

## MCA ECONOMIC ACTIVITY BRIEF FOR THE PERIOD ENDING DECEMBER 2007

### BACKGROUND

The *Economic Activity Brief* provides the latest available information and data on:

- global and domestic economic trends
- global prices
- Australian mining industry:
  - production
  - exports
  - productivity
  - employment and workplace agreement making
  - exploration

For these purposes, the Australian mining industry consists of aluminum (including bauxite and alumina), copper, gold, iron ore and steel, lead, manganese, nickel, refined silver, tin, zinc, zircon concentrate, diamond, metallurgical and thermal coal and uranium (note – not oil and gas).

The *Economic Activity Brief* is compiled by the Minerals Council of Australia (MCA) Secretariat, and based on publicly available information from a variety of sources – including the Australian Bureau of Agricultural and Resource Economics (ABARE), Australian Bureau of Statistics (ABS), and Access Economics (Access).

### SUMMARY

- Strong growth in the emerging global market economies, notably China (11 per cent) and India (9 per cent), has counterbalanced moderating growth in the US, Japan and Europe.
- Australia's underlying **CPI** is expected to remain high until 2009-10 with accompanying increases in **interest rates** likely. Further **employment** growth is likely as is further appreciation of the **Australian dollar** (relative to the US dollar).
- In the 12 months ended September 2007, ABARE's **metals and minerals index production** index increased by a very low 0.3 per cent.
- In the 3 months ended December 2007, the value of Australia's **metals and minerals exports** decreased 6 per cent on account of softening commodity prices.
- In the 12 months ended December 2007, China (\$13.8b) surpassed Japan (\$11.05b) as Australia's largest **export destination**. India (\$6.9b) also surpassed the Republic of Korea (A\$5.5b) for the first time.
- In the 3 months ended September 2007, **prices** increased for gold (8%), copper (2%) and thermal coal (7%), and decreased for iron ore (3%), nickel (29%), alumina (3%), aluminum (11%), zinc (20%), and uranium oxide (38%). No price movement was recorded for metallurgical coal.
- In the 12 months ended June 2006, the **multi-factor productivity** of Australian mining decreased 12.1% due to substantial increases in the stock of capital and labour, and the considerable lags associated with production.
- In May 2007, there were 104,700 **persons employed** full-time in the Australian coal, metal ore, other and services to mining sectors of the industry.
- In the 12 months ended December 2007, there was approximately \$30 billion in **capital expenditure** in mining projects, 50 projects at the 'advanced' stage with an estimated combined capital expenditure value of \$26 billion, and 182 projects at the 'less advanced' stage with a collective value of approximately \$140 billion.
- In the 12 months ended December 2007, (real) Australian **minerals exploration** increased by 33 per cent to \$A1.1 billion.
- In the 12 months ended December 2007, the (real) cost of **Australian minerals exploration** increased 9 per cent to \$A139 per metre drilled.

## WORLD AND DOMESTIC ECONOMIC TRENDS

### World

China's economy expanded year on year by 11.5 per cent in the September 2007 quarter, following growth of 11.9 per cent in the June 2007 quarter.

In India, economic growth continued at an annual rate of around 9 per cent.

The pace of economic expansion in other emerging market economies also remains strong. These economies include Singapore, the Philippines and Indonesia, as well as the Russian Federation, the Ukraine and eastern Europe.

Strong growth in the emerging market economies has counterbalanced moderating growth in some OECD countries. In the United States, weaker housing activity has adversely affected overall economic growth, while economic growth in the euro area and Japan has slowed after strong expansion in early 2007.

### Domestic

**Table 1** provides historical and forecast data for Australian underlying CPI, short term interest rates, unemployment, and the US dollar exchange rate.

Table 1: Data for key macroeconomic indicators, Australia

	History 2006-07	Forecasts				
		2007-08	2008-09	2009-10	2010-11	2011-12
<b>Underlying consumer price index</b>	2.9%	2.8%	2.8%	2.1%	2.4%	2.8%
<b>Short term interest rates</b>	6.2%	7.0%	7.1%	5.4%	5.1%	5.7%
<b>Unemployment rate</b>	4.5%	4.4%	4.3%	4.4%	4.7%	5.2%
<b>US dollar exchange rate</b>	0.772	0.874	0.858	0.744	0.698	0.692

Source: Access Economics, Business Outlook, December 2007

Underlying inflation increased during 2007 and reached the Reserve Bank of Australia's higher threshold of 3 per cent leading to a number of interest rate increases. Inflation is driven by three main factors: (1) wages growth (relative to productivity improvements), (2) import prices, and (3) price pressures emanating from a lack of supply capacity in the economy. Australia's inflation concerns revolve mainly around (1) and (3), and specifically, a tight labour market which is leading to higher wages, lower profits and higher retail prices, and, continuing strong demand levels with the economy's supply side unable to keep pace.

Australia had a number of increases in its official short-term interest rate during 2007. The outlook for Australian interest rates is that they are likely to increase until 2009-10 in response to growing inflation concerns and as global financial markets assess the extent of the liquidity problem and a more appropriate risk premium following the US credit crunch.

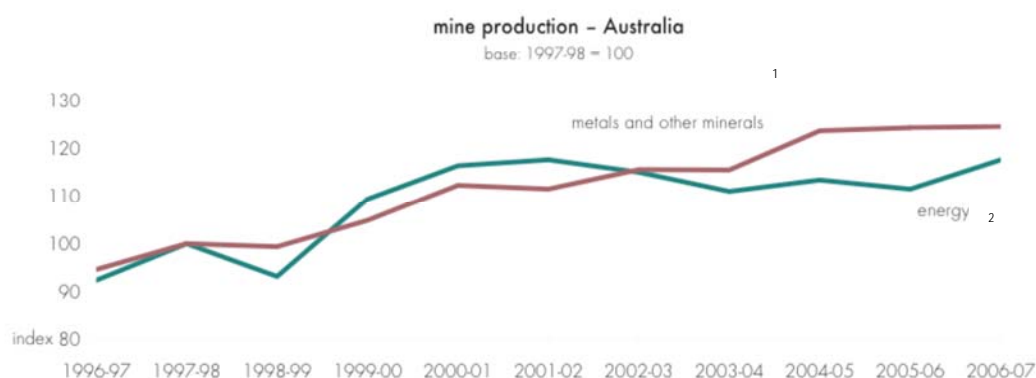
Australia is currently at record low levels of unemployment with full employment being reached. Notwithstanding predictions of a global slowdown that may affect Australia's growth, unemployment is expected to continue to fall due to Australia's very strong trading relationship with countries like China, whose growth is expected to be largely unabated. Whilst Australia's population growth has increased recently, along with immigration levels, the concern is the fall in Australia's working population (those aged 15-64) as a percentage of the total population.

A number of analysts are predicting further gains in the Australian dollar. Other commentators suggest that because the two drivers that have caused its strong appreciation in recent times – commodity prices and high domestic interest rates – may begin to soften, the Australian dollar may also soften.

## PRODUCTION

**Chart 1** outlines Australian mine production (indexed) between 1994-95 and September 2007. In general terms, production for metals and other minerals in the September quarter 2007 compared with the June quarter 2007 remained stable – with precious metals down, iron ore and coal stable, and base metals up. Between 2005-06 and 2006-07, the metals and other minerals index increased by a very low 0.3 per cent. This is a disappointing given the quantum of investment in mining expansions at present. Between 1999-00 and 2006-07, the metals and other minerals index increased by 19.6 per cent.

Chart 1: Mine Production Index - Australia



Source: ABARE, Australian Mineral Statistics (September Quarter 2007)

## EXPORTS

**Table 2** outlines the quarterly exports performance of Australian minerals and metals for the past 12 months ending December 2007. Measured at current prices, the value of Australia's minerals exports was A\$20.9 billion for the **quarter** ending December 2007. This is a decrease of A\$1.4 billion or 6 per cent from the last quarter (September 2007). On an annual basis, the value of Australia's minerals exports was A\$89.3 billion for the **year** ending December 2007. These exports accounted for approximately 40% of Australia's total goods and services exports.

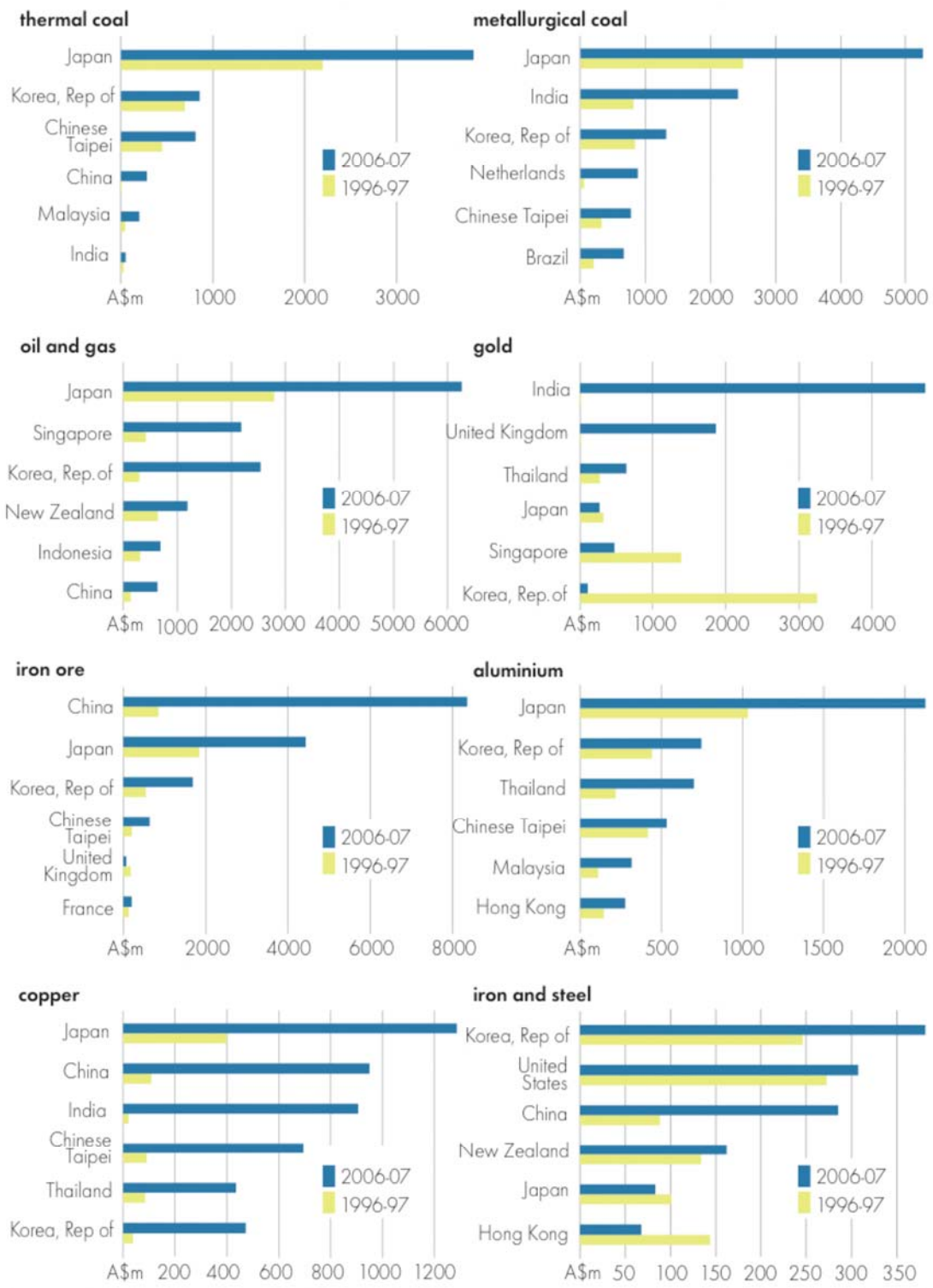
Table 2: Quarterly Exports Summary, Balance of Payments Basis, At Current Prices (\$A billions)

	2007				
	Mar	Jun	Sept	Dec	Annual Cumulative Total
Metalliferous ores and other minerals	8.3	9.1	9.6	8.7	35.7
Coal (metallurgical and thermal)	5.4	5.2	5.1	4.9	20.6
Other metals	5.7	6.0	4.7	4.4	20.8
Gold	2.6	3.0	2.9	2.9	11.4
<b>Totals</b>	<b>21.9</b>	<b>24.2</b>	<b>22.3</b>	<b>20.9</b>	<b>89.3</b>

Source: ABARE, Australian Commodities, December Quarter 2007

**Chart 3** outlines the principal markets for Australian mineral and energy exports for the December quarter 2007. In dollar terms, China is now Australia's largest export destination for minerals exports (\$13.8b) surpassing Japan for the first time (\$11.05b), then India (\$6.9b) – which surpasses the Republic of Korea (A\$5.5b) for the first time.

Chart 3: Principal markets for Australian mineral and energy exports, comparison between 1996-97 and 2006-07



Source: ABARE, Australian Commodities, December Quarter 2007

## PRICES

Ranked in terms of export value, the movement in export prices of Australia's major minerals and metals in the September quarter 2007, relative to the June 2007 and September 2006 quarters, is summarised at Table 3.

Table 3: Minerals Prices, September Quarter 2007

RESOURCE	Unit	PRICES		
		Actual Sept Qtr '07	Actual compared to	
			Jun Qtr '07	Sept Qtr '06
Iron ore	A\$/t	58.80	↓ 3%	↓ 4%
Metallurgical Coal	A\$/t	100.40	-	↓ 18%
Gold (refined)	US\$/oz	710.60	↑ 8%	↑ 18%
Nickel	US\$/t	29,537.00	↓ 29%	↓ 2%
Copper	US\$/t	7,649.00	↑ 2%	↑ 1%
Thermal Coal	A\$/t	63.00	↑ 7%	↓ 2%
Alumina	A\$/t	379.00	↓ 3%	↓ 8%
Aluminium	US\$/t	2,391.00	↓ 11%	↓ 3%
Zinc	US\$/t	2,896.00	↓ 20%	↓ 15%
Uranium Oxide (U <sub>3</sub> O <sub>8</sub> )	US\$/lb	85.00	↓ 38%	↑ 57%

Source: ABARE, Australian Mineral Statistics (September Quarter 2007)

## PRODUCTIVITY

Table 4 outlines mining industry productivity estimates between 1989-90 and 2005-06. Multifactor productivity (MFP) is the most important productivity measure as it calculates how efficiently the industry is converting both labour and capital inputs into outputs. MFP has fallen in recent times due the considerable recent expansion and investment of the industry and the large increase in capital and labour inputs that as yet have not produced a commensurate increase in output – due to the considerable production lags that commonly occur.

Table 4: Productivity estimates of the Australian Mining Industry – 1989-90 to 2005-06

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
MFP index	95.5	101.2	105.8	104.8	102.1	107.9	113.2	110.3	109.0	104.9	110.9	119.3	116.7	110.2	100.3	100.0	87.9
Labour productivity index	65.1	74.6	82.3	85.9	81.9	90.2	98.2	99.9	105.5	106.3	119.6	131.8	131.2	117.4	103.7	100.0	80.9
Capital productivity index	112.6	115.3	117.8	114.4	112.4	116.7	120.6	115.5	110.9	104.7	108.3	115.7	112.6	108.1	99.3	100.0	89.6
Capital labour ratio	57.8	64.7	69.9	75.2	72.9	77.2	81.5	86.5	95.2	101.5	110.4	113.9	116.5	108.7	104.5	100.0	90.2

Source: Productivity Commission 2006, Productivity Estimates to 2005-06

## EMPLOYMENT

Table 5 outlines full time employment levels in the coal, metal ore, other and services to mining industry sectors. At May 2007, there were approximately 104,700 full time employees employed in these sectors. This represents a 30 per cent increase from May 2003 levels and equates to 6.8 per cent average growth per annum. The MCA estimates that going forward, the industry will require 9 per cent per annum employment growth if supply expectations are to be realised.

	Full Time Employees		
	Males	Females	Total
<b>Coal Mining</b>			
2003	18	1	19
2004	18.4	0.3	18.7
2005	26.1	0.6	26.7
2006	27.7	1.3	29
2007	21.8	1.7	23.5
<b>Metal ore mining</b>			
2003	31.3	5.4	36.7
2004	32.8	5.5	38.3
2005	35.6	4	39.6
2006	35.5	6.1	41.6
2007	38.3	5.7	44
<b>Other mining</b>			
2003	7.3	0.7	8
2004	7.6	1.2	8.8
2005	8.3	0.3	8.6
2006	10.3	0.9	11.2
2007	8.6	0.9	9.5
<b>Services to mining</b>			
2003	15.1	1.5	16.6
2004	18.6	3.7	22.3
2005	15.5	1.6	17.1
2006	15.5	2.8	18.3
2007	24	3.7	27.7
<b>Totals</b>			
2003	71.7	8.6	80.3
2004	77.4	10.7	88.1
2005	85.5	6.5	92
2006	89	11.1	100.1
2007	92.7	12	104.7

Source: ABS, Catalogue No. 6291.0.55.003 Table 06: Employed persons by Industry Subdivision and Sex

## INVESTMENT

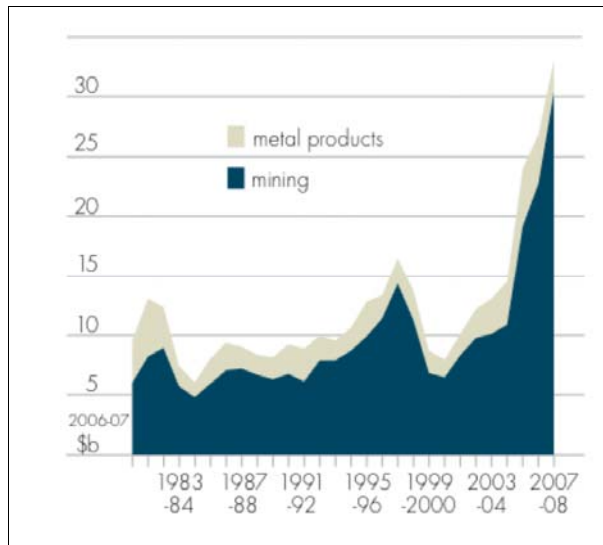
ABARE reports on development projects in the Australian minerals industry – and specifically, expenditure on mining projects in the last 12 months, and projects that are ‘advanced’ (either committed or under construction) and ‘less advanced’ (no definite decision has been taken on development following the completion of a feasibility study).

In the 12 months ended December 2007, there was approximately:

- \$30 billion in capital expenditure in mining projects;
- 50 projects at the ‘advanced’ stage with an estimated combined capital expenditure value of \$26 billion; and
- 182 projects at the ‘less advanced’ stage with an collective value of approximately \$140 billion.

**Chart 4** demonstrates the increase in capital expenditure in metals products and mining in recent years.

Chart 4: New Capital Expenditure Metals Products and Mining



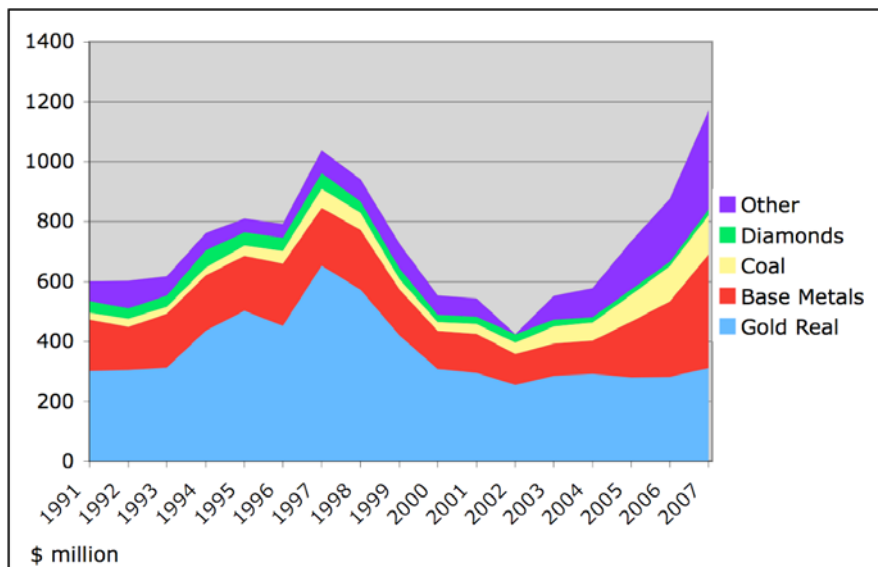
Source: ABARE, Minerals and Energy – April 2007 listing

EXPLORATION

The ABS provides estimates of expenditure on mineral exploration in Australia.

Exploration spend in real terms between 1990-91 and 2006-07 is shown at **Chart 5**. Australia’s mining exploration expenditure in 2006-07 reached an all time high of \$1.1 billion. This is 12 per cent higher than the previous peak of \$1.0 billion reached in 1996-97.

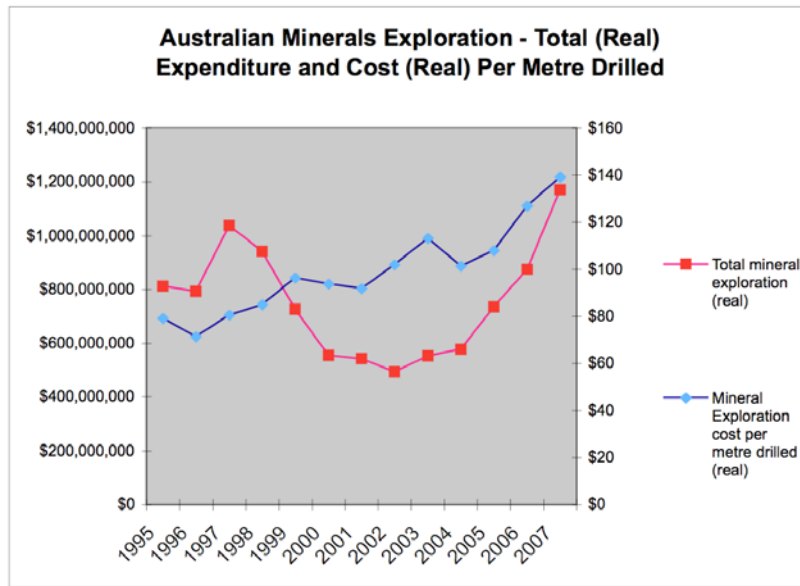
Chart 5: Australian mining exploration expenditures, real terms, A\$ millions, 1990-91 to 2006-07



Source: ABS report - 8412.0 Mineral and Petroleum Exploration, Australia, December Quarter 2007

The increase in minerals exploration costs per metre drilled is shown at **Chart 6**. Whilst there has been an increase in real exploration spend in recent years, the cost per metre drilled has also increased significantly – from \$79 in 1994/95 to \$139 in 2006/07 (representing a 85 per cent real increase).

Chart 6: Australian mineral exploration expenditures and costs per mineral drilled, real terms, 1990-91 to 2006-07



Source: ABS report - 8412.0 Mineral and Petroleum Exploration, Australia, December Quarter 2007

FOR MORE INFORMATION

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