

## COMPANY UPDATE

**Powerchip Semiconductor (5346.TWO)**

Neutral

**Promos' ECB resolution would be positive for PSC, but risks remain****What's changed**

Commercial Times reported that Promos (5387.TWO; Not Covered) is likely to be granted with NT\$5bn in new credit facility from 9 consortium local banks to fulfill its ECB repayment due by Feb 14. Although we view this news as negative for the industry as marginal players remain, we see this as positive for Powerchip (PSC) since financing concerns are likely mitigated. We expect PSC to benefit from the recent rally in DRAM spot price. Although we see some trading momentum on recent positive news flow, such as reduced supply resulting from Qimonda's Chapter 11 filing and DRAM price increase, we think chasing the stock on the recent share price rally is still risky without fundamental sector recovery.

**Implications**

Although we believe the potential credit facility could be seen as a remedy for financially distressed DRAM makers in the near term, we think this will likely not be able to resolve the fundamental issues in Taiwan's DRAM industry. But we believe this may provide Taiwan DRAM makers some time to align themselves with non-Samsung peers. While we expect potential tightness in DRAM supply in 1Q09 due to overshoot of production cuts since 4Q08, structural issues linger and we remain cautious on DRAM demand in 1H09. Recent rise in spot prices may be short-lived without demand to support a catch-up in contract prices. Still Neutral.

**Valuation**

We revise PSC's '08/09/10E net loss from NT\$45.8bn/NT\$35.7bn/NT\$11.5bn to NT\$49.0bn/NT\$35.6bn/NT\$0.7bn due to weak DRAM price in 4Q08/realignment of DRAM ASP assumption in 2010. We expect PSC's loss to narrow from 2Q09 onwards/turn cash flow positive in 3Q09, in sync with our global DRAM view of a 2H09 turn around. While uncertainty in financing appears mitigated for now, we still value the company at trough P/B of 0.5x as it may remain unprofitable for the next 12m. We raise our 12m TP from NT\$2.9 (0.5x '08E-'09E average P/B) to NT\$4.0, reflecting new valuation basis of 0.5x 2H08 trailing P/B.

**Key risks**

Risks: Upside—Stronger than expected spot price; Downside—financing risk.

**INVESTMENT LIST MEMBERSHIP**

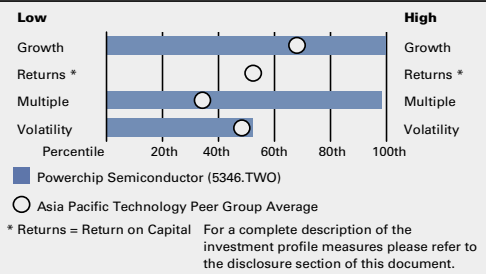
Neutral

**Coverage View: Neutral**

Taiwan:  
Semiconductors

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**Investment Profile**

Key data	Current
Price (NT\$)	3.50
12 month price target (NT\$)	4.00
Market cap (NT\$ mn / US\$ mn)	27,222.5 / 806.6
Foreign ownership (%)	7.5

	12/07	12/08E	12/09E	12/10E
<b>EPS (NT\$) New</b>	<b>(1.54)</b>	<b>(6.29)</b>	<b>(4.54)</b>	<b>(0.09)</b>
EPS revision (%)	0.0	(7.0)	0.0	93.9
EPS growth (%)	(133.6)	(308.6)	27.8	98.0
<b>EPS (dil) (NT\$) New</b>	<b>(1.54)</b>	<b>(5.95)</b>	<b>(4.24)</b>	<b>(0.09)</b>
P/E (X)	NM	NM	NM	NM
P/B (X)	0.3	0.5	1.3	1.4
EV/EBITDA (X)	8.7	NM	37.6	2.9
Dividend yield (%)	38.3	0.0	0.0	0.0
ROE (%)	(10.7)	(61.2)	(92.3)	(3.6)

**Price performance chart**

Share price performance (%)	3 month	6 month	12 month
Absolute	(5.4)	(47.6)	(73.3)
Rel. to Taiwan SE Weighted Index	8.1	(16.1)	(53.1)

Source: Company data, Goldman Sachs Research estimates, FactSet. Price as of 2/03/2009 close.

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# Powerchip Semiconductor: Summary financials

Profit model (NT\$ mn)	12/07	12/08E	12/09E	12/10E	Balance sheet (NT\$ mn)	12/07	12/08E	12/09E	12/10E
<b>Total revenue</b>	<b>77,501.6</b>	<b>52,843.8</b>	<b>56,521.3</b>	<b>98,332.6</b>	Cash & equivalents	25,144.7	1,993.5	1,782.1	19,533.7
Cost of goods sold	(83,266.9)	(90,482.9)	(83,322.1)	(90,274.4)	Accounts receivable	3,902.9	4,343.3	3,871.3	9,429.2
SG&A	(2,251.2)	(2,007.3)	(2,051.2)	(2,079.1)	Inventory	7,523.4	6,197.5	5,707.0	7,419.8
R&D	(3,022.1)	(3,024.8)	(2,826.1)	(3,933.3)	Other current assets	3,275.3	3,275.3	3,275.3	3,275.3
Other operating profit/(expense)	0.0	0.0	0.0	0.0	<b>Total current assets</b>	<b>40,392.8</b>	<b>16,356.0</b>	<b>15,182.2</b>	<b>40,204.5</b>
ESO expense	--	0.0	0.0	0.0	Net PP&E	140,563.4	126,951.1	102,333.3	76,300.4
<b>EBITDA</b>	<b>22,272.6</b>	<b>(7,694.5)</b>	<b>3,508.5</b>	<b>39,382.9</b>	Net intangibles	0.0	0.0	0.0	0.0
Depreciation & amortization	(33,311.2)	(34,976.6)	(35,186.6)	(37,337.2)	Total investments	34,020.5	34,020.5	34,020.5	34,020.5
<b>EBIT</b>	<b>(11,038.5)</b>	<b>(42,671.2)</b>	<b>(31,678.1)</b>	<b>2,045.8</b>	Other long-term assets	9,108.7	9,108.7	9,108.7	9,108.7
Interest income	752.3	295.4	251.3	251.3	<b>Total assets</b>	<b>224,085.4</b>	<b>186,436.3</b>	<b>160,644.7</b>	<b>159,634.1</b>
Interest expense	(1,732.3)	(2,988.1)	(2,998.6)	(2,998.6)	Accounts payable	10,174.4	13,386.5	11,414.0	11,129.7
Income/(loss) from uncons. subs.	(1,222.4)	(1,737.3)	0.0	0.0	Short-term debt	21,121.7	22,597.4	25,423.4	25,423.4
Others	(1,836.5)	(2,155.1)	0.0	0.0	Other current liabilities	21,751.2	21,751.2	21,751.2	21,751.2
<b>Pretax profits</b>	<b>(15,077.5)</b>	<b>(49,256.3)</b>	<b>(34,425.3)</b>	<b>(701.5)</b>	<b>Total current liabilities</b>	<b>53,047.3</b>	<b>57,735.1</b>	<b>58,588.6</b>	<b>58,304.3</b>
Income tax	2,751.9	291.3	(1,219.7)	(24.9)	Long-term debt	67,267.0	71,967.0	80,967.0	80,967.0
Minorities	0.0	0.0	0.0	0.0	Other long-term liabilities	285.2	285.2	285.2	285.2
<b>Net income pre-preferred dividends</b>	<b>(12,325.5)</b>	<b>(48,964.9)</b>	<b>(35,645.1)</b>	<b>(726.4)</b>	Total long-term liabilities	67,552.1	72,252.1	81,252.1	81,252.1
Preferred dividends	0.0	0.0	0.0	0.0	<b>Total liabilities</b>	<b>120,599.4</b>	<b>129,987.2</b>	<b>139,840.7</b>	<b>139,556.4</b>
<b>Net income (pre-exceptionals)</b>	<b>(12,325.5)</b>	<b>(48,964.9)</b>	<b>(35,645.1)</b>	<b>(726.4)</b>	<b>Preferred shares</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Post-tax exceptionals	0.0	0.0	0.0	0.0	<b>Total common equity</b>	<b>103,486.0</b>	<b>56,449.1</b>	<b>20,804.0</b>	<b>20,077.6</b>
<b>Net income</b>	<b>(12,325.5)</b>	<b>(48,964.9)</b>	<b>(35,645.1)</b>	<b>(726.4)</b>	Minority interest	0.0	0.0	0.0	0.0
EPS (basic, pre-exception) (NT\$)	(1.54)	(6.29)	(4.54)	(0.09)	<b>Total liabilities &amp; equity</b>	<b>224,085.4</b>	<b>186,436.3</b>	<b>160,644.7</b>	<b>159,634.1</b>
EPS (basic, post-exception) (NT\$)	(1.54)	(6.29)	(4.54)	(0.09)	<b>BVPS (NT\$)</b>	<b>13.43</b>	<b>7.26</b>	<b>2.65</b>	<b>2.56</b>
EPS (diluted, post-exception) (NT\$)	(1.54)	(5.95)	(4.24)	(0.09)					
<b>EPS excl. ESO expense (basic) (NT\$)</b>	<b>(1.54)</b>	<b>(6.30)</b>	<b>(4.54)</b>	<b>(2.65)</b>					
<b>EPS excl. ESO expense (dil.) (NT\$)</b>	<b>(1.54)</b>	<b>(5.87)</b>	<b>(4.24)</b>	<b>(2.47)</b>					
DPS (NT\$)	1.34	0.00	0.00	0.00					
Dividend payout ratio (%)	(87.0)	0.0	0.0	0.0					
Free cash flow yield (%)	(23.4)	(106.4)	(49.0)	54.4					
<b>Growth &amp; margins (%)</b>	<b>12/07</b>	<b>12/08E</b>	<b>12/09E</b>	<b>12/10E</b>	<b>Ratios</b>	<b>12/07</b>	<b>12/08E</b>	<b>12/09E</b>	<b>12/10E</b>
Sales growth	(15.9)	(31.8)	7.0	74.0	ROE (%)	(10.7)	(61.2)	(92.3)	(3.6)
EBITDA growth	(57.0)	(134.5)	145.6	1,022.5	ROA (%)	(5.5)	(23.9)	(20.5)	(0.5)
EBIT growth	(139.7)	(286.6)	25.8	106.5	ROACE (%)	(7.6)	(29.3)	(23.9)	1.8
Net income growth	(145.1)	(297.3)	27.2	98.0	Inventory days	41.0	27.7	26.1	26.5
EPS growth	(133.6)	(308.6)	27.8	98.0	Receivables days	39.6	28.5	26.5	24.7
Gross margin	(7.4)	(71.2)	(47.4)	8.2	Payable days	39.6	47.5	54.3	45.6
EBITDA margin	28.7	(14.6)	6.2	40.1	Net debt/equity (%)	61.1	164.0	502.8	432.6
EBIT margin	(14.2)	(80.7)	(56.0)	2.1	Interest cover - EBIT (X)	NM	NM	NM	0.7
					<b>Valuation</b>	<b>12/07</b>	<b>12/08E</b>	<b>12/09E</b>	<b>12/10E</b>
<b>Cash flow statement (NT\$ mn)</b>	<b>12/07</b>	<b>12/08E</b>	<b>12/09E</b>	<b>12/10E</b>	P/E (analyst) (X)	NM	NM	NM	NM
Net income pre-preferred dividends	(12,325.5)	(48,964.9)	(35,645.1)	(726.4)	P/B (X)	0.3	0.5	1.3	1.4
D&A add-back	33,311.2	34,976.6	35,186.6	37,337.2	EV/EBITDA (X)	8.7	NM	37.6	2.9
Minorities interests add-back	0.0	0.0	0.0	0.0	Dividend yield (%)	38.3	0.0	0.0	0.0
Net (inc)/dec working capital	14,968.0	4,097.6	(1,010.1)	(7,554.9)					
Other operating cash flow	(3,560.5)	1,930.7	1,408.0	28.7					
<b>Cash flow from operations</b>	<b>33,615.5</b>	<b>(6,222.6)</b>	<b>(60.6)</b>	<b>29,084.6</b>					
Capital expenditures	(63,426.0)	(20,053.5)	(10,568.8)	(11,304.3)					
Acquisitions	(9,641.7)	(3,048.1)	0.0	0.0					
Divestitures	0.0	0.0	0.0	0.0					
Others	(2,542.4)	3.4	0.0	0.0					
<b>Cash flow from investments</b>	<b>(75,610.1)</b>	<b>(23,098.2)</b>	<b>(10,568.8)</b>	<b>(11,304.3)</b>					
Dividends paid (common & pref)	(10,322.8)	0.0	0.0	0.0					
Inc/(dec) in debt	31,531.9	6,175.8	11,826.0	0.0					
Common stock issuance (repurchase)	751.5	(6.1)	(1,408.0)	(28.7)					
Other financing cash flows	(1,648.3)	0.0	0.0	0.0					
<b>Cash flow from financing</b>	<b>20,312.3</b>	<b>6,169.7</b>	<b>10,418.0</b>	<b>(28.7)</b>					
<b>Total cash flow</b>	<b>(21,682.3)</b>	<b>(23,151.2)</b>	<b>(211.4)</b>	<b>17,751.6</b>					

Note: Last actual year may include reported and estimated data.  
Source: Company data, Goldman Sachs Research estimates.

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## **Risk-reward may not justify chasing on near-term positive catalysts**

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We view news flow on potential resolution of Promos' ECB repayment as a positive indication for PSC as it indicates the potential that this model could be replicated to mitigate its financing risk. We expect PSC to benefit from the recent rally of DRAM spot price. Positive implications for the industry from recent news flow, such as reduced DRAM supply resulting from Qimonda's Chapter 11 filing and DRAM price increase, could provide some trading momentum for Taiwan DRAM names. However, without a structural change in the DRAM industry and sustainable improvement in demand, we view chasing the stock on recent news flow as risky without fundamental sector recovery. We retain our Neutral rating on PSC.

### **Implications of potential resolution of Promos' ECB repayment a positive for the marginal DRAM makers in Taiwan, but negative for the industry**

Commercial Times reported that Promos is likely to be granted with NT\$5bn in new credit facility from 9 consortium local banks to fulfill its ECB repayment due by Feb 14. With concerns on Promos' financing appearing to be mitigated for now, we think this should help boost confidence in the operations of Taiwan's DRAM industry in the near term and concerns on PSC's financing uncertainty could be mitigated.

We note that it is possible that Taiwan's Executive Yuan may not be able to get approval from the Legislation Yuan in a timely manner for the use of any state-owned funds to inject capital into a specific industry or company that is facing financial difficulties. If the credit facility were to be ultimately secured in the case of Promos, we believe that would indicate Taiwan government's willingness and ability to support DRAM companies with other financial vehicles, such as capital support from state-owned banks, until the next up-cycle comes or industry consolidation is completed. PSC could potentially face a similar situation as Promos this June when its US\$158mn ECB comes due.

Although capital injections (either from new bank loans or government funding) can be positive for marginal DRAM makers in the near-term by mitigating market concerns of financing risks, this could delay the cyclical recovery of the DRAM sector and structural improvements in the global DRAM market as marginal players remain.

### **Taiwan DRAM industry could face further consolidation, in our view**

Although we believe news reports of this new credit facility could be seen as a remedy for Promos in the near term, it is likely not going to resolve Taiwan DRAM companies' fundamental issues—i.e., reliance on technology development and likely needs for further capital to push any technology migration to catch up to industry leaders, such as Samsung. Taiwan DRAM makers could potentially come back to the banks in 2H09, as they may need more capital for migrating to more advanced technology in order to catch up to the cost structure of technology leaders, such as Samsung.

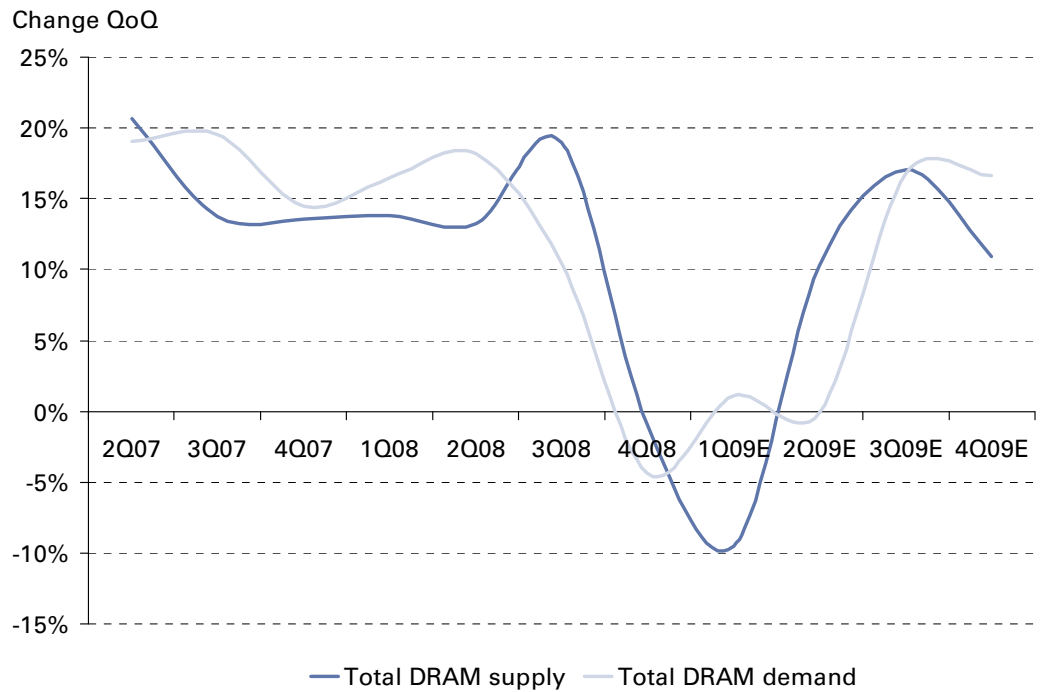
While we think one of the major goals for Taiwan's government is to establish and foster home-grown DRAM technology, we think the continued existence of marginal DRAM makers in Taiwan could provide time to establish closer alliances/collaborations with non-Samsung peers, as well as technology owners (Elpida and Micron), until the DRAM cycle turns. We believe this would be in line with the government's policy to foster consolidation in DRAM industry.

### **Overshoot of production cut from 4Q08 will likely lead to short-term tightness in supply in 1Q09**

Based on our analysis of changes in quarterly supply and demand, we expect potential tightness of in DRAM supply in 1Q09. Although demand is likely to be flat or down slightly in 1Q09, according to DRAMeXchange, we believe the magnitude of downward revision in supply in 1Q09 is likely to be much greater than that in demand.

We still expect oversupply in 2009, and 1H09 DRAM market outlook may not turn positive due to demand weakness and low visibility for 2Q09. The tightness in supply may be short-lived as DRAM makers have historically tended to re-start production whenever DRAM price exceeds cash cost. Without a concrete turn around in demand, the supply-demand equilibrium could easily reverse.

**Exhibit 1: Change of DRAM supply and demand QoQ (%)**



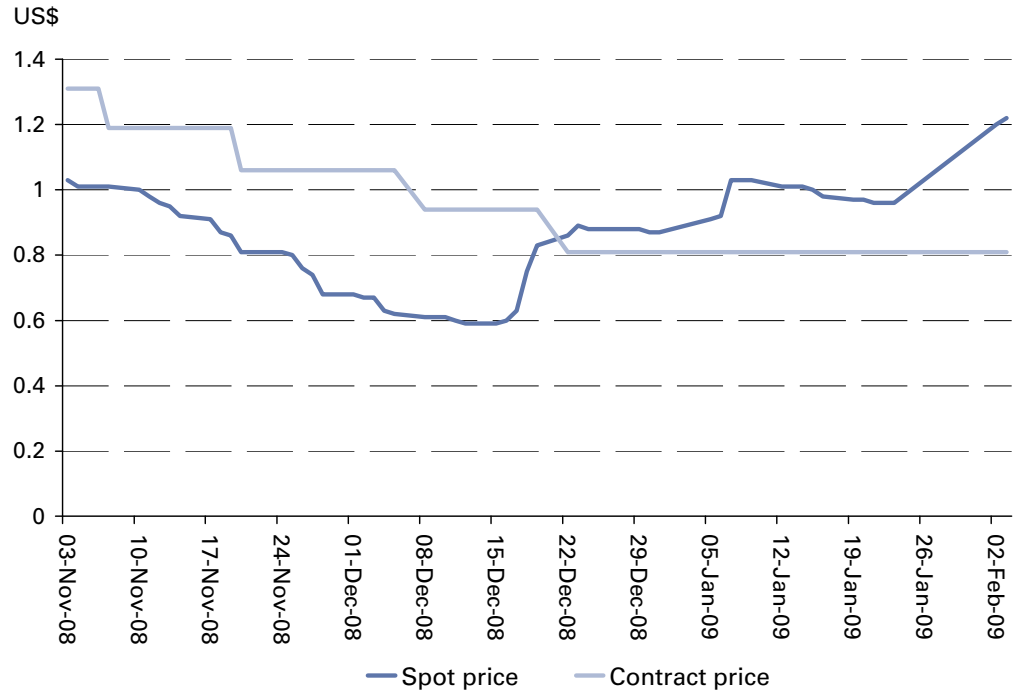
Source: DRAMeXchange, Goldman Sachs Research estimates.

**DRAM spot price will likely continue to rise in the near-term**

Spot price for 1Gb eTT DRAM reached US\$1.2 by Feb 2 (as per DRAMeXchange), increasing by 104% from its historical low of US\$0.59 on Dec 15, 2008. We think spot pricing is much easier to control due to smaller market size, around 18% of the total DRAM market, and limited suppliers available. Although end demand remains weak, we expect spot price to overshoot on limited supply due to significant production cuts at major suppliers, such as PSC, Nanya Technology and Promos. Together they account for 60%+ of the global DRAM spot market supply.

Note that based on DRAMeXchange’s survey, Dec 2008 production cut will likely result in supply decrease of 19.3% (vs. average of 4Q08 level) in Feb 2009, as a result of 36% supply decline in spot market and 15% decrease in contract market. We expect DRAM spot price to further rise to Taiwanese makers’ cash cost level of around US\$1.5 in the near term, before taking a break. However, without significant turnaround from the demand side, we believe it will be difficult for contract price to catch up with recent spot price rally, which in turn could mean a less sustainable price rally in the spot market.

**Exhibit 2: 1Gb DDR2 price (spot and contract)**



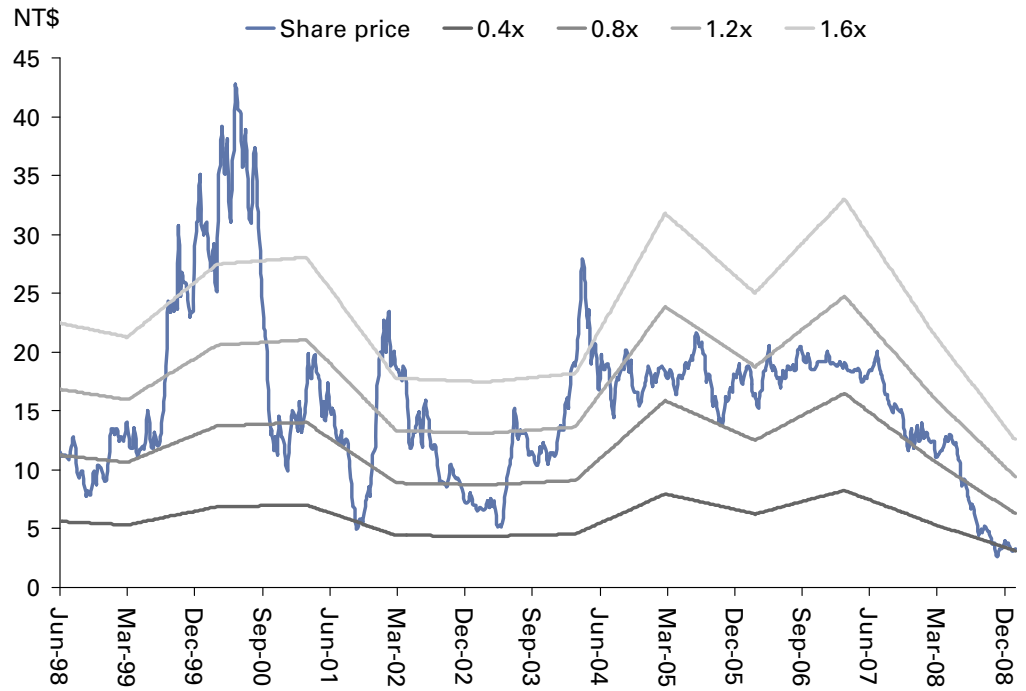
Source: DRAMeXchange.

**Raise PSC’s target price to NT\$4.0, retain Neutral**

Due to weak DRAM spot price and significant production cuts we forecast PSC 4Q08 loss of NT\$16.9bn, or NT\$2.18 loss per share. We lower 2008E earnings from NT\$45.8bn loss to NT\$49.0bn (NT\$6.29 loss per share). While we retain 2009E forecast of NT\$35.6bn loss, we expect the company’s loss to narrow from 2Q09, thanks to better pricing environment. We expect more significant profit margin turnaround in 2H09 and PSC to be able to turn cash flow positive in 3Q09, in sync with our global DRAM view of a 2H09 turnaround. We note that forecasting DRAM price for 2010 is more difficult due to cloudier visibility. We apply 4Q09 DRAM ASP of US\$1.78 (for 1Gb DDR2 eTT) assumption to 2010 and slightly raise 2010 earnings from NT\$11.5bn loss to NT\$726mn loss.

While the ongoing financing uncertainty appears temporarily erased, we think it is still appropriate to value the company on trough valuation, which is around 0.5x of trailing P/B. We raise our target price from NT\$2.9, which was based on 0.5x trough valuation and average P/B during 2008E-2009E, to NT\$4.0 based on 0.5x of average P/B in 2H08.

**Exhibit 3: PSC's trailing P/B band**



Source: Company data, Datastream, Goldman Sachs Research estimates.

**Exhibit 4: DRAM valuation comp (price is based on close of Feb 3, 2009)**

Ticker	Company	Rating	P/E			P/B			EV/EBITDA			ROE		
			2007	2008E	2009E	2007	2008E	2009E	2007	2008E	2009E	2007	2008E	2009E
<b>DRAM makers</b>														
5346.TWO	Powerchip Semiconductor	Neutral	NM	NM	NM	0.3x	0.5x	1.3x	8.7x	NM	37.6x	-11%	-61%	-92%
6665.T	Elpida Memory	Neutral	1.5x	NM	NM	0.2x	0.2x	0.4x	5.0x	10.8x	NM	19%	-6%	-57%
000660.KS	Hynix Semiconductor	NC	12.1x	NM	NM	0.5x	0.7x	0.7x	2.8x	15.5x	4.8x	4%	-46%	0%
005930.KS	Samsung Electronics	NC	9.9x	12.0x	12.5x	1.2x	1.4x	1.3x	5.0x	4.8x	4.7x	15%	12%	11%
MU	Micron Technology Inc.	Sell	NM	NM	NM	0.4x	0.5x	0.7x	7.0x	6.7x	20.0x	-4%	-15%	-39%
2408.TW	Nanya Technology	NC	NM	NM	NM	0.5x	0.9x	1.5x	NM	NM	82.8x	-17%	-59%	-65%
5387.TWO	Promos	NC	NM	NM	NM	0.2x	0.2x	0.3x	6.3x	NM	8.8x	-9%	-37%	-21%
3474.TW	Inotera	NC	41.6x	NM	NM	0.5x	0.7x	0.8x	4.2x	6.5x	4.6x	1%	-18%	-5%
<b>Median</b>			<b>11.0x</b>	<b>12.0x</b>	<b>12.5x</b>	<b>0.4x</b>	<b>0.6x</b>	<b>0.7x</b>	<b>5.0x</b>	<b>6.7x</b>	<b>8.8x</b>	<b>-1%</b>	<b>-28%</b>	<b>-30%</b>
<b>Back-end Testing &amp; Assembly</b>														
6239.TW	Powertech Technology	Buy*	4.0x	4.7x	7.7x	1.5x	1.3x	1.2x	5.7x	4.3x	2.6x	39%	32%	16%
2311.TW	Advanced Semiconductor Engineering	Neutral	5.2x	10.0x	66.6x	0.8x	0.9x	1.0x	5.3x	3.4x	4.2x	17%	9%	1%
2325.TW	Siliconware Precision Industries	Neutral	4.7x	10.2x	39.4x	1.2x	1.4x	1.6x	7.1x	4.0x	6.1x	27%	13%	4%
2449.TW	King Yuan Electronics Co	NC	4.0x	5.1x	5.7x	0.4x	0.4x	0.3x	2.1x	1.9x	2.0x	9%	7%	5%
AMKR	AMKOR	NC	2.0x	2.3x	6.3x	0.7x	0.5x	0.4x	2.6x	2.7x	3.4x	42%	27%	15%
<b>Median</b>			<b>4.0x</b>	<b>5.1x</b>	<b>7.7x</b>	<b>0.8x</b>	<b>0.9x</b>	<b>1.0x</b>	<b>5.3x</b>	<b>3.4x</b>	<b>3.4x</b>	<b>27%</b>	<b>13%</b>	<b>5%</b>

Note: \* indicated stock is on our regional Conviction list. NC=Not Covered. For important disclosures, please go to <http://www.gs.com/research/hedge.html>.

Source: Company data, Bloomberg, Goldman Sachs Research estimates.

**Exhibit 5: PSC's quarterly income statement assumptions (in NT\$m)**

<b>Summary P&amp;L</b>	<b>1Q2008</b>	<b>2Q2008</b>	<b>3Q2008</b>	<b>4Q2008E</b>	<b>1Q2009E</b>	<b>2Q2009E</b>	<b>3Q2009E</b>	<b>4Q2009E</b>	<b>2007</b>	<b>2008E</b>	<b>2009E</b>	<b>2010E</b>
<b>Net sales</b>	<b>14,841</b>	<b>17,440</b>	<b>14,970</b>	<b>5,593</b>	<b>6,333</b>	<b>9,966</b>	<b>19,137</b>	<b>21,086</b>	<b>77,502</b>	<b>52,844</b>	<b>56,521</b>	<b>98,333</b>
Cost of good sold (COGS)	(23,399)	(23,282)	(23,912)	(19,890)	(19,180)	(20,350)	(21,822)	(21,970)	(83,267)	(90,483)	(83,322)	(90,274)
<b>Gross profits</b>	<b>(8,558)</b>	<b>(5,843)</b>	<b>(8,942)</b>	<b>(14,297)</b>	<b>(12,847)</b>	<b>(10,384)</b>	<b>(2,685)</b>	<b>(884)</b>	<b>(5,765)</b>	<b>(37,639)</b>	<b>(26,801)</b>	<b>8,058</b>
Operating expenses	(1,524)	(1,279)	(1,489)	(740)	(805)	(989)	(1,490)	(1,592)	(5,273)	(5,032)	(4,877)	(6,012)
SG&A	(512)	(487)	(548)	(461)	(489)	(491)	(534)	(538)	(2,251)	(2,007)	(2,051)	(2,079)
R&D	(1,013)	(792)	(941)	(279)	(317)	(498)	(957)	(1,054)	(3,022)	(3,025)	(2,826)	(3,933)
<b>Operating profits</b>	<b>(10,082)</b>	<b>(7,122)</b>	<b>(10,431)</b>	<b>(15,037)</b>	<b>(13,653)</b>	<b>(11,373)</b>	<b>(4,176)</b>	<b>(2,477)</b>	<b>(11,039)</b>	<b>(42,671)</b>	<b>(31,678)</b>	<b>2,046</b>
<b>Non-operating income/(loss)</b>	<b>(1,469)</b>	<b>(488)</b>	<b>(3,299)</b>	<b>(1,329)</b>	<b>(684)</b>	<b>(696)</b>	<b>(686)</b>	<b>(681)</b>	<b>(4,039)</b>	<b>(6,585)</b>	<b>(2,747)</b>	<b>(2,747)</b>
<b>Earnings before tax (EBT)</b>	<b>(11,550)</b>	<b>(7,610)</b>	<b>(13,730)</b>	<b>(16,366)</b>	<b>(14,337)</b>	<b>(12,069)</b>	<b>(4,861)</b>	<b>(3,158)</b>	<b>(15,077)</b>	<b>(49,256)</b>	<b>(34,425)</b>	<b>(702)</b>
Income tax credit/(expense)	1,807	336	(1,285)	(567)	(508)	(428)	(172)	(112)	2,752	291	(1,220)	(25)
Extraordinary gain/(loss)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Earnings after tax (EAT)</b>	<b>(9,744)</b>	<b>(7,273)</b>	<b>(15,015)</b>	<b>(16,933)</b>	<b>(14,845)</b>	<b>(12,497)</b>	<b>(5,033)</b>	<b>(3,270)</b>	<b>(12,326)</b>	<b>(48,965)</b>	<b>(35,645)</b>	<b>(726)</b>
<b>EPS (NT\$)</b>	<b>(1.25)</b>	<b>(0.93)</b>	<b>(1.93)</b>	<b>(2.18)</b>	<b>(1.89)</b>	<b>(1.59)</b>	<b>(0.64)</b>	<b>(0.42)</b>	<b>(1.54)</b>	<b>(6.29)</b>	<b>(4.54)</b>	<b>(0.09)</b>
<b>EPS (fully diluted, NT\$)</b>	<b>(1.25)</b>	<b>(0.87)</b>	<b>(1.80)</b>	<b>(2.03)</b>	<b>(1.77)</b>	<b>(1.49)</b>	<b>(0.60)</b>	<b>(0.39)</b>	<b>(1.54)</b>	<b>(5.95)</b>	<b>(4.24)</b>	<b>(0.09)</b>
<b>Ratio analysis and assumptions</b>												
Gross margin	-57.7%	-33.5%	-59.7%	-255.6%	-202.9%	-104.2%	-14.0%	-4.2%	-7.4%	-71.2%	-47.4%	8.2%
Operating expense ratio	-10.3%	-7.3%	-9.9%	-13.2%	-12.7%	-9.9%	-7.8%	-7.6%	-6.8%	-9.5%	-8.6%	-6.1%
Operating margin	-67.9%	-40.8%	-69.7%	-268.8%	-215.6%	-114.1%	-21.8%	-11.7%	-14.2%	-80.7%	-56.0%	2.1%
Pre-tax margin	-77.8%	-43.6%	-91.7%	-292.6%	-226.4%	-121.1%	-25.4%	-15.0%	-19.5%	-93.2%	-60.9%	-0.7%
Tax rate (as % of EBT)	15.6%	4.4%	-9.4%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	18.3%	0.6%	-3.5%	-3.5%
Net margin	-65.7%	-41.7%	-100.3%	-302.7%	-234.4%	-125.4%	-26.3%	-15.5%	-15.9%	-92.7%	-63.1%	-0.7%

Source: Company data, Goldman Sachs Research estimates.

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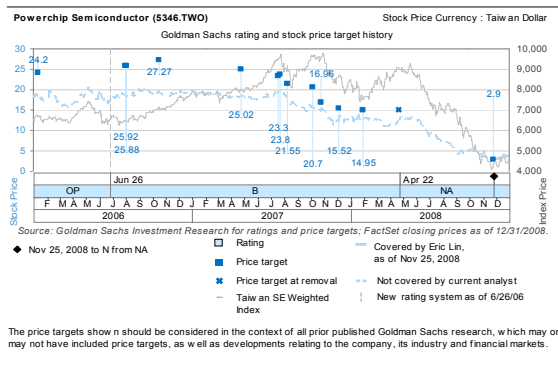
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