LEADING

Mid-Cap Research

Foosung (093370 KS)

December 5, 2011

A pearl in the sea of the rechargeable battery industry

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Leading Traffic Light: Green

Foosung is…

- ✓ The only domestic manufacturer of Li-Salt ($LiPF_6$), a rechargeable battery material
- ✓ The domestic fluorochemical market leader

Green light because:

- ✓ Beneficiary of the expanding rechargeable battery market (IT devices→electric vehicles)
- ✓ Multiple sources of future profits: Li-Salt ($LiPF_6$), refrigerant gases, CDM license

Growth Potential:

- ➢ Continuous revenue growth is likely with 24% YoY expansion of the battery market expected through 2013F
- ➢ 2010 revenue expected to double by 2013F

Management & shareholder concern:

- ➢ 2nd generation CEOs promoting new businesses (Adding a new product lines for $LiPF_6$)
- ➢ Investing profits in the company's growth rather than paying out dividends in the near future

Strong Value Creation:

- ➢ ROE is expected to improve significantly:
- ➢ 5.4% in 2010→21.1% in 2011E→32.8% in 2013F
- ➢ Improved ROIC less WACC due to revenue increases from previous investments:
  -4.8% in 2010→5.0% in 2011E→10.6% in 2013F

Valuation:

- ➢ Applying a 50% premium to the average of its peers' EV/EBITDA renders 14.0x
- ➢ Target price of W13,400 with 69.8% price appreciation potential over the current price of W7,980

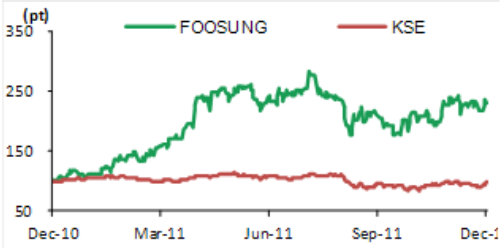
BUY

Target Price (KRW)	**W13,400**
Current Price	**W7,890**
Upside potential	**69.8%**

Key Data	**December 2, 2011**
Sector	Materials
KOSPI	1,916.04
Market Cap. (Wbn)	669.3
Shares Outstanding (m)	84.8
Foreign Ownership (%)	5.0
52 Week High (W)	9,690
Low (W)	3,400
60-d avg. turnover (Wbn)	2.4
Major Shareholders	**(%)**
Yong Min Kim et al.	49.4

Performance (%)	**1M**	**6M**	**12M**
Absolute	(3.3)	(0.1)	132.1
Relative	(4.3)	9.2	133.8

Relative Performance



CAVEAT EMPTOR!!! – Watch out for…

- ➢ Possibility of domestic competitors entering the market
  - ✓ However, it will likely take competitors at least three years of costly R&D to catch up with Foosung's technology
- ➢ Risk from increased supply of cheaper Chinese refrigerant gases
- ➢ Risk of Japanese $LiPF_6$ producers supplying goods at lower prices

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)
2008	136.2	41.0	3.4	2.5	14.5	190.1	61.0	42.3	43.9	23.9	8.0
2009	142.6	4.7	0.9	0.6	7.2	86.2	(54.6)	93.3	45.5	8.1	6.2
2010	180.1	26.3	8.7	4.8	5.8	68.3	(20.8)	117.8	29.0	5.4	6.0
2011E	239.3	32.8	32.1	13.4	26.5	312.4	357.1	25.8	12.6	21.1	4.9
2012E	288.9	20.7	50.9	17.6	61.5	725.0	132.1	11.1	8.7	36.3	3.4
2013E	344.6	19.3	71.3	20.7	78.5	925.9	27.7	8.7	6.6	32.8	2.4

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Key check points

✓ The only domestic $LiPF_6$ producer – business model based on stability and high return

Foosung is the only domestic producer of $LiPF_6$, a core material used to manufacture rechargeable batteries. The company's production output was an insignificant 200 tons per year until 2009, but the growth of the battery market prompted the firm to expand its production capacity to meet increased demand. The company increased its capacity by 2,000 tons from 2010 to 2011, and further increases are planned. Through these efforts, the firm expects to yield over 10% profit in 2011E, improved from lower than 5% in previous years (Pages 4 & 5).

✓ Generating sound earnings through the rapid growth of revenue starting in 2011E

As a result of price increase of refrigerant gases and increased sales of $LiPF_6$, revenue is expected to increase by 32.8% and reach W239.3bn in 2011E. ROE is also expected to make a dramatic increase to reach 13.4%, a huge improvement over the 2010 ROE of 5.4%. Growth is expected to continue beyond 2012F. The company will likely complete its capacity increases in 2011E, resulting in an estimated 20.7% increase in revenue to W288.9bn in 2012F (Page 6).

✓ Earnings improvement to improve financial structure starting in 2012F

Excessive amounts of CAPEX prompted the company to increase debt, and future investment is likely to create a need to raise more capital (by issuing BWs or CBs). Although the firm is expected to generate cashflow of W35.2bn in 2011E, investments totaling W55.0bn for a capacity expansion and a joint venture should result in more debt, and the debt to equity ratio is expected to remain at 86.5%. However, NP in 2012F will likely exceed CAPEX, and the resulting positive FCF can be used on debt reduction. Furthermore, the expected 2013F FCF should be enough to cover the cost of expansions planned for 2013. Therefore, net debt to equity ratio is expected to continually decrease, falling to 30.7% in 2012F and 4.5% in 2013F (Page 8).

✓ Renewal of CDM license and increasing NP through successful entry into the electrolyte industry

The EU renewed Foosung's clean development mechanism (CDM) license in November 2011. The active status of this license allows the company to generate additional earnings by trading carbon credits under the framework of the Kyoto Protocol. The expected earnings from carbon trading between 2010 and 2016F should be about W48.0bn. This is considered non-operating profit, and it does not require additional expense. Foosung is also diversifying into other areas of business. It entered into a joint-venture (49.9% share) with Novolyte Technologies, a US battery material manufacturer. The joint venture is expected to generate NP of W3.0bn annually (Page 16).

✓ Target price of W13,400 per share implies upside potential of 69.8%

Foosung has been consistently investing capital in new businesses for the last 4 years and further investments are expected, which will naturally incur a high amount of depreciation expenses. As such, we believe EV/EBITDA valuation is a more appropriate valuation tool for Foosung than PER valuation. Given the fact that Foosung's ROE and OPM are much higher than its competitors, we felt comfortable applying a 50% premium to the 2012F average 9.3x EV/EBITDA of Foosung's peer companies, rendering 14.0X. We therefore assess fair value at W13,400 per share which implies 69.8% price appreciation potential (Pages 18 & 19).

Section 1: Company Snapshot

Manufacturer of fluorochemicals

Company focusing on producing fluorochemicals, especially refrigerant gases

Foosung's core products are refrigerant gases, rechargeable battery materials, and gases used in semiconductor manufacturing. The company also makes car mats.

Exclusive domestic supplier for $LiPF_6$: 20 years of accumulated fluorochemical experience

The company is the only domestic manufacturer of $LiPF_6$, a rechargeable battery material. The firm supplies $LiPF_6$ to three major battery electrolyte producers: LG Chem (051910), Panax E-Tec (Unlisted), and Soulbrain (036830). 34% of the domestic demand for $LiPF_6$ is supplied by Foosung.

Dominant 70% domestic market share in the refrigerant gas industry

The company's main product, refrigerant gas, accounted for 50% of Foosung's total sales and 70% of the domestic market share in 2010. Primary customers include Hyundai Motors (005380), Kia Motors (000270), Renault Samsung Motors (Unlisted), Samsung Electronics (005930), and LG Electronics (066570). Semiconductor gases were 12% of revenue, while the company had 90% of the domestic anhydrous hydrofluoric acid (AHF) market share. The company also enjoyed a remarkable 45% of the domestic car mat market share, as it is the supplier to Hyundai Motors.

$LiPF_6$ is expected to account for a larger portion of revenue after consistent increases in production capacity

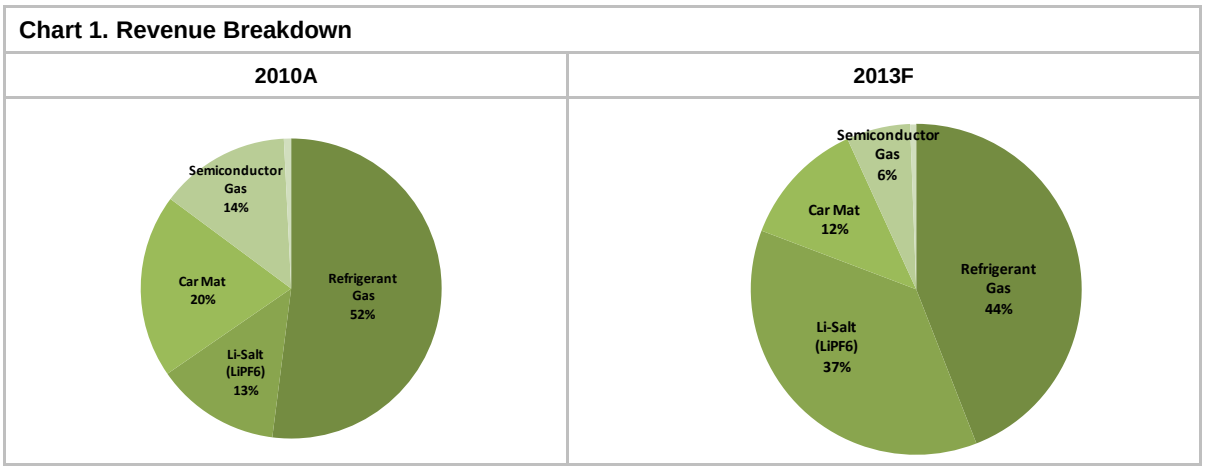
The proliferation of devices that use rechargeable batteries has caused rapid increases in the demand for $LiPF_6$. Continuing increases are expected to drive the future growth of the firm. As such, the company doubled its production capacity (2,000 tons per year) in 2011 and is considering investment in an additional product line. The firm has aims to increase its production capacity up to 5,000 tons per year by 2015F. Therefore, sales of rechargeable battery materials are expected to account for up to 37% of total sales by 2013F, up from 13% in 2010.

Table 1. Product Portfolio

Products	Product Family	Application	Domestic M/S	Peers
Rechargeable Batteries	($LiPF_6$), Additives (FEC, VEC)	Rechargeable Batteries	34%(Only domestic Supplier)	Stella, Kanto
Refrigerant gases	Alternative Refrigerant	Air Conditioner	70%(Market Leader in Korea)	Finetec (15%)
Semiconductor gases	NF_3(Plasma and Thermal Cleaning Gas), WF_6(Deposition Gas)	Semiconductor, LCD	Some products have 90% M/S	-
Floor Mats	Auto accessories	Automobile	45%(Market Leader in Korea)	(40%)

Source: Company data, Leading Research Center

Chart 1. Revenue Breakdown



Source: Company data, Leading Research Center

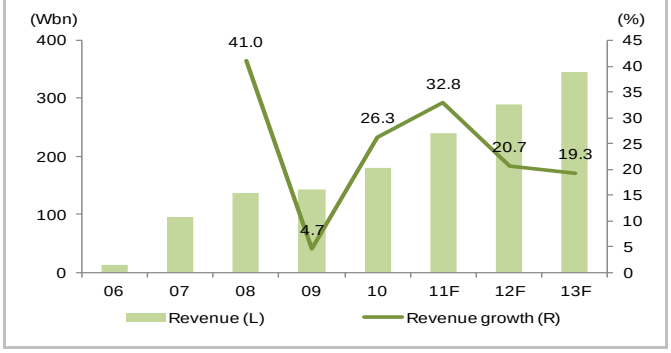
Rising refrigerant gas prices, increases in $LiPF_6$ sales, and reentry into CDM enhanced the performance of the firm

All financial indexes including sales and OP have been improving noticeably since 2010. The most significant cause of the company's success is increased $LiPF_6$ sales due to the expansion of rechargeable battery market. Sales will continue to increase as long as the company can increase production capacity to keep up with the demand for $LiPF_6$.

Price appreciation for refrigerant gas has also been beneficial, as the company had a large stock of fluorite and was immune to later price increases. In addition, environmental policies in China decreased the competitiveness of Chinese suppliers, thereby increasing the demand for domestically produced refrigerant.

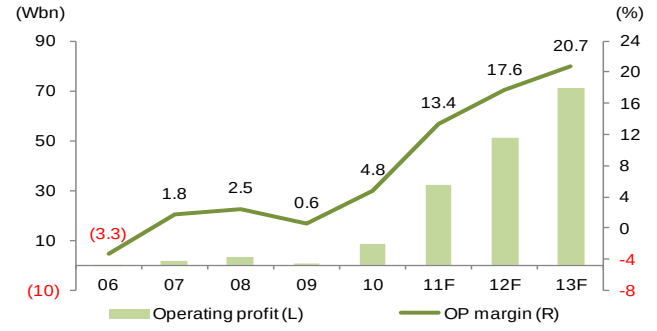
NP increased due to the company's reentry into the carbon trading business. The EU renewed the company's CDM license which had expired in 2009, and the profit generated from this will be noticeable in 2011E. YoY profit of W5~6b is expected and accumulated earnings from CDM of W20bn is guaranteed.

Chart 2. Revenue and growth trend



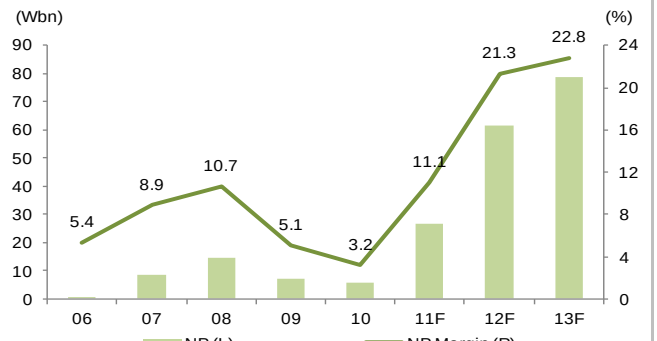
Source: Company data, Leading Research Center

Chart3. Operating profit and OPM trend



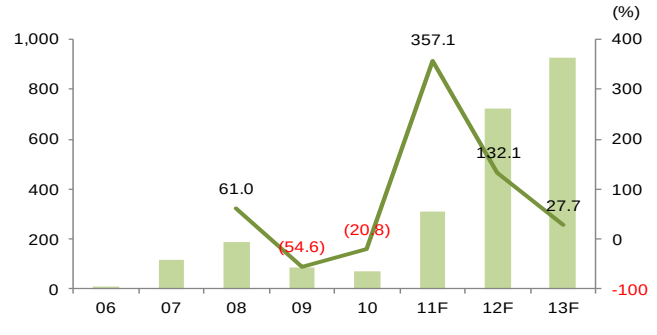
Source: Company data, Leading Research Center

Chart 4. Net profit and NP margin trend



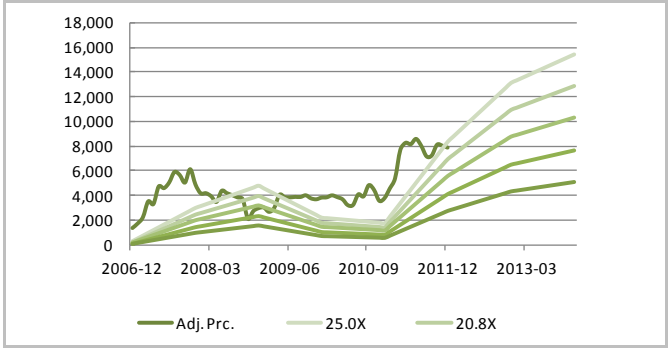
Source: Company data, Leading Research Center

Chart 5. EPS and EPS growth



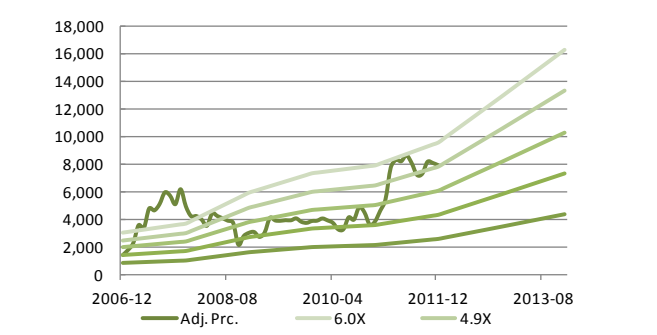
Source: Company data, Leading Research Center

Chart 6. PER Band



Source: FnGuide

Chart 7. PBR Band



Source: FnGuide

Section 2: Is the company a value creator?

ROE rebounding from 2010 low

ROE plummeted to 5.4% in 2010

Reduced profit from CDM, increased expenses on shipping and packaging, and the increase in depreciation expenses caused the firm's net profit to drop by more than 60%. On the other hand, the firm's capital in 2010 increased by 50% compared to 2008 due to issuing BWs. As a result, the ROE decreased from 24% in 2008 to 5.4% in 2010.

Table 2. Primary factors for lower earnings

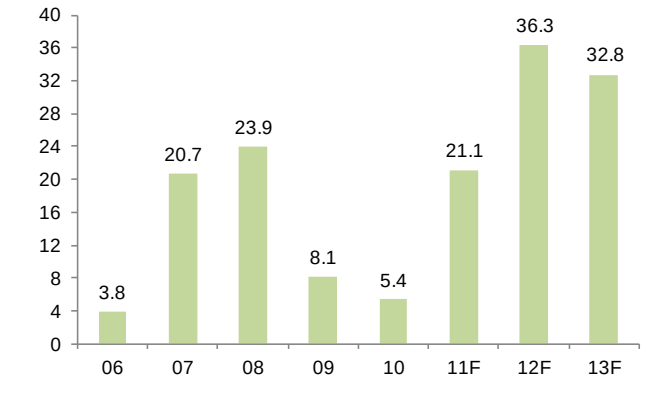
(Wbn)	2008	2009	2010
Profit from CDM	17.0	12.1	2.3
Packaging/Shipping	1.2	4.5	6.6
Depreciation	12.0	15.0	17.4
Total Capital	75.2	103.3	112.3

Source: Company data

Sales and NP increases in 2011E should help ROE to recover, possibly reaching 21.1%

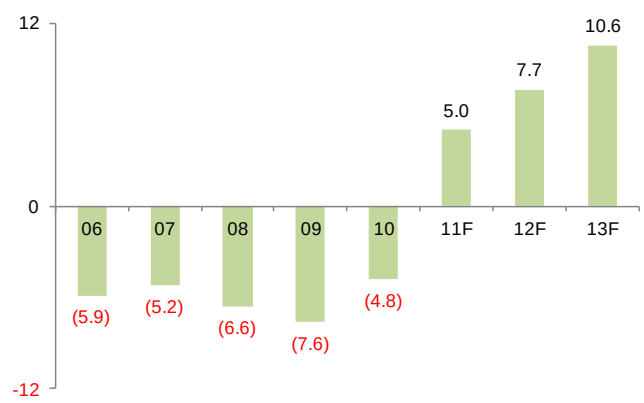
The outlook for 2011E is very optimistic and the firm is expecting a turnaround. The increased $LiPF_6$ sales and improved earnings from refrigerant gases should increase revenue from W180.1bn in 2010 to W239.3bn in 2011E, and the NP is expected to increase five-fold to reach W2.65bn in 2011E as well. Thus, the firm's ROE will likely recover to reach 21.1% in 2011E. We anticipate that increasing $LiPF_6$ sales and CDM profit will push the ROE up to 36.3% in 2012F.

Chart 8. ROE (%)



Source: Company data, Leading Research Center

Chart 9. ROIC less WACC (%)



Source: Company data, Leading Research Center

Continuous capital investment until 2010 caused the ROIC to remain lower than WACC

The firm's ROIC remained lower than WACC until 2010 because of continuous investment from 2007 to 2010 to increase the production capacities for $LiPF_6$ and refrigerant gases. The low ROE was a result of revenue totals not yet covering these investments. Invested capital increased from W25.2bn to W180.2bn between 2007 and 2010.

ROIC to exceed WACC in 2011E

However, as the invested capital began to generate revenue in 2011E, ROIC is expected to improve.

Section 3: Free cashflow generation and dividend policy

FCF expected from 2012F

Negative FCF until 2011 due to increasing capital investment for future growth

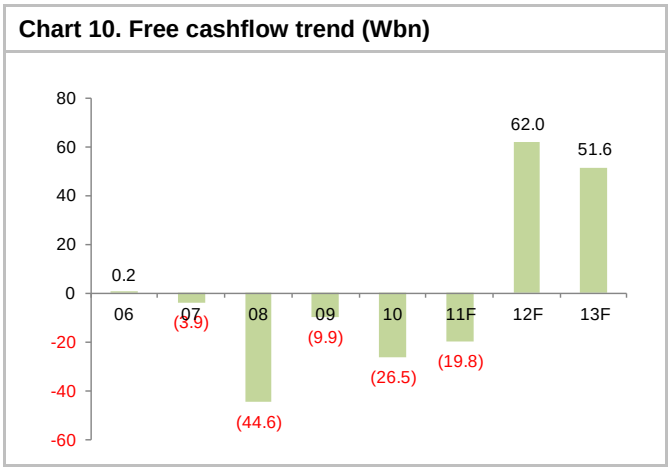
Given the fact that Foosung's capital investment expense on refrigerant gas and $LiPF_6$ exceeded operating cashflow, the firm's cashflow remained negative until 2011.

The firm should record net profit of W35.2bn in 2011E, a remarkable increase over 2010. However, the company invested W55.0bn to increase $LiPF_6$ production capacity and increased working capital to W23.1bn which should result in a W19.8bn cashflow deficit.

Increasing NP will help the firm generate FCF in 2012F

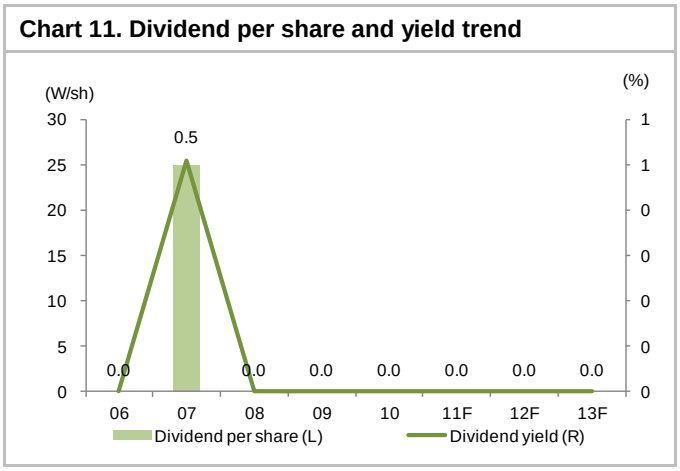
The firm is expecting a positive free cashflow from 2012F. The increased capacity for $LiPF_6$ will finally start generating revenue, and CDM will generate NP of W18.0bn in 2012F. As a result, free cashflows of W62bn and W51.6bn are expected in 2012F and 2013F respectively.

Chart 10. Free cashflow trend (Wbn)



Source: Company data, Leading Research Center

Chart 11. Dividend per share and yield trend



Source: Company data, Leading Research Center

Prioritizing growth, no dividend payment since 2007

The firm did not pay out dividends over the past decade except in 2007. This is because the firm did not generate positive FCF, and it is trying to concentrate on growth rather than paying dividends.

Focusing on growth rather than dividend payout in the near future

Because it is necessary for the firm to increase the production capacity for battery materials to satisfy increasing demand, dividend payout is unlikely in the near future.

Table 3. Dividend Trend

(Wbn)	01	02	03	04	05	06	07	08	09	10	11E	12F	13F
Cash from operation	0.0	0.0	0.0	0.0	0.0	0.3	1.4	3.9	22.9	13.9	35.2	82.0	96.6
CAPEX	0.0	0.0	0.0	0.0	0.0	0.0	5.3	48.5	32.8	40.4	55.0	20.0	45.0
Free Cashflow	0.0	0.0	0.0	0.0	0.0	0.2	(3.9)	(44.6)	(9.9)	(26.5)	(19.8)	62.0	51.6
Dividend Paid	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Dividend per share (W/sh)	0.0	0.0	0.0	0.0	0.0	0	25	0	0	0	0	0	0
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Dividend yield is based on the year's closing price

Source: Company data, Leading Research Center

Section 4: Are the debt and interest burden manageable?

Expecting an improved financial structure from 2011

Continuous capital investment for future growth increased the net debt to equity ratio and interest burden

The firm has been increasing its debt since 2006 as a means to increase production capacity and enter new business areas. Net debt increased from W13.4bn in 2006 to W82bn in 2010, causing the net debt to equity ratio to remain between 70% and 95%.

However, FCF of W50bn is expected to be generated in 2012F and the ratio should be greatly reduced to 4.5% in 2013F. We expect that the firm will be able to operate without the need to borrow capital.

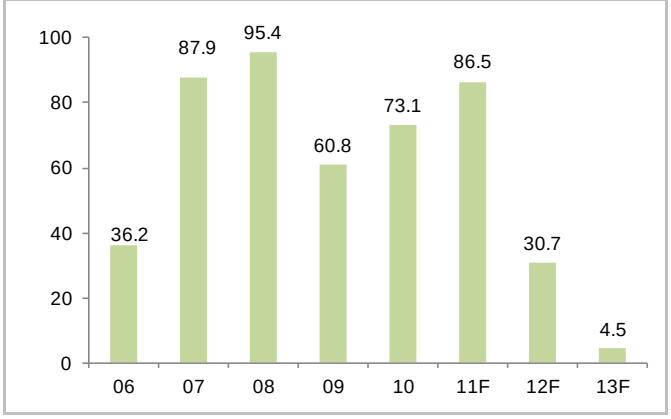
The firm should recover in 2012 with improved earnings

Even though NP grew dramatically, debt could not be reduced because the firm spent all of its NP to invest in $LiPF_6$ capacity.

However, the amount of net profit generated in 2012F should exceed CAPEX by a great margin. As a result, the firm will start reducing its debt with generated FCF.

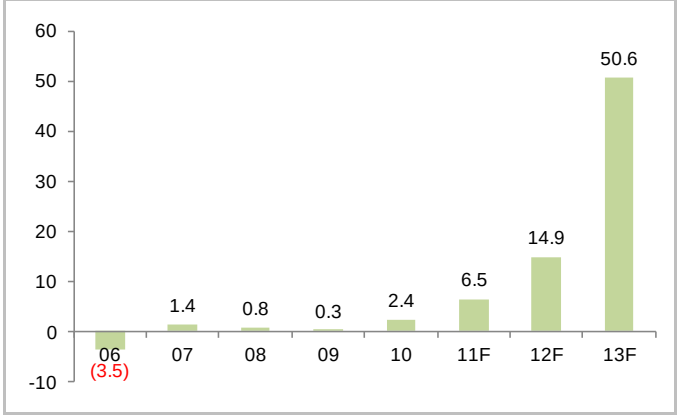
As such, the net debt to the equity ratio should decrease from 83.3% in 2011E to 30% in 2012F. Furthermore, the firm will be able to decrease interest burden.

Chart 12. Net debt to equity ratio (%)



Source: Company data, Leading Research Center

Chart 13. Interest Coverage (X)



Source: Company data, Leading Research Center

Table 4. Interest bearing debt and interest coverage trend

(Wbn)	01	02	03	04	05	06	07	08	09	10	11F	12F	13F
Interest bearing debt	0.0	0.0	0.0	0.0	0.0	16.4	54.5	75.1	68.6	91.6	126.7	68.1	20.0
Cash & equivalents	0.0	0.0	0.0	0.0	0.0	3.0	14.0	3.3	5.7	9.6	6.7	6.7	7.6
Net int bearing debt	0.0	0.0	0.0	0.0	0.0	13.4	40.5	71.8	62.8	82.0	120.0	61.4	12.4
Net int bear debt/eq (%)	0.0	0.0	0.0	0.0	0.0	36.2	87.9	95.4	60.8	73.1	86.5	30.7	4.5
Interest expenses	0.0	0.0	0.0	0.0	0.0	0.1	1.2	4.3	3.3	3.7	4.9	3.4	1.4
Interest coverage (X)	0.0	0.0	0.0	0.0	0.0	(3.5)	1.4	0.8	0.3	2.4	6.5	14.9	50.6

Source: Company data, Leading Research Center

Section 5: Asking for money with share issues, CB&BW?

Future investments will be supported by the firm's FCF

Future CAPEX will be paid with FCF generated from increased NP, eliminating pressure to shareholders

Since Foosung was listed on the KOSDAQ in 2006, W40.8bn has been raised through the issue of new shares. From 2011E, the increased NP will likely enable the firm to generate positive FCF, which will cover the future investments, thereby eliminating pressure on shareholders.

Table 5. Capital raised through stock issuance

(Wbn)	01	02	03	04	05	06	07	08	09	10	Incr.during '06-10
Paid-in capital	0.0	0.0	0.0	0.0	0.0	36.3	36.3	38.2	41.9	42.4	6.1
Paid-in cap in excess of par	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	32.1	34.7	34.7
Capital issue through stock issue	0.0	0.0	0.0	0.0	0.0	36.3	0.0	13.2	24.5	3.0	40.8

Source: Company data

No overhang issues until 2014F

No overhang issue until 2014F, when the stock option can be exercised

The firm issued a stock option of W2.6bn to Representative Director Han Joo Song in March of this year, but there is no expected overhang issue because it cannot be exercised until 2014F.

Table 6. Outstanding CB and BW and number of shares exercisable

Type	Date issued	Due date	Face Value (Wbn)	Exercise period	Exercise price/sh	Remaining value (Wbn)	No. shares exercisable
Stock option	2011.03.11	2019.03.11	2.6	2014.03.11~2019.03.10	5,251	2.6	500,000
Total			**2.6**			**2.6**	**500,000**

Source: Company data

Section 6: What is the management philosophy?

Co-CEO system: Chairman Keun Soo Kim and Rep. Director Han Joo Song

Keun Soo Kim, the founder of Foosung, is the brother in law of the former CEO of Hyundai, Ju-yung Chung. In 1983, Kim established the company as Seok Soo Chem, which was formerly the chemical engineering division of Hyundai Heavy Industries. The company changed its name to Foosung in 1997.

The firm initially supplied refrigerant gases and car mats to Hyundai Motor Company, but is now diversifying its business to include $LiPF_6$ and semiconductor gases, utilizing its fluorochemical technology accumulated over the past 20 years.

Innovation through aggressive investment

Dependent on Hyundai's support at the company's beginning…

When Foosung was founded, it relied on Hyundai's support. As such, the company had no motivation to diversify. However, from 2000, the company adopted a business model that focused on aggressive investment, thereby generating high profits.

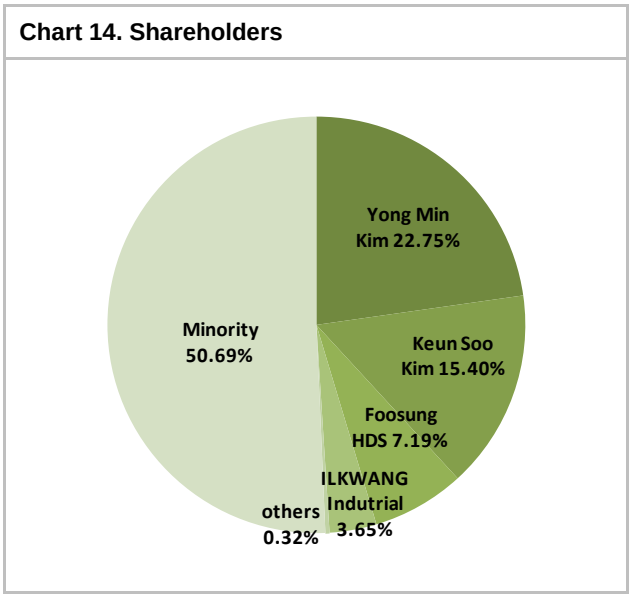
For example, in 2003, the firm generated profit of several billion won through CDM projects, a process that was not familiar to other domestic companies. Furthermore, Foosung became the first domestic company to develop the means to manufacture $LiPF_6$. At the time, the material was heavily imported from Japanese companies. The ability to manufacture $LiPF_6$ enabled Foosung to dominate the domestic market.

Yong Min Kim, son of the Chairman, is directing the battery material division as vice-president

Yong Min Kim, the Chairman's oldest son, has been leading the rechargeable battery material division as vice-president since 2009. He has been actively readying the company to supply materials for electric vehicle batteries after realizing the potential of the HEV market.

CEO Profile

Chart 14. Shareholders



Source: Company data

Table 7. CEO Profile

		Career/Education
Chairman K.S.Kim	Career	Foosung CEO Foosung Chairman Ilkwang Industrial Co.CEO(2004~) Korea Refractories CEO (2002 ~)
	Education	California State University, San Francisco
Rep. Director H.J. Song	Career	Korea Refractories CEO Foosung CEO FirstTech Advanced Materials -President (2001~2005)
	Education	Hankuk Univ. of Foreign Studies -M.A, International Trade Hanyang University -B.A , English

Source: Company data

Section 7: FX exposures and sensitivities

FX impact

Low FX sensitivity

17~20% of Foosung's revenue is collected in USD, and 15% of COGS is paid in RMB. As the value of the RMB is closely related to that of the USD, COGS and revenue are naturally hedged. A 1% decrease in the KRW/USD exchange rate will only decrease revenue and OP by 0.2% and 0.1% respectively. Therefore, the firm is not exposed to significant FX risks.

Table 8. FX sensitivities 2011E

Currency rate change	-5%	-1%	Base	1%	5%
Year-avg KRW/USD	1,028	1,071	1,082	1,093	1,136
Year avg KRW/RMB	175	182	184	186	194
Revenue(Wbn)	237.2	238.9	239.3	239.7	241.3
Operating profit(Wbn)	31.3	31.9	32.1	32.2	32.8
Net profit(Wbn)	25.7	26.3	26.5	26.7	30.5
EPS(W)	303	311	312	314	359
PER	26.6	25.9	25.8	25.6	22.4
Revenue change (%)	(0.8)	(0.2)	0.0	0.2	0.9
OP change (%)	(0.7)	(0.1)	0.0	0.1	0.7
NP change (%)	(2.4)	(0.5)	0.0	0.5	2.4
EPS change (%)	(3.0)	(0.6)	0.0	0.6	15.0

Source: Company data, Leading Research Center

Table 9. FX sensitivities 2012F

Currency rate change	-5%	-1%	Base	1%	5%
Year-avg KRW/USD	979	1,020	1,030.0	1,040	1,082
Year avg KRW/RMB	170	177	178.7	181	188
Revenue(Wbn)	286.3	288.4	288.9	289.4	291.5
Operating profit(Wbn)	49.8	50.7	50.9	51.2	52.1
Net profit(Wbn)	60.3	61.3	61.5	61.7	62.7
EPS(W)	711	722	725	728	739
PER	11.3	11.1	11.1	11.1	10.9
Revenue change (%)	(0.9)	(0.2)	0.0	0.2	0.9
OP change (%)	(0.7)	(0.1)	0.0	0.1	0.7
NP change (%)	(2.3)	(0.5)	0.0	0.5	2.3
EPS change (%)	(1.9)	(0.4)	0.0	0.4	1.9

Source: Company data, Leading Research Center

Table 10. FX sensitivities 2013F

Currency rate change	-5%	-1%	Base	1%	5%
Year-avg KRW/USD	1,002	1,044	1,055.0	1,066	1,108
Year avg KRW/RMB	172	179	181.0	183	190
Revenue(Wbn)	341.2	343.9	344.6	345.3	348.1
Operating profit(Wbn)	69.5	71.0	71.3	71.7	73.1
Net profit(Wbn)	76.7	78.2	78.5	78.9	80.3
EPS(W)	905	922	926	930	947
PER	8.9	8.7	8.7	8.7	8.5
Revenue change (%)	(1.0)	(0.2)	0.0	0.2	1.0
OP change (%)	(0.7)	(0.1)	0.0	0.1	0.7
NP change (%)	(2.5)	(0.5)	0.0	0.5	2.5
EPS change (%)	(2.3)	(0.5)	0.0	0.5	2.3

Source: Company data, Leading Research Center

Section 8: Operations Overview

Constant growth through a triumvirate of core businesses

Core areas of business
1. Fluorochemicals
2. Car mats
3. CDM

Foosung has three different core business areas. Utilizing fluorochemical technology accumulated over 20 years, the firm produces $LiPF_6$. It also supplies car mats to Hyundai Motor Corporation. The CDM license issued by the EU also generates profit.

20 years of accumulated experience as a supplier of refrigerant gas applied to diversify into fluorochemicals with other purposes

With its accumulated fluorochemical technology, the firm supplies refrigerant gases and special gases used for semiconductor production to automobile and appliance companies. It is also dominating the $LiPF_6$ market as the only domestic producer.

Car mats are produced in three different locations: Hwaseong (KOREA), Beijing (China), and Qingdao (China). 100% of output is supplied to Hyundai Motor Corporation. Foosung is looking to overcome the limitations of the domestic automobile industry by increasing the production capacity for RV mats to generate exports to Japan and the U.S.

First domestic firm to start CDM in 2003
Re-entering the business in 2011 (Generating the NP of W5bn~W6bn)

Under the framework of the Kyoto Protocol, industrialized countries must actively reduce CO_2 emissions. Foosung has developed a process that reduces greenhouse emissions in the production of its refrigerant gas. Since it was installed, 2.2mn tons of would-be emissions have been cleanly disposed of. By producing refrigerant gas with a lower level of carbon emissions, the company can sell the carbon credits to companies in Japan and Europe.

The first stage of the CDM ended in 2009, and the second stage retroactively began in 2010, as the license that was renewed in 2011 is valid for a 7 year period between 2010 and 2017.

Shifting the focus from refrigerant gases to battery materials

Revenue from refrigerant gases is still expected to account for more than 50% of total revenue in 2011E. However, continuous increases in demand for $LiPF_6$ may cause $LiPF_6$ revenue to reach as high as 37% by 2013F. From 2013F, the firm is planning to increase the production capacity for $LiPF_6$ to 5,000 tons by 2015F. Per this trend, battery material will eventually be the main focus of the firm.

Table 11. Revenue outlook

(Wbn)	Revenue				Revenue breakdown			
	2010A	2011E	2012F	2013F	2010A	2011E	2012F	2013F
Refrigerant gas	93.7	128.9	136.3	152.0	52%	54%	47%	44%
$LiPF_6$	24.1	47.8	86.5	126.5	13%	20%	30%	37%
Car mat	35.7	40.8	42.8	42.8	20%	17%	15%	12%
Semiconductor gas	25.3	19.9	21.4	21.4	14%	8%	7%	6%
Etc. (additives)	1.4	1.8	1.9	2.0	1%	1%	1%	1%
Total	180.1	239.3	288.9	344.6	100%	100%	100%	100%
CDM (Non-Operating Profit)	-	2	18	15				

Source: Company data, Leading Research Center

Only domestic $LiPF_6$ manufacturer

$LiPF_6$ is a core material to produce battery cells

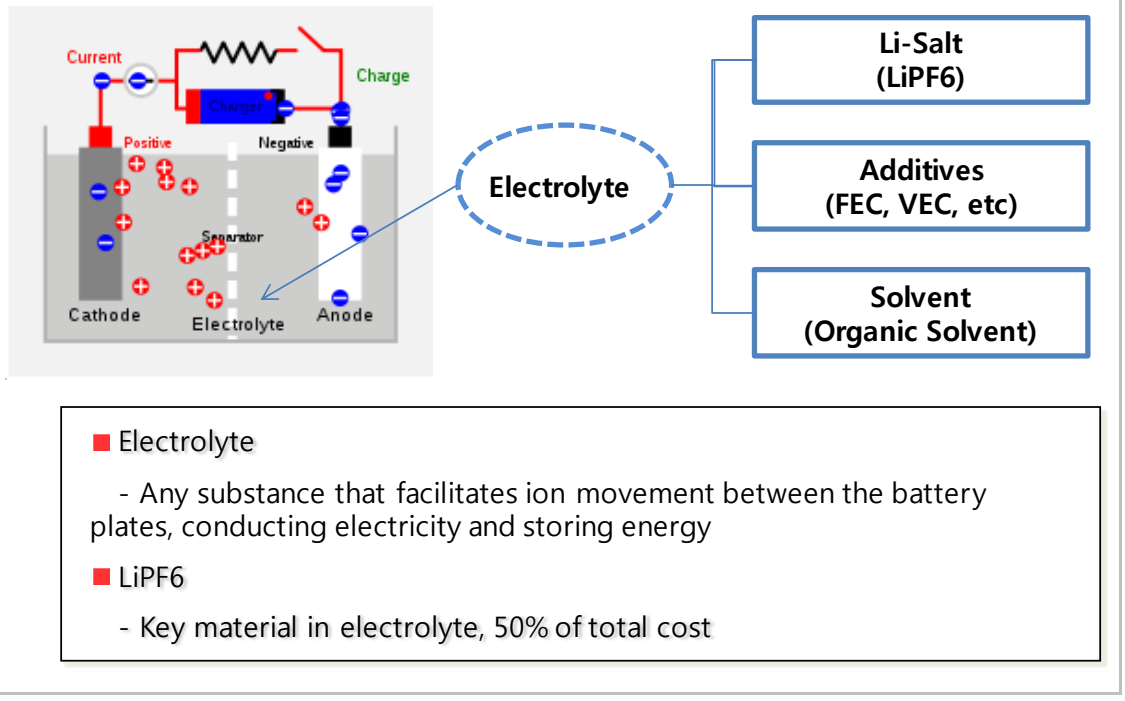
$LiPF_6$ is one of four core materials necessary to produce electrolytes for battery cells. The entry barrier for this industry is very high, requiring sophisticated technology. As such, there are only four companies in the world that are capable of producing $LiPF_6$: Foosung, Stella (4109 JP), Kanto (4047 JP), and Morita (Unlisted).

$LiPF_6$ is used in an electrolyte medium in rechargeable batteries so that Li ions can flow between cathode and anode in the charging and discharging processes.

High entry level due to complicated production process

The $LiPF_6$ market has an extremely high entry barrier for two reasons. First, no other material can be substituted in place of $LiPF_6$. Second, a high level of technological proficiency is needed to handle the material properly because of its hydrophilicity and the danger of fluorine, a dangerous substance that is acidic enough to melt glass.

Chart 15. Rechargeable Battery cell structure



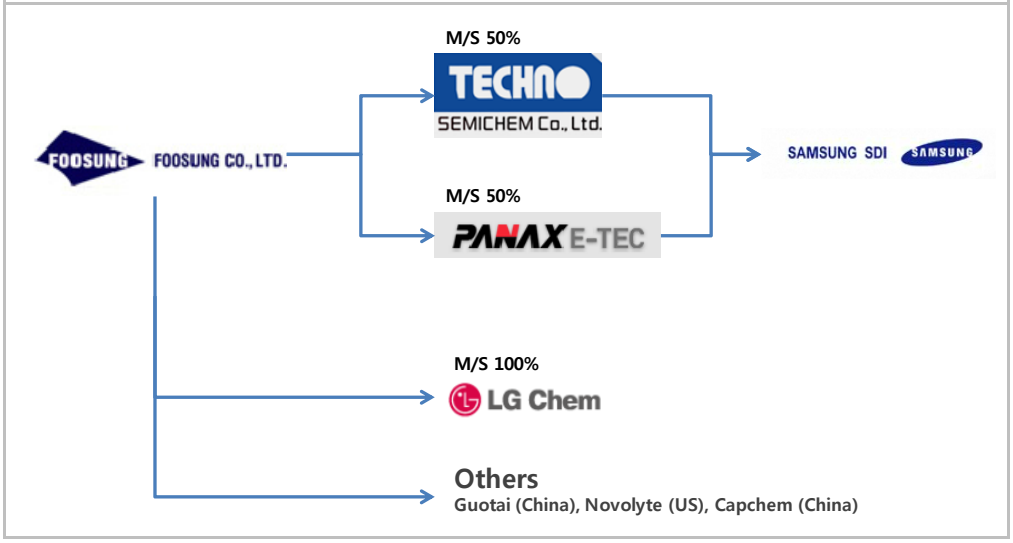
Source: Company data, Leading Research Center

Easy entry into $LiPF_6$ business by applying existing fluorochemical technology mastered over many years of refrigerant gas production

Fluorochemical technology that has been accumulated through many years of experience in the refrigerant gas business made it possible for Foosung to ease into the $LiPF_6$ market, which has a high entry barrier. The capability to produce and process fluorine enabled the firm to become the first domestic supplier of $LiPF_6$. This caused electrolyte producers to buy the material domestically rather than importing it from Japan, as they had been doing before.

Foosung supplies $LiPF_6$ to domestic firms that produce battery cells. LG Chem (051910) is purchasing 100% of its $LiPF_6$ from Foosung, while Techno Semichem and Panax E-Tec (both unlisted) are purchasing more than a half of their demand from Foosung.

Chart 16. $LiPF_6$ supply chain



Source: Company data, Leading Research Center

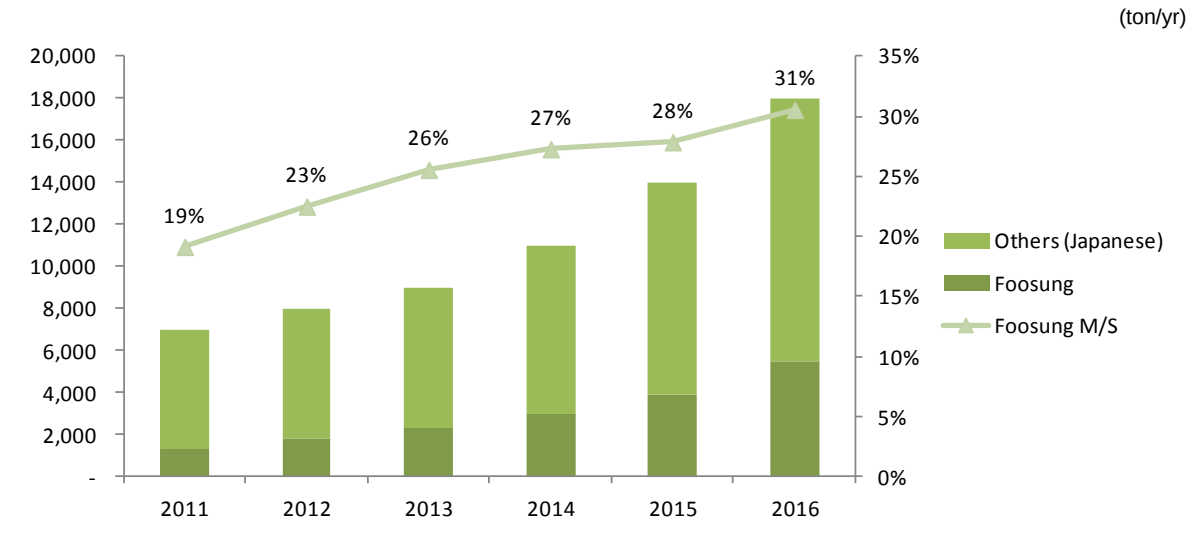
The demand for $LiPF_6$ is expected to increase (IT→EV→ESS)

The proliferation of smartphones and other mobile devices is causing the demand for reachargeable batteries to rapidly increase. Furthermore, as environmental issues become more and more important to consumers, electric vehicles (EV) and energy storage systems (ESS), which require Li-ion batteries, are attracting more attention. We therefore anticipate that the demand for $LiPF_6$ will dramatically increase in the near future.

Similar quality to Japanese products, more competitive price

Foosung and its competitors are actively expanding their production capacities to meet the increasing market demand for $LiPF_6$. In this competitive environment, Foosung is attempting to augment supplies to Samsung SDI and LG Chem which have over 50% of the global rechargeable battery market share. This market share is also expected to increase due to the Korean companies' price advantage compared to Japanese competitors.

Chart 17. $LiPF_6$ capacity and Foosung M/S



Source: Company data, Leading Research Center

Refrigerant price appreciation leads to larger profit margin

Refrigerant gas price is influenced by the price of fluorite

As mentioned earlier, refrigerant gas is currently Foosung's main product. One of the primary materials required for producing refrigerant gases is fluorite. Hence, the price of refrigerant gas is greatly affected by the supply and price of fluorite.

Refrigerant gas price hike in 1H11 improved the firm's earnings

Price appreciation for refrigerant gas dramatically improved the firm's revenue and profit margin in 1H11. China's strict environmental policy dictated a restriction on fluorite mining and the shutting off of electricity to refrigerant gas plants to reduce environmental pollution. The resulting shortage of Chinese flourite caused a sharp rise in refrigerant gas prices.

In addition, the shortage forced domestic companies to buy Foosung's product, as there was less Chinese gas in the Korean market. With the increased prices and less competition, Foosung's revenue and profit margin improved.

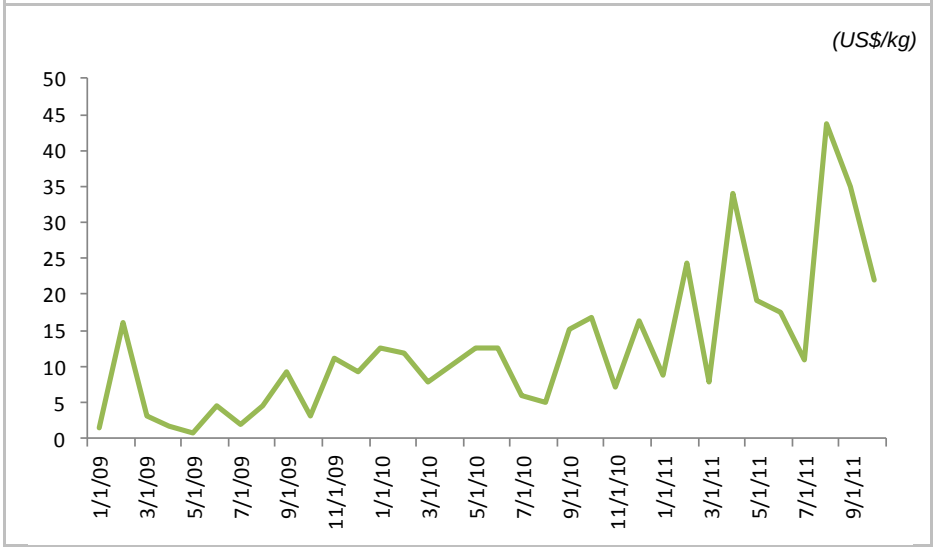
Minimal deficit in 3Q11 caused by fictitious demand

Concerns about skyrocketing prices, losses caused by fictitious demand, and rising raw material prices caused a minimal deficit in 3Q11. However, as customers' inventories are being exhausted, earnings from refrigerant gas are expected to recover in 4Q11E.

Preparing for stable earnings through preemptive purchasing of fluorite at a lower price

In order to minimize the earnings fluctuation caused by Chinese flourite prices, the firm purchased a stock of flourite in the second half of the year, the off-season for the flourite market. This can prevent problems related to price appreication and fictitious demand that might arise in 1H12F.

Chart 18. Fluorite price trend



Source: Bloomberg, Leading Research Center

Joint-venture with Novolyte to produce electrolyte

Opportunity to start businesses in China/US through signing a joint-venture contract with Novolyte

In 2011, Foosung started a joint-venture with Novolyte Technologies, an electrolyte manufacturer, to take a more active role in the electrolyte industry. The firm owns a 49.9% stake in the venture which is worth W17.0bn. Through this agreement, Foosung gained access to companies in the U.S and China that were customers of Novolyte. We anticipate that earnings from the venture will reach up to W3.0bn annually.

CDM license renewal approved by the EU

The clean development mechanism (CDM) is an agreement made by signatories of the Kyoto protocol that is intended to allow for some amount of flexibility for emissions. Basically it allows industrialized countries to offset some of their emissions not through actual reduction, but by purchasing carbon credits from companies that have reduced emissions in developing countries.

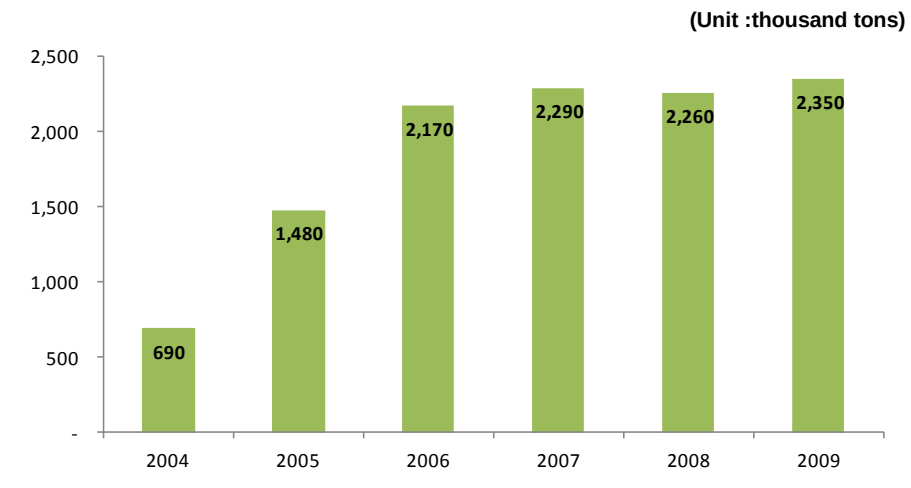
Obtaining CDM license in 2003

The firm obtained a CDM license from the EU for the clean disposal of HFC-23, a byproduct and a greenhouse gas from the production of HCFC-22 refrigerant gas. Through this process, the firm was able to generate profits by selling carbon credits to European and Japanese companies.

Renewed CDM license in 2011, 2010~2011 reduction treated retroactively

The first CDM license was valid from 2003 to 2009 and generated about W36.0bn for the firm (only considering profit that was recorded after 2006). In addition, the renewal of the license in November 2011 will maintain consistent earnings for the firm. The new license is valid from 2010 to 2016, and is expected to generate up to W43.0bn (W5.0bn~W6.0bn annually). The company can also trade carbon credits from any emissions reduction that occurred between 2010 and 2011, enabling the firm to record profit of W20.0bn for 2012F.

Chart 19. CO_2 emission reduction (2004 ~ 2009)



Source: Company data, Leading Research Center

Earnings outlook

Expecting a turnaround from 2011E

2011E is a turning point for the firm's earnings
-Revenue is expected to increase by 32.8% compared to 2010
-OPM: 4.8%→13.4%

2011E should be a significant year because revenue and OP are expected to increase dramatically over 2010 levels.

Revenue is expected to be around W239.3bn, reflecting a 32.8% increase over 2010. OPM will reach the mid-10% range which is a remarkable improvement over the sub-5% OPM that the company had had since 2006.

Solid improvement from diversification of businesses

1. Improved profit margin for refrigerant gas

2. Increased proportion of revenue generated from the production of $LiPF_6$

3. Earnings from CDM

Refrigerant gas price appreciation was one of the main reasons for improved revnue and OPM. Another reason is that as the firm's capacity for $LiPF_6$ capacity doubled, and revenue also increased from W24.1bn in 2010 to W47.3bn in 2011E.

In addition, the firm is planning to expand capacity by 1,000 tons in 2011E, which will likely increase revenue in 2012F. We predict an increase of 81% YoY over 2011E, with revenue reaching W86.4bn in 2012F. As a result, $LiPF_6$ sales should make up about 30% of total sales in 2012F, a significant change from 13% in 2010.

Finally, profit generated from the CDM license will likely generate NP of W5.0bn in 2011E and W15.0bn in 2012F.

Table 12. Quarterly Earnings Review

(Wbn,%)	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11E	3Q11 QoQ(%)	3Q11 YoY(%)
Revenue	48.6	45.6	67.2	63.1	53.9	55.2	0.1	0.2
Operating Profit	2.6	2.5	11.6	8.5	2.3	9.8	(0.1)	2.9
Non-operating Profit	1.0	0.8	2.1	0.9	0.3	9.0	(0.7)	10.4
Non-operating Expense	1.3	2.1	1.1	2.7	1.9	2.3	0.5	0.1
Profit before tax	2.3	1.2	12.5	6.6	0.6	16.4	(0.7)	12.7
Net profit	2.3	0.9	12.5	2.0	0.6	16.7	(0.7)	18.4
OPM (%)	5%	5%	17%	14%	4%	18%		
NPM (%)	5%	2%	19%	3%	1%	30%		

Source: Company data, Leading Research Center

Table 13. Annual Earnings Review

(Wbn,%)	2010	2011E	2012F	2013F	2011E YoY(%)	2012F YoY(%)	2013F YoY(%)
Revenue	180.1	239.3	288.9	344.6	32.8	20.7	19.3
Gross profit	34.9	60.8	84.9	110.6	74.1	39.7	30.3
Operating profit	8.7	32.1	50.9	71.3	269.7	58.8	40.1
Profit before tax	6.7	30.1	69.9	89.2	349.1	132.1	27.7
Net profit	5.8	26.5	61.5	78.5	357.5	132.1	27.7
EPS	68.3	312.4	725.0	925.9	357.1	132.1	27.7
OPM (%)	4.8%	13.4%	17.6%	20.7%			
NPM (%)	3.2%	11.1%	21.3%	22.8%			

Source: Company data, Leading Research Center

Section 9-1: Valuation – Peer Valuation Comparison

Stella Chemifa and Kanto Denka are Japanese $LiPF_6$ producers

Foosung stands to benefit heavily from the expected growth of $LiPF_6$ demand. As there is no domestic competitor, we compared Foosung to the valuations of Stella Chemifa and Kanto Denka of Japan, as they are also $LiPF_6$ producers.

Undervalued despite higher ROE and OPM

Although Foosung has more potential for future growth, a higher ROE, and a higher OP, the company's PER for 2012F is relatively undervalued.

We believe Foosung should get a premium compared to its Japanese competitors for three reasons: ①It is the only domestic supplier for $LiPF_6$, ②Most likely, there will be no other competitors in the domestic market for the next 3~4 years due to the high entry barrier, ③Global rechargeable battery leaders, Samsung SDI and LG Chem, have increased their demand for domestic materials.

Foosung deserves a similar valuation to other companies that produce battery materials

Considering the high entry barrier and profit margin, Foosung should at least get a valuation equal to that of EcoPro and other companies that manufacture rechargeable battery materials.

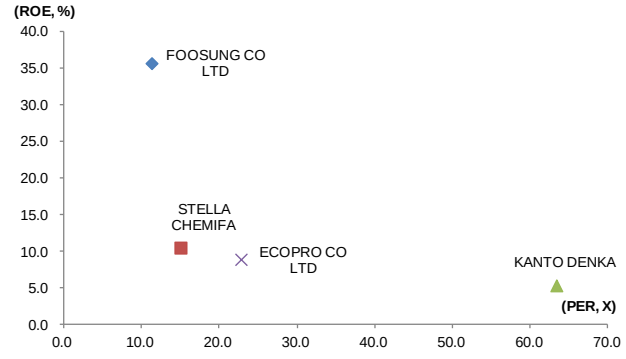
Table 14. Peer Valuation comparison

Name	Ticker	Country	Market Cap (USD mn)	Sales (USD mn)				OP Margin (%)			
				09	10	11E	12E	09	10	11E	12E
FOOSUNG CO LTD	093370 KS	KOR	682.8	142.6	180.1	239.3	288.9	0.6	4.8	13.4	17.6
STELLA CHEMIFA	4109 JP	JPN	373.4	254.2	331.4	338.9	401.0	10.8	12.3	11.7	10.3
KANTO DENKA	4047 JP	JPN	226.1	409.8	471.6	508.8	489.1	4.5	9.8	9.3	2.9
ECOPRO CO LTD	086520 KQ	KOR	127.3	27.5	47.8	101.3	131.7	7.1	6.5	6.2	6.2

Name	PER (X)				EV/EBITDA (X)				P/B (X)				ROE (%)			
	09	10	11E	12E	09	10	11E	12E	09	10	11E	12E	09	10	11E	12E
FOOSUNG CO LTD	93.3	117.8	25.8	11.1	45.5	29.0	12.6	8.7	6.2	6.0	4.9	3.4	8.1	5.4	21.1	36.3
STELLA CHEMIFA	21.3	22.2	16.4	15.0	11.3	7.6	7.6	7.9	2.8	2.2	1.6	1.4	10.3	10.3	9.9	10.5
KANTO DENKA	50.7	21.3	9.2	63.4	8.4	5.5	N/A	N/A	2.4	1.9	1.0	0.9	10.4	10.4	1.7	5.4
ECOPRO CO LTD	56.8	49.8	30.0	22.8	18.5	15.2	13.7	10.7	1.7	1.7	2.1	1.9	6.4	4.2	7.3	8.9

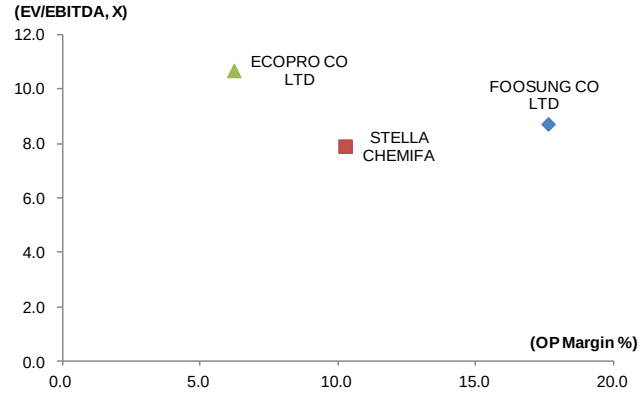
Source: Company data, Bloomberg, Leading Research Center (as of Nov. 30 2011)

Chart 20. A peer group PER vs. ROE



Source: Bloomberg, Leading Research Center

Chart 21. A peer group EV/EBITDA vs. OP Margin



Source: Bloomberg, Leading Research Center

Section 9-2: Valuation – Target Price W 13,400

EV/EBITDA is more appropriate as Foosung has large scale investments

Foosung has invested approximately W120.0bn in its $LiPF_6$ business since 2008. As for the future investment plans, CAPEX of W55.0bn is planned for 2012F and 2013F. If the demand for EV rechargeable batteries happens to be stronger than expected, the company could invest an additional W60.0bn. All in all, the total future CAPEX could reach up to W115.0bn.

Considering Foosung's large scale investments and expected depreciation expenses, we believe that EV/EBITA is more appropriate valuation tool for Foosung than PER. Another benefit of employing EV/EBITDA is that it precludes CDM license (non-operating profit) fee from being included in the valuation.

Foosung deserves a 50% EV/EBITDA premium for its higher OPM and ROE

Among the four firms that can produce $LiPF_6$, Foosung's expected earnings and ROE for 2012F are the highest. The firm's 17.6% OPM for 2012F is higher than Stella's 10.3%. In addition, Foosung's ROE for 2012F is more than three times that of Stella.

The average EV/EBITDA of the peer companies (Stella and EcoPro) is 9.3X. Given the fact that Foosung's ROE and OPM are much higher than its competitors, we felt comfortable applying a 50% premium to this average, rendering 14.0X. Furthermore, a 50% premium is more than warranted given that it received over 100% premium to the market EV/EBITDA since 2009.

Fair share price of W13,400
69.8% upside potential

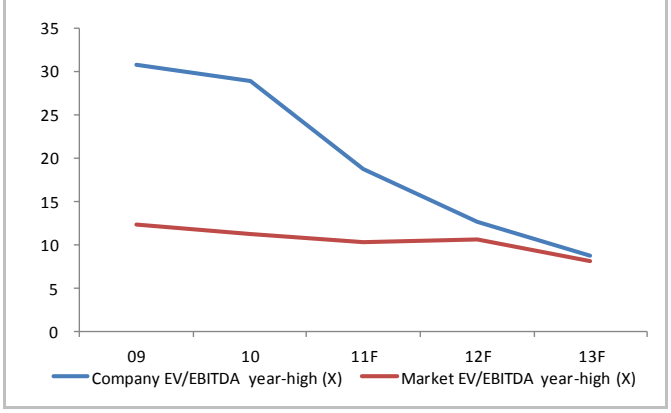
Therefore, we use the 2012F EV/EBITDA of 14.0x to derive a fair share price of W13,400 per share. This implies a 69.8% price appreciation potential compared to the current share price of W7,890.

Table 15. Foosung valuation vs. Market valuation

(X, %)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Foosung year-high EV/EBITDA (X)	Unlisted	Unlisted	Unlisted	Unlisted	N/A	(332.3)	232.4	30.7	28.8	18.7	12.6	8.7
Market year-high EV/EBITDA (X)	8.7	8.7	7.9	7.1	9.8	11.3	14.2	12.3	11.3	10.3	10.6	8.2
Premium/(Discount) to market (%)	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**NA**	**1,537.6**	**149.5**	**155.8**	**81.3**	**18.3**	**6.9**
Foosung year-high PER	Unlisted	Unlisted	Unlisted	Unlisted	151.7	56.7	28.1	55.9	70.8	23.8	11.1	8.7
Market year-high PER	19.9	20.7	9.9	13.9	17.9	22.3	42.4	20.4	16.0	11.2	9.5	8.6
Premium/(Discount) to market (%)	**N/A**	**N/A**	**N/A**	**N/A**	**747.4**	**154.5**	**(33.6)**	**174.6**	**343.3**	**112.1**	**16.9**	**1.1**

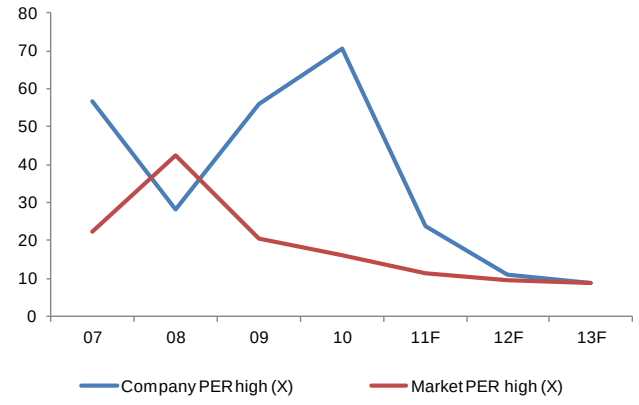
Source: Company data, Leading Research Center
**Market = KOSPI + KOSDAQ,*

Chart 22. Foosung yr-hi EV/EBITDA vs. MKT yr-hi EV/EBITDA



Source:Fnguide, Leading Research Center

Chart 23. Foosung PER high vs. MKT PER high



Source: Fnguide, Leading Research Center

Summary of financials

Income statement

(Wbn)	2006	2007	2008	2009	2010	2011F	2012F	2013F
Revenue	**13.2**	**96.6**	**136.2**	**142.6**	**180.1**	**239.3**	**288.9**	**344.6**
% chg yoy	-	630.7	41.0	4.7	26.3	32.8	20.7	19.3
COGS	12.5	86.9	114.2	119.2	145.2	178.5	203.9	234.0
Gross profit	**0.7**	**9.7**	**22.0**	**23.4**	**34.9**	**60.8**	**84.9**	**110.6**
GP margin (%)	5.2	10.1	16.2	16.4	19.4	25.4	29.4	32.1
SG&A	**1.1**	**8.0**	**18.7**	**22.6**	**26.2**	**28.7**	**34.0**	**39.3**
Operating income	**(0.4)**	**1.7**	**3.4**	**0.9**	**8.7**	**32.1**	**50.9**	**71.3**
OP margin (%)	(3.3)	1.8	2.5	0.6	4.8	13.4	17.6	20.7
Non-operating income	2.0	17.1	25.1	15.3	4.9	6.2	25.7	22.9
Interest income	0.0	0.1	0.7	0.2	0.2	2.3	18.2	15.2
FX related gains	0.0	0.3	3.2	1.6	1.0	1.1	1.1	1.1
Equity method gains	1.3	0.1	0.1	0.0	0.6	0.3	3.5	3.8
Non-operating expenses	0.5	6.1	9.5	8.9	6.9	8.1	6.8	5.0
Interest expenses	0.1	1.2	4.3	3.3	3.7	4.9	3.4	1.4
FX related losses	0.1	0.2	2.6	2.4	1.1	1.2	1.1	1.3
Equity method losses	0.0	2.6	0.0	0.3	0.0	0.0	0.1	0.0
Profit before tax	**1.1**	**12.7**	**18.9**	**7.2**	**6.7**	**30.1**	**69.9**	**89.2**
Tax	0.4	4.1	4.4	(0.0)	0.9	3.6	8.4	10.7
Tax rate (%)	33.8	32.5	23.3	(0.4)	13.6	12.0	12.0	12.0
Net income	**0.7**	**8.6**	**14.5**	**7.2**	**5.8**	**26.5**	**61.5**	**78.5**

Balance sheet

(Wbn)	2006	2007	2008	2009	2010	2011F	2012F	2013F
Cash & deposit	2.5	11.4	0.3	1.7	2.9	2.0	2.3	2.9
Marketable securities	0.0	0.5	0.4	0.3	0.4	0.4	0.4	0.4
A/R	29.4	24.7	19.8	26.8	43.0	56.5	67.9	80.6
Other quick assets	1.1	1.8	4.2	4.3	3.3	3.5	4.3	4.8
Total quick assets	32.9	39.5	25.7	34.0	55.7	66.6	78.8	92.9
Inventory	8.3	16.1	24.5	19.5	20.2	34.8	38.7	43.8
Total current assets	**41.2**	**55.5**	**50.3**	**53.5**	**75.9**	**101.4**	**117.5**	**136.7**
Investments	17.5	15.7	16.6	18.4	12.2	32.9	33.9	34.9
Tangible assets	8.2	69.2	104.2	122.6	145.4	168.8	154.7	166.3
Others	6.0	5.0	4.6	5.6	5.7	5.8	5.9	6.0
Total non-current assets	**31.7**	**89.8**	**125.5**	**146.6**	**163.2**	**207.6**	**194.6**	**207.2**
Total assets	**72.9**	**145.3**	**175.7**	**200.1**	**239.1**	**308.9**	**312.1**	**343.9**
Trade Payables	18.5	12.3	11.6	20.6	24.1	29.1	33.9	39.1
Short-term borrowings	16.4	31.3	28.8	30.5	34.5	59.4	0.5	0.5
Current portion of LT debt	0.0	13.0	6.0	4.5	6.6	6.8	7.1	7.6
Others	0.5	32.0	12.9	7.3	10.4	13.5	8.9	6.2
Total current liabilities	**35.4**	**88.6**	**59.2**	**62.9**	**75.6**	**108.8**	**50.4**	**53.4**
Bonds	0.0	0.0	23.5	2.9	0.0	0.0	0.0	0.0
Long-term debt	0.0	10.2	16.9	30.7	50.5	60.5	60.5	11.9
Allowance for retirement reserve	0.0	0.1	0.2	0.3	0.4	0.4	0.5	0.8
Others	0.6	0.4	0.8	0.1	0.3	0.4	0.5	0.7
Total LT liabilities	**0.6**	**10.7**	**41.3**	**33.9**	**51.3**	**61.3**	**61.5**	**13.4**
Total liabilities	**36.0**	**99.3**	**100.5**	**96.8**	**126.9**	**170.1**	**111.9**	**66.8**
Paid-in capital	36.3	36.3	38.2	41.9	42.4	42.4	42.4	42.4
Capital surplus	0.0	0.0	15.4	32.6	34.7	34.7	34.7	34.7
Retained earnings	0.7	9.3	22.0	29.2	35.0	61.5	123.0	201.6
Capital adjustments	(0.0)	0.5	(0.4)	(0.4)	0.1	0.1	0.1	0.1
Total shareholder's equity	**37.0**	**46.1**	**75.2**	**103.3**	**112.3**	**138.8**	**200.3**	**278.8**

Free cashflow analysis

(Wbn)	2006	2007	2008	2009	2010	2011F	2012F	2013F
Net profit	**0.7**	**8.6**	**14.5**	**7.2**	**5.8**	**26.5**	**61.5**	**78.5**
add non-cash expenses	**0.1**	**5.6**	**15.5**	**16.9**	**19.0**	**33.5**	**36.1**	**35.7**
Depreciation	0.1	0.5	12.0	15.0	17.4	31.5	34.1	33.5
Equity method losses	0.0	2.6	0.0	0.3	0.0	0.0	0.1	0.0
Other non-cash	0.0	5.1	3.2	1.6	1.3	1.7	1.8	1.9
subtract non-cash	**1.3**	**10.4**	**0.2**	**0.4**	**1.0**	**1.7**	**5.0**	**5.1**
Equity method gains	1.3	0.1	0.1	0.0	0.6	0.3	3.5	3.8
Other non-cash income	0.0	10.2	0.1	0.4	0.4	1.4	1.5	1.3
Add chgs in op assets &	0.8	(2.5)	(26.0)	(0.9)	(9.9)	(23.1)	(10.6)	(12.5)
Investment in WC	19.2	9.4	4.2	(6.9)	13.3	23.1	10.6	12.5
Other chgs in op assets	(19.9)	(6.9)	21.8	7.8	(3.4)	0.0	0.0	0.0
Cash from operation	**0.3**	**1.4**	**3.9**	**22.9**	**13.9**	**35.2**	**82.0**	**96.6**
Subtract capital	0.0	5.3	48.5	32.8	40.4	55.0	20.0	45.0
Free cash flow	**0.2**	**(3.9)**	**(44.6)**	**(9.9)**	**(26.5)**	**(19.8)**	**62.0**	**51.6**
Dividend	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Net investments	0.0	(0.2)	1.8	3.1	(1.2)	20.8	1.0	1.0
Share issues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Increase in debt	16.4	38.1	20.6	(6.5)	23.1	35.1	(58.6)	(48.1)
Others	13.6	39.2	(15.0)	(21.6)	(5.5)	(2.3)	2.6	1.8
Net cash flow	**2.4**	**8.9**	**(11.0)**	**1.4**	**1.2**	**(0.9)**	**0.3**	**0.6**
Beginning cash	0.0	2.5	11.4	0.3	1.7	2.9	2.0	2.3
Ending cash	2.5	11.4	0.3	1.7	2.9	2.0	2.3	2.9

Key ratios and stability ratio

	2006	2007	2008	2009	2010	2011F	2012F	2013F
Current ratio	116.3	62.7	84.9	85.1	100.5	93.2	233.4	256.1
Quick ratio	90.0	41.3	34.6	45.9	61.2	54.1	140.2	157.2
Inventory holding period	120.4	51.1	64.9	67.5	49.9	56.2	65.8	64.3
A/R collection period	406.0	102.3	59.6	59.6	70.7	75.8	78.6	78.7
A/P period (days)	162.5	59.3	35.5	51.4	55.8	50.2	55.3	55.7
Interest bear debt (Wbn)	16.4	54.5	75.1	68.6	91.6	126.7	68.1	20.0
Cash, equivalents & LT	3.0	14.0	3.3	5.7	9.6	6.7	6.7	7.6
Net int. bear debt (Wbn)	13.4	40.5	71.8	62.8	82.0	120.0	61.4	12.4
Net debt/equity (%)	36.2	87.9	95.4	60.8	73.1	86.5	30.7	4.5
Liability/equity (%)	97.3	215.5	133.5	93.7	113.0	122.6	55.9	24.0
Interest coverage (X)	-3.5	1.4	0.8	0.3	2.4	6.5	14.9	50.6

Valuations and margins

	2006	2007	2008	2009	2010	2011F	2012F	2013F
EV/EBITDA (X)		270.5	43.1	44.6	28.5	12.4	8.6	6.5
EPS (W)	10	118	190	86	68	312	725	926
EPS y-y (%)		1,110.7	61.0	(54.6)	(20.8)	357.1	132.1	27.7
PER (X)	808.9	66.8	41.5	91.5	115.5	25.3	10.9	8.5
BVPS (W)	1,018	635	1,010	1,289	1,331	1,636	2,361	3,287
P/BVPS (X)	7.7	12.4	7.8	6.1	5.9	4.8	3.3	2.4
Dividend/sh (W)	0	25	0	0	0	0	0	0
Dividend yield (%)	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
ROE (%)	3.8	20.7	23.9	8.1	5.4	21.1	36.3	32.8
ROA (%)	1.9	7.9	9.0	3.8	2.6	9.7	19.8	23.9
GP margin (%)	5.2	10.1	16.2	16.4	19.4	25.4	29.4	32.1
OP margin (%)	(3.3)	1.8	2.5	0.6	4.8	13.4	17.6	20.7
NP margin (%)	5.4	8.9	10.7	5.1	3.2	11.1	21.3	22.8
EBITDA margin (%)	(2.8)	2.3	11.5	11.4	14.6	26.7	29.5	30.5
ROIC (%)	(1.1)	1.7	2.2	0.6	4.2	12.5	17.2	22.7
WACC (%)	4.7	6.9	8.8	8.2	9.0	7.5	9.5	12.2
ROIC less WACC (%)	(5.9)	(5.2)	(6.6)	(7.6)	(4.8)	5.0	7.7	10.6

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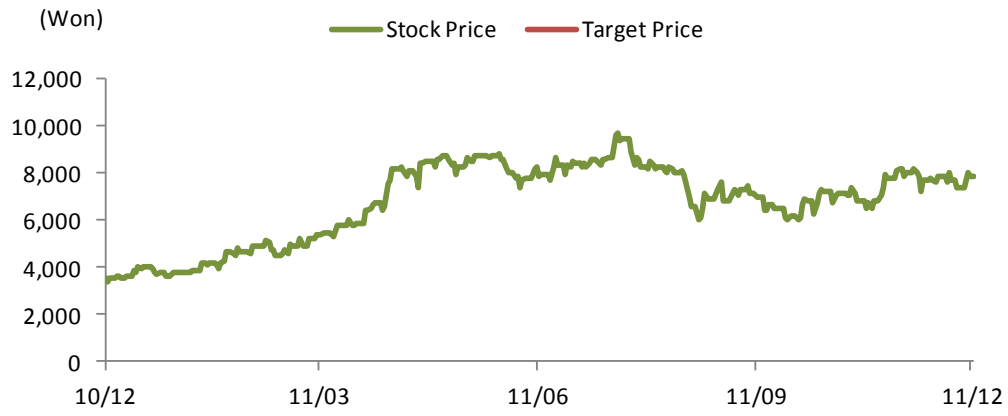
▶ Ratings and target price history in past two years

Foosung (093370 KS)	
Date	2011-12-5
Ratings	BUY
Target Price	13,4000

▶ Ratings and target price history 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 market 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.

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