TAIWAN

Novatek Microelectronics

29 October 2008

3034 TT **Outperform**

Stock price as of 28 Oct 08	NT$	33.30
12-month target	NT$	42.00
Upside/downside	%	+26.1
Valuation	NT$	71.00
- ROE-g/COE-g		

GICS sectorsemiconductors & semiconductor equipment		
Market cap	NT$m	19,500
30-day avg turnover	NT$m	166.9
Market cap	US$m	584
Number shares on issue	m	585.6

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	m	36,117	27,557	25,121	25,706
Reported profit	m	7,585	4,045	3,433	3,672
Profit bonus exp	m	5,722	4,045	3,433	3,672
Bon exp/rep prof	%	24.6	0.0	0.0	0.0
Adjusted profit	m	5,722	4,045	3,433	3,672
EPS rep	NT$	14.02	6.91	5.86	6.27
EPS rep growth	%	18.7	-50.7	-15.1	7.0
EPS bonus exp	NT$	10.58	6.91	5.86	6.27
EPS bonus growth	%	23.8	-34.7	-15.1	7.0
PE rep	x	2.4	4.8	5.7	5.3
PE bonus exp	x	3.1	4.8	5.7	5.3
Total DPS	NT$	8.24	5.18	4.69	5.02
Total div yield	%	24.8	15.6	14.1	15.1
ROA	%	29.7	14.5	11.2	11.8
ROE	%	35.1	22.7	18.6	19.3
EV/EBITDA	x	1.5	3.2	3.9	3.6
Net debt/equity	%	-24.3	-40.1	-33.5	-37.8
Price/book	x	1.0	1.1	1.0	1.0

3034 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

Upside surprise on margins

Event

- Novatek reported its 3Q08 result and 4Q08 outlook today. While the sales outlook is in line, the GM result and outlook surprised us and the Street on the upside. We maintain our Outperform with a target price of NT$42.

Impact

- **Macquarie vs consensus.** Despite cutting our forecast for Novatek aggressively following the panel maker's result and outlook, we maintain our positive view on Novatek from a balance sheet and valuation point of view. Today, Novatek's result and guidance reinforce our positive view of the company, especially the upside surprise on margins, which is added proof of the company's execution and cost-down effort, in our view.
- **3Q08 net profit of NT$1.1bn** (EPS of NT$1.86; -4% QoQ and -33% YoY) was 11% ahead of our forecast, and the upside was largely from the better-than-expected GM. 3Q08 GM of 30.2% (+1.8ppts) beat our 27.9% forecast and the 0–1ppt QoQ decline expected by guidance/consensus. The upside was due partly to better NT$/US$ (0.7ppt), acquisition of Cheertek (higher GM), better product mix (higher SoC and small-panel driver IC), and continuous cost-down. For 4Q08, Novatek expects sales to decline by around 15% QoQ, with GM to drop by 1–2ppts. Sales outlook is in line with our expectation, while GM is better due to better 3Q08 base.
- **Balance sheet items remain healthy.** Novatek's cash conversion cycle was maintained at around 100 days, similar to that for 1Q/2Q08. Net cash per share was at NT$10 after the cash dividend payout. Net US$ exposure at end-3Q08 was at about US$100m vs US$200m+ in 1Q08.
- **Novatek expects SoC to outgrow driver IC businesses** in 4Q08, which also provide some supports to its GM. Novatek also mentioned the Cheertek business is already at net profitable, a good sign of cost-saving after acquisition. As for cost-down, Novatek indicated 60–70% of its source driver ICs are using 0.3um process now and the company is progressing to 0.18um.

Earnings revision

- We revised up our EPS forecast for 2008 slightly to reflect the better-than-expected GM, but we maintain our 2009–10F EPS broadly unchanged.

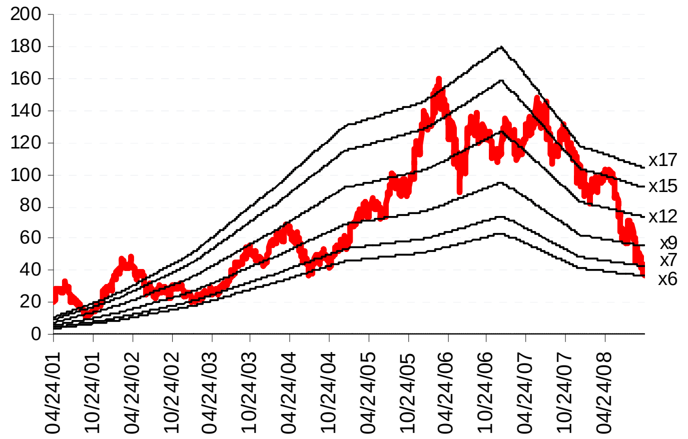
Price catalyst

- 12-month price target: NT$42.00 based on a PER methodology.
- Catalyst: Panel sector recovery, ramp up of other sales, and better margins.

Action and recommendation

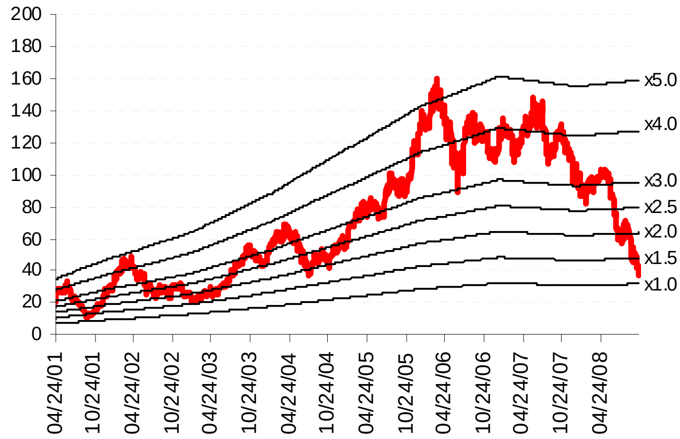
- While Novatek's stock price may still have some pressure due to soft panel outlook, we continue to believe that the company deserves a revisit on its good execution, healthy balance sheet, and positive net cashflow as well as high cash yield. The better-than-expected GM should also ease some margin erosion concern. Value-driven investors may consider Novatek and Himax (HIMX US, US$1.92, OP, TP: US$3.2).

Fig 1 Novatek's PER - bonus expensed



Source: TEJ, Macquarie Research, October 2008

Fig 2 Novatek's P/BV



Source: TEJ, Macquarie Research, October 2008

Fig 3 Scenario analysis - fair value on dividend yield valuation

Fair value (NT$)					**Cash dividend payout ratio**
perpetual growth	**65%**	**70%**	**75%**	**80%**	**85%**
-4%	25.8	27.8	29.8	31.8	33.8
-2%	30.7	33.1	35.5	37.8	40.2
0%	37.5	40.4	43.3	46.2	49.1
2%	47.7	51.4	55.0	58.7	62.4
4%	64.4	69.4	74.3	79.3	84.3

Assumption: 2009 EPS of NT$5.9, COE of 10.2%

Source: Macquarie Research, October 2008

Fig 4 MACQ's ROE-g/COE-g fair value appraisal for Novatek

Beta	1.03
Risk free rate (%)	5.0
Market risk premium (%)	5.0
Cost of equity / discount rate	10.2
Average ROE 08-09 (%)	20.6
Perpetuity growth rate (%)	2.0
ROE-g	18.6
COE-g	8.2
Ratio	2.3
FY08F BVPS	31.0
Fair value	**71**

Source: Macquarie Research, October 2008

Fig 5 MACQ's earnings model for Novatek

		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
FX		31.5	30.4	31.7	32.5	32.5	32.5	32.5	32.5	32.8	31.5	32.5	32.5
Pre bonus exp.		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Net sales	NT$m	7,506	7,238	6,908	5,906	5,539	6,034	6,818	6,730	36,117	27,557	25,121	25,706
COGS	NT$m	5,317	5,181	4,819	4,210	4,019	4,376	4,943	4,880	25,945	19,526	18,218	18,636
Gross profit	NT$m	2,189	2,057	2,089	1,696	1,520	1,658	1,875	1,850	10,173	8,031	6,903	7,070
OPEX	NT$m	648	672	723	715	609	652	709	639	2,598	2,757	2,609	2,432
OP profit	NT$m	1,541	1,385	1,366	982	911	1,006	1,166	1,211	7,575	5,274	4,294	4,637
Non-op P&L	NT$m	-222	131	99	124	79	86	98	98	175	132	361	395
Pretax profit	NT$m	1,319	1,516	1,465	1,106	990	1,092	1,264	1,309	7,750	5,406	4,655	5,032
Tax expense	NT$m	-30	-32	-45	-33	-40	-44	-51	-52	-166	-140	-186	-252
Net profit	NT$m	1,289	1,484	1,420	1,072	950	1,048	1,213	1,257	7,585	5,266	4,468	4,781
EPS	NT$	2.20	2.53	2.43	1.83	1.62	1.79	2.07	2.15	14.02	8.99	7.63	8.16
Profit margins		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
GM	%	29.2	28.4	30.2	28.7	27.4	27.5	27.5	27.5	28.2	29.1	27.5	27.5
OP margins	%	20.5	19.1	19.8	16.6	16.4	16.7	17.1	18.0	21.0	19.1	17.1	18.0
Net margins	%	17.2	20.5	20.6	18.2	17.2	17.4	17.8	18.7	21.0	19.1	17.8	18.6
Growth (QoQ)		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Sales	%	-20.3	-3.6	-4.6	-14.5	-6.2	8.9	13.0	-1.3				
OP profit	%	-24.4	-10.2	-1.3	-28.2	-7.2	10.5	15.8	3.9				
Net profit	%	-33.3	15.1	-4.3	-24.5	-11.4	10.3	15.7	3.6				
Growth (YoY)		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Sales	%	-1.5	-19.8	-31.4	-37.2	-26.2	-16.6	-1.3	14.0	14.9	-23.7	-8.8	2.3
OP profit	%	8.2	-25.8	-39.1	-51.9	-40.9	-27.3	-14.7	23.3	19.2	-30.4	-18.6	8.0
Net profit	%	-23.4	-18.5	-33.9	-44.5	-26.3	-29.3	-14.6	17.2	20.8	-30.6	-15.1	7.0
Post bonus exp.		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Net sales	NT$m	7,506	7,238	6,908	5,906	5,539	6,034	6,818	6,730	36,117	27,557	25,121	25,706
COGS	NT$m	5,317	5,181	4,819	4,210	4,019	4,376	4,943	4,880	25,945	19,526	18,218	18,636
Gross profit	NT$m	2,189	2,057	2,089	1,696	1,520	1,658	1,875	1,850	10,173	8,031	6,903	7,070
OPEX	NT$m	946	1,016	1,052	963	830	895	990	931	4,461	3,978	3,645	3,541
OP profit	NT$m	1,243	1,040	1,037	733	691	763	884	919	5,712	4,053	3,258	3,529
Non-op P&L	NT$m	-222	131	99	124	79	86	98	98	175	132	361	395
Pretax profit	NT$m	1,021	1,171	1,136	857	769	849	983	1,018	5,887	4,185	3,619	3,924
Tax expense	NT$m	-30	-32	-45	-33	-40	-44	-51	-52	-166	-140	-186	-252
Net profit	NT$m	991	1,140	1,091	824	730	805	932	965	5,722	4,045	3,433	3,672
EPS	NT$	1.69	1.95	1.86	1.41	1.25	1.38	1.59	1.65	10.58	6.91	5.86	6.27
Profit margins		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
GM	%	29.2	28.4	30.2	28.7	27.4	27.5	27.5	27.5	28.2	29.1	27.5	27.5
OP margins	%	16.6	14.4	15.0	12.4	12.5	12.7	13.0	13.7	15.8	14.7	13.0	13.7
Net margins	%	13.2	15.7	15.8	13.9	13.2	13.3	13.7	14.3	15.8	14.7	13.7	14.3
Growth (QoQ)		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Sales	%	-20.3	-3.6	-4.6	-14.5	-6.2	8.9	13.0	-1.3				
OP profit	%	-20.6	-16.3	-0.3	-29.3	-5.7	10.5	15.9	3.9				
Net profit	%	-32.1	15.1	-4.3	-24.5	-11.4	10.3	15.7	3.6				
Growth (YoY)		**1Q08A**	**2Q08A**	**3Q08A**	**4Q08F**	**1Q09F**	**2Q09F**	**3Q09F**	**4Q09F**	**FY07A**	**FY08F**	**FY09F**	**FY10F**
Sales	%	-1.5	-19.8	-31.4	-37.2	-26.2	-16.6	-1.3	14.0	14.9	-23.7	-8.8	2.3
OP profit	%	22.9	-26.7	-39.6	-53.2	-44.4	-26.6	-14.7	25.4	23.7	-29.0	-19.6	8.3
Net profit	%	-21.9	-17.0	-32.7	-43.5	-26.3	-29.3	-14.6	17.2	26.1	-29.3	-15.1	7.0

Source: Company data, Macquarie Research, October 2008

Novatek Microelectronics (3034 TT, Outperform, Target price: NT$42.00)

Quarterly Results		3Q/08A	4Q/08E	1Q/09E	2Q/09E
Revenue	**m**	**6,908**	**5,906**	**5,539**	**6,034**
Gross Profit	**m**	**2,094**	**1,696**	**1,520**	**1,658**
Operating Expenses	m	-1,057	-963	-830	-895
Operating Income	**m**	**1,037**	**733**	**691**	**763**
Net Non-operating income	m	99	124	79	86
Pre-Tax Income	**m**	**1,136**	**857**	**769**	**849**
Tax Expense	m	-45	-33	-40	-44
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**1,091**	**824**	**730**	**805**
Reported Earnings (bonus exp)	m	1,091	824	730	805
Bonus exp / Reported Earnings	%	0.0	0.0	0.0	0.0
Adjusted Earnings	**m**	**1,091**	**824**	**730**	**805**
EBITDA	**m**	**1,134**	**792**	**746**	**824**
EPS (rep)	NT$	1.86	1.41	1.25	1.38
EPS pcp growth (rep)	%	-53.1	-60.6	-26.3	-29.3
EPS (rep bonus exp)	NT$	1.86	1.41	1.25	1.38
EPS pcp growth (rep bonus exp)	%	-37.8	-47.8	-26.3	-29.3
EPS (adj)	NT$	1.86	1.41	1.25	1.38
EPS pcp growth (adj)	%	-37.8	-47.8	-26.3	-29.3
Revenue pcp growth	%	-31.4	-37.2	-26.2	-16.6
Operating Income pcp growth	%	-53.8	-64.1	-44.4	-26.6
Reported Earnings pcp growth	%	-49.2	-57.4	-26.3	-29.3
Gross Profit Margin	%	30.3	28.7	27.4	27.5
Operating Income Margin	%	15.0	12.4	12.5	12.7
Reported Earnings Margin	%	15.8	13.9	13.2	13.3
EBITDA Margin	%	16.4	13.4	13.5	13.7

Profit and Loss Ratios		2007A	2008E	2009E	2010E
Revenue Growth	%	14.9	-23.7	-8.8	2.3
Gross Profit Growth	%	19.5	-21.0	-14.1	2.4
Operating Income Growth	%	19.2	-46.5	-19.6	8.3
Reported Earnings Growth	%	20.8	-46.7	-15.1	7.0
EBITDA Growth	%	19.6	-44.4	-19.8	7.9
Gross Profit Margin	%	28.2	29.2	27.5	27.5
Operating Income Margin	%	21.0	14.7	13.0	13.7
Reported Earnings Margin	%	21.0	14.7	13.7	14.3
EBITDA Margin	%	21.8	15.9	14.0	14.7
Payout Ratio	%	77.9	75.0	80.0	80.0
EV/EBITDA	x	1.5	3.2	3.9	3.6
EV/EBIT	x	1.6	3.4	4.2	3.9
Balance Sheet Ratios					
ROE	%	35.1	22.7	18.6	19.3
ROA	%	29.7	14.5	11.2	11.8
ROIC	%	65.6	29.6	28.4	26.4
Net Debt/Equity	%	-24.3	-40.1	-33.5	-37.8
Interest Cover	x	195.7	nmf	nmf	nmf
Price/Book	x	1.0	1.1	1.0	1.0
Book Value per Share	NT$	32.3	31.0	32.1	32.9

Profit & Loss		2007A	2008E	2009E	2010E
Revenue	**m**	**36,117**	**27,557**	**25,121**	**25,706**
Gross Profit	**m**	**10,170**	**8,039**	**6,903**	**7,070**
Operating Expenses	m	-2,595	-3,986	-3,645	-3,541
Operating Income	**m**	**7,575**	**4,053**	**3,258**	**3,529**
Net Non-operating income	m	175	132	361	395
Pre-Tax Income	**m**	**7,750**	**4,185**	**3,619**	**3,924**
Tax Expense	m	-166	-140	-186	-252
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**7,585**	**4,045**	**3,433**	**3,672**
Reported Earnings (bonus exp)	m	5,722	4,045	3,433	3,672
Bonus exp / Reported Earnings	%	24.6	0.0	0.0	0.0
Adjusted Earnings	**m**	**5,722**	**4,045**	**3,433**	**3,672**
EBITDA	**m**	**7,876**	**4,377**	**3,509**	**3,786**
EPS (rep)	NT$	14.02	6.91	5.86	6.27
EPS growth (rep)	%	18.7	-50.7	-15.1	7.0
EPS (rep bonus exp)	NT$	10.58	6.91	5.86	6.27
EPS growth (rep bonus exp)	%	23.8	-34.7	-15.1	7.0
EPS (adj)	NT$	10.58	6.91	5.86	6.27
EPS growth (adj)	%	23.8	-34.7	-15.1	7.0
PE (rep)	x	2.4	4.8	5.7	5.3
PE (rep bonus adj)	x	3.1	4.8	5.7	5.3
PE (adj)	x	3.1	4.8	5.7	5.3
Total DPS	NT$	8.24	5.18	4.69	5.02
Total Div Yield	%	24.8	15.6	14.1	15.1
Weighted Average Shares	m	541.0	585.6	585.6	585.6
Period End Shares	m	541.0	585.6	585.6	585.6

Cashflow Analysis		2007A	2008E	2009E	2010E
Reported Earnings	**m**	**7,585**	**4,045**	**3,433**	**3,672**
Depreciation & Amortisation	m	301	324	251	257
Chgs in Working Cap	m	-2,417	3,554	-901	420
Other	m	11	1,355	7	109
Operating Cashflow	**m**	**5,480**	**9,278**	**2,790**	**4,458**
Acquisitions	m	203	-85	-113	-120
Capex	m	-437	-119	-73	-75
Asset Sales	m	0	0	0	0
Other	m	-198	-122	-106	-132
Investing Cashflow	**m**	**-431**	**-327**	**-292**	**-327**
Dividend (Ordinary)	m	-4,169	-4,874	-3,034	-2,746
Equity Raised	m	0	0	0	0
Debt Movements	m	761	804	-12	491
Other	m	-520	-1,053	-463	-404
Financing Cashflow	**m**	**-3,928**	**-5,123**	**-3,509**	**-2,660**
Net Chg in Cash/Debt	**m**	**1,121**	**3,828**	**-1,011**	**1,471**
Free Cashflow	m	5,043	9,158	2,717	4,383
FCF per Share	NT$	9.32	15.64	4.64	7.48
P/FCF	x	3.6	2.1	7.2	4.4

Balance Sheet		2007A	2008E	2009E	2010E
Cash	m	8,416	12,244	11,233	12,704
Receivables	m	12,000	7,253	8,265	7,797
Inventories	m	2,240	2,256	2,616	2,461
Investments	m	0	0	0	0
Fixed Assets	m	1,405	1,787	1,859	1,935
Intangibles	m	198	2,964	2,734	2,522
Other Assets	m	2,556	2,507	2,698	2,904
Total Assets	**m**	**26,815**	**29,011**	**29,405**	**30,323**
Payables	m	4,137	2,959	3,430	3,228
Short Term Debt	m	4,183	4,954	4,942	5,422
Long Term Debt	m	0	0	0	0
Provisions	m	0	0	0	0
Other Liabilities	m	1,046	2,938	2,234	2,388
Total Liabilities	**m**	**9,367**	**10,851**	**10,606**	**11,038**
Total S/H Equity	**m**	**17,449**	**18,160**	**18,799**	**19,285**
Total Liab & S/H Funds	**m**	**26,815**	**29,011**	**29,405**	**30,323**

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 historical 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/Canada 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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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

Banks and Non-Bank Financials

Ismael Pili (Asia)	(65) 6231 2840
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
Charles Yan (China)	(8621) 2412 9033
Unmesh Sharma (India)	(9122) 6653 3042
Sarina Lesmina (Indonesia)	(6221) 515 7339
Duane Sandberg (Japan)	(813) 3512 7867
Toby Williams (Japan)	(813) 3512 7392
Heather Kang (Korea)	(822) 3705 8677
HongSuk Na (Korea)	(822) 3705 8678
Edward Ong (Malaysia)	(603) 2059 8982
Alex Pomento (Philippines)	(632) 857 0899
Linda Huang (Taiwan)	(8862) 2734 7521

Emerging Leaders

Jake Lynch (Asia)	(8621) 2412 9007
Hiu-Lui Ko (China)	(852) 2823 4704
Minoru Tayama (Japan)	(813) 3512 6058
Robert Burghart (Japan)	(813) 3512 7853
Heather Kang (Korea)	(822) 3705 8677
Scott Weaver (Taiwan)	(8862) 2734 7512

Industrials

Bin Liu (China)	(8621) 2412 9006
Inderjeetsingh Bhatia (India)	(9122) 6653 3166
Christopher Cintavey (Japan)	(813) 3512 7432
Janet Lewis (Japan)	(813) 3512 7475
Michael Na (Korea)	(822) 2095 7222
Sunaina Dhanuka (Malaysia)	(603) 2059 8993
David Gambrill (Thailand)	(662) 694 7753

Insurance

Mark Kellock (Asia)	(852) 2823 3567
Seshadri Sen (Asia, India)	(9122) 6653 3053
Makarim Salman (Japan)	(813) 3512 7421

Media

Jessie Qian (China, Hong Kong)	(852) 2823 3568
Shubham Majumder (India)	(9122) 6653 3049
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Alex Pomento (Philippines)	(632) 857 0899

Oil and Gas

David Johnson (Asia, China)	(852) 2823 4691
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

Property

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
Michael Bang (Korea)	(822) 3705 8659
Patrick Yau (Singapore)	(65) 6231 2835
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

Transport & Infrastructure

Anderson Chow (Asia, China)	(852) 2823 4773
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

Utilities

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
George Platt (Australia)	(612) 8232 6539
Raelene de Souza (Australia)	(612) 8232 8388
Tsumugi Akiba (Japan)	(813) 3512 7560

Strategy/Country

Tim Rocks (Asia)	(852) 2823 3585
Daniel McCormack (Asia)	(852) 2823 4073
Desh Peramunetilleke (Asia)	(852) 2823 3564
Mahesh Kedia (Asia)	(852) 2823 3576
Stewart Ferns (Asia)	(852) 2823 4068
Michael Kurtz (China)	(8621) 2412 9002
Seshadri Sen (India)	(9122) 6653 3053
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
Tuck Yin Soong (ASEAN, Singapore)	(65) 6231 2838
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Alastair Macdonald (Thailand)	(662) 694 7741

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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
Structured Products - Andrew Terlich	(852) 2249 3225