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## WHAT'S NEW

## The giant is still hungry

STX O&S is the fourth-largest shipbuilder globally, but has a market cap of only USD1.8bn. The company has bigger growth potential than its global peers, from a relatively smaller order book and still-improving productivity. STX O&S is expected to show faster improvement in financials, even to net cash positions in 2012. Also, its vertically integrated business structure enhances further upside potential. We initiate our coverage of the stock at a target price of KRW62,000; a top buy in our shipbuilding universe.

### » Top 4 player, with every product on hand

STX O&S is the world's fourth-largest shipbuilder; able to build every type of vessel using its 16 yards globally and with the widest array of product offerings; from cruise ships, offshore service vessels, LNG carriers, drill ships and ice breakers to all types of commercial vessels.

### » The greatest vertical integration

The key strength of STX O&S is its vertically-integrated business structure, formed with its affiliates. The STX group's interests range from ship components, ship engines, shipbuilding, shipping, the energy business and even power plants. Such a structure will provide greater growth potential for STX O&S, as well as stable cash flows.

### » Bigger room for growth and profitability than peers

STX O&S has a smaller order book than peers and thus is expected to take higher priced contracts. The company has an order book worth only KRW18tn (20-30% smaller than peers), by our estimate. We expect key growth drivers to come from its Chinese and European divisions. Also, we expect sharp improvement of its financials toward net cash position in 2012.

### » Massively under-valued; BUY at KRW62,000 TP

STX O&S is currently traded at 0.18x its 2011E price-to-sales ratio; 1/3~1/4 the value of its Korean peers. Most discount factors, stemming from its weaker margin and unproven growth potential, will be cleared during 2011. We initiate coverage of the company with a BUY rating and a target price of KRW62,000, based on 2013E 2.0x PB.

## IMPACT

#### Hedge fund investors

STX O&S is the most undervalued stock in our global shipbuilding universe. The company provides good pair trade opportunities, due to its globally diversified yard locations

#### Long-only investors

STX O&S provides the typical turnaround and re-rating stories. Temporarily distressed profitability and weaker orders than peers will provide good buying opportunities

Target price **KRW62,000**

Current price (4 April 2011) **KRW24,750**

Upside/downside 150.5%

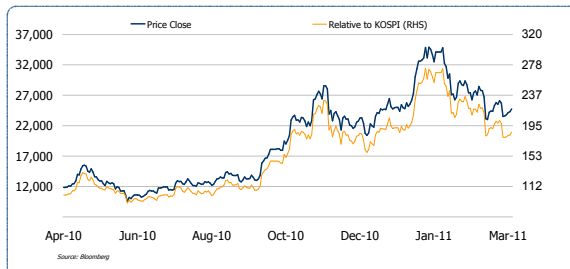
Consensus target price KRW43,800

Difference from consensus 41.6%

#### Forecast earnings & valuation

Fiscal year ending	Dec-10A	Dec-11E	Dec-12E	Dec-13E
Revenue (KRWb)	8,911	10,383	12,140	13,554
Op EBIT (KRWb)	129.1	350.3	638.8	878.8
Net income (KRWb)	(48.7)	110.1	353.4	498.0
Norm profit (KRWb)	(152.8)	56.3	299.6	444.2
EPS (KRW)	-2,053	714	3,618	5,240
EPS growth	101.1%	NA	406.8%	44.8%
Norm P/E (x)	na	34.7	6.8	4.7
EV/EBITDA (x)	11.7	7.2	3.8	2.5
Dividend yield	0.0%	2.0%	4.0%	6.1%
P/B (x)	1.3	1.2	1.0	0.8
ROE	-3.4%	6.8%	18.4%	20.7%
Net debt/equity	178.5%	122.9%	53.3%	16.7%
Cons EPS (KRW)	-2,053	3,137	4,372	5,240
Prev EPS (adj) (KRW)				

#### Performance



#### Trading data

Market cap (KRWbn/USDm)	1,924/1,771		
Shares outstanding	76.84m		
Free float	65.9%		
52-week price high/low	KRW9,550 -34,900		
Daily average turnover (3M)	USD72.09m		
<b>Performance</b>	<b>1M</b>	<b>3M</b>	<b>12M</b>
Absolute	-10.7%	-2.8%	96.4%
Relative to KOSPI	-16.2%	-4.3%	73.6%
Absolute (USD)	-8.4%	0.3%	103.7%
<b>Major shareholders</b>			
STX Corp	34.1%		
STX Foundation	0.1%		

## Executive summary

### Top 4 player, with every product on hand

STX O&S is the world's fourth-largest shipbuilder globally, with the ability to build every type of vessel, ranging from cruise ships, offshore service vessel, drill ships, LNG carriers and all types of commercial vessels. The company has the most diversified product offerings among all yards globally. Despite STX O&S' relatively short history of shipbuilding, compared with top tiers, its M&A with European yards and timely expansion into China have moved the company rapidly into the top ranks. The recovery of the global shipbuilding industry, plus the company's diversified product mix and its global allocation of yards, provide a good re-rating opportunity.

**STX O&S: Fourth-largest player, with every product on hand**

### The greatest vertical integration

The key strength of STX O&S is its vertically-integrated business structure. Together with its affiliates, STX O&S has achieved complete vertical integration; encompassing ship component, ship engine, shipbuilding, shipping and power plant players as affiliates. No other yards globally are as vertically integrated as STX O&S, in our view. Vertical integration has generated many new business opportunities for STX O&S, as seen in several cases. In the longer-term, the company and the group are moving towards becoming a total solution provider.

**Synergies from vertical integration**

### Plenty room for growth in size and profitability

STX O&S, together with its subsidiaries, has a smaller order book than peers, but its smaller order book will result in higher-priced orders and bigger order flows than peers, going forward. Also, the company will show faster recovery of profitability than peers, led by the turnaround of its subsidiaries. We also expect the company to show net cash position in 2012. Additional cash drivers will be found from new orders and IPOs of subsidiaries.

**Higher priced orders and net cash are expected in 2012**

### Massively under-valued; BUY at target price of KRW62,000

STX O&S is the cheapest shipbuilding stock globally, trading at only 0.18x its 2011E price-to-sales; only 1/3 the average of Korean yards. The price-to-order book ratio remains at only 0.1x; 1/4 the average of Korean yards and only 1/10 that of Chinese yards. We expect sharp recovery of its profitability during 2011, while strong order flows will clear the massive discount levied on this company. We are initiating our coverage of the stock at a target price of KRW62,000, based on 2.0x 2013E PB.

**Buy at KRW62,000 TP, based on 2.0x 2013E PB**

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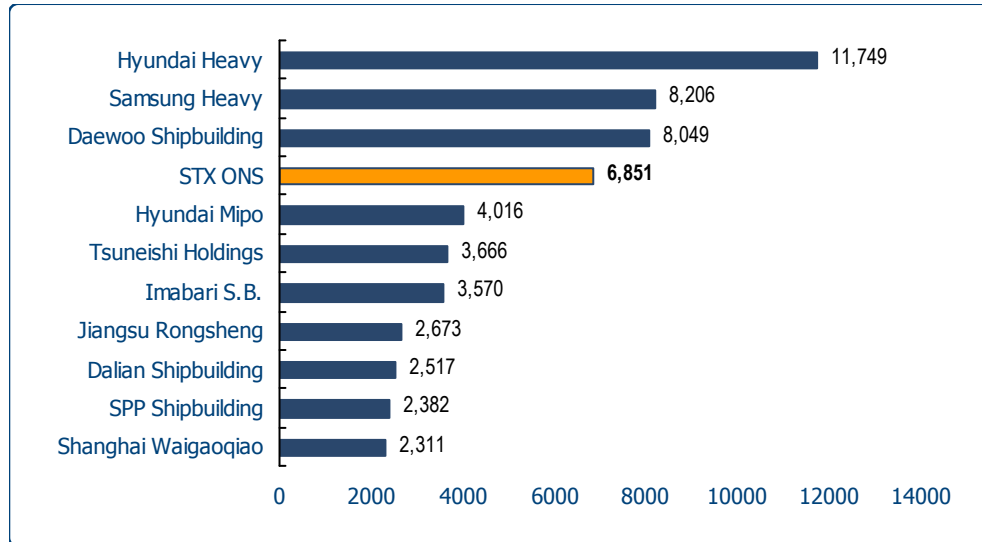
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## Top 4 player, with every product on hand

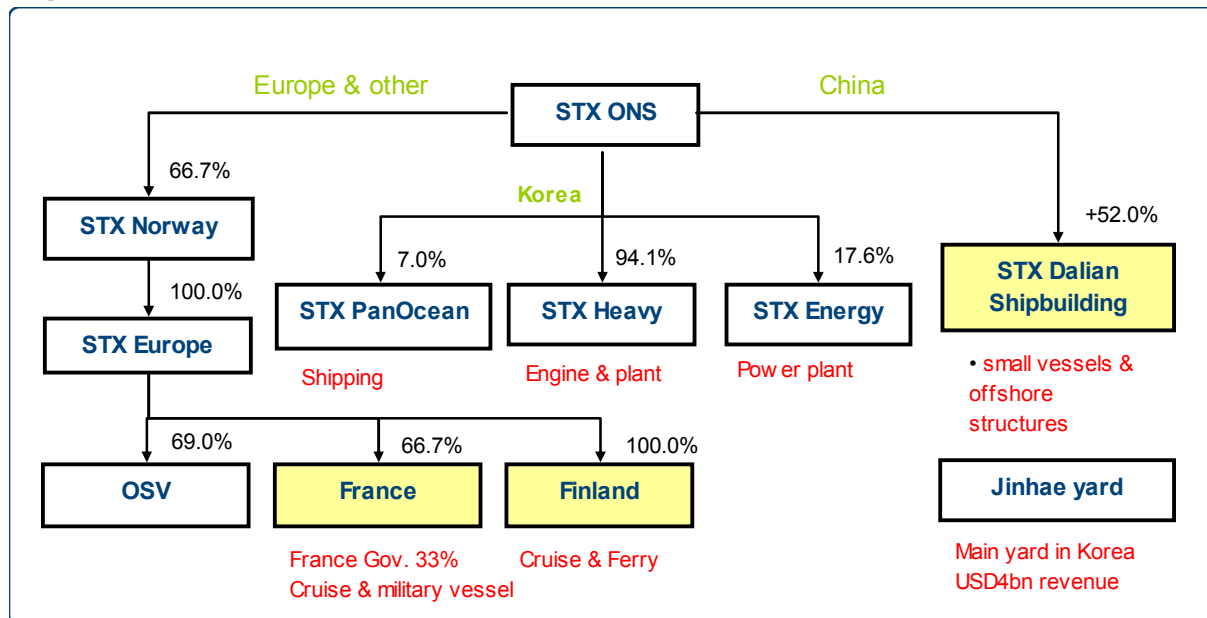
STX O&S is the largest shipbuilder globally, with the ability to build every type of vessel; ranging from cruise ships, offshore service vessels, drill ships and LNG carriers, to all types of commercial vessels. The company has the most diverse product offerings among all yards globally. Despite STX O&S' relatively short history of shipbuilding, compared with top-tiers, its M&As with European yards and timely expansion into China have moved the company rapidly into the top ranks. The recovery of the global shipbuilding industry, plus the company's diversified product mix and global allocation of yards, provide a good re-rating opportunity.

Figure 1 Order book status by shipbuilding group ('000 CGT)



Source: Clarksons

Figure 2 Business structures of STX ONS



Source: Company

## LNG carriers, containerships, tankers and bulkers from Jinhae, Korea

STX O&S was founded in 1967, as Daedong Shipbuilding. Daedong was a small shipyard specializing in PC (product and chemical) tankers and small bulk carriers. Daedong was acquired by the STX group in 2001 and was reborn with a more diversified product mix and increased capacity, with STX O&S adding LNG carriers, containerships and larger bulk carriers to its product mix. While Daedong delivered 10-13 small-sized vessels a year, STX O&S is now delivering 46-49 ships a year.

Previously, the company specialized in small-sized tankers (product and chemical tankers). STX O&S has invested more than KRW1tn in new facilities over the past several years, resulting in three-to-four times larger capacity, with a more diverse product mix. Its specialty in small ship segments was handed over to its subsidiary in China. The diversity of its product mix was secured by sacrificing margin for some time, as they had incurred higher-than-expected costs in building new types of vessels. However, such efforts resulted in the improved stability of its operations.

STX O&S builds LNG carriers and large container ships

Diverse product mix = stability of business

Figure 3 Product mix of STX O&S (vessels)

	Delivered since 2008	On order
PC carrier	97	39
Bulk	35	81
Container	17	11
LNG carrier	1	
Open hatch		10
Tanker		13
FSU (offshore)		1
Total	150	155

Source: Clarksons, Mirae Asset Research

An example of the high entry costs is its first LNG carrier, delivered in August 2010. Although the company secured many talented and engineers experienced in LNG carrier construction, building the vessel in their yard was a challenging experience, resulting in a much weaker-than-expected margin in 3Q10, on a parent-only basis. Now, however, they are ready to enjoy the fruits of the big LNG boom (see our report on 17 March 2011; "California Déjà-vu"). We expect that the current LNG carrier boom will be shared by most top-tier Korean yards. While STX O&S was a late entry to the party, we expect they will enjoy the LNGC boom for the next decade.

Successful launch into LNGC market

### Small vessels and drill ships from STX Dalian, China

STX O&S began construction of the STX Dalian Shipbuilding Complex (STX DSC) from March 2007 and started to deliver vessels from 2009. To overcome the limited yard space in Korea, STX DSC secured a massive area, amounting to 5.5m square meters, in Dalian, China. In size, STX DSC is larger than Korea's biggest shipyard, Hyundai Heavy Industries' yard in Ulsan, Korea. STX DSC also has 40% larger yard space than Rongsheng Heavy of China.

STX DSC was built over huge land space

Figure 4 Site of STX Dalian Shipbuilding Complex

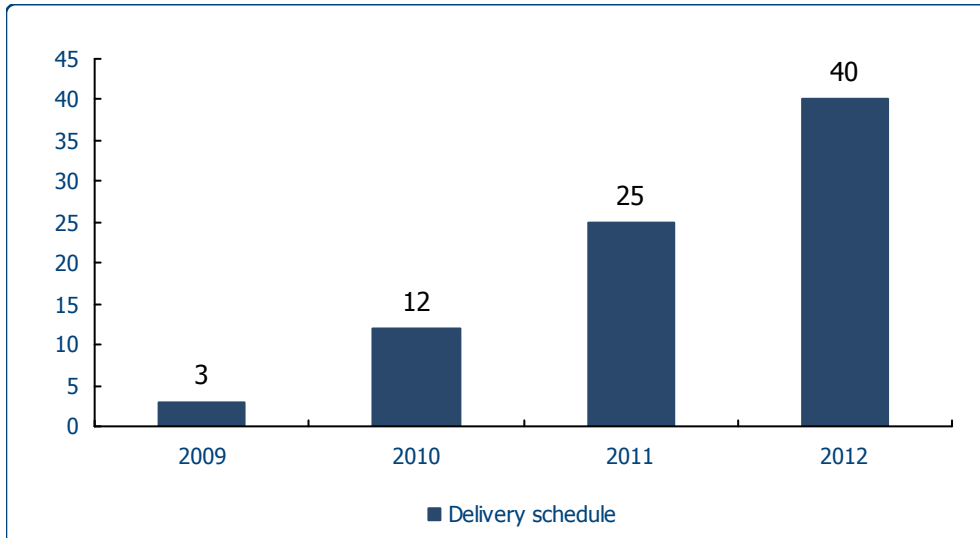


Source: Company

While STX DSC has shown continued losses for the past four years, it is expected to show positive profit figures from 2011. All green field yards have to undergo at least four-to-five years of continuous losses, due to the lack of process management skills and experienced workers. If a new yard began to make a profit from the third year, we would suspect accounting fraud. The operational efficiency and profit making opportunity of a yard can be secured only through many years of experience, regardless of labour costs. If a yard can make profit from the fifth year, the yard is actually regarded as a great success story. STX DSC is expected to be such a success story by showing positive profit figures from 2011. In 2010, the unit delivered 12 vessels; up from just three in 2009. The company is expected to deliver 25 vessels in 2011 and 40 vessels in 2012. Experienced management and technical support from STX O&S will be the key success driver, in our view.

Positive profit figures from fifth year; one year ahead of the industry's best case

Figure 5 Delivery schedule of STX Dalian Shipbuilding Complex (# of vessels)



Source: Company data, Mirae Asset Research

**Figure 6 Product mix of STX O&S (vessels)**

	Delivered since 2008	On order
Bulk	23	51
Car carrier	2	8
Open hatch		10
Container		3
Drill ship		2
Pipe layer		1
MPP		2
Total	25	77

Source: Clarksons, Mirae Asset Research

**Key advantages of STX DSC**

While newly built, STX DSC has several advantages over global peers:

Firstly, the yard has a small ship-focused product mix. Small ships are likely to be favoured for the next few decades, as most yards have concentrated on bigger ships for the past twenty years; believing small ships to be old-fashioned. But now small ships are seen as equally attractive as large ships (refer to our report on 19 Jan 2011, "Small is beautiful"), if not more so, especially after the massive restructuring of the global shipbuilding industry. We see greater demand for small ships than larger ones. No new players are found in the small ship segments and existing players are still dropping out, from cash constraints and operational issues.

STX DSC's small ship focus stemmed from its capacity constraints; STX DSC has just one drydock, which is used only for offshore structures. Instead of multiple drydocks, the company has four skid berths to build ships on land. The skid launching system has some size constraints in building ships from 30,000DWT to 80,000DWT.

Secondly, the subsidiary has a diverse product mix, including bulk carriers, car carriers, open hatch bulk carriers (high end bulk carriers) and containerships. Also, the company builds several types of offshore structures, such as drill ships, FSU and pipe layers. STX DSC is the first Chinese yard to have delivered car carriers. STX DSC has shown good performance in drill ships, as exhibited by repeat orders from the same customer.

**Small ship focus, key strength****New yards but with diverse product mix****New yards but with diverse product mix**

## Cruise ships and offshore service vessels from STX Europe AS

STX O&S acquired STX Europe (formerly Aker Yards) in 2008. STX Europe AS has 15 yards - in Finland, Norway, Romania, Brazil and Vietnam - and employees over 15,000 workers. The unit has a NOK31.2bn order book (59 vessels, KRW6.0tn) and mostly builds large cruise ships, advanced offshore service vessels, ferries and arctic vessels.

### Cruise ships

STX Europe is by far the largest builder of cruise ships globally. Since 1990, out of 148 cruise ships delivered (over 1,000 berths in size = mid- to-mega-sized cruise ships), STX Europe has built 60 (a 41.2% market share). Its dominant market share is highlighted again in even larger-sized cruise ships. Out of over 3,000 berths cruise ships delivered, STX has a 57% market share. STX Europe remains the only builder of over 4,000 berth cruise ships, so far.

41% global market share

Figure 7 Cruise ship market share of STX Europe (built since 1990)

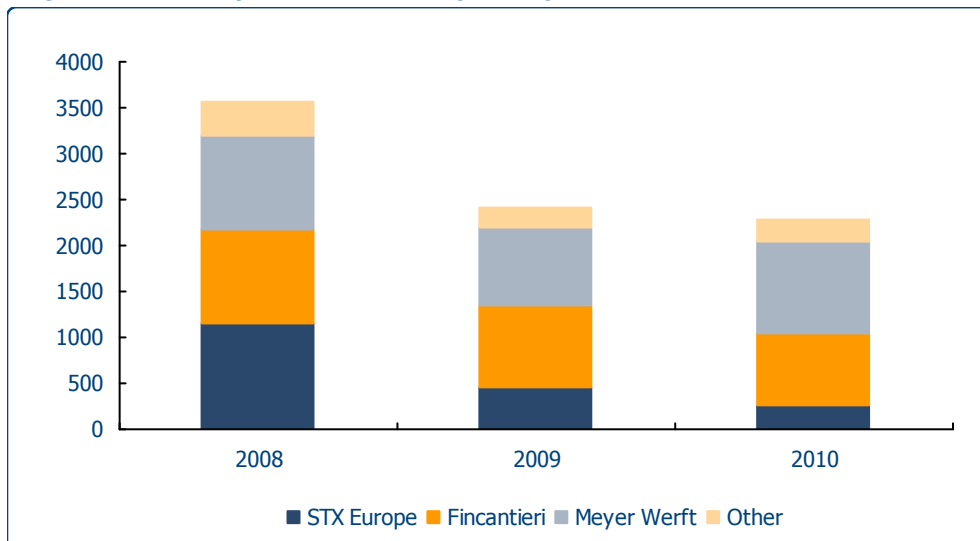
	Berth size					Total
	1,000-1,999	2,000-2,999	3,000-3,999	4,000-4,999	5,000-5,999	
STX Europe	23	25	10	1	2	60
Fincantieri	23	17	7			47
Meyer Werft	9	18				27
Bremer Vulkan	1					1
Lloyd Werft	1	2				3
Mitsubishi H.I.		2				2
Sestri-Cantiere	1	3	3			7
Total	58	67	20	1	2	148
<b>M/S of STX</b>	<b>39.7%</b>	<b>37.3%</b>	<b>50.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>41.2%</b>

Source: Clarksons, Mirae Asset Research

We are not disappointed with STX Europe's currently weaker order book (STX Europe's cruise ship market share currently stands at 12%, versus the historical average of 41%). Considering the good turnaround of the cruise ship market, STX Europe is likely to dominate new cruise ship contracts at higher prices than peers. The temporarily shrunken market share of the company is the result of acquisitions and the subsequent restructuring processes.

Temporary weak M/S, but huge upside potential

Figure 8 Cruise ship order book trends ('000 GT)



Source: Clarksons

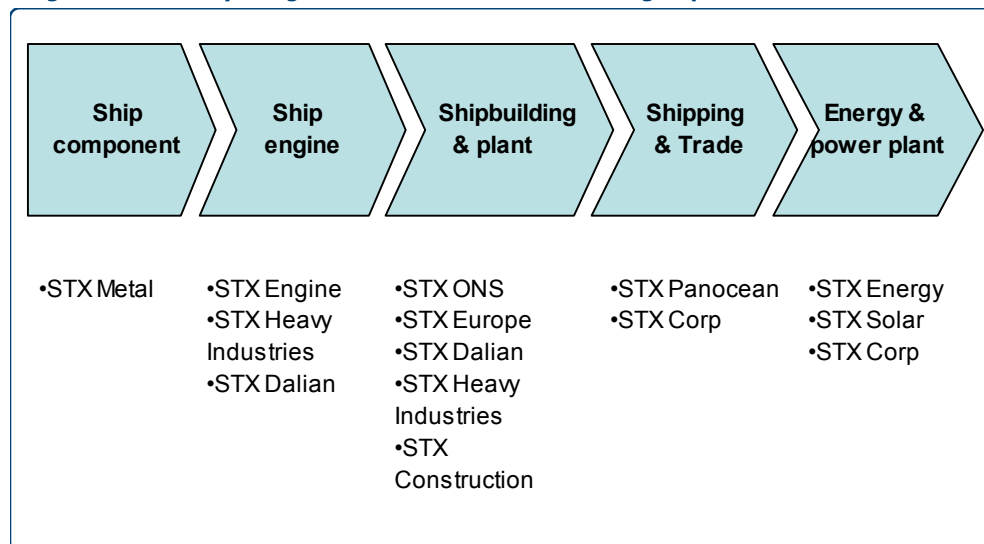
### Offshore service vessels & arctic vessels

STX Europe is the largest builder of advanced Oil Service Vessels (OSV) through its unit, STX OSV Holdings. Also, the unit has a strong presence in arctic vessels; securing a 60% market share in ice breakers.

## The greatest vertical integration

The key strength of STX O&S is its vertically-integrated business structure. Together with its affiliates, STX O&S has secured ship component, ship engine, shipbuilding, shipping and power plant players as affiliates. No other yards globally are as vertically integrated as STX O&S, in our view. Vertical integration has generated many new business opportunities for STX O&S, as seen in several cases. In the longer-term, the company and the group are moving towards becoming a total solution provider.

Figure 9 Vertically-integrated business structure of STX group



Source: Clarksons

## From ship components to energy and power plants

STX group has a vertically-integrated business structure. The group business includes ship components (STX Metal; 071970 KS; not rated); two ship engine companies (STX Engine; 077970 KS; not rated; STX Heavy Industries; not listed); several shipbuilding units (STX O&S; STX Europe; STX Dalian); and plant engineering (STX Heavy Industries; STX Construction). Also, its vertical integration area stretches to STX Pan Ocean (028670 KS; not rated); STX Corp (011810 KS; not rated); and energy-related companies, such as STX Energy (not listed); STX Solar (not listed); and STX Corp.

Advantages of vertical integration can be found in:

- Timely supply of components:** As seen in the boom period from 2002 to 2007, the biggest limitation of shipyards' operations was the timely supply of components. Having ship component makers as affiliates, shipyards can maintain timely deliveries of ships and expand capacity faster, to follow strong market demand.
- Consistent quality control:** Ships are built through the assembly of 100,000 individual components. Having a good supplier of components promises consistent quality of ships, as they can control the quality of the assembled components.
- Stability of cash flow:** Proper cash flow control can be achieved by having shipping company and shipbuilder together, offsetting the highly volatile cash flows of both. Shipyards' cash inflows tend to lag behind those of shipping companies.
- Faster growth opportunities:** Having secured supplies, STX O&S can expand capacity faster than peers, whenever required. Also, through its affiliates, STX Pan Ocean can secure shipbuilding slots ahead of competitors.

Restructuring of small yards started from 2006

## Many cases can be found

The group has already provided several cases highlighting the advantages of vertical integration:

1. STX Pan Ocean signed long-term cargo contracts with Vale, Brazil, and ordered eight VLOC (Very Large Ore Carriers) from STX O&S (November 2009)
2. STX Pan Ocean signed 25 year cargo contracts with Fibria, Brazil (worth USD5bn) and ordered 20 open hatch bulk carriers from STX O&S. STX O&S will build 10 and STX DSC will build the other 10 vessels.
3. STX Corp signed apartment building projects with the government of Ghana, aiming at E&P business opportunities in that country. STX Construction will build apartment buildings, followed by E&P business opportunities given to STX Heavy Industries. Also, we expect oil transport opportunities will be given to STX Pan Ocean; using ships built by STX O&S.

The advantages of vertical integration have seldom been highlighted at the bottom of the cycle. But STX O&S proves how stability and growth opportunities can be secured even at the bottom. Also, we expect greater synergy, with the clear upward trend of the industry.

## Becoming a total solution provider

STX O&S and STX group is actually moving toward becoming a total solution provider of E&P business. Customers can find quick and easy solutions related to the E&P business from the STX group of companies.

STX Corp leads the way in developing new markets. In the case of Ghana, STX Corp arrived first and opened the door for its subsidiaries to follow. The STX group shows consistent interest in E&P business overseas.

**Moving towards becoming a total solution provider**

## Plenty of room for growth in size and financials

STX O&S - together with its subsidiaries - has the smallest order book among peers, but its smaller order book will result in higher priced orders and bigger order flows than peers, going forward. Also, the company will show faster recovery of profitability than peers, led by the turnaround of its subsidiaries. We also expect the company to show net cash position in 2012, through new orders, IPOs of subsidiaries and stronger operational margin.

### Bigger room for new orders than peers

STX O&S has a relatively smaller order book than other top-tier players. STX O&S has a KRW18.4tn order book, as of end-2010; fully covering its 2011E revenue (KRW10.4tn), but covering only 66% of its 2012E revenue (KRW12.1tn). The company's order book extends to 2014, depending on ship type, but its 2013 delivery slots are largely empty. STX O&S has the greatest number of slots left for 2013 deliveries.

A smaller order book is actually better for the company, as it can secure higher priced orders later. This may seem like a risky bet, but we see a clear upward trend of ship prices, due to (1) the appreciation of Asian currencies, which gives a clear message to ship owners that USD-denominated shipbuilding prices will move up; (2) the expected rise in steel prices, which will push up ship prices; and (3) our expectation that top-tier yards will have superior bargaining power, thanks to their advanced technology and fuel efficient vessels, amid high oil prices.

Massive orders at the bottom of the cycle may give temporary comfort, but will not last long. Most yards, starved for cash, tend to rush for low-priced contracts at the bottom of the cycle. STX O&S, having secured decent cash balances amid the economic crisis, was able to resist the temptation of low-priced contracts. STX O&S is ready to take high-priced orders from 2H11.

### Sharp rebound of margin

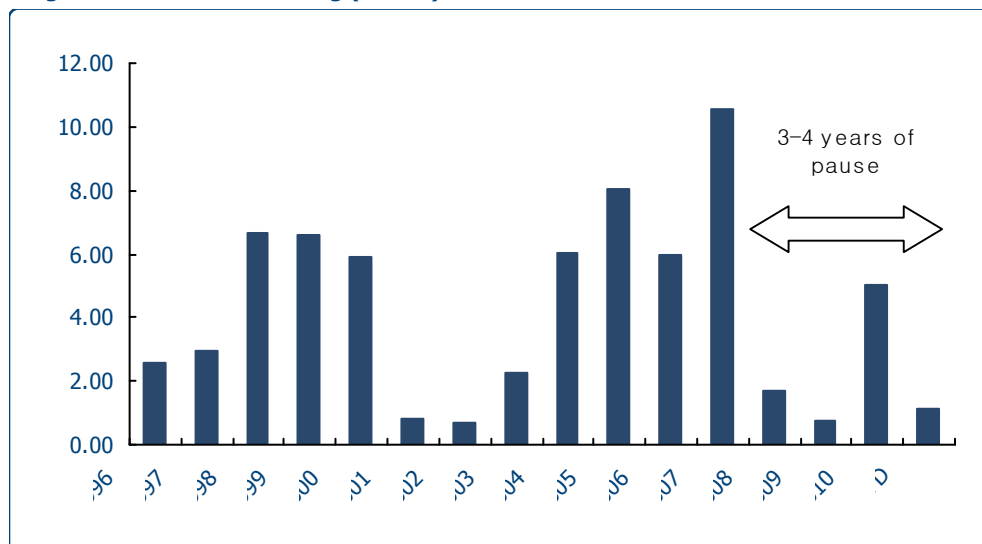
So far, STX O&S has not shown profitability equivalent to top-tier players; in 2010, its operating margin remained at only 1.4%. While the parent company in Korea reported a 4.7% operating margin, the continued losses of subsidiaries squeezed its consolidated operating margin to a mere 1.4%. From 2011, we expect a good upward trend of its margin, toward 3.5% in 2011E, followed by 5.3% in 2012E. The turnaround will not require great efforts; rather, the turnaround has already been determined, as its subsidiaries are about to show positive figures.

Smallest order book among top tiers

Good position for better priced orders

The only yard with upward margin trend for the next 2 years

Figure 10 Cruise contracting (USDbn)



Source: Clarksons, Mirae Asset Research

Firstly, STX Dalian Shipbuilding Complex (STX DSC) will show positive profit figures from 2011, in only the fifth year since the construction of the plant. As mentioned earlier, new yards tend to show negative profit for the first five years. STX DSC, thanks to earlier high ship prices and superior management skills, is expected to show positive profit figures one year ahead of the industry's best practice. STX DSC was fully supported by STX O&S, through the training of employees, decent technical support and help from experienced process managers. In these respects, the turnaround of STX DSC was preordained.

**Positive profit contribution from China**

Secondly, the turnaround of STX Europe is pretty much expected. Out of three units of STX Europe, two have already shown a good turnaround (STX OSV and STX France). Meanwhile, the low utilization of STX Finland remains a burden, as the unit has been waiting for orders for big cruise ships. In order to minimize the fixed-cost burden, it has begun to fill its drydocks with several smaller ships and we are expecting some cruise ship orders, going forward, as they still have favourable market conditions. The unit has a strong presence in ice breakers and is set to enjoy the upcoming boom in ice-breaker orders. Global warming is the key demand driver. Also, as the cruise ship market shows clear signs of recovery, and as its competitors' order books are largely filled, we are confident that the company will succeed in new cruise ship orders in 2011.

**STX Europe is showing a decent turnaround**

## Net cash positions expected in 2012

STX O&S is expected to show the fastest improvement of financials among all top-tier shipyards. In the middle of 2012, we expect the company to show net cash positions. Currently (as of end of year 2010), the company has a net debt position of only KRW1,371bn, with several cash drivers, as follows:

**Figure 11 Actual net debt trends of STX O&S (KRWbn)**

	2009	2010	2011E	2012E	2013E
Total debt	5,409	4,263	3,332	2,810	2,352
Cash and cash equivalents	1,402	1,624	1,319	1,777	2,048
Net debt reported	4,007	2,639	2,014	1,033	304
Construction loan	2,636	1,293	1,293	1,293	1,293
<b>Actual net debt</b>	<b>1,371</b>	<b>1,346</b>	<b>721</b>	<b>-259</b>	<b>-989</b>

Source: Company data, Mirae Asset Research

Firstly, STX O&S can generate KRW600-700bn in cash just by upgrading its order book to the industry average. The company has a smaller order book than peers; roughly 20-30% smaller, considering its expected capacity and remaining empty slots. We estimate that the company can, at any time, take another KRW5-6tn worth of new orders just to meet the top-tier average. As the company secures 12% of contract prices as advances, on average, the company can add KRW600-720bn cash just from new contracts.

**New orders will attract decent cash inflow**

Secondly, STX O&S can source up to KRW800-1,000bn in cash from the listing of its subsidiaries. From this May, the company can sell its remaining 235m shares of STX OSV Holdings after a six-month lock-up period. We expect KRW 230-250bn in cash will be secured by selling the shares. STX O&S is considering listing other subsidiaries, including STX Heavy Industries (94% holding); STX Dalian Shipbuilding Complex (52% holding); STX France (67% holding); and STX Finland (100% holding), going forward. We expect more than KRW 800-1,000bn in cash will be additionally injected into the company.

**Listing of subsidiary can source KRW0.5-1.0tn in cash**

Lastly, we need to consider the rapidly-improving profitability of STX O&S. In 2010, the company reported just KRW129bn in operating profit, mainly due to loss-making subsidiaries. From 2011, the company is expected to show an upgraded operating margin. We expect operating profit of KRW350bn and KRW639bn for STX O&S in 2011 and 2012, respectively; a combined total of KRW989bn.

**Strong operating profit in 2011E and 2012E**

Meanwhile, we need to clarify the net debt position of the company, as STX O&S reported net debt of KRW2,639bn in its 2010 financial reports. The key difference from our net debt estimates of KRW1,371bn lies in construction loans of KRW1,293bn, related to the building of cruise ships. Cruise ships have a 'heavy tail' payment structure; receiving 80% of contract

**Need to take out construction loan for net debt calculation**

prices by the time of delivery. Shipbuilders source the cash required for the construction of the vessel through loans fully guaranteed by ship owners. For fair comparison with peers, we need to remove construction loans from our net debt calculation.

## Massively undervalued; BUY at target price of KRW62,000

STX O&S is the cheapest shipbuilding stock globally, trading at only 0.18x its 2011E price-to-sales; only 1/3 the average of Korean yards. The company's price-to-order book ratio remains at only 0.1x; 1/4 the average of Korean yards and only 1/10 that of Chinese yards. We expect sharp recovery of its profitability during 2011, while strong order flows will clear the massive discount levied on this company. We are initiating our coverage of the stock at a target price of KRW62,000, based on 2.0x 2013E PB.

### Upside seen from price-to-sales & price-to-order book ratio

The appropriate valuation tools for STX O&S are price-to-sales ratio and price-to-order book ratio. Due to restructuring and the turnaround of its subsidiaries, STX O&S is not yet providing earnings comparable with its peers. Also, considering its fast growth potential, profit-based multiples can distort its upside potential, in our view.

Base on price-to-sales ratio (based on 2010 consolidated figures), STX O&S is currently trading at 0.21x; less than half of DSME, and 1/3-1/4 of other major Korean yards. Based on price-to-order book, the company is further discounted. STX O&S is trading at only 0.10x, while others are trading at 0.25-0.75x. As STX O&S is expected to show 16-17% sales growth per annum, bigger discounts are found from price-to-order book ratio comparisons.

Even bigger discounts are found when compared with Chinese yards. China Rongsheng Heavy Industries (HK6.97; 1101 HK; not rated) is currently traded at 3.2x price-to-sales and 1.0x price-to-order book ratio (based on 2010 figures). Rongsheng is actually traded at 15 times higher valuations in price-to-sales, and 10 times higher in price-to-order book ratio, than STX O&S. As STX O&S has a shipyard in China comparable to Rongsheng, we believe country-specific valuation discounts cannot be applied to STX O&S.

Price-to-sales & price-to-order book are better tools

1/3-1/5 of Korean yards' valuations

1/10 -1/15 of Rongsheng, China

Figure 12 Comparison with other major Korean yards (2010 consolidated basis, KRWbn)

	HHI*	DSME	SHI	STX ONS	Mipo
Consolidated revenue in '10	45,074	13,027	13,152	8,911	4,118
Consolidated net debt in '10	5,363	2,313	1,275	1,683	-1,692
Shareholders' equity as of 2010	15,451	3,890	3,480	1,347	4,419
Market cap (5 April 2011)	39,064	6,593	9,501	1,838	3,900
Enterprise value	44,427	8,906	10,776	3,520	2,208
Net debt to equity	34.7%	59.5%	36.6%	125.0%	net cash
Contract advances	9,814	4,472	4,967	2,195	1,797
Order book	52,384	26,799	29,442	18,434	8,756
2010 EBITDA	6,269	1,396	1,403	378	722
Price to book	2.53	1.70	2.73	1.36	0.88
<b>Price to sales</b>	<b>0.87</b>	<b>0.51</b>	<b>0.72</b>	<b>0.21</b>	<b>0.95</b>
<b>Market cap/order book</b>	<b>0.75</b>	<b>0.25</b>	<b>0.32</b>	<b>0.10</b>	<b>0.45</b>
Advances/order book	19%	17%	17%	12%	21%
EV/EBITDA	7.1	6.4	7.7	9.3	3.1

Source: Company data, Mirae Asset Research

## Sum-of-the-parts valuation

Another proper valuation approach is sum-of-the-parts valuation (SOTP), as STX O&S has many subsidiaries, both listed and yet-to-be listed. So far, only one company has been listed (STX OSV Holdings) and its market capitalization amounts to KRW1.3tn. As STX O&S has a 67% stake in STX Norway and STX Norway has a 68.3% stake in STX OSV through STX Europe, we applied KRW599bn in our calculation (KRW1.3tn market cap x 67% x 68.3%). Our sum-of-the-parts valuation shows a fair value of KRW65,815 per share

**Fair value of KRW65,815 per share through SOTP valuation**

**Figure 13 Sum of the part valuation of STX O&S (KRWbn)**

	Shareholding	Market value or estimated value	Comment
STX PanOcean	7.0%	142	Listed in Korea
STX Heavy Industries	94.0%	476	KRW1.3tn sales, KRW35bn OP, KRW253bn equity, 2 times book value applied, equivalent to 0.38x price to sales
STX Energy	17.6%	58	Book value
STX OSV Holding*	68.3%	599	Listed in Singapore and market cap of KRW1,316bn
STX France*	66.7%	400	33% stakes sold to French government at €200m
STX Finland*	100.0%	600	Same as France
STX CSH (Dalian shipyard)	52.4%	1,500	Rongsheng Heavy's market cap of USD6.3bn, and assumed half conservatively
STX O&S (Korea)		2,000	Core business in Korea with KRW4tn revenue x 0.5times price to sales
Total value		5,776	
Net debt (2011E)		721	
Enterprise value		5,055	
<b>Per share</b>		<b>65,815</b>	

Source: Company data, Mirae Asset Research

## Initiating coverage at target price of KRW62,000, based on 2.0x 2013E PB

We are initiating coverage of STX O&S at a target price of KRW62,000; a 151% upside potential. Our target price is based on 2.0x 2013E PB. We prefer to use forward figures, as current orders will be reflected in financial statements two-to-three years later. Current profit based valuation tools are actually useless, as current profits are largely determined by contracts signed two to three years ago. Our target multiple of 2.0x includes a premium over the average PB multiple of global shipping industries.

**KRW62,000 TP; 151% upside potential**

Our target price of KRW62,000 is equivalent to 0.52x price-to-sales (2010E basis) and 0.25x price-to-order book ratio. As the average multiples of other Korean yards are 0.76x price-to-sales ratio and 0.44x price-to-order book, our target price is not aggressive, in our view.

**PS and price-to-order book ratio, based on our target price, are still discounted against peer avg.**

## Summary financial statements

### Profit & Loss

(KRWb)	Dec-09A	Dec-10A	Dec-11E	Dec-12E	Dec-13E
<b>Revenue</b>	<b>11,168</b>	<b>8,911</b>	<b>10,383</b>	<b>12,140</b>	<b>13,554</b>
Cost of goods sold	(10,701)	(8,364)	(9,598)	(11,076)	(12,213)
Gross profit	468	547	784	1,064	1,341
SG and A	(437)	(418)	(434)	(425)	(462)
<b>Op profit</b>	<b>31</b>	<b>129</b>	<b>350</b>	<b>639</b>	<b>879</b>
<b>Op EBITDA</b>	<b>216</b>	<b>378</b>	<b>605</b>	<b>894</b>	<b>1,134</b>
Depreciation	(185)	(249)	(255)	(255)	(255)
Amortisation	-	-	-	-	-
<b>Op EBIT</b>	<b>31</b>	<b>129</b>	<b>350</b>	<b>639</b>	<b>879</b>
Net interest	(138)	(206)	(112)	(69)	(40)
Associates and JCEs	(93)	20	22	22	22
Other income	(12)	(70)	(144)	(147)	(220)
Net exceptional income	(123)	55	73	73	73
<b>Profit before tax</b>	<b>(336)</b>	<b>(73)</b>	<b>189</b>	<b>518</b>	<b>713</b>
Tax	27	(66)	(49)	(135)	(186)
<b>Post-tax profit</b>	<b>(308)</b>	<b>(140)</b>	<b>140</b>	<b>383</b>	<b>528</b>
Minorities	122	91	(30)	(30)	(30)
Preferred dividends	-	-	-	-	-
<b>Net income</b>	<b>(187)</b>	<b>(49)</b>	<b>110</b>	<b>353</b>	<b>498</b>
Norm profit	(74)	(153)	56	300	444
Dividends	-	-	(39)	(86)	(128)
<b>Retained earnings</b>	<b>(187)</b>	<b>(49)</b>	<b>71</b>	<b>268</b>	<b>369</b>

Source: Company data, Mirae Asset Research estimates

### Cashflow

(KRWb)	Dec-09A	Dec-10A	Dec-11E	Dec-12E	Dec-13E
<b>Op EBITDA</b>	<b>216</b>	<b>378</b>	<b>605</b>	<b>894</b>	<b>1,134</b>
Decrease in working capital	227	913	424	328	206
Other operating cashflow	16	369	91	105	51
<b>Operating cashflow</b>	<b>459</b>	<b>1,660</b>	<b>1,120</b>	<b>1,327</b>	<b>1,391</b>
Tax paid	-	(66)	(49)	(135)	(186)
Net interest	(138)	(206)	(112)	(69)	(40)
Dividends received	(549)	93	(16)	(20)	(24)
<b>Cashflow</b>	<b>(229)</b>	<b>1,480</b>	<b>942</b>	<b>1,103</b>	<b>1,141</b>
Capital expenditure	(550)	(266)	(250)	(250)	(250)
Net acquisitions	-	-	-	-	-
Net investments	-	-	-	-	-
Other investing cashflow	-	-	-	-	-
<b>Investing cashflow</b>	<b>(550)</b>	<b>(266)</b>	<b>(250)</b>	<b>(250)</b>	<b>(250)</b>
Dividends paid	-	-	(39)	(86)	(128)
Increase in equity	1,546	204	121	167	158
Increase in debt	-	(1,146)	(931)	(522)	(458)
Other financing cashflow	594	(73)	(169)	20	-
<b>Financing cash flow</b>	<b>2,140</b>	<b>(1,015)</b>	<b>(1,018)</b>	<b>(421)</b>	<b>(428)</b>
Beginning cash	-	1,361	1,560	1,234	1,667
<b>Total cash generated</b>	<b>1,361</b>	<b>199</b>	<b>(325)</b>	<b>432</b>	<b>463</b>
Forex effects	-	-	-	-	-
<b>Ending cash</b>	<b>1,361</b>	<b>1,560</b>	<b>1,234</b>	<b>1,667</b>	<b>2,130</b>

Source: Company data, Mirae Asset Research estimates

## Balance Sheet

(KRWb)	Dec-09A	Dec-10A	Dec-11E	Dec-12E	Dec-13E
<b>Current assets</b>	<b>9,180</b>	<b>6,203</b>	<b>5,775</b>	<b>6,356</b>	<b>7,077</b>
Cash and equivalents	1,361	1,560	1,234	1,667	1,906
Receivables	5,057	2,335	2,228	2,307	2,698
Inventories	709	451	465	533	615
Other current assets	2,054	1,857	1,848	1,848	1,858
<b>Non current assets</b>	<b>6,334</b>	<b>5,469</b>	<b>5,488</b>	<b>5,368</b>	<b>5,447</b>
Net operating fixed assets	3,695	3,775	3,832	3,697	3,732
Interest in associates	456	383	421	463	510
Other non-current assets	2,183	1,311	1,234	1,208	1,206
<b>Total assets</b>	<b>15,514</b>	<b>11,671</b>	<b>11,263</b>	<b>11,723</b>	<b>12,524</b>
<b>Current liabilities</b>	<b>11,639</b>	<b>7,972</b>	<b>7,684</b>	<b>7,896</b>	<b>8,333</b>
Payables	1,175	1,036	1,046	1,298	1,517
ST debt	4,056	2,652	2,043	1,778	1,527
Other current liabilities	6,408	4,285	4,596	4,820	5,289
<b>Total non-current liabilities</b>	<b>2,515</b>	<b>2,185</b>	<b>1,871</b>	<b>1,685</b>	<b>1,521</b>
LT debt	1,353	1,612	1,290	1,032	825
Other non-current liabilities	1,162	573	582	653	696
<b>Total liabilities</b>	<b>14,154</b>	<b>10,156</b>	<b>9,556</b>	<b>9,581</b>	<b>9,854</b>
Issued capital	180	192	212	232	232
Share premium reserve	112	166	199	231	231
Reserves/Adjustments	460	532	532	532	532
Retained earnings	608	625	765	1,148	1,676
Minorities	-	-	-	-	-
Other equity	-	-	-	-	-
<b>Shareholders' equity</b>	<b>1,360</b>	<b>1,515</b>	<b>1,707</b>	<b>2,142</b>	<b>2,670</b>

Source: Company data, Mirae Asset Research estimates

## Key Ratios

	Dec-09A	Dec-10A	Dec-11E	Dec-12E	Dec-13E
Turnover growth	NA	(20.2%)	16.5%	16.9%	11.6%
Gross profit growth	NA	16.9%	43.4%	35.6%	26.0%
Operating profit growth	NA	320.7%	171.4%	82.3%	37.6%
EBITDA growth		NA	45.7%	51.3%	19.9%
EPS growth		101.1%	NA	406.8%	44.8%
Norm BPS growth	NA	4.4%	7.1%	19.7%	24.6%
Gross margin	4.19%	6.14%	7.56%	8.76%	9.89%
Operating margin	0.27%	1.45%	3.37%	5.26%	6.48%
EBITDA margin	(0.11%)	4.28%	5.36%	6.93%	7.44%
EBIT margin	(1.77%)	1.49%	2.90%	4.83%	5.56%
Net income margin	(1.67%)	(0.55%)	1.06%	2.91%	3.67%
ROE	na	(3.4%)	6.8%	18.4%	20.7%
ROA		(0.36%)	0.96%	3.07%	4.11%
Net debt/equity	297.8%	178.5%	122.9%	53.3%	16.7%
Interest cover ratio	0.18	0.51	2.31	5.20	8.51
Dividend payout ratio	0.0%	0.0%	35.3%	24.2%	25.8%
Inventory days	24.17	19.69	17.67	17.57	18.39
Account receivable days	165.3	95.6	78.3	69.4	72.6
Account payable days	40.09	45.20	39.76	42.77	45.35
Reported EPS (KRW)	-2,592	-655	1,397	4,268	5,875
EPS (KRW)	-1,021	-2,053	714	3,618	5,240
Reported BPS (KRW)	18,881	19,713	21,121	25,274	31,501
Norm BPS (KRW)	18,881	19,713	21,121	25,274	31,501
DPS (KRW)	0	0	500	1,000	1,500
Cashflow per share (KRW)	-3,174	19,887	11,952	13,324	13,458
Reported P/E (x)	na	na	17.72	5.80	4.21
Norm P/E (x)	na	na	34.67	6.84	4.72
P/B (x)	1.31	1.26	1.17	0.98	0.79
P/CF	na	1.24	2.07	1.86	1.84
EV/EBITDA (x)	na	11.69	7.19	3.76	2.52
EV/Operating Cashflow (x)	12.70	2.69	3.57	2.39	1.83
EV/Sales (x)	0.52	0.50	0.38	0.26	0.19
Dividend yield	0.00%	0.00%	2.02%	4.04%	6.06%

Source: Company data, Mirae Asset Research estimates



## Recommendations

### By stock (12 months)

Buy: A target price + 10% or more above the current price,  
Hold: Target price within - 10% to +10% of the current price  
Reduce: A target price of -10% or less below the current price

### By industry

Overweight: over +10% of the current industry index  
Neutral: -10% to +10% of the current industry index  
Underweight: -10% or less than the current industry index

## Earnings Quality Score

Earnings Quality Score = 0.70\*(Historical Earnings Stability) + 0.15\*(Consensus Forecast Certainty) + 0.15\*(Consensus Forecast Accuracy)

### 1. Historical Earnings Stability

- The variability of the net profit growth rate (YOY) over the last 20 quarters was translated into percentage terms.
- Earnings growth variability was calculated based on MAD (Median Absolute Deviation), rather than SD (Standard Deviation) in order to minimize distortion from outliers.
- The lower the earnings growth variability, the higher this indicator.

### 2. Consensus Forecast Certainty

- The gap between analysts' views on 12-month forward EPS was translated into percentage terms.
- The gap is calculated by dividing the SD of 12-month forward EPS with the average value.
- The narrower the gap, the higher this indicator.

### 3. Consensus Forecast Accuracy

- The median value of absolute EPS surprise over the last 3-year was translated into percentage terms.
- EPS surprise was calculated based on 'the actual figure at the end of the year / the consensus estimate at the beginning of the year - 1'.
- The lower the absolute EPS surprise, the higher this indicator.

### \* Reference

- 1) Consensus Forecast Certainty and Consensus Forecast Accuracy were applied only to companies with more than 5 years of EPS estimates.
- 2) We gave the average score of 50 to cases in which the aforementioned indicators could not be produced.

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[Analyst: Sokje Lee]

Stock	Analyst	Type	Securities Held by the Analyst		Purchase Date	Holdings of share of over 1%	Participation in Issuance of Securities	Involvement with Affiliates	Treasury Stock Held
			Number of Shares	Purchase Price					
			N/A						

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