

TAIWAN

Phison Electronics

27 October 2008

8299 TT **Underperform**

Stock price as of 27 Oct 08	NT\$	59.50
12-month target	NT\$	30.00
Upside/downside	%	-49.6
Valuation	NT\$	32.00
- ROE-g/COE-g		

GICS sector	technology hardware & equipment		
Market cap	NT\$m	7,543	
30-day avg turnover	NT\$m	139.7	
Market cap	US\$m	226	
Number shares on issue	m	126.8	

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	m	20,258	19,023	19,310	21,820
Reported profit	m	1,395	493	467	566
Profit bonus exp	m	951	493	467	566
Bon exp/rep prof	%	31.8	0.0	0.0	0.0
Adjusted profit	m	951	493	467	566
EPS rep	NT\$	12.05	3.71	3.69	4.47
EPS rep growth	%	19.7	-69.2	-0.6	21.1
EPS bonus exp	NT\$	8.21	3.71	3.69	4.47
EPS bonus growth %		30.8	-54.8	-0.6	21.1
PE rep	x	4.9	16.0	16.1	13.3
PE bonus exp	x	7.2	16.0	16.1	13.3
Total DPS	NT\$	5.21	2.33	2.21	2.68
Total div yield	%	8.8	3.9	3.7	4.5
ROA	%	23.4	5.2	5.3	6.4
ROE	%	24.2	9.7	8.9	10.5
EV/EBITDA	x	3.3	12.4	11.5	9.4
Net debt/equity	%	-55.2	-39.9	-31.3	-25.8
Price/book	x	1.4	1.4	1.4	1.4

8299 TT rel Taiex performance, & rec history



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

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A possible survivor, but too expensive

Event

- Following disappointing 3Q08 results and our conservative view on NAND Flash, we cut our earnings forecast and target price significantly for Phison. Our rating remains at Underperform and our new target price is NT\$30 (8x 2009E PER) from NT\$110 previously.

Impact

- Macquarie vs consensus.** We have been negative on NAND Flash for more than a year and our view remains intact. Despite all NAND Flash makers indicating that they are phasing out the old 8" fab and/or cutting capex/production in 2009, we believe soft demand is key for NAND Flash market dynamics. SEC (005930 KS, Won407,500, Neutral, TP: Won370,000) expects NAND Flash prices to fall in 2009 by another 30–40% from current levels; we share this view. This implies that the NAND Flash market value may be flattish, if not decline, even if consumption density doubles in 2009. It is therefore premature for us to change our stance on NAND Flash names.
- A possible survivor, but too early to buy.** Phison has NT\$10 net cash per share as at end-3Q08 and has cut its inventory (NT\$1.5bn vs NT\$2.4bn a quarter ago). Its balance sheet seems sufficient to help the company survive this tough period, but its business outlook for the coming 1–2 quarters remains sluggish. We also have no visibility on a 2H09 recovery as consumer demand is continuing to soften and the take-off of SSD (solid state drive) is unclear. Downside risks remain for NAND Flash names, in our view.
- Valuation too stretched.** We believe our flat 2009 sales forecast and 6–7% GM projection is not too harsh given the current soft demand as well as Phison's business drivers (85%+ from OEM and NAND Flash distribution). PER will likely be 16x 2009E EPS and at 86% premium to fair value. We suspect Phison will test its trough PER (8x) given the YoY earnings decline.
- 3Q08 first OP loss ever.** 3Q08 EPS of NT\$0.99 (-33% QoQ and -80% YoY) was well below our/consensus due to sluggish sales (NT\$5.2bn, +6% QoQ and -13% YoY) and GM (3.2%). The company incurred an operating loss for the first time (-NT\$52m), but forex gain (NT\$124m) should make up earnings. For 4Q08, sales should see seasonal weakness while GM may recover slightly on lower-cost inventory.

Earnings revision

- We cut our 2008–10 EPS forecast by 51%, 64% and 64% respectively (Figure 6). We forecast a 5% earnings YoY decline for Phison in 2009.

Price catalyst

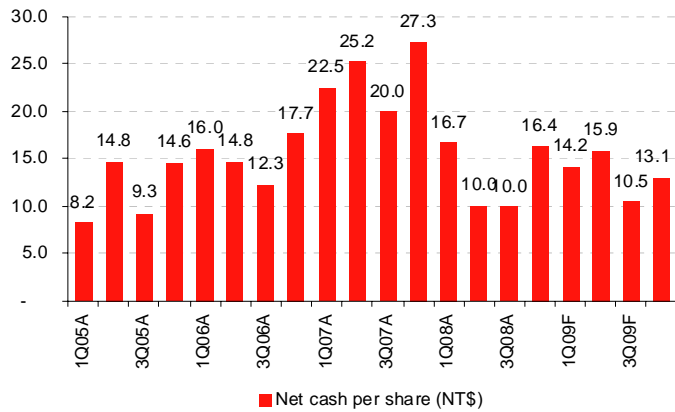
- 12-month price target: NT\$30.00 based on a PER methodology.
- Catalyst: Sales and GM remain soft and NAND Flash prices decline.

Action and recommendation

- Our stance on Phison reflects our long-standing conservative view of major NAND Flash players, supported by the disappointing 3Q08 results seen across the region. We await clearer signals of a growth in NAND Flash demand before reviewing our investment view.

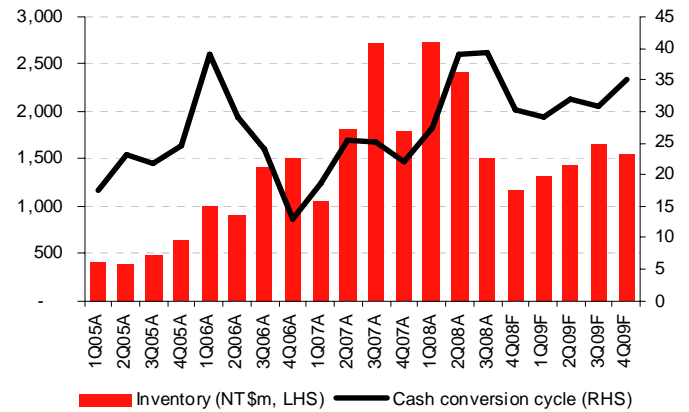
Please refer to the important disclosures and analyst certification on inside back cover of this document, or on our website www.macquarie.com.au/research/disclosures.

Fig 1 Phison – net cash per share



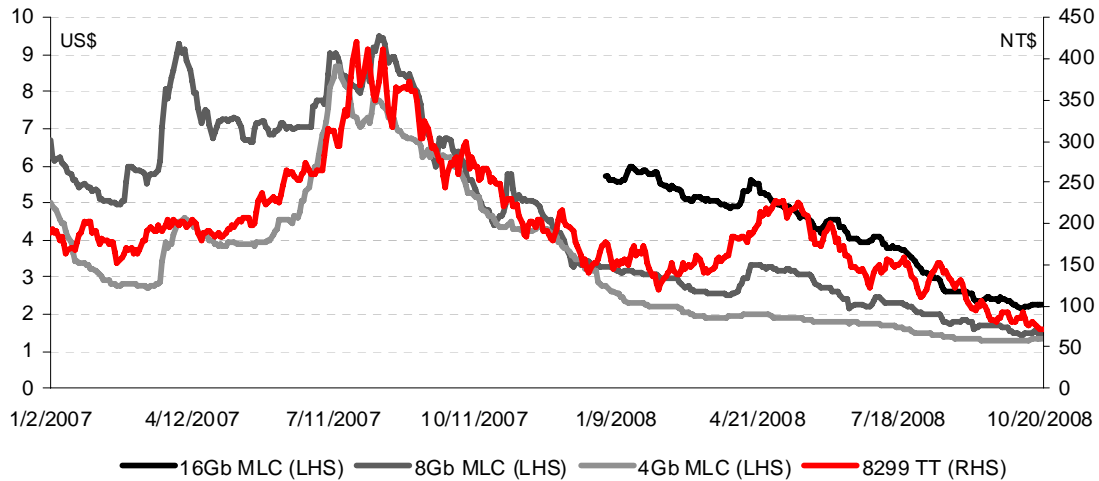
Source: Company data, Macquarie Research, October 2008

Fig 2 Inventory level and cash conversion cycle



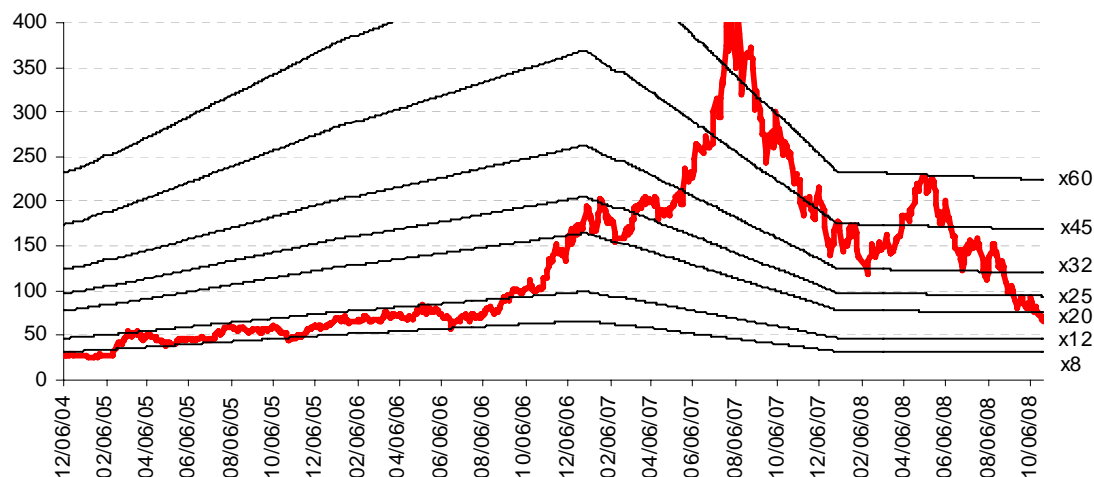
Source: Company data, Macquarie Research, October 2008

Fig 3 NAND Flash prices vs Phison's share prices



Source: InSpectrum, TEJ, Macquarie Research, October 2008

Fig 4 Phison – Share price and PER (employee bonus expensed)



Source: TEJ, Macquarie Research, October 2008

Fig 5 ROE-g/COE-g fair value appraisal for Phison

Beta	1.27
Risk free rate (%)	5.0
Market risk premium (%)	5.0
Cost of equity / discount rate	11.4
Average ROE 08-09 (%)	9.2
Perpetuity growth rate (%)	2.0
ROE-g	7.2
COE-g	9.4
Ratio	0.77
FY09F BVPS	41.8
Fair value	32

Source: Macquarie Research, October 2008

Fig 6 Phison – Earnings revision

		2008			2009			2010		
		Current	Old	Var (%)	Current	Old	Var (%)	Current	Old	Var (%)
Sales	NT\$m	19,023	20,799	(8.5)	19,310	23,361	(17.3)	21,810	27,164	(19.7)
Gross profit	NT\$m	1,253	1,883	(33.5)	1,225	2,326	(47.3)	1,437	2,800	(48.7)
OP profit	NT\$m	391	1,037	(62.3)	389	1,301	(70.1)	483	1,206	(59.9)
Net profit	NT\$m	493	1,002	(50.8)	467	1,299	(64.0)	566	1,582	(64.2)
EPS	NT\$	3.89	7.90	(50.8)	3.69	10.25	(64.0)	4.47	12.48	(64.2)
GM	%	6.6	9.1	(2.5)	6.3	10.0	(3.6)	6.6	10.3	(3.7)
Op margins	%	2.1	5.0	(2.9)	2.0	5.6	(3.6)	2.2	4.4	(2.2)
Net margins	%	2.6	4.8	(2.2)	2.4	5.6	(3.1)	2.6	5.8	(3.2)

Source: Company data, Macquarie Research, October 2008

Fig 7 MACQ's earnings forecast for Phison

		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
FX		31.5	30.4	31.7	33.0	33.0	33.0	33.0	33.0	32.9	31.7	33.0	33.0
Pre bonus exp.		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Net sales	NT\$m	4,455	4,902	5,171	4,494	4,146	4,596	5,511	5,057	20,258	19,023	19,310	21,810
COGS	NT\$m	4,066	4,402	5,006	4,297	3,941	4,315	5,093	4,736	17,957	17,771	18,085	20,373
Gross profit	NT\$m	390	500	165	198	205	281	418	321	2,301	1,253	1,225	1,437
OPEX	NT\$m	141	233	199	162	153	170	204	187	717	734	714	807
OP profit	NT\$m	249	267	-34	36	51	111	214	134	1,585	519	510	630
Non-op P&L	NT\$m	-8	12	128	123	31	34	41	38	-54	255	144	162
Pretax profit	NT\$m	241	280	94	159	82	145	255	171	1,531	774	654	792
Tax expense	NT\$m	-14	-118	-4	-16	-8	-15	-26	-17	-136	-153	-65	-79
Net profit	NT\$m	227	162	89	143	74	131	230	154	1,395	621	589	713
EPS	NT\$	1.79	1.28	0.70	1.13	0.58	1.03	1.81	1.22	12.05	4.90	4.64	5.62
Profit margins		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
GM	%	8.7	10.2	3.2	4.4	4.9	6.1	7.6	6.3	11.4	6.6	6.3	6.6
OP margins	%	5.6	5.5	-0.7	0.8	1.2	2.4	3.9	2.6	7.8	2.7	2.6	2.9
Net margins	%	5.1	3.3	1.7	3.2	1.8	2.8	4.2	3.1	6.9	3.3	3.0	3.3
Growth (QoQ)		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Sales	%	-23.7	10.0	5.5	-13.1	-7.8	10.8	19.9	-8.2				
OP profit	%	9.3	7.2	-112.7	-206.1	42.6	117.2	92.5	-37.5				
Net profit	%	10.7	-28.6	-44.9	60.5	-48.5	77.3	75.4	-32.8				
Growth (YoY)		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Sales	%	8.1	12.6	-13.0	-23.0	-6.9	-6.2	6.6	12.5	62.7	-6.1	1.5	12.9
OP profit	%	-5.1	-43.6	-105.5	-84.3	-79.5	-58.4	-732.5	272.8	37.5	-67.3	-1.6	23.4
Net profit	%	-17.8	-59.8	-82.6	-30.0	-67.4	-19.1	157.2	7.7	30.2	-55.5	-5.2	21.1
Post bonus exp.		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Net sales	NT\$m	4,455	4,902	5,171	4,494	4,146	4,596	5,511	5,057	20,258	19,023	19,310	21,810
COGS	NT\$m	4,066	4,402	5,006	4,297	3,941	4,315	5,093	4,736	17,957	17,771	18,085	20,373
Gross profit	NT\$m	390	500	165	198	205	281	418	321	2,301	1,253	1,225	1,437
OPEX	NT\$m	165	288	217	191	169	197	251	219	1,161	862	836	954
OP profit	NT\$m	225	212	-52	6	36	84	167	102	1,141	391	389	483
Non-op P&L	NT\$m	-8	12	128	123	31	34	41	38	-54	255	144	162
Pretax profit	NT\$m	217	224	75	130	67	118	208	140	1,086	646	533	645
Tax expense	NT\$m	-14	-118	-4	-16	-8	-15	-26	-17	-136	-153	-65	-79
Net profit	NT\$m	202	106	71	114	59	104	182	123	951	493	467	566
EPS	NT\$	1.59	0.84	0.56	0.90	0.46	0.82	1.44	0.97	8.21	3.89	3.69	4.47
Profit margins		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
GM	%	8.7	10.2	3.2	4.4	4.9	6.1	7.6	6.3	11.4	6.6	6.3	6.6
OP margins	%	5.0	4.3	-1.0	0.1	0.9	1.8	3.0	2.0	5.6	2.1	2.0	2.2
Net margins	%	4.5	2.2	1.4	2.5	1.4	2.3	3.3	2.4	4.7	2.6	2.4	2.6
Growth (QoQ)		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Sales	%	-23.7	10.0	5.5	-13.1	-7.8	10.8	19.9	-8.2				
OP profit	%	38.1	-5.8	-124.7	-112.3	462.0	134.1	97.9	-38.8				
Net profit	%	44.9	-47.4	-33.3	60.5	-48.5	77.3	75.4	-32.8				
Growth (YoY)		1Q08A	2Q08A	3Q08A	4Q08F	1Q09F	2Q09F	3Q09F	4Q09F	FY07A	FY08F	FY09F	FY10F
Sales	%	8.1	12.6	-13.0	-23.0	-6.9	-6.2	6.6	12.5	62.7	-6.1	1.5	12.9
OP profit	%	28.6	-38.7	-111.4	-96.1	-84.0	-60.2	-419.4	1,493.7	52.2	-65.7	-0.4	24.1
Net profit	%	7.6	-61.2	-79.7	-18.5	-71.0	-2.2	157.2	7.7	42.2	-48.1	-5.2	21.1

Source: Company data, Macquarie Research, October 2008

Phison Electronics (8299 TT, Underperform, Target price: NT\$30.00)

Quarterly Results		3Q/08A	4Q/08E	1Q/09E	2Q/09E	Profit & Loss		2007A	2008E	2009E	2010E
Revenue	m	5,171	4,494	4,146	4,596	Revenue	m	20,258	19,023	19,310	21,820
Gross Profit	m	165	198	205	281	Gross Profit	m	2,301	1,253	1,225	1,447
Operating Expenses	m	-217	-191	-169	-197	Operating Expenses	m	-717	-862	-836	-954
Operating Income	m	-52	6	36	84	Operating Income	m	1,585	391	389	493
Net Non-operating income	m	128	123	31	34	Net Non-operating income	m	-54	255	144	152
Pre-Tax Income	m	75	130	67	118	Pre-Tax Income	m	1,531	646	533	645
Tax Expense	m	-4	-16	-8	-15	Tax Expense	m	-136	-153	-65	-79
Exceptionals	m	0	0	0	0	Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0	Minority Interests	m	0	0	0	0
Reported Earnings	m	71	114	59	104	Reported Earnings	m	1,395	493	467	566
Reported Earnings (bonus exp)	m	71	114	59	104	Reported Earnings (bonus exp)	m	951	493	467	566
Bonus exp / Reported Earnings	%	0.0	0.0	0.0	0.0	Bonus exp / Reported Earnings	%	31.8	0.0	0.0	0.0
Adjusted Earnings	m	71	114	59	104	Adjusted Earnings	m	951	493	467	566
EBITDA	m	-29	42	66	116	EBITDA	m	1,653	498	520	640
EPS (rep)	NT\$	0.56	0.90	0.46	0.82	EPS (rep)	NT\$	12.05	3.71	3.69	4.47
EPS pcp growth (rep)	%	-87.4	-49.3	-71.0	16.7	EPS growth (rep)	%	19.7	-69.2	-0.6	21.1
EPS (rep bonus exp)	NT\$	0.56	0.90	0.46	0.82	EPS (rep bonus exp)	NT\$	8.21	3.71	3.69	4.47
EPS pcp growth (rep bonus exp)	%	-81.5	-25.6	-71.0	16.7	EPS growth (rep bonus exp)	%	30.8	-54.8	-0.6	21.1
EPS (adj)	NT\$	0.56	0.90	0.46	0.82	EPS (adj)	NT\$	8.21	3.75	3.69	4.47
EPS pcp growth (adj)	%	-81.5	-25.6	-71.0	16.7	EPS growth (adj)	%	30.8	-54.3	-1.8	21.1
Revenue pcp growth	%	-13.0	-23.0	-6.9	-6.2	PE (rep)	x	4.9	16.0	16.1	13.3
Operating Income pcp growth	%	nmf	-97.2	-84.0	-60.2	PE (rep bonus adj)	x	7.2	16.0	16.1	13.3
Reported Earnings pcp growth	%	-86.2	-44.4	-71.0	-2.2	PE (adj)	x	7.2	15.8	16.1	13.3
Gross Profit Margin	%	3.2	4.4	4.9	6.1	Total DPS	NT\$	5.21	2.33	2.21	2.68
Operating Income Margin	%	-1.0	0.1	0.9	1.8	Total Div Yield	%	8.8	3.9	3.7	4.5
Reported Earnings Margin	%	1.4	2.5	1.4	2.3	Weighted Average Shares	m	115.7	132.9	126.8	126.8
EBITDA Margin	%	-0.6	0.9	1.6	2.5	Period End Shares	m	115.7	126.8	126.8	126.8
Profit and Loss Ratios		2007A	2008E	2009E	2010E	Cashflow Analysis		2007A	2008E	2009E	2010E
Revenue Growth	%	62.7	-6.1	1.5	13.0	Reported Earnings	m	1,395	493	467	566
Gross Profit Growth	%	34.9	-45.6	-2.2	18.1	Depreciation & Amortisation	m	68	107	131	147
Operating Income Growth	%	37.5	-75.3	-0.4	26.7	Chgs in Working Cap	m	-1,524	199	-27	-137
Reported Earnings Growth	%	30.2	-64.6	-5.2	21.1	Other	m	1,407	-731	-308	-104
EBITDA Growth	%	38.6	-69.9	4.4	23.2	Operating Cashflow	m	1,345	68	263	472
Gross Profit Margin	%	11.4	6.6	6.3	6.6	Acquisitions	m	-134	-152	-39	-43
Operating Income Margin	%	7.8	2.1	2.0	2.3	Capex	m	-482	-354	-277	-312
Reported Earnings Margin	%	6.9	2.6	2.4	2.6	Asset Sales	m	0	2	0	10
EBITDA Margin	%	8.2	2.6	2.7	2.9	Other	m	-11	26	0	-10
Payout Ratio	%	63.4	62.2	60.0	60.0	Investing Cashflow	m	-627	-478	-317	-355
EV/EBITDA	x	3.3	12.4	11.5	9.4	Dividend (Ordinary)	m	-290	-603	-296	-280
EV/EBIT	x	3.4	15.7	15.1	12.0	Equity Raised	m	1,095	500	0	0
Balance Sheet Ratios						Debt Movements	m	0	0	0	10
ROE	%	24.2	9.7	8.9	10.5	Other	m	-52	-168	-70	-79
ROA	%	23.4	5.2	5.3	6.4	Financing Cashflow	m	753	-271	-366	-350
ROIC	%	92.5	13.3	10.9	11.9	Net Chg in Cash/Debt	m	1,472	-680	-420	-232
Net Debt/Equity	%	-55.2	-39.9	-31.3	-25.8	Free Cashflow	m	863	-286	-15	160
Interest Cover	x	nmf	nmf	nmf	nmf	FCF per Share	NT\$	7.46	-2.15	-0.12	1.26
Price/Book	x	1.4	1.4	1.4	1.4	P/FCF	x	8.0	-27.7	-508.6	47.1
Book Value per Share	NT\$	43.2	41.0	41.8	43.5	Balance Sheet		2007A	2008E	2009E	2010E
						Cash	m	2,758	2,078	1,658	1,425
						Receivables	m	1,838	1,466	1,924	2,275
						Inventories	m	1,783	1,168	1,544	1,820
						Investments	m	0	0	0	0
						Fixed Assets	m	535	796	829	862
						Intangibles	m	76	61	64	66
						Other Assets	m	767	1,566	1,406	1,521
						Total Assets	m	7,756	7,135	7,424	7,970
						Payables	m	2,411	1,473	1,623	1,913
						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	349	459	496	537
						Total Liabilities	m	2,760	1,932	2,120	2,450
						Total S/H Equity	m	4,997	5,203	5,304	5,520
						Total Liab & S/H Funds	m	7,756	7,135	7,424	7,970

All figures in NT\$ unless noted.

Source: Macquarie Research, October 2008

Important disclosures:

Recommendation definitions	Volatility index definition*	Financial definitions
<p>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)</p> <p>Macquarie – Asia/Europe Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie First South - South Africa Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie – Canada Outperform – return >5% in excess of benchmark return Neutral – return within 5% of benchmark return Underperform – return >5% below benchmark return</p> <p>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</p> <p>Recommendations – 12 months Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>This is calculated from the volatility of historic price movements.</p> <p>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.</p> <p>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.</p> <p>Medium – stock should be expected to move up or down at least 30–40% in a year.</p> <p>Low–medium – stock should be expected to move up or down at least 25–30% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year. * Applicable to Australian/NZ stocks only</p>	<p>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</p> <p>EPS = adjusted net profit / epowa* 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</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>

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%

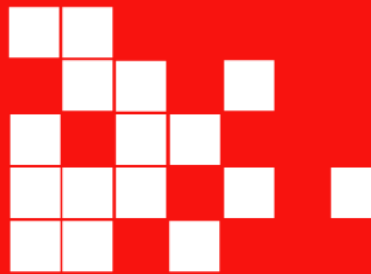
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