LEADING

Mid-Cap Research

SK Hynix (000660 KS)

September 10, 2012

The Signal of the Semiconductor Industry Recovery

Analyst : Sang Woo Oh
swoh@leading.co.kr
82-2-2009-7254

Leading Traffic Light: Green

SK Hynix is…

- ✓ Moving its revenue source from PC to mobile
- ✓ Expected to benefit from the market turnaround as the company has the largest cost advantage in the global market

Green light because:

- ✓ The semiconductor supply surplus is decreasing
- ✓ SK Hynix is expected to be the largest beneficiary from Window 8 OS

Semiconductor Industry Overview:

- ➢ 2Gb DRAM price in July and August was $1.06, which is a 5.6% drop from 2Q
- ➢ Price expected to stabilize at $0.95 until year-end
- ➢ 32Gb DRAM price in July and August was $2.18, which is a 12.4% drop from 2Q
- ➢ Price expected to stabilize at circa $2 until yr-end

SK Hynix's business environment:

- ➢ After the transition period from PC to mobile, recovery will begin in 4Q12
- ➢ The upcycle will begin in 2013 with Window 8

Outstanding Value Creation:

- ➢ High ROE is expected along with the semiconductor upcycle in 2013
  (1.2%) in '12 → 18.2% in '13 → 18.4% in '14
- ➢ EVA will increase driven by sales increase and costs reduction
  (9.1%) in '12→ 5.4% in '13→ 6.8% in '14

Valuation:

- ➢ Target price of W30,000 reached by applying the target PBR of 1.7x to 2013F BPS of W17,442
- ➢ 33.3% upside potential from the current price of W22,500

CAVEAT EMPTOR!!! – Watch out for…

- ➢ The market recovery may not materialize if the Window 8 OS does not positively affect the semiconductor market

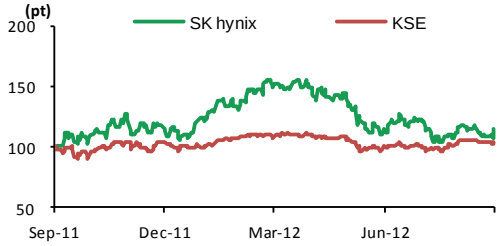
BUY

Target Price (KRW)	**W30,000**
Current Price (KRW)	**W22,500**
Upside Potential (%)	**33.3%**

Key Data	**September 7, 2012**
Sector	Semiconductor
KOSDAQ	1,929.58
Market Cap. (Wbn)	15,617.8
Shares Outstanding (m)	694.1
Foreign Ownership (%)	23.9
52 Week High (KRW)	30,550
Low (KRW)	19,300
60-davg. turnover (Wbn)	128.7
Major Shareholders	**(%)**
SK Telecom	25.82
NPS	8.08

Performance (%)	**1M**	**6M**	**12M**
Absolute	(1.1)	(24.4)	16.6
Relative	(2.5)	(20.0)	12.1

Relative Performance



Valuation Forecast

FY	Sales (Wbn)	% chg yoy	OP (Wbn)	OPM (%)	NP (Wbn)	EPS (W)	EPS Growth (%)	PER (x)	EV/EBITDA (x)	ROE (%)	P/B (x)
2009	7,906.4	16.0	192.0	2.4	(332.6)	(624)	TR	(37.1)	6.4	(6.6)	2.5
2010	12,098.7	53.0	3,273.1	27.1	2,656.5	4,487	TB	5.3	2.9	38.9	1.7
2011	10,395.8	(14.1)	325.5	3.1	(56.0)	(96)	TR	(229.2)	4.7	(0.7)	1.7
2012E	10,072.5	(3.1)	(82.3)	(0.8)	(106.8)	(154)	TR	(159.1)	6.0	(1.2)	1.6
2013E	11,653.9	15.7	2,155.8	18.5	2,019.7	2,910	TB	8.0	3.2	18.2	1.3
2014E	13,174.0	13.0	3,129.0	23.8	2,444.7	3,522	21.0	6.6	2.6	18.4	1.1

Table of contents

Key check points……...……...…. 3

Section 1-1: Valuation – Target Price……. 4

Section 1-2: Valuation – Peer Valuation……..…….....…. 5

Section 2: Company Snapshot……..…… 6

Section 3: Is the company a value creator? …….…...…… 8

Section 4: Free cashflow generation and dividend policy……..... 9

Section 5: Are the debt and interest burden manageable?….....… 10

Section 6: Asking for money with share issues, CB&BW?……...… 11

Section 7: FX exposure and sensitivities……. 12

Section 8: Semi. Industry Overview……....…… 13

Section 9: Operations Overview……..…..……..……...…… 22

Section 10: Earnings forecast…….....…..... 25

Key Check Points

✓ **SK Hynix is the largest beneficiary from Window 8 OS**

Microsoft plans to release new products such as tablet PCs as well as a new operating system, Window 8, on October 26, 2012. Window 8 OS is expected to give a new opportunity to the semiconductor market because the Window series have the largest market share in the PC OS market. SK Hynix is likely to largely benefit from diversification of table PC suppliers since the company has low dependence on Samsung Electronics and Apple. New devices such as Window 8 Pro models which have high memory content, will substitute growth of Ultrabooks which showed lower growth than expected. Hence, SK Hynix, the pure semiconductor player, is expected to benefit from the Window 8 OS.

✓ **The DRAM market still suffers supply surplus but is gradually entering the recovery phase**

The worldwide DRAM market is suffering supply surplus of 3.0% in 3Q12. The rate of DRAM supply surplus, however, has dropped from the peak of 4.9% in 1Q12. Supply surplus is expected to persist for some time given weak PC demand and inventory in the channel. Driven by DRAM supply surplus, producers around the world are refraining from DRAM capacity expansion and 3rd-tier DRAM companies are likely to cut their production. In addition, pace of design scaling is becoming slow due to increase in the process level of difficulty. Therefore, DRAM supply surplus is likely to be gradually resolved. We believe that DRAM will keep the balance of supply and demand driven by Window 8 which will lead demand for DRAM from 1Q13.

✓ **The DRAM upcycle is likely to surface after the PC to mobile transition period**

Smartphone sales are estimated at 834.4m units globally in 2012. Also, it is expected to grow at 20.3% CAGR between 2011 and 2016. Memory content of smartphone growth is estimated at 43.8% from 0.73GB in 2012 to 1.05GB in 2013. Hence, smartphones are expected to share the largest proportion in demand for DRAM given increase in total DRAM content of smartphones, up by 69.1%p yoy to 870m GB. Companies which have competitiveness for mobile memory are likely to grow.

✓ **The rate of NAND supply surplus is likely to decrease**

The global NAND market is suffering supply surplus of 3.2% in 3Q12. NAND is able to increase its bit growth given relatively simple design scaling. As a result, supply surplus will continue for a while. The growth rate of supply, however, is estimated to fall below expectations given Toshiba's production reduction and Samsung's investment change from NAND to non-memory. Therefore, stable demand and supply is expected from 4Q12. New Window 8-equipped devices such as Surface are likely to lead demand for NAND.

✓ **Target price of W30,000, 33.3% upside potential**

Currently, the semiconductor industry is in the early stage of recovery. Operating income and net income are estimated to record the highest level in a decade, but lower than the level of 2010 when is the last peak of the upcycle transpired. While the upcycle in 2010 ended abruptly in 2011, the recovery in 2013 is likely to continue until 2014. Therefore, applying 2010 year-end PBR of 1.7x to 2013F BPS of W17,442 is appropriate. We initiate coverage on SK Hynix with the target price of W30,000, implying 33.3% upside potential from the current price of W22,500.

Section 1-1: Valuation – Target Price of W30,000

TP of W30,000, 33.3% upside potential

We initiate coverage on SK Hynix with the target price of W30,000. Applying the target PBR of 1.7x to 2013F BPS of W17,442, we derive the target price implying 33.3% upside potential from the current price of W22,500.

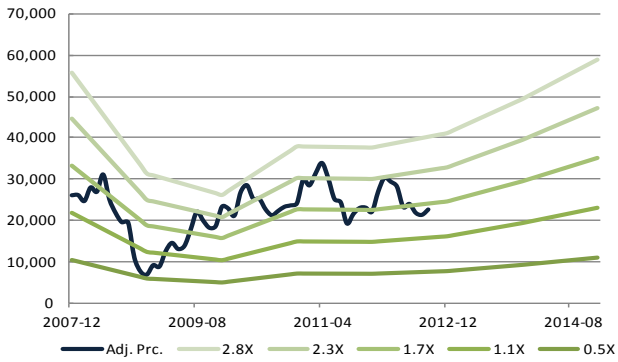
Recovery to be expected in 4Q12

Despite the sluggish earnings forecast in 3Q12, gradual market and earnings recoveries are expected from 4Q12 because we expect supply and demand improvement of DRAM and NAND driven by supply reduction and Window 8 OS effects. Therefore, the semiconductor market is likely to recover from 4Q12 and grow in 2013.

Applying PBR of 1.7x as the target PBR

Currently, the semiconductor industry is in the early stage of recovery. Operating income and net income are estimated to record the highest level in a decade, even though it is lower than the level of 2010 when is the last peak of the upcycle. While the upcycle in 2010 ended abruptly in 2011, the recovery in 2013 is likely to continue until 2014. Therefore, we believe that applying 2010 year-end PBR of 1.7x to 2013F BPS of W17,442 is appropriate.

Exhibit 1. PBR Band of SK Hynix



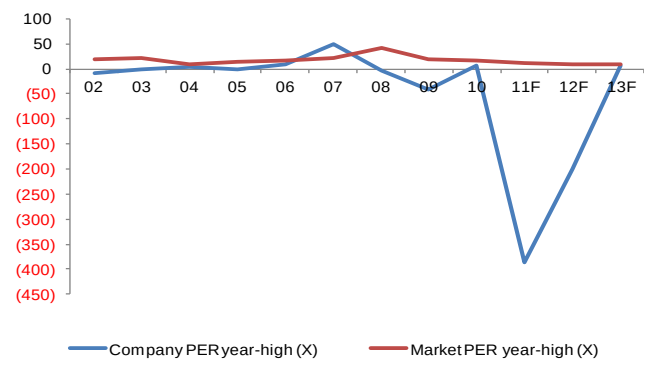
Source: Leading Research Center

Exhibit 2. SK Hynix Valuation VS. Industry Valuation

(X, %)	2005	2006	2007	2008	2009	2010	2011	2012F	2013F	2014F
Company PER year- high (X)	N/A	9.0	49.5	(3.0)	(41.0)	6.5	(386.4)	(199.0)	8.0	6.6
Market PER year- high (X)	13.9	17.9	22.3	42.4	20.4	16.0	11.4	9.5	8.6	13.9
Premium/(Discount) to industry (%)	**(38.5)**	**(50.0)**	**121.9**	**NA**	**NA**	**(59.5)**	**NA**	**NA**	**(15.3)**	**(38.5)**

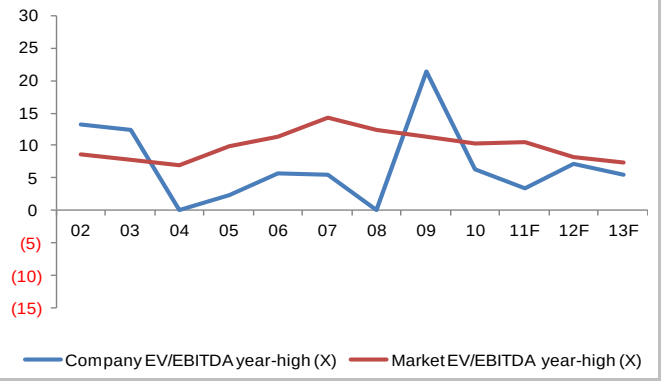
Source: Company data, Leading Research Center
**Market = KOSPI + KOSDAQ,*

Exhibit 3. SK Hynix yr-hi PER vs. Market PER



Source:Fnguide, Leading Research Center

Exhibit 4. SK Hynix yr-hi EV/EBITDA vs. Market



Source: Fnguide, Leading Research Center

Section 1-2: Valuation – Peer Valuation

Global memory makers as a peer group

We select global semiconductor manufacturers as a peer group. We compare 2013F PER and ROE because 2012F PER and ROE are not appropriate to compare due to sluggish profitability of the semiconductor market.

Exhibit 4. Peer valuation comparison

Company	P/E(x)			P/B(x)			ROE(%)			EV/EBITDA(x)		
	2011	2012F	2013F	2011	2012F	2013F	2011	2012F	2013F	2011	2012F	2013F
SK Hynix	**-229.2**	**-138.1**	**8.0**	**1.7**	**1.5**	**1.2**	**-0.7**	**-1.2**	**18.2**	**4.7**	**5.5**	**3.0**
Samsung	11.9	8.3	7.1	1.4	1.6	1.3	14.4	20.6	19.6	14.4	20.6	20.6
Toshiba	20.6	15.2	9.3	1.8	1.1	1.1	8.4	7.4	12.0	8.4	12.0	12.0
Micron	52.2	n/a	29.9	0.7	0.8	0.8	1.3	-11.9	-0.6	1.3	-11.9	-11.9
Nanya	n/a	n/a	n/a	1.5	4.8	3.3	-143.3	-236.4	-159.5	-143.3	-236.4	-236.4
Inotera	n/a	n/a	n/a	0.7	0.8	1.2	-49.2	-50.1	-31.0	-49.2	-50.1	-50.1
Spansion	n/a	11.7	7.2	0.9	1.3	1.2	-8.4	10.9	16.8	-8.4	10.9	10.9
Winbond	n/a	15.5	912.0	0.4	n/a	n/a	-2.3	n/a	n/a	-2.3	n/a	n/a

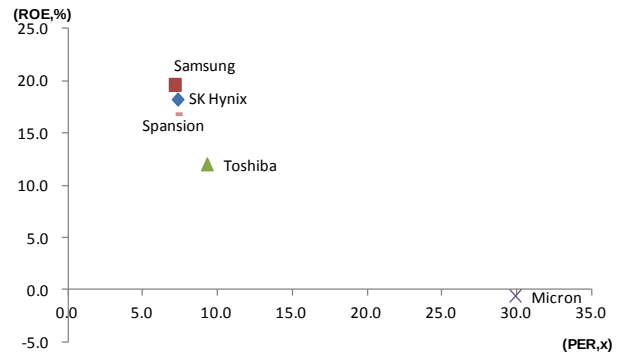
Company	Sales ($mn)			OP ($mn)			NP ($mn)			OPM(%)		
	2011	2012F	2013F	2011	2012F	2013F	2011	2012F	2013F	2011	2012F	2013F
SK Hynix	**9,383**	**8,875**	**10,269**	**294**	**-73**	**1,900**	**-51**	**-94**	**1,780**	**3.5**	**-0.9**	**21.0**
Samsung	149,080	176,080	195,223	13,964	24,020	27,549	12,070	19,815	23,037	9.4	13.6	14.1
Toshiba	77,313	78,326	82,649	2,619	3,333	3,948	934	1,403	1,919	3.4	4.3	4.8
Micron	8,788	8,416	9,494	755	-567	509	167	-985	109	8.6	-6.7	5.4
Nanya	1,263	1,438	1,693	-1,125	-814	-613	-1,357	-946	-689	-89.1	-56.6	-36.2
Inotera	1,272	1,324	1,552	-676	-385	-193	-715	-433	-168	-53.1	-29.1	-12.4
Spansion	1,070	951	1,055	7	94	132	-56	61	108	0.7	9.9	12.5
Winbond	1,181	n/a	n/a	-5	n/a	n/a	-29	-26	1	-0.5	n/a	n/a

Source: Bloomberg, Leading Research Center estimates for SK Hynix, applying 1107.9 KRW/USD in 2011, 1135.9 KRW/USD in 2012 and 2013

Higher profitability than competitors in 2013

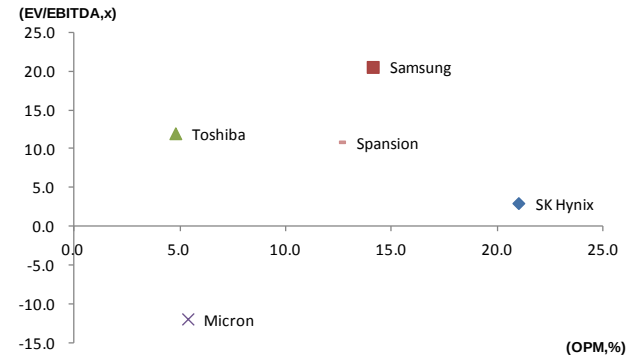
Since SK Hynix secures the high cost edge in the market as a semiconductor pure player, the company is expected to surge its profitability in 2013 when the semiconductor industry will recover. Therefore, high OPM and ROE will be recorded to 21.0% and 18.2%, respectively thanks to the company's cost edge.

Exhibit 5. Peer PER vs. ROE (2013F)



Source: Bloomberg, Leading Research Center

Exhibit 6. Peer EV/EBITDA vs. OPM (2013F)



Source: Bloomberg, Leading Research Center

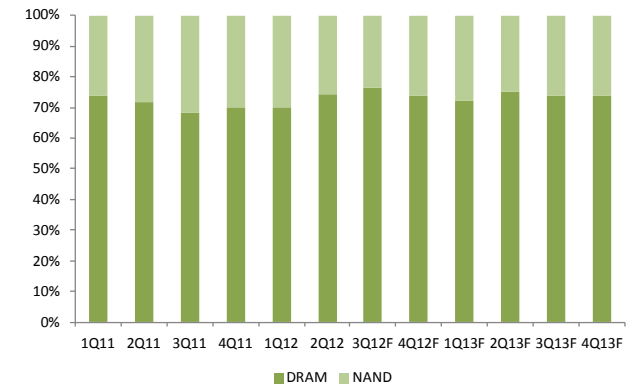
Section 2: Company Snapshot

Revenue structure is sensitive to PC rather than mobile

SK Hynix is sensitive to PC rather than mobile

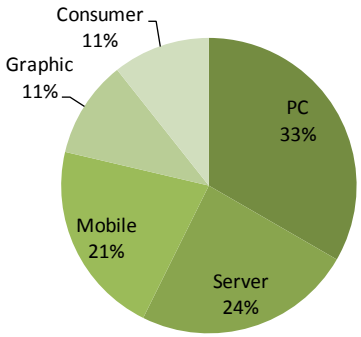
Almost 100% of SK Hynix revenue comes from memory semiconductors (70% from DRAM, 30% from NAND). Mobile DRAM, which is the high growth potential, accounts for 21% of the total DRAM revenue. SK Hynix still has a sensitive revenue structure to PCs which account for 33% for the total DRAM revenue.

Exhibit 7. DRAM/NAND revenue breakdown



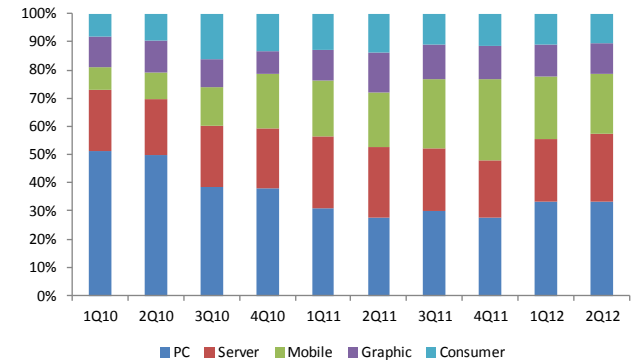
Source: Company data, Leading Research Center

Exhibit 8. 2Q12 DRAM revenue breakdown by product



Source: Company data, Leading Research Center

Exhibit 9. DRAM revenue breakdown by product



Source: Company data, Leading Research Center

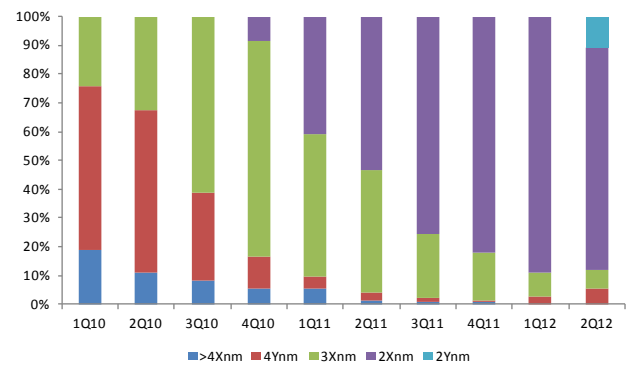
Exhibit 10. NAND revenue breakdown by product

Source: Company data, Leading Research Center

Exhibit 11. DRAM design scaling

Source: Company data, Leading Research Center

Exhibit 12. NAND design scaling

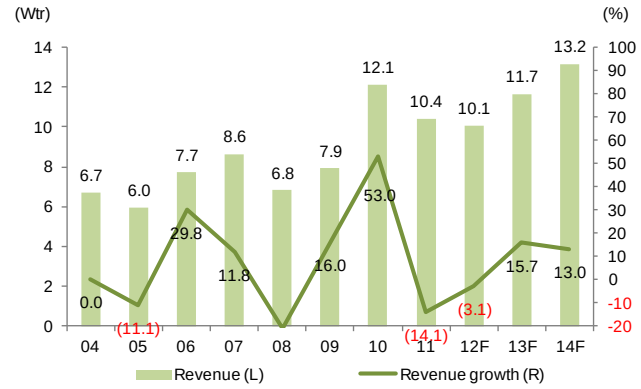


Source: Company data, Leading Research Center

Earnings stability is expected to gradually increase

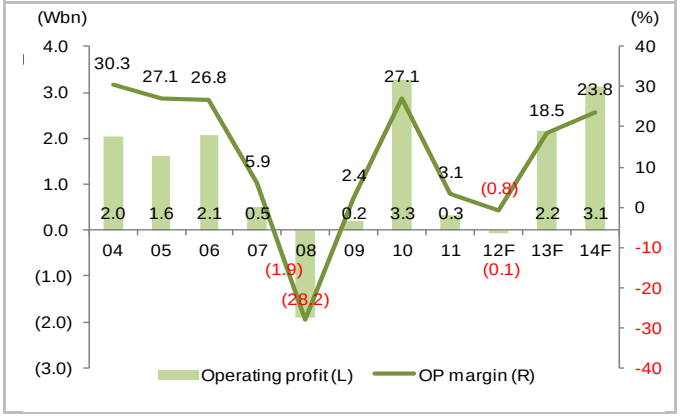
The proportion of mobile has increased, and SK Hynix aggressively prepares for non-memory semiconductors. Hence, we believe that revenue and OP sensitivities to economic fluctuation and the PC industry will be likely to gradually decrease.

Exhibit 13. Revenue and Growth trend



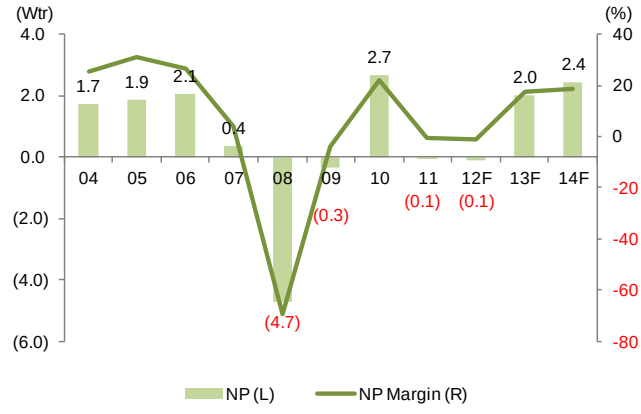
Source: Company data, Leading Research Center

Exhibit 14. Operating profit and OPM trend



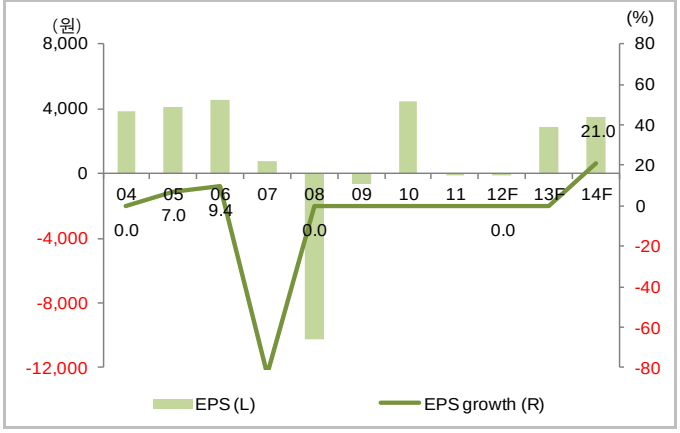
Source: Company data, Leading Research Center

Exhibit 15. Net profit and NP margin trend



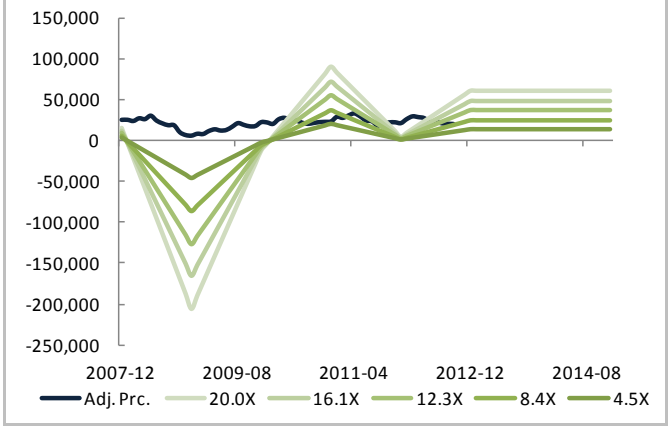
Source: Company data, Leading Research Center

Exhibit 16. EPS and EPS growth



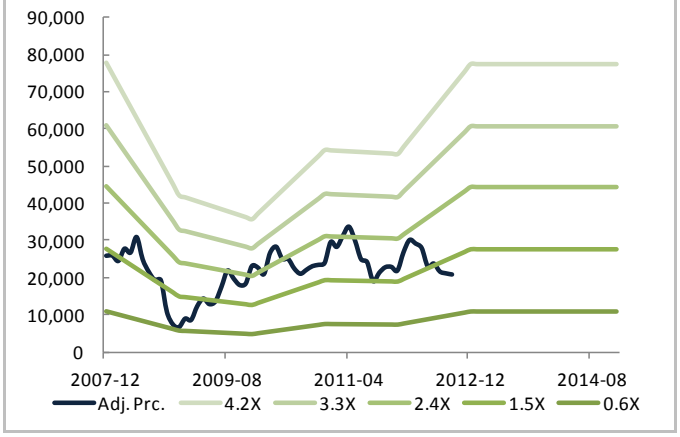
Source: Company data, Leading Research Center

Exhibit 17. PER Band



Source: FnGuide

Exhibit 18. PBR Band

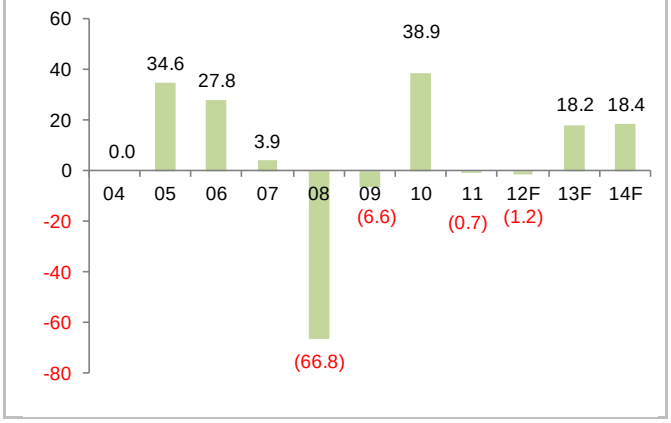


Source: FnGuide

Section 3: Is the company a value creator?

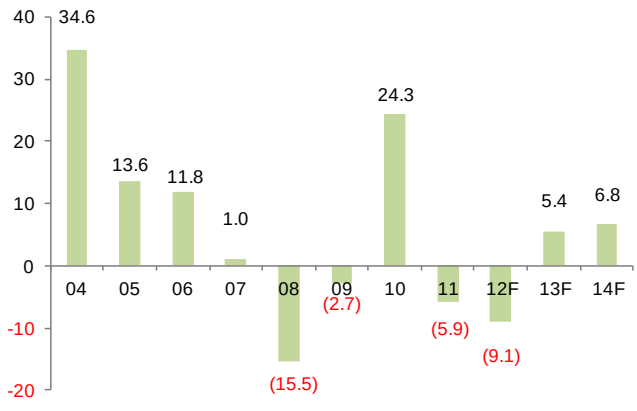
A wide fluctuation but high ROE in a upcycle

Exhibit 19. ROE (%)



Source: Company data, Leading Research Center

Exhibit 20. ROIC less WACC (%)

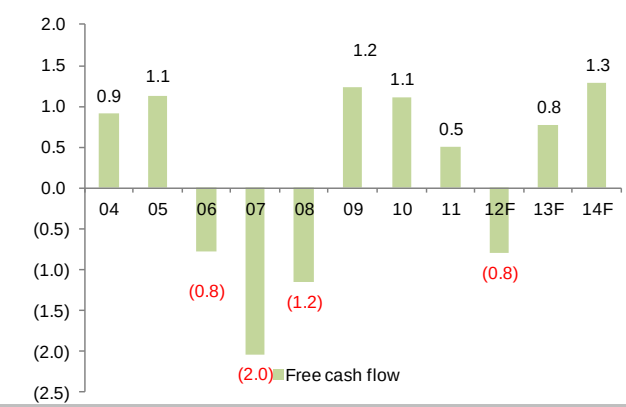


Source: Company data, Leading Research Center

Section 4: Free cashflow generation and dividend policy

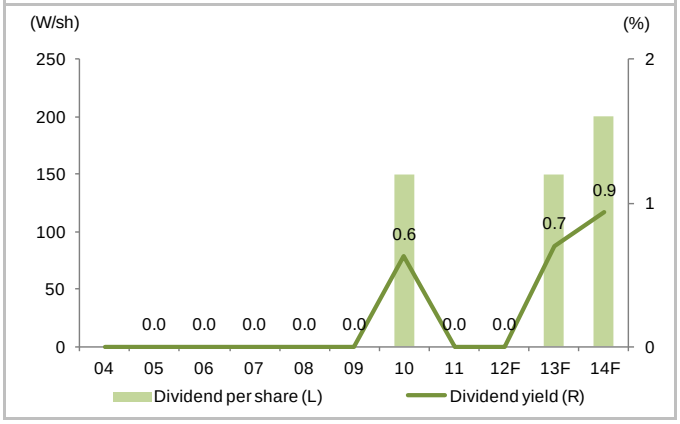
SK Hynix has generated positive FCF from 2010

Exhibit 21. Free Cash Flow trend (Wtr)



Source: Company data, Leading Research Center

Exhibit 22. Dividend per share and yield trend



Source: Company data, Leading Research Center

Active to pay dividends in a upcycle

SK Hynix paid dividends of W150 per share in 2010 when is an upcycle of the semiconductor industry. The company is unlikely to pay dividends in 2012 due to negative FCF but will pay dividends of W150 per share in 2013 with profitability recovery.

Exhibit 23. Dividends per share and dividend rate trend

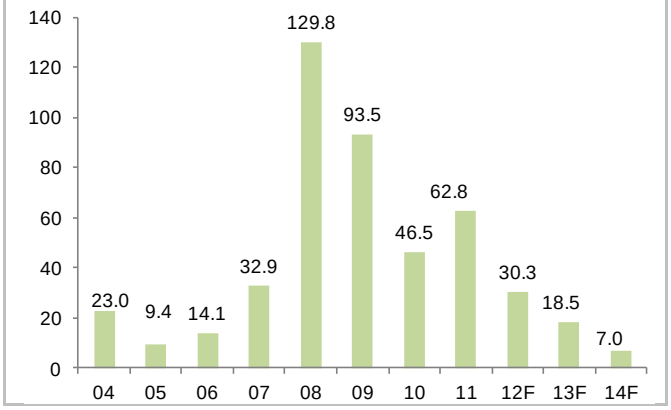
(Wbn)	04	05	06	07	08	09	10	11	12E	13F	14F
Cash from operation	2,998.6	2,849.1	3,291.0	3,431.6	(375.9)	1,340.4	5,907.8	2,856.0	3,396.8	5,520.6	6,040.0
CAPEX	1,899.7	2,756.9	4,622.6	5,159.6	2,821.4	1,012.6	3,421.0	3,568.2	3,400.6	4,500.0	4,500.0
Free cash flow	906.1	1,124.4	(775.4)	(2,038.0)	(1,157.6)	1,229.6	1,102.7	503.1	(796.2)	768.7	1,279.1
Total dividend	1.9	0.0	0.0	0.0	0.0	0.0	88.5	0	0.0	104.1	138.8
Dividend/shr (W/sh)	0	0	0	0	0	0	150	0	0	150	200
Dividend yield(%)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.7	0.9

Note: Dividend yield on last price of the year
Source: Company data, Leading Research Center

Section 5: Are the debt and interest burden manageable?.

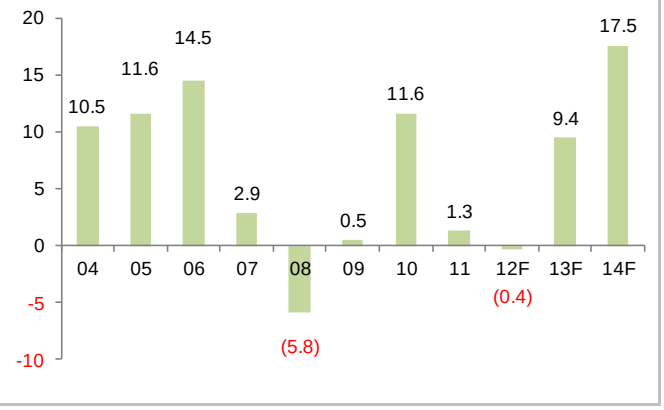
Decreasing net debt to equity ratio

Exhibit 24. Net debt/equity ratio (%)



Source: Company data, Leading Research Center

Exhibit 25. Interest coverage (X)



Source: Company data, Leading Research Center

Reducing burden on financial costs

Net interest cost will likely decrease from 2012. In spite of large scale capex between 2012 and 2014, SK Hynix is expected to generate FCF of W2.72tr for next 3 years. In addition, the company is able to reduce the burden on financial costs though debt redemption of W1tr annually.

Exhibit 26. Interest bearing debt and interest coverage trend

(Wbn)	04	05	06	07	08	09	10	11	12F	13F	14F
Interest bear debt	2,128.4	1,891.0	3,403.2	5,120.7	7,895.2	7,051.4	5,998.3	6,822.9	6,872.1	5,862.1	4,732.1
Cash & equivalents	1,095.6	1,299.4	2,168.9	2,054.7	719.7	1,518.7	2,196.3	1,875.9	3,814.6	3,626.3	3,726.3
Net int bearing debt	1,032.8	591.6	1,234.3	3,065.9	7,175.6	5,532.7	3,802.0	4,947.0	3,057.5	2,235.9	1,005.8
Net debt/equity (%)	23.0	9.4	14.1	32.9	129.8	93.5	46.5	62.8	30.3	18.5	7.0
Net interest	218.3	173.7	202.9	260.6	414.7	433.6	350.5	310.4	329.1	317.2	260.7
Interest coverage (x)	10.5	11.6	14.5	2.9	(5.8)	0.5	11.6	1.3	(0.4)	9.4	17.5

Source: Company data, Leading Research Center

Section 6: Asking for money with share issues, CB&BW?

Cash flow from OP is enough for additional investment

Exhibit 27. Capital raised through stock issuance

(Wbn)	04	05	06	07	08	09	10	11	INCR. DR '04-11
Paid-in capital	2,242.0	2,256.5	2,312.8	2,313.8	2,315.7	2,965.8	2,969.0	2,978.5	736.5
Paid-in cap in excess of par	385.6	394.2	672.2	860.7	929.0	1,303.5	1,414.7	1,229.1	843.4
Capital raised through stock issue	2,627.6	23.1	334.2	189.6	70.2	1,024.7	114.4	(176.2)	1,580.0

Source: Company data, Leading Research Center

Exhibit 28. Total number of shares assuming fully diluted CB

	12F	13F	14F	15F
Total number of shares	730,406.6	766,690.7	802,974.9	839,259.0
Exercisable shares	36,284.1	36,284.1	36,284.1	36,284.1
Potential total number of shares	766,690.7	802,974.9	839,259.0	875,543.1
EPS	(153.5)	2,909.6	3,522.0	3,571.2
PER	(139.4)	7.4	6.1	6.0
Fully diluted EPS	(146.3)	2,778.2	3,369.8	3,423.2
% dilution	(4.7)	(4.5)	(4.3)	(4.1)
Fully diluted PER	(146.3)	7.7	6.4	6.3

Source: Company data, Leading Research Center

Section 7: FX exposure and sensitivities

FX sensitivities

Exhibit 29. FX sensitivity 2012E

Currency rate change	-5%	-1%	Base	1%	5%
Year-avg (KRW/US$)	1,049	1,093	1,104	1,115	1,160
Revenue (Wbn)	9,619.2	9,981.8	10,072.5	10,163.1	10,525.7
Operating profit (Wbn)	-455.6	-209.0	-82.3	-85.7	160.8
NP (Wbn)	-480.1	-233.6	-106.8	-110.3	136.3
EPS(W)	(692)	(337)	(154)	(159)	196
PER	(30.9)	(63.6)	(139.4)	(134.7)	109.0
Revenue change (%)	(4.5)	(0.9)	0.0	0.9	4.5
OPM (%)	209.1	41.8	0.0	(41.8)	(209.1)
NP (%)	179.3	35.9	0.0	(35.9)	(179.3)
EPS change (%)	179.3	35.9	0.0	(35.9)	(179.3)

Source: Company data, Leading Research Center **Growth on currency rate change is not appropriate due to operating deficit*

Exhibit 30. FX sensitivity 2013E

Currency rate change	-5%	-1%	Base	1%	5%
Year-avg (KRW/US$)	1,060.2	1,104.8	1,116.0	1,127.2	1,171.8
Revenue (Wbn)	11,129.5	11,549.0	11,653.9	11,758.8	12,178.3
Operating profit (Wbn)	1,707.9	2,022.2	2,155.8	2,179.4	2,493.6
NP (Wbn)	1,571.8	1,886.1	2,019.7	2,043.2	2,357.5
EPS(W)	2,264	2,717	2,910	2,944	3,396
PER	9.5	7.9	7.4	7.3	6.3
Revenue change (%)	(4.5)	(0.9)	0.0	0.9	4.5
OPM (%)	(18.7)	(3.7)	0.0	3.7	18.7
NP (%)	(20.0)	(4.0)	0.0	4.0	20.0
EPS change (%)	(20.0)	(4.0)	0.0	4.0	20.0

Source: Company data, Leading Research Center

Exhibit 31. FX sensitivity 2014E

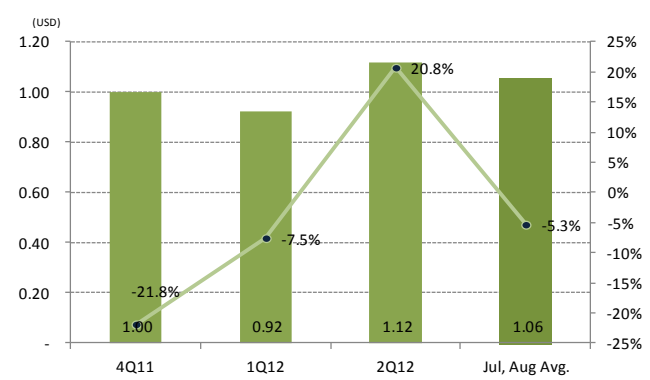
Currency rate change	-5%	-1%	Base	1%	5%
Year-avg (KRW/US$)	1,015.6	1,058.3	1,069.0	1,079.7	1,122.5
Revenue (Wbn)	12,581.2	13,055.4	13,174.0	13,292.6	13,766.8
Operating profit (Wbn)	2,165.0	2,165.0	3,129.0	2,165.0	2,165.0
NP (Wbn)	2,499.6	2,863.0	2,444.7	3,044.7	3,408.1
EPS(W)	3,601	4,125	3,522	4,386	4,910
PER	5.9	5.2	6.1	4.9	4.4
Revenue change (%)	(4.5)	(0.9)	0.0	0.9	4.5
OPM (%)	(14.7)	(2.9)	0.0	2.9	14.7
NP (%)	3.9	(2.9)	0.0	26.6	41.7
EPS change (%)	3.9	19.0	0.0	26.6	41.7

Source: Company data, Leading Research Center

Section 8: Semi. Industry Overview

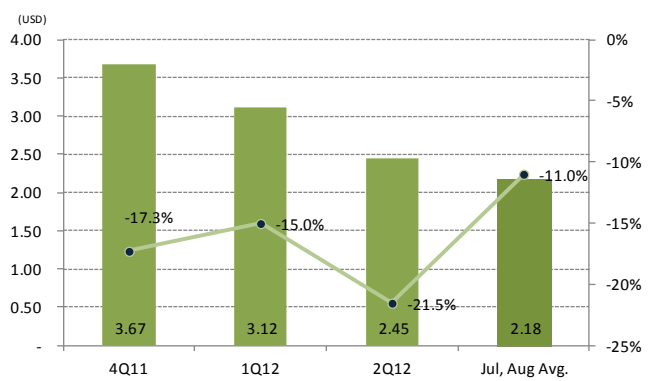
Semiconductor Industry Snapshot

Exhibit 32. 2Gb DDR average contract price trend



Source: Bloomberg, Leading Research Center

Exhibit 33. 32Gb NAND average contract price trend



Source: Bloomberg, Leading Research Center

Exhibit 34. 2Gb DDR contract and spot prices

Source: Bloomberg, Leading Research Center

Exhibit 35. 32Gb NAND contract and spot prices

Source: Bloomberg, Leading Research Center

DRAM still suffers supply surplus but is gradually going into recovery

Decreasing DRAM supply surplus is positive

The worldwide DRAM market is suffering supply surplus of 3.0% in 3Q12. The rate of DRAM supply surplus, however, has decreased since the peak of 4.9% in 1Q12.

Supply surplus is limited to be resolved given weak PC demand and inventory in the channel. However, in terms of supply,

1. Driven by DRAM supply surplus, DRAM capacity expansion is limited in the world

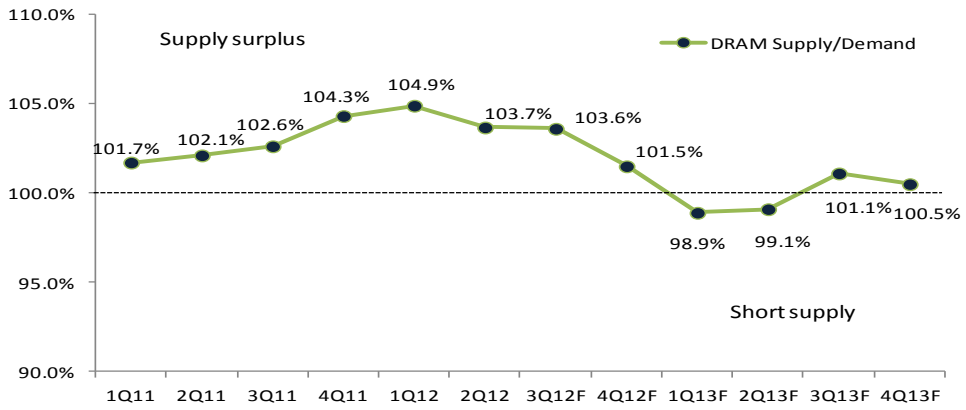
2. 3rd-tier DRAM companies are likely to cut their production in 2H12

3. Pace of design scaling is slowing down due to increase in the process level of difficulty

Window 8 effect from 1Q13

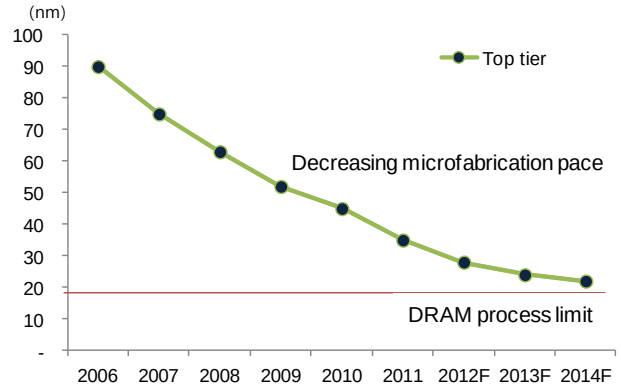
Therefore, DRAM supply surplus is likely to be gradually resolved. We believe that DRAM will keep the balance of supply and demand driven by Window 8 OS which will lead demand for DRAM from 1Q13.

Exhibit 36. DRAM supply/demand trend



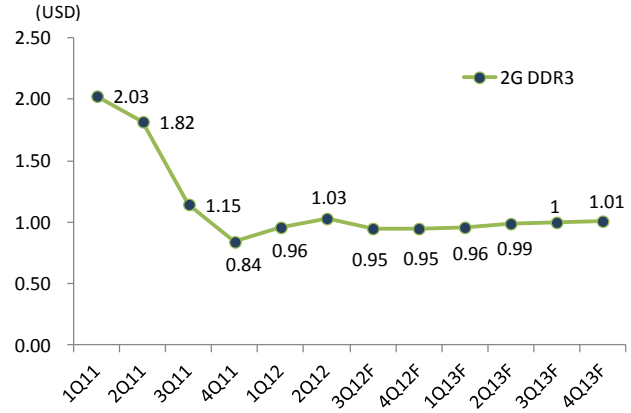
Source: Gartner, Leading Research Center

Exhibit 37. DRAM to approach process limit



Source: Market data, Leading Research Center

Exhibit 38. 2Gb DRAM ASP outlook



Source: Bloomberg, Leading Research Center

The DRAM upcycle is likely to come up after the transition period from PC to mobile

All memory makers are unable to generate huge profits.

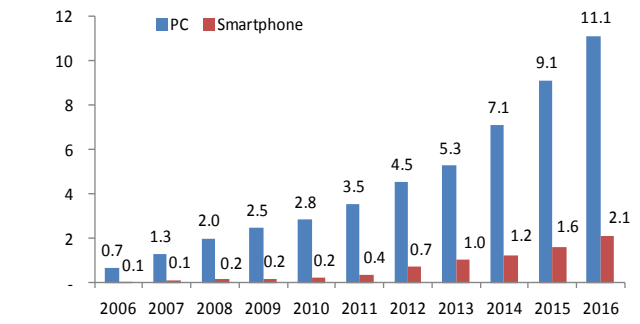
The reasons are following:

1. Memory content of smartphones is smaller than PC's

2. Biased demand for smartphones deteriorates PC demand

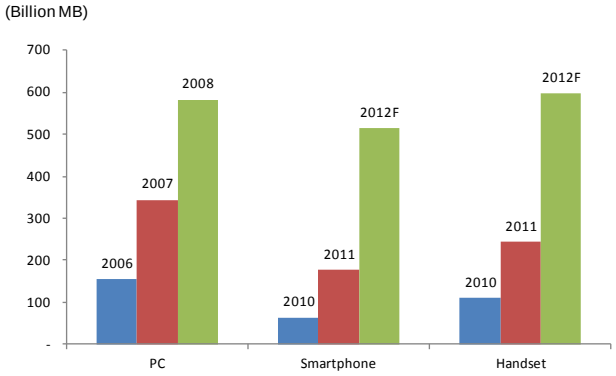
3. Two dominant smartphone makers, Samsung and Apple, weaken the price negotiation power of memory makers

Exhibit 39. DRAM content by application (GB)



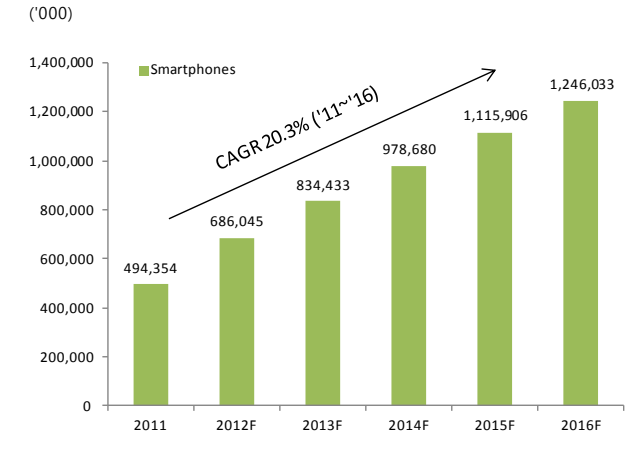
Source: Gartner, Leading Research Center

Exhibit 40. DRAM consumption by application



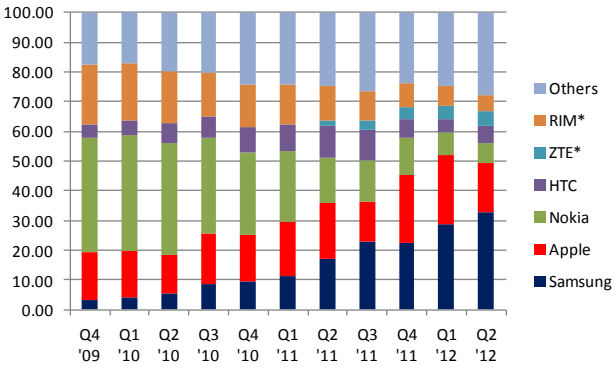
Source: Gartner, Leading Research Center

Exhibit 41. Worldwide smartphone shipment



Source: IDC, Leading Research Center

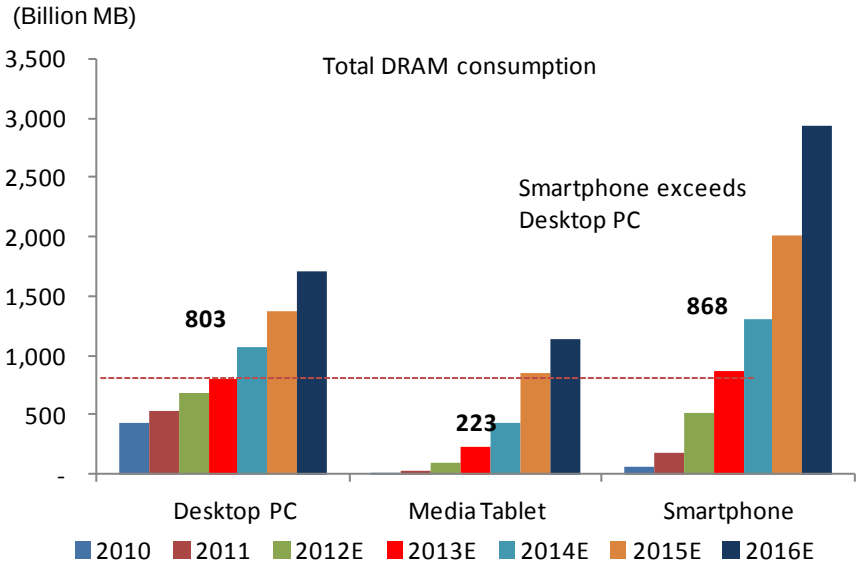
Exhibit 42. Smartphone M/S trend



Source: Gartner, Leading Research Center

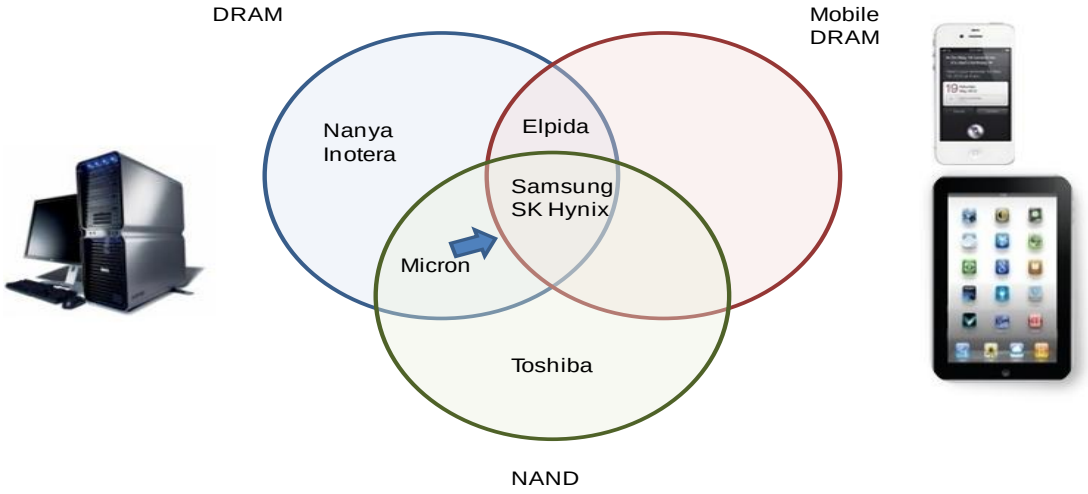
Demand for mobile DRAM will exceed demand for desktop PC DRAM

Exhibit 43. Demand for mobile will likely exceed demand for desktop PC in 2013



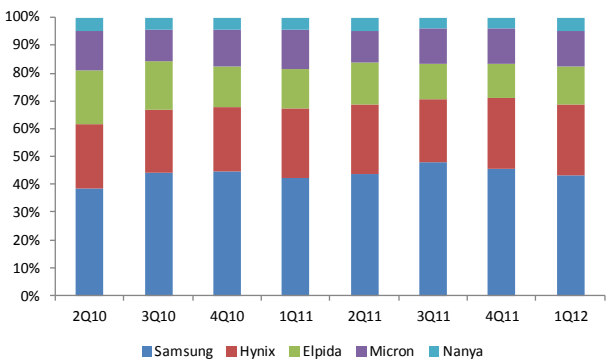
Source: Gartner, Leading Research Center

Exhibit 44. Only 3 mobile DRAM supplier in the world



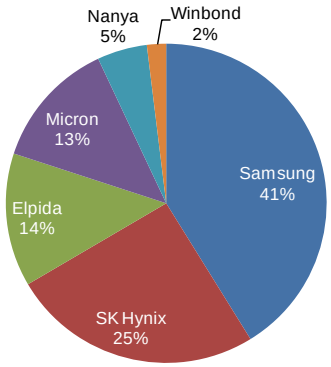
Source: Leading Research Center

Exhibit 45. Quarterly DRAM M/S (revenue)



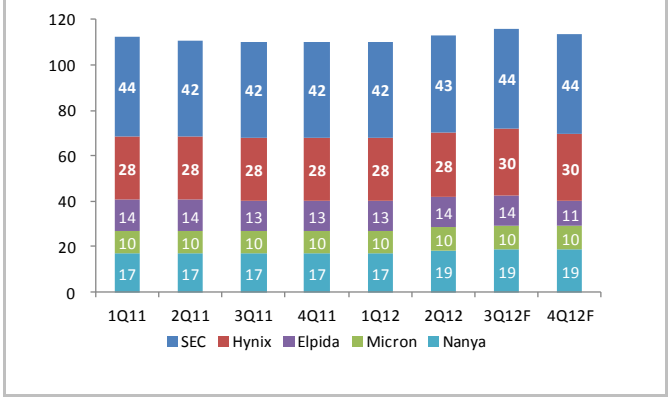
Source: Gartner, Leading Research Center

Exhibit 46. 2Q12 DRAM M/S (%) (revenue)



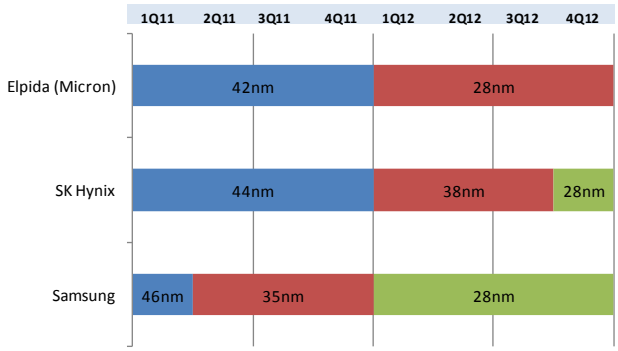
Source: DRAMexchange, Leading Research Center

Exhibit 47. DRAM Capa. by company (10k wafer/mo.)



Source: Company data, Leading Research Center

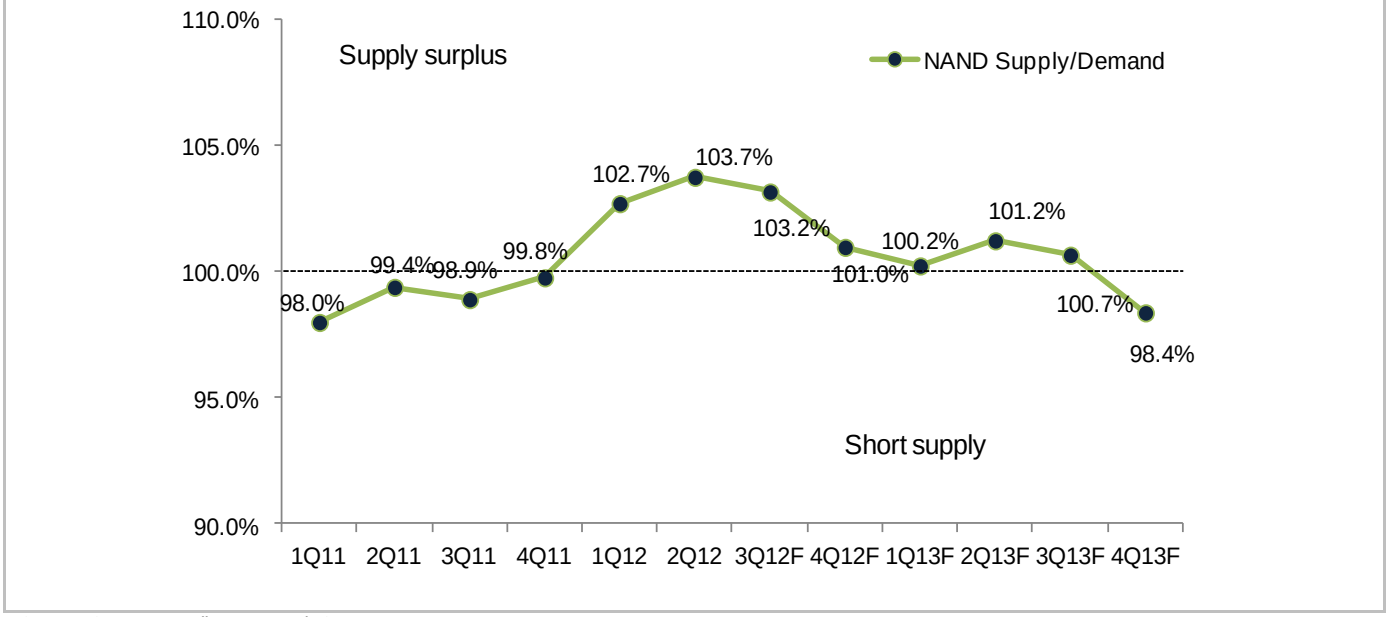
Exhibit 48. Major company's DRAM process roadmap



Source: Company data, Leading Research Center

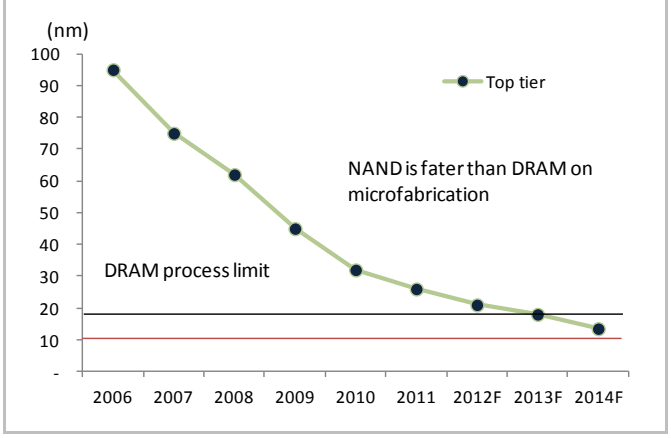
Expectation on decline in NAND supply surplus

Exhibit 49. NAND supply/demand trend



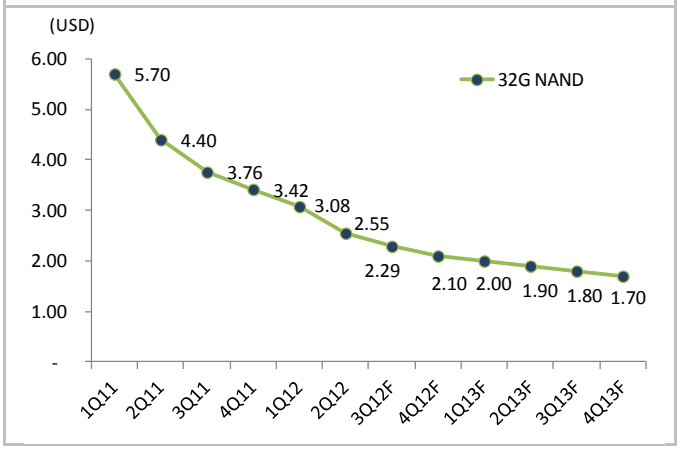
Source: Gartner, Leading Research Center

Exhibit 50. Fast processing on NAND design scaling



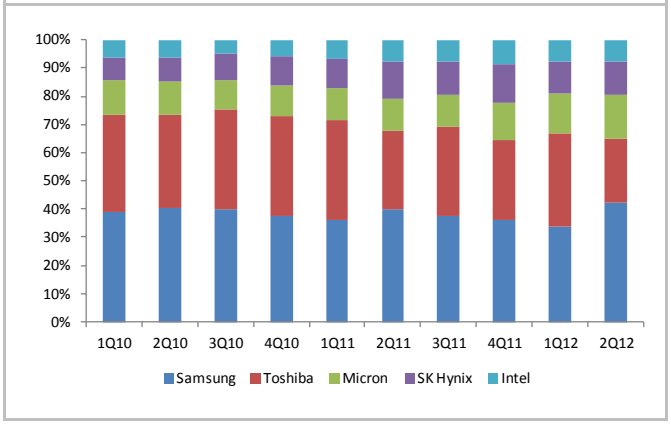
Source: Market data, Leading Research Center

Exhibit 51. 32Gb NAND ASP outlook ($)



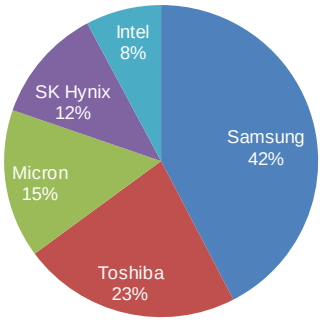
Source: Bloomberg, Leading Research Center

Exhibit 52. Quarterly NAND M/S (%) (revenue)



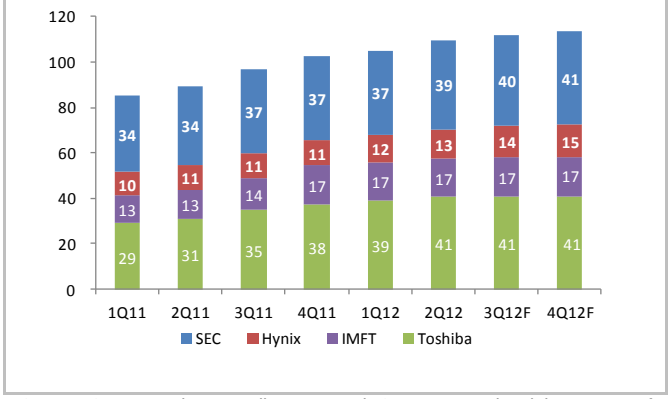
Source: Gartner, Leading Research Center

Exhibit 53. 2Q12 NAND M/S (%) (revenue)



Source: DRAMexchange, Leading Research Center

Exhibit 56. NAND Capa. by company (10k wafer/mo.)



*Source: Company data, Leading Research Center *IMFT is a joint venture of Intel and Micron*

Exhibit 57. Major company's NAND process roadmap

Source: Company data, Leading Research Center

Window 8 release will be positive effect on the market

New Window OS is positive to memory makers

Microsoft plans to release new operating system, Window 8 on October 26, 2012. Window 8 will be a positive effect on DRAM and NAND markets. Window 8 is expected to be a main factor to improve supply/demand and prices of mobile DRAM and PC DRAM. Demand for NAND will be also improved driven by new hybrid devices which will substitute ultrabooks which showed lower growth than expected.

Window 8 supports tablet and smartphone as well as PC

Window 8 tablet PC will affect to the whole PC market

In July 2009, Window 7 was expected to increase semiconductor demand given higher memory requirement than Window Vista. However, there was no huge impact due to poor PC sales.

Although Window 8 has the same memory requirement as Window 7, Window 8 supports tablet PCs which are rapidly growing. Surface, Microsoft's first tablet PC, will positively influence on the memory market.

Exhibit 58. Window 8 system requirements

	Window 8	Window 7
Processor	1GHz or faster, ARM support	1GHz or faster
RAM	1GB(32-bit) or 2GB(64-bit)	1GB(32-bit) or 2GB(64-bit)
HDD	16GB(32-bit) or 20GB(64-bit)	16GB(32-bit) or 20GB(64-bit)
Graphic Card	Microsoft DirectX 9 graphics device	Microsoft DirectX 9 graphics device
Release date	2012.10.26	2009.7.22

Source: Leading Research Center, Microsoft

Exhibit 59. New devices running Window 8

Source: Each company, Leading Research Center

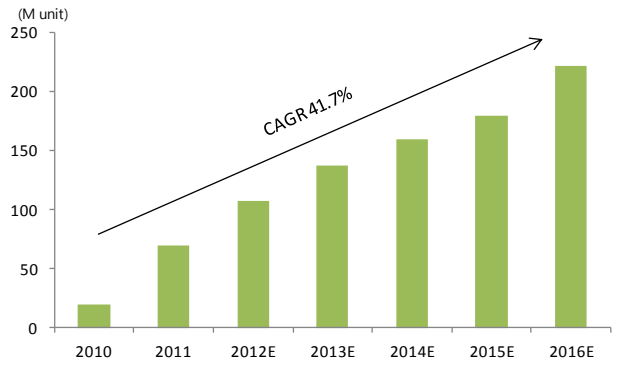
Exhibit 60. Tech specs of Window 8 tablets and PCs

Model	MS Surface	MS Surface Pro	Samsung Ativ Tab	Samsung Ativ Smart PC	Samsung Ativ Smart PC Pro	SONY Vaio Duo 11
Release date	**October 26, 2012**					
OS	Window 8 RT	Window 8 Pro	Window 8 RT	Window 8 Pro	Window 8 Pro	Window 8 Pro
Keyboard/Trackpad	Touch cover, Type cover	Touch cover, Type cover, Pen	Capacitive Touch	5Point Multi Touch, Keyboard, Pen, Trackpad	10 Point Multi Touch, Keyboard, Pen, Trackpad	10 Point Multi Touch, Keyboard, Pen, Trackpad
CPU	Nvidia ARM Tecra 3 1.5GHz Quad Core	Intel Core i5-3317U 1.7GHz Dual Core	Qualcomm Snapdragon S4 APQ8060A 1.5GHz	Intel Atom Z2760 1.8GHz Dual Core	Intel Core i5-3317U 1.7GHz Dual Core	Intel Core i7-3517U/i5-3317U/i3-3217U
GPU	Nvidia ULP Geforece	Intel graphics HD 4000	Adreno 220	PwerVR SGX544MP2	Intel graphics HD 4000	Intel graphics HD 4000
Display	10.6*HD Display (1280*720)	10.6*Full HD Display (1920*1080)	10.1* HD Display (1366*768)	11.6*HD Display (1366*768)	11.6*Full HD Display (1920*1080)	11.6*Full HD Display (1920*1080)
RAM	**-**	**-**	**2GB**	**2GB**	**4GB**	**4GB/8GB**
Storage	**32GB/64GB**	**64GB/128GB**	**32GB/64GB**	**64GB/128GB**	**128GB/256GB**	**128GB/256GB**
Camera (front/back)	-	-	5/1.9-megapixel (720p HD for video chat)	8/2- megapixel	8/2- megapixel	Front/back Full HD Camera
Wi-Fi /bluetooth	802.11 a/b/g/n type, Bluetooth 4.0	802.11 a/b/g/n type, Bluetooth 4.0	802.11 a/b/g/n type, Bluetooth 4.0	802.11 a/b/g/n type, Bluetooth 4.0	802.11 a/b/g/n type, Bluetooth 4.0	802.11 a/b/g/n type, Bluetooth 4.0
Battery	31.5Wh	42Wh	8,200mAh	31Wh(13.5hours)	41Wh(8hours)	-
Size	Depth 9.3mm	Depth 13.5mm	265.8*168.1*8.9 mm	304*189.4*9.9mm	304*184.4*11.89mm	320*199*17.85mm
Weight	Tablet Mode 676g	Tablet Mode 903g	Tablet Mode 570g	Tablet Mode 570g Keyboard Mode 1.48kg	Tablet Mode 884g Keyboard Mode 1.6kg	1.3kg(Slide Type)
Price	$599	$799	-	$749	$1,119	-

Source: Each company, Leading Research Center

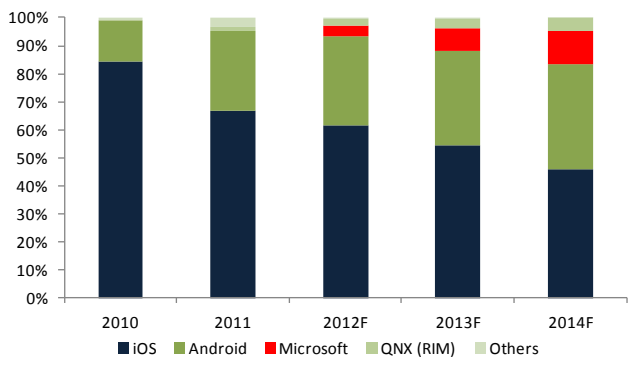
Suppliers are expected to improve their power of price negotiation with diverse tablets

Exhibit 61. Tablet shipment outlook



Source: IDC, Leading Research Center

Exhibit 62. Tablet OS M/S



Source: Gartner, Leading Research Center

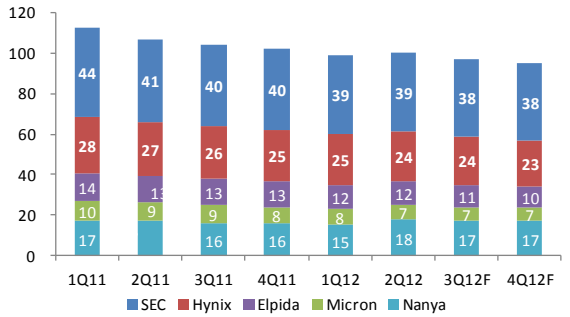
Section 9: Operations Overview

Difficult condition under the transition period moving to mobile from PC

Gradual recovery rather than surprising earnings improvement

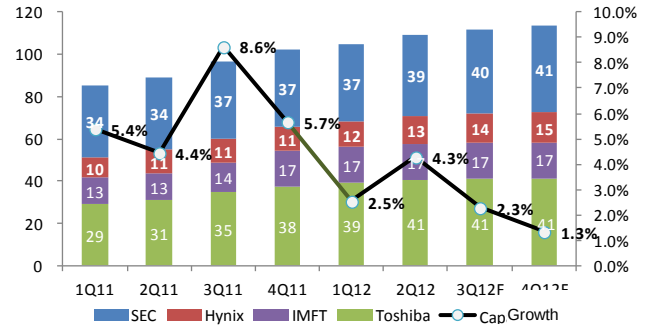
Worldwide IT markets have grown mainly with smartphones, and this trend weakens PC demand. We believe that the present is a transition period of the semiconductor market. It will take time to reduce inventories despite Window 8 effects.

Exhibit 63. Decline in worldwide DRAM real Capa.



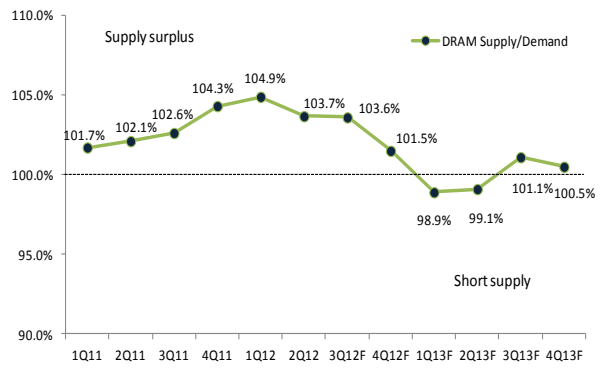
Source: Leading Research Center, Leading Research Center estimates

Exhibit 64. Slowdown in NAND Capa. growth



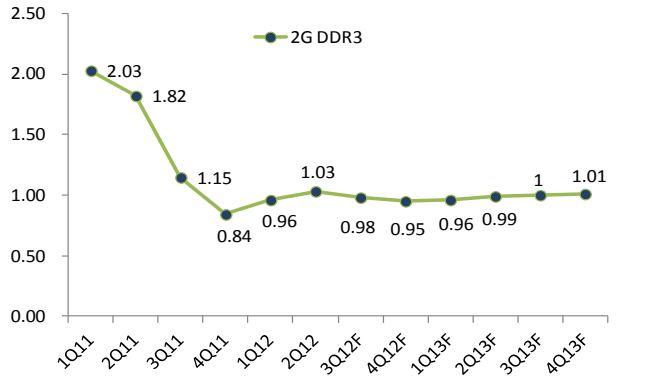
Source: Gartner, Leading Research Center

Exhibit 65. DRAM supply/demand trend



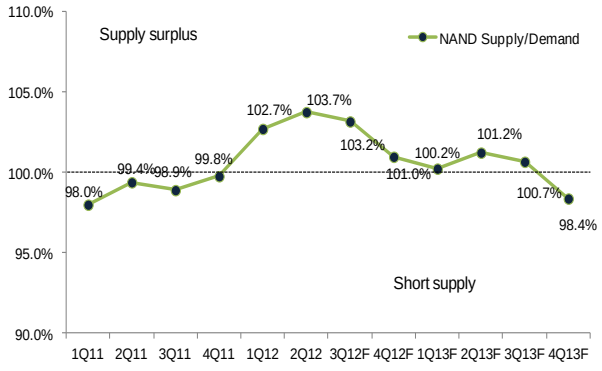
Source: Gartner, Leading Research Center

Exhibit 66. DRAM ASP outlook (US$)



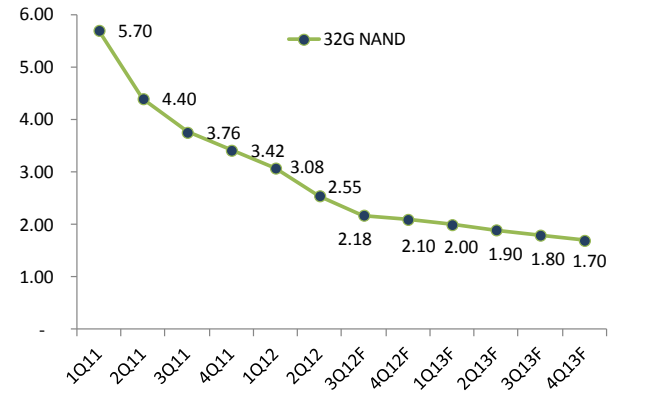
Source: Gartner, Leading Research Center

Exhibit 67. NAND supply/demand trend



Source: Gartner, Leading Research Center

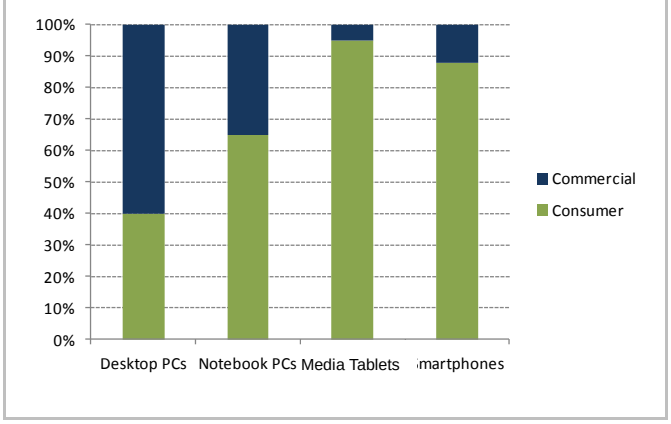
Exhibit 68. NAND ASP outlook (US$)



Source: Company data, Leading Research Center

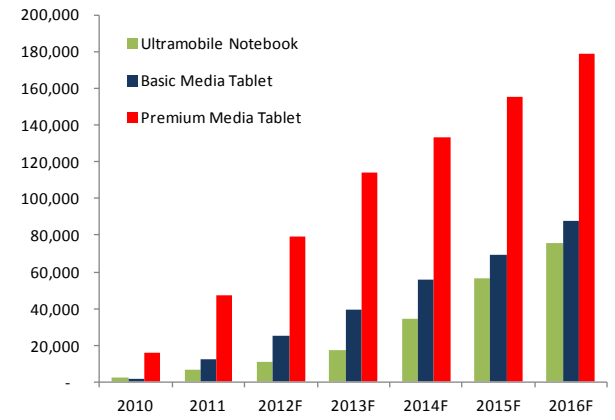
Window 8 will increase commercial demand

Exhibit 69. Demand for tablet PC (2011)



Source: IDC, Leading Research Center

Exhibit 70. Premium tablet sales outlook ('000)



Source: IDC, Leading Research Center

Exhibit 71. Window 8 is likely to integrate diverse devices

Source: Each company, Leading Research Center

SK Hynix is the largest beneficiary from Window 8

Window 8 will generate a new opportunity to SK Hynix

Window 8 is expected to give a new opportunity to the semiconductor market because Window series have the largest market share in the PC OS market. For example, Microsoft Surface will be available in two versions, Surface and Surface Pro. Surface will run the Windows RT operating system and use an ARM CPU. Surface Pro will run the Windows 8 Pro operating system and use an Intel CPU. Therefore Surface Pro will require high memory content.

SK Hynix is likely to largely benefit from diversification of table PC suppliers since the company has low dependence on Samsung Electronics and Apple. New devices such as Window 8 Pro models which have high memory content, will substitute growth of Ultrabooks which showed lower growth than expected. Hence, SK Hynix, the pure semiconductor player, is expected to benefit from the market change.

Surface uses PC DRAM for high performance	Surface will use PC DRAM in order to have a price edge. Therefore, Surface is able to show high performance along with lower price than other tablets which use mobile DRAM.
Effect to improve PC DRAM demand	PC DRAM might be too big to place in smartphones, but not in tablets. Since PC DRAM will be sold with similar level of power consumption to mobile DRAM, demand for PC DRAM will likely increase.
High NAND demand from high NAND requirement of tablets	Commercial Window 8 Pro will require higher DRAM content and NAND content than other tablets. Commercial PCs is required to have huge storages because those PCs are unable to save important files on cloud systems given security issues. Samsung Ativ, which runs the Window 8 Pro, will release in two versions, equipped 128GB NAND and 256GB NAND. NAND demand is expected to increase driven by higher NAND content than other tablets.
Market recovery is expected in 2013	Inventories will be reduced by 2H12. Supply and demand of semiconductor will be stable driven by demand improvement from mobile DRAM, PC DRAM in tablets, and NAND. Hence, we anticipate SK Hynix's earnings to improve from 2013.

Section 10: Earnings forecast

Quarterly earnings outlook

Exhibit 72. 3Q12 earnings forecast

(Wbn)	3Q11	3Q12F	YoY (%)	2Q12	3Q12F	QoQ (%)
Revenue	2,291.1	2,516.7	9.8	2,632.0	2,516.7	(4.4)
OP	(276.8)	9.7	TB	22.8	9.7	(57.4)
EBITDA	622.9	847.1	36.0	792.8	847.1	6.9
NP	(562.6)	(17.8)	RR	(53.3)	(17.8)	(66.5)
OPM(%)	(12.1)	0.4	-	0.9	0.4	-
EBITDA margin(%)	27.2	33.7	-	30.1	33.7	-
NPM(%)	(24.6)	(0.7)	-	(2.0)	(0.7)	-

Source: Company data, Leading Research Center

Exhibit 73. Memory price trend

(USD)	4Q11	1Q12	2Q12	Average of July and August
2Gb DRAM	**1.00**	**0.92**	**1.12**	**1.06**
32Gb NAND	**3.67**	**3.12**	**2.45**	**2.18**
DRAM price change	-21.8%	-7.5%	20.8%	**-5.3%**
NAND price change	-17.3%	-15.0%	-21.5%	**-11.0%**

Source: Company data, Leading Research Center

Earnings recovery is expected in 4Q12

Despite sluggish earnings in 3Q12, we forecast positive earnings in 4Q12, given Window 8 effects in 4Q12 as well as improvement of DRAM and NAND supply/demand. In addition, DRAM restructuring and NAND production cut will take effect in 4Q12.

Exhibit 74. Quarterly earnings forecast

(Wbn)	1Q12	2Q12	3Q12F	4Q12F	1Q13F	2Q13F	3Q13F	4Q13F
Revenue	2,388.4	2,632.0	2,516.7	2,535.4	2,654.1	2,734.5	2,965.9	3,299.3
OP	(260.0)	22.8	9.7	145.2	327.6	477.9	548.1	802.2
EBITDA	579.1	792.8	847.1	1,003.3	1,186.3	1,342.0	1,417.9	1,672.7
NP	(271.2)	(53.3)	(17.8)	235.6	217.8	416.6	507.4	877.8
OPM(%)	(10.9)	0.9	0.4	5.7	12.3	17.5	18.5	24.3
EBITDA margin(%)	24.2	30.1	33.7	39.6	44.7	49.1	47.8	50.7
NPM(%)	(11.4)	(2.0)	(0.7)	9.3	8.2	15.2	17.1	26.6

Source: Company data, Leading Research Center

Annual earnings outlook

Earnings is expected to be largely increased in 2013

In 2013, PC memory supply/demand will likely to be stable with new tablets, and demand for mobile memory will be solid, given Window 8 expansion.

Since DRAM capacity expansion is limited in the world, and design scaling approaches the limit, real supply is estimated to decrease. In 2014, stable supply and demand are expected thanks to limited supply increase driven by supplier restructure in 4Q12.

Upcoming upcycle of the semiconductor market in 2013~2014

As a result, the market will enter the upcycle from 1Q13 and SK Hynix will grow in the double digit by 2014.

Exhibit 75. Annual earnings forecast

(Wbn)	2011	2012F	2013F	2014F	2012F YoY(%)	2013F YoY(%)	2014F YoY(%)
Revenue	10,395.8	10,072.5	11,653.9	13,174.0	(3.1)	15.7	13.0
OP	325.5	(82.3)	2,155.8	3,129.0	(125.3)	TB	45.1
EBITDA	3,792.4	3,222.3	5,618.8	6,627.0	(15.0)	74.4	17.9
NP	(56.0)	(106.8)	2,019.7	2,444.7	90.8	TB	21.0
OPM(%)	3.1	(0.8)	18.5	23.8	-	-	-
EBITDA margin(%)	36.5	32.0	48.2	50.3	-	-	-
NPM(%)	(0.5)	(1.1)	17.3	18.6	-	-	-

Source: Company data, Leading Research Center

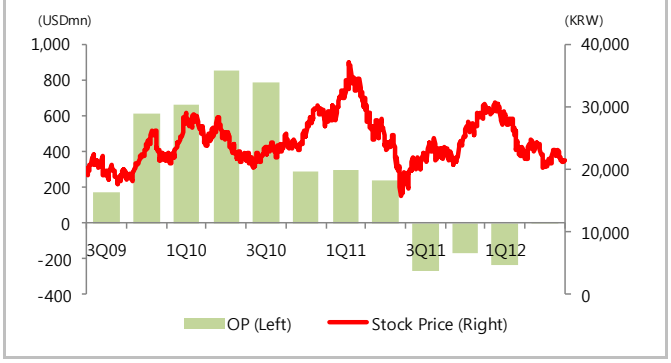
Exhibit 76. SK Hynix key assumptions

Key assumption	1Q12	2Q12	3Q12F	4Q12F	1Q13F	2Q13F	3Q13F	4Q13F	2011	2012F	2013F
KRW/USD	1131.0	1152.4	1150.0	1125.0	1110.0	1100.0	1110.0	1110.0	1108.1	1139.6	1110.0
DRAM											
Shipment (1Gb equivalent, million)	1,896.8	2,074.9	2,155.6	2,242.0	2,349.2	2,390.3	2,546.5	2,870.7	6,305.1	8,369.3	10,156
Bit Growth (QoQ, YoY)	8%	9%	4%	4%	5%	2%	7%	13%	50%	33%	21%
ASP (1Gb equivalent, million, US$)	0.778	0.821	0.756	0.756	0.764	0.788	0.796	0.804	1.071	0.777	0.789
QoQ, YoY	-10.2%	5.5%	-7.9%	0.0%	-1.3%	3.1%	1.0%	1.0%	-49.1%	-27.4%	1.5%
NAND											
Shipment (1Gb equivalent, million)	4,179.8	4,583.2	4,910.2	5,353.7	6,000.7	6,383.5	7,215.8	7,871.2	12,574.1	19,026	27,471
Bit Growth (QoQ, YoY)	2%	10%	7%	9%	12%	6%	13%	9%	138%	51%	44%
ASP (1Gb equivalent, million, US$)	0.152	0.127	0.114	0.104	0.099	0.094	0.089	0.084	0.209	0.123	0.091
QoQ, YoY	-7.8%	-16.8%	-10.2%	-8.3%	-4.8%	-5.0%	-5.3%	-5.6%	-37.0%	-41.4%	-25.6%

Source: Leading Research Center

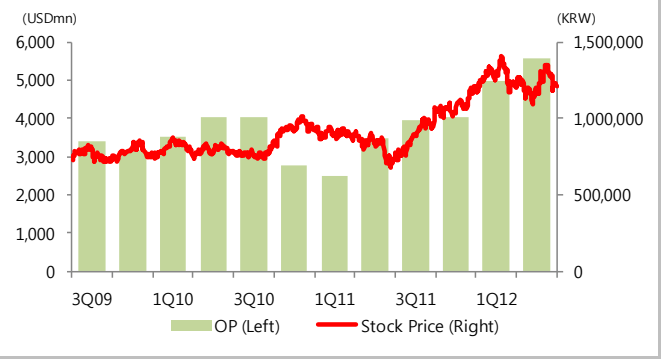
Peer companies operating profit and stock price trend

Exhibit 77. SK Hynix



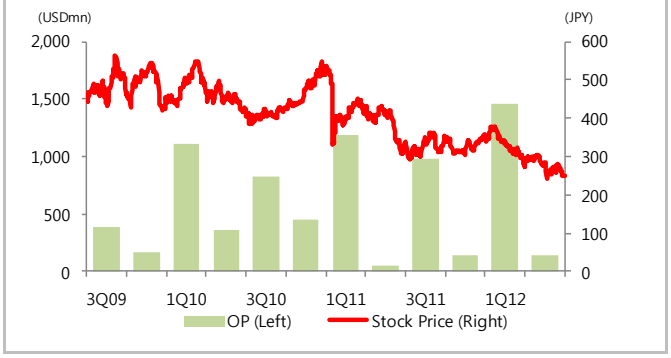
Source: Bloomberg, Leading Research Center

Exhibit 78. Samsung Electronics



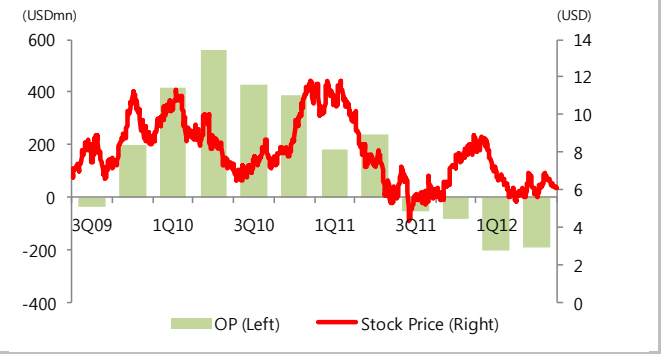
Source: Bloomberg, Leading Research Center

Exhibit 79. Toshiba



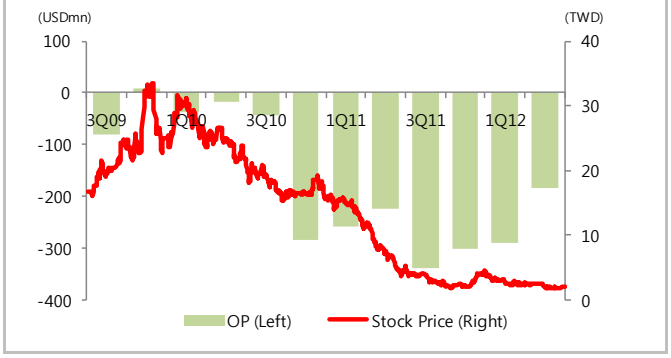
Source: Bloomberg, Leading Research Center

Exhibit 80. Micron



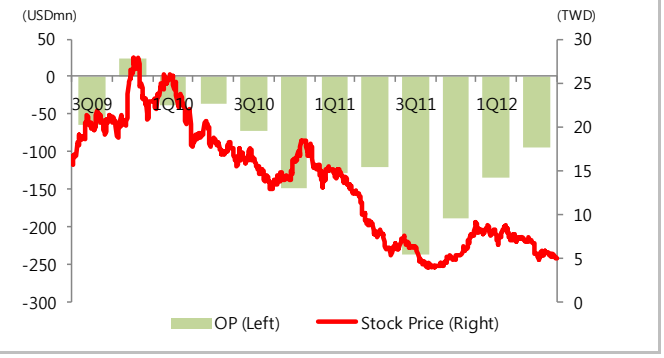
Source: Bloomberg, Leading Research Center

Exhibit 81. Nanya



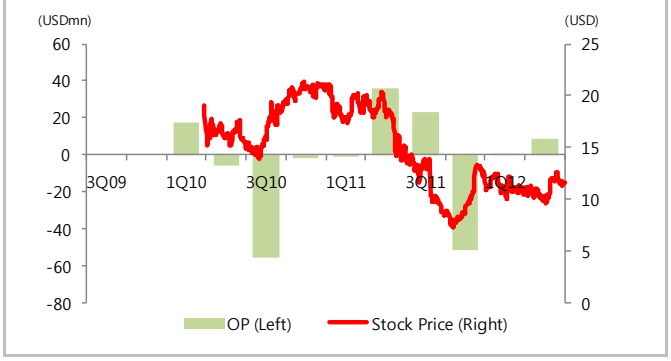
Source: Bloomberg, Leading Research Center

Exhibit 82. Inotera



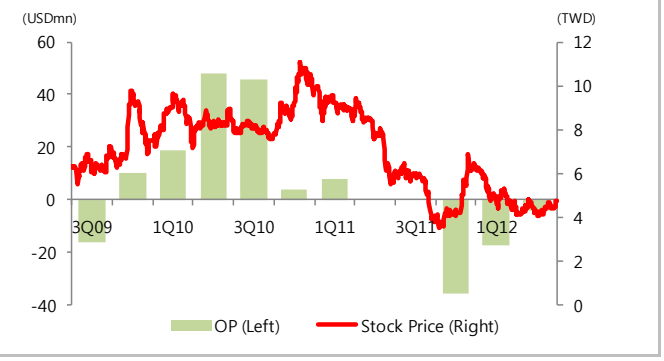
Source: Bloomberg, Leading Research Center

Exhibit 83. Spansion



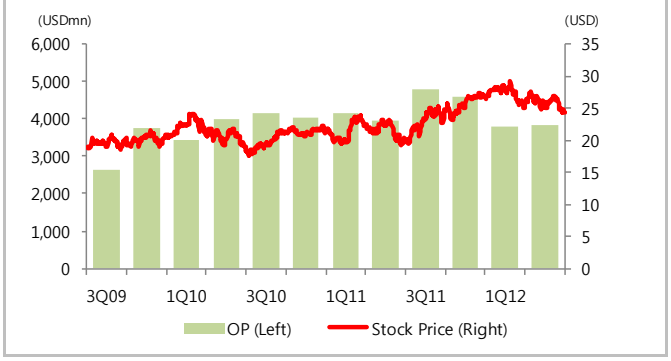
Source: Bloomberg, Leading Research Center

Exhibit 84. Winbond



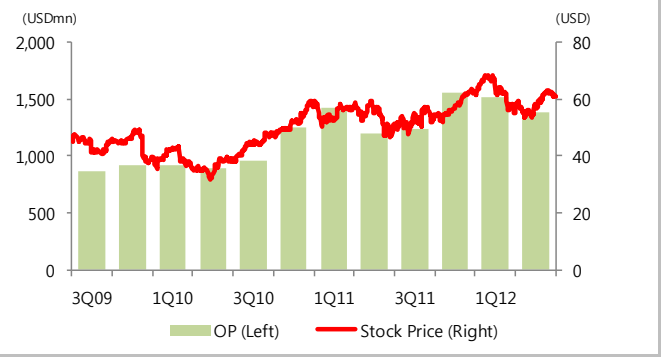
Source: Bloomberg, Leading Research Center

Exhibit 85. Intel



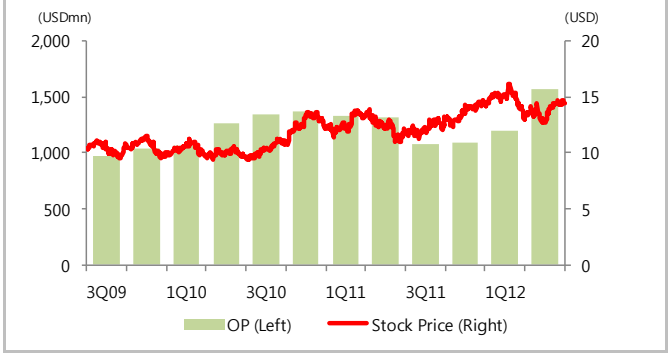
Source: Bloomberg, Leading Research Center

Exhibit 86. Qualcomm



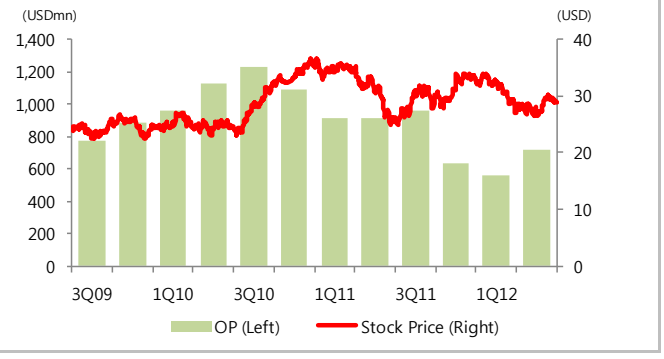
Source: Bloomberg, Leading Research Center

Exhibit 87. TSMC



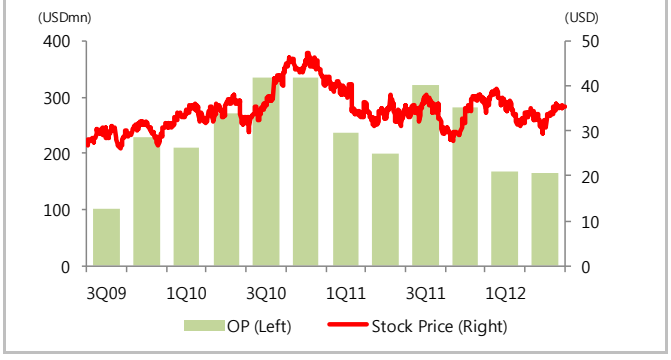
Source: Bloomberg, Leading Research Center

Exhibit 88. TI



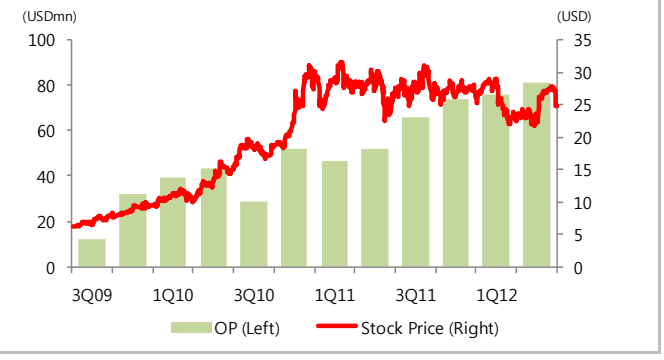
Source: Bloomberg, Leading Research Center

Exhibit 89. Broadcom



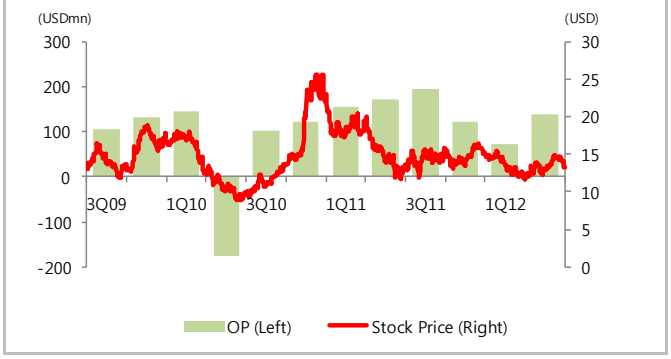
Source: Bloomberg, Leading Research Center

Exhibit 90. ARM



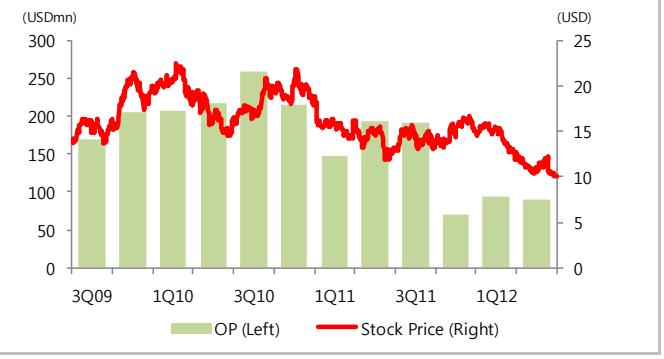
Source: Bloomberg, Leading Research Center

Exhibit 91. NVIDIA



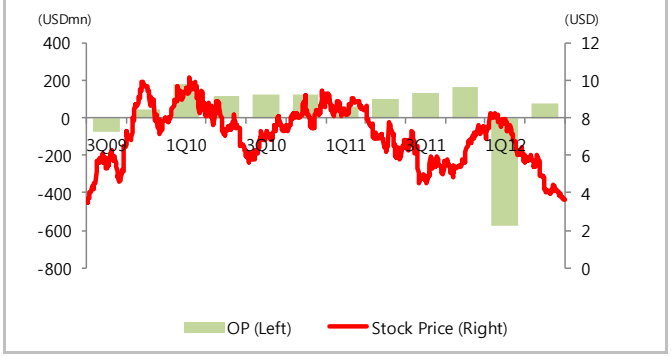
Source: Bloomberg, Leading Research Center

Exhibit 92. Marvell



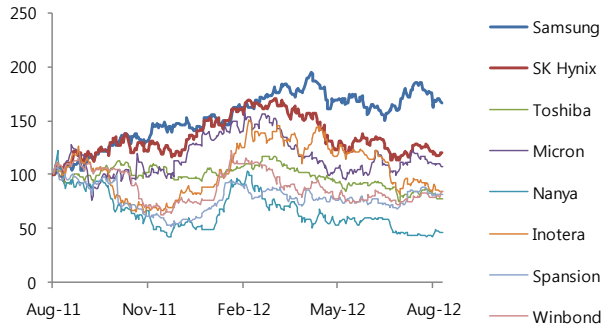
Source: Bloomberg, Leading Research Center

Exhibit 93. AMD



Source: Bloomberg, Leading Research Center

Exhibit 94. Relative performance



Source: Bloomberg, Leading Research Center

Financial Statement

Balance sheet

(Wbn)	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Current Assets	4,712.7	4,154.0	2,751.3	4,668.6	5,338.0	4,936.9	6,969.6	6,738.0	6,691.8
Quick Assets	2,168.9	2,054.7	719.7	1,518.7	2,196.3	1,875.9	3,814.6	3,626.3	3,726.3
Inventories	1,564.6	1,014.4	812.4	1,963.9	1,751.0	1,753.6	1,694.9	1,265.5	1,095.0
Non-current Assets	895.2	1,006.2	1,092.1	1,057.3	1,264.9	1,183.6	1,253.9	1,631.7	1,647.1
Investment Assets	10,672.2	13,564.3	13,824.9	11,634.9	12,246.3	12,301.3	13,285.0	14,520.8	15,728.7
Tangible Assets	827.2	666.8	965.9	1,029.9	880.4	694.3	690.8	712.7	735.5
Intangible Assets	9,282.3	12,368.5	12,362.6	10,143.0	10,816.9	10,899.3	11,830.0	12,945.0	14,035.0
Total Assets	562.7	529.0	496.4	462.0	549.0	707.6	764.2	863.2	958.2
Current Assets	**15,384.9**	**17,718.3**	**16,576.2**	**16,303.5**	**17,584.3**	**17,238.1**	**20,254.6**	**21,258.9**	**22,420.5**
Current Liabilities	2,730.8	4,059.6	5,237.5	5,769.2	5,341.6	4,817.3	5,319.4	4,572.0	3,750.0
Accounts Payable	1,598.3	1,778.4	1,422.7	1,316.7	1,528.9	1,195.1	1,850.0	1,788.0	1,680.0
Short-term Debts	455.7	1,490.2	2,658.6	3,004.1	2,577.7	2,869.1	2,617.5	1,897.5	1,147.5
Non-current Liabilities	3,879.6	4,344.4	5,812.5	4,615.0	4,073.2	4,545.6	4,848.9	4,581.0	4,223.9
Long-term Debts	2,947.5	3,630.5	5,236.6	4,047.3	3,420.6	3,953.8	4,254.7	3,964.7	3,584.7
Total Liabilities	**6,610.4**	**8,404.0**	**11,050.0**	**10,384.3**	**9,414.8**	**9,362.9**	**10,168.3**	**9,153.0**	**7,973.9**
Capital Stock	2,312.8	2,313.8	2,315.7	2,965.8	2,969.0	2,978.5	3,488.3	3,488.3	3,488.3
Capital Surplus	672.2	860.7	929.0	1,303.5	1,414.7	1,229.1	3,049.2	3,049.2	3,049.2
Earned Surplus	5,845.8	6,075.6	1,356.1	1,005.9	3,653.8	3,555.3	3,448.7	5,468.3	7,809.0
Capital Adjustment	(297.8)	(205.1)	489.5	177.1	132.3	112.9	100.8	100.8	100.8
Treasury Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Equity	**8,774.5**	**9,314.3**	**5,526.2**	**5,919.3**	**8,169.5**	**7,875.3**	**10,086.3**	**12,105.9**	**14,446.6**
Invested capital	9,994.3	12,365.9	12,652.5	11,289.1	11,815.7	12,671.2	12,992.6	14,190.6	15,301.1
Net debts	1,234.3	3,065.9	7,175.6	5,532.7	3,802.0	4,947.0	3,057.5	2,235.9	1,005.8
ROA	15.8	2.1	(27.5)	(2.1)	15.6	(0.3)	(0.6)	9.7	11.2
ROE	27.8	3.9	(66.8)	(6.6)	38.9	(0.7)	(1.2)	18.2	18.4
ROIC	17.9	3.6	(11.1)	1.2	27.9	(3.3)	(0.5)	15.3	16.6

Income statement

(Wbn)	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Revenue	**7,731.9**	**8,643.6**	**6,818.0**	**7,906.4**	**12,098.7**	**10,395.8**	**10,072.5**	**11,653.9**	**13,174.0**
growth (%)	29.8	11.8	(21.1)	16.0	53.0	(14.1)	(3.1)	15.7	13.0
Operating Profit	**2,074.1**	**513.7**	**(1,920.1)**	**192.0**	**3,273.1**	**325.5**	**(82.3)**	**2,155.8**	**3,129.0**
growth (%)	28.5	(75.2)	(473.8)	(110.0)	1,605.0	(90.1)	TR	TB	45.1
EBITDA	3,618.1	2,843.0	1,007.2	2,987.6	6,100.4	3,792.4	3,222.3	5,618.8	6,627.0
Non-operating Gains/Losses	**(146.4)**	**(51.1)**	**(2,854.5)**	**(562.8)**	**(576.9)**	**(280.3)**	**(6.9)**	**(64.1)**	**(13.0)**
Net Interest Income	(142.9)	(180.1)	(329.0)	(403.2)	(281.6)	(253.9)	(231.8)	(228.2)	(178.7)
Foreign Currency Gains	142.1	88.1	(1,080.4)	275.4	(53.6)	(19.1)	49.0	0.0	0.0
Equity Method Gains	1.6	1.2	0.4	0.4	0.3	2.8	7.0	0.0	0.0
Pre-tax Profit	**1,927.7**	**462.6**	**(4,774.6)**	**(370.8)**	**2,696.2**	**45.1**	**(89.2)**	**2,091.7**	**3,116.0**
Net Profit	**2,054.0**	**363.9**	**(4,744.7)**	**(332.6)**	**2,656.5**	**(56.0)**	**(106.8)**	**2,019.7**	**2,444.7**
Controlling interest	2,055.2	346.3	(4,719.6)	(347.8)	2,647.9	(56.6)	(106.6)	2,019.7	2,444.7
growth (%)					TB	TR	RR	TB	21.0
NOPLAT	**1,503.7**	**404.1**	**(1,392.1)**	**139.2**	**3,224.9**	**(403.5)**	**(59.6)**	**2,081.6**	**2,454.9**
(+) Dep	1,544.0	2,329.2	2,927.3	2,795.7	2,827.3	3,466.9	3,304.6	3,463.0	3,498.0
(-) Wc	154.6	(738.8)	(77.1)	932.0	(6.9)	734.9	(659.7)	(15.8)	(74.3)
(-) Capex	4,622.6	5,159.6	2,821.4	1,012.6	3,421.0	3,568.2	3,400.6	4,500.0	4,500.0
OpFCF	(1,729.4)	(1,687.4)	(1,209.0)	990.2	2,638.0	(1,239.7)	504.0	1,060.4	1,527.2

Free cashflow analysis

(Wbn)	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Operating cash flow	**3,291.0**	**3,431.6**	**(375.9)**	**1,340.4**	**5,907.8**	**2,856.0**	**3,396.8**	**5,520.6**	**6,040.0**
Net Profit	2,054.0	363.9	(4,744.7)	(332.6)	2,656.5	45.1	(97.2)	2,019.7	2,444.7
Depr. & Amort.	1,544.0	2,329.2	2,927.3	2,795.7	2,827.3	3,466.9	3,304.6	3,463.0	3,498.0
Chg in Working Capital	(528.6)	281.7	(1,255.9)	(893.6)	95.6	(813.1)	101.1	15.8	74.3
Chg in Accounts Receivable	(602.0)	423.8	770.9	(1,172.1)	224.6	137.6	29.1	429.4	170.5
Chg in inventories	(406.4)	(244.1)	(477.8)	528.3	(210.1)	99.7	(60.4)	(377.8)	(15.5)
Chg in Accounts Payable	566.6	126.5	(1,057.2)	(167.8)	155.5	(230.4)	133.8	(62.0)	(108.0)
Investing cash flow	**(4,595.1)**	**(5,188.0)**	**(2,037.7)**	**(1,004.4)**	**(4,709.4)**	**(3,389.3)**	**(4,294.2)**	**(4,751.8)**	**(4,760.9)**
Chg in Short-term Investments	(3.1)	(24.7)	180.0	(125.4)	(662.3)	4.8	(728.4)	(52.9)	(55.1)
Chg in Long-term Investment Securities	13.5	4.6	(15.0)	(7.0)	(9.1)	(7.9)	8.9	0.0	0.0
Capex	(4,622.6)	(5,159.6)	(2,821.4)	(1,012.6)	(3,421.0)	(3,568.2)	(3,400.6)	(4,500.0)	(4,500.0)
Disposal of Tangible&Intangible Assets	(7.8)	(5.8)	648.3	256.8	(110.5)	(147.8)	(128.2)	(177.0)	(183.0)
Financing cash flow	**2,184.5**	**1,594.1**	**1,171.0**	**354.5**	**(1,140.4)**	**519.1**	**2,166.4**	**(1,010.0)**	**(1,234.1)**
Chg in debt	1,695.8	1,593.1	1,117.1	(734.9)	(1,140.4)	607.9	(161.7)	(1,010.0)	(1,130.0)
Chg in Equity	490.5	0.0	0.0	1,031.0	0.0	(88.5)	2,328.1	0.0	(104.1)
Dividend Payout	0.0	0.0	0.0	0.0	88.5	0.0	0.0	104.1	138.8
Chg in Cash	870.5	(140.3)	(1,175.4)	682.2	38.3	(9.4)	1,267.6	(241.3)	45.0
Gross cash flow	**3,819.6**	**3,149.9**	**880.1**	**2,234.0**	**5,812.1**	**3,892.3**	**3,396.9**	**5,504.7**	**5,965.6**
(-) Chg in WC	154.6	(738.8)	(77.1)	932.0	(6.9)	734.9	(659.7)	(15.8)	(74.3)
(-) Capex	4,622.6	5,159.6	2,821.4	1,012.6	3,421.0	3,568.2	3,400.6	4,500.0	4,500.0
(+) Disposal of Assets	(7.8)	(5.8)	648.3	256.8	(110.5)	(147.8)	(128.2)	(177.0)	(183.0)
Free Cash Flow	(965.3)	(1,276.6)	(1,215.9)	546.1	2,287.5	(558.6)	527.7	843.6	1,357.0
(-) Other Investments	(13.5)	(4.6)	15.0	7.0	9.1	7.9	(8.9)	0.0	0.0
Free Cash	(951.8)	(1,272.0)	(1,230.9)	539.1	2,278.4	(566.5)	536.6	843.6	1,357.0

Key indicator

	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E
Per share Data									
EPS	4,532	754	(10,273)	(624)	4,487	(96)	(154)	2,910	3,522
BPS	18,589	19,696	11,075	9,247	13,841	13,300	14,532	17,442	20,814
DPS	0	0	0	0	150	0	0	150	200
Valuation (x,%)									
PER	8.0	34.4	(0.7)	(37.1)	5.3	(229.2)	(150.1)	8.0	6.6
PBR	2.0	1.3	0.6	2.5	1.7	1.7	1.6	1.3	1.1
EV/EBITDA	5.0	5.3	10.2	6.4	2.9	4.7	6.0	3.2	2.6
Dividend yield	0.0	0.0	0.0	0.0	0.6	0.0	n/a	0.8	1.0
PCR	4.3	3.8	3.5	5.8	2.4	3.3	4.7	2.9	2.7
PSR	2.1	1.4	0.5	1.6	1.2	1.2	1.6	1.4	1.2
Stabilities (%)									
Liabilities Ratio	75.3	90.2	200.0	175.4	115.2	118.9	100.8	75.6	55.2
Net debt/Equity	14.1	32.9	129.8	93.5	46.5	62.8	30.3	18.5	7.0
Net debt/EBITDA	34.1	107.8	712.4	185.2	62.3	130.4	94.9	39.8	15.2
Current ratio	172.6	102.3	52.5	80.9	99.9	102.5	131.0	147.4	178.4
Interest coverage ratio	14.5	2.9	n/a	0.5	11.6	1.3	n/a	9.4	17.5
Interest/Sales	2.6	3.0	6.1	5.5	2.9	3.0	3.3	2.7	2.0
Asset Structure									
IC	76.9	82.0	88.2	81.6	79.3	83.1	74.3	76.6	77.4
Cash + IC(%)	23.1	18.0	11.8	18.4	20.7	16.9	25.7	23.4	22.6
Capital Structure									
Debt/Asset	27.9	35.5	58.8	54.4	42.3	46.4	40.5	32.6	24.7
Equity/Asset	72.1	64.5	41.2	45.6	57.7	53.6	59.5	67.4	75.3

▶ Compliance Notice

This report was produced by Leading Investment & Securities Co., Ltd. 4th Floor, W Bank Bldg., 90-7, Nonhyeon-Dong, Gangnam-Gu, Seoul 135-818, Korea. Tel: +82 2 2009 7184

This Security Research Document is independent and covered by the Security Research Conflict Management Policy of ***Leading Investment & Securities Co., Ltd.***

Analyst Certification

The analyst(s) responsible for the content of this research report certify that: (1) the views expressed and attributed to the research analyst or analysts in the research report accurately reflect their personal opinion(s) about the subject securities and issuers and/or other subject matter as appropriate; and, (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views contained in this research report.

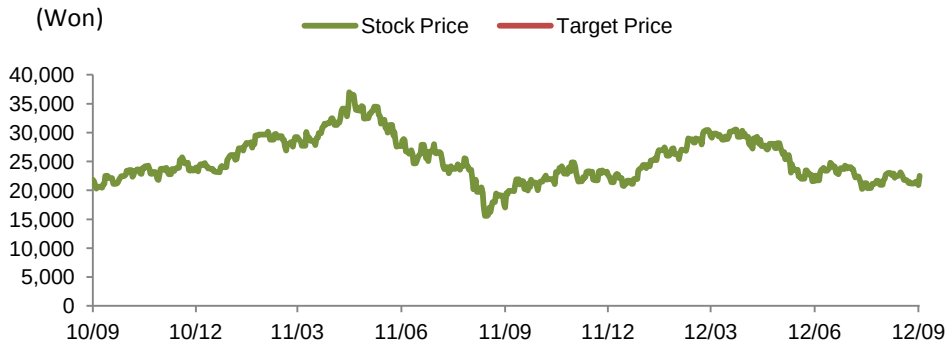
Leading Investment & Securities Co., Ltd. does not own more than 1%of the subject company's outstanding shares.
Leading Investment & Securities Co., Ltd. does not have any special interest with the subject company

This report has been prepared by ***Leading Investment & Securities Co****. and is for information purposes only. This report does not constitute an offer, invitation or inducement to invest in securities or other investments or otherwise engage in investment activity. Neither the information contained in this report nor any further written or oral information made available in relation thereto will form the basis of any contract.*
This report does not purport to be comprehensive or to contain all the information on which a prospective investor may need in order to make an investment decision. The information contained herein is based upon publicly available information and sources which we believe to be reliable, but we do not represent it as accurate or complete. The recipient of this report must make its own investigation and assessment of the information presented herein. The information contained herein is believed to be accurate as at the date of this report but no representation, warranty or undertaking, express or implied, is or will be made or given and no responsibility or liability is or will be accepted by ***Leading Investment & Securities Co****. or any of its directors, officers, employees, agents or advisors, in relation to the accuracy or completeness of this report or any other written or oral information made available in relation thereto. Any responsibility or liability for any such information is expressly disclaimed.*
This report is private and is being made available to the recipient on the understanding that it will be kept confidential and that the recipient shall not copy, reproduce, distribute or pass this report to third parties in whole or in part at any time. This report is only intended for clients of ***Leading Investment & Securities Co*** *and is not for publication in the press nor is it being issued or distributed to persons who are private customers.*
In furnishing this report, ***Leading Investment & Securities Co.*** *undertakes no obligation to provide the recipient with access to any additional information, or to update, or to correct any inaccuracies which may become apparent in this report.*
Leading Investment & Securities Co. *is authorized and regulated by the Financial Services Authority in the conduct of its designated.*

▶ Ratings and target price history in past two years

SK Hynix (000660 KS)	
Date	2012-09-10
Rating	BUY
Target price	30,000

▶ Target price changes in past two years



▶ Investment period and ratings

Company	
BUY	The stock is expected to outperform the market by at least 15%p over the next 12 months.
HOLD	The stock is expected to either outperform or underperform the market by less than 15%p over the next 12 months.
SELL	The stock is expected to underperform the market by at least 15%p over the next 12 months

Industry	
OVERWEIGHT	Industry indicators are expected to outperform the by at least 5%p over the next 12 months.
NEUTRAL	Industry indicators are expected to be in line with the market within 5%p over the next 12 months.
UNDERWEIGHT	Industry indicators are expected to underperform the market by at least 5%p over the next 12 months

©. 2012 ***Leading Investment & Securities Co****. All rights reserved*