

# Hyosung

(004800 KS)

## Dark clouds are lifting

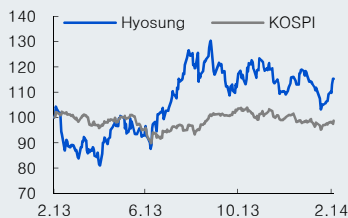
### Chemicals

Initiation Report  
February 24, 2014

(Initiate)	<b>Buy</b>
Target Price (12M, W)	<b>95,000</b>
Share Price (02/21/14, W)	69,900
Expected Return	36%

OP (13P, Wbn)	480
Consensus OP (13F, Wbn)	571
EPS Growth (13P, %)	-
Market EPS Growth (13F, %)	4.3
P/E (13P, x)	-
Market P/E (13F, x)	12.4
KOSPI	1,957.83
Market Cap (Wbn)	2,455
Shares Outstanding (mn)	35
Free Float (%)	64.6
Foreign Ownership (%)	30.2
Beta (12M)	1.43
52-Week Low	49,100
52-Week High	79,000

(%)	1M	6M	12M
Absolute	0.9	-4.6	11.3
Relative	1.2	-9.0	14.6



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### Leading global supplier of spandex and tire cords

Hyosung is a multi-industry company whose business portfolio ranges from textiles to industrial materials, power and industrial systems, and chemicals. The company is the world's largest supplier of spandex (textiles) and polyester tire cords (industrial materials), controlling 21% and 44% of the respective global markets. The power and industrial systems division manufactures power equipment such as transformers, while the chemicals division mainly produces polypropylene (PP) and terephthalic acid (TPA).

### Spandex and tire cords poised to benefit from global recovery

Zhejiang Huafon Spandex, China's leading spandex maker, has seen its share price more than double since the beginning of 2013. The firm's OP margin has improved to an estimated 13% in 2013 from break-even levels in 2012, and is expected to rise to 20% in 2014 based on the market consensus.

The supply and demand balance of the spandex market has been visibly improving. The market struggled with overcapacity due to increased supply in 2011, but spare capacity has now been largely absorbed thanks to improving demand and zero capacity additions through 2013. Given that new capacity usually takes at least a year to build, we see limited upside to supply through 1H15. Furthermore, cost pressures have eased on increasing overcapacity of polytetramethylene ether glycol (PTMEG; the main feedstock for spandex) since 2013. If textile demand picks up in 2014, led by the US and Europe, this would lead to an accelerated rise in spandex margins.

Polyester tire cords, the company's core industrial materials product, also grappled with a supply glut following major capacity expansion efforts in 2011-12. However, there have been no significant capacity increases since then. This, combined with Toyobo's withdrawal from the polyester tire cord market, has effectively removed excess capacity. We thus project tire cord margins to normalize once tire demand recovers.

We expect Hyosung to deliver strong textile and industrial materials earnings in 2Q-3Q on tight spandex and tire cord supply and pickups in textile and tire demand. Power and industrial systems should be able to at least break even, as low-priced orders have mostly been cleared. We see overall 2014 operating profit climbing 33% to W636.1bn.

### Initiate coverage with Buy & TP of W95,000; Top mid-/small-cap chemicals pick

We initiate our coverage on Hyosung with a Buy rating and target price of W95,000. We derived our target price by applying a 10% discount to 1.2x 2014F BPS (ROE of 12.6%). Hyosung has consistently traded at a discount since 2011, affected by: 1) sluggish power & industrial systems earnings, 2) financial risks from its E&C affiliate Chinhung, and 3) a high gearing ratio. With regard to the first point, we see little cause for concern since most of the power & industrial systems unit's low-priced orders have been cleared. Second, even if in a worst-case scenario the company needs to inject more capital into Chinhung, we think Hyosung's current valuation is still cheap given the expected earnings improvement of its core businesses. Third, although the company's debt ratio remains high (over 400% as of end-2013), we expect cash flow to improve and debt ratio to fall as operating conditions pick up and capital spending declines. Overall, the stock's valuation should return to normal as these discount factors fade.

FY (12)	12/10	12/11	12/12	12/13P	12/14F	12/15F
Revenue (Wbn)	10,147	11,342	12,612	12,670	12,568	12,621
OP (Wbn)	739	278	189	480	636	655
OP margin (%)	7.3	2.5	1.5	3.8	5.1	5.2
NP (Wbn)	306	-45	122	-241	347	370
EPS (W)	8,706	-1,281	3,486	-6,865	9,885	10,522
ROE (%)	10.8	-1.5	4.2	-8.7	12.5	11.9
P/E (x)	12.2	-	21.1	-	7.1	6.6
P/B (x)	1.2	0.6	0.9	0.9	0.8	0.7

Notes: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests  
Source: Company data, KDB Daewoo Securities Research estimates

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## Investment points

### Spandex and tire cords poised to benefit from global recovery

Zhejiang Huafon Spandex, China's leading spandex maker (annual capacity of 57,000 tonnes), has seen its share price more than double since the beginning of 2013 (from RMB4.7 to RMB9.95). After peaking at 39% in 2007, the firm's OP margin fell to break-even levels in 2012. However, OP margin has recovered to an estimated 13% in 2013. According to the Bloomberg consensus, revenue and operating profit should grow at respective CAGRs of 39% and 83% through 2015.

The supply and demand balance of the spandex market has been visibly improving. The market struggled with overcapacity due to increased supply in 2011 (led by China). However, we believe spare capacity has been largely absorbed in 1H13 thanks to improving demand and zero capacity additions through 2013. Even if capacity expansion resumes, operations would likely begin in 2H15 at the earliest, given that new capacity usually takes at least a year to build.

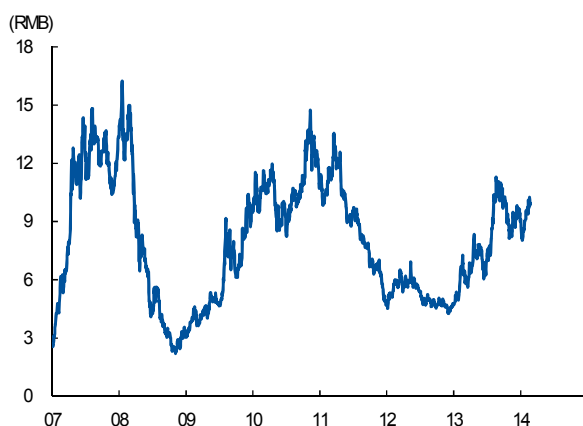
Feedstock supply, on the other hand, has come under increasing upside pressure. We estimate the global capacity of PTMEG, a main feedstock for spandex, expanded 35% YoY in 2013 (from an estimated 810,000 tonnes in 2012). The price of butanediol (BDO), a feedstock for PTMEG, has also been declining due to a sharp rise in supply. BDO margins expanded in 2011 on tight supply, which prompted large capacity ramp-ups in the subsequent years. As a result, supply has grown rapidly since 2013, causing BDO prices to decline even more rapidly than PTMEG prices. Hyosung internally sources 40% of its PTMEG from its Chinese plant, and sales of the feedstock are recorded by the chemicals division. Although PTMEG sales are not substantial, the recent rise in the spread between BDO and PTMEG has positively contributed to margins.

**Table 1. Major PTMEG capacity additions** ('000 tonnes, %)

Country	Company	New capacity	Notes
Taiwan	Dairen	60.0	Jul. 2013
China	Dairen	60.0	Aug. 2013
	Shanhua Fertilizer - Shanxi	30.0	
	Chongqin Jianfeng	46.0	
	Guodian Younglight	92.0	Nov. 2013
Total		288.0	
2012 capacity		814.0	
2013 growth		35.4	

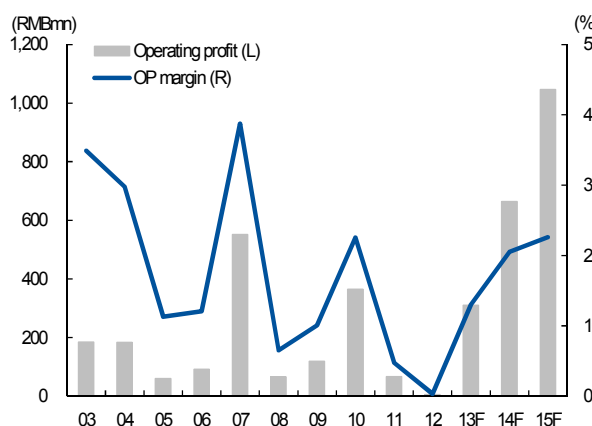
Source: Cischem, industry data, KDB Daewoo Securities Research

**Figure 1. Zhejiang Huafon Spandex has seen its share price more than double since the beginning of 2013**



Source: Bloomberg, KDB Daewoo Securities Research

**Figure 2. Zhejiang Huafon Spandex's operating profit and OP margin**



Source: Bloomberg, KDB Daewoo Securities Research

In 2013, spandex margins expanded on a combination of higher ASP (caused by tighter supply) and weaker feedstock prices. However, margins are still below previous highs, mainly because of tepid textile demand, as demonstrated by Europe's retail clothing sales index, which has yet to recover to pre-crisis levels. However, demand should eventually turn around as Europe's PMI continues to gain momentum and unemployment falls. If textile demand picks up, this would lead to an accelerated rise in spandex margins given tight supply conditions.

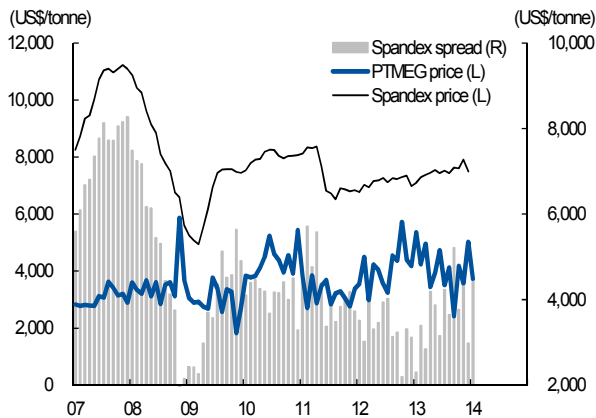
We believe polyester tire cords are also poised for a full-fledged market recovery in 2014. The market grappled with a supply glut following major capacity expansion efforts in 2011-12, but there have been hardly any capacity increases since then. This, combined with Toyobo's withdrawal from the polyester tire cord market, has effectively removed excess capacity. Although tire demand has thus far been slow to recover, we project tire cord margins to normalize once demand picks up.

**Table 2. Polyester tire cord market (2013F)**

	Market share	Capacity	Capacity expansion in 2011~12
Hyosung	45	200	20,000 tonnes
Kolon Industries	18	72	15,000 tonnes
Performance Fibers	16	64	15,000 tonnes
Toyobo	5	18	Started in 2013
DUSA	7	28	
Teijin	6	24	
Diolen	4	15	
Toray	2	8	
Global	100	429	

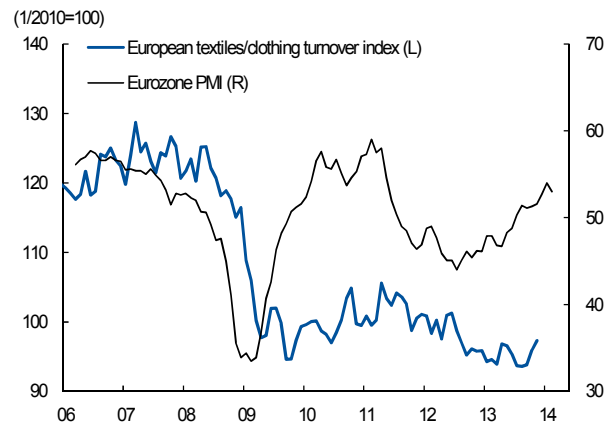
Source: Industry data, KDB Daewoo Securities

**Figure 3. Spandex spread: Increased ASP on the back of tight supply amid raw material prices drops**



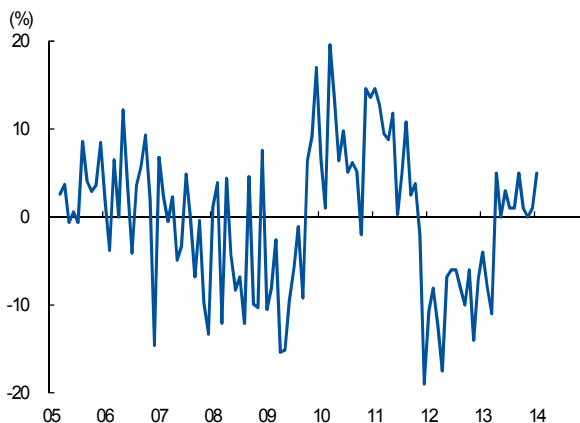
Source: KITA, KDB Daewoo Securities Research

**Figure 4. Apparel demand remains weak in Europe, but it is likely to rebound**



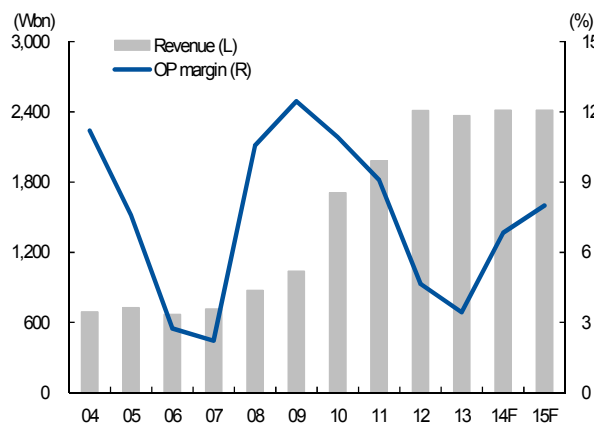
Source: Bloomberg, CEIC, KDB Daewoo Securities Research

**Figure 5. Replacement tire demand growth in Europe: Bottoming out**



Source: Michelin, KDB Daewoo Securities Research

**Figure 6. Hyosung's industrial materials earnings to recover gradually**



Notes: K-GAAP basis until 2009, K-IFRS basis from 2010  
Source: KDB Daewoo Securities Research

## Earnings forecasts

### Textile and industrial materials earnings to rise in 2Q-3Q; Cash flow to improve through 2015

We expect Hyosung to deliver strong textile and industrial materials earnings in 2Q-3Q14, backed by tight supply of spandex and tire cords as well as pickups in textile and tire demand. The power and industrial systems division should be able to at least break even as low-priced orders have mostly been cleared. For 2014, we forecast overall operating profit to climb 33% YoY to W636.1bn.

In 2013, Hyosung posted an operating profit of W479.6bn (+150% YoY), driven by the textile and power and industrial systems divisions. Textile margins improved on tight spandex supply, while the power and industrial systems division saw a sharp decrease in losses thanks to the dissipation of low-margin orders.

Earnings declined sharply QoQ in 4Q13 due to: 1) restructuring at the industrial materials division and 2) provisioning at the construction and power and industrial systems divisions. However, in light of Hyosung's early reflection of expenses, we expect earnings to normalize in 2014. In particular, losses at the construction division, which bore PF guarantees of W228bn as of end-3Q13, will likely be limited, given the provisioning related the Changdong station development project in 4Q13. In 1Q14, we project the company's operating profit to improve to W134.7bn in 1Q14 thanks to: 1) robust textile margins and 2) the normalization of industrial materials earnings. Operating profit will likely improve further to W178.7bn in 2Q14, backed by the onset of high-demand season for chemicals.

Although spandex supply could expand again in 2H15, earnings at the industrial materials division are expected to improve next year amid economic recovery; meanwhile, the chemicals division should also perform well on the back of: 1) propoane dehydrogenation (PDH) capacity expansion and 2) an gradual recovery in the TPA market. We forecast 2015 operating profit at W654.9bn during the year.

We expect the company to generate an annual EBITDA of W1.1tr through 2015, while capex should decline, leading to cash flow improvement.

**Table 3. Quarterly and annual earnings**

(US\$/W, Wbn, %)

	1Q13	2Q13	3Q13	4Q13	1Q14	2Q14	3Q14	4Q14	2012	2013	2014F	2015F
US\$/W rate	1,080	1,122	1,110	1,050	1,050	1,050	1,050	1,050	1,126	1,091	1,050	1,050
Revenue												
Total	2,913	3,358	3,199	3,109	2,957	3,314	3,188	3,147	12,432	12,579	12,607	12,660
Textiles	512	572	559	538	557	561	566	550	2,005	2,181	2,233	2,152
Industrial materials	579	622	602	566	604	604	604	604	2,411	2,368	2,415	2,415
Chemicals	365	419	380	343	340	404	359	332	1,545	1,507	1,435	1,569
Power & industrial systems	550	705	633	645	550	705	633	645	2,614	2,533	2,533	2,533
Construction	107	151	147	149	107	151	147	149	575	553	553	553
Other	800	890	879	868	800	890	879	868	3,309	3,437	3,437	3,437
Operating profit												
Total	96	208	165	11	135	179	184	139	189	480	636	655
Textile	45	73	75	75	70	74	77	70	113	268	291	269
Industrial materials	25	42	29	-14	30	48	48	39	112	82	165	193
Chemicals	14	45	35	14	20	34	36	17	86	108	107	120
Power & industrial systems	-8	16	0	-13	0	0	0	0	-152	-6	0	0
Construction	5	12	6	-38	3	5	4	5	25	-15	17	17
Other	16	20	20	-13	12	18	18	9	22	42	56	56
OP margin												
Total	3.3	6.2	5.2	0.4	4.6	5.4	5.8	4.4	1.5	3.8	5	5.2
Textiles	8.7	12.8	13.5	13.9	12.6	13.1	13.7	12.8	5.6	12.3	13	12.5
Industrial materials	4.2	6.8	4.8	-2.5	4.9	8	8	6.4	4.7	3.4	6.8	8
Chemicals	3.9	10.7	9.3	4.1	5.8	8.5	10	5.1	5.6	7.2	7.5	7.7
Power & industrial systems	-1.5	2.2	0	-2	0	0	0	0	-5.8	-0.2	0	0
Construction	4.9	8	4.2	-25.5	3	3	3	3	4.3	-2.7	3	3
Other	2	2.2	2.2	-1.5	1.5	2	2	1	0.7	1.2	1.6	1.6
Pretax profit	-9	86	238	-39	85	130	135	91	151	277	441	470
Net profit	-12	67	-235	-61	67	102	106	72	122	-241	347	370

Source: KDB Daewoo Securities Research

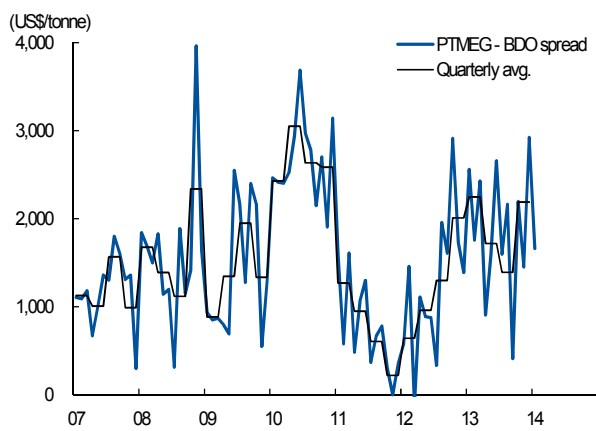
**Table 4. Major BDO capacity ramp-ups in 2013 → oversupply**

(‘000 tonnes, %)

Country	Company	New capacity	Notes
China	Hebi Coal	50.0	Commenced operations in Sep. 2013
	Ningxia Energy Chemical	208.0	Commenced operations in Nov. 2013
	Sinopec Yizheng Chemical Fibre	100.0	Commenced operations in May 2013
	Zhejiang Huachen Energy	55.0	Commenced operations in Apr. 2013
	Xinjiang Markor Chemical	100.0	Commenced operations in Mar. 2013
	Xinjiang Tianye	200.0	Commenced operations in early 2013
Total		713.0	
Capacity as of end-2012		2,000.0	
2013 growth		35.7	

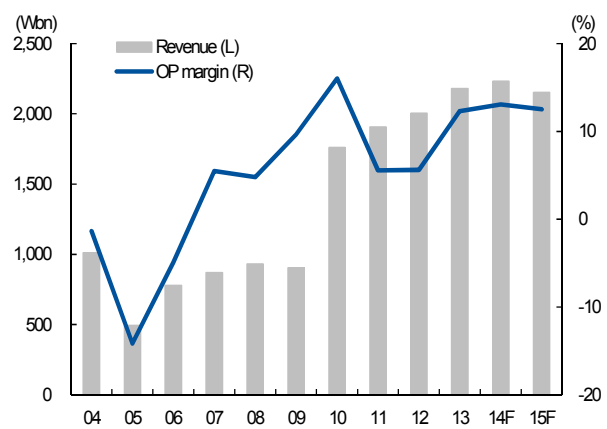
Source: Industry data, KDB Daewoo Securities Research

**Figure 7. PTMEG - BDO spread**



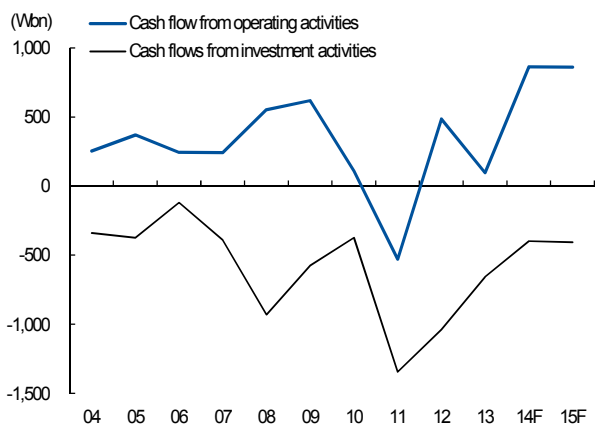
Source: KITA, KDB Daewoo Securities Research

**Figure 8. Textiles unit's earnings**



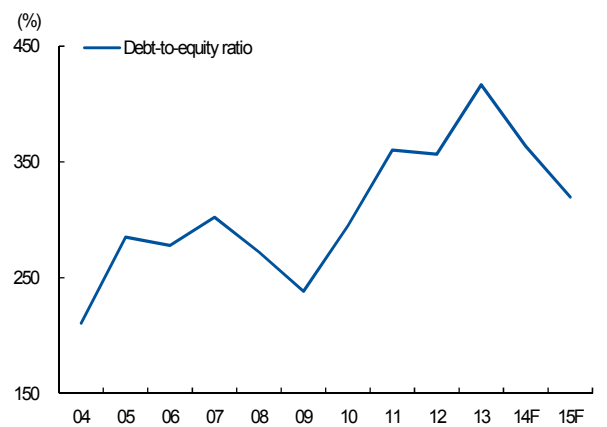
Notes: K-GAAP basis until 2009, K-IFRS basis from 2010  
Source: KDB Daewoo Securities Research

**Figure 9. Cash flow breakdown**



Notes: K-GAAP basis until 2009, K-IFRS basis from 2010  
Source: KDB Daewoo Securities Research

**Figure 10. Debt-to-equity ratio**



Notes: K-GAAP basis until 2009, K-IFRS basis from 2010  
Source: KDB Daewoo Securities Research

# Valuation

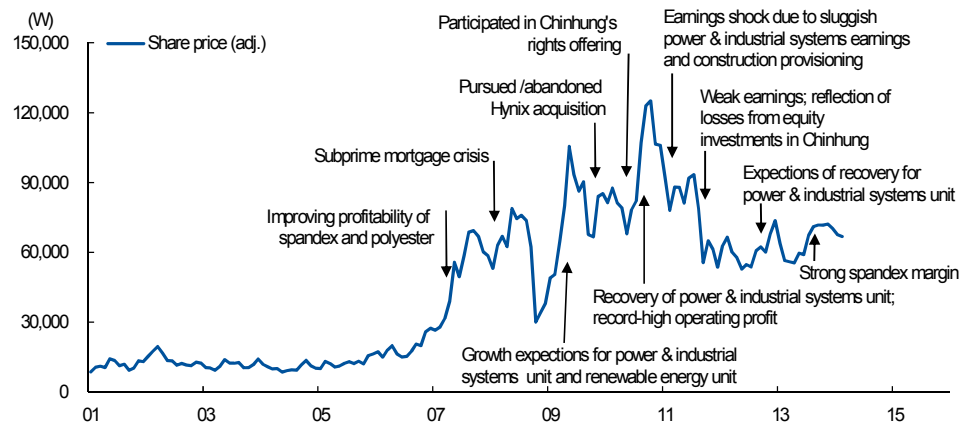
## Initiate coverage with Buy and TP of W95,000; Valuation to normalize

Shares of Hyosung, which are trading at a 2014F P/E of 7x and a 2015 P/B of 0.8x, appear discounted in light of the company's 2014F ROE of 12.5%. We believe that the discount is attributable to: 1) poor earnings at the power & industrial systems division since 2011 and 2) financial risks related to the company's E&C affiliate Chinhung.

However, we project earnings at the power & industrial systems division to recover in 2014, while the textile division will also likely fare better. Financial risks arising from Chinhung have been decreasing. Back in 2011, it was unclear how much Hyosung would inject into Chinhung. At present, however, additional losses from Chinhung should be limited, given that Hyosung's lending to the construction affiliate and PF guarantee stood at around W150bn and W700bn, respectively, as of 3Q13.

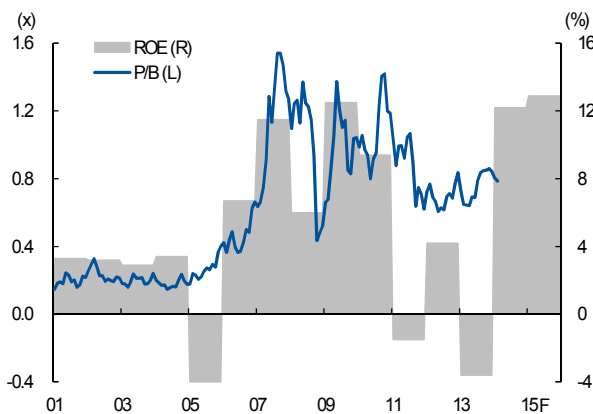
We initiate our coverage on Hyosung with a Buy rating and target price of W95,000. In deriving our target price, we applied a 10% discount to 1.2x 2014F BPS (ROE of 12.6%) to account for Chinhung-related risks. We expect the company's valuation to normalize toward 2015, given: 1) earnings improvement at the power & industrial systems division and 2) the easing of Chinhung-related risks.

Figure 11. Hyosung's share performance



Source: KDB Daewoo Securities Research

Figure 12. ROE and P/B



Source: QuantiWise, KDB Daewoo Securities Research

Figure 13. P/E band



Source: QuantiWise, KDB Daewoo Securities Research

Table 5. Global peer group earnings

(Wbn)

	Revenue			Operating profit			Net profit		
	2013	2014F	2015F	2013	2014F	2015F	2013	2014F	2015F
ABB	45,815	45,622	47,299	4,803	5,734	6,323	3,051	3,768	4,179
Schneider Electric	34,236	38,120	40,174	4,388	5,071	5,687	2,745	3,090	3,567
Siemens	113,043	117,850	122,481	11,811	13,395	14,549	8,361	9,129	9,829
Kolon Industries	5,261	5,576	5,928	232	281	333	112	165	202
Bekaert	4,682	4,848	5,014	182	258	297	58	146	192
Zhejiang Huafon Spandex	414	562	804	54	116	183	50	102	143
DuPont	39,122	40,099	42,426	3,861	5,956	6,564	5,308	4,267	4,767
Dow Chemical	62,491	62,678	65,379	4,657	6,353	7,177	5,241	3,783	4,354
BASF	108,840	102,768	104,070	10,407	11,462	12,524	7,141	7,283	8,044
LG Chem	23,144	24,254	25,478	1,743	2,076	2,458	1,266	1,605	1,891
Lotte Chemical	16,440	16,182	16,612	487	761	936	326	587	743
Hyosung	12,670	12,568	12,621	480	636	655	-241	347	370

Source: Bloomberg, KDB Daewoo Securities Research

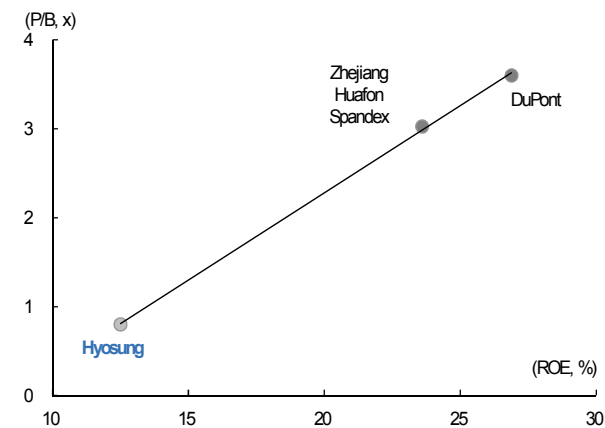
Table 6. Global peer group valuations

(x, %)

	EV/EBITDA			P/E			P/B			ROE		
	2013	2014F	2015F	2013	2014F	2015F	2013	2014F	2015F	2013	2014F	2015F
ABB	10.6	9.1	8.4	20.4	16.0	14.5	3.1	2.9	2.6	15.7	18.8	18.9
Schneider Electric	9.5	10.4	9.5	19.2	15.7	14.0	2.3	2.0	1.8	11.0	12.9	13.6
Siemens	9.0	9.0	8.2	13.9	13.9	12.4	2.6	2.6	2.4	19.0	19.0	19.8
Kolon Industries	7.8	6.6	5.9	14.2	8.8	7.2	0.7	0.8	0.7	5.3	9.0	10.3
Bekaert	8.2	7.2	6.6	37.5	18.0	13.7	1.1	1.1	1.0	2.1	4.8	5.2
Zhejiang Huafon Spandex	15.4	9.2	6.4	26.6	14.1	10.0	4.0	3.0	2.2	14.6	23.6	27.0
DuPont	10.3	8.9	8.2	18.4	14.9	13.4	3.8	3.6	3.0	37.3	26.9	26.3
Dow Chemical	10.2	8.4	7.9	20.5	15.9	13.4	2.5	2.4	2.2	22.4	14.7	17.2
BASF	8.8	8.3	7.8	15.2	13.8	12.7	2.8	2.6	2.4	18.8	19.2	19.5
LG Chem	7.7	5.8	5.1	13.4	10.7	9.1	1.5	1.4	1.2	11.6	13.1	13.9
Lotte Chemical	9.2	7.1	6.1	24.2	12.4	9.8	1.1	1.1	1.0	4.9	8.9	10.3
Hyosung	10.3	8.9	8.5	-	7.1	6.6	0.9	0.8	0.7	-8.7	12.5	11.9

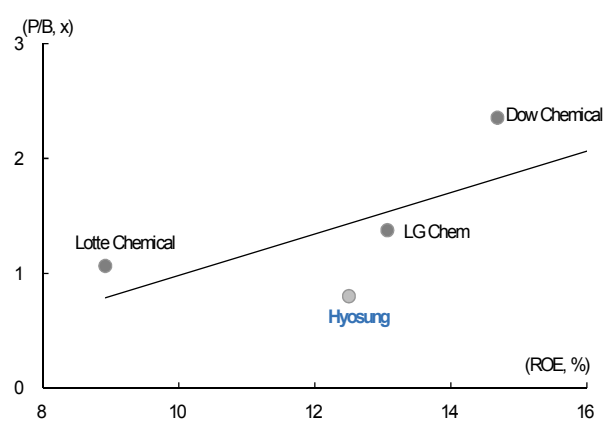
Source: Bloomberg, KDB Daewoo Securities Research

Figure 14. Textiles: ROE-P/B matrix (2014F)



Source: KDB Daewoo Securities Research

Figure 15. Chemicals: ROE-P/B matrix (2014F)



Source: KDB Daewoo Securities Research

## Risks

### Subsidiary issues, high debt ratio, and won appreciation

Currently, Hyosung is facing risks related to Chinhung, a high debt ratio, and won appreciation.

Chinhung is undergoing a corporate workout, which is scheduled to be completed at end-2014. Although Hyosung's lending to the construction affiliate and PF guarantee stood at around W150bn and W700bn, respectively (as of 3Q13), Hyosung's additional financial burden after the workout should be limited even in the worst-case scenario.

Hyosung's debt ratio exceeded 400% at end-2013. However, the company's EBITDA is projected to rise to around W1.1tr in 2014 in line with the market improvement (vs. annual capex of W400-500bn), and its debt is expected to decrease this year.

Won appreciation is negative for Hyosung's earnings, as the tire cords and power and industrial systems businesses are highly dependent on exports. If the US\$/W rate declines by 10, the company's operating profit falls by W16-17bn.

The company is being investigated for alleged accounting fraud by the Financial Services Commission (FSC). If formal charges are brought forth, the trading of the company's shares could be suspended for a listing eligibility review. However, it is important to note that the company has already been prosecuted for false accounting. Thus, it is unlikely to be prosecuted again for the same charges. Even if a suspension of trading is ordered, the company is unlikely to be delisted.

**Table 7. Chinhung's PF debt (as of end-3Q13)**

(Wmn)

Developer	Creditor	Guaranteed amount	Loan amount	Contract date	Maturity date	Notes
Suhyun Foundation	MG Non-life Insurance	20,000	20,000	6/28/10	12/31/14	Guarantee
Lime Development	Solomon Mutual Savings Bank, etc.	22,620	9,236	6/22/06	12/31/14	Guarantee
Cosmo E&C	Jeil Savings Bank, etc.	18,850	14,500	9/12/08	12/31/14	Guarantee
Hansung Construction	Kookmin Bank	26,000	16,000	6/28/07	12/31/14	Guarantee
IH Housing Construction	KB Investment & Securities	140,400	97,000	4/24/13	4/25/16	Guarantee
Jisuk D&C	Korea Development Financing, etc.	39,000	20,500	4/27/06	12/31/14	Guarantee
Gangwon I&D	Hanshin Mutual Savings Bank, etc.	56,420	41,230	10/28/09	12/31/14	Guarantee
Saemirang	Woori Bank, etc.	344,500	263,677	6/4/08	12/31/14	Guarantee
Haul Reaty	NongHyup, etc.	78,000	57,000	3/14/07	12/31/14	Guarantee
Hansung Construction	Hana Bank, etc.	91,000	70,000	3/13/08	12/31/14	Guarantee
Hansung City	Solomon Mutual Savings Bank, etc.	51,350	38,996	5/18/07	12/31/14	Guarantee
Hansung Development	Solomon Mutual Savings Bank, etc.	38,090	18,997	10/23/07	12/31/14	Guarantee
Post	Woori Bank, etc.	52,000	39,925	5/16/08	12/31/14	Guarantee
Dream Palace	Hwa Seung Mutual Savings Bank, etc.	3,900	3,000	12/17/07	12/31/14	Guarantee
<b>Total</b>		<b>982,130</b>	<b>710,061</b>			

Source: KDB Daewoo Securities Research

**Table 8. Hyosung's PF debt (as of end-3Q13)**

(Wmn)

Project	Outstanding balance (Dec. 31, 2012)	Change	Outstanding balance (Sept. 30, 2013)	Creditor
Changdong Station	28,000	0	28,000	Hyosung Capital
Reconstruction in Bongduk-dong, Daegu	18,362	-18,362	0	Hyosung Capital
Apartments in Taejeon-dong, Gwangju	90,000	7,000	97,000	KB Investment & Securities, Mirae Asset
Officetel building near Gangnam Station	78,000	-20,000	58,000	Korea Investment Securities
Apartment sin Naepo New Town	31,000	-9,000	22,000	Hanyang Securities, IBK Investment & Securities
Apartments in Sangdo-dong	49,500	-25,750	23,750	Hana Bank
Housing in Imae-dong (Bundang)	35,000	-35,000	0	IM Investment Securities
<b>Total</b>	<b>329,862</b>	<b>-101,112</b>	<b>228,750</b>	

Source: KDB Daewoo Securities Research

## Company overview

### Leading global supplier of spandex and tire cords

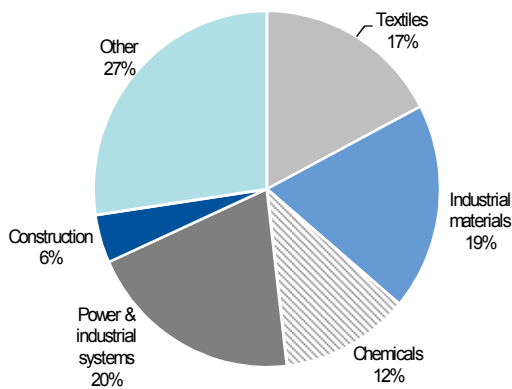
Established in 1966, Hyosung is a multi-industry company whose business portfolio ranges from textiles to industrial materials, power & industrial systems, and chemicals.

#### 1) Textiles: Key business generating 56% of OP in 2013

The textiles business generated 17% of revenue and 56% of operating profit in 2013. Its revenue sources are spandex (50%), nylon (25%), and polyester (25%). Industry estimates put the global spandex market at 800,000 tonnes annually with demand growing at a CAGR of 7%. Hyosung controls 21% of the global market with a production capacity of 150,000 tonnes/year. Major competitors include DuPont, TK Chemical, and various Chinese companies.

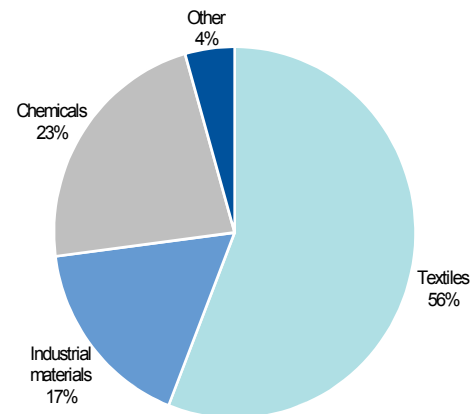
Polyester currently accounts for 50% of the global fiber market (40mn tonnes). And we note that the polyester market is growing by 7% annually on average, increasing its weight in the overall fiber market. Nevertheless, it should be noted that Chinese makers occupy more than 70% of the global polyester market. Due to Chinese supply expansion, the Korean polyester industry underwent massive restructuring in the mid-2000s, and surviving producers are now boasting differentiated product lineups. In the meantime, the global nylon business (3.3mn tonnes) accounts for 4% of the global fiber market.

Figure 16. Revenue by business unit (2013F)



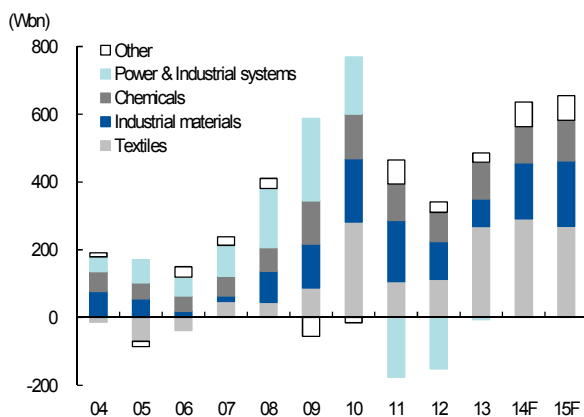
Source: KDB Daewoo Securities Research

Figure 17. Operating profit by business unit (2013F)



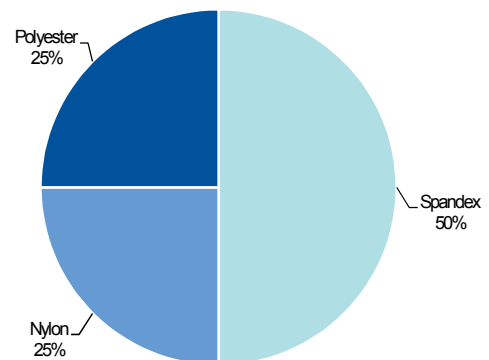
Source: KDB Daewoo Securities Research

Figure 18. Operating profit trends by business unit



Source: KDB Daewoo Securities Research

Figure 19. Global spandex market (2013F)



Source: Industry data, KDB Daewoo Securities Research

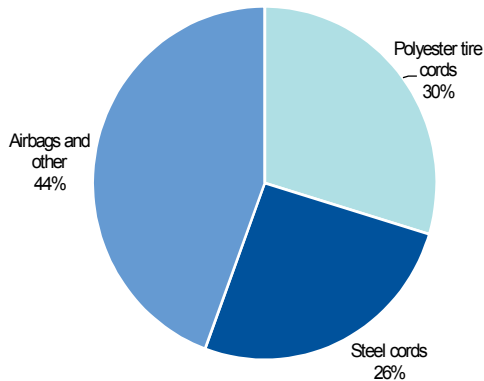
**2) Industrial materials: Global leader in the polyester tire cord market**

The industrial materials division generated 19% of the company’s revenue and 17% of operating profit in 2013. The division is comprised of polyester tire cords (60% of overall industrial materials revenue), air bags, and industrial fibers. Tire cords are designed to increase tire durability and driving performance.

The world’s polyester tire cord market is estimated at 420,000 tonnes. Hyosung occupies 44% of the global market with capacity of 200,000 tonnes. Major competitors are Performance Fibers, Kolon Industries, and Toyobo. In light of growing tire demand around the globe, we estimate the tire cord market to grow at a CAGR of 4-5%.

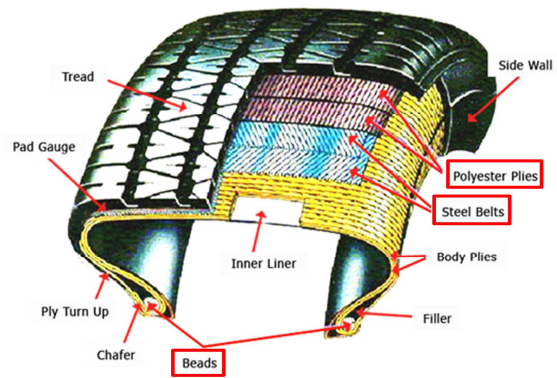
Meanwhile, the global steel cord market is estimated at 2.25mn tonnes. However, Hyosung accounts for just 10% of the market with capacity of 240,000 tonnes. As such, the company is currently endeavoring to win market share in the segment .

**Figure 20. Industrial materials unit’s revenue breakdown (2013F)**



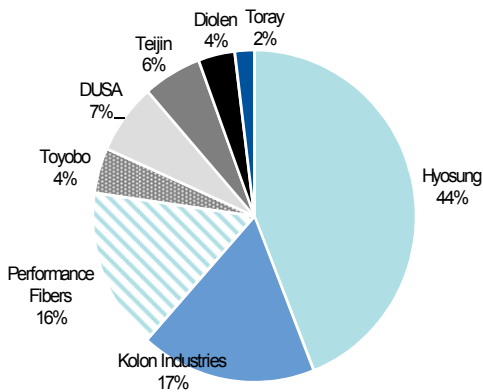
Source: KDB Daewoo Securities Research

**Figure 21. Tire cord application**



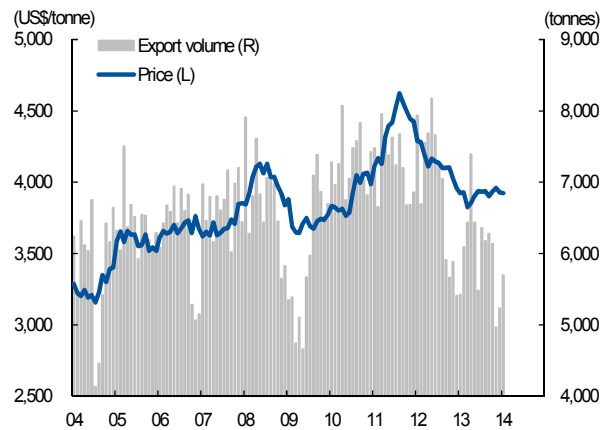
Source: Google, KDB Daewoo Securities Research

**Figure 22. Breakdown of global polyester tire cord market (2013F)**



Source: Industry data, KDB Daewoo Securities Research

**Figure 23. Polyester cord export volume and price trends**



Source: KITA, KDB Daewoo Securities Research

**3) Chemicals: Major products are PDH and TPA**

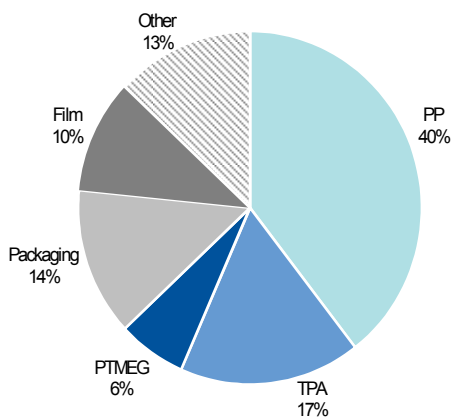
The chemicals division generated 12% of overall revenue and 23% of overall operating profit in 2013. Major products include PP, TPA, packaging materials, PTMEG, and films.

Hyosung produces PP using its PDH facility. Margins depend on the spread between propane prices and propylene prices. As such, margins tend to decline in the winter, due to propylene price increases, and improve in summer. Hyosung plans to ramp up PDH capacity from the current 200,000 tonnes to 500,000 tonnes by July 2015.

TPA for use in polyester fibers is produced with paraxylene (PX). Both TPA and PX margins have narrowed sharply since China's large-scale capacity expansion efforts in 2011. Additional Chinese capacity additions scheduled for 2014-15 should slow margin recovery going forward. However, such unfavorable market conditions have had only a limited impact on Hyosung's earnings, because the company consumes approximately 60% of its own TPA production internally. The packaging unit (plastic bottles) enjoys strong margins during the summer. PTMEG revenue was small, but margins widened recently as the price of feedstock (BDO) fell.

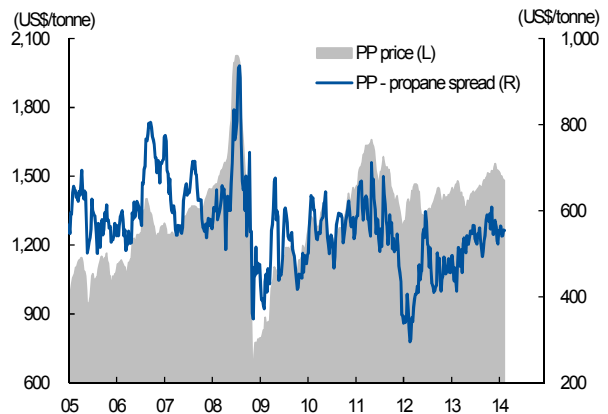
Hyosung's film unit produces triacetyl cellulose (TAC) films (used in polarizers) and optical/industrial PET films. TAC films enjoy fat margins due to the oligopolistic nature of the market. (Japanese makers, including Konica Minolta, currently dominate the market.) Hyosung plans to double the size of its TAC film production facilities to 110mn square meters.

**Figure 24. Chemical unit revenue breakdown (2013F)**



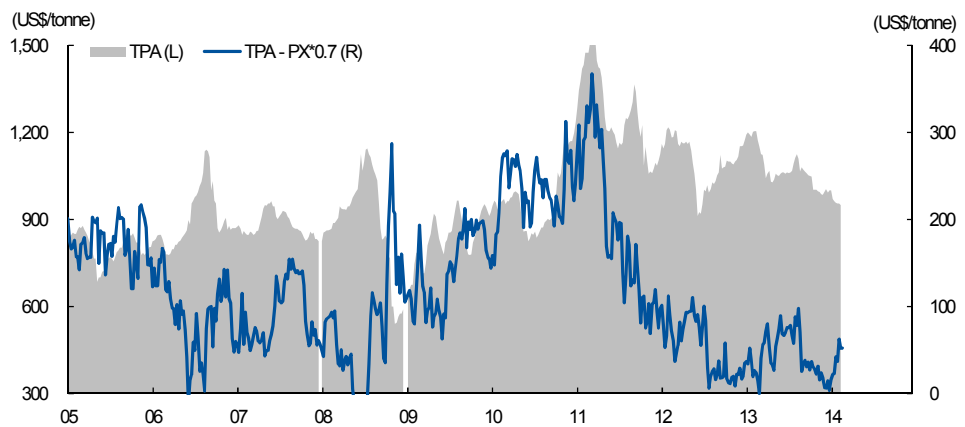
Source: KDB Daewoo Securities Research

**Figure 25. Propane - propylene spread**



Source: Cischem, KDB Daewoo Securities Research

**Figure 26. TPA - PX spread**



Source: Cischem, KDB Daewoo Securities Research

**4) Power and industrial systems: Bottoming out**

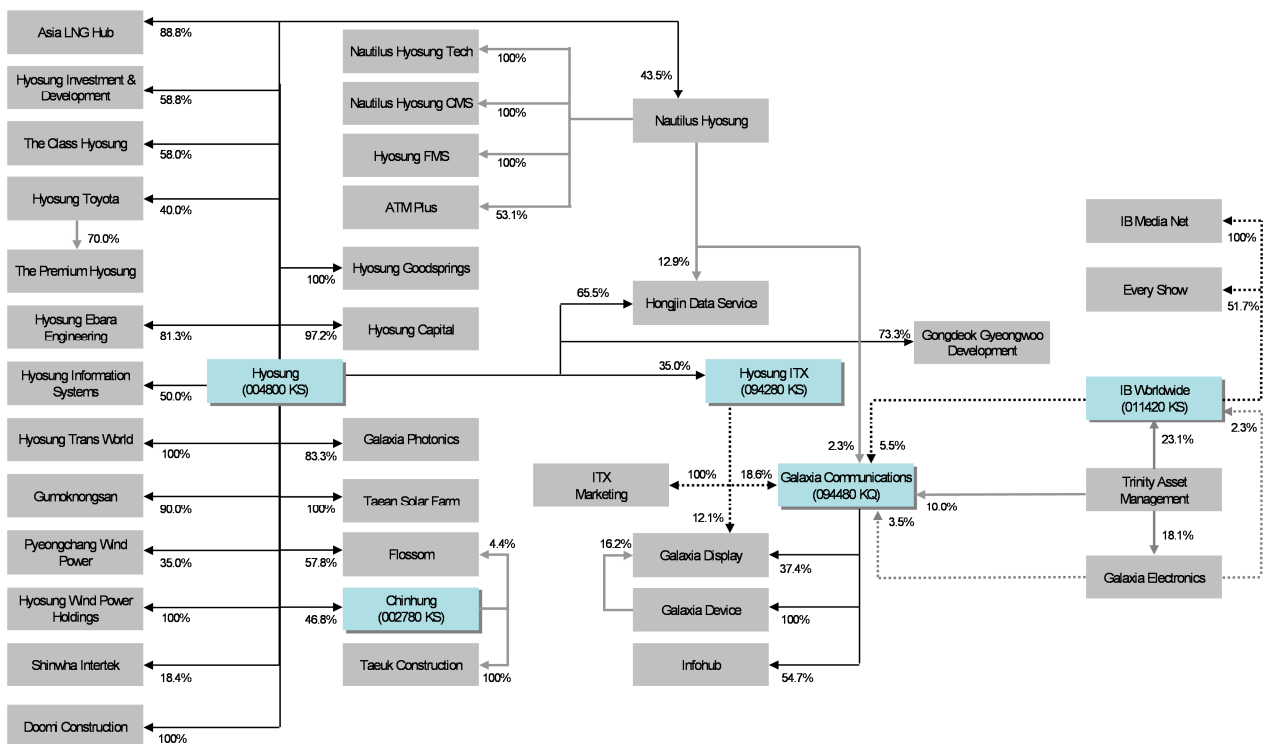
Power and industrial systems accounted for 20% of Hyosung’s total revenue in 2013, but still reported a slight operating loss. The unit is largely divided into the power systems performance unit (power generation, transmission, and distribution services and equipment) and the industrial machinery performance (motors, generators, etc.).

The company’s power and industrial systems business had expanded rapidly following its entries into the US and the Chinese markets in the mid-2000s, driving the company’s revenue and operating profit growth until 2009. Beginning in 2010, however, major capacity ramp-ups in the industry led to oversupply, and Hyosung has suffered significant earnings deterioration. Then, various efforts focused on improving profitability and reducing investments started to pay off in 2H13. The company’s rivals in power and industrial systems include Hyundai Heavy Industries (HHI), LS Industrial Systems (LSIS), and ABB.

**5) Construction, trading, and other**

Hyosung’s construction unit is focused on residential buildings, including apartment buildings. One issue facing the division is the workout of the affiliated firm Chinhung, which commenced in 2011 and led to additional equity investments by Hyosung. The workout is expected to conclude by end-2014. Hyosung’s trading business is mainly engaged in steel and chemical products.

Figure 27. Hyosung’s governance structure



Source: DART, KDB Daewoo Securities Research

## Hyosung (004800 KS/Buy/TP: W95,000)

## Comprehensive Income Statement (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
<b>Revenue</b>	<b>12,612</b>	<b>12,670</b>	<b>12,568</b>	<b>12,621</b>
<b>Cost of Sales</b>	<b>11,511</b>	<b>11,230</b>	<b>10,972</b>	<b>11,006</b>
<b>Gross Profit</b>	<b>1,101</b>	<b>1,440</b>	<b>1,596</b>	<b>1,615</b>
<b>SG&amp;A Expenses</b>	<b>911</b>	<b>960</b>	<b>960</b>	<b>960</b>
<b>Operating Profit (Adj)</b>	<b>189</b>	<b>480</b>	<b>636</b>	<b>655</b>
<b>Operating Profit</b>	<b>189</b>	<b>480</b>	<b>636</b>	<b>655</b>
<b>Non-Operating Profit</b>	<b>-38</b>	<b>-203</b>	<b>-195</b>	<b>-185</b>
Net Financial Income	-237	-206	-195	-185
Net Gain from Inv in Associates	17	-1	0	0
Pretax Profit	151	277	441	470
Income Tax	44	513	97	103
Profit from Continuing Operations	107	-236	344	366
Profit from Discontinued Operations	0	0	0	0
<b>Net Profit</b>	<b>107</b>	<b>-236</b>	<b>344</b>	<b>366</b>
Controlling Interests	122	-241	347	370
Non-Controlling Interests	-15	5	-3	-3
<b>Total Comprehensive Profit</b>	<b>72</b>	<b>-285</b>	<b>344</b>	<b>366</b>
Controlling Interests	90	-289	342	364
Non-Controlling Interests	-18	4	2	2
EBITDA	795	1,040	1,152	1,160
FCF (Free Cash Flow)	-433	-509	463	460
EBITDA Margin (%)	6.3	8.2	9.2	9.2
Operating Profit Margin (%)	1.5	3.8	5.1	5.2
Net Profit Margin (%)	1.0	-1.9	2.8	2.9

## Statement of Financial Condition (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
<b>Current Assets</b>	<b>4,510</b>	<b>4,379</b>	<b>4,498</b>	<b>4,665</b>
Cash and Cash Equivalents	434	103	236	354
AR & Other Receivables	2,103	2,275	2,267	2,295
Inventories	1,521	1,540	1,535	1,554
Other Current Assets	452	461	460	462
<b>Non-Current Assets</b>	<b>6,996</b>	<b>7,316</b>	<b>7,198</b>	<b>7,099</b>
Investments in Associates	266	280	279	283
Property, Plant and Equipment	5,152	5,420	5,304	5,198
Intangible Assets	408	452	452	452
<b>Total Assets</b>	<b>13,764</b>	<b>14,024</b>	<b>14,025</b>	<b>14,093</b>
<b>Current Liabilities</b>	<b>6,621</b>	<b>7,134</b>	<b>6,827</b>	<b>6,552</b>
AP & Other Payables	1,268	1,344	1,339	1,356
Short-Term Financial Liabilities	4,705	5,109	4,809	4,509
Other Current Liabilities	648	681	679	687
<b>Non-Current Liabilities</b>	<b>4,128</b>	<b>4,175</b>	<b>4,172</b>	<b>4,183</b>
Long-Term Financial Liabilities	3,329	3,334	3,334	3,334
Other Non-Current Liabilities	799	841	838	849
<b>Total Liabilities</b>	<b>10,750</b>	<b>11,309</b>	<b>10,999</b>	<b>10,735</b>
<b>Controlling Interests</b>	<b>2,928</b>	<b>2,627</b>	<b>2,941</b>	<b>3,277</b>
Capital Stock	176	176	176	176
Capital Surplus	460	460	460	460
Retained Earnings	2,295	2,047	2,361	2,697
<b>Non-Controlling Interests</b>	<b>86</b>	<b>88</b>	<b>85</b>	<b>82</b>
<b>Stockholders' Equity</b>	<b>3,014</b>	<b>2,715</b>	<b>3,026</b>	<b>3,359</b>

## Cash Flows (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Cash Flows from Op Activities	486	97	863	860
Net Profit	107	-236	344	366
Non-Cash Income and Expense	824	768	808	794
Depreciation	606	560	516	505
Amortization	0	0	0	0
Others	218	208	292	289
Chg in Working Capital	-257	-679	3	-12
Chg in AR & Other Receivables	184	-233	7	-26
Chg in Inventories	265	-25	5	-19
Chg in AP & Other Payables	-351	71	-4	13
<b>Income Tax Paid</b>	<b>-32</b>	<b>-107</b>	<b>-97</b>	<b>-103</b>
Cash Flows from Inv Activities	-1,039	-657	-398	-405
Chg in PP&E	-876	-575	-400	-400
Chg in Intangible Assets	-1	0	0	0
Chg in Financial Assets	-155	-22	2	-5
<b>Others</b>	<b>-7</b>	<b>-60</b>	<b>0</b>	<b>0</b>
Cash Flows from Fin Activities	459	216	-333	-333
Chg in Financial Liabilities	450	409	-300	-300
Chg in Equity	5	-1	0	0
Dividends Paid	-34	-36	-33	-33
<b>Others</b>	<b>38</b>	<b>-156</b>	<b>0</b>	<b>0</b>
Increase (Decrease) in Cash	-92	-334	133	118
Beginning Balance	527	434	103	236
<b>Ending Balance</b>	<b>434</b>	<b>103</b>	<b>236</b>	<b>354</b>

Source: Company data, KDB Daewoo Securities Research estimates

## Forecasts/Valuations (Summarized)

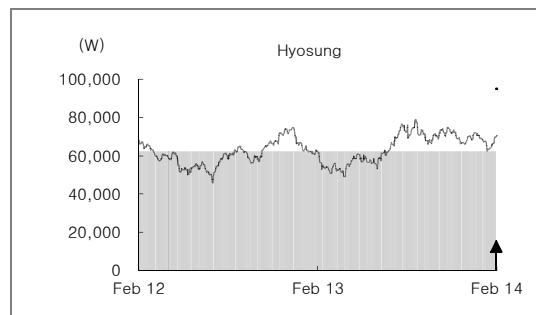
	12/12	12/13F	12/14F	12/15F
P/E (x)	21.1	-	7.1	6.6
P/CF (x)	2.8	4.6	2.1	2.1
P/B (x)	0.9	0.9	0.8	0.7
EV/EBITDA (x)	12.7	10.3	8.9	8.5
EPS (W)	3,486	-6,865	9,885	10,522
CFPS (W)	26,531	15,149	32,808	33,040
BPS (W)	84,361	75,764	84,702	94,277
DPS (W)	1,000	1,000	1,000	1,000
Payout ratio (%)	31.0	-14.1	9.7	9.1
Dividend Yield (%)	1.4	1.4	1.4	1.4
Revenue Growth (%)	11.2	0.5	-0.8	0.4
EBITDA Growth (%)	15.2	30.8	10.8	0.7
Operating Profit Growth (%)	-32.0	154.0	32.5	3.0
EPS Growth (%)	-	-	-	6.4
Accounts Receivable Turnover (x)	6.2	6.2	5.9	5.9
Inventory Turnover (x)	7.5	8.3	8.2	8.2
Accounts Payable Turnover (x)	10.0	11.3	10.7	10.7
ROA (%)	0.8	-1.7	2.5	2.6
ROE (%)	4.2	-8.7	12.5	11.9
ROIC (%)	1.7	-5.1	6.1	6.3
Liability to Equity Ratio (%)	356.6	416.6	363.5	319.6
Current Ratio (%)	68.1	61.4	65.9	71.2
Net Debt to Equity Ratio (%)	246.6	300.8	255.6	217.8
Interest Coverage Ratio (x)	0.8	2.2	3.2	3.4

## APPENDIX 1

### Important Disclosures & Disclaimers

#### 2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
Hyosung(004800)	02/23/2014	Buy	95,000
		No Coverage	



#### Stock Ratings

Buy	: Relative performance of 20% or greater
Trading Buy	: Relative performance of 10% or greater, but with volatility
Hold	: Relative performance of -10% and 10%
Sell	: Relative performance of -10%

#### Industry Ratings

Overweight	: Fundamentals are favorable or improving
Neutral	: Fundamentals are steady without any material changes
Underweight	: Fundamentals are unfavorable or worsening

Ratings and Target Price History (Share price (—), Target price (—), Not covered (■), Buy (▲), Trading Buy (■), Hold (●), Sell (◆))

\* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.

\* Although it is not part of the official ratings at Daewoo Securities, we may call a trading opportunity in case there is a technical or short-term material development.

\* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.

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