

# Buy

**Target Price (KRW) : 11,000**

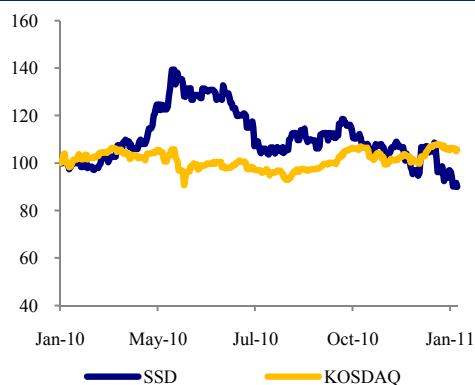
Current Price (Feb 1, KRW) : 6,750

Upside Potential (%) : 63.6%

## Market Data

Bloomberg Ticker	065350 KS
52-week High (KRW)	10,550
52-week Low (KRW)	5,950
Market Cap. (KRW bn)	81.0
Shares Outstanding (mn)	12
EPS (1 yr Fwd, KRW)	735
Trailing PER (1 yr Fwd)	10.61
BPS (1 yr Fwd)	6,049
Trailing PBR (1 yr Fwd)	1.28

## 12-month Indexed Share Price



We ground our Buy rating for Shinsung Delta Tech (SSD) on its stable current business and promising new business. Using a WACC of 8.8% to discount the FCF, subtracting net debt, and adding up the stakes in its subsidiaries, we arrive at a price of target of KRW11,000 which represents an upside potential of 63.6% from its current price.

### ■ Stable Sales from the Current Business Model

Growing market share of LG Electronics in both domestic and international home appliance markets will be key sources of income of SSD. The increase of LG Electronics' home appliance market share is strongly related with the future performance of the home appliance division of the Company.

As Renault Samsung Motors has increased its share in Korean automobile market, SSD, the only supplier of molded parts, is anticipated to be one of the major beneficiaries of the increasing market share of Renault Samsung Motors.

### ■ Promising Outlook for LED Business

With a positive outlook for the global LED TV market and LG Electronics' global sales of LED TV, SSD is expected to generate remarkable profit growth. Driven by surge in LED TV demand and lowered LED TV prices, we see the sales outlook for LED TV is optimistic.

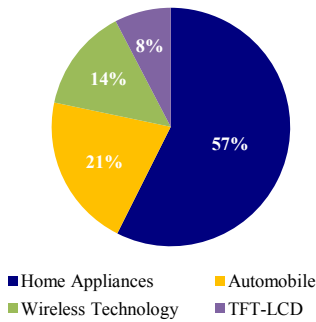
### ■ High Growth of Subsidiaries

Based on favorable demand on advanced consumer electronics, the Thailand subsidiary of SSD has shown and is expected to show rapid sales growth. Also, as the Chinese consumer electronics market grows rapidly, the sales of LG Group in China is expected to show sustainable growth and so is it for SSD's subsidiaries which supply parts to LGE.

	2008	2009	2010E	2011E	2012E	2013E	2014E	2015E
<b>KRW mn</b>								
Revenue	128,137	135,895	179,381	218,003	247,261	288,072	292,939	304,586
EBITDA	14,184	14,816	13,912	21,630	25,396	30,591	30,998	33,036
EBIT	9,826	10,320	9,179	16,112	18,956	23,428	23,070	24,298
Net Income	7,612	8,819	7,037	13,899	15,494	19,052	19,005	20,270
<b>KRW Per Share (KRW)</b>								
Net Income	658	735	586	1,160	1,294	1,597	1,594	1,704
Dividend	112	125	52	203	227	280	279	287
<b>Return (%)</b>								
Total Assets	7.6%	7.1%	4.1%	7.2%	7.1%	8.0%	7.6%	7.6%
Total Equity	13.9%	12.5%	6.7%	11.8%	11.7%	12.9%	11.6%	11.3%

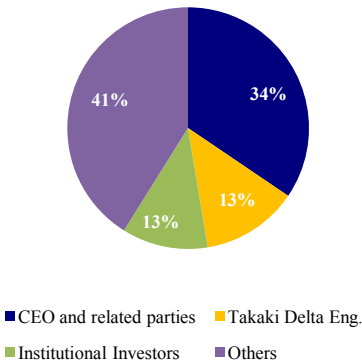
## Company Analysis

Revenue Breakdown by Division (As of 3Q10)



Source: SSD

Ownership Structure (As of 3Q10)



Source: SSD

### Brief Introduction

Established in 1987, Shinsung Delta Tech Co., Ltd. ('SSD' or the 'Company') is a Korea-based manufacturer specialized in provision of molded products. SSD was established as a joint venture between Shinhung Global and Japan-based Takaki Engineering, and started its business as a maker of molded products for washing machines of LG Electronics. In 1996, SSD started making car components such as bumpers for Renault Samsung Motors (RSM), and in the following year, began to supply air conditioner components to LG Electronics (LGE).

SSD currently operates five major business units which include; home appliance, automobile, wireless technology, thin film transistor-liquid crystal display (TFT-LCD) and light emitting diode (LED). Its home appliance division provides assembly of parts and components including; control panel, drum motor, top plate and draw panel for drum type washing machines and outer tub, top cover, front panel, and lid for pulsator type washing machines. The automobile division offers various molded products for engine parts, interior parts, exterior parts, air conditioner parts, and electronics parts of RSM. The wireless technology division provides sub window in-mold products, main window sheets, and camera windows for mobile handsets of LGE. The TFT-LCD division provides plastic-molded products such as guide panels and support main which are used in displays for televisions and monitors of LG Display. SSD also provides LED lead frames for LED televisions and parts for air conditioners. SSD currently has three subsidiaries domestically and eight overseas which are located adjacently to global electronics companies.

With its close and long relationship with its giant customers (e.g. LG Electronics, LG Display, and Renault Samsung Motors), SSD has shown stable revenue increase for decades.

### Value Chain via Vertical Integration



### Main Products by Division

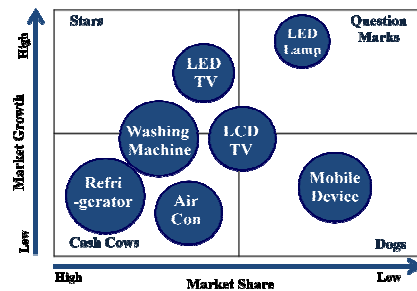
<b>Home Appliances</b>				
	Control Panel Assembly	Drum Motor Assembly	Top Plate Assembly	Draw Panel Assembly
<b>Automobile</b>				
	Panel Instrument	Cover Assy-Disk Wheel	Engine Part	Front Lamp
<b>Wireless Technology</b>				
	Main Window Sheet	Sub Window Inmold	Window Camera Printing	
<b>TFT-LCD</b>				
	Support Main	Guide Panel		
<b>LED</b>				
	LED Lead Frame	LED Lead Frame		

Source: SSD

## Growth-Share Matrix of LG Group and SSD

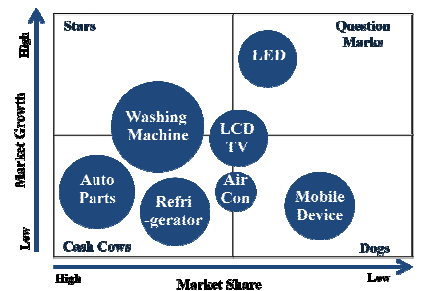
Given the fact that over 80% of SSD's sales have derived from LG Group each year, the vertically integrated value chain between SSD and related LG subsidiaries has to be grasped in order to project SSD's future performance.

**Growth-Share Matrix of LG Group**



Source: LGE, LGD, LGINT, Yonsei Investment Group

**Growth-Share Matrix of Shinsung Delta Tech**



Source: SSD, Yonsei Investment Group

These two growth-share matrixes of major products sold by LG Group (LG Electronics, LG Display, LG Innotek) and SSD, respectively, show their profitability by market growth and relative market share. For LG Group, LED TV is playing as a star whose high market share and market growth assure its future performance requiring relatively small amount of cash to maintain the business. Meanwhile, its household appliances such as washing machines, refrigerators, and air conditioners are being its cash cows generating plenty of cash which facilitates further investments in LED lamp, its yet question mark. LED lamp would be a new star within years, as many governments of the major economies promote plans to replace traditional fluorescent and incandescent lamps with LED bulbs. The molded parts of its mobile division currently border on the dog segment, but it is expected to move upward to the question mark as LG has recently launched a series of new smart phones such as Optimus 2X successfully.

For SSD, as seen on the right hand side matrix, its molded parts for washing machines and refrigerators supplied to LGE are generating significant amount of cash. This cash inflow enables SSD to spend enough capital on CAPEX continuously so that the production of the stars, currently being as parts for LED TV, could take advantage of economies of scale as well as price competitiveness over its competitors. SSD is the only supplier of certain molded auto parts of Renault Samsung Motors. SSD also aims to obtain a new star, parts for LED light bulb as LG Innotek has launched several illuminating products already and there is expected to be strong demand for related parts and components. SSD's wireless technology division is still making a significant amount of sales revenue. However, as LG lags behind in the smartphone market, SSD's revenue from this segment could decrease unless LG fully catches up with its rivals.

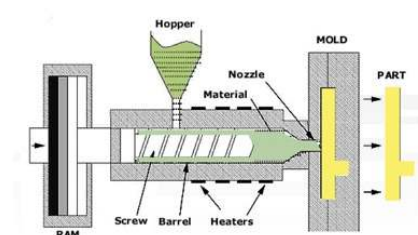
## Industry Analysis

### Molding Industry Overview

A mold is a frame through which raw materials such as melted plastic and metal are injected or pressed to mass-produce products with identical standards. Since molds are applied to most of the manufacturing industries (e.g. electrical and electronic products, transportation machineries, semiconductors, and agricultural equipments), the molding industry which uses molds and produces molded products is highly critical in our economy.

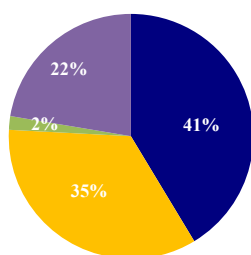
The mold industry functions as a bridge between the up-stream industries (e.g. machinery and tools) and down-stream ones (e.g. plastic products, auto parts, and consumer products). Therefore, to increase the quality of the products, the mold industry plays an important role between them.

### Example of Molding Process



Source: Protomold

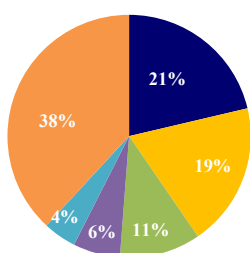
## Production by Processing Method (2009)



■ Plastic ■ Press ■ Die Casting ■ Others

Source: The Korea Die Mold Industry Cooperative

## Exports by Korea (2010)

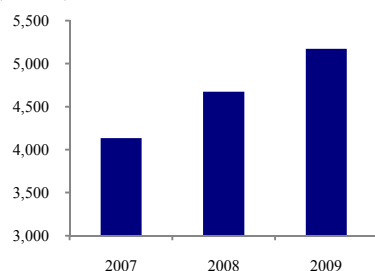


■ China ■ Japan ■ USA ■ India ■ Mexico ■ Others

Source: Korea Die Mold Industry Cooperative

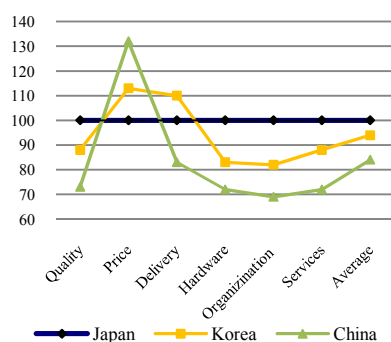
## Production Volume of Molds in Korea

(Unit : Mn)



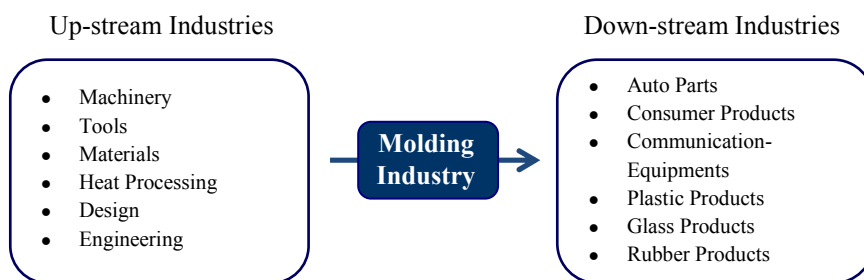
Source: Korea Die Mold Industry Cooperative

## Industry Competitiveness Index



Source: Korea Trade Commission

## Relationship of Molding Industry and Down / Up Stream Industries

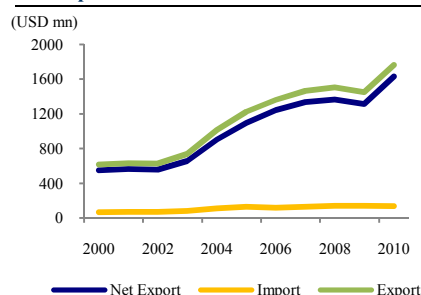


Source: Yonsei Investment Group

## Mold Industry in Korea

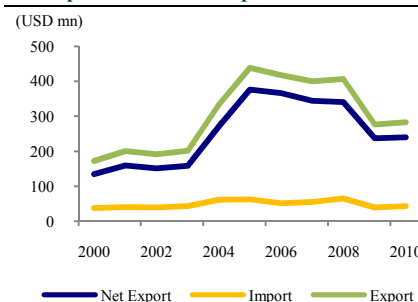
The total production volume of molds in Korea as of 2009 was USD5.2 bn. Also, it ranked the world's 5th following Japan, China, USA and Germany. Export of molds was USD1.8 bn in 2010 showing continuous surplus since 1994. Import of molds was USD130 mn in 2010. Since 1998, Korea's exports of molds to Japan have exceeded its imports while most of the trades of parts and materials with Japan have recorded trade deficit, which indicates that Korean mold industry has become more competitive.

### Net Export of Molds in total



Source: Korea Die Mold Industry Cooperative

### Net Export of Molds to Japan



Source: Korea Die Mold Industry Cooperative

A survey on the mold industry's competitiveness by country was conducted by the Korea Trade Commission based on six key factors that are considered most important to evaluate the competitiveness of the mold industry; quality level, price level, delivery level, hardware level, organizational competitiveness level, and service competitiveness level (in order of importance). It shows that Korea scored 94 out of 100, in an adjusted base, anchored at Japan's figure, while the score of China reached only 84 in the same year. Korea and China are expected to score 98 and 90, respectively, in 2013.

## The Trend of Mold Industry

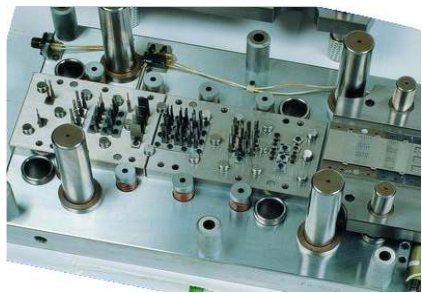
Due to the development of precise manufacturing industries, molded parts have been required to be smaller and lighter. Also, consumers started to care more about designs on their cars and electronic devices. Therefore, precision mold technology which allows molded parts to be manufactured accurately has become one of the key success factors of manufacturing companies. Companies like Samsung Electronics and SSD already recognized this trend. Samsung Electronics established Mold Development Center, investing USD125 mn in 2010 to strengthen its precision mold technology. SSD founded a subsidiary company called 'Shingsung Precision Mold Tech' in 2002 to manufacture precise molds for such as mobile phones and LED lead frames.

## Five Forces of Korean Molding Industry

### 1. The threat of the entry of new competitors

The entry barrier of the Korean molding industry is generally regarded as low because such business could be initiated with relatively small amount of investment. However, there still exist some entry barriers such as molding technology and economies of scale as well as close relationship with large clients such as global electronics companies.

### Example of Precision Mold for Lead Frame



Source: KITA

### Example of Silver Spot Plating



Source: Precious Plate

## 2. The intensity of competitive rivalry

As previously mentioned, the entry barrier to the Korean molding industry is generally considered low and therefore, the competitive rivalry is normally intense. However, the special relationships with SSD's customers makes competitive rivalry low since it is not easy to be selected as vendor of those customers.

## 3. The threat of substitute products or services

Producing products with identical standards are mostly done by molding and a lot of molding methods are already introduced and being used. Therefore, alternative substitutes are unlikely to be introduced any further in the foreseeable future.

## 4. The bargaining power of buyers

Theoretically the bargaining power of buyers is high when 1) there are only few dominating buyers; 2) products are standardized; or 3) backward vertical integration is possible. These theories could be applied to the molding industry. However, according to SSD, the major customers such as LGE and RSM guarantee certain range of operating margin for SSD through once-a-year negotiation, based on their close and long-term relationship.

## 5. The bargaining power of suppliers

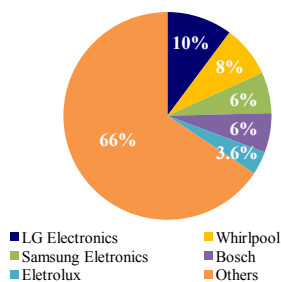
There are only few suppliers for molded parts most of whom are the large raw material providers such as LG Chem, whereas the manufacturing companies are relatively numerous. Therefore, the bargaining power of suppliers is generally high. However, since SSD is in the middle of the value chain of LG Group including LGE, LGD, LGINT, etc., with close relationships, such suppliers are not likely to demand an unexpected price increase rigorously.

# Investment Summary

## Stable Sales From the Current Business Model

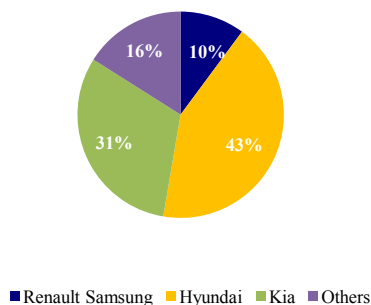
Growing market share of LGE in both domestic and global home appliance markets will be the key sources of profit of SSD. As of 3Q10, 57% of SSD's revenue is generated from the home appliances division, especially from the washing machine components assembly business in and outbound of Korea. According to a research conducted by GfK, a global market research institute, LGE is a dominant washing machine producer worldwide with the global market share of 10.2% in 2009. Moreover, the export shipments of drum-type washing machines have increased significantly. In addition, according to GfK, the global drum-type washing machine market has expanded 83% per annum on average for the last three years. Backed by such evidences, the increase of LGE's home appliance market share is strongly related with home appliance sales of the Company.

### Global Washing Machine M/S (2009)



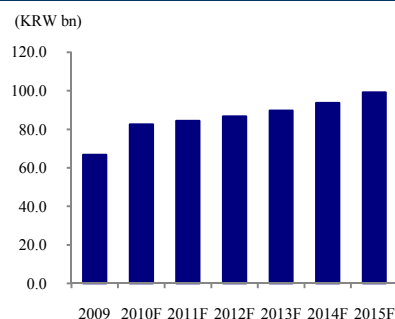
Source: GfK

### Korea Automobile M/S (2010)



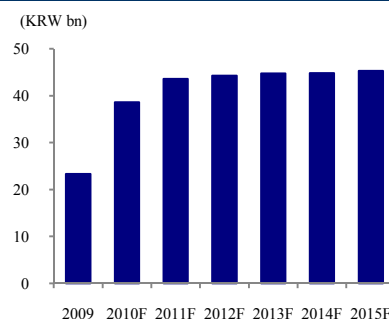
Source: Korea Automobile Society

### Revenue of HA Division of Company



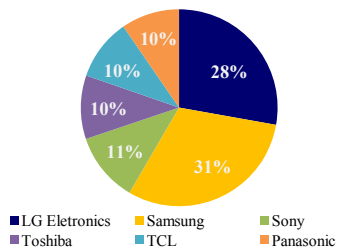
Source: Yonsei Investment Group Estimates

### Revenue of Automobile Division of Company



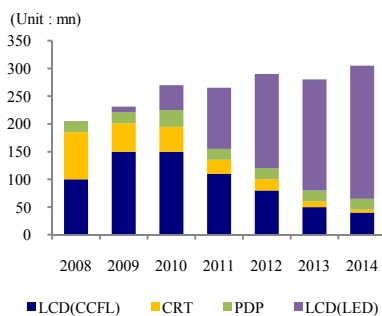
Source: Yonsei Investment Group Estimates

## Global TV Set Market Share



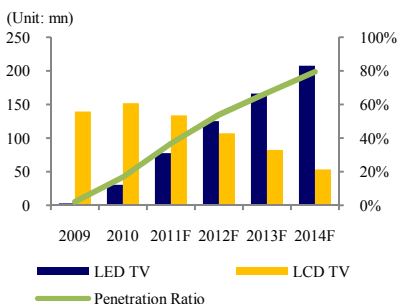
Source: Display Search

## Global TV Market Forecast by Technology



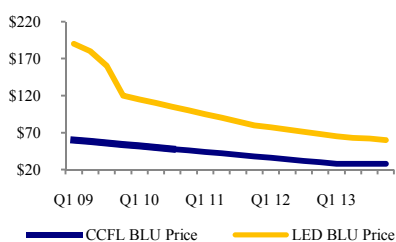
Source: Display Search

## Forecast on LED and LCD TV market



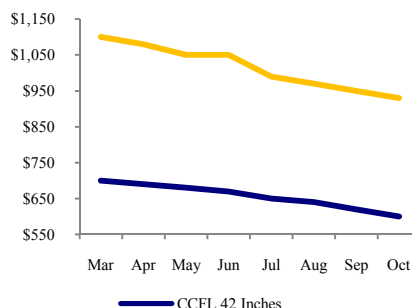
Source: Display Bank

## BLU Cost Comparison for 40" TV



Source: Display Search

## Price Trend of LCD TV and LED TV Set

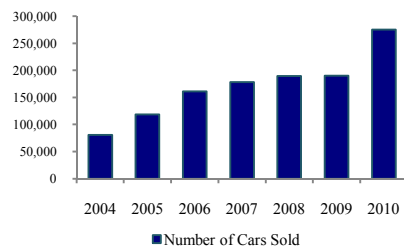


Source: Display Search

As RSM's market share has increased in Korean automobile market, SSD, the only supplier of molded parts to RSM, is anticipated to be one of the major beneficiaries of the increasing market share of RSM. As of 3Q10, the sales from SSD's auto division accounts for 21% of the total sales. RSM's current share in the domestic automobile market is 12.9% and it is the 3rd largest automobile manufacturer in Korea. Its domestic sales has been increased stably over the past years, recording 31% YoY increase of the number of cars sold in 2009.

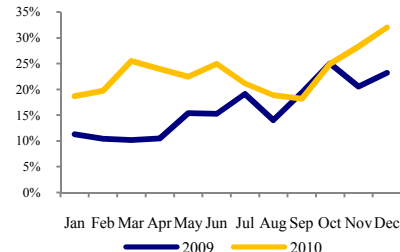
The RSM's production capacity has reached 220,606 units as of 3Q10 and its expected volume of production for the entire year of 2010 was 270,000 units, the highest figure ever. According to RSM, the total sales in 2010 increased by 44% over 2009. With its steadily increasing domestic market share, RSM is looking forward to expanding its production capacity with the newly built parts manufacturing complex.

## Renault Samsung's Production Capacity



Source: Renault Samsung Motors

## Renault Samsung's Monthly Auto Sales



Source: Renault Samsung Motors

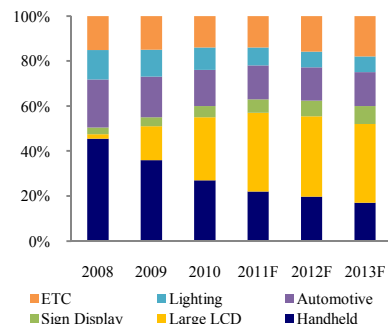
## Promising Outlook for LED Business

A research conducted by Display Search shows a positive outlook for the size of global LED TV market that is expected to reach 90 million units in 2011, three times bigger than the current market size of 30 million units. Furthermore, LGE, SSD's biggest buyer of LED lead frames, currently enjoys 10.8% share of the global LED TV market, being as the 3rd largest global LED TV assembler. LED lead frame market size is also projected to increase significantly. According to Display Search, more than 50% of LCD TVs shipped in 2011 would be LED back light unit (BLU)-backed, up from 20% in 2010.

There are two major reasons for such promising expectation on the global sales of LED TV. The unit selling price of an LED TV set and the sales of LCD TVs are decreasing sharply. Lower price of an LED TV set would drive huge demand on LED being shifted from LCD TVs within years. Since the price competitiveness of LED TV has relatively been weak compared to LCD TV as LCD TV was over-supplied in the market. With decreasing LCD TV inventories, further promotional price deduction of LCD TV is less likely to happen in the future. Overall, both increasing demand for LED TV and lowered LED TV prices would make the sales outlook for LED TV quite optimistic. In addition, a research by Display Bank has shown that the average growth rate of the LED TV market is 272%.

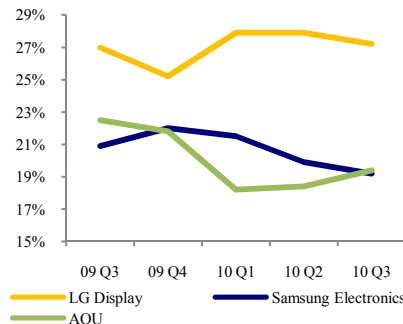
SSD's competitiveness is its capacity to produce LED lead frames for LED TVs as well as LED lamps. With promising outlook of global LED illumination market, SSD has an edge on producing high volume of LED lead frames with little additional CAPEX. In addition, SSD's silver spot plating technology which reduces unit manufacturing costs of LED lead frame by 30% would make SSD price-competitive against its competitors, as there are the only three companies among vendors to LG which currently have silver spot plating technology in Korea.

## Global LED Demand Forecast by Category



Source: Display Search

## Global Market Share of LED LCD Panel



Source: Display Search

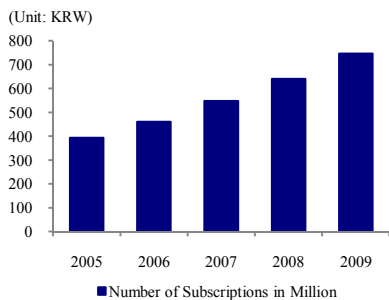
## Positive Outlook of Smartphone Business

SSD currently supplies in-mold window frames for feature phones & plastic window sheets for smart phones to LGE. LGE's sales revenue in the mobile phone business has been decreased significantly in 2010 due to lack successful smart phone lineups. With a successful release and sales of Optimus One, however, LGE's smartphone sales skyrocketed by 313.7% QoQ in 4Q 2010.

LGE has begun to strengthen its smartphone competitiveness by launching a variety of different line-ups. For instance, LGE's Optimus 2x, the world's first dual core CPU smartphone, was sold 70,000 units in the first week from the market release in Korea.

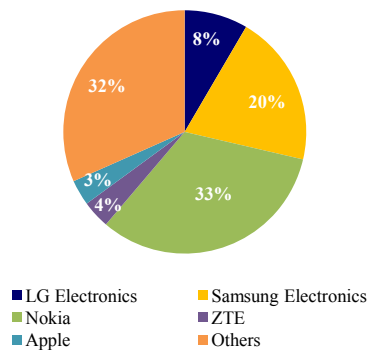
LGE's smartphone sales is expected to rise up to 6 to 7 million units in 2011 according to a research by Gartner. Sales revenue of SSD's wireless technology division will also increase sharply in tandem with increasing sales of LGE's smart-phone units.

### Mobile Phone Subscriptions in China



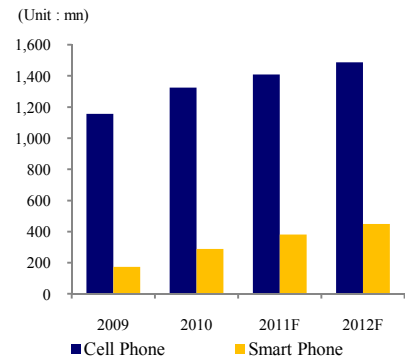
Source: United Nation

### Global Mobile Phone Market Share (2010)



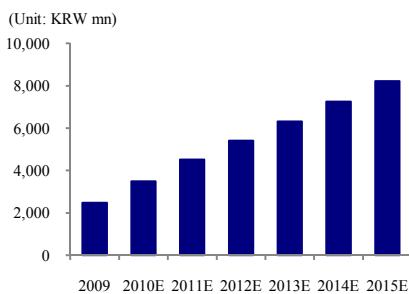
Source: IDC

### Global Mobile Phone Shipment Forecast



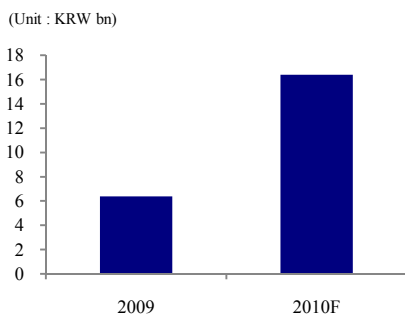
Source: IDC

### Net Assets of Thailand Subsidiary



Source: SSD, Yonsei Investment Group Estimates

### Sales Revenue from Mexico Subsidiary



Source: SSD

## High Growth of Subsidiaries

SSD has foreign subsidiaries in China, Thailand, and Mexico which are located near LG Group's manufacturing sites to facilitate close collaboration with it.

Historically, LG has tremendous global competitiveness in home appliance and display markets. Also, as the Chinese consumer electronics market grows rapidly, the sales of LG Group in China is expected to show sustainable growth and so is it for SSD's subsidiaries which supply parts to LGE.

Based on favorable demand on advanced consumer electronics, the Thailand subsidiary of SSD has shown and is expected to show rapid sales growth. For example, the sales from Thailand subsidiary expanded by 4.5 times on averaged yearly for the last two years including 2009 and 2010. The sales revenue recorded a sales revenue of USD50.7 mn in 2010, 1.7 times higher than that of 2009. The figure in 2011 is expected to increase by 1.7 times over 2010. In the mean time, the sales revenue in 2010 from its Mexican subsidiary is expected to be USD14.3mn, 2.6 times higher than a year before.

### Subsidiaries of SSD

Company	Product	Related Company (Customers)	Country
Nanjing Shinsung DeltaElectronics	Washing machine Assy, Mold	LGE Nanjing Display LGE (Nanjing) Plasma	China
Nanjing Shinsung Delta Science & Technology	LCD parts	LGD Nanjing	China
Suzhou Shinsung Delta Science & Technology	LCD parts	LGD Nanjing LGD Shanghai	China
YantaiShinsung DeltaElectronics	Mobile parts	LGE	China
Shinsung Delta Tech Mexico	Refrigerator parts	LGE Monterrey Mexico	Mexico
Shinsung Delta Tech Thailand	Twin-tub washing machine OEM	LGE Thailand.	Thailand

Source: SSD, LG Electronics

## SWOT Analysis of Shinsung Delta Tech

### Strengths

SSD has successfully enlarged its production capacity large enough so that it can benefit from the economies of scale having competitive advantage over its competitors. The versatility of its plants and equipments thanks to the business diversification is also another strength to the firm in flexibly cope with volatile market conditions and production orders.

### Weaknesses

Despite SSDs' portfolio of various product categories, the operating margin of its home appliance division which is a major source of SSD's revenue is congested between approximately 5 to 7%. In addition, the operating income generated from its wireless technology and LCD divisions is still small in comparison to that from other divisions even though they have operating margins of roughly above 10%.

### Opportunity

Promising outlook for the LED TV market is an opportunity for SSD as the demand for LED lead frames is expected to increase. As LGE's sales of home appliance division is anticipated to grow globally especially in emerging markets, SSD could also gain more revenue from the molded parts manufacturing activities, in the foreseeable future.

### Threat

Declining market share of LGE in the global mobile communication business is becoming a threat factor to SSD. As LGE and LGD are the main two clients to SSD, deteriorating market performance of the two companies will directly affect SSD's business as well.

## Valuation

We derive our price target of KRW11,000 based on sum-of-the-parts method, considering the value of SSD's operating activities, the value of its stakes in the subsidiaries, and the net debt. Our price target represents a 64.0% upside potential from the current share price.

### Discounted Cashflow Model

Our valuation of the SSD's operating activities is based on the discounted cashflow method. We have estimated the revenues and the cost of goods sold (COGS) of SSD's major customers such as LGE, RSM, and LGD based on their forecasted product shipment and average selling price from 2010 to 2015. Then, we have projected the revenues from the business divisions of SSD based on the implied portion of the costs of the major customers generated from each operating activity and the estimated the market share of each division for the same period.

We expect SSD to show a stable revenue growth and maintain its current cost structure while enjoying a rapid growth of its LED division. As a result of the recent merger with Delta Technics, SSD's gross revenue is anticipated to surge in 2010 while showing a decline in its gain on valuation using the equity-method.

We assume SSD's cost of equity to be 10.8% by using the risk-free rate of 3.69%, which is the YTM of Korean 3-year treasury bond; the market risk premium to be 8.0%, and the beta coefficient to be 0.89. We use the cost of debt of 4.9%, which is the weighted average of SSD's historical borrowing interest rates. According to our forecasted debt-to-equity ratio, we expect SSD to maintain a stable capital structure.

### Discounted Net Asset Value Method

Our valuation of SSD's stakes in its subsidiaries is based on the discounted net asset value method. We have assumed a discount factor of 35%, taking into account the possible difficulties in transferring cash to the holding company (SSD) and location issues. Applying the a discount rate of 35 % to the projected net asset value of the subsidiaries in 2010, we have computed the estimated per-share value of the subsidiaries to be KRW1,409

## DCF Assumptions

Risk-free Rate	3.69%
Market Risk Premium	8.0%
Beta	0.89
Cost of Equity	10.6%
Cost of Debt	4.9%
Target Capital Structure	
Debt	29%
Equity	71%
WACC	8.8%
Perpetual Growth Rate	1%

## Valuation Summary (Unit: KRW mn)

	Total	2011E	2012E	2013E	2014E	2015E
<b>I. Value of Operating Activities</b>						
<b>NOPLAT</b>		<b>12,568</b>	<b>14,786</b>	<b>18,274</b>	<b>17,994</b>	<b>18,952</b>
Add : Depreciation & Amortization		5,518	6,440	7,163	7,929	8,738
Less : Increase(Decrease) in NWC		(445)	428	(656)	(15)	(52)
Less : CAPEX		(15,791)	(14,322)	(15,514)	(15,984)	(14,303)
<b>FCFF</b>		<b>1,850</b>	<b>7,331</b>	<b>9,266</b>	<b>9,923</b>	<b>13,336</b>
<b>Terminal Value of FCFF</b>						<b>170,858</b>
<b>Present Value of FCFF</b>	<b>142,954</b>	<b>1,700</b>	<b>6,193</b>	<b>7,193</b>	<b>7,080</b>	<b>120,788</b>
<b>II. Value of Stakes in Subsidiaries</b>	<b>% Stake</b>	<b>2010</b>				
<b>Overseas</b>						
Nanjing Shinsung Delta Electronics	100%	11,202				
Nanjing Shinsung Delta Science & Technology	50%	2,695				
SuzhouShinsung Delta Science & Technology	50%	797				
YantaiShinsung Delta Electronics	100%	1,100				
Shinsung Delta Tech Mexico (Manufacturing)	100%	1,537				
Shinsung Delta Tech Mexico (Service)	100%	7				
Shinsung Delta Tech Thailand	85%	2,971				
S&S France SAS	80%	630				
<b>Domestic</b>						
ShinsungFaurecia	40%	3,017				
ShinsungTechwin	53%	869				
Gaon Soft	46%	303				
Shinsung Precision Mold Tech	53%	885				
<b>Total NAV</b>		<b>26,013</b>				
<b>35% Discounted NAV</b>		<b>16,908</b>				
<b>Enterprise Value</b>		<b>159,863</b>				
<b>Net Debt</b>		<b>27,393</b>				
<b>Equity Value</b>		<b>132,470</b>				
<b>Shares Outstanding (mn)</b>		<b>12</b>				
<b>Target Price / Share (KRW)</b>		<b>11,000</b>				

## Assumptions on Revenue Forecasting

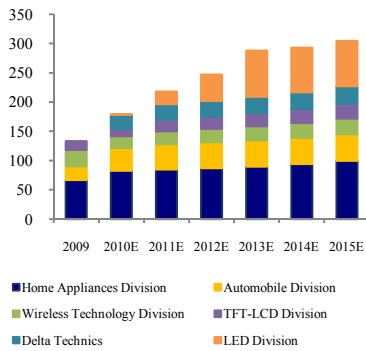
Since each of the current business unit has one dominant customer, our valuation starts from projection of the customers' revenues and cost of goods sold based on forecasted shipments and ASP. Then, we have estimated the percent portion of costs of each customer company and the supply share occupied by SSD. For the LED division, we have projected the number of molding machines, the production capacity per machine, the operating ratio, and the unit selling price.

## Summary of Revenue Forecast Assumptions

	2011E	2012E	2013E	2014E	2015E
<b>I. Home Appliances</b>					
Korea Household Appliances Market Growth	3.9%	3.8%	3.6%	3.5%	3.8%
Portion of Washing Machines in LGE HA (%)	46.5%	46.4%	46.4%	46.4%	46.4%
Implied rate of COGS for Washing Machines	76.5%	76.5%	76.4%	76.4%	76.5%
Portion of Assembly / OEM Cost of WM COGS(%)	4.6%	4.6%	4.6%	4.6%	4.6%
Supply Share of SSD in LGE	46.0%	46.0%	46.0%	46.0%	46.0%
<b>II. Automobile</b>					
Korea Automobile Production Volume Growth	3.3%	0.8%	-0.1%	0.7%	1.2%
Portion of Costs for Plastic Molding Parts (%)	0.9%	0.9%	0.9%	0.9%	0.9%
Supply Share of SSD in RSM	100.0%	100.0%	100.0%	100.0%	100.0%
<b>III. Wireless Technology</b>					
Global Feature Phone Market Growth	-4.7%	-0.6%	-0.9%	-0.7%	-1.0%
Global Smart Phone Market Growth	11.2%	16.0%	14.3%	12.4%	10.6%
Portion of Smart Phones in LGE	17.3%	19.7%	22.0%	24.2%	26.3%
In-mold ASP of SSD	452	464	475	488	501
Window Sheet ASP of SSD	594	609	624	640	658
Supply Share of SSD in LGE	29.3%	29.3%	29.3%	29.3%	29.3%
<b>IV. TFT-LCD</b>					
Revenue Growth of LG Display	8.7%	6.9%	7.8%	7.4%	7.6%
Portion of Costs for Molding Parts (%)	0.2%	0.2%	0.2%	0.2%	0.2%
Supply share of SSD in LGD	35.4%	35.4%	35.4%	35.4%	35.4%
<b>IV. LED</b>					
# of Machines	46	63	69	72	74
Production Capacity per machine per year (mn)	96	133	205	225	248
Operating Ratio (%)	50.0%	60.0%	70.0%	70.0%	70.0%
Price / unit (KRW)	10	9	8	6	5

## Revenue Break Down

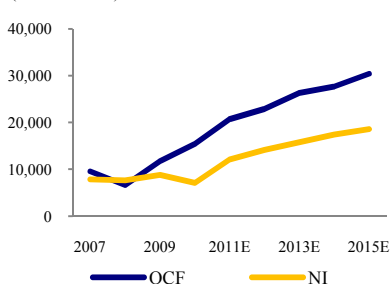
(Unit : KRW bn)



Source: SSD, Yonsei Investment Group Estimates

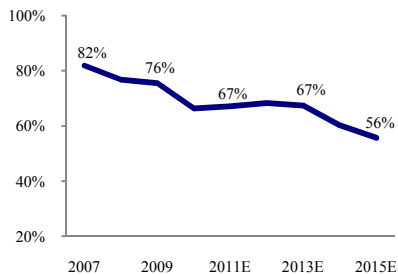
## Operating Cash Flow and Net Income

(Unit : KRW bn)



Source: SSD, Yonsei Investment Group Estimates

## Debt Ratio Trend



Source: SSD, Yonsei Investment Group Estimates

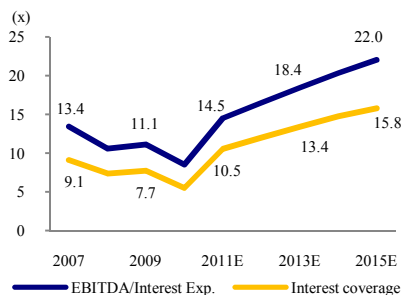
## Weighted Averaged Cost of Debt

Short-term : 4.34% per year

Long-term : 4.88% per year

Source: SSD

## Interest Coverage



Source: SSD, Yonsei Investment Group Estimates

## Financial Analysis

The financial status of SSD is expected to be better because of its LED business.

### Increasing Sales Revenue

SSD has made profits mainly from the home appliances business. From now on, its LED division would drive revenue growth becoming a core business for SSD. As a result of decreasing LCD inventories in the global electronics industry, the projection on its sales revenue in 2011 is positive. According to our financial estimates, 33% of the revenue would be originated from its LED division in 2015.

In 3Q 2010, SSD merged with Delta Technics which had been its wholly-owned subsidiary. Although, the value of Delta Technics used to be realized by the equity method, it is now directly realized being recorded in SSD's financial statements.

### Surge of Operating Cash Flows

The net income and the net cash flows from operating activities are expected to increase largely thanks to the growth of its LED business. Both the operating assets and the operating liabilities of SSD would continue to increase in a similar manner in the future as the gross profit would grow as is seen historically. This means an increase in the net income is closely connected with increase in the operating cash flows, thus the operating cash flows of SSD is expected to increase as the net income increases.

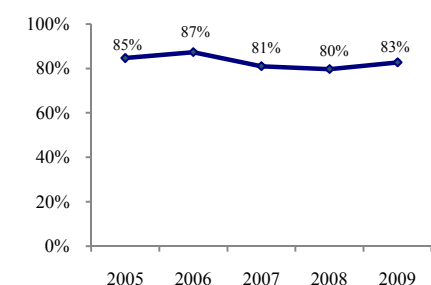
### Growth of Financial Stability

SSD has depended on debt-financing and its accumulated retained earnings for CAPEX. Since its IPO in 2004, SSD has not issued any more stocks because it has been able to maintain low cost of debt and its strategic investors did not agree to it for value dilution issue.

Despite its dependency on debt-financing, the debt ratio is low and projected to be even lower continuously because SSD is expected to perform better based on its LED business. Its low debt ratio would boost its financial competitiveness in spite of high economy-sensitivity of its businesses. Its interest coverage is also expected to be improved.

Key Financial Ratios	2009	2010E	2011E	2012E	2013E	2014E	2015E
<b>Profitability</b>							
Gross Profit Margin (%)	10.7%	11.7%	14.2%	14.6%	15.0%	14.7%	14.8%
EBITDA Margin (%)	10.9%	7.8%	9.9%	10.3%	10.6%	10.6%	10.8%
EBIT Margin (%)	7.6%	5.1%	7.4%	7.7%	8.1%	7.9%	8.0%
Net Income Margin (%)	6.5%	3.9%	6.4%	6.3%	6.7%	6.5%	6.7%
Return on Assets (%)	7.1%	4.1%	7.2%	7.1%	8.0%	7.6%	7.6%
Return on Equity (%)	12.5%	6.7%	11.8%	11.7%	12.9%	11.6%	11.3%
<b>Credit Ratio</b>							
Total Debt / Equity (x)	0.76	0.66	0.65	0.64	0.62	0.53	0.48
Long-term Debt / Equity (x)	0.19	0.23	0.26	0.26	0.25	0.20	0.18
Total Debt / EBITDA (x)	3.6	5.0	3.5	3.4	3.0	2.8	2.7
Net Debt / EBITDA (x)	1.5	2.5	1.5	1.1	0.7	0.4	0.4
EBITDA / Interest Exp. (x)	11.1	12.1	12.0	12.2	13.2	12.7	14.9
<b>Liquidity</b>							
Interest Coverage (x)	7.7	8.0	8.9	9.1	10.1	9.5	11.0
Current Ratio (x)	0.9	0.9	1.1	1.3	1.5	1.5	1.7
Acid Test Ratio (x)	0.7	0.6	0.9	1.0	1.2	1.3	1.5
<b>Per Share Data</b>							
EPS (KRW)	735	586	1,160	1,294	1,597	1,594	1,704
BPS (KRW)	5,893	8,724	9,847	11,036	12,349	13,711	15,128
DPS (KRW)	125	52	203	227	280	279	287
<b>Price Ratio</b>							
PER	10.6	18.8	9.5	8.5	6.9	6.9	6.5
PBR	1.32	1.26	1.12	1.00	0.89	0.80	0.73

**% of Sales Derived from LG Group**



Source: SSD

## Investment Risks

### High Dependency on LG Group

As a vendor of LGE, SSD has maintained a close cooperative relation with LGE from the beginning of its business. Chairman of SSD, Ja-chul Koo is a distant relative of Ja-kyung Koo who is honorary president of LG Group. SSD started its business in 1987 by manufacturing washing machine parts for LGE. Based on its molding technology, SSD has expanded its business to manufacturing parts for air conditioners and LCD panels by supplying them to LGE.

In the home appliance and electronics industries, LGE has been competing fiercely with Samsung Electronics. Thus, SSD has not supplied its finished parts to Samsung Electronics which is also a huge buyer in the industry. Therefore, earnings of SSD is highly dependant on the performance of LG Group. This tendency is anticipated to continue.

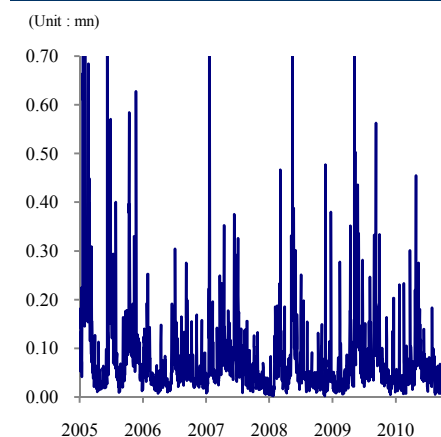
### Slump in the Wireless Technology Division

The wireless technology division of SSD has been the most profitable among others in SSD in terms of operating margin. The operating profit margin of the wireless technology division has been approximately 20%, while those of other divisions have been 5 to 10%. Until now, the stable operating profit margin of SSD has been maintained thanks to its wireless technology division. However, LGE recently has lost its mobile handset market share to other competitors because of its sluggish introduction of smartphone line-ups. LGE has gained half of its operating profit from the mobile business. Reduced market share has resulted in its operating loss in 2010. Because of this, the operating profit of SSD declined by 21% in 3Q on a year on year basis.

### Low Trading Volume

The market capitalization of SSD is USD81 bn as of 1 February, 2011. Strategic investors are holding 46.0% of the issued stocks and they are rarely traded in the market. In addition to the low trading volume in terms of the number of traded stocks, the traded value is also small. On average, 44,295 shares are traded per day and its value is approximately KRW0.364 mn. This level of trading volume and value is an unfavorable factor for institutional investors in terms of stock liquidity. Given this factors, SSD has considered issuing capital increase with consideration, but there has been dissenting opinions of the pre-existing shareholders due to stock value dilution.

**Trading Volume Per Day**



Source: Bloomberg

# APPENDIX

## Financial Statements

### Statement of Income

(KRW mn)	2007	2008	2009	2010E	2011E	2012E	2013E	2014E	2015E
<b>Revenue</b>	<b>142,329</b>	<b>128,137</b>	<b>135,895</b>	<b>179,381</b>	<b>218,003</b>	<b>247,261</b>	<b>288,072</b>	<b>292,939</b>	<b>304,586</b>
Home Appliance	72,736	61,801	66,737	82,601	84,474	86,725	89,793	93,693	99,273
Automobile	27,096	25,968	23,364	38,603	43,586	44,250	44,728	44,838	45,316
Wireless Technology	20,540	27,657	28,073	20,081	21,777	22,996	24,211	25,567	26,903
TFT-LCD	14,041	10,826	15,194	12,095	19,713	20,828	22,428	24,041	25,828
LED	-	-	-	1,300	22,020	45,295	79,094	76,262	77,882
Delta Technics	-	-	-	24,701	26,432	27,166	27,818	28,538	29,384
Cost of Goods Sold	127,193	108,087	115,986	158,323	186,969	211,161	244,890	249,790	259,362
<b>Gross Profit</b>	<b>15,136</b>	<b>20,050</b>	<b>19,909</b>	<b>21,058</b>	<b>31,035</b>	<b>36,101</b>	<b>43,182</b>	<b>43,148</b>	<b>45,223</b>
Sales & General Admin. Costs	6,878	10,224	9,589	11,880	14,922	17,145	19,754	20,079	20,925
<b>EBITDA</b>	<b>12,178</b>	<b>14,184</b>	<b>14,816</b>	<b>13,912</b>	<b>21,630</b>	<b>25,396</b>	<b>30,591</b>	<b>30,998</b>	<b>33,036</b>
Depreciation & Amortization	(3,920)	(4,358)	(4,496)	(4,734)	(5,518)	(6,440)	(7,163)	(7,929)	(8,738)
<b>EBIT</b>	<b>8,258</b>	<b>9,826</b>	<b>10,320</b>	<b>9,179</b>	<b>16,112</b>	<b>18,956</b>	<b>23,428</b>	<b>23,070</b>	<b>24,298</b>
Interest Income	565	448	517	114	122	367	661	968	1,011
Interest Expenses	(907)	(1,340)	(1,333)	(1,147)	(1,810)	(2,076)	(2,317)	(2,441)	(2,217)
Gain on Valuation Using Equity Method	1,340	514	846	335	2,803	1,875	1,964	2,057	2,156
Profit Before Tax	9,447	8,832	11,381	9,022	17,820	19,864	24,426	24,365	25,987
<b>Net Income</b>	<b>7,811</b>	<b>7,612</b>	<b>8,819</b>	<b>7,037</b>	<b>13,899</b>	<b>15,494</b>	<b>19,052</b>	<b>19,005</b>	<b>20,270</b>

### Statement of Financial Position

(KRW mn)	2007	2008	2009	2010E	2011E	2012E	2013E	2014E	2015E
Cash & Cash Equivalents	3,420	2,681	3,176	3,384	10,198	18,362	26,890	28,089	37,913
Short-term Financial Instrument	1,752	6,650	-	525	525	525	525	525	525
Marketable Securities	4,474	2,126	2,997	3,520	3,279	2,981	3,194	3,244	3,174
Accounts Receivable	11,194	8,148	17,603	17,772	21,598	24,496	28,540	29,022	30,176
Inventories	3,471	2,955	3,326	4,433	5,257	5,948	6,887	7,028	7,298
Investments	19,372	25,771	30,432	36,576	36,942	37,311	37,684	38,061	38,442
PP&E	53,785	55,319	57,273	94,976	104,924	112,534	120,603	128,334	133,597
Other Assets	4,807	4,441	9,326	11,550	10,657	11,536	10,866	11,210	11,109
<b>Total Assets</b>	<b>102,275</b>	<b>108,091</b>	<b>124,133</b>	<b>172,735</b>	<b>193,380</b>	<b>213,693</b>	<b>235,190</b>	<b>245,514</b>	<b>262,234</b>
Accounts Payable	15,023	7,609	16,081	17,320	21,281	24,903	28,516	29,099	30,291
Short-term Debt	6,915	19,616	14,873	17,245	16,059	16,652	16,355	16,503	16,429
Long-term Borrowing	12,371	9,812	10,256	21,724	28,239	32,626	35,437	30,719	29,997
Other Liabilities	11,746	9,886	12,207	12,588	10,897	11,067	11,144	10,924	11,045
<b>Total Liabilities</b>	<b>46,055</b>	<b>46,923</b>	<b>53,417</b>	<b>68,876</b>	<b>76,475</b>	<b>85,248</b>	<b>91,452</b>	<b>87,246</b>	<b>87,762</b>
Pain-in Capital	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Ratained Earning	36,880	43,148	50,537	57,574	69,039	81,818	97,532	113,207	129,926
Capital Surplus	14,181	14,181	14,107	14,107	14,107	14,107	14,107	14,107	14,107
Capital Adjustment	(428)	(3,419)	(1,868)	(2,167)	(2,167)	(2,167)	(2,167)	(2,167)	(2,167)
Other Accumulated Comprehensive Income	(412)	1,258	1,939	28,345	29,926	28,688	28,265	27,120	26,606
<b>Total Shareholders Equity</b>	<b>56,221</b>	<b>61,168</b>	<b>70,715</b>	<b>103,859</b>	<b>116,904</b>	<b>128,445</b>	<b>143,738</b>	<b>158,268</b>	<b>174,472</b>

## Statement of Cash Flow

(KRW mn)	2007	2008	2009	2010E	2011E	2012E	2013E	2014E	2015E
Net Income	7,811	7,612	8,819	7,037	13,899	15,494	19,052	19,005	20,270
Depreciation & Amortization	3,920	4,358	4,496	4,734	5,518	6,440	7,163	7,929	8,738
Changes in Working Capital	(1,429)	(8,706)	(2,119)	1,572	(631)	(643)	(557)	(547)	(69)
Changes in other LT Liabilities	(2,158)	(3,373)	(526)	(570)	(429)	(362)	11	2	(5)
<b>Net Cash From Operation</b>	<b>9,573</b>	<b>6,637</b>	<b>11,722</b>	<b>14,344</b>	<b>17,726</b>	<b>20,285</b>	<b>25,112</b>	<b>25,841</b>	<b>28,865</b>
CAPEX	(15,416)	(6,127)	(7,066)	(19,322)	(16,116)	(14,595)	(15,797)	(16,308)	(14,604)
Other Investment	1,813	(6,593)	(299)	(7,192)	(125)	(71)	(587)	(426)	(311)
<b>Net Cash From Investment</b>	<b>(13,333)</b>	<b>(12,720)</b>	<b>(7,365)</b>	<b>(26,514)</b>	<b>(16,241)</b>	<b>(14,666)</b>	<b>(16,384)</b>	<b>(16,735)</b>	<b>(14,916)</b>
Issuance (repayment) of short-term debt	(98)	9,116	(8,612)	2,641	(5,460)	(2,727)	(2,343)	(5,699)	3,922
Issuance (repayment) of long-term debt	5,674	171	4,695	11,198	10,790	7,707	4,857	1,129	(4,718)
Dividend Payment	1,305	1,344	1,429	(1,461)	-	(2,435)	(2,714)	(3,338)	(3,330)
<b>Net Cash from Financing Activities</b>	<b>6,383</b>	<b>5,344</b>	<b>3,862</b>	<b>12,378</b>	<b>5,330</b>	<b>2,545</b>	<b>(200)</b>	<b>(7,908)</b>	<b>(4,126)</b>
<b>Cash and Equivalents, Ending</b>	<b>3,420</b>	<b>2,681</b>	<b>3,176</b>	<b>3,384</b>	<b>10,198</b>	<b>18,362</b>	<b>26,890</b>	<b>28,089</b>	<b>37,913</b>

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