Macquarie Research **Equities**





INDIA

Reliance Industries

19 March 2007

RIL IN	0	utperform
Stock price as of 16 Mar 07 12-month target Upside/downside Valuation - Sum of Parts	Rs Rs % Rs	1,299.80 1,590.00 +22.3 1,767.00
GICS sector Market cap 30-day avg turnover Market cap Number shares on issue	Rs bn Rs m US\$m m	energy 1,811 1,542.0 41,063 1,394

Investment fundamentals

Year end 31 Mar		2006A	2007E	2008E	2009E
Total revenue	bn	830.2	1,081.7	1,315.9	1,484.2
EBIT	bn	108.5	140.9	168.1	211.4
EBIT Growth	%	19.7	29.8	19.3	25.8
Reported profit	bn	93.9	110.4	130.8	166.8
Adjusted profit	bn	94.9	110.4	130.8	166.8
EPS adj	Rs	68.15	79.24	93.90	119.70
EPS adj growth	%	25.1	16.3	18.5	27.5
PE adj	x	19.1	16.4	13.8	10.9
Total DPS	Rs	11.42	14.49	16.92	18.84
Total div yield	%	0.9	1.1	1.3	1.4
ROA ROE EV/EBITDA Net debt/equity Price/book	% % x %	12.7 22.5 13.7 44.6 3.9	13.2 20.6 10.6 33.9 3.0	13.4 20.6 9.1 30.8 2.7	15.8 22.8 7.1 15.4 2.3

RIL IN rel SENSEX performance, & rec history



Source: Datastream, Macquarie Research, March 2007 (all figures in INR unless noted)

Analysts

Jal Irani 91 22 6653 3040 **Amit Mishra** 91 22 6653 3051

jal.irani@macquarie.com

amit.mishra@macquarie.com

To buy or not to buy Dow

Event

 Media reports on Friday suggested that Reliance Industries was close to signing a joint venture agreement with Dow Chemicals (DOW US, US\$45, NR), amid prior press reports of a potential takeover bid for Dow. We endeavour to answer key investor questions.

Impact

- Why would RIL want to buy Dow? First, RIL would gain Dow's global
 marketing network, while reducing costs by shutting down Dow's high-cost
 commodity chemicals and plastics facilities in the west and outsourcing to its
 highly competitive Indian facilities. Second, RIL would gain access to Dow's
 high-end technology to produce high-end products.
- Would RIL acquire the entire company? It is possible, but not probable, in our view. We think that only if RIL could not acquire Dow's high-end technology along with its commodity businesses would it choose to buy the entire company.
- Would Dow sell? We believe so. Dow's management has been propagating moving to an asset-light strategy focussing on high-end speciality chemicals, as its commodity chemicals and plastics margins are under pressure. Secondly, Dow's declining stock performance could be reversed as having a high proportion of commodity businesses has hurt valuations.
- Wooing in classic textbook style. According to press reports, RIL has been
 courting and negotiating with Dow for the past year, involving numerous
 discussions at many levels. We believe this could increase the probability that
 Dow would sell exclusively to RIL.
- What is RIL likely to pay? It would cost RIL US\$13bn for the commodity segments, assuming it pays a 10–20% premium to Dow's current EV/EBIDTA of 7.0x for a 51% stake, given synergies and Dow's global status as the second largest chemical company. Dow's total EV is US\$51bn.
- Does RIL have the financial muscle? We think so. Reliance has built a war chest for a large acquisition, with enhanced borrowing capacities (~US\$6.5bn assuming 1:1 D/E) and a US\$3.7bn issue pending to the promoters. Reliance also holds 14% of its shares as treasury stocks which we value at US\$6bn. Besides, if RIL leverages Dow's chemical & plastics' EBIDTA by 4x, it can further garner US\$6.0bn (similar to Tata's acquisition of Corus).

Price catalyst

- 12-month price target: Rs1,590.00 based on a Sum of Parts methodology.
- Catalyst: 1) New oil & gas finds; 2) Enhanced clarity on organised retail.

Action and recommendation

• More value-accretive acquisitions & spin-offs? We believe IPCL's recent merger with RIL was earnings accretive. We feel that RIL may spin-off the KGD6 oil and organised retail business at a value higher than the market is currently attributing. Moreover, management's recent option to increase its stake by ~4%, through India's largest issue (US\$ 3.7bn) to promoters, reaffirms the strong potential.

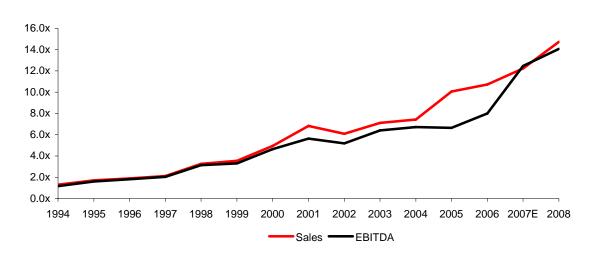
Please refer to the important disclosures on inside back cover of this document, or on our website www.macquarie.com.au/research/disclosures.

Why would RIL want to buy Dow?

We believe there are two potential reasons:

- 1. RIL would draw significant synergies and benefits from acquiring and restructuring Dow's commodity chemicals and polymer businesses (~35% of Dow's sales and 44% of EBIT). RIL would gain Dow's global marketing network, while reducing costs by shutting down Dow's high-cost facilities in the west and outsourcing to its highly competitive Indian facilities. RIL's management believes that its proposed US\$ 3bn, 3mtpa cracker planned for 2011 in Jamnagar will be as competitive as the Middle East facilities. It will use waste gases as feedstock from its world's largest 60mtpa single-location twin refineries once fully completed in 2H CY08 (Figure 1).
- 2. RIL would gain access to Dow's high-end technology to produce high-end products and service large global customers in high-margin geographies. It acquired German technology-rich polyester company, Trevira in 2004.

Fig 1 Reliance's Petrochemical's sales and EBITDA have increased many fold



Source: Macquarie Research, March 2007

Would RIL acquire the entire company?

It is possible, but not probable, in our view. We think that only if RIL could not acquire Dow's highend technology along with its commodity businesses would it choose to buy the entire company. Earlier, Dow had an MoU for R&D in India with IPCL, a company acquired by RIL in 2002. It is also possible that RIL may spin-off its own petrochemical business along with Dow to form a JV.

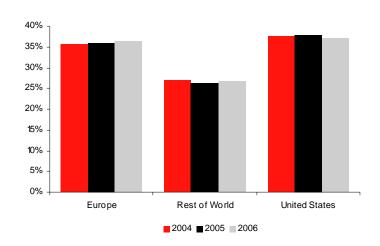
Would Dow sell?

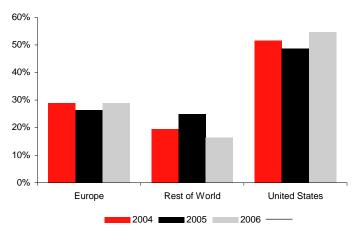
We believe it would, for two potential reasons:

 Dow's management has been propagating moving to an asset-light strategy focusing on highend speciality chemicals. Its commodity chemicals and polymer business margins are under pressure as new capacities in the Middle East, India and China are more competitive. About 84% of its facilities (assets) are in the high-cost US and EU countries while only 70% of its turnover comes from this region.

Fig 2 Dow has high proportion of sales in US...

Fig 3 ...and even higher proportion of assets in US

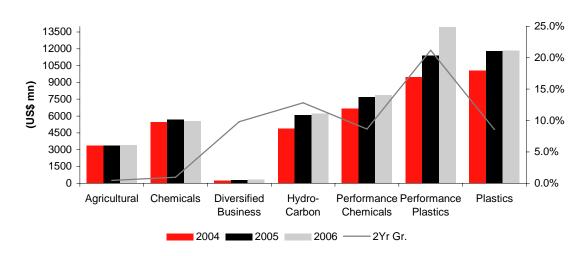




Source: Macquarie Research, March 2007

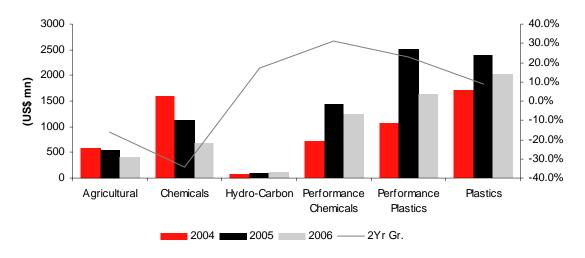
Source: Macquarie Research, March 2007

Fig 4 Dow's chemicals & plastic segment sales are not growing...



Source: Macquarie Research, March 2007

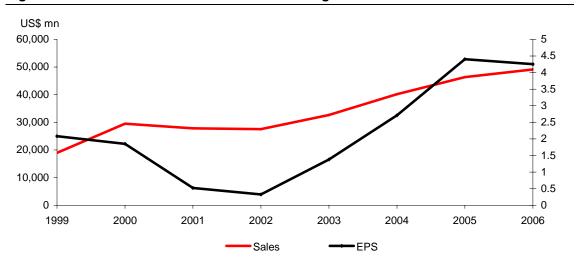
Fig 5 ...and operating profit of these divisions are declining



Source: Macquarie Research, March 2007

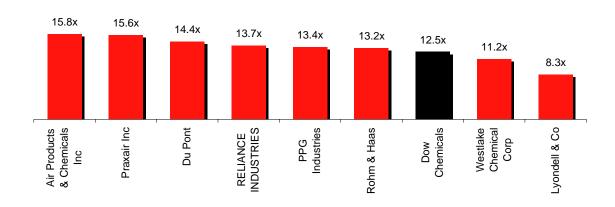
2. Dow's declining stock performance may be reversed. Dow's earnings have grown multi fold over the past few years (Figure 6). Nevertheless, Dow's declining competitiveness and having a high proportion of commodity chemicals/plastics business has not only resulted in Dow's stock being one of the worst performers globally, but has also hurt its valuations – it has one of the lowest peer group valuations (Figure 7). In sharp contrast, RIL's stock price has risen 200% during the same period, given its rising competitiveness and earnings (Figure 8).

Fig 6 Dow Chemicals: revenue and EPS are at highs



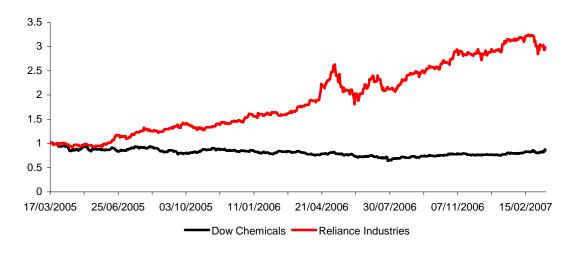
Source: Macquarie Research, March 2007

Fig 7 Dow has one of the lowest peer group valuations (PER)



Source: Macquarie Research, March 2007

Fig 8 Reliance's stock price has outperformed Dow's stock by 2.5x in last two years



Source: Macquarie Research, March 2007

Wooing in classic textbook style

- According to press reports, RIL has been courting and negotiating with Dow for the past year, involving numerous discussions at many levels. We believe this could increase the probability that Dow would sell exclusively to RIL.
- We think RIL may have cultivated Dow without an investment banker (at least not initially) to minimise full price discovery from taking place.

Press reports suggest that private equity investors may be garnering financial muscle to make a counter bid for Dow Chemicals. We believe that RIL's synergies, and also its careful wooing of Dow's management, may tip the scales in RIL's favour.

What is RIL likely to pay?

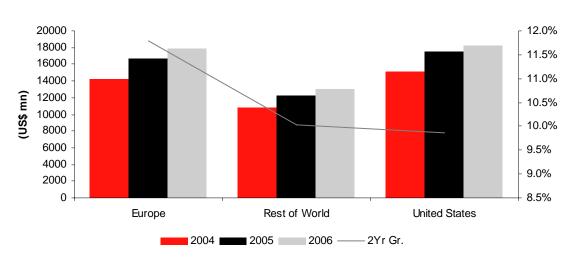
It would cost RIL US\$13bn for the commodity segments, assuming it pays a 10–20% premium to Dow's current EV/EBIDTA of 7.0x for a 51% stake, given synergies and Dow's global status as the second largest chemical company. Dow's total EV is US\$51bn.

Fig 9 Reliance can take majority stake in the commodity business for US\$13bn

Dow Chemicals Current EV	\$51 bn
FY08E EBITDA (Bberg consensus) Dow's Current EV/EBITDA Multiple Premium to be paid by Reliance FY08E EBITDA for Commodity Business Valuation of total commodity business Value of RIL's 51% stake	\$7 bn 7.8x 10% \$3 bn \$26 bn \$13 bn
Source: Macquarie Research, March 2007	

Snapshot of Dow Chemicals

Fig 10 Dow Chemicals: High Percentage of Sales come from US & Europe



Source: Macquarie Research, March 2007

Fig 11 Dow Chemicals: Snapshot of historical P&L

(US\$ mn)	2003	2004	2005	2006
Net Sales	32,632	40,161	46,307	49,124
Cost of Good Sold	28,177	34,625	38,331	41,576
S,G & A exp	2,436	2,458	2,618	2,827
Operating Income	2,019	3,378	5,358	4,721
Other Income	547	1,154	1,743	867
Interest Expense	828	747	702	616
Income tax expense	-82	877	1,782	1,155
Minority Interest	94	122	82	93
Net Income	1,730	2,797	4,515	3,724
Source: Macquarie Research, March 2007	7			

Fig 12 Dow Chemicals: snapshot of historical balance sheet

(US\$ mn)	2005	2006
Cash and near cash	3,806	2,757
Marketable Securities	32	153
Acct & notes receivables	5,124	4,988
Inventories	5,319	6,058
Other Current Assets	3,123	3,253
Current Assets	17,404	17,209
LT inv't & LT receivables	2,156	2,143
Depr Fixed Assets	40,269	42,593
Non-depr Fixed Assets	1,665	1,788
Accum Depreciations	28,397	30,659
Net Fixed Assets	13,537	13,722
Other Assets	12,837	12,507
Total Assets	45,934	45,581
Accounts Payable	3,931	3,825
ST borowings	1,520	1,510
Other ST Liabilities	5,212	5,266
Current Liabilities	10,663	10,601
LT borrowings	9,186	8,036
Other LT Liabilities	9,426	8,514
Non Current Liabilities	18,611	16,550
Total Liabilities	29,274	27,151
Preferred Equity	1,000	1,000
Minority Interest	336	365
Share Cap & APIC	3,114	3,283
Retained Earnings	12,210	13,782
Shareholder's Equity	16,660	18,430
Total Liabilities and Equity	45,934	45,581
Source: Macquarie Research, March 2007	·	ŕ

Fig 13 Global	oil & gas	industry	peer gr	oup valu	ation ma	atrix						
Company	Country	Market Cap P (US\$mn)	Price erf. (1 yr %)	2 yr fwd EPS CAGR	EBIDTA Margin (%)	Current EV/ EBIDTA	Current PER (x)	1 yr fwd PER (x)	2 yr fwd PER (x)	P/BV (x) R	oCE (%)	RoE (%)
Integrated				(%)		(x)				1 ve	ar histori	С
Hess Corp	USA	15,987	4.7	(2.2)	13.7	4.0	8.9	9.7	9.3	2.0	18.3	26.0
BG group plc	UK	12,039	(0.3)	0.4	53.0	6.3	12.7	13.0	12.6	3.6	25.1	29.7
BP Plc	UK	50,722	(22.4)	(5.2)	13.5	6.0	9.1	10.5	10.1	2.3	21.7	26.7
ChevronTexaco	USA	146,621	17.7	(3.7)	15.0	4.2	8.6	9.7	9.2	2.1	22.6	26.0
China Petroleum Exxon Mobil	China USA	90,560 396,773	69.4 13.1	20.7 (4.8)	12.7 15.1	9.0 N.A.	18.3 10.6	15.0 11.3	12.6 11.7	3.3 N.A.	12.4 N.A.	19.6 N.A.
Petrobras	Brazil	90,510	(6.9)	6.2	N.A.	4.2	6.9	6.4	6.2	1.8	19.9	29.4
Petrochina *	China	198,468	13.2	2.1	44.3	5.0	9.2	8.9	8.8	2.5	25.9	29.8
Reliance Industries*	India	41,055	67.8	17.4	17.3	13.9	19.1	16.4	13.8	3.9	14.2	22.5
Royal Dutch Shell	Holland	78,449	-8.3	(7.3)	15.8	4.4	8.0	8.7	9.3	1.9	22.3	25.9
Total SA	France	88,096 109935	(6.5)	2.7 2.4	22.0 22.2	4.7 6.2	9.6 11.0	9.0 10.8	9.1	2.8 2.6	21.5 20.4	29.1 26.5
Average		109933	12.9	2.4	22.2	0.2	11.0	10.0	10.3	2.0	20.4	20.5
Exploration & Prod		40.000	(04.4)	(44.4)	74.0	5.0	7.4	40.4	0.0	4.0	20.4	27.0
Anadarko Petroleum	USA	18,288 22,270	(21.4) 1.3	(11.1)	71.2 71.3	5.6 8.3	7.1 8.9	10.4 9.3	9.0 8.9	1.2 1.7	20.1 17.8	37.6 21.6
Apache Corp CNOOC *	China	34,889	1.5	(0.1) (1.0)	54.3	5.3	9.3	10.9	9.5	2.6	26.3	32.9
Gazprom	Russia	8,864	22.7	5.4	41.8	11.8	11.0	11.0	9.9	1.9	10.6	13.3
ONGC*	India	36,951	(6.3)	10.6	45.1	4.9	10.6	8.3	8.7	3.0	23.9	29.9
Average		24,252	-0.5	0.8	56.7	7.2	9.4	10.0	9.2	2.1	19.8	27.1
Refining & Marketin	ng											
Bharat Petroleum*	India	2,461	(27.1)	69.8	2.2	10.0	17.4	7.4	6.0	0.9	5.0	5.9
Formosa	Taiwan	19,466	25.1	15.5	14.2	10.4	13.8	11.0	10.3	3.0	13.3	22.0
Petrochemical* Hindustan	India	1,967	(19.9)	93.8	1.4	14.0	19.2	7.4	5.1	1.0	4.1	5.3
Petroleum* Indian Oil Corp	India	10,570	(27.0)	7.3	5.6	7.7	9.5	9.5	8.2	1.5	10.7	17.0
SK Corp*	S Korea	11,510	37.4	0.8	7.6	9.1	8.6	8.7	8.5	1.3	11.0	14.9
S-Oil Corp*	S Korea	7,817	(7.9)	(12.2)	9.3	6.0	10.3	11.9	13.3	2.6	19.9	25.4
Sunoco Inc	USA USA	7,985 6,583	(19.1)	(5.2)	5.7 5.7	5.0	8.7 8.1	9.1 9.9	9.7 10.1	3.9 N.A.	23.5 26.2	47.5 36.5
Tesoro Petroleum Valero Energy	USA	36,096	47.3 2.1	(10.3) (8.7)	4.6	4.1 4.3	7.2	8.2	8.6	1.9	25.4	32.5
Average	00/1	00,000	1.2	16.8	6.3	7.9	11.4	9.2	8.9	2.0	15.5	23.0
		11,606										
Petrochemicals												
Formosa Chemical &	& Taiwan	10,627	27.9	17.7	12.2	17.3	11.3	9.9	8.1	1.8	12.1	17.8
Fibre* Formosa Plastics *	Taiwan	10,503	21.8	2.9	11.9	21.5	12.9	14.2	12.2	1.9	11.3	16.4
Honam	S Korea	2,661	34.2	(10.4)	14.3	6.8	8.4	9.4	10.4	1.1	13.0	13.5
Petrochemical *	0 110.00	_,00.	0	(,		0.0	.	0			.0.0	
IPCL	India	1,768	5.4	0.2	18.6	4.1	6.4	6.5	6.4	1.3	22.3	29.3
LG Chemicals*	S Korea	3,294	6.5	11.1	9.4	55.0	11.2	9.8	9.1	1.3	9.4	12.4
LG Petrochemical *	S Korea	1,407	34.6	(10.1)	13.3	4.0	7.9	8.6	9.8	1.5	18.7	19.7
Sinopec Shanghai Petrochem	China	6,233	35.6	421.4	9.1	13.1	506.9	180.2	18.6	3.2	8.5	9.9
Average		4,908	30.4	61.8	11.0	17.4	80.7	34.1	10.7	2.0	10.6	13.5
Gas Distribution												
GAIL*	India	4,975	(7.1)	(2.6)	25.6	5.1	8.8	9.3	9.3	2.1	21.3	26.2
Gujarat Gas	India	387	3.5	8.3	19.9	10.4	17.4	17.4	14.9	4.5	27.7	29.2
Hong kong & China Gas*	HK	11,692	(11.3)	(21.7)	121.8	11.2	13.5	23.7	22.0	3.7	28.0	30.1
Indraprastha Gas	India	315	(26.2)	20.5	41.1	6.2	13.1	10.7	9.0	3.7	29.2	30.7
Korea Gas *	S Korea	2,871	11.4	4.7	7.8	11.4	12.9	12.6	11.7	0.8	5.0	6.2
Panva Gas	HK	822	(5.9)	38.3	22.8	15.5	22.6	17.4	11.8	NA 2.4	8.8	9.8
Petronas Gas Tokyo Gas	Myanmar Japan	4,958 15,973	(1.7) 29.6	(1.7) 16.5	59.9 NA	10.1 NA	15.6 25.8	16.0 19.4	16.1 19.0	2.4 2.8	12.8 5.8	14.1 9.1
Transcanada Corp	Canada	17,506	9.8	6.4	45.2	10.0	19.8	18.9	17.5	2.5	8.5	14.5
Xinao Gas	China	949	7.9	20.6	30.1	16.5	20.8	18.2	15.2	2.6	8.9	14.3
Average		6,045	1.0	8.9	41.6	10.7	17.0	16.4	14.7	2.8	15.6	18.4
Cumulative averag	е	35,691	9.4	16.7	25.0	9.7	24.0	15.6	11.0	2.3	16.3	21.4
* Macquarie estimat		•										
Source: Macquarie F	Research, M	1arch 2007										

19 March 2007 9

Profit & Loss	_ iu (2002A	2003A	2004A	2005A	s1,590.00) Profit & Loss		2006A	2007E	2008E	2009E
FIUIL & LUSS		2002A	2003A	2004A	2003A	. Tolk & Loss		2000A	2007	2000L	2003E
Revenue	m	420,958	459,101	520,253	665,977	Revenue	m	830,248	1,081,726	1,315,940	1,484,192
Gross Profit	m	107,255	118,974	144,218	168,638	Gross Profit	m	221,503	229,775	266,349	328,888
Cost of Goods Sold	m	313,703	340,127	376,035	497,339	Cost of Goods Sold	m	608,745	851,951	1,049,591	1,155,304
EBITDA	m	78,656	83,831	98,438	127,966	EBITDA	m	143,487	188,453	219,963	280,922
Depreciation	m	28,162	28,375	32,508	37,274	Depreciation	m	34,949	47,587	51,885	69,553
Amortisation of Goodwill	m	-	-	-	-	Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	-	-	-	-	Other Amortisation	m	0	0	0	0
EBIT	m	50,494	55,456	65,929	90,692	EBIT	m	108,537	140,866	168,078	211,370
Net Interest Income	m	-13,098	-10,386	-9,197	-11,048	Net Interest Income	m	-4,426	-15,388	-17,269	-24,042
Associates	m	-	798	581	-	Associates	m	4,747	3,157	3,114	3,425
Exceptionals	m	4,117	-	-	306	Exceptionals	m	-995	0	0	0
Other Pre-Tax Income	m	3,136	2,865	5,788	11,305	Forex Gains / Losses	m	0	0	0	0
Pre-Tax Profit	m	44,649	48,734	63,101	91,255	Other Pre-Tax Income	m	2,380	2,511	2,762	2,900
Tax Expense	m	-11,860	-8,701	-11,411	-14,972	Pre-Tax Profit	m	110,243	131,146	156,684	193,654
Net Profit	m	32,789	40,033	51,690	76,282	Tax Expense	m	-16,295	-20,746	-25,980	-30,171
Minority Interests	m	-	-	-	-	Net Profit	m	93,948	110,400	130,704	163,483
						Minority Interests	m	0	0	120	3,278
Reported Earnings	m	32,789	40,033	51,690	76,282						
Adjusted Earnings	m	28,672	40,033	51,690	75,976	Reported Earnings	m	93,948	110,400	130,825	166,761
						Adjusted Earnings	m	94,943	110,400	130,825	166,761
EPS (rep)		25.87	28.68	37.03	54.72						
EPS (adj)		22.75	28.68	37.03	54.5	EPS (rep)		67.44	79.24	93.90	119.70
EPS Growth (adj)	%	17.64	26.06	29.12	47.17	EPS (adj)		68.15	79.24	93.90	119.70
\ \~~//						EPS Growth (adj)	%	25.1	16.3	18.5	27.5
						PE (rep)	х	19.3	16.4	13.8	10.9
						PE (adj)	х	19.1	16.4	13.8	10.9
Total DPS		5.26	5.00	5.00	8.59	, ,					
						Total DPS		11.42	14.49	16.92	18.84
Weighted Average Shares	m	1,267	1,396	1,396	1,394	Total Div Yield	%	0.9	1.1	1.3	1.4
Period End Shares	m	1,396	1,396	1,396	1,393	Weighted Average Shares	m	1,393	1,393	1,393	1,393
		.,	,,,,,,	.,	1,000	Period End Shares	m	1,393	1,393	1,393	1,393
5 6 11 5 1											
Profit and Loss Ratios		2006A	2007E	2008E	2009E	Cashflow Analysis		2006A	2007E	2008E	2009E
Revenue Growth	%	24.7	30.3	21.7	12.8	EBITDA	m	143,487	188,453	219,963	280,922
EBITDA Growth	%	12.1	31.3	16.7	27.7	Tax Paid	m	-16,295	-20,746	-25,980	-30,171
EBIT Growth	%	19.7	29.8	19.3	25.8	Chgs in Working Cap	m	-29,650	-53,323	-25,125	-5,434
Gross Profit Margin	%	26.7	21.2	20.2	22.2	Net Interest Paid	m	-4,426	-15,388	-17,269	-24,042
EBITDA Margin	%	17.3	17.4	16.7	18.9	Other	m	43,605	-8,775	11,913	1,801
EBIT Margin	%	13.1	13.0	12.8	14.2	Operating Cashflow	m	136,720	90,221	163,501	223,078
Net Profit Margin Payout Ratio	% %	11.3 16.8	10.2 18.3	9.9 18.0	11.0 15.7	Acquisitions Capex	m m	106,558 -367,389	0 -166,058	0 -47,462	0 -76,943
EV/EBITDA	X	13.7	10.6	9.1	7.1	Asset Sales	m	0	0	0	70,543
EV/EBIT	X	17.9	14.1	11.8	9.4	Other	m	2,380	2,511	2,762	2,900
						Investing Cashflow	m	-258,451	-163,547	-44,700	-74,042
Balance Sheet Ratios						Dividend (Ordinary)	m	-15,907	-20,183	-23,567	-26,248
ROE	%	22.5	20.6	20.6	22.8	Equity Raised	m	1	0	0	0
ROA	%	12.7	13.2	13.4	15.8	Debt Movements	m	45,257	115,451	-11,387	-42,102
ROIC	% %	17.3 44.6	17.6 33.9	16.5 30.8	19.9	Other	m	0	0	0 34 055	69.240
Net Debt/Equity Interest Cover	76 X	24.5	9.2	9.7	15.4 8.8	Financing Cashflow	m	29,351	95,268	-34,955	-68,349
Price/Book	x	3.9	3.0	2.7	2.3	Net Chg in Cash/Debt	m	-92,380	21,941	83,846	80,686
Book Value per Share		330.5	438.0	474.6	575.5	3		,	,-	,	,
						Balance Sheet		2006A	2007E	2008E	2009E
						Cash	m	26,164	133,358	125,833	168,241
						Receivables	m	43,517	58,665	67,016	69,384
						Inventories	m	103,453	135,433	149,283	139,976
						Investments	m	66,668	58,462	93,462	128,462
						Fixed Assets	m	602,093	744,727	743,311	769,045
						Intangibles	m	0	0	0	0
						Other Assets	m	76,988	92,804	109,170	111,362
						Total Assets	m	918,883	1,223,449	1,288,074	1,386,470
						Payables	m	124,541	134,817	147,635	137,909
						Short Term Debt Long Term Debt	m m	66,659 166,769	43,499 305,380	43,499 293,993	20,000 275,390
						Provisions	m	42,017	38,910	293,993 38,910	38,910
						Other Liabilities	m	53,876	65,286	77,593	90,581
						Total Liabilities	m	453,862	587,891	601,629	562,790
						Shareholders' Funds	m	510,280	656,747	707,755	848,268
						Minority Interests	m	4,573	25,313	25,192	21,914
						Other	m	-49,832	-46,502	-46,502	-46,502
						Total S/H Equity	m	465,021	635,558	686,445	823,680

Important disclosures:

Recommendation definitions

Macquarie Australia/New Zealand

Outperform - return >5% in excess of benchmark return (>2.5% in excess for listed property trusts) Neutral - return within 5% of benchmark return (within 2.5% for listed property trusts) Underperform - return >5% below benchmark return (>2.5% below for listed property trusts)

Macquarie Asia

Outperform – expected return >+10% Neutral - expected return from -10% to +10% Underperform - expected return <-10%

Macquarie First South Securities (South Africa)

Outperform - expected return >+5% Neutral – expected return from -5% to +5% Underperform - expected return <-5%

Recommendations - 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Recommendation proportions

	AU/NZ	Asia	RSA
Outperform	43.12%	58.91%	42.20%
Neutral	48.98%	22.92%	46.80%
Underperform	11.90%	18.17%	11.00%
For quarter end	ing 31 Decen	nber 2006	

Volatility index definition*

This is calculated from the volatility of historic price

Very high-highest risk - Stock should be expected to move up or down 60-100% in a year - investors should be aware this stock is highly speculative.

 ${f High}$ – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium - stock should be expected to move up or down at least 30-40% in a year.

Low-medium - stock should be expected to move up or down at least 25-30% in a year.

Low - stock should be expected to move up or down at least 15-25% in a year

* Applicable to Australian/NZ stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:

Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit /average total assets

ROE = adjusted net profit / average shareholders funds

Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Analyst Certification: The views expressed in this research accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations or views in this research. The analyst principally responsible for the preparation of this research receives compensation based on overall revenues, including investment banking revenues, of Macquarie Bank Ltd ABN 46 008 583 542 (AFSL No.237502)("Macquarie") and its related entities ("the Macquarie group") and has taken reasonable care to achieve and maintain independence and objectivity in making any recommendations. Disclaimers: Macquarie Securities (Australia) Ltd; Macquarie Europe Ltd; Macquarie Securities (USA) Inc; Macquarie Securities Ltd; Macquarie Securities (USA) Inc; Macquarie Securities (USA) Securities (Singapore) Pte Ltd; and Macquarie Securities (New Zealand) Ltd are not authorised deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia), and their obligations do not represent deposits or other liabilities of Macquarie. Macquarie provides a guarantee to the Monetary Authority of Singapore in respect of Macquarie Securities (Singapore) Pte Ltd for up to SGD25m under the Securities and Futures Act (Chapter 289). Macquarie does not otherwise guarantee or provide assurance in respect of the obligations of any of the above mentioned entities. This research has been prepared for the general use of the wholesale clients of the Macquarie group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this research in any way. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. In preparing this research, we did not take into account the investment objectives, financial situation and particular needs of the reader. Before making an investment decision on the basis of this research, the reader needs to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of their particular investment needs, objectives and financial circumstances. There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment. This research is based on information obtained from sources believed to be reliable but we do not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. No member of the Macquarie group accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research. Other Disclaimers: Securities research is issued and distributed by Macquarie Securities (Australia) Ltd (AFSL No. 238947) in Australia, a participating organisation of the Australian Stock Exchange; Macquarie Securities (New Zealand) Ltd in New Zealand, a licensed sharebroker and New Zealand Exchange Firm; Macquarie Europe Ltd in the United Kingdom, which is authorised and regulated by the Financial Services Authority (No. 193905); Macquarie Securities Ltd in Hong Kong, which is licensed and regulated by the Securities and Futures Commission; Macquarie Securities (Japan) Limited in Japan, a member of the Tokyo Stock Exchange, Inc. and Osaka Securities Exchange Co., Ltd and in Singapore, Macquarie Securities (Singapore) Pte Ltd (Company Registration Number: 198702912C), a Capital Markets Services licence holder under the Securities and Futures Act to deal in securities and provide custodial services in Singapore. Pursuant to the Financial Advisers (Amendment) Regulations 2005, Macquarie Securities (Singapore) Pte Ltd is exempt from complying with sections 25, 27 and 36 of the Financial Advisers Act. Economic research is issued and distributed in Australia by Macquarie; in New Zealand by Macquarie Securities (New Zealand) Ltd and in the United Kingdom by Macquarie Europe Ltd. Clients should contact analysts at, and execute transactions through, a Macquarie group entity in their home jurisdiction unless governing law permits otherwise. This research may be distributed in the United States only to major institutional investors and may not be circulated to any other person in the United States. Macquarie Securities (USA) Inc., which is a registered broker-dealer and member of the NASD, accepts responsibility for the content of each research report prepared by one of its non-US affiliates when the research report is distributed in the United States by Macquarie Securities (USA) Inc. All transactions by US investors involving securities discussed in this report must be effected through Macquarie Securities (USA) Inc. The

Auckland	Bangkok	Hong Kong	Jakarta	Johannesburg	Kuala Lumpur
Tel: (649) 377 6433	Tel: (662) 694 7999	Tel: (852) 2823 3588	Tel: (62 21) 515 1818	Tel: (27 11) 343 2258	Tel: (60 3) 2059 8833
London	Manila	Melbourne	Mumbai	New York	Perth
Tel: (44 20) 7065 2000	Tel: (63 2) 857 0888	Tel: (613) 9635 8139	Tel: (91 22) 6653 3000	Tel: (1 212) 231 2500	Tel: (618) 9224 0888
Seoul	Shanghai	Singapore	Sydney	Taipei	Tokyo
Tel: (82 2) 3705 8500	Tel: (86 21) 6841 3355	Tel: (65) 6231 1111	Tel: (612) 8232 9555	Tel: (886 2) 2734 7500	Tel: (81 3) 3512 7900

information contained in this email is confidential. If you are not the intended recipient, you must not disclose or use the information in this email in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. Disclosures with respect to the issuers, if any, mentioned in

Available to clients on the world wide web at www.macquarie.com/research and through Thomson Financial, Reuters and Bloomberg.

this research are available at www.macquarie.com/research/disclosures. © Macquarie Group

19 March 2007 11

Macquarie Research **Equities**





Research

Automo	hilos/Aus	a Darta
Automo	biles/Aut	o Parts

Kurt Sanger (Japan, Asia)	(813) 3512 7859
Deepak Jain (India)	(9122) 6653 3157
Liny Halim (Indonesia)	(6221) 515 7343
Toshisuke Hayami (Japan)	(813) 3512 7873
Eunsook Kwak (Korea)	(822) 3705 8644

Banks and Non-Bank Financials

Nick Lord (Asia) (852) 2823 4774 Christina Fok (China) (852) 2823 3584 Chris Esson (Hong Kong) (852) 2823 3567
, , ,
Chris Esson (Hong Kong) (852) 2823 3567
55 2555 (5g . tog, (662) 2626 6667
Seshadri Sen (India) (9122) 6653 3053
Liny Halim (Indonesia) (6221) 515 7343
Kentaro Kogi (Japan) (813) 3512 7865
Hwashin Lee (Korea) (822) 3705 4994
Mark Barclay (Korea) (822) 3705 8658
Young Chung Mok (Korea) (822) 3705 8668
Chin Seng Tay (Malaysia, S'pore) (65) 6231 2837
Gilbert Lopez (Philippines) (632) 857 0898
Chris Hunt (Taiwan) (8862) 2734 7526
Matthew Smith (Taiwan) (8862) 2734 7514
Alastair Macdonald (Thailand) (662) 694 7741

Chemicals/Textiles

Scott Weaver (China, Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Kitti Nathisuwan (Thailand)	(662) 694 7724

Conglomerates

Gary Pinge (Asia)	(852) 2823 3557
Gilbert Lopez (Philippines)	(632) 857 0898

Consumer

Ramiz Chelat (Asia)	(852) 2823 3587
Xiaopo Wei (China)	(852) 2823 4741
Unmesh Sharma (India)	(9122) 6653 3042
Sarina Lesmina (Indonesia)	(6221) 515 7339
Duane Sandberg (Japan)	(813) 3512 7867
Christina Lee (Korea)	(822) 3705 8670
Paul Hwang (Korea)	(822) 3705 8678
Woochang Chung (Korea)	(822) 3705 8667
Edward Ong (Malaysia)	(603) 2059 8982
Nadine Javellana (Philippines)	(632) 857 0890
Chris Clayton (Thailand)	(662) 694 7829

Emerging Leaders

Paul Quah (Hong Kong)	(852) 2823 4627
Saurabh Jain (India)	(9122) 6653 3046
Oliver Cox (Japan)	(813) 3512 7871
Robert Burghart (Japan)	(813) 3512 7853
Paul Hwang (Korea)	(822) 3705 8678
Woochang Chung (Korea)	(822) 3705 8667
Nadine Javellana (Philippines)	(632) 857 0890
Jeremy Chen (Taiwan)	(8862) 2734 7521
Scott Weaver (Taiwan)	(8862) 2734 7512

Insurance

|--|

Media

Ramiz Chelat (Asia) (852) 2823 3587 Prem Jearajasingam (Malaysia) (603) 2059 8989

Metals and Mining

Simon Francis (Asia)	(852) 2823 3590
Felix Lam (China, HK, Taiwan)	(852) 2823 3575
Rakesh Arora (India)	(9122) 6653 3054
Adam Worthington (Indonesia)	(6221) 515 7338
Christina Lee (Korea)	(822) 3705 8670
Amornrat Cheevavichawalkul (Thai)	(662) 694 7829

Oil and Gas

David Johnson (Asia)	(852) 2823 4691
Scott Weaver (China, Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Mark Barclay (Korea)	(822) 3705 8658
Edward Ong (Malaysia)	(603) 2059 8982
Kitti Nathisuwan (Thailand)	(662) 694 7724

Pharmaceuticals

Shubham Majumder	(India)	(9122) 6653 3049

Property

Matt Nacard (Asia)	(852) 2823 4731
Eva Lee (Hong Kong, China)	(852) 2823 3573
Siddhartha Gupta (India)	(9122) 6653 3048
Takashi Sakai (Japan)	(813) 3512 7884
Gilbert Lopez (Philippines)	(632) 857 0898
Tuck Yin Soong (Singapore)	(65) 6231 2838
Corinne Jian (Taiwan)	(8862) 2734 7529
Monchai Jaturanpinyo (Thailand)	(662) 694 7727

Technology

Warren Lau (Asia)	(852) 2823 3592
Suveer Chainani (India)	(9122) 6653 3045
Damian Thong (Japan)	(813) 3512 7877
David Gibson (Japan)	(813) 3512 7880
George Chang (Japan)	(813) 3512 7854
Yoshihiro Shimada (Japan)	(813) 3512 7862
Alex Jun (Korea)	(822) 3705 8653
Do Hoon Lee (Korea)	(822) 3705 8641
Michael Bang (Korea)	(822) 3705 8659
Patrick Yau (Singapore)	(65) 6231 2835
Cheryl Hsu (Taiwan)	(8862) 2734 7522
Daniel Chang (Taiwan)	(8862) 2734 7516
Dominic Grant (Taiwan)	(8862) 2734 7528
Jessica Chang (Taiwan)	(8862) 2734 7518
Nicholas Teo (Taiwan)	(8862) 2734 7523

Telecoms

1010001110	
Tim Smart (Asia)	(852) 2823 3565
Jake Lynch (China, Hong Kong)	(852) 2823 3583
Shubham Majumder (India)	(9122) 6653 3049
Richard Moe (Indonesia)	(662) 694 7753
Nathan Ramler (Japan)	(813) 3512 7875
Joel Kim (Korea)	(822) 3705 8677
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Ramakrishna Maruvada	
(Philippines, Singapore)	(65) 6231 2842
Dominic Grant (Taiwan)	(8862) 2734 7528
Richard Moe (Thailand)	(662) 694 7753

Transport & Logistics

Paul Huxford (Asia)	(65) 6231 2841
Michael Chan (Asia)	(852) 2823 3595
Anderson Chow (China, Hong Kong)	(852) 2823 4773
Eunsook Kwak (Korea)	(822) 3705 8644

Utilities

Sylvia Chan (Asia)	(852) 2823 3579
Gopal Ritolia (India)	(9122) 6653 3055
Adam Worthington (Indonesia)	(6221) 515 7338
Prem Jearaiasingam (Malaysia)	(603) 2059 8989

Commodities

Jim Lennon	(4420) 7065 2014
Adam Rowley	(4420) 7065 2013
Max Layton	(4420) 7065 2000
Bonnie Liu	(4420) 7065 2014
Henry Liu	(4420) 7065 2014

Data Services

Liz Dinh (Asia)	(852) 2823 4762
Brent Borger (Japan)	(813) 3512 7852
Economics	
Roland Randall (Asean)	(852) 2823 3572

Roland Randall (Asean)	(852) 2823 3572
Bill Belchere (Asia)	(852) 2823 4636
Eli Polatinsky (Asia)	(852) 2823 4074
Richard Gibbs (Australia)	(612) 8232 3935
Paul Cavey (China)	(852) 2823 3570
Pichard Jarram (Janan)	(012) 2512 7055

Quantitative

Martin Emery (Asia)	(852) 2823 3582
Viking Kwok (Asia)	(852) 2823 4735
George Platt (Australia)	(612) 8232 6539

Strategy/Country

Tim Rocks (Asia)	(852) 2823 3585
Daniel McCormack (Asia)	(852) 2823 4073
Desh Peramunetilleke (Asia)	(852) 2823 3564
Jake Lynch (China)	(852) 2823 3583
Seshadri Sen (India)	(9122) 6653 3053
Peter Eadon-Clarke (Japan)	(813) 3512 7850
Eugene Ha (Korea)	(822) 3705 8643
Uday Jayaram (Malaysia)	(603) 2059 8988
Gilbert Lopez (Philippines)	(632) 857 0898
Tuck Yin Soong (Singapore)	(65) 6231 2838
Chris Hunt (Taiwan)	(8862) 2734 7526
Kitti Nathisuwan (Thailand)	(662) 694 7724

Find our research at

Macquarie: www.macquarie.com.au/research
Thomson: www.thomson.com/financial
Reuters: www.rbr.reuters.com

Bloomberg: MAC GO

Email macresearch@macquarie.com for access

Sales

Regional Heads of Sales

Greg Gordon (Asia)	(852) 2823 3509
Peter Slater (Boston)	(1 617) 217 2103
Michelle Paisley (China, Hong Kong)	(852) 2823 3516
Ulrike Pollak-Tsutsumi (Frankfurt)	(49) 69 7593 8747
Daniel Fust (Geneva)	(41) 22 818 7710
Thomas Renz (Geneva)	(41) 22 818 7712
Ajay Bhatia (India)	(9122) 6653 3200
Stuart Smythe (India)	(9122) 6653 3200
Eugene Ha (Korea)	(822) 3705 8643
K.Y. Nam (Korea)	(822) 3705 8607
Derek Wilson (London)(N Asia)	(44) 20 7065 5856
Julien Roux (London)	(44) 20 7065 5887
Lena Yong (Malaysia)	(603) 2059 8888
Ismael Pili (Philippines)	(65) 6231 2840
Greg Norton-Kidd (New York)	(1 212) 231 2527

Regional Heads of Sales cont'd

Luke Sullivan (New York)	(1 212) 231 2507
Mark Lawrence (New York)	(1 212) 231 2516
Sheila Schroeder (San Francisco)	(1 415) 835 1235
Giles Heyring (Singapore)	(65) 6231 2888
Mark Duncan (Taiwan)	(8862) 2734 7510
Angus Kent (Thailand)	(662) 694 7601
Dominic Henderson (Tokyo)	(813) 3512 7820
Nick Cant (Tokyo)	(813) 3512 7821
Charles Nelson (UK/Europe)	(44) 20 7065 2032
Rob Fabbro (UK/Europe)	(44) 20 7065 2031

Sales Trading

Anthony Wilson (Asia)	(852) 2823 3511
Mona Lee (Hong Kong)	(852) 2823 3519
Stuart Goddard (Europe)	(44) 20 7065 2033

Sales Trading cont'd

Howard Yoon (Korea)	(822) 3705 8601
Ed Robinson (London)	(44) 20 7065 5883
Robert Risman (New York)	(1 212) 231 2555
Isaac Huang (Taiwan)	(8862) 2734 7582
Kenichi Ohtaka (Tokyo)	(813) 3512 7830

Index Sales

Margaret Hartmann (612) 8232 9834

Alternative Strategies

_	
Convertibles - Roland Sharman	(852) 2823 4628
Depository Receipts - Robert Ansell	(852) 2823 4688
Derivatives - Vipul Shah	(852) 2823 3523
Futures - Tim Smith	(852) 2823 4637
Hedge Fund Sales - Darin Lester	(852) 2823 4736
Structured Products - Andrew Terlich	(852) 2249 3225