

Commodities outlook for 2002-03 and farm performance estimates for the Northern Territory

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Prospects for the Australian commodities sector in 2002-03 will be heavily dependent on the maintenance of at least modest world economic growth. World economic activity will be driven largely by developments in the US economy, which is assumed to continue to improve following poor performance in 2001.

The drought is expected to prove costly to the national economy in 2002-03. It is estimated that the value of lost production and the flow-on effects to the rest of the community will cut around 0.7 per cent — or \$5.4 billion — from Australia's gross domestic product for the year.

Grain farmers will be hit hardest by the drought, with the national winter grain crop forecast to be down 56 per cent (21 million tonnes) on last year's record result. Livestock producers in the worst affected areas are being forced to sell cattle and sheep prematurely, and having to pay more for grain and hay, because of drought.

The volume of Australian mine production is forecast to rise by around 1 per cent in 2002-03. This moderate rise partly reflects subdued levels of spending on exploration and investment in mining in the late 1990s and very early 2000s. The value of minerals and energy exports (in Australian dollars) are forecast to rise by around 4 per cent in 2002-03.

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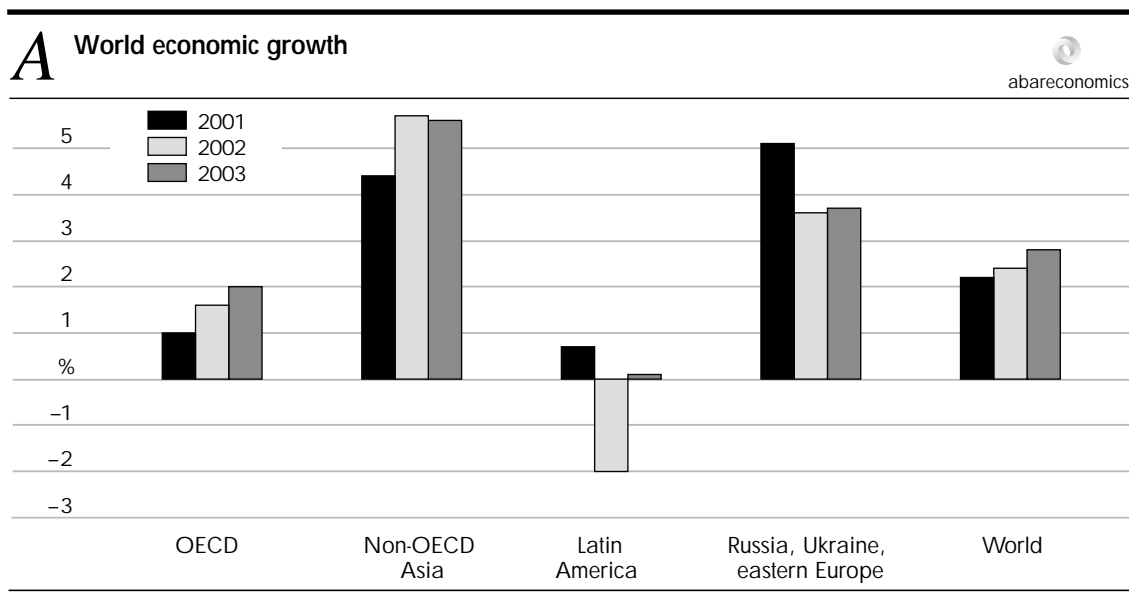
World economic outlook

Since early July, sharp declines in major US stock market indexes and slides in share market valuations in western Europe, Japan and other Asian countries have caused concern that consumer demand and business investment spending in the major world economies will slow. Sharply lower stock market valuations will translate into lower household wealth and have the potential to adversely affect consumer spending. Since consumer spending accounts for around two-thirds of economic activity in the major world economies, significant declines in stock market valuations could result in a decline in world economic activity.

Because the United States is an important destination for exports from many western European and Asian countries, a slowdown of economic activity — especially consumer spending and import demand — in the United States could adversely affect economic performance in other parts of the world. Stock market volatility can also have an unfavorable effect on business investment. In an environment of lower share prices, businesses are likely to reduce plans for new capital investment.

Looking ahead to 2003 the outlook for world economic growth is particularly dependent on economic and financial market developments in the United States. Given relatively weak economic activity in both western Europe and Japan, the global economy is heavily reliant on the United States as an engine of growth. Assuming stability can be maintained in US financial markets, economic growth in the United States is assumed to continue to strengthen from the low point of 0.3 per cent in 2001 to around 2.5 per cent in 2003.

In preparing the current set of commodity forecasts, world economic growth is assumed to be 2.4 per cent in 2002, before increasing to around 2.8 per cent in 2003 (figure A).



Recent volatility in the oil market has become a significant risk factor to the global economic outlook, especially if tensions in the Middle East increase. If oil prices rise substantially, there could be a significant impact on the global economy. Although oil exporting countries would benefit from higher prices in the short term, there would be adverse effects in most of the OECD and newly industrialised Asian economies.

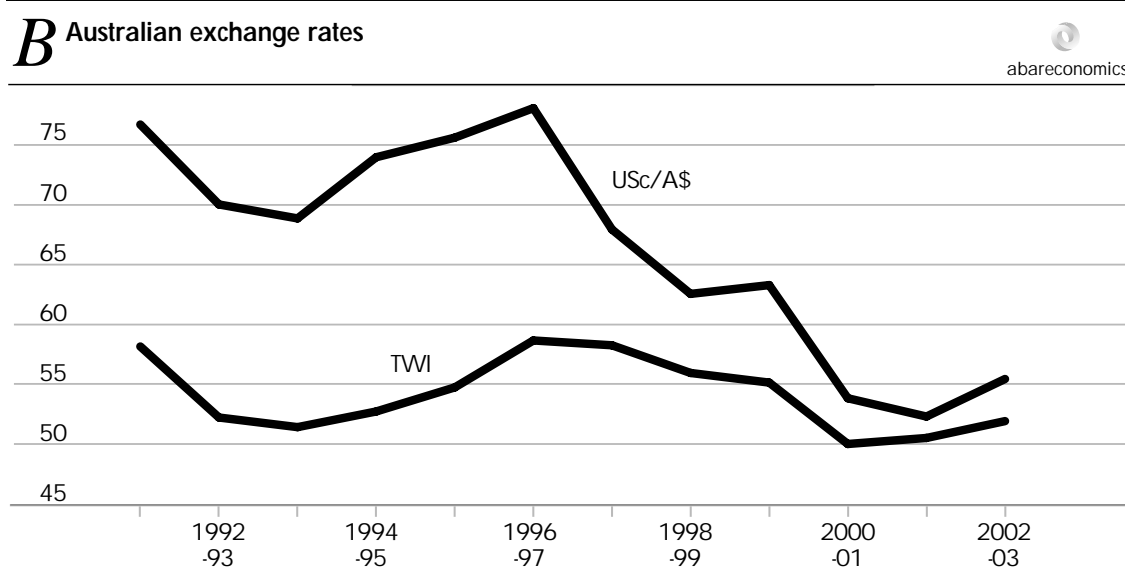
Economic prospects in Australia

The performance of the Australian economy remains strong, with growth in domestic demand likely to remain relatively robust, supported by higher nonfarm activity. However, with a severe drought in rural Australia, both agricultural production and exports are forecast to decline.

Economic growth in Australia is assumed to be 3.0 per cent in 2002-03, compared with 3.9 per cent in 2001-02. This assumption for growth in 2002-03 is around 0.7 percentage points lower than it would otherwise have been, because of the drought in Australia (see the discussion in the agriculture section following).

The Australian dollar, especially against the US dollar, is assumed to remain relatively weak in the near term, due mainly to uncertainty about the world economic outlook. However, favorable interest rate differentials between Australia and the major world economies are likely to provide support for the Australian dollar. In addition, an expected strengthening in world economic growth in 2003, and hence an improved outlook for world commodity demand and prices, could initiate renewed upward pressures on the Australian currency by that time.

In 2002-03, the Australian dollar is assumed to average around US55c and TWI 52 compared with US52c and TWI 51 in 2001-02 (figure B).



Outlook for agriculture

Widespread drought throughout much of the Australian grain belt and in many pastoral areas has dramatically changed the outlook for farm incomes in 2002-03. Reflecting the poor seasonal outlook, the net value of farm production is forecast to be in the region of \$2.2 billion in 2002-03, down by close to 80 per cent on the strong financial performance recorded by the farm sector last year.

The gross value of farm production is forecast to fall by 20 per cent to around \$30.4 billion in 2002-03, the result of a large fall in the volume of crop production and lower prices for livestock products.

Total farm costs are forecast to increase by just under 1 per cent to \$28.2 billion in 2002-03, following a 4.4 per cent rise in 2001-02. The effects of the drought and lower incomes will bring some marked changes to farm expenditure patterns in 2002-03. Spending on fodder and feed grains will be higher owing to increased supplementary feeding of livestock and to sharply higher prices for hay and feed grain. However, harvesting and marketing costs will be significantly lower because of the big fall in winter grain production. Expenditure on repairs and maintenance, chemicals and on pasture fertilisers is also expected to be lower.

The amount of interest paid is forecast to rise in 2002-03, reflecting increases in official interest rates earlier in 2002 and a need by some farmers to increase borrowings in an environment of lower farm earnings.

Demand for farm machinery has fallen in recent months and is expected to remain weak for the remainder of 2002-03, reflecting the impact of drought and lower farm incomes.

Drought to be costly

The Australian grains industry is shaping up for its worst season since 1994-95. In the period between April and November 2002, when winter crops are typically sown and grow to maturity, most of the Australian grain belt received well below average rainfall.

The livestock industries are feeling the effects of the dry weather as pastures deteriorate and producers offload stock. Farmers are also having to pay more for grain and hay. Those livestock enterprises heavily dependent on grain, such as feedlots, dairy, and pigs and poultry will be substantially affected by higher grain prices.

In estimating the cost of the drought, ABARE has taken into account the revenue effects on grain growers and livestock producers, the impact on production costs, and the flow-on effects to the broader community. In overall terms, the drought is estimated to result in growth in Australian gross domestic product being 0.7 per cent, or around \$5.4 billion,

lower than it would have been otherwise. The most significant effects are expected to be on rural and regional Australia, where the areas most severely affected by the drought are likely to be considerably worse off.

Beef industry

Australia's livestock industries are feeling the effects of the dry weather as pastures deteriorate and producers offload stock. With drought conditions affecting producers' stock-holding decisions, increased stock turnoff has added further downward pressure to already lower prices.

With seasonal conditions expected to remain poor, and with beef demand in Japan recovering only slowly after incidences of BSE (bovine spongiform encephalopathy or 'mad cow' disease) in their domestic herd, Australian cattle prices are likely to remain low well into 2003. The Australian saleyard indicator price of cattle is forecast to average 237 cents a kilogram (dressed weight) in 2002-03, a fall of around 23 per cent relative to last year.

Drought has resulted in a fall in the number of cattle on feed. Even though feeder steer prices are lower, limited grain and roughage supplies relative to overall demand, and consequent high prices, are significantly cutting feedlot returns. Results from the September 2002 Australian Lot Feeders Association / Meat and Livestock Australia feedlot survey show the number of cattle in feedlots at around 653 000 at 30 September 2002, down 11 per cent from June and 12 per cent lower than in the September quarter 2001.

After initially falling by 50 per cent after the discovery of BSE in the Japanese domestic dairy herd, total beef consumption in Japan recovered to be only 11 per cent below pre-BSE levels by August 2002. Australian beef exports to Japan rose 8 per cent in October, compared with the previous month. However, Australian beef exports to Japan for the ten

Table 1: **Beef and veal outlook**

		2000-01	2001-02 <i>s</i>	2002-03 <i>f</i>	% change
Cattle numbers	million	28.8	30.5	30.9	1.3
– on feed at 30 June	'000	693	735	750	2.0
Slaughterings	'000	8 899	8 615	9 640	11.9
Production	kt	2 080	2 034	2 217	9.0
Exports (shipped weight)					
– to United States	kt	389	403	378	– 6.2
– to Japan	kt	336	243	275	13.2
– to Korea, Rep. of	kt	57	71	90	26.8
– total	kt	959	902	985	9.2
– value	A\$m	4 007	4 187	3 645	–12.9
Live cattle exports	'000	846	795	845	6.3
Saleyard price	Ac/kg	266	306	237	– 22.5

months to October 2002 were 34 per cent lower than exports for the same period in 2001. In 2003, there is potential for the recovery in Japanese imports to be impeded by an increase in tariff protection from around midyear. Under the WTO arrangements, Japan can 'snap back' tariffs to 50 per cent (from the current 38.5 per cent) whenever the cumulative quarterly increase in chilled or frozen beef imports exceeds imports for the same period in the previous year by 17 per cent. As Japanese beef imports continue to recover, there is a significant possibility that this safeguard trigger will be reached.

Despite strong US demand for beef, Australian beef exports to the United States are forecast to remain around the import quota limit of 378 214 tonnes (calendar year basis) in 2002-03.

Lower prices for Australian cattle, and improved incomes in major markets have resulted in stronger demand for Australian live cattle exports. Live cattle exports in the September quarter 2002 were 29 per cent higher than in the June quarter and 19 per cent higher than the corresponding period a year earlier. Demand has improved markedly in both Indonesia and the Philippines. Australian live cattle exports to Indonesia in the September quarter were 43 per cent higher than for the same quarter in 2001 while cattle exports to the Philippines were 30 per cent higher. Live cattle exports are forecast to increase by over 6 per cent in 2002-03, to around 845 000 as demand in key export markets improves further.

Farm performance

The future of Australia's farming sector will be determined by many factors, including international and domestic product prices, technology change, input prices, access to markets and changes in the natural resource base. Just as important in determining the future of Australian farming are the management decisions made on Australian farms.

In 2001-02, farmers in the broadacre and dairy sectors of Australian agriculture are estimated to have recorded one of their best financial performances in the past twenty-six years. Most producers benefited from high commodity prices and good seasonal conditions, resulting in farm cash incomes rising substantially. Higher prices for beef cattle were very important in raising farm financial performance because of the large proportion of Australian farms that carry beef cattle.

Northern Territory

The financial position of producers in the Northern Territory is estimated to have improved in 2001-02 through higher receipts from both beef production and the live cattle trade. Results from ABARE's Australian agricultural and grazing industries survey show that farm cash incomes of Northern Territory broadacre producers averaged approximately \$809 400 in 2001-02, double the average in 2000-01 (table 2). Total cash receipts of

Table 2: Financial performance measures: Northern Territory

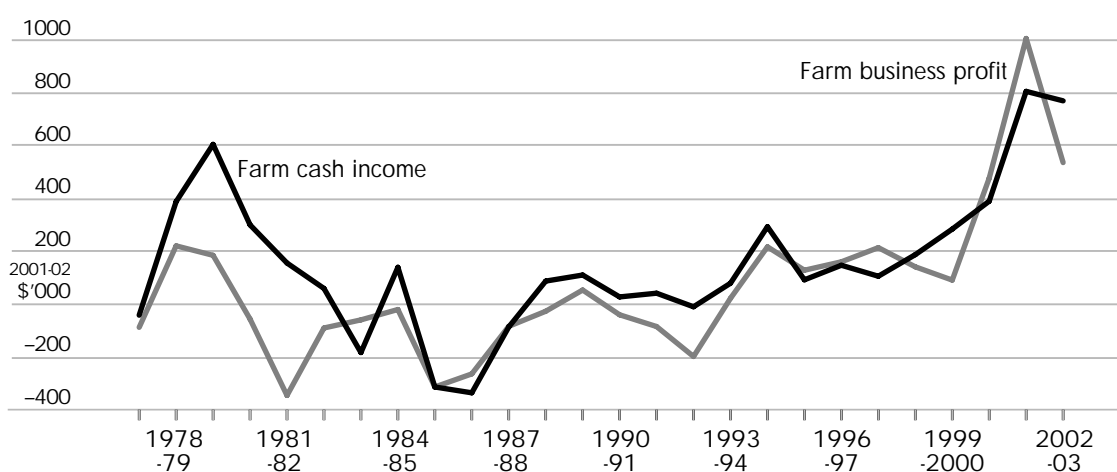
Average per farm

		2000-01	2001-02 ^p	2002-03 ^s
Physical				
Area of land operated at 30 June	ha	299 522	305 276	305 276
Beef cattle at 30 June	no.	8506	9292	9134
Receipts				
Beef cattle sales	\$	785 543	836810	971 200
Crop receipts	\$	8 389	7 180	10 300
Total cash receipts	\$	1 125 613	1 414 794	1 429 162
Costs				
Beef cattle purchases	\$	71 813	66 230	101 800
Fodder	\$	28 132	35 960	45 400
Agistment	\$	7 077	10 740	10 700
Fuel, oil and lubricants	\$	83 307	81 700	79 000
Repairs and maintenance	\$	85 697	107 790	117 600
Handling, marketing and freight	\$	62 696	46 280	32 200
Interest payments	\$	43 208	45 910	48 600
Hired labor	\$	135 897	144 780	152 700
Total cash costs	\$	733 564	605 420	655 800
Financial performance				
Farm cash income	\$	392 049	809 375	773 400
<i>plus</i> buildup in trading stocks	\$	226 899	341 130	-86 900
<i>less</i> depreciation	\$	92 023	93 320	96 100
<i>less</i> operator/manager and family labor	\$	47 374	46 850	51 700
Farm business profit	\$	479 551	1 010 3330	538 800
Rate of return excl. capital appreciation	%	7.8	11.7	6.6

^p Preliminary estimate. ^s ABARE estimate.

C Farm financial performance, Northern Territory
Average per farm

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Northern Territory producers increased by 26 per cent due to higher beef cattle prices. Total cash costs are estimated to have fallen by around 17 per cent with most of the fall explained by lower marketing and freight expenses as a result of fewer cattle purchases.

Farm cash incomes in 2002-03 for Northern Territory producers are forecast to fall by 4 per cent but, at around \$773 400, are still significantly higher than incomes throughout the 1980s and 1990s (figure C). While beef cattle and cropping sales are forecast to rise slightly in 2002-03, higher costs such as cattle and fodder purchases, repairs, interest and labor are forecast to more than offset the higher receipts. In addition, the rate of return to capital for Northern Territory producers is forecast to fall from 11.7 per cent in 2001-02 to 6.6 per cent in 2002-03.

Minerals and energy

The volume of Australian mine production is forecast to rise by 1 per cent in 2002-03. This moderate rise partly reflects subdued levels of spending on exploration and investment in mining in the late 1990s and very early 2000s.

Annual new capital expenditure on Australian mining projects more than halved in the three years to 2000-01, to \$5.5 billion. In 2001-02, however, new capital expenditure grew by 32 per cent to over \$7.3 billion and the prospects for investment in 2002-03 appear even more positive. The Australian Bureau of Statistics' latest survey, undertaken in October–November, suggests that new capital expenditure will continue to rise strongly — by 23 per cent to \$8.9 billion in 2002-03. The recent recovery in new capital expenditure in the mining industry augurs well for mine production beyond 2002-03.

Minerals exploration activity in Australia is subject to substantial cyclical fluctuations. In 2001-02, exploration spending fell by 12 per cent to \$1.5 billion, reflecting a range of factors including a focus by companies on reducing overall expenditures and low world prices for several commodities.

In the Northern Territory, a range of new projects, in both the energy and minerals areas, is under consideration (table 3). While the combined capital expenditure of these proposed projects is close to \$10 billion, none of the projects is yet at an advanced stage of development and whether, or when, they proceed is likely to depend on market conditions.

Combined earnings from Australia's minerals and energy exports are forecast to rise by 4 per cent to around \$57.8 billion in 2002-03, underpinned primarily by higher shipping volumes.

Table 3: Minerals and energy development projects under consideration: Northern Territory

Project	Company b	Location	Status c	Expected startup	New capacity d	Capital expend. e	Employment f
Mining projects – energy a							
Petroleum							
Darwin LNG plant (based on Bayu/Undan gas)	Phillips Petroleum	Point Wickham, near Darwin NT	New project, feasibility study completed. Govt approval granted	2006	3 Mt LNG	\$1.5b	1700 110
Sunrise Gas Project (floating LNG facility)	Woodside Energy/Phillips/Shell/Osaka Gas	500 km NW of Darwin, NT	New project, feasibility study underway	2008	5.3 Mt LNG	\$6.7b	1000 100
Darwin – Moomba gas pipeline	Epic Energy	Darwin, NT to Moomba, SA	New project, under review	2004	na	\$1.5b	1500 30
Mining projects – minerals a							
Cobalt							
Browns polymetallic project	Compass Resources/Guardian Resources	Near Batchelor, NT	New project, feasibility study underway	2004	1.2 kt Co cathode 40 kt Pb bullion 4.5 kt Cu cathode 0.85 kt Ni hydroxide	\$255m	na
Zinc							
McArthur River direct leaching project	MIM	Boroloola, NT	New project, feasibility study underway	na	na	na	na
Alumina							
Nabalco refinery expansion	Alcan	Gove, NT	Expansion and plant optimisation, feasibility study underway	na	1200 kt	\$1.85b 100	1000
Magnesium							
Batchelor magnesium project	Mount Grace Resources/MINTEX/Anglo American	85 km S of Darwin, NT	New project, feasibility study underway	na	12.5 kt magnesium metal	\$127m (stage 1)	150 66

a Includes projects expected to commence production over the medium term and for which capital expenditure is expected to exceed \$40 million (except for gold projects, for which the expenditure threshold is \$15 million). b Principal operating companies. c Type of project and stage of development – categories of the former include: 'new project' and 'expansion'; categories of the latter include: 'feasibility study underway', 'feasibility study completed', 'committed' and 'under construction'. d Annual incremental capacity expected in terms of contained metal or product; for example, zinc content in zinc concentrates production or salable coal in coal produced. For oil and condensate kbd ('000 barrels a day) and gas (terajoules a day) and liquid petroleum gas LPG (Mt). e Total capital expenditure as reported by the company in current dollars. Includes cost of development, plant and equipment.

Oil and gas

With fears of possible disruptions to supply placing significant upward pressure on crude oil prices, short term supply side factors are presently the dominant feature of the world oil market.

Despite relatively weak world demand for oil as major economies grow only slowly, prices in mid-September were high at close to US\$30 a barrel for West Texas Intermediate (WTI) oil (equivalent to around US\$27 a barrel in terms of average world trade weighted prices).

Such high prices reflect concern that widespread disruption to Middle East oil supplies could occur in the event of a possible military conflict in Iraq. Prices close to US\$30 a barrel are widely acknowledged to be US\$2–6 a barrel higher than would otherwise be the case — a so-called ‘war premium’ reflecting increased risks to supply. In addition to this factor, OPEC’s current production quota policy is designed to restrict output in order to maintain prices in the face of weak world demand. OPEC production targets appear to

Table 4: Oil and gas outlook

		2001	2002 s	2003 f	% change
World					
Production	mbd	76.9	76.9	78.1	1.6
Consumption	mbd	76.4	76.6	77.8	1.6
Trade weighted crude oil price	US\$/bbl	23.14	22.86	24.00	5.0
Australia					
Crude oil and condensate					
Production	ML	38 705	36 094	34 800	– 3.6
Exports	ML	24 044	23 052	22 600	– 2.0
– value	A\$m	8 137	6 136	6 451	5.1
Imports	ML	26 343	27 332	28 321	3.6
Natural gas					
Production	Gm3	34.3	36.3	37.0	1.9
LNG exports	Mt	7.53	7.60	7.80	2.6
– value	A\$m	2 671	2 606	2 523	– 3.2
LPG					
Production	ML	4 558	4 641	4 700	1.3
Exports	ML	2 785	3 207	3 200	– 0.2
– value	A\$m	830	720	801	11.3
Petroleum products					
Refinery					
production	ML	43 490	42 427	43 400	2.3
Other	ML	6 338	7 777	7 970	2.5
Exports	ML	4 564	4 269	4 300	0.7
Imports	ML	4 746	4 663	4 750	1.9
Consumption					
– total net	ML	50 010	50 598	51 824	2.4

have had a significant effect on keeping oil prices within a target band of US\$22–28 a barrel (for a basket of OPEC crude oils) for most of this year.

With increased production from OPEC and some easing of tensions in relation to Iraq, oil prices have since fallen by around 10 per cent. However, at current levels, world oil prices still reflect a significant war premium.

In the absence of major market disrupting events, the average world trade weighted price of crude oil in 2002 is forecast to be around US\$22.90 a barrel (equivalent to US\$25 WTI), less than 1 per cent below the 2001 average price. With global economic recovery assumed to gather strength, the world trade weighted price in 2003 is forecast to average US\$24 a barrel (US\$26.15 WTI), almost 5 per cent higher than in 2002. On the other hand, sustained production increases following any significant easing in tensions in the Middle East could result in lower than forecast prices.

The main risk to the forecast consumption rises in 2002 and 2003 being achieved is the possibility of significantly higher than forecast oil prices, arising from unanticipated developments affecting oil supplies from the Middle East. For example, if prices were to rise significantly above those forecast, it is likely that industrial demand for oil would be adversely affected and the pace of oil consumption recovery would be slower.

Export earnings from crude oil and condensate in 2002-03 are forecast to rise by 5 per cent to \$6.45 billion as higher world prices offset the effect on revenues of lower export volumes.

Australian LNG export volumes are forecast to increase by around 3 per cent to 7.8 million tonnes in 2002-03. In a major development since midyear, it has been announced that Australia LNG's bid to supply LNG to China's Guangdong Province has been successful. The contract to supply Guangdong LNG terminal, the first to be built in China, involves the export of 3 million tonnes of LNG a year over twenty-five years, commencing in late 2005. Prior to this latest announcement, construction of a fourth LNG processing train on the Burrup Peninsula (with a capacity of 4.2 million tonnes a year) to supply Japanese customers was already underway. This train is expected to be completed in 2004. With almost all output from the fourth train contracted to Japanese customers, the North West Shelf Venture is expected to invest in a further capacity increase — a fifth LNG train, also with an expected capacity of 4.2 million tonnes a year — in order to meet supply commitments.

In overall terms, Australian LNG exports are expected to almost double by around the middle of this decade. Based on these latest firm commitments alone, Australia's LNG exports, principally to Japan and China are expected to be almost 15 million tonnes a year by 2006.

Gold

Gold prices are forecast to average US\$307 an ounce in 2002. In 2003 prices are forecast to decline to average around US\$295 an ounce, with the negative impact of private sector disinvestment and higher sales from the official sector outweighing the positive influence of higher fabrication consumption and further reductions in producer hedging.

Historically, investors have viewed gold as a useful store of wealth in times of uncertainty about the future value of other assets. Uncertainty has been exacerbated in 2002 by escalating tensions in the Middle East and this has boosted investment demand and provided further support for the gold price. In addition, further reductions in producer hedging are expected to be supportive to prices.

However, as global economic activity improves in 2003, investors are expected to reweight their portfolios away from defensive assets, such as gold, toward equities and financial instruments that offer higher returns. This switch of investment funds away from gold, and the decline in gold's 'risk premium', will place downward pressure on prices in 2003.

The increase in global economic growth in 2003 is forecast to boost fabrication demand for gold.

In 2002-03, the total value of Australia's gold exports is forecast to reach almost \$6.4 billion, an increase of 29 per cent from the previous year. This increase in export returns is

Table 5: **Gold outlook**

		2001	2002 s	2003 f	% change
World					
Fabrication consumption	t	3 490	3 645	3 710	1.8
Mine production	t	2 604	2 605	2 575	-1.2
Scrap sales	t	706	660	660	0.0
Net stock sales	t	180	380	475	25.0
Official sector a	t	504	490	500	2.0
Private sector a	t	(177)	(80)	15	
Producer hedging b	t	(147)	(30)	(40)	
Price	US\$/oz	270	307	295	-3.9
Australia					
		2000-01	2001-02 s	2002-03 f	
Mine production	t	296	271	292	7.7
Exports	t	302	280	352	25.7
Australian origin	t	257	219	292	33.3
Overseas origin	t	45	61	60	-1.6
Total	A\$m	4 887	4 951	6 380	28.9
Price	A\$/oz	501	549	564	2.7

underpinned by a forecast increase in Australian gold production and high Australian dollar denominated gold prices.

The increase in forecast production comes from mine startups and existing operations expanding their production. New developments include the extension of the Granny Smith, Wallaby, and Sunrise Dam mines, as well as the startup and ramp-up to capacity of the White Foil, Paulsen's, Thunderbox and New Bendigo mines.

Aluminium and alumina

Demand for primary aluminium is forecast to pick up in 2003, with a modest recovery in industrial production assumed to emerge in the major consuming regions. World aluminium consumption is forecast to grow by 6 per cent in 2003, to a little over 26 million tonnes.

With aluminium consumption forecast to exceed production in 2003, and stocks to fall, global aluminium prices are forecast to rise. ABARE's leading indicator of aluminium prices also points to a moderate rise in prices over the next six months or so.

With a large amount of additional production capacity being brought online, China is now the world's leading producer of primary aluminium. In addition, China has become a substantial exporter of aluminium, with net exports of over 200 000 tonnes in 2002.

Table 6: **Aluminium and alumina outlook**

		2001	2002 s	2003 f	% change
World aluminium					
Production	kt	24 520	25 304	26 089	3.1
Consumption	kt	23 545	24 698	26 230	6.2
Closing stocks	kt	2 561	2 787	2 567	-7.9
- weeks of consumption		5.7	5.9	5.1	-13.6
Price	US\$/t	1 443	1 365	1 549	13.5
	USc/lb	65.5	61.9	70.3	13.6
World alumina					
Spot price	US\$/t	152	157	202	28.7
Australia					
2000-01					
2001-02 s					
2002-03 f					
Production					
Bauxite	Mt	54.6	53.9	55.4	2.8
Alumina	kt	16 098	16 417	16 429	0.1
Aluminium	kt	1 788	1 809	1 817	0.4
Exports					
Alumina	kt	12 721	13 081	12 885	-1.5
- value	A\$m	4 507	4 113	4 115	0.0
Aluminium	kt	1 471	1 491	1 499	0.5
- value	A\$m	4 229	3 968	3 915	-1.3

With expanding aluminium capacity and limited new supply of alumina, there is likely to be significant upward pressure on alumina prices in 2003. Coupled with growing demand for alumina, there are only limited additions to refining capacity in prospect over the next eighteen months.

Australian export earnings from alumina are forecast to be much the same as in 2001-02. There is expected to be a small reduction in the quantity of alumina shipped in 2002-03 — the result of forecast flat domestic alumina production combined with a slight increase in aluminium output, requiring higher domestic consumption of alumina.