Macquarie Research
Equities

TAIWAN

Taiwan Styrene Monomer

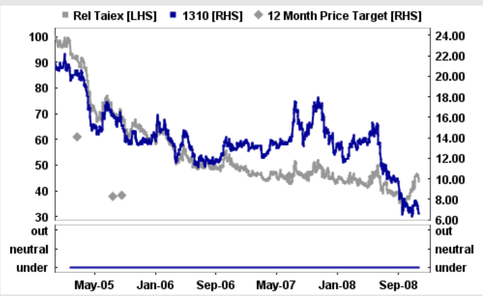
24 November 2008

1310 TT		Underperform
Stock price as of 21 Nov 08	NT$	6.58
12-month target	NT$	5.00
Upside/downside	%	-24.0
Valuation	NT$	6.10
- DCF (WACC 8.2%)		
GICS sector		materials
Market cap	NT$m	3,991
30-day avg turnover	NT$m	12.7
Market cap	US$m	120
Number shares on issue	m	606.5

Investment fundamentals

Year end 31 Dec		2007A	2008E	2009E	2010E
Total revenue	m	16,875	13,987	10,310	11,202
EBIT	m	510	-482	-374	-144
EBIT Growth	%	-20.7	nmf	22.4	61.6
Reported profit	m	386	-426	-393	-146
Adjusted profit	m	386	-426	-393	-146
EPS rep	NT$	0.64	-0.70	-0.65	-0.24
EPS rep growth	%	-15.2	0.0	7.8	62.9
EPS bonus growth	%	-15.2	0.0	7.8	62.9
PE rep	x	10.3	nmf	nmf	nmf
PE bonus exp	x	10.3	0.0	0.0	0.0
Total DPS	NT$	0.24	0.00	0.00	0.00
Total div yield	%	3.7	0.0	0.0	0.0
ROA	%	5.3	-5.0	-4.1	-1.6
ROE	%	5.3	-5.8	-6.2	-2.4
EV/EBITDA	x	6.8	-26.9	-51.6	31.5
Net debt/equity	%	6.3	20.4	22.0	24.0
Price/book	x	0.5	0.6	0.6	0.7

1310 TT rel Taiex performance, & rec history



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

Analyst

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Very difficult outlook

Event

- We reduce our Taiwan SM target price to NT$5 from NT$11 after reducing our earnings outlook and reducing our valuation of its long-term investment portfolio. We believe the outlook for the company has deteriorated and that a decline in the global economy will place further pressure on the company and the share price. We now look for Taiwan SM to post losses in FY08–10E, rather than just in FY09E, which was our previous projection. We maintain our Underperform rating on the stock.

Impact

- **A rough ending to FY08E.** Taiwan SM is approaching FY09 in a weak condition after posting a NT$412m net loss in 3Q08 and an NT$463m October sales number that was down 61% MoM and 67% YoY.
- **Next year likely to be more difficult.** We believe conditions in FY09E will become more difficult for Taiwan SM amid declining economic conditions and new capacity arrivals in the petrochemical space. We had projected Taiwan SM to post a loss next year, but have increased our FY09E LPS projection to NT$0.65 from NT$0.13.
- **Weakness in the investment portfolio.** Taiwan SM is also struggling with declining market values in its investment portfolio. We have reduced our estimated value for its long-term investments to NT$5.7/sh from NT$9.0/sh previously. One of Taiwan SM's main listed investments is Gintech (3514 TT, NT$65, Outperform, TP: NT$210).
- **Macquarie vs consensus.** We do not believe useful consensus estimates exist for this stock.

Earnings revision

- We have reduced our earnings projections for Taiwan SM, and now project losses in FY08E through FY10E, rather than in just FY09E. For FY08, we now project a NT$0.70/sh loss compared with our previous estimate of a positive NT$0.20/sh. For FY09E, we have increased our projected LPS to NT$0.65 from NT$0.13. For FY10E, we now estimate an LPS of NT$0.24 compared with our previous EPS estimate of NT$0.11.

Price catalyst

- 12-month price target: NT$5.00 based on a sum-of-parts methodology.
- Catalyst: Declining YoY monthly sales and falling earnings.

Action and recommendation

- We maintain our Underperform rating on Taiwan SM. The stock's P/BV trough prior to late 2007 was 0.9x in 2001, but we believe the 2009–10 period will be more challenging than 2001 and the company's longer-term prospects have deteriorated since then in light of a shift in the industry toward larger and more integrated complexes. At our target price the stock would be at 0.5x P/BV.

Analysis

We reduce our target price for Taiwan SM to NT$5 from NT$11 after reducing our earnings outlook and lowering our estimated value for its long-term investment portfolio. We have also increased our downcycle discount to 20% from 10% in light of our expectation for a larger loss in FY09E. Our new target price represents 24% potential downside, and we maintain our Underperform rating.

We continue to believe that Taiwan SM faces both short-term and long-term challenges in its core business. Taiwan SM is a non-integrated relatively small producer of styrene monomer (SM), an intermediate petrochemical used as an input into plastics such as polystyrene (PS), styrene-butadiene rubber (SBR) and acrylonitrile-butadiene-styrene (ABS). Near term, we expect SM to come under pressure from a slowing global economy and new capacity. Long term, we believe Taiwan SM's small scale and lack of integration will place it at an increasing disadvantage as new, larger and better integrated petrochemical complexes come on-stream in the Middle East, China and elsewhere.

Figure 1 provides our sum-of-the-parts based target price calculation for Taiwan SM. Following on reductions to our EBIT projections, we have reduced our valuation of its core business to NT$2.6/sh from NT$5.1/sh. The larger change was to our valuation of Taiwan SM's investment portfolio to NT$5.7/sh from NT$9.0/sh previously. One element is that we have reduced our P/BV multiple for 'other investments' to 0.5x from 0.8x. This portfolio contains a large exposure to investment funds, and we believe that with the stock market decline, the risks to this portfolio have increased. We have also reduced our valuation for its Gintech holding to NT$1.6/sh from NT$2.0/sh following on a reduction to our target price for the stock. Gintech produces silicon solar cells for use in the solar energy industry.

Fig 1 Taiwan SM's per share valuation

	Stake (%)	Shr px (NT$)	Target px (NT$)	Investment detail (NT$)	SOP (NT$)	Comments
NPV of core business FCF					2.58	Based on DCF
Long-term investments					5.69	
Taiwan Wax (1742 TT, NR)	48.4	35.5	NA	0.78		Mkt value with 10% HC discount
Gintech (3514 TT, OP)	3.8	65.0	210	1.57		Value at TP, with 20% HC discount
TSMC (2330 TT, OP)	0.00	38.5	45	0.06		Value at TP, with 20% HC discount
Formosa Plastics (1301 TT, UP)	0.03	47.9	46.0	0.09		Value at TP, with 20% HC discount
Other investments	NA	NA	NA	3.19		0.5x FY08E BV
Adjusted asset value					**8.27**	
Net debt					-2.17	FY08E BV
Per share equity value					**6.10**	
20% downcycle discount					4.88	
Target price:					**5.00**	

Source: Macquarie Research, November 2008

Figure 2 provides a picture of the sum-of-the-parts before our premiums and discounts. The result of this approach is NT$8.4/sh. The main sources of variances from our approach above are the discount to 'other' investments and our 20% downcycle discount. On the negative side, the Gintech holding is worth only NT$0.6/sh at current market prices, compared with our target-price-based NT$1.6/sh valuation above.

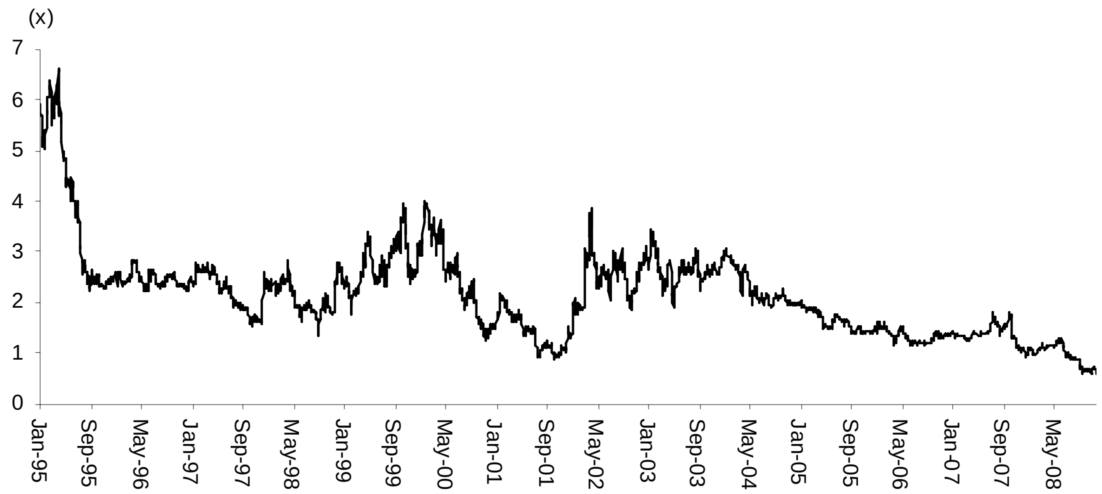
Fig 2 Taiwan SM's per share valuation before premiums/discounts

	Stake (%)	Shr px (NT$)	Investment detail (NT$)	SOP (NT$)	Comments
NPV of core business FCF				2.58	Based on DCF
Long-term investments				8.04	
Taiwan Wax (1742 TT, NR)	48.4	35.5	0.86		Mkt value
Gintech (3514 TT, OP)	3.8	65.0	0.61		Mkt value
TSMC (2330 TT, OP)	0.00	38.5	0.06		Mkt value
Formosa Plastics (1301 TT, UP)	0.03	47.9	0.12		Mkt value
Other investments	NA	NA	6.39		At FY08E BV
Adjusted asset value				**10.62**	
Net debt				-2.17	FY08E BV
Per share equity value				**8.45**	

Source: Macquarie Research, November 2008

As can be seen in Figure 3, Taiwan SM is breaking new territory in terms of its P/BV multiple. We have it at 0.6x FY08E P/BV at present, and the stock would be at a 0.5x FY09E P/BV multiple at our NT$5/sh target price. The stock's previous trough prior to late 2007 was 0.9x in 2001. We believe one factor is that with the approach of new global capacity in large integrated facilities, Taiwan SM faces a growing long-term challenge. One route taken by the company has been to invest in other companies such as Gintech and Taiwan Wax (1742 TT, NT$35.5, Not rated).

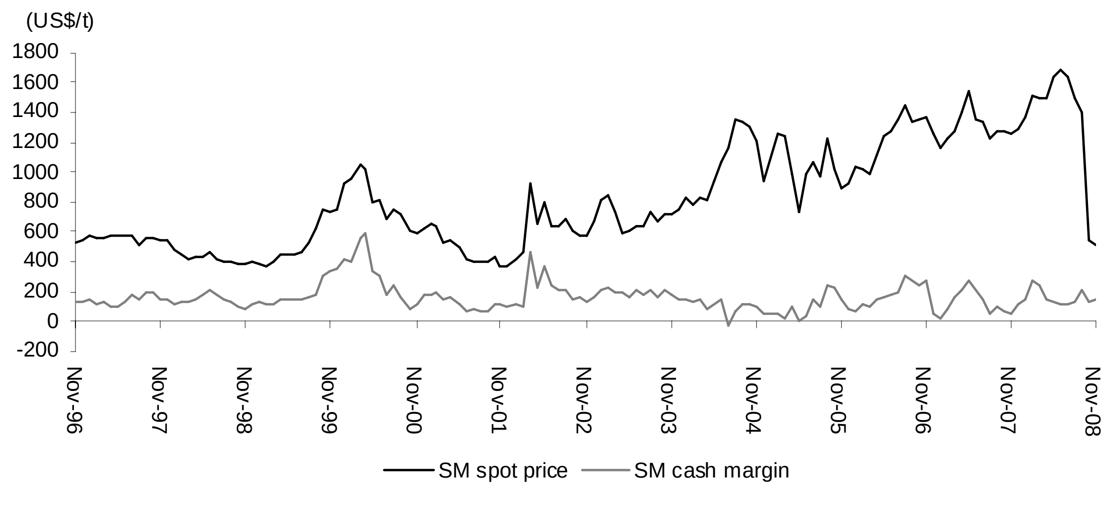
Fig 3 Taiwan SM – P/BV trend



Source: TEJ, Macquarie Research, November 2008

Figure 4 highlights the substantial decline in Asian spot SM prices to about US$505/t last week (down about US$85/t WoW) from near US$1,500/t at the end of August. This was driven primarily by a decline in ethylene and benzene prices, which are the main raw materials for SM. But the decline in demand for plastics contributed to a decline in both. State-owned CPC Taiwan no longer announces its monthly prices for ethylene and benzene, but we believe the decline in these prices lagged spot levels, contributing to a NT$418m operating loss for Taiwan SM in 3Q08. We believe CPC pricing should be coming down to spot levels. Also, Taiwan SM, in our view, was hurt by the rapid decline in SM prices, forcing it to sell SM that was produced with relatively higher-cost feedstock at lower prices. We believe the 3Q08 loss was impacted by these short-term events, and 4Q08 should not see as severe a loss. However, we believe the pressure will stay on Taiwan SM, and project a 4Q08 operating loss of NT$99m. We look for very difficult conditions to extend through FY09E and into FY10E on the back of weak global demand and new global petrochemical capacity.

Fig 4 SM Asian spot prices and spreads



Source: Datastream, Platts, TEJ, Macquarie Research, November 2008

Taiwan Styrene Monomer (1310 TT, Underperform, Target price: NT$5.00)

Quarterly Results		**3Q/08A**	**4Q/08E**	**1Q/09E**	**2Q/09E**
Revenue	**m**	**3,853**	**1,770**	**3,093**	**2,577**
Gross Profit	**m**	**-385**	**-78**	**-82**	**-69**
Operating Expenses	m	-34	-21	-30	-25
Operating Income	**m**	**-419**	**-99**	**-112**	**-94**
Net Non-operating income	m	-16	12	-6	-5
Pre-Tax Income	**m**	**-435**	**-88**	**-118**	**-98**
Tax Expense	m	23	-1	0	0
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**-412**	**-89**	**-118**	**-98**
Reported Earnings (bonus exp)	m	-412	-89	-118	-98
Bonus exp / Reported Earnings	%				
Adjusted Earnings	**m**	**-412**	**-89**	**-118**	**-98**
EBITDA	**m**	**-358**	**-38**	**-37**	**-31**
EPS (rep)	NT$	-0.68	-0.15	-0.19	-0.16
EPS pcp growth (rep)	%	nmf	nmf	nmf	nmf
EPS (rep bonus exp)	NT$	-0.68	-0.15	-0.19	-0.16
EPS pcp growth (rep bonus exp)	%	nmf	nmf	nmf	nmf
EPS (adj)	NT$	-0.68	-0.15	-0.19	-0.16
EPS pcp growth (adj)	%	nmf	nmf	nmf	nmf
Revenue pcp growth	%	-9.9	-57.7	-18.8	-43.4
Operating Income pcp growth	%	nmf	nmf	-211.9	nmf
Reported Earnings pcp growth	%	nmf	nmf	nmf	nmf
Gross Profit Margin	%	-10.0	-4.4	-2.7	-2.7
Operating Income Margin	%	-10.9	-5.6	-3.6	-3.6
Reported Earnings Margin	%	-10.7	-5.0	-3.8	-3.8
EBITDA Margin	%	-9.3	-2.2	-1.2	-1.2

Profit and Loss Ratios		**2007A**	**2008E**	**2009E**	**2010E**
Revenue Growth	%	31.9	-17.1	-26.3	8.6
Gross Profit Growth	%	-15.7	nmf	24.4	88.9
Operating Income Growth	%	-20.7	nmf	22.4	61.6
Reported Earnings Growth	%	-15.2	nmf	7.7	62.9
EBITDA Growth	%	-14.1	nmf	48.3	nmf
Gross Profit Margin	%	3.9	-2.6	-2.7	-0.3
Operating Income Margin	%	3.0	-3.4	-3.6	-1.3
Reported Earnings Margin	%	2.3	-3.0	-3.8	-1.3
EBITDA Margin	%	4.4	-1.7	-1.2	1.0
Payout Ratio	%	37.8	nmf	nmf	nmf
EV/EBITDA	x	6.8	-26.9	-51.6	31.5
EV/EBIT	x	10.1	-11.8	-14.6	-54.3
Balance Sheet Ratios					
ROE	%	5.3	-5.8	-6.2	-2.4
ROA	%	5.3	-5.0	-4.1	-1.6
ROIC	%	5.4	-5.6	-4.7	-1.9
Net Debt/Equity	%	6.3	20.4	22.0	24.0
Interest Cover	x	42.5	-20.6	-8.6	-2.8
Price/Book	x	0.5	0.6	0.6	0.7
Book Value per Share	NT$	13.3	10.8	10.2	9.9

Profit & Loss		**2007A**	**2008E**	**2009E**	**2010E**
Revenue	**m**	**16,875**	**13,987**	**10,310**	**11,202**
Gross Profit	**m**	**651**	**-363**	**-274**	**-30**
Operating Expenses	m	-141	-119	-100	-113
Operating Income	**m**	**510**	**-482**	**-374**	**-144**
Net Non-operating income	m	15	57	-18	-2
Pre-Tax Income	**m**	**525**	**-426**	**-393**	**-146**
Tax Expense	m	-139	0	0	0
Exceptionals	m	0	0	0	0
Minority Interests	m	0	0	0	0
Reported Earnings	**m**	**386**	**-426**	**-393**	**-146**
Reported Earnings (bonus exp)	m	386	-426	-393	-146
Bonus exp / Reported Earnings	%				
Adjusted Earnings	**m**	**386**	**-426**	**-393**	**-146**
EBITDA	**m**	**748**	**-239**	**-124**	**112**
EPS (rep)	NT$	0.64	-0.70	-0.65	-0.24
EPS growth (rep)	%	-15.2	nmf	7.8	62.9
EPS (rep bonus exp)	NT$	0.64	-0.70	-0.65	-0.24
EPS growth (rep bonus exp)	%	-15.2	nmf	7.8	62.9
EPS (adj)	NT$	0.64	-0.70	-0.65	-0.24
EPS growth (adj)	%	-15.2	nmf	7.7	62.9
PE (rep)	x	10.3	nmf	nmf	nmf
PE (rep bonus adj)	x	10.3	nmf	nmf	nmf
PE (adj)	x	10.3	nmf	nmf	nmf
Total DPS	NT$	0.24	0.00	0.00	0.00
Total Div Yield	%	3.7	0.0	0.0	0.0
Weighted Average Shares	m	606.0	606.2	606.5	606.5
Period End Shares	m	606.0	606.5	606.5	606.5

Cashflow Analysis		**2007A**	**2008E**	**2009E**	**2010E**
Reported Earnings	**m**	**386**	**-426**	**-393**	**-146**
Depreciation & Amortisation	m	238	243	251	256
Chgs in Working Cap	m	-2	104	245	-70
Other	m	96	-50	-25	-50
Operating Cashflow	**m**	**718**	**-129**	**77**	**-11**
Acquisitions	m	-102	-400	0	0
Capex	m	-75	-150	-100	-75
Asset Sales	m	0	0	0	0
Other	m	-89	0	0	0
Investing Cashflow	**m**	**-267**	**-550**	**-100**	**-75**
Dividend (Ordinary)	m	-221	-150	0	0
Equity Raised	m	0	0	0	0
Debt Movements	m	-444	914	0	100
Other	m	-5	0	0	0
Financing Cashflow	**m**	**-670**	**764**	**0**	**100**
Net Chg in Cash/Debt	**m**	**-219**	**85**	**-23**	**14**
Free Cashflow	m	643	-279	-23	-86
FCF per Share	NT$	1.06	-0.46	-0.04	-0.14
P/FCF	x	6.2	-14.3	-176.7	-46.5

Balance Sheet		**2007A**	**2008E**	**2009E**	**2010E**
Cash	m	181	266	244	258
Receivables	m	1,342	1,150	847	921
Inventories	m	748	786	580	615
Investments	m	301	301	301	301
Fixed Assets	m	995	942	831	691
Intangibles	m	0	0	0	0
Other Assets	m	6,465	5,985	5,979	5,999
Total Assets	**m**	**10,032**	**9,430**	**8,783**	**8,785**
Payables	m	1,027	983	725	769
Short Term Debt	m	686	1,600	1,600	1,700
Long Term Debt	m	0	0	0	0
Provisions	m	0	0	0	0
Other Liabilities	m	289	293	297	300
Total Liabilities	**m**	**2,002**	**2,876**	**2,622**	**2,770**
Total S/H Equity	**m**	**8,030**	**6,554**	**6,161**	**6,015**
Total Liab & S/H Funds	**m**	**10,032**	**9,430**	**8,783**	**8,785**

All figures in NT$ unless noted.
Source: Company data, Macquarie Research, November 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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