asset over the outlook period, modest net buying from central banks is expected to continue.

Australian production

Australia's gold mine production increased by 10 per cent in 2009–10 to 239 tonnes. This increase reflected the start-up of production at Boddington in Western Australia and higher production from Cadia Hill and Northparkes in New South Wales and Prominent Hill in South Australia.

In 2010–11 Australian gold production is forecast to increase by 11 per cent to 265 tonnes, largely as a result of the ramp-up to full production of Newmont's Boddington project. Several small to medium-sized developments are scheduled to start in the remainder of 2010–11, the most notable being Saracen Minerals' South Laverton project with a production capacity of 3 tonnes. Largely reflecting historically high Australian dollar gold prices, a number of previously dormant medium-sized projects have started or are scheduled to recommence production during 2010–11. These projects, which have the potential to contribute a total of 11 tonnes in 2010–11, include Navigator Resources' Bronzewing project, Crocodile Gold's Northern Territory tenements, Meekatharra Gold's Meekatharra project and Swan Gold Mining's Carnegie and Mt Ida operations.

Australian gold exports



Australian gold exports to fall from historical highs

In 2009–10, Australia's gold export shipments fell by 22 per cent to 342 tonnes. Weaker global fabrication demand and lower retail demand for gold bullion coins and bars contributed to this decrease, and there was less overseas-sourced scrap being refined in Australia for re-export. In 2010–11, gold export volumes are forecast to rise by 18 per cent to 405 tonnes, reflecting the forecast growth in domestic gold production and higher demand for jewellery in regional markets.

Reflecting the large decline in export volumes, the value of Australia's gold exports decreased by 20 per cent in 2009–10 to $13 billion. In 2010–11, export earnings from gold are forecast to rise by 38 per cent to $17.9 billion.

Gold outlook

		2009	2010 f	2011 f	% change
World					
Fabrication consumption	t	2 417	2 472	2 549	*3.1*
Mine production	t	2 572	2 637	2 718	*3.1*
Scrap sales	t	1 674	1 550	1 350	*– 12.9*
Net stock sales	t	–1 828	–1 715	–1 519	*– 11.4*
– official sector	t	41	45	90	*100.0*
– private sector	t	(1 615)	(1 685)	(1 577)	
– producer hedging	t	(254)	(75)	(32)	
Price	US$/oz	973	1 204	1 203	*– 0.1*
		2008 –09	**2009 –10 s**	**2010 –11 f**	
Australia					
Mine production	t	218	239	265	*10.9*
Exports	t	437	342	405	*18.4*
– value	A$m	16 146	12 996	17 899	*37.7*
Price	A$/oz	1 186	1 236	1 385	*12.0*

Net purchasing and dehedging shown in brackets.

Aluminium

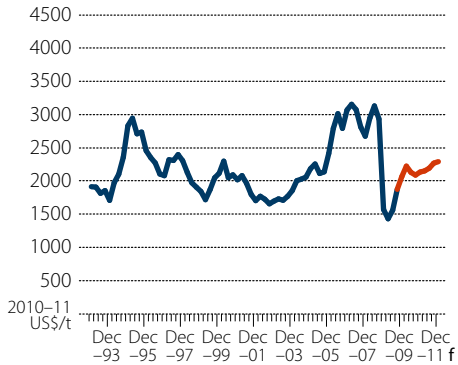
Michael Lampard

World aluminium price to average higher in 2011

The aluminium price has remained relatively stable in 2010, within a range of US$2000 to US$2200 a tonne for most of the year, after increasing rapidly in the second half of 2009. While upward pressure has emerged from stronger demand in developing economies, this has been largely offset by the effects of increased production and high stocks. The world aluminium price averaged US$2112 a tonne in the first eight months of 2010, 40 per cent higher than for the same period in 2009. For 2010 as a whole, the aluminium price is forecast to average around US$2115 a tonne, an increase of 27 per cent on 2009.

In 2011, aluminium prices are expected to again be supported by relatively strong consumption growth in developing economies. In OECD economies growth in aluminium consumption is likely to be moderate, reflecting assumed weaker economic growth. Overall, world consumption growth in 2011 is forecast to outpace increases in production, resulting in world stocks falling to around 9 weeks of consumption. Aluminium prices are forecast to increase by 7 per cent to average US$2259 a tonne in 2011.

World aluminium prices



World consumption to grow in 2010 and 2011

In the first half of 2010, world aluminium consumption increased by 21 per cent to 19.8 million tonnes, primarily attributable to higher consumption in China, Japan and Germany. For 2010 as a whole, world aluminium consumption is forecast to increase by 11 per cent to 39.2 million tonnes, before rising by a further 7 per cent to 42.1 million tonnes in 2011. The forecast growth in aluminium consumption in the next 15 months is expected to be supported by continued economic growth in China and the gradual recovery in economic activity in many developed countries.

China supporting growth in world consumption

In the first six months of 2010, China's apparent consumption of aluminium increased by 24 per cent to 8.2 million tonnes. China's aluminium consumption has been supported by increased production of aluminium-intensive goods such as consumer durables and transport vehicles. In the first half of 2010, the production of motor vehicles, consumer white goods and air conditioners increased by 44 per cent, 38 per cent and 31 per cent, respectively. An assumed easing of economic growth in the second half of 2010 is forecast to result in a moderation in aluminium consumption growth. As a result, China's consumption of aluminium is forecast to be around 16 million tonnes in 2010, an increase of 13 per cent from the previous year.

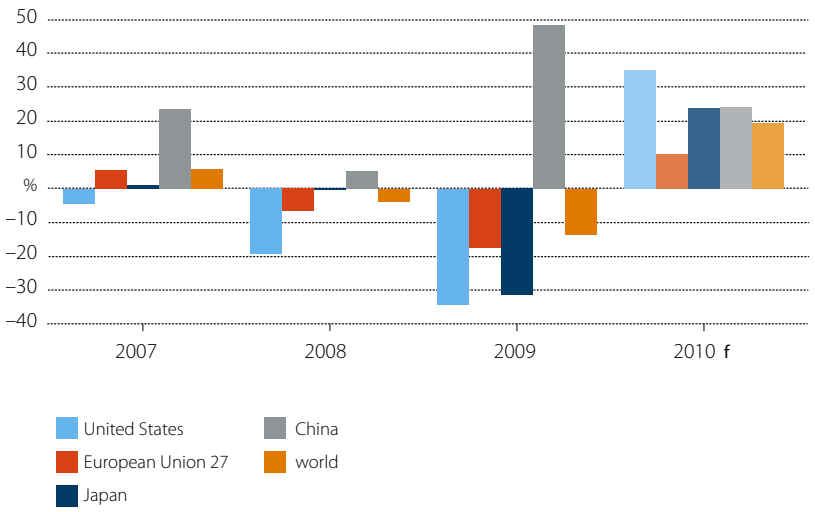
In 2011, China's consumption of aluminium is forecast to increase by a further 11 per cent to around 17.8 million tonnes, as continued economic growth supports residential and commercial construction and the production of aluminium-intensive consumer durables.

Aluminium consumption in OECD economies supporting growth in 2010

In the first half of 2010, aluminium consumption in OECD economies increased by 26 per cent year on year, contributing nearly 50 per cent of the total increase in world aluminium consumption over this period. Improved economic activity in many developed economies increased demand for aluminium used in consumer durables, construction and automobiles and encouraged the rebuilding of consumer stocks. Germany, Japan and the United States in particular contributed strongly to the increase in OECD consumption. For 2010 as a whole, OECD consumption of aluminium is forecast to increase by 14 per cent to 15.1 million tonnes.

In 2011, aluminium consumption in OECD economies is forecast to increase by a further 4 per cent to 15.8 million tonnes. Expected increases in residential and commercial construction activity, combined with higher production of consumer durables, are forecast to underpin higher consumption in many developed economies.

Production of automobiles, year on year growth

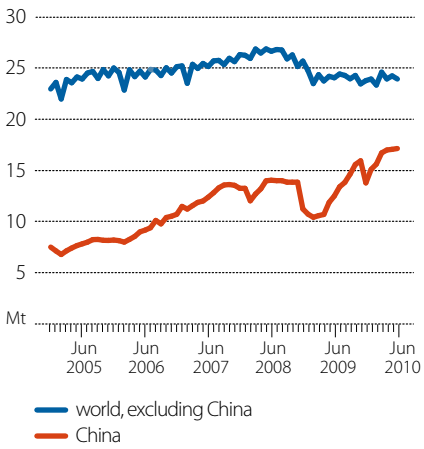


Source: Macquarie Research.

World production also forecast to increase

World aluminium production is forecast to increase by around 12 per cent to 40.7 million tonnes in 2010 and by a further 4 per cent to 42.4 million tonnes in 2011. Growth in aluminium production is expected to come mainly from China, where large increases in smelter capacity in recent years have contributed significantly to growth in world aluminium production.

Monthly aluminium production
annualised



In the first half of 2010, aluminium production in China increased by 49 per cent to 8.3 million tonnes, as strong domestic demand led to the restart and commissioning of smelter capacity. For 2010 as a whole, aluminium production is forecast to increase by 25 per cent to 16.1 million tonnes, before rising by a further 3 per cent to around 16.5 million tonnes in 2011. A risk to this outlook for China's aluminium production is associated with the extent to which further aluminium smelter capacity will be closed by the Chinese Government. In August 2010, 17 aluminium companies, with a combined annual capacity of 370 000 tonnes, were instructed to cease production because of concerns about the high energy intensity of some operations.

Production also to increase outside China

Outside China, the scheduled completion of new smelting capacity and the expected restart of idled capacity are forecast to support a modest increase in production in 2010 and 2011. The Middle East is forecast to account for most of this expansion, as Hydro Aluminium and Qatar Petroleum's Qatalum smelter (585 000 tonnes a year) and Dubai Aluminium and Mubadala's EMAL smelter (700 000 tonnes a year) approach capacity. Full production at the Qatalum smelter is not expected until 2011, following power supply disruptions in August that resulted in aluminium solidifying in two potlines. In total, production in the Middle East is forecast to increase by 28 per cent to 2.2 million tonnes in 2010, before increasing by a further 36 per cent to reach 3 million tonnes in 2011.

In Canada, expansions to Rio Tinto Alcan's Kitimat and Alma smelters are expected to increase the combined annual capacity of these smelters by 345 000 tonnes by 2011. Growth in 2011 will also be underpinned by increased utilisation of existing aluminium capacity at the Kitimat smelter as two potlines (total annual capacity of 67 000 tonnes) have been temporarily closed until 2011, while construction activity for the expansion is carried out.

Aluminium production in the United Kingdom is also forecast to increase in 2011 following the resumption of full production at Rio Tinto Alcan's Lynemouth smelter (180 000 tonnes a year). The smelter has been operating at around 30 per cent of capacity since 2008 in response to weak demand for aluminium.

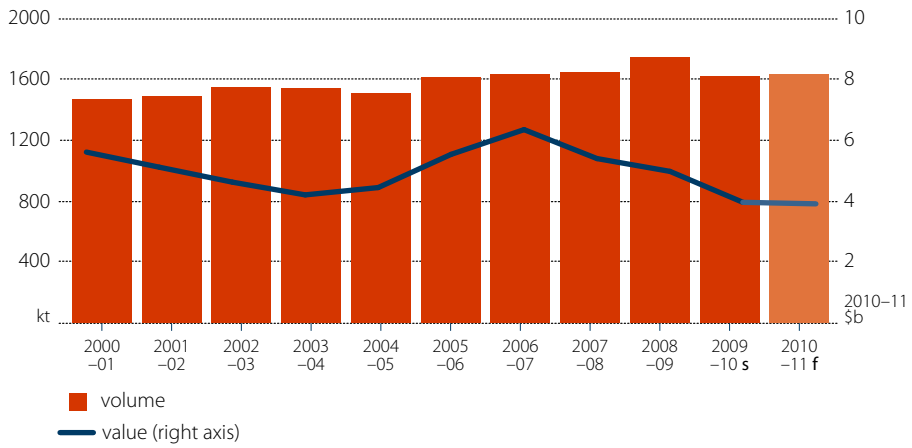
Offsetting some of this increased production in 2010 has been disruptions to a number of smelters worldwide. These include power supply problems at Egyptalum's 260 000 tonne aluminium smelter in Egypt and weather-related damage to Hindalco Industries' Hirakud (150 000 tonnes a year) aluminium smelter.

Australian aluminium production to remain steady in 2010–11

Australia's aluminium production declined by 3 per cent to 1.9 million tonnes in 2009–10, reflecting lower production at Alcoa's Portland smelter in Victoria. Production at the smelter was reduced in November 2008 in response to weak global demand for aluminium. In 2010–11, aluminium production is forecast to remain largely unchanged at around 1.9 million tonnes, as no new smelters or expansions to existing operations are expected.

Australia's aluminium export earnings declined by 19 per cent to $3.8 billion in 2009–10, as both export volumes and prices fell. In line with expected steady production, Australia's exports of aluminium are forecast to remain flat in 2010–11. A forecast moderate rise in export prices is expected to support a 2 per cent increase in the value of Australia's aluminium exports to $3.9 billion in 2010–11.

Australian aluminium exports



Alumina

Alumina prices to rise in 2011

The majority of world alumina sales are made on a contractual basis (where the contract price is linked to the aluminium spot price) or through internal transactions within companies. The remaining alumina is sold on the spot market, predominantly to small smelters in China. As a result, the alumina spot price tends to reflect the availability of alumina on the spot market and not necessarily movements in the aluminium price.

The alumina spot price has traded within a narrow range of around US$330–350 a tonne since early 2010, as rising consumption of alumina has been met by increased production. For 2010 as a whole, the alumina price is forecast to average US$336 a tonne, an increase of 35 per cent compared with 2009. In 2011, a forecast significant increase in world aluminium

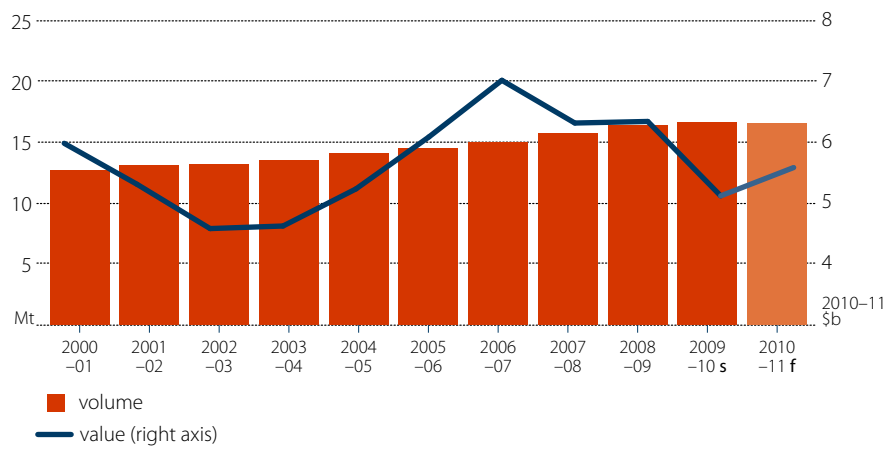
production, particularly in China, is expected to place upward pressure on alumina spot prices, as consumption is expected to increase faster than production. As a result, alumina spot prices are forecast to increase by 4 per cent to average around US$350 a tonne in 2011.

Australia's export earnings to increase

In 2009–10, Australia's production of alumina increased by 2 per cent to 20.1 million tonnes. This mainly reflects small production increases at refineries in the Northern Territory and Western Australia. In 2010–11, alumina production is forecast to increase by 1 per cent to 20.3 million tonnes, being underpinned by the continued ramp-up of production at the Gove refinery in the Northern Territory. In addition, the expansion of the Worsley refinery in Western Australia, which is scheduled for completion in 2011, is expected to contribute to higher Australian production.

The volume of alumina exports increased in line with higher production in 2009–10. The effect of increased export volumes was more than offset by a decline in the average export price, resulting in the value of exports declining by 17 per cent to $5 billion. Reflecting broadly steady alumina production, the volume of alumina exports is forecast to remain around 16.6 million tonnes in 2010–11. Higher export prices are forecast to support a 12 per cent increase in the value of alumina exports to $5.6 billion.

Australian alumina exports



Aluminium and alumina outlook

		2009	2010 f	2011 f	% change
World aluminium					
Production	kt	36 390	40 657	42 390	*4.3*
Consumption	kt	35 298	39 240	42 077	*7.2*
Closing stocks	kt	5 801	7 218	7 531	*4.3*
– weeks consumption		8.5	9.6	9.3	*– 3.1*
Price	US$/t	1 663	2 115	2 259	*6.8*
	USc/lb	75.4	96.0	102.5	*6.8*
World alumina					
Spot price	US$/t	249	336	351	*4.5*
		2008	**2009**	**2010**	
Australia		**–09**	**–10 s**	**–11 f**	
Production					
Bauxite	Mt	64.1	67.5	67.3	*– 0.3*
Alumina	kt	19 597	20 057	20 345	*1.4*
Aluminium	kt	1 974	1 918	1 927	*0.5*
Exports					
Alumina	kt	16 395	16 653	16 588	*– 0.4*
– value	A$m	6 015	4 969	5 583	*12.4*
Aluminium	kt	1 748	1 624	1 638	*0.9*
– value	A$m	4 724	3 848	3 913	*1.7*

Nickel

Robert New

In the first half of 2010, nickel prices averaged around US$21 200 a tonne, which was a 45 per cent increase on the average price in 2009. This increase was driven primarily by higher stainless steel production, being supported by increased construction activity and consumption of stainless steel–intensive consumer goods. Nickel prices are forecast to average moderately lower over the remainder of 2010, as growth in end-user demand slows in response to an assumed easing of world economic growth. In addition, nickel production is expected to increase in the second half of 2010, primarily reflecting the restart of idled production capacity. For 2010 as a whole, nickel prices are forecast to average around US$20 655.

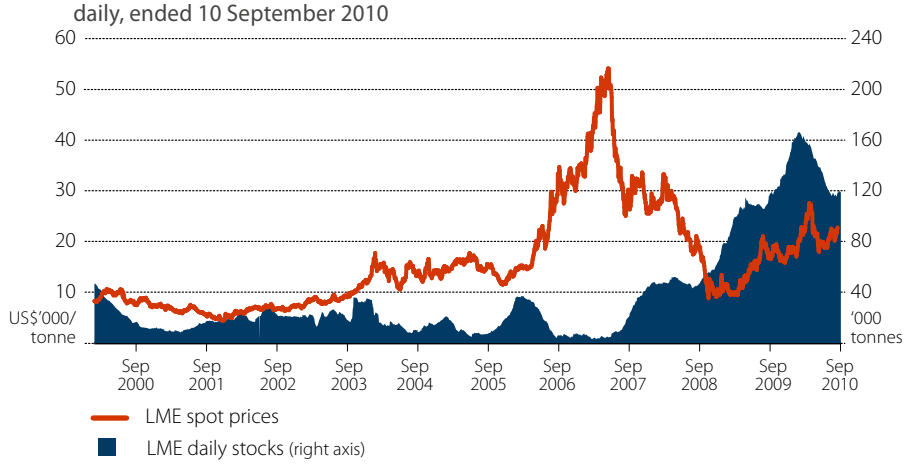
In 2011, nickel prices are forecast to decline by a further 4 per cent to average US$19 750, as increases in nickel supply are expected to outpace growth in demand from major nickel consuming economies.

High stocks continue to subdue nickel prices

In early September, stocks on the London Metal Exchange (LME) were around 119 000 tonnes, around the same volume as at the same time a year earlier. The maintenance of high nickel stocks has limited the prospects for a significant increase in nickel prices over the outlook period.

Although LME stocks have fallen by 28 per cent since their peak of 166 000 tonnes in February 2010, they remain historically high. Since January 2009, LME stocks have averaged 124 000 tonnes, compared with an average of 22 000 tonnes over the period 2000 to 2008. The higher availability of stocks is expected to limit any significant upward pressure on nickel prices, even if growth in consumer demand strengthens.

LME nickel prices and stocks
daily, ended 10 September 2010



Source: London Metals Exchange.

Uncertainty surrounding the short-term outlook for economic growth in OECD economies and China may also place downward pressure on nickel prices. Demand growth is expected to slow, as a result of an easing in consumer demand for stainless steels in China, as the Chinese Government takes measures to moderate economic growth and curb investment in the real estate sector. Furthermore, austerity measures implemented by some European economies are likely to lead to lower economic growth and result in lower consumption growth of nickel-intensive products. This easing in demand growth, combined with expected higher production from restarted capacity, will lead to higher stocks and will place downward pressure on prices.

Consumption to mirror economic recovery

Around two-thirds of nickel demand is derived from the production of stainless steel, commonly used in construction and manufacturing industries for its strength and anti-corrosive qualities. In the first half of 2010, consumption of refined nickel increased year on year by 22 per cent to 0.7 million tonnes, reflecting growth in stainless steel production. This higher consumption occurred in both developing Asia, particularly China, and key developed economies, including the United States, the European Union and Japan.

Although growth in stainless steel consumption is forecast to moderate in the second half of the year, it will still be significantly higher for 2010 as a whole than in 2009. World nickel consumption is forecast to increase by 12 per cent to 1.4 million tonnes in 2010.

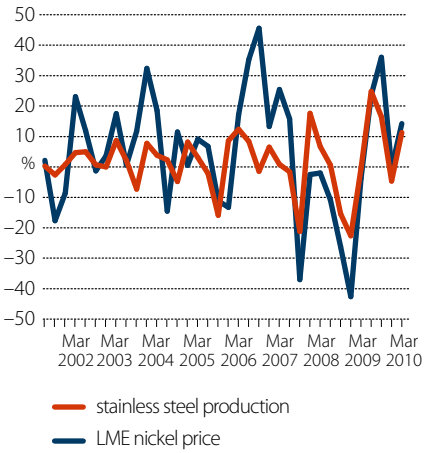
In 2011, stainless steel consumption is forecast to increase further under the assumption of continued world economic recovery. In China, growth in stainless steel consumption is forecast to expand at a slower rate than in 2010, in line with reductions in government stimulus and a slowdown in construction activity. In OECD economies, growth in stainless steel consumption is also forecast to slow, as a result of weaker economic growth. For 2011 as a whole, global nickel consumption is forecast to increase by 6 per cent to 1.5 million tonnes.

Nickel consumption (kt)

	2008	2009	2010 f	2011 f
China	360	443	490	520
Chinese Taipei	55	71	75	77
European Union 27	366	287	328	346
India	32	32	34	36
Japan	158	121	150	153
Republic of Korea	56	67	71	72
United States	127	90	116	120
World nickel consumption	1 278	1 241	1 391	1 468

Stainless steel production and nickel prices

quarter on quarter percentage changes



Nickel mine production (kt)

	2008	2009	2010 f	2011 f
Australia	302	259	300	361
Canada	260	137	180	210
Indonesia	180	185	225	230
Russian Federation	268	262	265	270
Philippines	79	119	140	142
World mine production	1 510	1 330	1 525	1 668

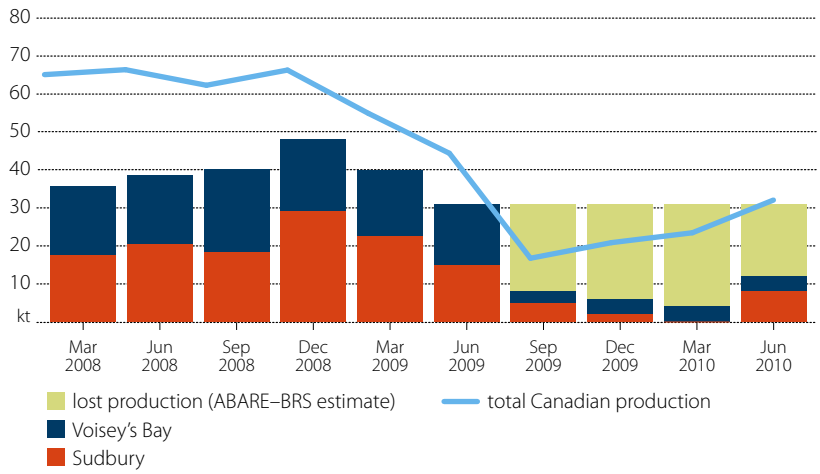
World mine production to rebound

In 2010, world mine production is forecast to increase by 15 per cent to 1.5 million tonnes. This reflects higher production, owing to previously idled capacity being restarted in response to higher prices. In addition, higher mine production will be supported by the start of production at several nickel laterite projects in 2010.

In the first half of 2010, the largest increases in mine production were in the Philippines, New Caledonia and Indonesia, of 95 per cent, 45 per cent and 19 per cent, respectively. The majority of production in these countries is in the form of laterite ores with low nickel content, which are exported to China for use in nickel pig iron production. Nickel pig iron, which uses a different refining process, is a direct substitute for refined metal. Therefore, significant growth in nickel pig iron has the potential to adversely affect consumption of refined nickel.

In the second half of 2010, significant increases in mine production are expected from Vale's Sudbury and Voisey's Bay nickel operations in Canada, following the end of industrial action in early July. Workers in these operations were on strike for almost 12 months, resulting in estimated production losses of approximately 94 000 tonnes. Canada's mine production is forecast to increase by 31 per cent in 2010, and by a further 17 per cent in 2011. Despite the forecast high growth in Canada's nickel production, significant spare capacity remains. Production in 2011 is expected to be 19 per cent lower than the record achieved in 2008.

Effect of strikes at Vale's Canadian operations



In 2011, world nickel mine production is forecast to increase by a further 9 per cent, supported by new projects scheduled to start in late 2010, and the continued restart of idled capacity. In early August, Vale's Goro nickel laterite project (60 000 tonne annual capacity) in New Caledonia produced its first nickel. This project is expected to produce a significant quantity of nickel as it ramps up production in 2011. In addition, Highlands Pacific's Ramu nickel laterite project (31 000 tonne annual capacity) in Papua New Guinea is scheduled to begin production in December 2010, with a staged ramp-up throughout 2011.

Nickel refined production (kt)

	2008	2009	2010 f	2011 f
Australia	109	131	114	125
Canada	176	117	100	130
China	200	254	320	325
Finland	57	41	35	40
Japan	158	144	160	165
Norway	89	89	90	91
Russian Federation	258	254	260	260
World refined production	1 396	1 334	1 396	1 496

Refined production to grow over remainder of outlook period

In 2010, global production of refined nickel is forecast to increase by 5 per cent to 1.4 million tonnes. Increased production reflects higher forecast demand for nickel from stainless steel producers, and the restart of idled refining capacity, both in developing Asia and across most developed nickel producing economies. In addition to the restart of idled capacity, new pig iron production capacity in China will contribute to world refined production. In 2010, China's refined nickel production is forecast to increase by 26 per cent to 320 000 tonnes.

In 2011, world nickel refined production is forecast to increase by a further 7 per cent to 1.5 million tonnes, being underpinned by continued growth in China's nickel pig iron refining capacity. In 2011, China's refined nickel production is forecast to increase by 2 per cent to 325 000 tonnes.

Australian production to recover

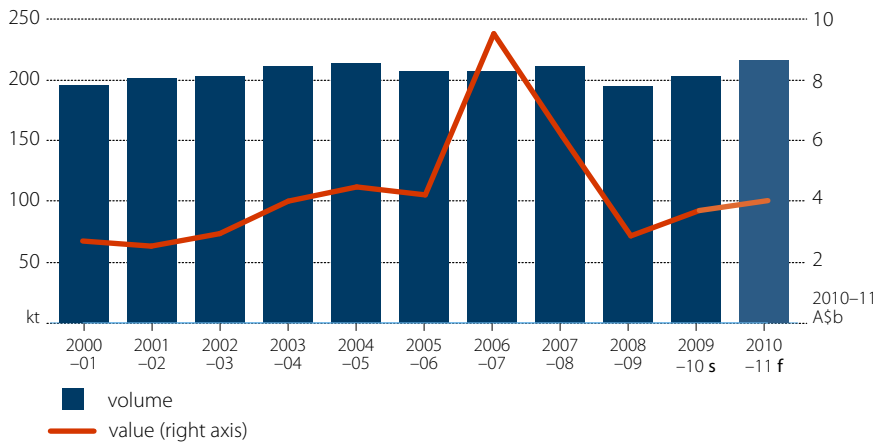
In 2009–10, Australian mine production declined sharply, falling by 11 per cent to 164 000 tonnes. The main cause was several operations being placed under care and maintenance in late 2008 and early 2009. This included all of Norilsk's Australian mines, Australian Mines' Blair operation and Fox Resources' Radio Hill operation. In 2010–11, Australian nickel mine production is forecast to rise as a number of operations expand production, including Western Areas' Flying Fox and Spotted Quoll mines. As a result, Australian mine production in 2010–11 is forecast to increase by 15 per cent to 188 000 tonnes.

In 2009–10, Australian refined production increased by 3 per cent to 114 000 tonnes. This reflected a year of largely uninterrupted production, following disruptions at Nickel West's Kwinana and Kalgoorlie refineries in 2008–09. In 2010–11, Australian refined production is forecast to increase by 11 per cent to 127 000 tonnes, approaching the industry's operational capacity.

Australia's export earnings to rise

In 2009–10, Australia's export earnings from nickel increased by 32 per cent to $3.6 billion, after weaker earnings in 2008–09 as a result of both lower prices and interrupted production of refined nickel. In 2010–11, earnings are forecast to increase by a further 12 per cent to $4.0 billion, as slightly lower average prices are expected to be more than offset by higher grades of exports.

Australian nickel exports



Nickel outlook

		2009	2010 f	2011 f	% change
World					
Refined					
Production	kt	1 334	1 396	1 496	*7.2*
Consumption	kt	1 241	1 391	1 468	*5.5*
Closing stocks	kt	234	239	268	*12.1*
– weeks consumption		9.8	8.9	9.5	*6.7*
Price	US$/t	14 642	20 655	19 750	*– 4.4*
	USc/lb	664	937	896	*– 4.4*
		2008 –09	**2009 –10 s**	**2010 –11 f**	
Australia					
Production					
Mine	kt	185	164	188	*14.6*
Refined	kt	111	114	127	*11.4*
Intermediate	kt	21	33	33	*0.0*
Exports	kt	194	203	216	*6.4*
– value	A$m	2 717	3 591	4 025	*12.1*

Copper

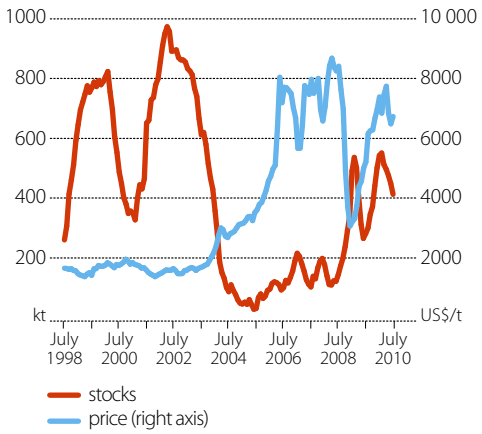
Rebecca Petchey

In the first half of 2010, copper prices averaged US$7023 a tonne, an increase of 39 per cent on the 2009 average. Higher copper prices were supported by strong growth in world copper consumption, largely reflecting restocking in OECD economies. Over the outlook period, copper prices are forecast to average around US$7100 in 2010 and US$7400 in 2011, as world consumption is expected to grow at a faster rate than production.

Falling copper stocks to support prices

Copper stocks at the London Metals Exchange, the largest trading exchange for base metals, have been declining since February 2010, which has provided support for higher prices. The fall in stocks reflects higher demand in OECD economies as a result of restocking, being underpinned by higher economic growth and industrial production. In the remainder of 2010, copper production and consumption is expected to remain balanced with stocks remaining largely unchanged from current levels.

London Metals Exchange copper stocks and prices
monthly



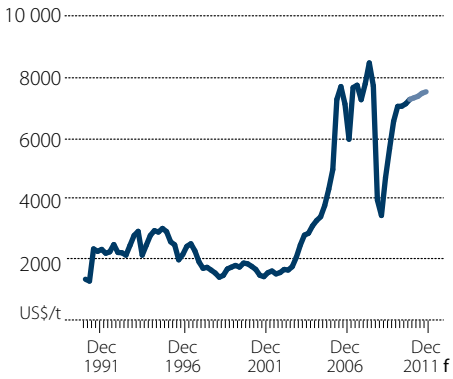
In 2011, copper consumption growth is expected to be weaker than in 2010. However, weak global production growth is forecast to support higher copper prices. As a result, copper stocks are forecast to decline to around 2.8 weeks of consumption by the end of 2011.

Consumption to increase in major copper consuming economies

World copper consumption is forecast to increase by 3 per cent to 18.8 million tonnes in 2010, being underpinned by higher consumption in major consuming economies including China, the United States, Germany and India. In 2011, world copper consumption growth is forecast to slow to 2 per cent, reflecting assumed lower world economic growth compared with 2010.

In 2010, China's copper consumption is forecast to remain relatively high at around 7 million tonnes. In the first five months of 2010, China's refined copper consumption was 3.8 million tonnes, an increase of around 2 per cent on the same period in 2009. Copper consumption is likely to be supported in the second half of 2010 and into 2011 by policies aimed at improving access to affordable housing. The Chinese Government has a target to build around 5.8 million homes in 2010, which will require copper for plumbing, electrical wiring and household appliances. In 2011, China's copper consumption is forecast to increase to around 7.1 million tonnes, supported by continued expansion of housing, electricity infrastructure and manufacturing of motor vehicles and consumer durables.

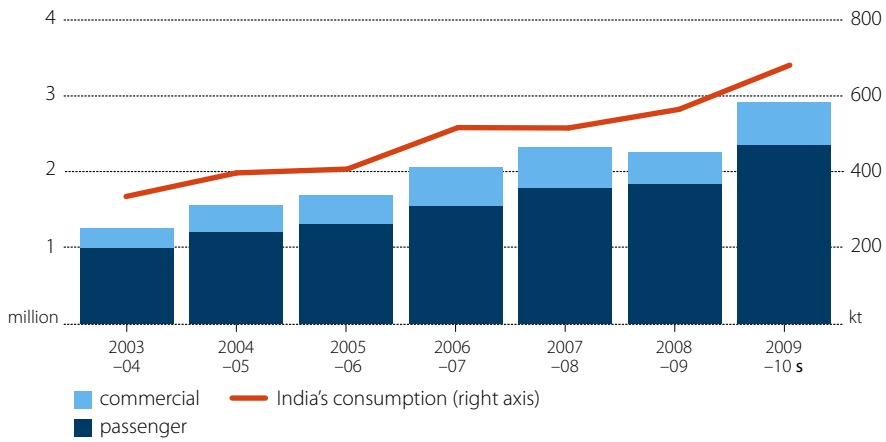
World copper price
quarterly, nominal



In the OECD region, copper consumption in 2010 is forecast to increase by 4 per cent to around 7.7 million tonnes. Declining copper consumption in Spain, France and the Republic of Korea is expected to be more than offset by increasing consumption in some of the larger copper consuming economies. For example, copper consumption in Germany and the United States is forecast to increase by 7 per cent and 6 per cent, respectively, in 2010, as economic activity and industrial production increases. In 2011, copper consumption in the OECD region is forecast to increase only marginally to 7.8 million tonnes, reflecting assumed weaker economic growth, particularly in the United States, Germany and Japan.

India's copper consumption is forecast to increase by 20 per cent to 680 000 tonnes in 2010, one of the fastest rates around the world. Production of passenger vehicles in India rose by 29 per cent to around 3 million vehicles in 2009–10. As each passenger vehicle requires on average around 23 kilograms of copper, this increase in vehicle production led to around 18 000 tonnes of additional copper consumption. In 2011, India's copper consumption is forecast to increase by a further 10 per cent to 750 000 tonnes.

India's motor vehicle assemblies and copper consumption



Increasing copper production in Africa and Chile...

Copper mine production is forecast to remain steady in 2010 at 15.8 million tonnes. Higher production in Africa and Chile is expected to be largely offset by lower production in Indonesia and the United States.

In Africa, strong production growth will be underpinned by a ramp-up of operations that started in 2009, including Equinox Minerals' Lumwana mine in Zambia (169 000 tonnes annual capacity) and Freeport's Tenke Fungurume mine in the Democratic Republic of Congo (114 000 tonnes annual capacity). In total, Africa's copper production is forecast to increase by 14 per cent to 1.3 million tonnes in 2010. A further 16 per cent increase in 2011 is expected to be supported by the expansion at Anvil Mining's Kinsevere operation in the Democratic Republic of Congo (60 000 tonnes annual capacity).

Chile's copper production is forecast to increase by around 8 per cent to 5.8 million tonnes in 2010 as Codelco's Codelco Norte and Andina operations are expanded and Escondida returns to full production following equipment maintenance in late 2009. In 2011, Chile's copper production is forecast to increase by 3 per cent, supported by the ramp-up of expansions completed in 2010.

...to offset declining production in Indonesia

In 2010, Indonesia's copper mine production is forecast to decline by 5 per cent to 920 000 tonnes. Production at Freeport's Grasberg mine, the third largest copper mine in the world, declined by around 30 per cent in the first half of 2010 because of mine sequencing and lower ore grades. In addition, Newmont's Batu Hijau operation was affected by higher than average rainfall during the second quarter of 2010. Indonesia's copper mine production is forecast to decline by a further 31 per cent in 2011, as Grasberg continues to process lower ore grades.

In the United States, lower copper grades and the closure of several operations are expected to result in production declining by around 12 per cent in 2010. In 2011, copper production is expected to increase by 6 per cent as Freeport's Morenci mine, the largest copper mine in the United States, returns to full capacity of 380 000 tonnes a year.

New capacity to boost refined copper production in 2010 and 2011

World refined copper production is forecast to increase by 1.4 per cent to 18.9 million tonnes in 2010. This will be underpinned by the ramp-up of Solvent Extraction Electrowinning (SX-EW) operations in Africa, including Tenke Fungurume (100 000 tonnes annual capacity) and Ruashi Etoile (20 000 tonnes annual capacity) in the Democratic Republic of Congo, and Nchanga (50 000 tonnes annual capacity) in Zambia. Also supporting higher production has been an increase in the availability of scrap associated with more favourable copper prices.

In 2011, refined copper production is forecast to increase by a further 2 per cent to 19.2 million tonnes, supported by increased SX-EW capacity in Europe and Africa and continued higher availability of scrap.

Australian copper production to increase in 2010–11

Australia's mine production is estimated to have declined by 7 per cent to 825 000 tonnes in 2009–10. At BHP Billiton's Olympic Dam mine, the mechanical failure in October 2009 of the main haulage shaft that transports around 75 per cent of the mine's ore to the surface resulted in production declining by 47 per cent in 2009–10. This, coupled with lower production at Xstrata's Ernest Henry operation, more than offset higher production from the start-up of

OZ Minerals' Prominent Hill (90 000 tonnes annual capacity) and Newmont's Boddington (30 000 tonnes annual capacity) mines.

In 2010–11, mine production is forecast to increase by 14 per cent to 944 000 tonnes. Repairs were completed at Olympic Dam in the June quarter 2010 and full production has resumed. Also supporting this forecast increase is the start-up of production at Rio Tinto's Northparkes expansion (an annual increase of 2 million tonnes ore processing capacity) and Boddington producing copper by-product at full capacity. However, this is expected to be partially offset by the closure of some smaller operations, including Barrick Gold's Osbourne operation (35 000 tonnes annual capacity).

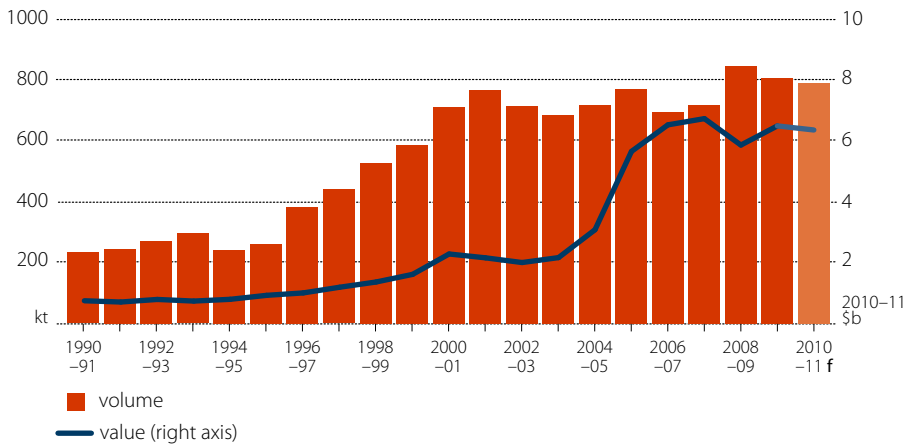
In 2009–10, production of refined copper is estimated to have declined by 21 per cent to 392 000 tonnes, reflecting lower production at Olympic Dam and the closure of Straits Resources' Whim Creek SX-EW. Refined copper production is forecast to increase by 20 per cent to 471 000 tonnes in 2010–11 as Olympic Dam returns to full capacity.

Export values and volumes to increase

The metallic content of copper exports is estimated to have declined by 5 per cent to 809 000 tonnes in 2009–10. While exports of copper concentrates increased as Prominent Hill commenced production, the effect was more than offset by a significant decline in refined copper exports. In 2010–11, the metallic content of copper exports is forecast to decline by 2 per cent to 792 000 tonnes, as increased exports of refined copper, largely from Olympic Dam, are offset by a decline in copper concentrate exports with the closure of some smaller operations.

In 2009–10, the value of copper exports is estimated to have increased by 11 per cent to $6.5 billion, as higher copper prices offset the effects of lower export volumes and an appreciation of the Australian dollar. Lower export volumes of ores and concentrates are expected to offset an increase in the export volume of refined copper and higher forecast copper prices in 2010–11, resulting in export values declining by 2 per cent to $6.4 billion in 2010–11.

Australian copper exports
metal equivalent



Copper outlook

		2009	2010 f	2011 f	% change
World					
Production					
– mine	kt	15 839	15 802	16 671	*5.5*
– refined	kt	18 596	18 867	19 163	*1.6*
Consumption	kt	18 349	18 795	19 185	*2.1*
Closing stocks	kt	990	1 062	1 040	*– 2.1*
– weeks consumption		2.8	2.9	2.8	*– 3.4*
Price	US$/t	5 067	7 100	7 400	*4.2*
	USc/lb	229.9	322.1	335.7	*4.2*
		2008 –09	**2009 –10 s**	**2010 –11 f**	
Australia					
Mine output	kt	890	825	944	*14.4*
Refined output	kt	499	392	471	*20.2*
Exports					
– ores and concentrates	kt	1 797	1 933	1 752	*– 9.4*
– refined	kt	361	271	320	*18.1*
– total value	A$m	5 863	6 491	6 357	*– 2.1*

Zinc

Alan Copeland and Apsara Maliyasena

World spot zinc prices are estimated to average around US$2100 a tonne in the first nine months of 2010, 32 per cent higher than the average of US$1595 a tonne for 2009 as a whole. The spot price of zinc is forecast to average lower in the last quarter of 2010, and in 2011, reflecting assumed weaker economic growth in most major zinc consuming economies and higher global zinc production.

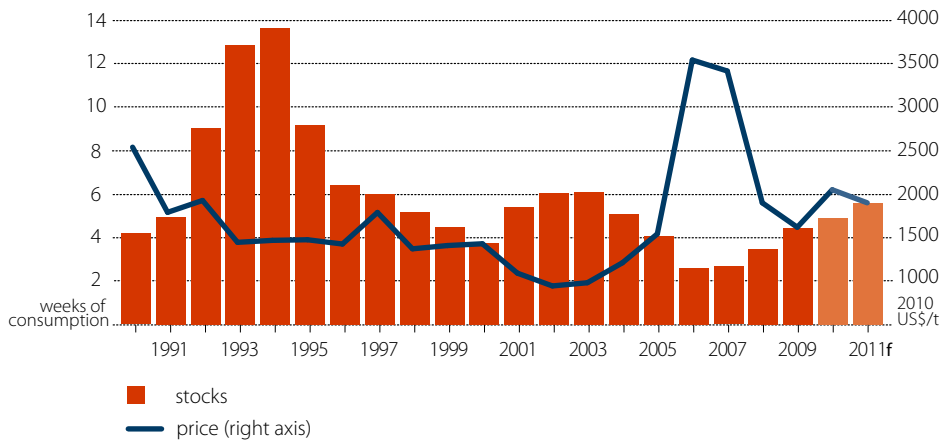
Modest price recovery in 2011

In early September 2010, world zinc prices were trading at around US$2150 a tonne on the London Metal Exchange (LME), a year on year increase of 39 per cent, but 7 per cent lower than the average price in the March quarter. The lower world prices in early September (compared with earlier in the year) were because of lower zinc consumption, as a result of measures taken to moderate economic growth in China and weak economic growth in OECD economies. In addition, zinc stocks have increased and, in late August, official LME zinc stocks stood at around 622 000 tonnes, the highest since June 2005.

World zinc prices are forecast to average around US$1930 a tonne in the second half of 2010, 10 per cent lower than the average for the first half of the year. For 2010 as a whole, zinc prices are forecast to average around US$2040 a tonne, an increase of 28 per cent year on year. World zinc production is forecast to exceed consumption in 2010, and zinc stocks are forecast to increase to around 4.9 weeks of consumption by the end of the year.

In 2011, zinc production is also forecast to exceed consumption, resulting in world stocks increasing to 5.6 weeks of consumption. The increase in stocks is forecast to result in prices falling by 8 per cent to average US$1900 a tonne in 2011.

World zinc prices and stocks



World refined zinc consumption to increase

In the first half of 2010, world refined zinc consumption grew by 20 per cent, with most of this growth attributable to China. The bulk of zinc consumption occurs in the construction and automotive industries in the form of galvanised (zinc-coated) steel. Galvanised steel is used for a range of products such as roofing, gutters, household appliances and automotive body parts. Other uses of zinc include the production of brass, bronze and zinc-based alloys used in die casting. The demand for galvanised steel and zinc-based alloys is an important driver of refined zinc consumption.

World refined zinc consumption is forecast to increase by 10 per cent to 11.9 million tonnes in 2010 and by a further 3 per cent to 12.3 million tonnes in 2011. The majority of this increase is expected to be in developing economies such as China and India, where growth in industrial production is assumed to remain relatively strong. Zinc consumption in the United States, Japan and other major zinc consuming countries is also forecast to increase, but at a slower rate compared with 2010, in line with expected weaker economic growth and growth in industrial output.

China to drive world consumption growth

Zinc consumption in China (the world's largest zinc consumer) rose by 14 per cent in the first half of 2010. Underpinning this was higher galvanised steel consumption in the construction, automotive and household appliance industries. Production of galvanised steel in China in the first quarter of 2010 increased year on year by 72 per cent. This compares with a 44 per cent increase for the rest of the world in the same quarter.

In the second half of 2010, particularly the December quarter, China's zinc consumption growth is forecast to slow, reflecting an assumed moderation of China's economic growth. China's refined zinc consumption is forecast to grow by 8 per cent for 2010 as a whole to around 5.1 million tonnes, and by a further 8 per cent to 5.5 million tonnes in 2011.

In 2010, India's zinc consumption is forecast to increase by around 7 per cent to 551 000 tonnes. Zinc consumption is expected to grow as a result of investment in India's power generation and transport infrastructure. Increasing motor vehicle production is also a significant driver of zinc demand. With these trends expected to continue in 2011, India's zinc consumption is forecast to increase by 8 per cent to 595 000 tonnes.

Modest consumption growth in the United States and Japan

In the first half of 2010, zinc consumption in the United States rose by 2.6 per cent year on year. Over the next 15 months, assumed moderate economic and industrial production growth in the United States is expected to result in modest increases in the use of galvanised steel and, therefore, zinc consumption. Refined zinc consumption is forecast to increase by around 3 per cent in both 2010 and 2011.

In 2010, Japan's zinc consumption is forecast to increase by 18 per cent, being underpinned by stronger economic growth and industrial production. Despite the stronger growth rate, Japan's zinc consumption in 2010 is forecast to remain around 9 per cent lower than

consumption in 2008. Under the assumption of weaker economic growth in 2011, Japan's zinc consumption growth is forecast to slow to 5 per cent.

World zinc mine production set to rise

World zinc mine production is forecast to grow by 7 per cent in 2010 to around 12.1 million tonnes. In 2011, world zinc mine production is forecast to grow by a further 4 per cent to 12.6 million tonnes. Underpinning this forecast growth is expected higher production from a number of zinc producing countries including India, Australia, Peru and the United States.

In India, increased mine production is expected to come from the further expansion of Hindustan Zinc's Rampura Agucha zinc–lead mine (additional annual capacity of 100 000 tonnes by 2011), which is now the world's largest zinc mine, and the expansion of the Sindesar Khurd mine (annual capacity of 75 000 tonnes by 2011).

Peru's zinc production is also forecast to increase with the resumption of operations at the Iscaycruz mine, which is Peru's largest zinc and lead mine and has an annual zinc production capacity of 170 000 tonnes. The extension of Teck Resources' Red Dog mine in Alaska, the world's second largest zinc mine, is also expected to contribute to increased zinc production in 2011.

Growth in world refined zinc production

World refined zinc production is forecast to rise by 8 per cent in 2010 to around 12.1 million tonnes and by a further 3 per cent in 2011 to 12.5 million tonnes. This growth is expected to come from the restart of operations that had previously closed or cut back production, and from the start-up of new operations. For example, Nyrstar's Balen (255 000 tonnes a year) smelter in Belgium, which was placed on care and maintenance at the end of 2008, returned to full production in the first quarter of 2010. In Peru, the expansion of the Cajamarquilla zinc smelter was completed in early August 2010. The expansion increased the smelter's capacity to around 320 000 tonnes a year. In India, the new Rajpura Dariba refinery (210 000 tonnes a year) is also expected to contribute to the forecast growth in world refined zinc production.

Significant increases in refined zinc production are expected in China in 2010 and 2011, sourced from the new JCC zinc plant (100 000 tonnes a year) in Hukou County, which is scheduled to start up in 2011 and the new Hanzhong plant (100 000 tonnes a year) in Shaanxi Province. In addition, Dongling Group is preparing to restart a 100 000 tonne a year lead and zinc smelter in 2010.

Growth in Australian zinc production in 2010–11

After declining by 3 per cent in 2009–10 to around 1.36 million tonnes, Australian zinc mine production is forecast to rise by 4 per cent in 2010–11 to 1.4 million tonnes. Higher production is forecast from MMG's Century mine in Queensland resuming normal production, following the suspension of the concentrator in late 2009. Higher production is also expected from the ramp-up in production of CBH Resources' Endeavor mine, Terramin's Angas mine, Xstrata's Mt Isa mine and MMG's Golden Grove mine. In addition, the first stage of the Rasp lead and

zinc mine development in Broken Hill (30 000 tonnes a year) and the proposed expansion of Xstrata's Black Star open cut mine in Mt Isa in late 2010 are expected to contribute to higher production.

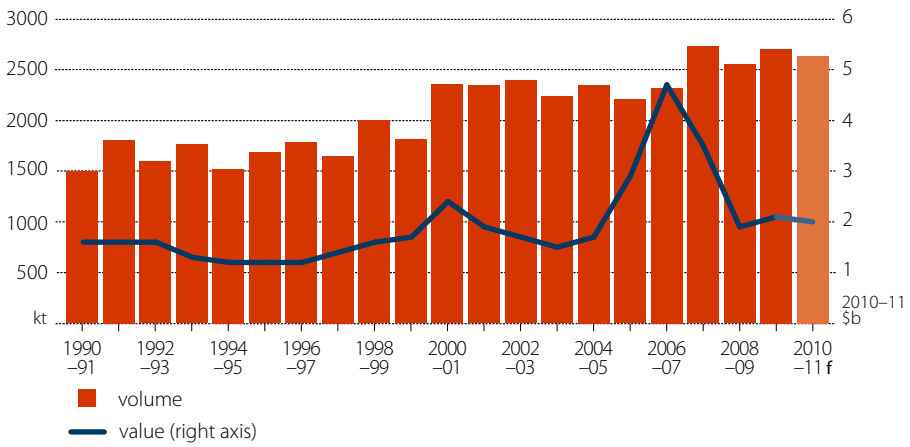
Australia has the capacity to produce around 500 000 tonnes of refined zinc a year. With no additions scheduled to Australia's zinc refining capacity, refined zinc production is forecast to remain around 500 000 tonnes a year in the short term.

Australian export earnings to rise

Exports of zinc ores and concentrates increased by 8 per cent in 2009–10 to around 2.3 million tonnes. However, exports of refined zinc fell by 6 per cent in 2009–10 to around 426 000 tonnes. The total value of zinc exports rose by 20 per cent to around $2.2 billion in 2009–10, as higher exports of ores and concentrates and higher world prices offset lower export volumes.

In 2010–11, exports of zinc ores and concentrates are forecast to increase by 5 per cent to around 2.4 million tonnes, while exports of refined zinc are forecast to increase by 3 per cent to 437 000 tonnes. Export values are forecast to remain relatively steady in 2010–11, with higher export volumes partially offset by expectations of lower world zinc prices.

Australian zinc exports



Zinc outlook

		2009	2010 f	2011 f	% change
World					
Production – refined	kt	11 287	12 134	12 498	*3.0*
Consumption	kt	10 854	11 939	12 298	*3.0*
Closing stocks	kt	923	1 117	1 317	*17.9*
– weeks consumption		4.4	4.9	5.6	*14.3*
Price	US$/t	1 595	2 041	1 888	*– 7.5*
	USc/lb	72.3	92.6	85.6	*– 7.6*
		2008 –09	**2009 –10 s**	**2010 –11 f**	
Australia					
Mine output	kt	1 411	1 362	1 421	*4.3*
Refined output	kt	506	515	517	*0.4*
Exports					
– ores and concentrates	kt	2 101	2 282	2 396	*5.0*
– refined	kt	451	426	437	*2.6*
– total value	A$m	1 858	2 218	2 202	*– 0.7*

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