



EQUVO

Equity | Equipment | Evolution

Global Crisis & Semicon (Down?) Cycle

What's Happening, What to Expect, What to do

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9 September 2011

WHAT'S HAPPENING?

Global Crisis

- US: Debt Crisis, Weak USD, AAA->AA+
- Europe: Currency Crisis, Bank Problems
- Japan: Earthquake, 6 PMs in 5 years!
- Middle-east: Falling Dictators, War?
- China: Cooling Measures!

Would above factors weaken or strengthen Asia?!

Asia: Reduced but very Healthy

Asia Growth Forecasts Cut down (Sep 3rd news)....



	Previous forecast %	Revised forecast %
China	8.5	8.2
India	7.5	7.3
Indonesia	5.5	5.5
Malaysia	5.8	4.8
Singapore	4.8	4.5

Source: CREDIT SUISSE
ST GRAPHICS

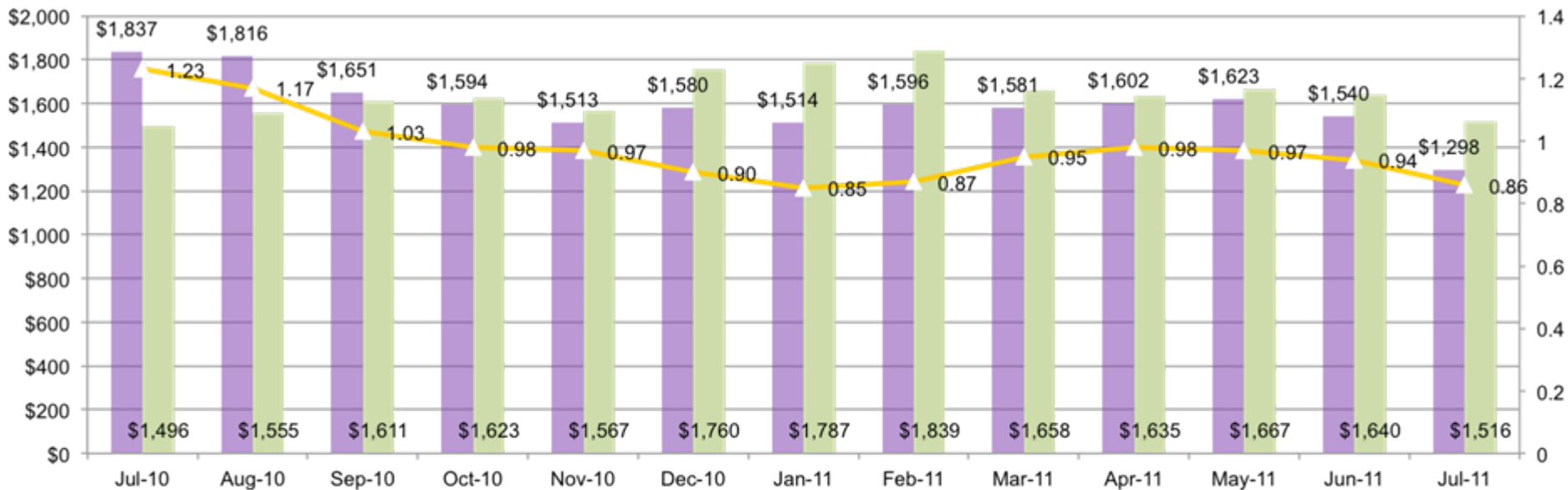
RECESSION?
OR JUST
LOWER
GROWTH?

Demand, Supply, Prices

- Gold Prices: All time high!
- Weakening Demand on Goods & Services...and Semiconductor!
- Supply: Sufficient or Oversupply?
- Equipment Orders: Delay or Cancel?
- Stock Price: Bumpy!
- Interest Rates: “UNUSUALLY LOW!”

Book-to-Bill of US Semi Eqpt OEM

(In US\$K)



Source : SEMI, Digitimes

Book Bill Ratio

BOOK-TO-BILL GOING BELOW 1 !

USD, Interest Rates & Borrowing

- USD: Low or High; Semicon Prices & many commodities still tied to it
- Interest Rates: LIBOR at less than 0.5%
.... Fixed Rates/IRS makes sense now!
- Borrowing: Right time to Optimize borrowing if you've not already done so!
(Watch your Leverage!)

USD LIBOR RATE

US dollar LIBOR rates charts:



NOTE: 7% IN 2000!

Bonds: Not for Every Company

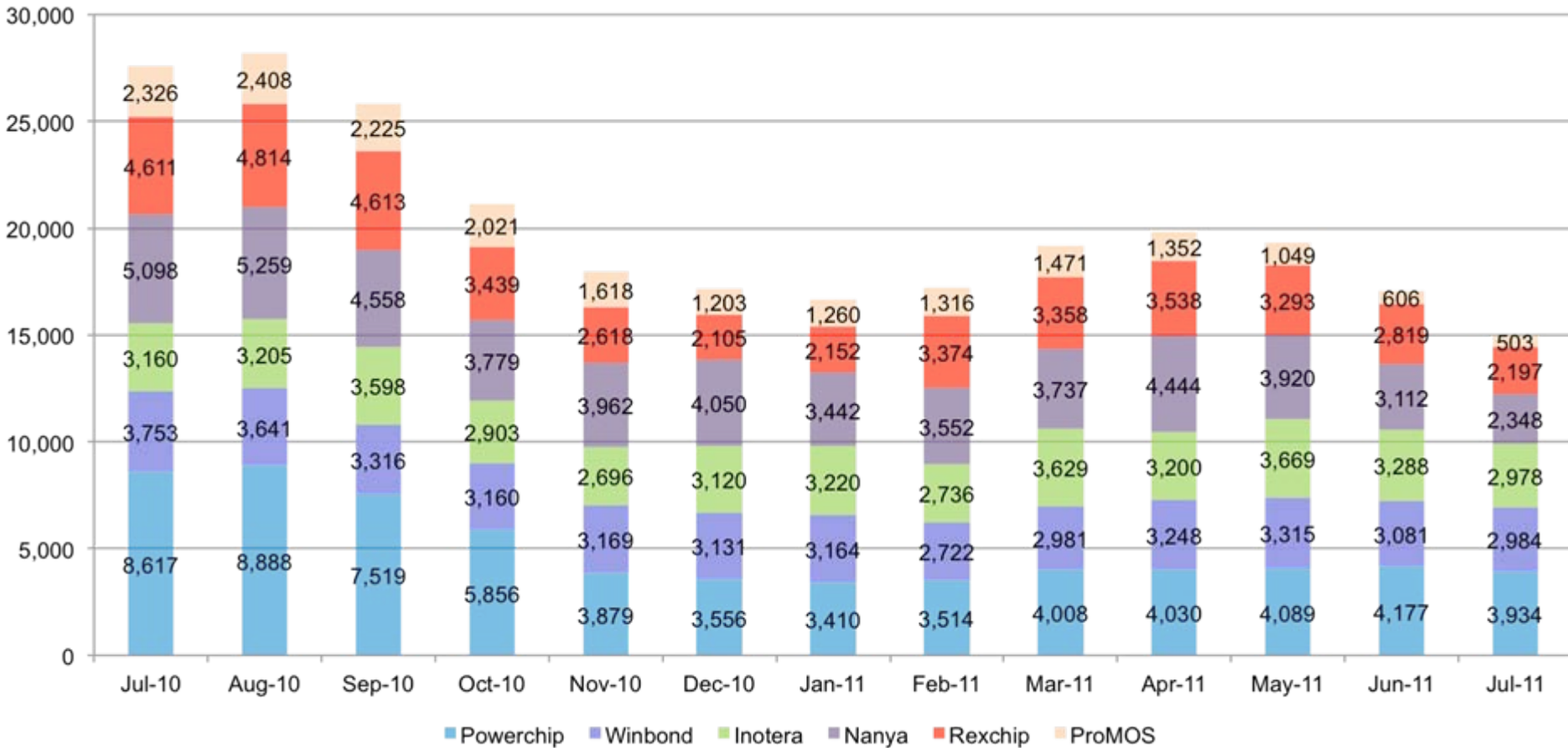
- Ratings: S&P, Moody's, Fitch
- Coupons: Annualized Interest Payment Rate
- 5- to 15-year Bonds
- Perps (perpetual bonds; HSBC, Tata, Cheung Kong, etc...)
- Have to be TSMC, Samsung, Intel to issue investment grade bonds
- Avoid Junk Bonds: High Yield, Low Rating, High Risk!

Loan Market

- Japan & Taiwan lowest borrowing rates for High Tech
- Typical Loan-to-Value (LTV): 70-80% in most countries
- Memory Companies will struggle to originate new loans
- Tight Financial Covenants
- Potential/Imminent Delinquencies, Defaults, Workouts, Bankruptcies

Taiwan Memory Market

(Monthly Revenues in US\$K)



Source : TSE, Company websites, Digitimes

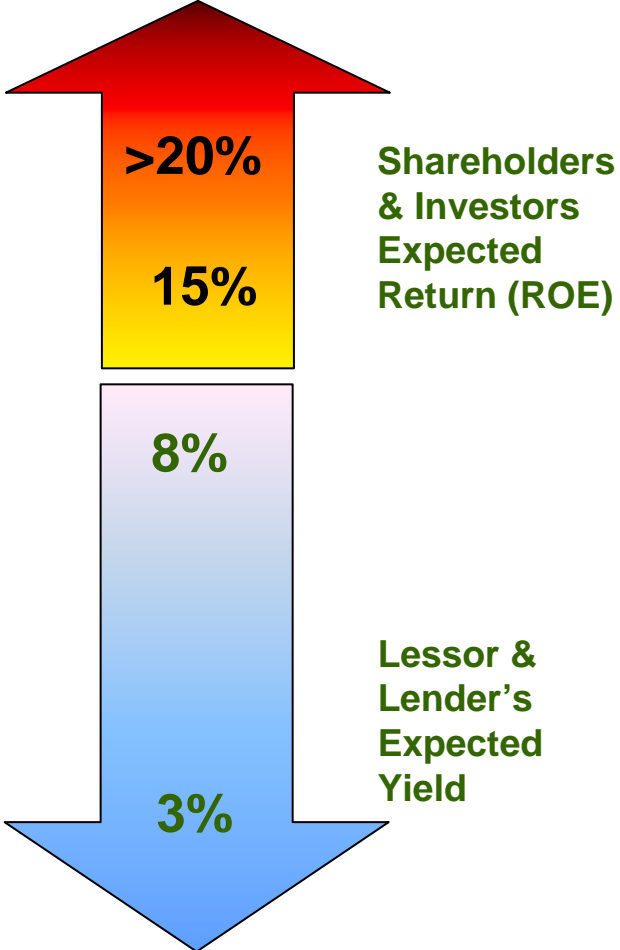
Lease Market

- IFRS (int'l acct'g rule) changes for 2012: challenge for operating leases
- Major/Many Semicon Lessors haven't been very active since 2008
- Semicon Industry: low usage of Leases compared to Aircraft, IT, Healthcare, etc.
- Limited Lease Financiers: Need for Specialization & Equipment Risk Concerns

Finance Lease vs Loan

	Finance Lease	Loan
Pricing	Slightly More Pricey	Cheapest Debt Instrument
Characteristics	<ul style="list-style-type: none"> • 100% Financing • Pledged by Asset being Finance • Usually Straightforward and Simple Documentation • Usually no Financial Covenants • Fast • Flexibility of Extending 	<ul style="list-style-type: none"> • 70-80% Loan-to-Value • Balance Sheet Financing – <u>all cash & unpledged assets can be included</u> • Complex Documentation especially if through Bank Syndication • Typical <u>Financial Covenants</u> needed: Debt/Equity, EBITDA, etc.. • Takes Time especially for Syndicated Loans • Early Repayment Possible but Extension has to be through re-financing
Providers	<ul style="list-style-type: none"> • <i>EQUVO</i> • Leasing Companies 	<ul style="list-style-type: none"> • Banks

Cost of Funding...

TYPE	FUNDING INSTRUMENT	EXPECTED RETURNS/COST OF FUNDING
EQUITY	Initial Capitalization Angel Fund, Venture Capital IPO Rights Issues Secondary Offering, ADR, GDR Preferred Shares	 <p>Shareholders & Investors Expected Return (ROE)</p> <p>Lessor & Lender's Expected Yield</p>
OFF-BALANCE SHEET	REIT/Business Trust <i>Operating Lease</i> Property Rental	
DEBT	Bonds, Perps Factoring Overdraft <i>Finance Lease</i> Commercial Paper Long Term Loan Revolving Line	

WHAT TO EXPECT?

Global Crisis: What to Expect

- More Delinquencies, Defaults and Bankruptcies
- Merger & Acquisitions, Consolidation
- Increasing Debt Costs
- Erratic Stock Market makes Equity Fund Raising Difficult
- Less Banks will Lend! Banks will Lend Less!

- Personally..... Loss of jobs, less job options, smaller pay rises, lower bonuses, low value of employee stocks, stock options below vest price

Semicon Leader Board

Top Semiconductor vendors' ranking and revenue						
1H11 Rank	1H10 Rank	2010 Rank	Company	1H11 Sales (USD M)	1H10 Sales (USD M)	2010 Sales (USD M)
1	1	1	Intel	23,809	19,395	40,154
2	2	2	Samsung	16,681	15,291	32,455
3	5	3	TSMC*	7,432	6,178	13,307
4	3	4	TI	6,399	6,262	13,037
5	4	5	Toshiba	6,344	6,242	13,028
6	6	6	Renesas	5,575	5,624	11,650
7	8	8	ST	5,053	4,822	10,287
8	7	7	Hynix	5,048	5,262	10,432
9	9	9	Micron	4,343	4,432	9,092
10	11	10	Qualcomm**	4,156	3,228	7,204
11	14	11	Broadcom**	3,494	2,951	6,589
12	12	12	AMD**	3,187	3,227	6,494
13	15	15	Sony	2,991	2,602	5,645
14	13	14	Infineon	2,863	2,978	6,049
15	17	16	Freescale	2,363	2,082	4,357
16	10	13	Elpida	2,220	3,538	6,446
17	18	18	Fujitsu	2,182	1,934	4,147
18	16	17	NXP	2,064	2,191	4,321
19	20	19	UMC*	2,010	1,840	3,965
20	19	23	Nvidia**	1,896	1,871	3,575
Top 20 Total				110,110	101,950	212,234

US: 8 (4 Fabless)
 Japan: 5
 Europe: 3
 Korea: 2

Taiwan: 2

Shouldn't there be more from Asia?
Consolidation?

Merger & Acquisitions

- Price/Book: many below 1!
- Consolidation amongst Semicon Players, esp. Memory Players in Taiwan
- Merger with Non-Semicon: Hynix + SK/STX
- Middle-eastern Funds in Semicon
(eg Abu Dhabi's ATIC in Global Foundries... in Hynix next?!)

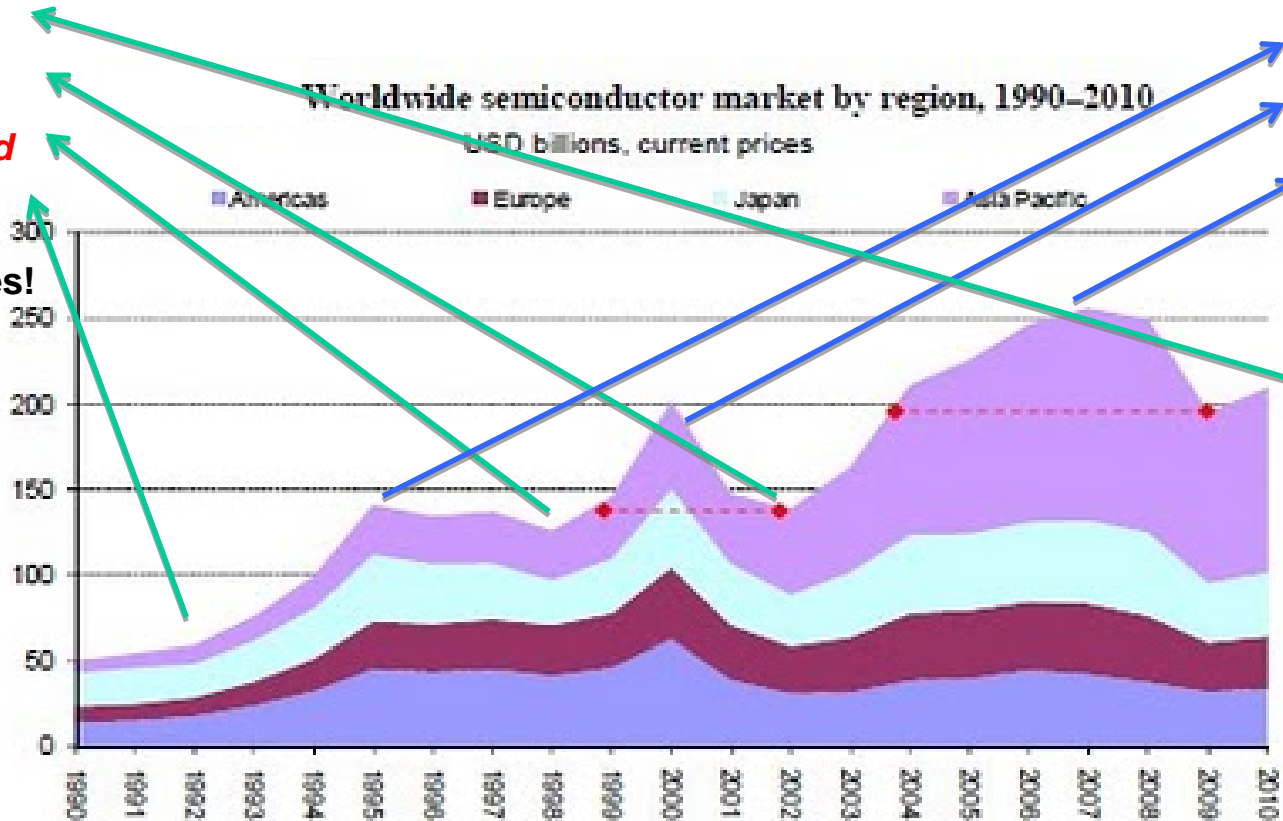
	Aug 22, 2011	Aug22 Price, Q2,11 Bal Sheet		52-Week Stock Price Range	
	P/E Ratio	P/B Ratio	D/E Ratio	Low	High
FOUNDRY					
TSMC	10.35	2.64	0.38	NTD 58.40	NTD 78.30
UMC	5.83	0.47	0.26	NTD 10.15	NTD 18.30
SMIC	N.A	0.54	0.77	HKD 0.34	HKD 0.94
Dongbu HiTek	N.A	0.00		KRW 8,650.00	KRW 27,500.00
Vanguard	8.93	0.63	0.21	NTD 10.00	NTD 18.45
MEMORY					
Samsung Electronics	6.51	0.79	0.49	KRW 672,000.00	KRW 1,014,000.00
Toshiba Corp	9.59	0.02	5.02	JPY 305.00	JPY 553.00
Hynix	3.59	0.79	1.05	KRW 15,500.00	KRW 37,400.00
Micron	9.72	0.34	0.53	USD 5.18	USD 11.95
Elpida	76.37	0.46	1.81	JPY 440.00	JPY 1,342.00
Powerchip	3.39	0.47	2.87	NTD 2.32	NTD 8.85
Nanya	N.A	0.66	4.45	NTD 3.74	NTD 21.68
Rexchip	2.74	0.12	0.64	NTD 10.30	NTD 31.00
Inotera	N.A	0.57	2.05	NTD 5.25	NTD 18.95
Winbond	5.74	0.17	0.72	NTD 5.18	NTD 11.15
ProMOS	N.A	0.20	17.21	NTD 0.32	NTD 4.94
OSAT					
ASE	8.58	1.45	1.24	NTD 19.55	NTD 33.90
Amkor	5.58	0.34	2.61	USD 3.81	USD 8.49
SPIL	13.02	0.83	0.29	USD 23.05	USD 41.90
Shinko	28.55	0.51	0.27	JPY 492.00	JPY 1,063.00
STATS ChipPAC	12.96	1.01	1.25	SGD 0.47	SGD 1.13
Powertech	6.35	1.19	0.69	NTD 60.60	NTD 101.82
ChipMOS	3.25	0.43	1.39	USD 3.48	USD 10.13
KYEC	7.06	0.10	0.75	NTD 9.96	NTD 19.55
Sigurd	5.25	0.71	0.53	NTD 16.80	NTD 30.30
Global Testing	N.A	0.60	0.32	SGD 0.10	SGD 0.05

WHAT TO DO?

What to do...Cycle Strategies

- Cut Capex
- Downsize
- **Buy Used Eqpt**
- **Lease**
- **Buy Distressed Assets**
- **Buy Companies!**

- IPO the company!
- Issue more shares
- Borrow more & at a lower cost!
- Keep Cash!



SUMMARY

- Semicon Industry has always been cyclical
- Global Crisis is Going to Make it Worse
- Semicon companies returning low (or negative) ROE on their stocks since 2000
- Only Leaders in their Segments Thrive: Intel, TSMC, Samsung...is it time for Change?
- Cash is King! Gold even Better?!

Tough Times Call for Tough Measures