Macquarie Research
Equities

TAIWAN

Realtek Semiconductor

30 October 2008

2379 TT		Underperform
Stock price as of 29 Oct 08	NT$	51.50
12-month target	NT$	42.00
Upside/downside	%	-18.5
Valuation	NT$	42.00
- ROE-g/COE-g		
GICS sectorsemiconductors & semiconductor equipment		
Market cap	NT$m	24,134
30-day avg turnover	NT$m	217.9
Market cap	US$m	719
Number shares on issue	m	468.6

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	m	15,709	17,409	17,949	19,272
Reported profit	m	1,877	1,385	2,002	2,185
Profit bonus exp	m	981	1,385	2,002	2,185
Bon exp/rep prof	%	47.7	0.0	0.0	0.0
Adjusted profit	m	981	1,385	2,002	2,185
EPS rep	NT$	4.07	2.96	4.27	4.66
EPS rep growth	%	-30.3	-27.3	44.5	9.2
EPS bonus exp	NT$	2.13	2.96	4.27	4.66
EPS bonus growth	%	-34.2	39.1	44.5	9.2
PE rep	x	12.7	17.4	12.1	11.0
PE bonus exp	x	24.2	17.4	12.1	11.0
Total DPS	NT$	2.84	2.38	3.44	3.72
Total div yield	%	5.5	4.6	6.7	7.2
ROA	%	16.3	12.2	11.9	12.1
ROE	%	5.3	8.6	12.3	13.0
EV/EBITDA	x	4.5	33.2	6.7	6.1
Net debt/equity	%	-31.5	-27.1	-31.0	-31.2
Price/book	x	1.4	1.5	1.4	1.4

2379 TT rel Taiex performance, & rec history

Source: Datastream, Macquarie Research, October 2008
(all figures in NT$ unless noted)

Analyst
Stefan Chang, CFA
886 2 2734 7511 stefan.chang@macquarie.com
Warren Lau
852 2823 3592 warren.lau@macquarie.com

Be realistic

Event

- We maintain our Underperform rating on Realtek and cut our TP to NT$42 (from NT$50), still based on the ROE-g/COE-g fair value appraisal. We believe the soft 4Q08 and 2009 outlook will be a negative catalyst for the stock price.

Impact

- **Macquarie vs consensus.** We were ahead of the street in being negative on Realtek's stock price due to the lack of growth drivers. While the stock price recently was resilient vs the market, we suspect the company's soft 4Q08/2009 outlook will add fuel to the factors that are causing the stock price to plummet.
- **Lacklustre demand outlook.** Realtek mentioned that there is no reason to be optimistic for 2009 given all end demand now looks sluggish, in line with our current macroeconomic view. Realtek has extraordinarily high global market shares in all of its major applications (70% for 10/100MB Ethernet, 40% for GbE, 70% for audio codec and 30% for LCD monitor controller) and we believe has limited room for market-share gains to offset across-the-board soft demand. The only product that we believe has sufficient potential to gain market share is WiFi 11n ICs, but the contribution to Realtek remains low (around 10%) and competition is intensifying. Other new products, such as GbE switch ICs and UWB, are all pending if not failed due to low market acceptance.
- **Don't be misled by the numbers.** We cut our 2009/10 numbers for Realtek aggressively due to a more conservative forecast on end demand. Our 45% 2009 EPS YoY growth estimate is distorted by a low base for 2008 because Realtek paid US$24.7m in royalty income to 3Com in 2Q08. In fact, we believe Realtek's OP and net profit will be flattish, if royalty expense is excluded, if not decline in 2009, as we still see no catalyst for the business.
- **3Q08 EPS of NT$1.13** (net profit of NT$530m, -22% YoY) was 7% below our forecast. Sales of NT$4.8bn (+3% QoQ and -3% YoY) were in line and GM of 41.4% was 1ppt better, but the non-op loss increased due to a larger investment loss (which also offset the NT$100m forex gain). 4Q08 sales guidance of a more than 20% QoQ decline was severely below the 10–20% QoQ decline consensus, and a flat GM outlook is barely about in line.

Earnings revision

- We cut our 2008-10E EPS by 8%, 10% and 6%, respectively (Fig 6).

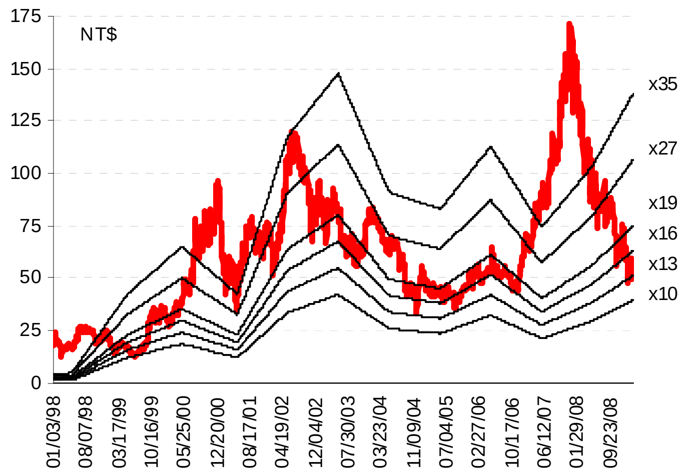
Price catalyst

- 12-month price target: NT$42.00 based on a ROE-g/COE-g methodology.
- Catalyst: Disappointing business outlook and earnings cuts by the street.

Action and recommendation

- We suggest selling the stock. We believe the recent resilient performance will end soon, as the company's disappointing outlook and earnings cuts by the street could be negative catalysts for the stock price. We suspect the stock price will test the ROE-g/COE-g fair value (NT$42) again if not break. Maintain Underperform.

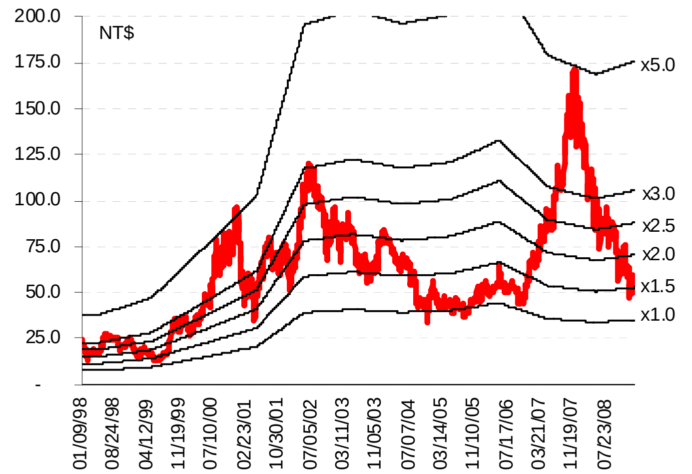
Fig 1 Realtek's PER – bonus expensed



Red line refers to the stock price.

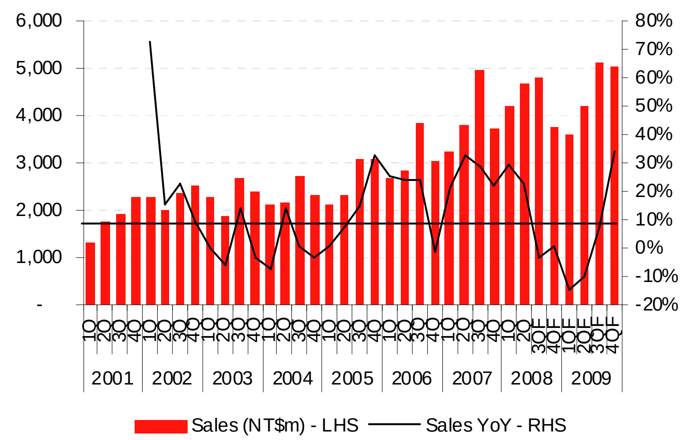
Source: TEJ, Macquarie Research, October 2008

Fig 2 Realtek's P/BV



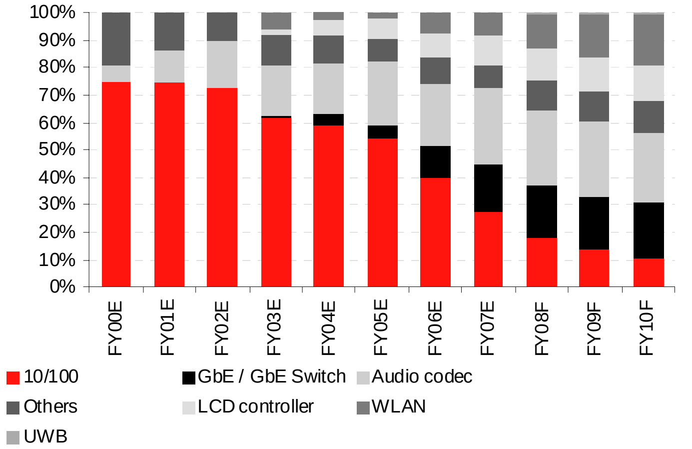
Source: Company data, Macquarie Research, October 2008

Fig 3 Realtek's quarterly sales momentum



Source: TEJ, Macquarie Research, October 2008

Fig 4 Realtek's sales breakdown



Source: Company data, Macquarie Research, October 2008

Fig 5 MACQ's ROE-g/COE-g fair value appraisal for Realtek

Beta	1.0
Risk free rate (%)	5.0
Market risk premium (%)	5.0
Cost of equity / discount rate	9.9
Average ROE 08-10 (%)	11.3
Perpetuity growth rate (%)	2.0
ROE-g	9.3
COE-g	7.9
Ratio	1.2
FY09F BVPS	35.6
Fair value	**42.2**

Source: Macquarie Research, October 2008

Fig 6 MACQ's earnings revision for Realtek

		2008			2009			2010		
		Current	**Previous**	**Var.**	**Current**	**Previous**	**Var.**	**Current**	**Previous**	**Var.**
Net sales	NT$m	17,409	18,129	-4.0	17,949	19,745	-9.1	19,272	21,096	-8.6
Gross profit	NT$m	7,280	7,491	-2.8	7,464	8,207	-9.1	8,030	8,795	-8.7
Op income	NT$m	2,457	2,583	-4.9	2,378	2,635	-9.8	2,547	2,761	-7.7
Net income	NT$m	1,385	1,512	-8.4	2,002	2,214	-9.6	2,185	2,331	-6.2
EPS (NT$)	NT$	2.96	3.23	-8.4	4.27	4.72	-9.6	4.66	4.97	-6.2
Gross margin	%	41.8	41.3	0.5	41.6	41.6	0.0	41.7	41.7	-0.0
Op margin	%	14.1	14.2	-0.1	13.2	13.3	-0.1	13.2	13.1	0.1
Net margin	%	8.0	8.3	-0.4	11.2	11.2	-0.1	11.3	11.0	0.3

Source: Macquarie Research, October 2008

Fig 7 MACQ's P&L model for Realtek

		1Q08A	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Forex		*31.50*	*30.50*	*31.70*	*33.00*	*33.00*	*33.00*	*33.00*	*33.00*	*32.74*	*31.61*	*33.00*	*33.00*
PRE BONUS EXP.		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Net sales	NT$m	4,200	4,674	4,790	3,745	3,588	4,209	5,135	5,017	15,709	17,409	17,949	19,272
COGS	NT$m	2,400	2,731	2,807	2,191	2,135	2,462	2,978	2,910	8,299	10,128	10,485	11,241
Gross profit	NT$m	1,800	1,943	1,983	1,554	1,453	1,747	2,157	2,107	7,410	7,280	7,464	8,030
OP expense	NT$m	948	1,215	1,206	992	980	1,094	1,166	1,179	3,844	4,361	4,418	4,755
Op income	NT$m	852	729	777	562	474	652	991	928	3,566	2,919	3,045	3,276
Net non-op income	NT$m	-31	-865	-81	-38	-49	-53	-60	-49	-1,597	-1,015	-211	-144
Pretax income	NT$m	821	-136	696	524	425	599	931	880	1,969	1,905	2,834	3,132
Tax expenses	NT$m	17	8	13	20	19	64	42	40	92	58	164	218
Net income	NT$m	804	-144	683	504	405	535	889	840	1,877	1,847	2,669	2,914
EPS	NT$	1.71	-0.31	1.46	1.08	0.87	1.14	1.90	1.79	4.07	3.94	5.70	6.22
Profit margins													
Gross margin	%	42.9	41.6	41.4	41.5	40.5	41.5	42.0	42.0	47.2	41.8	41.6	41.7
Op margin	%	20.3	15.6	16.2	15.0	13.2	15.5	19.3	18.5	22.7	16.8	17.0	17.0
Net margin	%	19.1 -	3.1	14.3	13.5	11.3	12.7	17.3	16.7	11.9	10.6	14.9	15.1
YoY													
Sales	%	29.5	22.9	-3.2	0.8	-14.6	-10.0	7.2	34.0	26.4	10.8	3.1	7.4
Op profit	%	22.4	-17.6	-40.8	-16.4	-44.4	-10.5	27.6	65.2	28.0	-18.1	4.3	7.6
Net profit	%	17.0	-116.6	-47.2	-152.0	-49.5	-472.0	30.1	66.7	-30.8	-1.6	44.5	9.2
QoQ													
Sales	%	13.1	11.3	2.5	-21.8	-4.2	17.3	22.0	-2.3				
Op profit	%	26.7	-14.4	6.6	-27.7	-15.7	37.7	51.9	-6.3				
Net profit	%	-183.0	-117.9	-575.0	-26.2	-19.5	32.0	66.2	-5.5				
BONUS EXPENSED.		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Net sales	NT$m	4,200	4,674	4,790	3,745	3,588	4,209	5,135	5,017	15,709	17,409	17,949	19,272
COGS	NT$m	2,400	2,731	2,807	2,191	2,135	2,462	2,978	2,910	8,299	10,128	10,485	11,241
Gross profit	NT$m	1,800	1,943	1,983	1,554	1,453	1,747	2,157	2,107	7,410	7,280	7,464	8,030
OP expense	NT$m	1,175	1,184	1,359	1,105	1,081	1,228	1,388	1,389	4,740	4,823	5,086	5,483
Op income	NT$m	625	760	624	449	372	519	769	718	2,670	2,457	2,378	2,547
Net non-op income	NT$m	-31	-865	-81	-38	-49	-53	-60	-49	-1,597	-1,015	-211	-144
Pretax income	NT$m	594	-105	543	411	323	465	709	670	1,073	1,443	2,167	2,403
Tax expenses	NT$m	-17	-8	-13	-20	-19	-64	-42	-40	-92	-58	-164	-218
Net income	NT$m	577	-113	530	391	304	401	667	630	981	1,385	2,002	2,185
EPS	NT$	1.23	-0.24	1.13	0.83	0.65	0.86	1.42	1.34	2.13	2.96	4.27	4.66
Profit margins													
Gross margin	%	42.9	41.6	41.4	41.5	40.5	41.5	42.0	42.0	47.2	41.8	41.6	41.7
Op margin	%	14.9	16.2	13.0	12.0	10.4	12.3	15.0	14.3	17.0	14.1	13.2	13.2
Net margin	%	13.7 -	2.4	11.1	10.4	8.5	9.5	13.0	12.6	6.2	8.0	11.2	11.3
YoY													
Sales	%	29.5	22.9	-3.2	0.8	-14.6	-10.0	7.2	34.0	26.4	10.8	3.1	7.4
Op profit	%	69.9	60.8	-10.4	-60.4	-40.4	-31.7	23.2	60.0	69.4	-8.0	-3.2	7.1
Net profit	%	60.6	-125.0	-21.5	-177.3	-47.3	-454.8	25.7	61.1	-34.7	41.2	44.5	9.2
QoQ													
Sales	%	13.1	11.3	2.5	-21.8	-4.2	17.3	22.0	-2.3				
Op profit	%	-44.9	21.5	-17.9	-28.1	-17.1	39.3	48.2	-6.6				
Net profit	%	-213.9	-119.6	-568.9	-26.2	-22.3	32.0	66.2	-5.5				

Source: Company data, Macquarie Research, October 2008

Realtek Semiconductor (2379 TT, Underperform, Target price: NT$42.00)

Quarterly Results		3Q/08A	4Q/08E	1Q/09E	2Q/09E
Revenue	**m**	**4,790**	**3,745**	**3,588**	**4,209**
Gross Profit	**m**	**1,983**	**1,554**	**1,453**	**1,747**
Operating Expenses	m	-1,359	-1,105	-1,081	-1,228
Operating Income	**m**	**624**	**449**	**372**	**519**
Net Non-operating income	m	-81	-38	-49	-53
Pre-Tax Income	**m**	**543**	**411**	**323**	**465**
Tax Expense	m	-13	-20	-19	-64
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**530**	**391**	**304**	**401**
Reported Earnings (bonus exp)	m	530	391	304	401
Bonus exp / Reported Earnings	%	0.0	0.0	0.0	0.0
Adjusted Earnings	**m**	**530**	**391**	**304**	**401**
EBITDA	**m**	**864**	**599**	**534**	**700**
EPS (rep)	NT$	1.13	0.83	0.65	0.86
EPS pcp growth (rep)	%	-59.6	nmf	-47.3	nmf
EPS (rep bonus exp)	NT$	1.13	0.83	0.65	0.86
EPS pcp growth (rep bonus exp)	%	-22.7	nmf	-47.3	nmf
EPS (adj)	NT$	1.13	0.83	0.65	0.86
EPS pcp growth (adj)	%	-22.7	nmf	-47.3	nmf
Revenue pcp growth	%	-3.2	0.8	-14.6	-10.0
Operating Income pcp growth	%	-52.5	-33.2	-40.4	-31.7
Reported Earnings pcp growth	%	-59.0	nmf	-47.3	nmf
Gross Profit Margin	%	41.4	41.5	40.5	41.5
Operating Income Margin	%	13.0	12.0	10.4	12.3
Reported Earnings Margin	%	11.1	10.4	8.5	9.5
EBITDA Margin	%	18.0	16.0	14.9	16.6

Profit and Loss Ratios		2007A	2008E	2009E	2010E
Revenue Growth	%	26.4	10.8	3.1	7.4
Gross Profit Growth	%	26.4	-1.7	2.5	7.6
Operating Income Growth	%	28.0	-31.1	-3.2	7.1
Reported Earnings Growth	%	-30.8	-26.2	44.5	9.2
EBITDA Growth	%	20.4	-23.7	-6.0	7.3
Gross Profit Margin	%	47.2	41.8	41.6	41.7
Operating Income Margin	%	22.7	14.1	13.2	13.2
Reported Earnings Margin	%	11.9	8.0	11.2	11.3
EBITDA Margin	%	27.6	19.0	17.4	17.4
Payout Ratio	%	133.6	80.4	80.4	79.9
EV/EBITDA	x	4.5	33.2	6.7	6.1
EV/EBIT	x	5.5	-60.7	9.2	8.3
Balance Sheet Ratios					
ROE	%	5.3	8.6	12.3	13.0
ROA	%	16.3	12.2	11.9	12.1
ROIC	%	26.3	20.8	19.1	20.1
Net Debt/Equity	%	-31.5	-27.1	-31.0	-31.2
Interest Cover	x	nmf	nmf	nmf	nmf
Price/Book	x	1.4	1.5	1.4	1.4
Book Value per Share	NT$	35.8	33.7	35.6	36.1

Profit & Loss		2007A	2008E	2009E	2010E
Revenue	**m**	**15,709**	**17,409**	**17,949**	**19,272**
Gross Profit	**m**	**7,410**	**7,280**	**7,464**	**8,030**
Operating Expenses	m	-3,844	-4,823	-5,086	-5,483
Operating Income	**m**	**3,566**	**2,457**	**2,378**	**2,547**
Net Non-operating income	m	-1,597	-1,015	-211	-144
Pre-Tax Income	**m**	**1,969**	**1,443**	**2,167**	**2,403**
Tax Expense	m	-92	-58	-164	-218
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**1,877**	**1,385**	**2,002**	**2,185**
Reported Earnings (bonus exp)	m	981	1,385	2,002	2,185
Bonus exp / Reported Earnings	%	47.7	0.0	0.0	0.0
Adjusted Earnings	**m**	**981**	**1,385**	**2,002**	**2,185**
EBITDA	**m**	**4,343**	**3,315**	**3,116**	**3,344**
EPS (rep)	NT$	4.07	2.96	4.27	4.66
EPS growth (rep)	%	-30.3	-27.3	44.5	9.2
EPS (rep bonus exp)	NT$	2.13	2.96	4.27	4.66
EPS growth (rep bonus exp)	%	-34.2	39.1	44.5	9.2
EPS (adj)	NT$	2.13	2.96	4.27	4.66
EPS growth (adj)	%	-34.2	39.1	44.5	9.2
PE (rep)	x	12.7	17.4	12.1	11.0
PE (rep bonus adj)	x	24.2	17.4	12.1	11.0
PE (adj)	x	24.2	17.4	12.1	11.0
Total DPS	NT$	2.84	2.38	3.44	3.72
Total Div Yield	%	5.5	4.6	6.7	7.2
Weighted Average Shares	m	461.6	468.6	468.6	468.6
Period End Shares	m	461.6	468.6	468.6	468.6

Cashflow Analysis		2007A	2008E	2009E	2010E
Reported Earnings	**m**	**1,877**	**1,385**	**2,002**	**2,185**
Depreciation & Amortisation	m	777	858	738	797
Chgs in Working Cap	m	4,580	-434	-549	177
Other	m	-2,454	1,650	496	-612
Operating Cashflow	**m**	**4,780**	**3,459**	**2,687**	**2,547**
Acquisitions	m	-641	-1,697	-202	-210
Capex	m	-661	-903	-116	-120
Asset Sales	m	3	0	1	1
Other	m	-192	-227	-110	-119
Investing Cashflow	**m**	**-1,491**	**-2,826**	**-427**	**-449**
Dividend (Ordinary)	m	-5,644	-1,358	-1,114	-1,610
Equity Raised	m	0	0	0	0
Debt Movements	m	0	0	0	0
Other	m	-88	-197	-244	-393
Financing Cashflow	**m**	**-5,732**	**-1,555**	**-1,358**	**-2,003**
Net Chg in Cash/Debt	**m**	**-2,443**	**-922**	**902**	**96**
Free Cashflow	m	4,118	2,556	2,572	2,427
FCF per Share	NT$	8.92	5.45	5.49	5.18
P/FCF	x	5.8	9.4	9.4	9.9

Balance Sheet		2007A	2008E	2009E	2010E
Cash	m	5,204	4,281	5,183	5,279
Receivables	m	2,090	3,053	3,545	3,257
Inventories	m	1,481	2,024	1,914	1,759
Investments	m	1,943	727	741	755
Fixed Assets	m	2,363	2,846	2,962	3,082
Intangibles	m	0	0	0	0
Other Assets	m	7,953	6,266	6,571	6,893
Total Assets	**m**	**21,033**	**19,198**	**20,916**	**21,025**
Payables	m	1,754	2,088	2,771	2,546
Short Term Debt	m	0	0	0	0
Long Term Debt	m	0	0	0	0
Provisions	m	0	0	0	0
Other Liabilities	m	2,761	1,311	1,439	1,582
Total Liabilities	**m**	**4,515**	**3,398**	**4,210**	**4,129**
Total S/H Equity	**m**	**16,518**	**15,800**	**16,706**	**16,896**
Total Liab & S/H Funds	**m**	**21,033**	**19,198**	**20,916**	**21,025**

All figures in NT$ unless noted.
Source: Macquarie Research, October 2008

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

Macquarie First South - South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie – **Canada**
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie – USA
Outperform (Buy) – return >5% in excess of benchmark return
Neutral (Hold) – return within 5% of benchmark return
Underperform (Sell)– return >5% below benchmark return

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Volatility index definition*

This is calculated from the volatility of historic price movements.

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.

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).

Recommendation proportions – For quarter ending 30 September 2008

	AU/NZ	Asia	RSA	USA	CA	EUR
Outperform	43.17%	61.57%	63.08%	53.60%	71.54%	43.00%
Neutral	41.37%	16.43%	30.77%	37.60%	24.61%	48.00%
Underperform	15.47%	22.00%	6.15%	8.80%	3.85%	9.00%

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Macquarie Research Equities

Asia Research

Head of Equity Research

Stephen O'Sullivan	(852) 2823 3566

Automobiles/Auto Parts

Deepak Jain (India)	(9122) 6653 3157
Kenneth Yap (Indonesia)	(6221) 515 7343
Dan Lucas (Japan)	(813) 3512 6050
Eunsook Kwak (Korea)	(822) 3705 8644
Linda Huang (Taiwan)	(8862) 2734 7521

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Nick Lord (Asia, China, Hong Kong)	(852) 2823 4774
Sarah Wu (China)	(8621) 2412 9035
Seshadri Sen (India)	(9122) 6653 3053
Ferry Wong (Indonesia)	(6221) 515 7335
Chin Seng Tay (Malaysia, S'pore)	(65) 6231 2837
Nadine Javellana (Philippines)	(632) 857 0890
Matthew Smith (Taiwan)	(8862) 2734 7514
Alastair Macdonald (Thailand)	(662) 694 7741

Chemicals/Textiles

Scott Weaver (Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Christina Lee (Korea)	(822) 3705 8670
Sunaina Dhanuka (Malaysia)	(603) 2059 8993

Conglomerates

Gary Pinge (Asia)	(852) 2823 3557
Leah Jiang (China)	(8621) 2412 9020
Kenneth Yap (Indonesia)	(6221) 515 7343
Ashwin Sanketh (Singapore)	(65) 6231 2830

Consumer

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Jessie Qian (China, Hong Kong)	(852) 2823 3568
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Unmesh Sharma (India)	(9122) 6653 3042
Sarina Lesmina (Indonesia)	(6221) 515 7339
Duane Sandberg (Japan)	(813) 3512 7867
Toby Williams (Japan)	(813) 3512 7392
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HongSuk Na (Korea)	(822) 3705 8678
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Alex Pomento (Philippines)	(632) 857 0899
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Robert Burghart (Japan)	(813) 3512 7853
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Scott Weaver (Taiwan)	(8862) 2734 7512

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David Gambrill (Thailand)	(662) 694 7753

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Seshadri Sen (Asia, India)	(9122) 6653 3053
Makarim Salman (Japan)	(813) 3512 7421

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Prem Jearajasingam (Malaysia)	(603) 2059 8989
Alex Pomento (Philippines)	(632) 857 0899

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Scott Weaver (Taiwan)	(8862) 2734 7512
Jal Irani (India)	(9122) 6653 3040
Christina Lee (Korea)	(822) 3705 8670
Edward Ong (Malaysia)	(603) 2059 8982
Sunaina Dhanuka (Malaysia)	(603) 2059 8993
Ashwin Sanketh (Singapore)	(65) 6231 2830
Trevor Buchinski (Thailand)	(662) 694 7728

Pharmaceuticals

Abhishek Singhal (India)	(9122) 6653 3052
Naomi Kumagai (Japan)	(813) 3512 7474
Christina Lee (Korea)	(822) 3705 8670

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Matt Nacard (Asia)	(852) 2823 4731
Eva Lee (China, Hong Kong)	(852) 2823 3573
Tata Goeyardi (Hong Kong)	(852) 2823 4077
Unmesh Sharma (India)	(9122) 6653 3042
Chang Han Joo (Japan)	(813) 3512 7885
Hiroshi Okubo (Japan)	(813) 3512 7433
Tuck Yin Soong (Singapore)	(65) 6231 2838
Elaine Cheong (Singapore)	(65) 6231 2839
Corinne Jian (Taiwan)	(8862) 2734 7522
Patti Tomaitrichitr (Thailand)	(662) 694 7727

Resources / Metals and Mining

Andrew Dale (Asia)	(852) 2823 3587
YeeMan Chin (China)	(852) 2823 3562
Rakesh Arora (India)	(9122) 6653 3054
Adam Worthington (Indonesia)	(6221) 515 7338
Polina Diyachkina (Japan)	(813) 3512 7886
Christina Lee (Korea)	(822) 3705 8670
Scott Weaver (Taiwan)	(8862) 2734 7512

Technology

Warren Lau (Asia)	(852) 2823 3592
Kishore Belai (India)	(9122) 6653 3046
Damian Thong (Japan)	(813) 3512 7877
David Gibson (Japan)	(813) 3512 7880
George Chang (Japan)	(813) 3512 7854
Yoshihiro Shimada (Japan)	(813) 3512 7862
Yukihiro Goto (Japan)	(813) 3512 5984
Do Hoon Lee (Korea)	(822) 3705 8641
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Andy Kung (Taiwan)	(8862) 2734 7534
Chia-Lin Lu (Taiwan)	(8862) 2734 7526
Daniel Chang (Taiwan)	(8862) 2734 7516
James Chiu (Taiwan)	(8862) 2734 7517
Nicholas Teo (Taiwan)	(8862) 2734 7523

Telecoms

Tim Smart (Asia, China)	(852) 2823 3565
Shubham Majumder (India)	(9122) 6653 3049
Kenneth Yap (Indonesia)	(6221) 515 7343
Nathan Ramler (Japan)	(813) 3512 7875
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Ramakrishna Maruvada (Philippines, Singapore, Thailand)	(65) 6231 2842

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Jonathan Windham (Asia, China)	(852) 2823 5417
Tim Bacchus (Asia, China)	(852) 2823 3586
Wei Sim (China, Hong Kong)	(852) 2823 3598
Eunsook Kwak (Korea)	(822) 3705 8644
Sunaina Dhanuka (Malaysia)	(603) 2059 8993

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Carol Cao (China, Hong Kong)	(852) 2823 4075
Deepak Jain (India)	(9122) 6653 3157
Adam Worthington (Indonesia)	(6221) 515 7338
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Alex Pomento (Philippines)	(632) 857 0899

Commodities

Jim Lennon	(4420) 7065 2014
Adam Rowley	(4420) 7065 2013
Jonathan Butcher	(4420) 7065 5938
Max Layton	(4420) 7065 2000
Bonnie Liu	(8621) 2412 9008
Henry Liu	(8621) 2412 9005
Rakesh Arora	(9122) 6653 3054

Data Services

Andrea Clohessy (Asia)	(852) 2823 4076

Economics

Bill Belchere (Asia)	(852) 2823 4636
Rajeev Malik (ASEAN, India)	(65) 6231 2841
Richard Gibbs (Australia)	(612) 8232 3935
Paul Cavey (China)	(852) 2823 3570
Richard Jerram (Japan)	(813) 3512 7855

Quantitative

Martin Emery (Asia)	(852) 2823 3582
Viking Kwok (Asia)	(852) 2823 4735
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Raelene de Souza (Australia)	(612) 8232 8388
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Strategy/Country

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Desh Peramunetilleke (Asia)	(852) 2823 3564
Mahesh Kedia (Asia)	(852) 2823 3576
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Ferry Wong (Indonesia)	(6221) 515 7335
Chris Hunt (Japan)	(813) 3512 7878
Peter Eadon-Clarke (Japan)	(813) 3512 7850
Eugene Ha (Korea)	(822) 3705 8643
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Edward Ong (Malaysia)	(603) 2059 8982
Alex Pomento (Philippines)	(632) 857 0899
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Regional Heads of Sales

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Michelle Paisley (China, Hong Kong)	(852) 2823 3516
Ulrike Pollak-Tsutsumi (Frankfurt)	(49) 69 7593 8747
Thomas Renz (Geneva)	(41) 22 818 7712
Ajay Bhatia (India)	(9122) 6653 3200
Stuart Smythe (India)	(9122) 6653 3200
Chris Gray (Indonesia)	(6221) 515 7304
K.Y. Nam (Korea)	(822) 3705 8607
Lena Yong (Malaysia)	(603) 2059 8888
Gino C Rojas (Philippines)	(632) 857 0761
Greg Norton-Kidd (New York)	(1 212) 231 2527
Luke Sullivan (New York)	(1 212) 231 2507

Regional Heads of Sales cont'd

Scot Mackie (New York)	(1 212) 231 2848
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
Michael Newman (Tokyo)	(813) 3512 7920
Charles Nelson (UK/Europe)	(44) 20 7065 2032
Rob Fabbro (UK/Europe)	(44) 20 7065 2031

Sales Trading

Adam Zaki (North Asia)	(852) 2823 3528
Duncan Rutherford (ASEAN, India)	(65) 6231 2888
Mona Lee (Hong Kong)	(852) 2823 3519

Sales Trading cont'd

Stuart Goddard (Europe)	(44) 20 7065 2033
Brendan Rake (India)	(9122) 6653 3204
Edward Robinson (London)	(44) 20 7065 5883
Robert Risman (New York)	(1 212) 231 2555
Isaac Huang (Taiwan)	(8862) 2734 7582
Jon Omori (Tokyo)	(813) 3512 7838

Alternative Strategies

Convertibles - Roland Sharman	(852) 2823 4628
Depository Receipts - Robert Ansell	(852) 2823 4688
Derivatives - Tim Connolly	(852) 2249 3380
Futures - Tim Smith	(852) 2823 4637
Hedge Fund Sales - Darin Lester	(852) 2823 4736
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