

November 7, 2008

Stock Rating
Underweight-V

Industry View
Cautious

Powerchip Potential Investments by Elpida

Quick Comment: Liquidity is the top priority. We expect Powerchip to raise funds through 1) announced ECB private placement for strategic investor (i.e. Elpida), 2) divestment of holdings including RexChip (JV with Elpida), and other potential stake sales. We estimate Powerchip will raise US\$150-200 mn by 1Q09 for ~US\$160 mn ECB put in 2Q09. Powerchip has announced a 10-day recess starting in mid November. We estimate Powerchip is currently running at ~55-60% utilization for its ~130K 12" fab capacity. We believe this action is necessary as the majority of Powerchip's output is now for Elpida foundry and Kingston (then for Powertech's backend foundry) as there is little spot market transaction given major distributors/module makers are not participating, having been severely impacted by credit crisis on no demand visibility.

What's New? Elpida announced yesterday that it intends to make RexChip an Elpida consolidated subsidiary and explore potential capital tie-up in Powerchip (see Kazuo Yoshikawa's "Elpida Memory - Sept Q Results: Excessive Concerns May Recede, But Outlook to Remain Opaque Without Detailed Plans" dated November 6, 2008). Powerchip currently has an ECB fund raising plan for private placements for strategic investors (0-5% coupon, after 40 days conversion, 5-20% premium). RexChip's current structure is 46%/49% owned by Powerchip/Elpida. We estimate RexChip's current book value is ~NT\$41 bn for book value per share of ~NT\$14. A potential 5% share swap would change Powerchip/Elpida's respective holdings to 41%/54% for ~NT\$2 bn fund raised for Powerchip by Elpida. According to most corporate charters in Taiwan, RexChip is run by 2/3 super-majority ruling. A potential change of RexChip's corporate structure would still require Powerchip's consent for final decision.

Key Ratios and Statistics

Reuters: 5346.TWO Bloomberg: 5346 TT

Taiwan DRAM

Price target	NT\$4.00
Upside to price target (%)	16
Shr price, close (Nov 6, 2008)	NT\$3.44
52-Week Range	NT\$14.60-3.22
Sh out, dil, curr (mn)	9,187
Mkt cap, curr (mn)	NT\$31,603
Avg daily trading volume (mn)	NT\$506

Fiscal Year ending	12/07	12/08e	12/09e	12/10e
ModelWare EPS (NT\$)	(1.61)	(4.65)	(1.77)	0.82
EPS, basic (NT\$)*	(1.60)	(5.46)	(2.08)	0.96
Consensus EPS (NT\$)§	(1.49)	(5.15)	(3.25)	(0.19)
Revenue, net (NT\$ mn)	77,502	58,295	58,507	80,503
EBITDA (NT\$ mn)	19,921	(2,579)	17,683	40,901
ModelWare net inc (NT\$ mn)	(14,643)	(42,851)	(16,336)	7,547
P/E	NM	NM	NM	4.2
P/BV	1.2	0.5	0.7	0.7
RNOA (%)	(7.3)	(19.5)	(10.0)	6.7
ROE (%)	(11.6)	(41.4)	(27.1)	17.1
Div yld (%)	9.7	0.0	0.0	0.0
FCF yld ratio (%)	(13.8)	(79.4)	16.9	(0.6)
Leverage (EOP) (%)	28.3	86.2	101.8	110.4

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework (please see explanation later in this note).

§ = Consensus data is provided by FactSet Estimates.

* = GAAP or approximated based on GAAP

e = Morgan Stanley Research estimates

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Implications: 1. DRAM ASP is trading around variable cost where DRAM makers have to shut down capacity. For foundry, 45 nm technology upgrade can be done linearly by fab portion and be paid by customers. For DRAM, 50 nm technology upgrade has to be implemented throughout all fabs; and even with a complete transition; DRAM makers would still lose money at today's prices. We believe most DRAM makers can't afford the expensive Immersion tools upgrade and will have to delay the transition until 2010 and compete on the more economical 60 nm shrink technology to earn cash profits first. Capitulation of weaker DRAM exit by 1Q09 should help to stabilize the DRAM market for the next upcycle in 2H09-10. Lack of weak exit will prolong the pain. 2. NAND flash should face even worse conditions than DRAM in 2009 as solid state drive (SSD) demand will likely be weaker than forecast. The main demand drivers for SSD are 1) ultra-high end notebooks that face demand dislocation in a recession, 2) low end sub-notes that are seeing the majority of demand shift to hard-disk drives with 10x higher densities as better value propositions.

Company Description


Powerchip Semiconductor Corporation (PSC) was established in Hsinchu Science-based Industrial Park in December 1994, with a business covering two major categories of DRAM manufacturing and foundry services.

Taiwan DRAM

Industry View: Cautious

MSCI Country: Taiwan

Asia Strategist's Recommended Weight: 11.7%
MSCI Asia/Pac All Country Ex Jp Weight: 11.8%

	<p>Morgan Stanley ModelWare is a proprietary analytic framework that helps clients uncover value, adjusting for distortions and ambiguities created by local accounting regulations. For example, ModelWare EPS adjusts for one-time events, capitalizes operating leases (where their use is significant), and converts inventory from LIFO costing to a FIFO basis. ModelWare also emphasizes the separation of operating performance of a company from its financing for a more complete view of how a company generates earnings.</p>
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(as of October 31, 2008)

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Stock Rating Category	Coverage Universe		Investment Banking Clients (IBC)		
	Count	% of Total	Count	% of Total IBC	% of Rating Category
Overweight/Buy	869	39%	275	42%	32%
Equal-weight/Hold	983	44%	286	44%	28%
Underweight/Sell	403	18%	89	14%	22%
Total	2,255		650		

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Overweight (O or Over) - The stock's total return is expected to exceed the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

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Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index, on a risk-adjusted basis, over the next 12-18 months.

More volatile (V) - We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

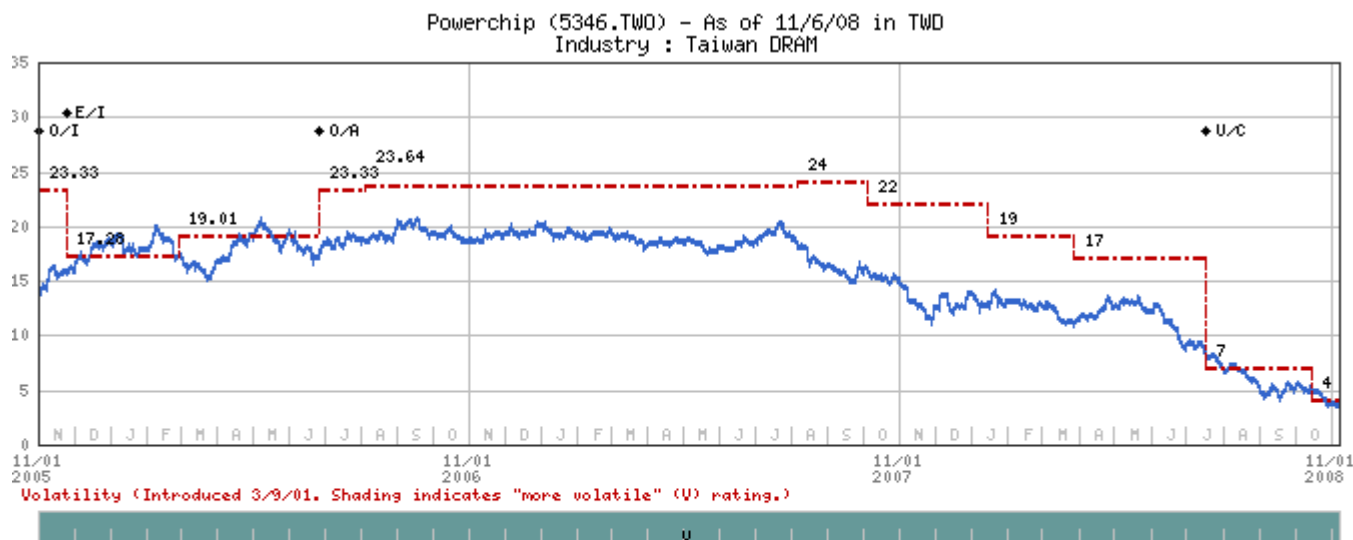
Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index.

Stock Price, Price Target and Rating History (See Rating Definitions)



Stock Rating History: 11/1/05 : O/I; 11/24/05 : E/I; 6/26/06 : O/A; 7/17/08 : U/C

Price Target History: 7/13/05 : 23.33; 11/24/05 : 17.28; 2/27/06 : 19.01; 6/26/06 : 23.33; 8/4/06 : 23.64; 8/7/07 : 24; 10/4/07 : 22; 1/15/08 : 19; 3/27/08 : 17; 7/17/08 : 7; 10/16/08 : 4

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target --- No Price Target Assigned (NA)
 Stock Price (Not Covered by Current Analyst) --- Stock Price (Covered by Current Analyst) ■
 Stock Ratings abbreviated as below (Effective 3/18/02, ratings appear as Stock Ratings/Industry View) ♦
 Stock Ratings as of 3/18/02: Overweight (O) Equal-weight (E) Underweight (U) More Volatile (V) No Rating Available (NAU)
 Stock Ratings prior to 3/18/02: Strong Buy (SB) Outperform (OP) Neutral (N) Underperform (UP) No Rating Available (NAU)
 Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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Industry Coverage: Taiwan DRAM

Company (Ticker)	Rating (as of)	Price (11/06/2008)
Frank A.Y. Wang		
Inotera Memories, Inc. (3474.TW)	O-V (06/26/2006)	NT\$8.47
Nanya Technology Corp. (2408.TW)	U-V (07/17/2008)	NT\$5.45
Powerchip (5346.TWO)	U-V (07/17/2008)	NT\$3.44
Winbond Electronics (2344.TW)	E-V (11/24/2005)	NT\$3.43

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