Macquarie Research
Equities

TAIWAN

AUO

19 January 2009

2409 TT		**Outperform**
Stock price as of 16 Jan 09	NT$	24.75
12-month target	NT$	33.00
Upside/downside	%	+33.3
Valuation	NT$	33.00
- Price To Book		

GICS sector		technology hardware & equipment
Market cap	NT$m	210,516
30-day avg turnover	NT$m	1,511.8
Market cap	US$m	6,311
Foreign ownership	%	42.2
Number shares on issue	m	8,506

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	bn	480.2	423.9	371.7	455.0
Reported profit	bn	56.4	23.2	-13.6	48.3
EPS rep	NT$	6.93	2.77	-1.60	5.65
EPS rep growth	%	432.9	-60.1	0.0	0.0
PE rep	x	3.6	8.9	nmf	4.4
Total DPS	NT$	2.38	0.10	0.00	1.60
Total div yield	%	9.6	0.4	0.0	6.5
ROA	%	10.6	5.6	-1.4	9.9
ROE	%	21.2	7.7	-4.7	15.8
EV/EBITDA	x	1.8	2.4	3.5	1.8
Net debt/equity	%	29.2	34.0	48.3	30.9
Price/book	x	0.7	0.7	0.8	0.6

2409 TT rel Taiex performance, & rec history

Source: Datastream, Macquarie Research, January 2009
(all figures in NT$ unless noted)

Analysts

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Bad news is behind

Event

- We preview 4Q08 results and provide an outlook for 1Q09.

Impact

- We estimate a 4Q08 net loss of NT$24.6bn (loss per share (LPS) of NT$2.90). This is bigger than our previous estimate of NT$11.2bn. We believe AUO will write down inventory in 4Q08 amounting to about NT$10bn as the company prepares for the new regulation #10 taking effect from 1Q09. We estimate 4Q08 operating/EBITDA margin will fall to -40/-6% from +3/+22% in 3Q08 as the inventory write-downs will likely be taken in COGS. We believe these losses should already be discounted with forward-looking guidance and ASPs as key catalysts. While the losses from the inventory write-downs are significant, they will set a clean slate for 2009 and allow for a lower cost base.
- 4Q08 sales were NT$58bn (-43% QoQ, -62% YoY). We estimate that the large panel blended ASP was US$100 (-28% QoQ, -47% YoY). Large panel shipments totalled 15m units (-27% QoQ, -35% YoY).
- For 1Q09, we believe AUO will guide for its large panel blended ASPs to decline QoQ by a mid-single digit percentage with large panel shipments down by 10–20% QoQ. We forecast net losses to narrow to NT$20.3bn (LPS of NT$2.38) due to a lower cost base from the inventory write-downs in 4Q08. Monitor panel prices are rebounding with TV panel prices flat. This is because prices have floored after reaching variable cash costs, inventories are low and thus require restocking and overall TFT-LCD sell-through in the holiday season was not bad in unit terms.

Earnings revision

- We change 2009E EPS to a loss from NT$3.14 previously to reflect lower ASP assumptions and flat LCD TV unit demand. We raise 2010E EPS by 52% to reflect tight supply conditions.

Price catalyst

- 12-month price target: NT$33.00 based on a Price to Book methodology.
- Catalyst: Panel prices are the chief catalyst on the stock.

Action and recommendation

- We maintain an Outperform on AUO but lower our target price from NT$40 to NT$33 based on a 2009E P/BV of 1.0x. AUO should trade up to at least its book value as we forecast the company will return to profitability in 2H09.
- Regionally, we have a Neutral view on the TFT-LCD sector. Although panel prices are rising in 1Q09, this is due to supply-side factors and may not hold. We would turn positive if the price rebound is sustainable and demand is clearly recovering. We are relatively more positive on Taiwanese panel makers which, like AUO, have lower P/BV valuations, are trading near trough valuations and benefit from TV demand from China.

Fig 1 Income statement, reported, annual

Year end 31 Dec (NT$m)	2004A	2005A	2006A	2007A	2008E	2009E	2010E
Large panel shipments (units, 000)	18,700	30,600	48,700	80,900	79,580	91,600	116,000
% ch YoY/QoQ		64	59	66	-2	15	27
Large panel blended ASP (US$)	238	194	165	166	150	107	104
% ch YoY/QoQ		-19	-15	0	-9	-29	-3
Net sales	168,112	217,388	293,107	480,184	423,922	371,659	455,017
Gross profit	39,643	29,848	29,850	86,178	57,479	14,522	82,792
Operating expenses	11,036	12,859	15,634	22,903	24,314	22,305	24,105
Operating income	28,607	16,989	14,216	63,275	33,165	-7,783	58,687
Net non-operating income	-583	-894	-4,016	-4,711	-4,139	-4,000	-4,000
Pre-tax income	28,024	16,095	10,200	58,564	29,026	-11,783	54,687
Income tax (credit)	61	473	1,068	2,088	5,679	1,991	5,902
Extraordinary items	0	0	-39	0	0	0	0
Minority interest	0	-6	-10	58	156	-138	488
Net income	27,963	15,627	9,103	56,418	23,191	-13,636	48,297
Shares, wgt avg, adj (m)	5,773	6,397	6,997	8,136	8,383	8,526	8,546
EPS, adj (NT$)	4.84	2.44	1.30	6.93	2.77	-1.60	5.65
% ch YoY							
Sales	60	29	35	64	-12	-12	22
Gross profit	69	-25	0	189	-33	-75	470
Operating income	76	-41	-16	345	-48	nmf	nmf
Net income	79	-44	-42	520	-59	nmf	nmf
EBITDA	66	-5	30	116	-22	-31	97
EPS	67	-50	-47	433	-60	nmf	nmf
Margins (%)							
Gross	23.6	13.7	10.2	17.9	13.6	3.9	18.2
Operating	17.0	7.8	4.9	13.2	7.8	-2.1	12.9
Net	16.6	7.2	3.1	11.7	5.5	-3.7	10.6
EBITDA	32.1	23.7	22.9	30.2	26.8	21.0	33.8

As per ROC GAAP reporting, financials from and including 2008 include bonus expenses while financials before 2008 exclude bonus expenses.

Source: TEJ, Company data, Macquarie Research, January 2009

Fig 2 Income statement, reported, quarterly

Year end 31 Dec (NT$m)	1Q08A	2Q08A	3Q08A	4Q08E	1Q09E	2Q09E	3Q09E	4Q09E
Large panel shipments (units, 000)	22,000	21,800	20,700	15,080	13,600	20,000	28,000	30,000
% ch YoY/QoQ	-5	-1	-5	-27	-10	47	40	7
Large panel blended ASP (US$)	181	170	138	100	96	102	110	112
% ch YoY/QoQ	-4	-6	-19	-28	-4	6	8	2
Net sales	136,630	123,476	104,072	59,744	52,087	77,880	115,104	126,588
Gross profit	37,084	30,815	8,360	-18,780	-14,376	-4,844	12,369	21,372
Operating expenses	6,774	6,754	5,677	5,110	5,110	5,365	5,633	6,197
Operating income	30,310	24,062	2,683	-23,890	-19,485	-10,209	6,736	15,176
Net non-operating income	-1,456	-444	-1,239	-1,000	-1,000	-1,000	-1,000	-1,000
Pre-tax income	28,855	23,617	1,443	-24,890	-20,485	-11,209	5,736	14,176
Income tax (credit)	1,869	3,226	584	0	0	0	574	1,418
Extraordinary items	0	0	0	0	0	0	0	0
Minority interest	124	226	54	-249	-205	-112	52	128
Net income	26,861	20,165	806	-24,641	-20,280	-11,097	5,111	12,630
Shares, wgt avg, adj (m)	8,258	8,262	8,506	8,506	8,506	8,506	8,546	8,546
EPS, adj (NT$)	3.25	2.44	0.09	-2.90	-2.38	-1.30	0.60	1.48
Margins (%)								
Gross	27.1	25.0	8.0	-31.4	-27.6	-6.2	10.7	16.9
Operating	22.2	19.5	2.6	-40.0	-37.4	-13.1	5.9	12.0
Net	19.7	16.3	0.8	-41.2	-38.9	-14.2	4.4	10.0
EBITDA	36.7	35.7	22.0	-5.8	1.8	13.6	25.0	29.8

Note: As per ROC GAAP reporting, financials from and including 2008 include bonus expenses while financials before 2008 exclude bonus expenses.

Source: TEJ, Company data, Macquarie Research, January 2009

Fig 3 Income statement, bonus-adjusted

Year end 31 Dec (NT$m)	2003A	2004A	2005A	2006A	2007A	2008E	2009E	2010E
Net sales	104,861	168,112	217,388	293,107	480,184	423,922	371,659	455,017
Gross profit	23,462	39,643	29,848	29,850	86,178	57,479	14,522	82,792
Operating expenses	10,996	15,549	17,242	18,362	37,916	24,314	22,305	24,105
Non-bonus expenses	7,217	11,036	12,859	15,634	22,903	16,341	22,305	15,582
Bonus at market value	3,779	4,513	4,382	2,728	15,013	7,973	0	8,523
Operating income	12,466	24,094	12,606	11,488	48,262	33,165	-7,783	58,687
Net non-operating income	-672	-583	-894	-4,016	-4,711	-4,139	-4,000	-4,000
Pre-tax income	11,794	23,511	11,712	7,472	43,551	29,026	-11,783	54,687
Income tax (credit)	-87	61	473	1,068	2,088	5,679	1,991	5,902
Extraordinary items	0	0	0	-39	0	0	0	0
Minority interest	0	0	-6	-10	58	156	-138	488
Net income	11,881	23,449	11,245	6,375	41,405	23,191	-13,636	48,297
Shares, wgt avg, adj (m)	5,413	5,773	6,397	6,997	8,136	8,383	8,526	8,546
EPS (NT$)	2.19	4.06	1.76	0.91	5.09	2.77	-1.60	5.65
Net income before bonus	15,660	27,963	15,627	9,103	56,418	31,165	-13,636	56,820
Bonus market value as % of								
Net income pre-bonus	24	16	28	30	27	26	0	15
Net income	32	19	39	43	36	34	0	18
Pre-tax income pre-bonus	24	16	27	27	26	22	0	13
Pre-tax income	32	19	37	37	34	27	0	16
% ch YoY								
Sales	39	60	29	35	64	-12	-12	22
Gross profit	94	69	-25	0	189	-33	-75	470
Operating expenses	108	41	11	7	106	-36	-8	8
Operating income	84	93	-48	-9	320	-31	nmf	nmf
Net income	133	97	-52	-43	549	-44	nmf	nmf
EBITDA	45	72	-5	36	102	-13	-31	97
EPS	108	85	-57	-48	458	-46	nmf	nmf
Margins (%)								
Gross	22.4	23.6	13.7	10.2	17.9	13.6	3.9	18.2
Operating	11.9	14.3	5.8	3.9	10.1	7.8	-2.1	12.9
Net	11.3	13.9	5.2	2.2	8.6	5.5	-3.7	10.6
EBITDA	27.4	29.4	21.7	21.9	27.1	26.8	21.0	33.8
Returns (%)								
ROE	14.4	22.4	8.5	3.6	17.1	8.6	-5.2	17.6
ROIC	13.4	18.3	6.7	3.2	12.6	7.5	-2.5	13.3
ROCE	11.1	16.5	6.4	3.4	11.7	8.0	-2.0	14.5
ROA	9.0	13.0	4.8	2.5	8.7	5.9	-1.4	10.5

Note: For income statement data, financials from and including 2008 are reported while financials before 2008 are pro-forma. For return ratios, all data are pro-forma.

Source: TEJ, Company data, Macquarie Research, January 2009

AU Optronics (2409 TT, Outperform, Target price: NT$33.00)

Quarterly Results		3Q/08A	4Q/08E	1Q/09E	2Q/09E
Revenue	**m**	**104,072**	**59,744**	**52,087**	**77,880**
Gross Profit	**m**	**8,360**	**-18,780**	**-14,376**	**-4,844**
Operating Expenses	m	-5,677	-5,110	-5,110	-5,365
Operating Income	**m**	**2,683**	**-23,890**	**-19,485**	**-10,209**
Net Non-operating income	m	-1,239	-1,000	-1,000	-1,000
Pre-Tax Income	**m**	**1,443**	**-24,890**	**-20,485**	**-11,209**
Tax Expense	m	-584	0	0	0
Exceptionals	m	0	0	0	0
Minority Interests	m	-54	249	205	112
Reported Earnings	**m**	**806**	**-24,641**	**-20,280**	**-11,097**
Reported Earnings (bonus exp)	m	806	-24,641	-20,280	-11,097
Bonus exp / Reported Earnings	%	0.0	0.0	0.0	0.0
Adjusted Earnings	**m**	**806**	**-24,641**	**-20,280**	**-11,097**
EBITDA	**m**	**22,935**	**-3,490**	**915**	**10,591**
EPS (rep)	NT$	0.09	-2.90	-2.38	-1.30
EPS pcp growth (rep)	%	-97.2	nmf	nmf	nmf
EPS (rep bonus exp)	NT$	0.09	-2.90	-2.38	-1.30
EPS pcp growth (rep bonus exp)	%	-96.2	nmf	nmf	nmf
EPS (adj)	NT$	0.09	-2.90	-2.38	-1.30
EPS pcp growth (adj)	%	-97.2	nmf	nmf	nmf
Revenue pcp growth	%	-29.1	-59.3	-61.9	-36.9
Operating Income pcp growth	%	-91.1	nmf	nmf	nmf
Reported Earnings pcp growth	%	-97.1	nmf	nmf	nmf
Gross Profit Margin	%	8.0	-31.4	-27.6	-6.2
Operating Income Margin	%	2.6	-40.0	-37.4	-13.1
Reported Earnings Margin	%	0.8	-41.2	-38.9	-14.2
EBITDA Margin	%	22.0	-5.8	1.8	13.6

Profit and Loss Ratios		2007A	2008E	2009E	2010E
Revenue Growth	%	63.8	-11.7	-12.3	22.4
Gross Profit Growth	%	188.7	-33.3	-74.7	470.1
Operating Income Growth	%	345.1	-47.6	nmf	nmf
Reported Earnings Growth	%	519.7	-58.9	nmf	nmf
EBITDA Growth	%	116.5	-21.6	-31.4	97.2
Gross Profit Margin	%	17.9	13.6	3.9	18.2
Operating Income Margin	%	13.2	7.8	-2.1	12.9
Reported Earnings Margin	%	11.7	5.5	-3.7	10.6
EBITDA Margin	%	30.2	26.8	21.0	33.8
Payout Ratio	%	34.4	3.5	nmf	28.3
EV/EBITDA	x	1.8	2.4	3.5	1.8
EV/EBIT	x	4.2	8.2	-35.1	4.7
Balance Sheet Ratios					
ROE	%	21.2	7.7	-4.7	15.8
ROA	%	10.6	5.6	-1.4	9.9
ROIC	%	14.8	6.9	-2.2	12.6
Net Debt/Equity	%	29.2	34.0	48.3	30.9
Interest Cover	x	14.2	14.4	-3.9	29.3
Price/Book	x	0.7	0.7	0.8	0.6
Book Value per Share	NT$	36.6	35.5	32.9	38.5

Profit & Loss		2007A	2008E	2009E	2010E
Revenue	**m**	**480,184**	**423,922**	**371,659**	**455,017**
Gross Profit	**m**	**86,178**	**57,479**	**14,522**	**82,792**
Operating Expenses	m	-22,903	-24,314	-22,305	-24,105
Operating Income	**m**	**63,275**	**33,165**	**-7,783**	**58,687**
Net Non-operating income	m	-4,711	-4,139	-4,000	-4,000
Pre-Tax Income	**m**	**58,564**	**29,026**	**-11,783**	**54,687**
Tax Expense	m	-2,088	-5,679	-1,991	-5,902
Exceptionals	m	0	0	0	0
Minority Interests	m	-58	-156	138	-488
Reported Earnings	**m**	**56,418**	**23,191**	**-13,636**	**48,297**
Reported Earnings (bonus exp)	m	41,405	23,191	-13,636	48,297
Bonus exp / Reported Earnings	%	26.6	0.0	0.0	0.0
Adjusted Earnings	**m**	**56,418**	**23,191**	**-13,636**	**48,297**
EBITDA	**m**	**144,980**	**113,603**	**77,917**	**153,687**
EPS (rep)	NT$	6.93	2.77	-1.60	5.65
EPS growth (rep)	%	432.9	-60.1	nmf	nmf
EPS (rep bonus exp)	NT$	5.09	2.77	-1.60	5.65
EPS growth (rep bonus exp)	%	458.5	-45.6	nmf	nmf
EPS (adj)	NT$	6.91	2.89	-1.61	5.65
EPS growth (adj)	%	420.4	-58.2	nmf	nmf
PE (rep)	x	3.6	8.9	nmf	4.4
PE (rep bonus adj)	x	4.9	8.9	nmf	4.4
PE (adj)	x	3.6	8.6	nmf	4.4
Total DPS	NT$	2.38	0.10	0.00	1.60
Total Div Yield	%	9.6	0.4	0.0	6.5
Weighted Average Shares	m	8,136	8,383	8,526	8,546
Period End Shares	m	8,209	8,506	8,546	8,546

Cashflow Analysis		2007A	2008E	2009E	2010E
Reported Earnings	**m**	**56,418**	**23,191**	**-13,636**	**48,297**
Depreciation & Amortisation	m	81,706	80,438	85,700	95,000
Chgs in Working Cap	m	10,654	-977	-7,823	-9,250
Other	m	8,149	7,909	-0	-0
Operating Cashflow	**m**	**156,927**	**110,562**	**64,241**	**134,047**
Acquisitions	m	0	0	0	0
Capex	m	-65,137	-100,434	-90,000	-100,000
Asset Sales	m	-789	-2,196	0	0
Other	m	-1,801	-1,017	0	0
Investing Cashflow	**m**	**-67,727**	**-103,647**	**-90,000**	**-100,000**
Dividend (Ordinary)	m	-1,515	-19,671	-855	0
Equity Raised	m	0	0	0	0
Debt Movements	m	-36,581	-31,163	0	0
Other	m	-6,721	2,193	-6,653	0
Financing Cashflow	**m**	**-44,817**	**-48,640**	**-7,508**	**0**
Net Chg in Cash/Debt	**m**	**45,964**	**-41,634**	**-33,267**	**34,047**
Free Cashflow	m	91,790	10,128	-25,759	34,047
FCF per Share	NT$	11.28	1.21	-3.02	3.98
P/FCF	x	2.2	20.5	-8.2	6.2

Balance Sheet		2007A	2008E	2009E	2010E
Cash	m	89,890	48,256	14,989	49,036
Receivables	m	75,911	33,191	70,327	76,707
Inventories	m	35,431	52,349	46,762	43,893
Investments	m	1,516	947	947	947
Fixed Assets	m	363,835	385,669	389,969	394,969
Intangibles	m	14,021	11,619	11,619	11,619
Other Assets	m	36,856	35,420	35,420	35,420
Total Assets	**m**	**617,459**	**567,451**	**570,033**	**612,590**
Payables	m	138,342	84,999	108,725	102,985
Short Term Debt	m	35,722	47,122	47,122	47,122
Long Term Debt	m	142,016	103,758	103,758	103,758
Provisions	m	0	0	0	0
Other Liabilities	m	560	29,333	29,333	29,333
Total Liabilities	**m**	**316,639**	**265,212**	**288,939**	**283,199**
Total S/H Equity	**m**	**300,820**	**302,238**	**281,094**	**329,391**
Total Liab & S/H Funds	**m**	**617,459**	**567,451**	**570,033**	**612,590**

Note: All figures in NT$ unless noted.
Source: Company data, TEJ, Macquarie Research, January 2009

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

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 31 December 2008

	AU/NZ	Asia	RSA	USA	CA	EUR
Outperform	38.55%	50.61%	64.52%	53.13%	65.55%	43.00%
Neutral	41.82%	15.92%	25.81%	40.63%	27.73%	48.00%
Underperform	19.64%	33.47%	9.68%	6.25%	6.72%	9.00%

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