

OLED Industry

Spring training is over; The pennant race has begun

Technology

Sector Update

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Daewoo Securities Co., Ltd.

Display / IT parts and materials

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OLED in early stage of growth; Accounted for only 7% of 2012 panel market

For 2013, we expect the global LCD panel market to grow a mere 2% to US\$85.5bn (W92tr; -2% YoY in won basis) from US\$83.6bn (W94tr) in 2012. In contrast, we see strong growth ahead for the global OLED panel market, which we forecast to expand 64% to US\$11.8bn (W13tr; +57% YoY in won basis) in 2013 from US\$7.2bn (W8tr) in 2012. Looking further ahead, we forecast a CAGR of 29% for global OLED panels through 2018.

Catalyst: Global release of LGE's OLED TV in 2Q; SEC bound to follow suit

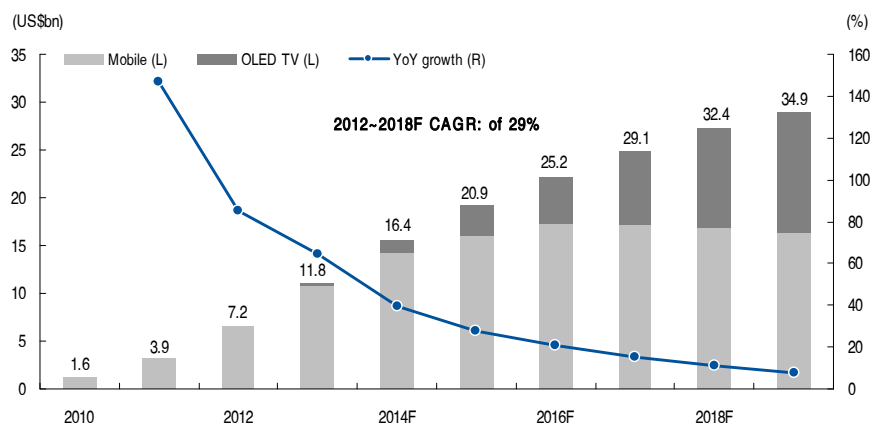
We believe Samsung Display (SDC) will expand investments in OLED very shortly. For mobile display, we expect SDC to add three new 5.5G A2 lines (Phases 4-6) in response to tighter supply and demand. The three new lines will have a combined capacity of 63,000 sheets per month, a 59% increase from current capacity.

In the TV segment, LG Electronics (LGE) has moved quickly to gain control of the OLED market by making significant investments. Foreign panel makers like AUO and BOE are also continuing to expand their OLED capex, though their lines remain mostly in the pilot phase. SDC, the dominant leader in the small and mid-sized OLED segment, still appears to be undecided on which technology standard to adopt and how much to spend on large-area OLED production. However, given recent moves by industry rivals, we believe Samsung can no longer defer investing in large-area OLED panels. In 2Q, we expect Samsung Electronics (SEC) to roll out OLED TVs, and SDC to execute capex for OLED panel mass production facilities. SDC's 6G/8G A3 line (including for TV production) is targeted to go online by 3Q14, suggesting meaningful equipment orders will start to flow in from 2Q13. Although we forecast global OLED TV shipments at just 3mn units (or 1.5% of the overall TV market) for 2015, we see OLED panel production area expanding 4.4 times and OLED materials growing four times by 2015 (compared to 2012 levels).

Top picks: SFA, Duksan Hi-Metal; Runner ups are Cheil Industries, Avaco

Among OLED-related plays, we favor names that are not tethered to particular process technologies (LTPS or Oxide, RGB or White RGB (WRGB), etc.): SFA Engineering and Avaco in the equipment segment, and Duksan Hi-Metal and Cheil Industries in materials. Our top picks are SFA Engineering, which we believe will become a global equipment provider based on its robust front-end process equipment lineup, and Duksan Hi-Metal, which stands to benefit the most from large-area OLED investments.

Global OLED market trends and forecasts



Source: DisplaySearch, KDB Daewoo Securities Research

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Investment considerations

1. Samsung set to increase large-area OLED investments

Early this year, many global TV brands such as Samsung Electronics (SEC), LG Electronics (LGE), Sony, and Panasonic unveiled OLED TVs at the 2013 International CES. But LGE is leading the pack with the first commercial release in Korea in 1Q. In 2Q, the company is planning a global release, including rollouts in the US, the UK, Germany, France, Australia, Iran and Russia. LG Display (LGD) also announced a W706.3bn capex plan for 8G OLED TV production.

Recently, LGE took another step forward in advancing its OLED technology by obtaining quality and performance mark (QPM) certification from Intertek for its curved OLED TVs. The model has yet to prove feasible for mass production or reliable, but it may hit the market in 2H.

LGE has moved quickly to gain control of the OLED market by making significant investments. Foreign panel makers like AUO and BOE are also continuing to expand their OLED capex, though their lines remain mostly in their pilot phases. Samsung Display (SDC), the dominant leader in the small and mid-sized OLED segment, still appears to be undecided on which technology standard to adopt and how much to spend on large-area OLED production. However, given recent moves by industry rivals, we believe Samsung can no longer defer investing in large-area OLED panels. In 2Q, we expect SEC to roll out OLED TVs, and SDC to execute capex for OLED panel mass production facilities.

SDC is cautiously weighing the pros and cons of different types of large-area OLED technologies. We expect the company to take a two-track approach, investing in: 1) the existing LTPS backplane and RGB evaporation method in the short term, and 2) the oxide backplane and white RGB (WRGB) structure in the medium to long term.

Table 1. Global OLED investment plan

Company	Factory	Phase	Mother Glass size	Generation	TFT	OLED	Equipment PO	MP ramp	Capacity ('000/month)
SDC	A2	4	650 x 750	5.5 (4 cut)	LTPS	RGB	4Q12	2Q13	27
		5	650 x 750	5.5G (4 cut)	LTPS	RGB	2Q13	1Q14	18
		6	650 x 750	5.5G (4 cut)	LTPS	RGB	4Q13	3Q14	18
	A3	1	1500 x 925	6G (Half)	LTPS	RGB	4Q13	4Q14	32
	V1	1	1100 x 830	8G (6 cut)	LTPS	RGB	2Q13	3Q14	24
LGD	AP2-E2	2	730 x 460	4G (Half)	LTPS	RGB	2Q10	2Q11	5
	M1	1	2200 x 1250	8G (Half)	Oxide	White	1Q11	3Q12	8
	M2	1	2200 x 2500	8G	Oxide	White	4Q12	2Q14	26
		2	2200 x 2500	8G	Oxide	White	2Q14	2Q15	40
AUO	L4B AMOLED	1	730 x 460	4G (Half)	LTPS	RGB	2Q11	4Q13	8
	L6B AMOLEd R&D	1	1500 x 1850	6G	Oxide	White	2Q11	3Q12	1
	Tiachung G6 AMOLED	1	1500 x 1850	6G	LTPS	RGB	2Q14	2Q15	30
BOE	B5 WOLED	1	2200 x 1250	8G (Half)	Oxide	White	1Q13	2Q13	2
	B6 AMOLED	1	650 x 750	5.5 (4 cut)	LTPS	RGB	4Q13	1Q15	10
CSOT	Shenzen G4 OLED R&D	1	730 x 460	4G (Half)	LTPS	RGB	3Q12	3Q13	2
Tianma	Shanghai AMOLED 2	1	650 x 750	5.5G (4 cut)	LTPS	RGB	3Q13	4Q14	4
Qingdao Hehui Opto	Shanghai 1	1	730 x 460	4G (Half)	LTPS	RGB	2Q13	4Q14	15
Visionox	Kunshan 3	1	1300 x 1500	5.5G	LTPS	RGB	4Q13	4Q14	15

Source: DisplaySearch, KDB Daewoo Securities Research

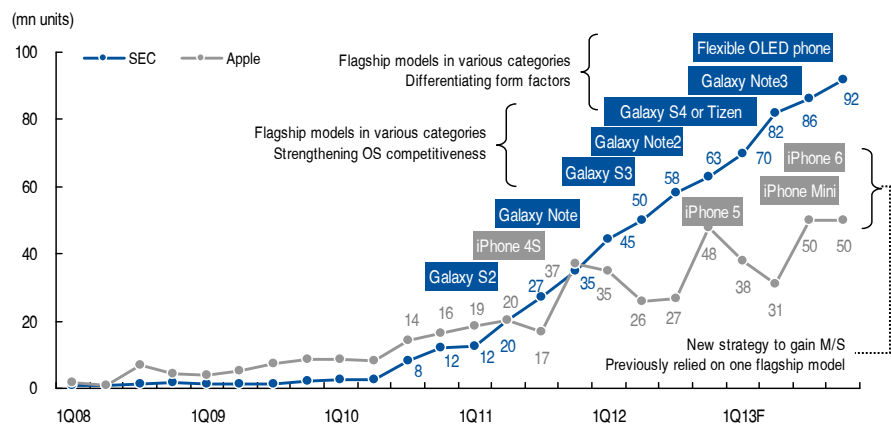
2. Flexible OLED: SEC's key to hardware differentiation

Flexible OLEDs use plastic-coated substrates (polyimide) instead of glass substrates, making the panels thin, bendable, light, and shatter-proof, and allowing for more space for batteries. By replacing TFT glass substrates and glass encapsulation with polyimide substrates and film encapsulation, panel thickness and weight can be reduced by 83% and 67%, respectively. Given the increasing difficulties in achieving hardware differentiation, a flexible OLED display can be a unique marketing point.

Despite high expectations since last year, however, commercialization has yet to emerge, because SEC's smartphones are already selling very well, widening the company's gap with its rivals. Even if SDC's flexible OLED technology proves feasible for mass production, SEC will not feel any need to hastily introduce the new technology. However, we expect SEC to start contemplating adopting flexible OLED displays if smartphone sales slow and rivals begin to catch up.

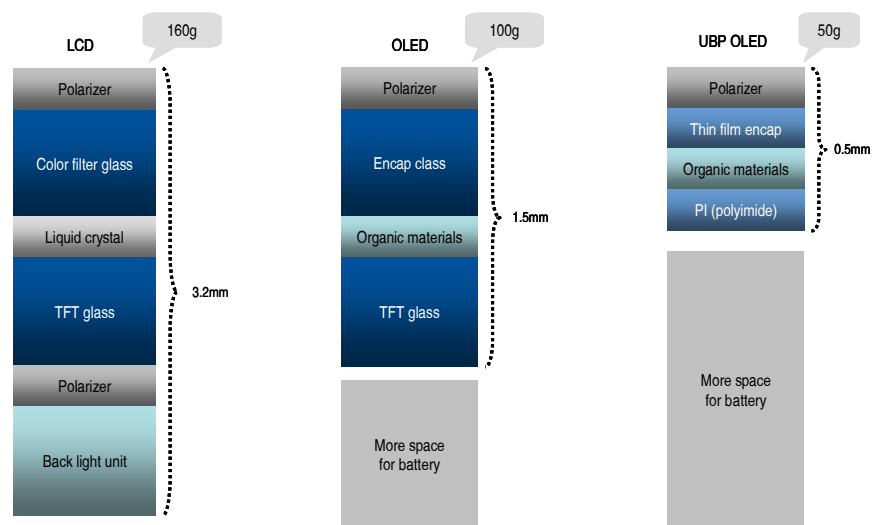
Currently, SDC can produce 4mn flexible OLED panels per quarter (assuming production yield at 70%)—which is insufficient for adoption in SEC's strategic smartphones. Thus, SEC is not expected to use the panels for its strategic smartphone models this year (although models produced in smaller quantities may adopt the flexible displays). Rather, SEC is very likely to make large-scale investments in OLED TVs, an area where competition is growing fiercer and product differentiation is even harder to achieve.

Figure 1. SEC's smartphone shipments



Source: KDB Daewoo Securities Research

Figure 2. Comparison of LCD, OLED, and flexible (UBP) OLED



Source: KDB Daewoo Securities Research

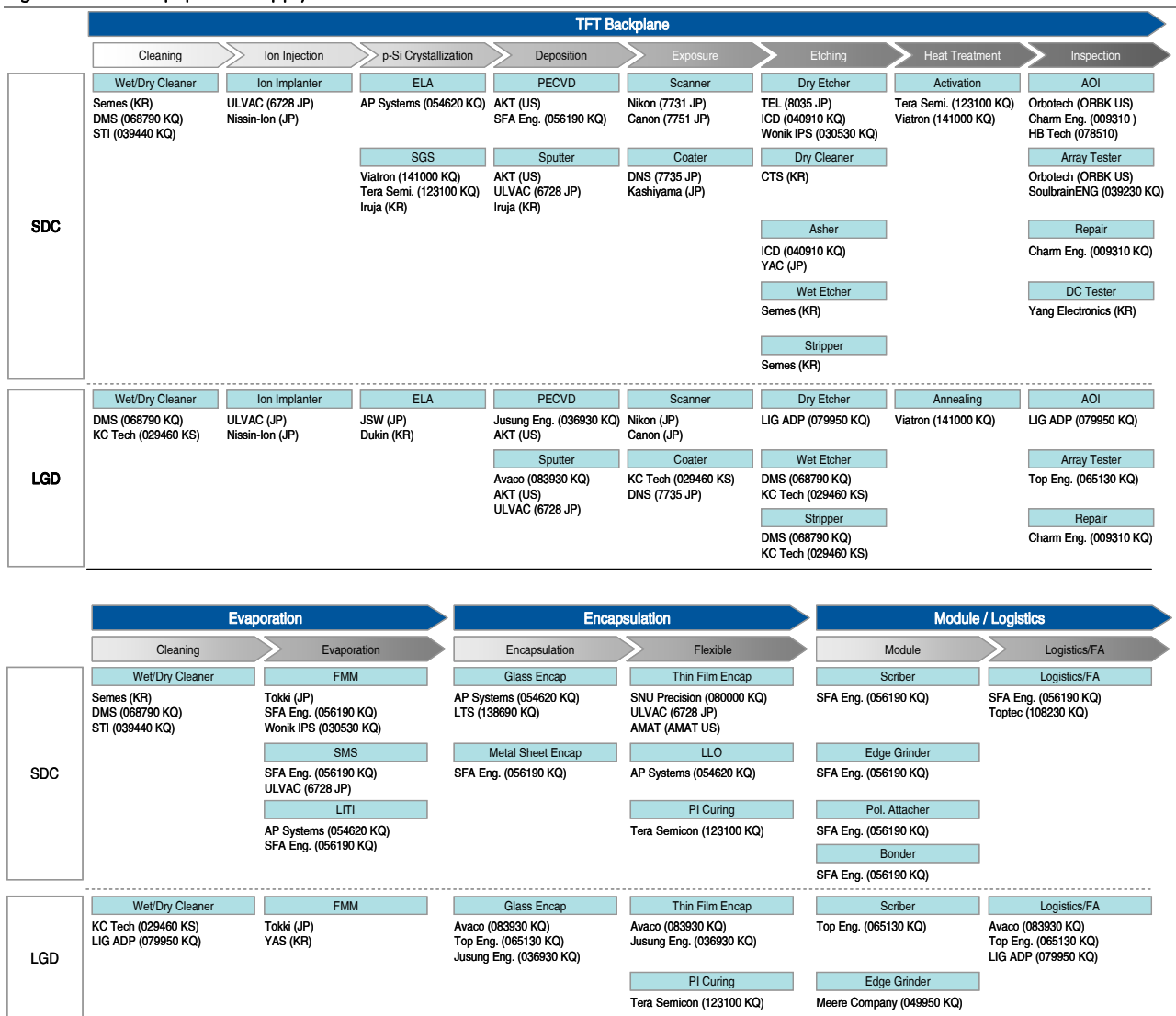
3. OLED equipment supply chain: Orders to gain momentum from 2Q

Numerous OLED technologies are still being developed or have yet to become viable for mass production. In our view, recent market doubts that have been raised on Samsung's large-area OLED technology underscore the fact that the market is still in its infancy. Currently, OLED technologies are largely divided into: 1) 6G and 8G in terms of mother glass size, 2) low temperature polysilicon (LTPS) and oxide in terms of TFT backplane processes, and 3) RGB and WRGB based in terms of evaporation solutions. All of these technologies can form a number of different combinations for OLED production.

As it is difficult to predict which OLED technologies companies will choose, we believe it makes sense for investors to focus on players in the supply chain that are largely unaffected by this inherent unpredictability. We believe SFA Engineering (Samsung) and Avaco (LG) fall under this category among equipment makers. Their lineups include cleaning and vacuum logistics equipment, module equipment, and core front-end process equipment, all of which are more or less untethered to particular OLED technologies.

Notably, some equipment manufacturers are heavily reliant on certain processes, which make them vulnerable to earnings risks if a different technology is adopted. For instance, excimer laser annealing (ELA) and heat processing equipment, which is essential for LTPS, would be rendered useless in oxide-based processes. Thus, equipment makers specializing in either glass or film encapsulation, or RGB or WRGB solutions, are exposed to higher share price volatility.

Figure 3. OLED equipment supply chain



Source: KDB Daewoo Securities Research

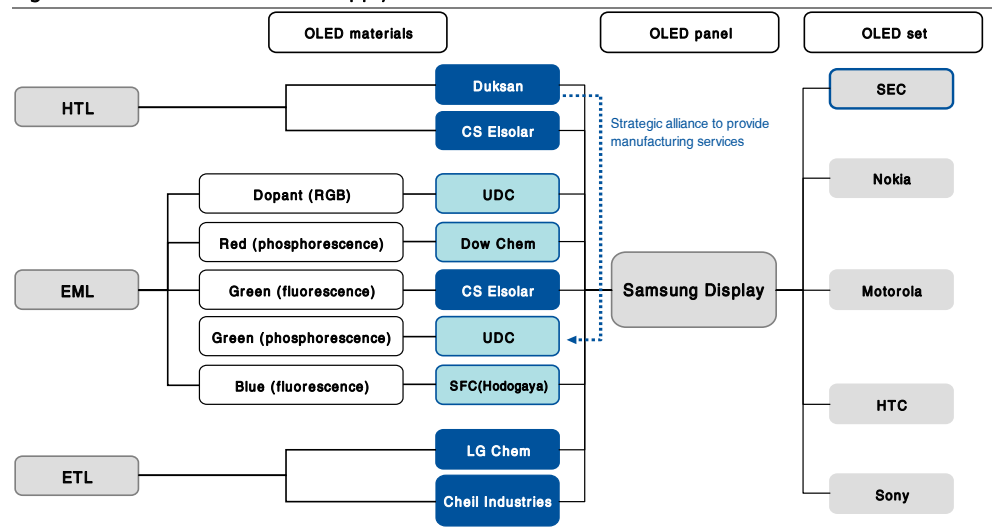
4. OLED material supply chain: Market to quadruple by 2015

OLED materials makers will benefit directly from growing investments in large-area OLED. As technological standards do not affect materials (unlike equipment), materials makers can post relatively stable growth. We present SDC's key material suppliers, Duksan Hi-Metal and Cheil Industries, as our top picks.

As more global TV makers eagerly rush to release OLED TVs, we expect 8G OLED as a percentage of total OLED capacity to jump from 25% in 2013 to 50% in 2015. We forecast the aggregate capacity of global OLED to increase at a CAGR of 64% from 2012 to 2015, led by 8G line ramp-ups. We believe this will also cause the global OLED materials market to expand at a 59% CAGR through 2015. We could even see faster growth in OLED materials, as, not only will the growing size of OLED panels require greater material input, but the introduction of WRGB technology (especially factoring in poor yields early on) will call for increased material input in terms of unit area.

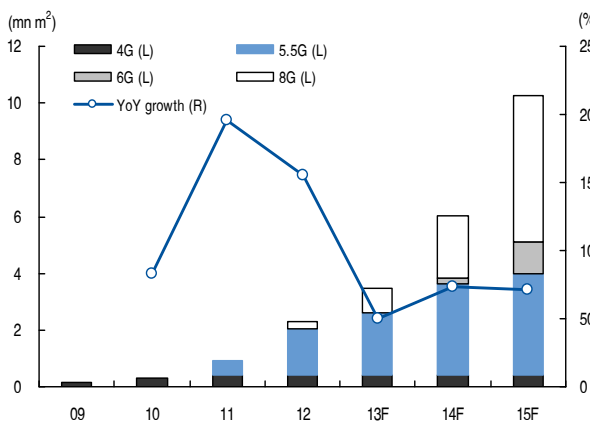
Still, we estimate global capacity for 55" OLED TVs to be only 5.7mn units in 2015. Factoring in production yields, we estimate the actual number of 55" OLED TVs that could be produced by that time would be 3mn units. Given that the current annual capacity of LCD TVs is 200mn units, this would put the penetration rate of OLED TVs at just 1.5%. Even assuming a 1.5% penetration rate, we still expect OLED production capacity to jump 4.4 times and OLED materials to grow four times by 2015 (compared with 2012 levels). Assuming the OLED TV penetration rate trends higher beyond 2015 from 3% to 6% and further to 9%, we believe the materials market could see annual growth of more than 50%.

Figure 4. SDC's OLED materials supply chain



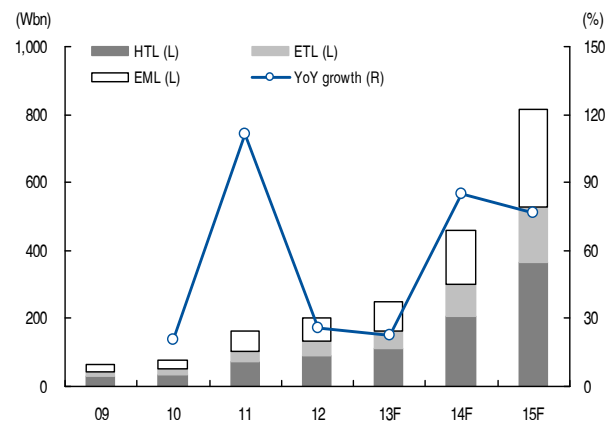
Source: KDB Daewoo Securities Research

Figure 5. Global OLED capacity trend and forecast



Source: DisplaySearch, KDB Daewoo Securities

Figure 6. Global OLED material market trend and forecast



Source: KDB Daewoo Securities Research

Samsung Group affiliates have formed strategic partnerships with multiple foreign organic OLED materials makers since 2011. In August 2011, SDC agreed to develop OLED materials jointly with UDC of the US and Hodogaya Chemical of Japan. In 2011, Samsung Venture Investment increased its stake ownership in Sun Fine Chemical, Hodogaya's subsidiary, and in September 2011, the company bought a stake in Novaled, a German organic OLED materials maker. Furthermore, Cheil Industries is believed to be reviewing a plan to purchase Novaled. These moves, part of the group's efforts to prevent patent-related problems, should be beneficial to Korean OLED makers, as they will lead to domestic production of relevant materials through the sharing of patents and production technologies.

Table 2. Recent trends of global OLED materials makers

Country	Company	OLED materials	Comments
Korea	Cheil Industries	ETL, HTL, PDL	Expected to supply PDL/ ETL (2Q13), and HTL (4Q13) to SDC.
		EML (developing)	Under development. Expected to supply to SDC in 1H14.
		Encap. material for flexible OLED	Developed an organic material for encapsulation of flexible OLED.
	Duksan Hi-Metal	HTL, HIL	Supplies HTL to SDC (90% market share). Produces phosphorescent green organic material for SDC under strategic partnership with UDC.
	LG Chem	ETL, HIL, HTL, EML (GB)	Supplies ETL to both SDC and LGD. Strategic partnership with UDC for development of phosphorescent organic materials. Invested more than W100bn in OLED lights (announced the plan in 2011).
Japan	Sun Fine Chemical	EML (GB), ETL, HTL	Subsidiary of Hodogaya. Supplies fluorescent blue organic material (EML) to SDC.
	Doosan Corp. Electro-Materials (CSelsolar)	EML (G), HTL	Supplies fluorescent green organic material to SDC. Commenced supply of HTL to SDC in 3Q11 (100% market share).
	Hodogaya Chemical	HTL, ETL	Supplies HTL to SDC and LGD; developing ETL.
		EML (B)	Strategic partnership with SDC for EML (supplies phosphorescent blue organic material via SFC).
	Idemitsu Kosan	HIL, HTL, ETL, EML (RGB)	Supplies fluorescent blue organic material (EML) to LGD.
			Partnership with UDC for development of phosphorescent blue organic material (2006).
			Strategic partnership with LGD (2009). Acquired 32.73% stake in Global OLED Technology (affiliate of LG Group) in 2010. Established J/V with Panasonic Electric Works for OLED lights (2011). Expected to supply HTL to SDC (2H13).
	Sumitomo Chemical	Polymer EML (RGB)	Focusing on development of macromolecule organic materials. Developing soluble printing technology with Panasonic.
	Kodak	Original patent on OLED	Sold all OLED-related patents to Global OLED Technology in 2009
	Nippon Steel Chemical	EML (phosphorescent RG dopant, host)	R&D of phosphorescent green organic material; expected to supply to SDC (2013)
Toyo Ink	EML (RG), HIL, HTL, ETL	R&D	
Mitsubishi Chemical	Polymer EML, HIL	Partnership with Pioneer for development of OLED lights (2010). Developing printable organic materials.	
Showa Denko	Macromolecule phosphorescent EML	Developing organic materials for OLED lights.	
Toray	EML (RB), ETL, HTL	R&D	
US	UDC	EML (dopant), EML (phosphorescent G)	Possesses original patent for phosphorescent EML (monopoly). Supplies EML(dopant) to SDC.
			Partnership with SDC on development on phosphorescent organic materials (2011). Licensed with Pioneer for OLED lights (2011). Expected to supply phosphorescent green organic material to SDC (2Q13).
			Acquired Gracel Display (2008). Supply phosphorescent red to SDC. Developed phosphorescent green organic material.
DuPont Chemical	EML (RGB), HIL, HTL, ETL	Focusing on macromolecule organic materials Possesses patent on organic material printing technology.	
Germany	Novaled	HTL, p-dopant	Possesses p/n doping technology
		ETL, n-dopant	Samsung Venture Investment acquired stake (Sep. 2011). Possessed patent for top-emitting W-OLED for lights.
	Merck Chemical	HIL, HTL, EML (B)	Developing both small molecule and macromolecule organic materials. Supplies HTL to SDC in 2012.

Note: Highlighted companies are major SDC vendors / Source: KDB Daewoo Securities Research

Key recommendations

SFA Engineering (056190/Buy) Free from risk of OLED technological combination

- Largest beneficiary of Samsung's large-area OLED investments; Annual new orders forecast at W788bn, including OLED orders of W400bn in 2013.
- Lineup includes essential equipment unaffected by changing technology standards
- 1Q13 preview: Revenue of W135bn (+34% YoY) and OP of W18.4bn (+128% YoY)
- Maintain Buy and Raise TP by 15% to W75,000

Duksan Hi-Metal (077360 KQ/Buy) A slugger in the OLED league

- Biggest beneficiary of SDC's increased OLED spending
- OLED capacity to grow 33% YoY in 2013, 43% in 2014, and 65% in 2015
- OLED materials revenue to climb 15% in 2013, 42% in 2014, and 20% in 2015
- Maintain Buy and lift TP by 13% to W34,000

Cheil Industries (001300 KS/Buy) OLED business to take off

- Emergence of OLED materials (ETL) revenue signals potential expansion into OLED TV
- OLED materials revenue to jump to W240.2bn in 2015 from W35.3bn in 2013
- 12-month forward P/E of 14x; OLED premium needs to be reflected
- Maintain Buy with TP of W110,000

Avaco (083930 KQ/Buy) Momentum from OLED and oxide TFT

- 2013 earnings bound to pick up; New orders to soar 162% YoY to W165.4bn
- An OLED equipment supplier to LGD with a product lineup including logistics equipment and encapsulation equipment
- 1Q13 preview: Revenue of W28.2bn (+64% YoY) and OP of W1bn (turn to profit YoY)
- Maintain Buy with TP of W10,000

SFA Engineering (056190)

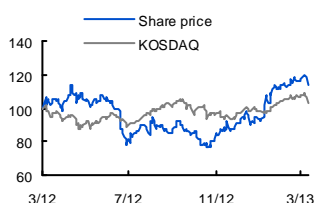
Free from risk of OLED technological combination

Technology

(Maintain)	Buy
Target Price (12M, W)	75,000
Share Price (04/08/13, W)	59,000
Expected Return	27%

OP (13F, Wbn)	113
Consensus OP (13F, Wbn)	102
EPS Growth (13F, %)	39.6
Market EPS Growth (13F, %)	22.9
P/E (13F, x)	11.1
Market P/E (13F, x)	9.1
KOSDAQ	528.78
Market Cap (Wbn)	1,059
Shares Outstanding (mn)	18
Free Float (%)	48.2
Foreign Ownership (%)	12.5
Beta (12M)	0.68
52-Week Low (W)	39,750
52-Week High (W)	63,500

(%)	1M	6M	12M
Absolute	0.5	23.2	9.3
Relative	4.9	26.4	14.7



Display

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Largest beneficiary of Samsung's large-area OLED investments

OLED is a next generation display technology for which a variety of production technologies are being developed and considered for commercial production. The fact that Samsung remains undecided on its large-area OLED technology suggests that the OLED market is still in its infancy. OLED makers must decide between 1) 6G and 8G for the size of glass substrate, 2) LTPS (low temperature poly-silicon) and oxide for TFT backplane, and RGB and white RGB for OLED deposition. As it difficult to predict which combination of technologies Samsung will adopt, we believe investors should invest in companies within the OLED supply chain that will not be significantly affected by any technology combination. Among equipment makers, SFA Engineering is one such company. The clean/vacuum logistic and module equipments that the company currently supplies and the front-end processing deposition and PE-CVD equipments that the company will likely supply going forward are equipments essential for any technological combination.

1Q13F: Revenue of W135bn (+34% YoY) and OP of 18.4bn (+128% YoY)

We expect SFA Engineering's 1Q earnings to fall slightly below our estimate. We forecast revenue of W135bn (-26% QoQ, +34% YoY) and an operating profit of W18.4bn (-45% QoQ, +128% YoY). OP margin, which reached 18.2% in 4Q thanks to 1) higher productivity, 2) the use of domestically produced parts, and 3) lower raw materials costs, will likely fall to 13.6% due to a decline in 1Q revenue.

We project new orders at W164.9bn (-32% QoQ, +46% YoY) in 1Q. Although Chinese LCD makers' investments in 8G lines were delayed, the company's 1Q orders will likely meet our expectation thanks to equipment orders (W66.4bn) for the International Thermonuclear Experimental Reactor (ITER) project. Although 1Q revenue will likely be lower than expected due to the delayed 8G equipment orders to 2Q, we expect 2Q earnings to exceed our projection. We initially projected orders and earnings to lose momentum in 2Q. However, we now expect earnings to improve steadily through 4Q after bottoming in 1Q. In 2Q, we forecast revenue of W157.9bn (+17% QoQ, +56% YoY) and an operating profit of W22.4bn (+22% QoQ, +107% YoY), 24% and 43% higher than our previous forecasts (revenue of W127.5bn and operating profit of W15.7bn), respectively.

Raise TP by 15% to W75,000; Maintain Buy

We raise our target price by 15% to W75,000 and maintain our Buy call. We revised up our 2013-14F EPS by 11% and 7%, respectively, to reflect our upwardly revised order forecast and OP margin (13.6%→14.7%) for 2013. Shares of SFA Engineering are trading at a P/E of 9.1x based on 12-month forward EPS of W6,780.

FY (Dec.)	12/10	12/11	12/12	12/13F	12/14F	12/15F
Revenue (Wbn)	632	753	481	763	955	1,075
OP (Wbn)	71	95	65	113	149	171
OP Margin (%)	11.1	12.6	13.4	14.8	15.6	15.9
NP (Wbn)	56	76	68	95	124	141
EPS (W)	3,138	4,212	3,806	5,313	6,911	7,860
ROE (%)	22.2	24.2	19.4	24.0	25.5	23.7
P/E (x)	15.6	14.5	12.4	11.1	8.5	7.5
P/B (x)	3.0	3.1	2.2	2.3	1.9	1.6

Note: All figures are based on non-consolidated K-IFRS

Source: Company data, KDB Daewoo Securities Research estimates

Table 3. 1Q13F earnings preview (under non-consolidated K-IFRS) (Wbn, %, %p)

	1Q12	4Q12	1Q13F		Growth	
			KDB Daewoo	Consensus	YoY	QoQ
Revenue	100	181	135	145	34.5	-25.6
Operating profit	8	35	18	18	127.8	-44.5
OP margin	8.0	19.1	13.6	12.6	5.6	-5.5
Pretax profit	22	36	21	21	-3.5	-41.9
Net profit	17	28	16	17	-5.3	-41.4

Source: Company data, FnGuide, KDB Daewoo Securities Research

Table 4. Earnings forecast revisions (under non-consolidated K-IFRS) (Wbn, %, %p)

	Before			Revised			% change			Comments
	12	13F	14F	12	13F	14F	12	13F	14F	
Revenue	481	734	912	481	763	955	0.0	3.9	4.7	- Assumed SDC's capacity expansion (A2 P4~P6 and A3 lines)
Operating profit	64	100	138	64	113	149	0.0	12.3	7.9	
Net profit	68	86	116	68	95	124	0.0	11.2	7.4	
EPS	3,806	4,776	6,437	3,806	5,313	6,911	0.0	11.2	7.4	
OP margin	13.4	13.6	15.2	13.4	14.7	15.6	0.0	1.1	0.5	
Net margin	14.2	11.7	12.7	14.2	12.5	13.0	0.0	0.8	0.3	
Avg. US\$/W rate	1,127	1,042	1,033	1,127	1,079	1,065	0.0	3.5	3.1	

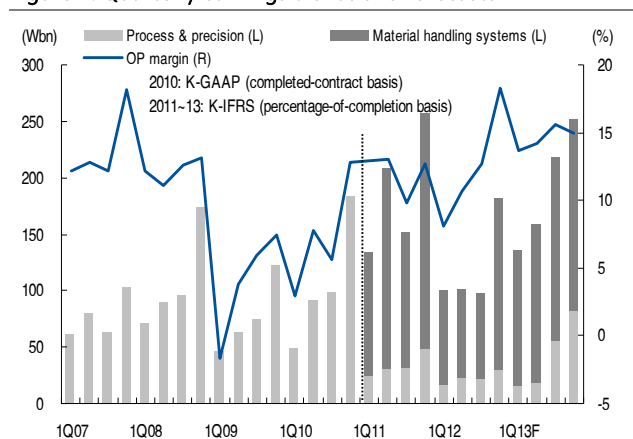
Source: KDB Daewoo Securities Research

Table 5. Earnings trends and forecasts (under non-consolidated K-IFRS) (Wbn, %)

	1Q12	2Q12	3Q12	4Q12	1Q13F	2Q13F	3Q13F	4Q13F	2012	2013F	2014F
New orders	113	120	42	242	165	147	213	263	517	788	936
Revenue	100	101	98	181	135	158	218	252	481	763	955
Process & precision	17	23	22	29	16	18	56	83	91	172	254
Material handling systems	83	78	76	152	119	140	162	169	390	590	701
Proportion of revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Process & precision	17.0	22.8	22.1	16.0	11.8	11.2	25.7	32.9	18.9	22.6	26.6
Material handling systems	83.0	77.2	77.9	84.0	88.2	88.8	74.3	67.1	81.1	77.4	73.4
Operating profit	8	11	12	33	18	22	34	38	64	113	149
OP margin	8.0	10.7	12.7	18.2	13.6	14.2	15.6	15.0	13.4	14.7	15.6
Net profit	17	12	12	28	16	19	28	31	68	95	124
Net margin	17.1	11.7	11.9	15.3	12.0	12.3	13.0	12.4	14.2	12.5	13.0

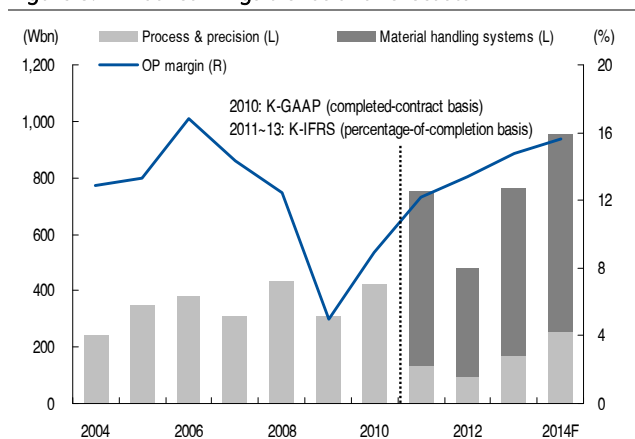
Source: Company data, KDB Daewoo Securities Research

Figure 7. Quarterly earnings trends and forecasts



Source: Company data, KDB Daewoo Securities Research

Figure 8. Annual earnings trends and forecasts



Source: Company data, KDB Daewoo Securities Research

SFA Engineering (056190 KQ/Buy/TP: W75,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Revenue	481	763	955	1,075
Cost of Sales	354	589	740	831
Gross Profit	127	173	214	244
SG&A Expenses	63	61	65	73
Operating Profit (Adj)	65	113	149	171
Operating Profit	65	113	149	171
Non-Operating Profit	24	10	10	10
Net Financial Income	-10	-12	-16	-21
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	88	122	159	181
Income Tax	20	27	35	40
Profit from Continuing Operations	68	95	124	141
Profit from Discontinued Operations	0	0	0	0
Net Profit	68	95	124	141
Controlling Interests	68	95	124	141
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	68	95	124	141
Controlling Interests	68	95	124	141
Non-Controlling Interests	0	0	0	0
EBITDA	73	118	156	178
FCF (Free Cash Flow)	18	86	122	129
EBITDA Margin (%)	15.1	15.5	16.4	16.6
Operating Profit Margin (%)	13.4	14.8	15.6	15.9
Net Profit Margin (%)	14.2	12.5	13.0	13.1

Cash Flows (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Cash Flows from Op Activities	37	104	139	146
Net Profit	68	95	124	141
Non-Cash Income and Expense	19	23	32	37
Depreciation	8	6	7	7
Amortization	0	0	0	0
Others	1	-1	-4	-10
Chg in Working Capital	-18	12	18	7
Chg in AR & Other Receivables	-28	-62	-56	-35
Chg in Inventories	6	-1	-1	-1
Chg in AP & Other Payables	18	62	56	35
Income Tax Paid	-32	-27	-35	-40
Cash Flows from Inv Activities	-31	-7	-3	2
Chg in PP&E	-5	-10	-10	-10
Chg in Intangible Assets	-9	-9	-9	-9
Chg in Financial Assets	-40	0	0	0
Others	23	12	16	21
Cash Flows from Fin Activities	-54	-17	-22	-27
Chg in Financial Liabilities	0	0	0	0
Chg in Equity	-31	0	0	0
Dividends Paid	-23	-17	-22	-27
Others	0	0	0	0
Increase (Decrease) in Cash	-48	80	114	121
Beginning Balance	75	27	107	220
Ending Balance	27	107	220	341

Source: Company data, KDB Daewoo Securities Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Current Assets	408	551	722	879
Cash and Cash Equivalents	27	107	220	341
AR & Other Receivables	159	221	277	311
Inventories	3	4	5	6
Other Current Assets	2	3	3	4
Non-Current Assets	153	168	184	198
Investments in Associates	22	22	22	22
Property, Plant and Equipment	105	109	112	115
Intangible Assets	14	23	31	40
Total Assets	561	719	907	1,076
Current Liabilities	179	249	312	351
AP & Other Payables	159	221	277	312
Short-Term Financial Liabilities	0	0	0	0
Other Current Liabilities	20	28	35	39
Non-Current Liabilities	23	34	57	74
Long-Term Financial Liabilities	0	0	0	0
Other Non-Current Liabilities	20	30	53	70
Total Liabilities	202	283	369	425
Controlling Interests	358	436	538	651
Capital Stock	9	9	9	9
Capital Surplus	20	20	20	20
Retained Earnings	378	456	558	672
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	358	436	538	651

Forecasts/Valuations (Summarized)

	12/12	12/13F	12/14F	12/15F
P/E (x)	12.4	11.1	8.5	7.5
P/CF (x)	11.1	10.5	8.1	7.1
P/B (x)	2.2	2.3	1.9	1.6
EV/EBITDA (x)	8.4	6.3	4.0	2.8
EPS (W)	3,806	5,313	6,911	7,860
CFPS (W)	4,256	5,636	7,298	8,260
BPS (W)	21,872	25,730	30,903	36,741
DPS (W)	1,000	1,300	1,600	1,800
Payout ratio (%)	24.8	23.1	21.9	21.7
Dividend Yield (%)	2.1	2.2	2.7	3.1
Revenue Growth (%)	-36.2	58.6	25.2	12.6
EBITDA Growth (%)	-28.2	63.1	32.1	14.1
Operating Profit Growth (%)	-31.9	74.5	32.7	14.6
EPS Growth (%)	-9.6	39.6	30.1	13.7
Accounts Receivable Turnover (x)	3.3	4.0	3.8	3.7
Inventory Turnover (x)	97.5	227.9	217.7	207.4
Accounts Payable Turnover (x)	3.6	4.4	4.2	4.0
ROA (%)	12.2	14.9	15.3	14.2
ROE (%)	19.4	24.0	25.5	23.7
ROIC (%)	65.8	96.3	130.7	151.2
Liability to Equity Ratio (%)	56.4	64.8	68.6	65.3
Current Ratio (%)	227.6	221.4	231.6	250.4
Net Debt to Equity Ratio (%)	-68.1	-74.2	-81.3	-85.7
Interest Coverage Ratio (x)	3,532.5	86,689.1	115,038.2	131,862.3

Duksan Hi-Metal (077360)

A slugger in the OLED league

Technology

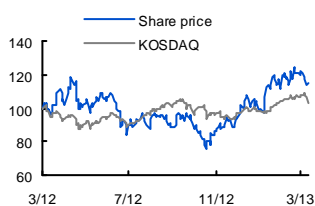
(Maintain)	Buy
Target Price (12M, W)	34,000
Share Price (04/08/13, W)	26,050
Expected Return	31%

OP (13F, Wbn)	47
Consensus OP (13F, Wbn)	49

EPS Growth (13F, %)	13.4
Market EPS Growth (13F, %)	22.9
P/E (13F, x)	16.1
Market P/E (13F, x)	9.1
KOSDAQ	528.78

Market Cap (Wbn)	766
Shares Outstanding (mn)	29
Free Float (%)	44.0
Foreign Ownership (%)	18.2
Beta (12M)	1.13
52-Week Low (W)	16,500
52-Week High (W)	28,800

(%)	1M	6M	12M
Absolute	-3.5	18.4	15.0
Relative	0.8	21.6	20.5



IT parts and materials

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OLED momentum is picking up

We believe Samsung Display (SDC) will expand investments in OLED very shortly. For mobile display, we expect SDC to add three new 5.5G A2 lines (Phases 4-6) in response to tighter supply and demand. The three new lines will have a combined capacity of 63,000 sheets per month, a 59% increase from current capacity. SDC's 6G/8G A3 line (including for TV production) is targeted to go online by 3Q14.

Following the additional investments, SDC's OLED production capacity should jump 33% in 2013, 43% in 2014, and 65% in 2015. Even after reflecting market share declines and price cuts, Duksan Hi-Metal's OLED materials revenue are projected to surge 15% in 2013, 42% in 2014, and 20% in 2015 thanks to capacity ramp-ups. Material input in terms of unit area should rise, not only from the increase in OLED panel size, but from the introduction of WRGB technology (especially factoring in poor yields early on) as well.

1Q13 preview: Earnings to fall shy of consensus

We expect Duksan Hi-Metal to report 1Q revenue of W35.6bn (-7.2% QoQ; +9.7% YoY), and an operating profit of W9.5bn (-13.6% QoQ; +2.3% YoY; OP margin of 26.6%). Despite strong semiconductor materials sales, revenue from high-margin OLED materials is anticipated to contract 10%, causing the company's operating profit to fall shy of the market consensus.

In 1Q, OLED materials revenue is forecast to decline 10.4% QoQ to W19.1bn because sales from the pilot line (TV-use) contracted, while SDC's OLED production stayed flat. Semiconductor materials revenue is expected to decrease only 3.2% QoQ to W16.5bn despite weak seasonal demand, thanks to solder ball stockpiling ahead of the launches of new mobile devices. Margins from solder ball sales are estimated to have improved on lower raw material (silver) prices.

Raise TP by 13% to W34,000; Maintain Buy rating

We maintain our Buy call on Duksan Hi-Metal and raise our target price from W30,000 to W34,000. We raised the company's 2014F EPS by 10.4% in light of SDC's OLED capacity expansion. We applied 2014F EPS instead of 12-month forward EPS in our valuation, as the company's large-area OLED line is projected to go online in 2014. We derived our target price by applying a fair P/E of 16.5x (20% discount to UDC's 2014F P/E of 21x) to our 2014F EPS of W2,048.

FY (Dec.)	12/10	12/11	12/12	12/13F	12/14F	12/15F
Revenue (Wbn)	73	129	144	167	215	251
OP (Wbn)	20	39	42	47	61	69
OP Margin (%)	27.7	30.4	29.0	28.2	28.1	27.5
NP (Wbn)	16	35	42	48	60	61
EPS (W)	638	1,181	1,426	1,618	2,048	2,085
ROE (%)	18.7	29.0	26.1	23.1	23.2	19.2
P/E (x)	31.8	21.5	14.9	16.1	12.7	12.5
P/B (x)	6.6	6.0	3.7	3.5	2.8	2.3

Note: All figures are based on non-consolidated K-IFRS

Source: Company data, KDB Daewoo Securities Research estimates

Table 6. 1Q13F earnings preview (under non-consolidated K-IFRS) (Wbn, %)

	1Q12	4Q12	1Q13F		Growth	
			KDB Daewoo	Consensus	YoY	QoQ
Revenue	32.5	38.4	35.6	36.5	9.7	-7.2
Operating profit	9.3	11.0	9.5	10.2	2.3	-13.6
OP margin	28.5	28.6	26.6	27.9	-	-
Pre-tax profit	9.5	11.6	9.8	10.4	2.9	-15.1
Net profit	9.3	10.8	9.6	10.2	3.2	-11.3

Source: Company data, KDB Daewoo Securities Research estimates

Table 7. Calculation of target price

		Comments
EPS (W)	2,048	2014F EPS
Peer P/E (x)	20.7	14F P/E of UDC (US OLED material maker)
% discount	20	Decrease in M/S due to entry of a new competitor
Applied P/E (x)	16.5	
Target price (W)	34,000	
Current price (W)	26,050	As of 4/8/2013
Expected return (%)	30.5	

Source: KDB Daewoo Securities Research estimates

Table 8. Earnings forecast revisions (under non-consolidated K-IFRS) (Wbn, %)

	Previous			Revised			% change			Comments
	13F	14F	15F	13F	14F	15F	13F	14F	15F	
Revenue	165	197	251	167	215	251	1.3	9.3	0.0	- Reflected SDC OLED capacity expansion (A2 P4~P6 and A3 lines)
Operating profit	48	56	69	47	61	69	-1.1	7.8	0.0	
Pretax profit	49	57	70	49	62	70	-0.6	8.2	0.0	- Stabilized orders from pilot line to produce OLED TV panel
Net profit	48	55	61	48	60	61	-0.6	10.4	0.0	
EPS	1,627	1,854	2,085	1,618	2,048	2,085	-0.6	10.4	0.0	
OP margin	28.9	28.5	27.5	28.2	28.1	27.5	-	-	-	
Net margin	29.0	27.7	24.4	28.5	28.0	24.4	-	-	-	

Source: KDB Daewoo Securities Research estimates

Table 9. Earnings trends and forecasts (under non-consolidated K-IFRS) (Wbn, %)

	1Q12	2Q12	3Q12	4Q12	1Q13F	2Q13F	3Q13F	4Q13F	2012	2013F	2014F	2015F
Revenue	32.5	37.0	36.0	38.4	35.6	41.3	45.8	44.2	143.8	166.9	215.2	250.9
OLED	17.7	21.7	18.7	21.4	19.1	23.0	24.7	24.3	79.4	91.2	129.9	156.2
Semiconductor	14.8	15.3	17.4	17.0	16.5	18.3	21.0	19.9	64.4	75.7	85.3	94.7
Revenue portion	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OLED	54.5	58.7	51.8	55.7	53.7	55.7	54.0	55.1	55.2	54.6	60.4	62.2
Semiconductor	45.6	41.3	48.2	44.3	46.3	44.3	46.0	44.9	44.8	45.4	39.6	37.8
Operating profit	9.3	10.6	10.9	11.0	9.5	11.2	13.4	12.9	41.7	47.0	60.5	68.9
Pretax profit	9.5	10.8	11.0	11.6	9.8	11.6	13.9	13.3	42.9	48.5	62.1	70.5
Net profit	9.3	10.9	10.9	10.8	9.6	11.3	13.6	13.0	41.9	47.5	60.2	61.3
OP margin	28.5	28.6	30.2	28.6	26.6	27.1	29.3	29.2	29.0	28.2	28.1	27.5
Net margin	28.7	29.4	30.2	28.2	27.0	27.4	29.7	29.5	29.1	28.5	28.0	24.4
Growth (QoQ/YoY)												
Revenue	-12.2	13.9	-2.5	6.5	-7.2	16.1	10.8	-3.5	11.1	16.1	28.9	16.6
OLED	-17.8	22.8	-14.0	14.4	-10.4	20.2	7.6	-1.7	13.3	14.9	42.4	20.2
Semiconductor	-4.3	3.2	13.9	-2.1	-3.2	11.3	14.8	-5.6	8.6	17.5	12.7	11.0
Operating profit	-34.6	14.0	2.9	0.8	-13.6	18.3	19.8	-3.8	5.9	12.9	28.7	13.9
Pretax profit	-12.2	13.5	1.8	4.8	-15.1	18.0	19.8	-4.1	22.5	13.0	27.9	13.5
Net profit	-14.0	16.6	0.3	-0.6	-11.3	18.0	19.8	-4.1	21.2	13.5	26.6	1.8

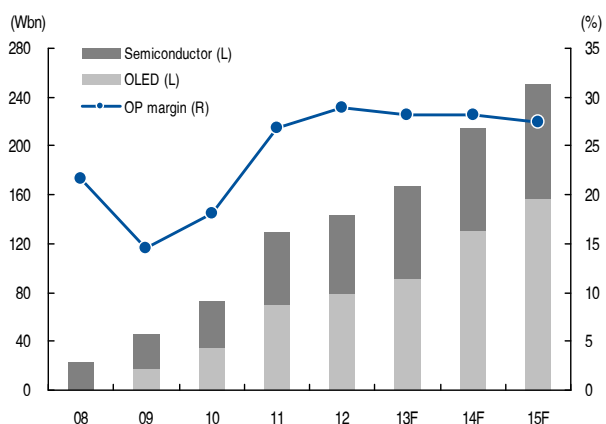
Source: KDB Daewoo Securities Research estimates

Table 10. Samsung Display's OLED capacity trends and forecasts

('000 m ²)	Type	2012				2013F				2014F				2015F			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
A1 (4G, 730 x 920)	Half	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
A2 (5.5G, 1300 x 1500)	Quarter	328	421	421	421	468	532	567	620	725	778	831	883	883	883	883	883
Phase 1	(32k/month)	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
Phase 2 (incl. flexible)	(32k/month)	140	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
Phase 3 (incl. flexible)	(24k/month)		47	47	47	94	140	140	140	140	140	140	140	140	140	140	140
Phase 4	(27k/month)					18	53	105		158	158	158	158	158	158	158	158
Phase 5	(18k/month)									105	105	105	105	105	105	105	105
Phase 6	(18k/month)										53	105	105	105	105	105	105
A3 (6G, 1500 x 1800)	Half										65	130		194	259	324	389
Phase 1	(32k/month)										65	130		194	194	194	194
Phase 2	(32k/month)													65	130	194	
V1 (8G, 2200 x 2500)	6th		50	99	99	99	99	99	99	99	99	99	99	99	99	99	99
V2 (8G, 2200 x 2500)	Half											66		132	264	528	660
Phase 1	(24k/month)											66		132	264	396	396
Phase 2	(24k/month)															132	264
Total capacity		434	577	627	627	674	738	773	826	931	984	1,101	1,285	1,416	1,612	1,941	2,138
Growth rate (%)		8.8	32.9	8.6	0.0	7.5	9.6	4.8	6.8	12.7	5.7	11.9	16.7	10.2	13.9	20.4	10.1
Duksan's M/S at SDC (%)		85.0	90.0	90.0	90.0	88.0	88.0	85.0	80.0	75.0	70.0	65.0	60.0	55.0	50.0	45.0	40.0
('000 sheets/month)	Type																
A1 (4G, 730 x 920)	Half	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
A2 (5.5G, 1300 x 1500)	Quarter	56	72	72	72	80	91	97	106	124	133	142	151	151	151	151	151
Phase 1	(32k/month)	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Phase 2 (incl. flexible)	(32k/month)	24	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Phase 3 (incl. flexible)	(24k/month)		8	8	8	16	24	24	24	24	24	24	24	24	24	24	24
Phase 4	(27k/month)						3	9	18	27	27	27	27	27	27	27	27
Phase 5	(18k/month)										18	18	18	18	18	18	18
Phase 6	(18k/month)											9	18	18	18	18	18
A3 (6G, 1500 x 1800)	Half											8	16	24	32	40	48
Phase 1	(32k/month)											8	16	24	24	24	24
Phase 2	(32k/month)														8	16	24
V1 (8G, 2200 x 2500)	6th		3	6	6	6	6	6	6	6	6	6	6	6	6	6	6
V2 (8G, 2200 x 2500)	Half												4	8	16	32	40
Phase 1	(24k/month)												4	8	16	24	24
Phase 2	(24k/month)															8	16

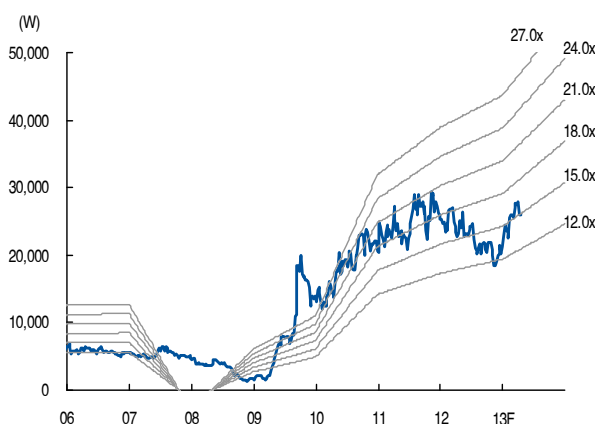
Source: DisplaySearch, KDB Daewoo Securities Research estimates

Figure 9. Annual earnings trends and forecasts



Source: KDB Daewoo Securities Research

Figure 10. 12M-fwd P/E band



Source: KDB Daewoo Securities Research

Duksan Hi-Metal (077360 KQ/Buy/TP: W34,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Revenue	144	167	215	251
Cost of Sales	84	99	128	151
Gross Profit	60	68	87	100
SG&A Expenses	18	21	27	31
Operating Profit (Adj)	42	47	61	69
Operating Profit	42	47	61	69
Non-Operating Profit	1	2	2	2
Net Financial Income	-1	-1	-1	-1
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	43	49	62	71
Income Tax	1	1	2	9
Profit from Continuing Operations	42	48	60	61
Profit from Discontinued Operations	0	0	0	0
Net Profit	42	48	60	61
Controlling Interests	42	48	60	61
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	42	47	60	61
Controlling Interests	42	47	60	61
Non-Controlling Interests	0	0	0	0
EBITDA	48	75	91	102
FCF (Free Cash Flow)	40	-4	-11	-12
EBITDA Margin (%)	33.0	45.2	42.2	40.5
Operating Profit Margin (%)	29.0	28.2	28.1	27.5
Net Profit Margin (%)	29.2	28.5	28.0	24.4

Cash Flows (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Cash Flows from Op Activities	51	72	80	90
Net Profit	42	48	60	61
Non-Cash Income and Expense	11	28	31	40
Depreciation	5	28	30	33
Amortization	1	0	0	0
Others	-5	0	0	0
Chg in Working Capital	-3	-3	-9	-2
Chg in AR & Other Receivables	-3	-2	-6	-2
Chg in Inventories	1	-2	-5	-1
Chg in AP & Other Payables	2	1	4	1
Income Tax Paid	1	-1	-2	-9
Cash Flows from Inv Activities	-53	-74	-90	-101
Chg in PP&E	-4	-75	-91	-101
Chg in Intangible Assets	-1	-1	-1	-1
Chg in Financial Assets	-49	0	0	0
Others	1	1	1	1
Cash Flows from Fin Activities	-3	0	14	11
Chg in Financial Liabilities	0	0	0	0
Chg in Equity	0	0	0	0
Dividends Paid	0	0	0	0
Others	-3	0	0	0
Increase (Decrease) in Cash	-7	-3	4	1
Beginning Balance	21	14	12	16
Ending Balance	14	12	16	16

Source: Company data, KDB Daewoo Securities Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Current Assets	89	91	106	110
Cash and Cash Equivalents	14	12	16	16
AR & Other Receivables	13	15	21	22
Inventories	12	14	19	20
Other Current Assets	2	2	3	3
Non-Current Assets	109	158	222	292
Investments in Associates	0	1	1	1
Property, Plant and Equipment	65	112	172	241
Intangible Assets	34	35	35	35
Total Assets	199	248	328	402
Current Liabilities	14	16	21	22
AP & Other Payables	10	11	15	16
Short-Term Financial Liabilities	2	2	2	2
Other Current Liabilities	2	3	4	4
Non-Current Liabilities	2	3	17	29
Long-Term Financial Liabilities	0	0	13	25
Other Non-Current Liabilities	1	2	2	3
Total Liabilities	16	19	38	52
Controlling Interests	183	230	290	350
Capital Stock	6	6	6	6
Capital Surplus	82	82	82	82
Retained Earnings	113	161	221	282
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	183	230	290	350

Forecasts/Valuations (Summarized)

	12/12	12/13F	12/14F	12/15F
P/E (x)	14.9	16.1	12.7	12.5
P/CF (x)	13.1	10.1	8.5	8.1
P/B (x)	3.7	3.5	2.8	2.3
EV/EBITDA (x)	11.9	9.4	7.9	7.2
EPS (W)	1,426	1,618	2,048	2,085
CFPS (W)	1,624	2,584	3,079	3,201
BPS (W)	5,793	7,386	9,411	11,473
DPS (W)	0	0	0	0
Payout ratio (%)	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	11.1	16.1	29.0	16.6
EBITDA Growth (%)	10.8	58.9	20.4	12.0
Operating Profit Growth (%)	5.9	12.9	28.7	13.9
EPS Growth (%)	20.8	13.4	26.6	1.8
Accounts Receivable Turnover (x)	12.7	12.0	12.1	11.7
Inventory Turnover (x)	11.8	13.2	13.2	12.8
Accounts Payable Turnover (x)	36.3	46.2	46.5	44.9
ROA (%)	23.9	21.3	20.9	16.8
ROE (%)	26.1	23.1	23.2	19.2
ROIC (%)	34.2	31.9	28.7	21.7
Liability to Equity Ratio (%)	8.7	8.1	13.3	14.7
Current Ratio (%)	647.7	582.0	506.9	492.3
Net Debt to Equity Ratio (%)	-33.4	-25.5	-16.9	-11.0
Interest Coverage Ratio (x)	645.5	1,751.4	726.5	256.4

Cheil Industries (001300)

OLED business to take off

Technology

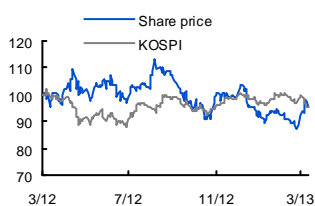
(Maintain)	Buy
Target Price (12M, W)	110,000
Share Price (04/08/13, W)	90,900
Expected Return	21%

OP (13F, Wbn)	423
Consensus OP (13F, Wbn)	405

EPS Growth (13F, %)	52.0
Market EPS Growth (13F, %)	22.9
P/E (13F, x)	15.0
Market P/E (13F, x)	9.1
KOSPI	1,918.69

Market Cap (Wbn)	4,767
Shares Outstanding (mn)	52
Free Float (%)	86.6
Foreign Ownership (%)	23.7
Beta (12M)	0.89
52-Week Low (W)	82,100
52-Week High (W)	108,500

(%)	1M	6M	12M
Absolute	4.8	-7.0	-3.3
Relative	9.2	-3.8	2.1



IT parts and materials

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OLED materials to generate revenue

Cheil Industries' OLED materials (i.e., electron-transport layers (ETL)) began contributing to revenue in late 1Q with the completion of product development. We believe ETL (Cheil's first mass-produced OLED material) has been adopted in Samsung Electronics' (SEC) Galaxy S4, and will see more meaningful shipments from 2Q. Although revenue contribution from ETL this year (W12bn in 2013F) is expected to be minimal, the commencement of supply to customers is a positive development. We believe this is a testament of Cheil's product quality and price competitiveness, paving the way for further supply to OLED TV makers.

After a two-year delay, we expect OLED materials to generate notable revenues in 2013. We expect ETL sales to increase from 2Q on the back of stronger shipments for the Galaxy S4. We also project pixel-defining layers (PDL) to add to revenue in the quarter. Cheil has developed and received client approval for another OLED material, hole-transport layers (HTL), which will likely begin shipment in 2H to Samsung Display (SDC). If flexible displays become commercialized in 2H, we see a strong likelihood of Cheil becoming SDC's sole supplier of organic materials for thin-film encapsulation. All in all, we expect OLED material revenue to grow to W35.3bn in 2013, W104bn in 2014, and W240.2bn in 2015, aided by market share gains within SDC, the release of OLED TVs, and an expanding product portfolio.

1Q13 preview: Weakness already anticipated

We anticipate sluggish earnings in 1Q, as demand remains weak for high-margin chemical products sourced directly to IT customers. We forecast 1Q revenue of W1.5tr (+4.8% YoY) and an operating profit of W73.9bn (+2% YoY), which is below the market consensus (OP of W84.8bn) but in line with our previous estimate (OP of W77.6bn).

Additionally, we foresee a turnaround at the polarizer unit and the recovery of chemical product shipments in line with demand growth driven by IT companies' inventory restocking in 2Q. We estimate the company's 2Q revenue at W1.6tr (+8.2% QoQ; +7.0% YoY) and operating profit at W109.3bn (+48% QoQ; -0.6% YoY).

Maintain Buy and TP of W110,000

We maintain our Buy rating on the stock with a target price of W110,000. The stock is currently trading at a 12-month forward P/E of 14x, a steep discount not only to its historical high (29x), but to its most recent five-year average (18x). We attribute this undervaluation to the continued retrenchment of the OLED-related premium over the past couple of years. But with OLED revenue finally gaining traction, we believe the stock's OLED premium should be restored.

FY (Dec.)	12/10	12/11	12/12	12/13F	12/14F	12/15F
Revenue (Wbn)	5,113	5,581	6,010	6,664	7,529	8,139
OP (Wbn)	330	223	322	423	537	569
OP Margin (%)	6.5	4.0	5.4	6.4	7.1	7.0
NP (Wbn)	279	259	209	317	409	435
EPS (W)	5,573	5,079	3,979	6,046	7,791	8,299
ROE (%)	11.8	8.7	6.5	9.5	11.5	11.4
P/E (x)	19.9	19.9	23.7	15.0	11.7	11.0
P/B (x)	2.0	1.9	1.7	1.6	1.5	1.4

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

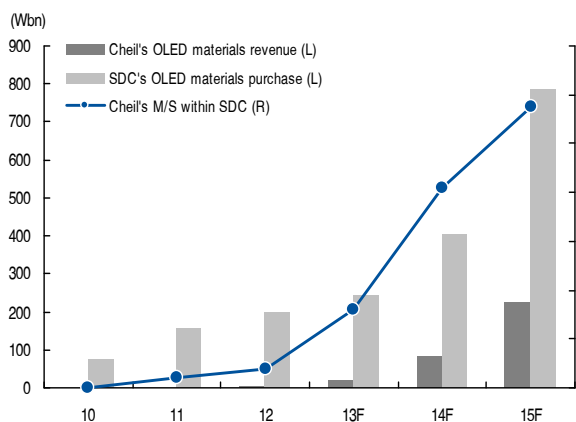
Table 11. Earnings trends and forecasts (under consolidated K-IFRS)

(Wbn, %)

	1Q12	2Q12	3Q12	4Q12	1Q13F	2Q13F	3Q13F	4Q13F	2012	2013F	2014F	2015F
Sales	1,429	1,513	1,488	1,581	1,496	1,619	1,709	1,839	6,010	6,664	7,529	8,139
Chemical	613	676	732	645	667	747	833	781	2,666	3,029	3,392	3,647
Electronic material	376	407	385	401	358	406	471	487	1,569	1,723	2,118	2,347
Fashion	429	416	357	523	461	452	392	560	1,725	1,865	1,977	2,107
Others	10	14	14	12	10	13	13	11	50	46	42	37
Sales contribution	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Chemical	42.9	44.7	49.2	40.8	44.6	46.1	48.8	42.5	44.4	45.5	45.0	44.8
Electronic material	26.3	26.9	25.9	25.3	24.0	25.1	27.6	26.5	26.1	25.9	28.1	28.8
Fashion	30.1	27.5	24.0	33.1	30.8	27.9	22.9	30.5	28.7	28.0	26.3	25.9
Others	0.7	0.9	0.9	0.7	0.6	0.8	0.7	0.6	0.8	0.7	0.6	0.5
Operating profit	72	110	64	75	74	109	122	118	322	423	537	569
Chemical	19	35	31	5	11	29	38	22	89	99	157	165
Electronic material	28	63	36	39	39	59	71	67	167	238	278	306
Fashion	26	12	-3	31	23	22	12	29	65	86	102	99
OP contribution	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Chemical	25.8	31.6	48.0	6.8	15.5	26.1	31.0	18.4	27.7	23.5	29.3	28.9
Electronic material	39.0	57.2	56.5	52.3	53.5	54.2	58.8	56.9	51.8	56.1	51.8	53.7
Fashion	35.2	10.9	-5.1	41.1	31.0	19.7	10.2	24.7	20.2	20.3	18.9	17.3
OP margin	5.1	7.3	4.3	4.8	4.9	6.8	7.1	6.4	5.4	6.4	7.1	7.0
Chemical	3.0	5.1	4.2	0.8	1.7	3.8	4.5	2.8	3.3	3.3	4.6	4.5
Electronic material	7.5	15.5	9.4	9.8	11.0	14.6	15.2	13.8	10.6	13.8	13.1	13.0
Fashion	5.9	2.9	-0.9	5.9	5.0	4.8	3.2	5.2	3.8	4.6	5.1	4.7
Pretax profit	84	86	66	57	79	98	111	108	293	397	511	544
Net profit	64	68	40	36	63	79	89	87	209	317	409	435
Growth (QoQ/YoY)												
Sales	3.3	5.9	-1.7	6.3	-5.3	8.2	5.6	7.6	7.7	10.9	13.0	8.1
Chemical	11.3	10.2	8.3	-11.8	3.4	11.9	11.6	-6.3	10.4	13.6	12.0	7.5
Electronic material	3.9	8.4	-5.4	4.0	-10.5	13.4	15.9	3.5	1.4	9.8	23.0	10.8
Fashion	-5.4	-3.2	-14.1	46.5	-11.9	-1.8	-13.4	42.9	13.4	8.1	6.0	6.6
Others	-39.9	37.5	-4.2	-16.1	-16.1	37.5	-4.2	-16.1	-48.8	-7.2	-10.2	-10.2
Operating profit	34.6	51.9	-41.7	17.4	-1.9	48.0	11.2	-2.7	44.6	31.5	26.8	6.1
Chemical	663.3	86.0	-11.5	-83.4	124.3	149.2	32.0	-42.2	70.7	11.5	57.9	4.8
Electronic material	-4.3	122.9	-42.4	8.5	0.4	50.0	20.6	-5.8	63.3	42.5	17.0	10.1
Fashion	9.0	-52.9	TTR	TTB	-25.9	-6.1	-42.4	135.7	-2.2	32.2	18.2	-2.9
Pretax profit	171.1	2.7	-22.8	-13.6	38.1	24.5	12.8	-2.6	6.3	35.3	28.9	6.5
Net profit	59.2	6.2	-40.8	-11.9	77.3	24.5	12.8	-2.6	-19.4	51.9	28.9	6.5

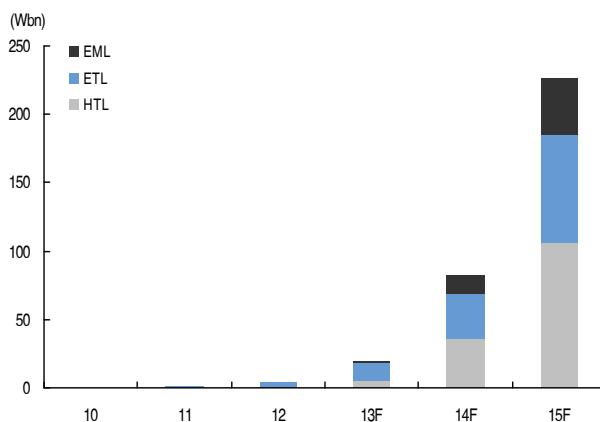
Note: "TTR" and "TTB" refer to "turning to red" and "turning to black", respectively / Source: Company data, KDB Daewoo Securities Research estimates

Figure 11. Cheil's OLED materials sales and M/S within SDC



Source: KDB Daewoo Securities Research

Figure 12. Cheil's OLED materials sales



Source: KDB Daewoo Securities Research

Cheil Industries (001300 KS/Buy/TP: W110,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Revenue	6,010	6,664	7,529	8,139
Cost of Sales	4,155	4,696	5,358	5,811
Gross Profit	1,855	1,968	2,171	2,328
SG&A Expenses	1,533	1,544	1,634	1,759
Operating Profit (Adj)	322	423	537	569
Operating Profit	322	423	537	569
Non-Operating Profit	-29	-27	-26	-25
Net Financial Income	33	40	50	51
Net Gain from Inv in Associates	-15	-6	-5	-4
Pretax Profit	293	397	511	544
Income Tax	84	79	102	-109
Profit from Continuing Operations	209	317	409	435
Profit from Discontinued Operations	0	0	0	0
Net Profit	209	317	409	435
Controlling Interests	209	317	409	435
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	76	184	276	302
Controlling Interests	76	184	276	302
Non-Controlling Interests	0	0	0	0
EBITDA	530	657	783	852
FCF (Free Cash Flow)	-309	-306	-67	82
EBITDA Margin (%)	8.8	9.9	10.4	10.5
Operating Profit Margin (%)	5.4	6.4	7.1	7.0
Net Profit Margin (%)	3.5	4.8	5.4	5.4

Cash Flows (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Cash Flows from Op Activities	139	241	439	626
Net Profit	209	317	409	435
Non-Cash Income and Expense	368	340	374	417
Depreciation	199	221	229	264
Amortization	9	13	17	19
Others	-77	30	39	41
Chg in Working Capital	-392	-337	-242	-118
Chg in AR & Other Receivables	-162	-267	-194	-81
Chg in Inventories	-171	-149	-104	-83
Chg in AP & Other Payables	53	85	60	47
Income Tax Paid	-47	-79	-102	-109
Cash Flows from Inv Activities	-459	-529	-491	-527
Chg in PP&E	-408	-500	-460	-497
Chg in Intangible Assets	-37	-37	-37	-37
Chg in Financial Assets	-34	0	0	0
Others	20	8	6	7
Cash Flows from Fin Activities	338	174	59	-102
Chg in Financial Liabilities	420	-220	-100	-100
Chg in Equity	0	0	0	0
Dividends Paid	-38	0	-38	-38
Others	-45	-48	-56	-59
Increase (Decrease) in Cash	17	-114	7	-3
Beginning Balance	96	114	0	7
Ending Balance	114	0	7	4

Source: Company data, KDB Daewoo Securities Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Current Assets	1,837	2,156	2,473	2,643
Cash and Cash Equivalents	114	0	7	4
AR & Other Receivables	679	946	1,141	1,222
Inventories	909	1,058	1,162	1,245
Other Current Assets	102	118	130	139
Non-Current Assets	3,582	3,895	4,153	4,409
Investments in Associates	99	93	88	84
Property, Plant and Equipment	1,696	1,976	2,206	2,440
Intangible Assets	463	486	507	525
Total Assets	5,419	6,051	6,626	7,052
Current Liabilities	1,004	1,039	1,063	1,072
AP & Other Payables	520	605	664	712
Short-Term Financial Liabilities	358	288	238	188
Other Current Liabilities	126	147	161	173
Non-Current Liabilities	1,157	1,570	1,883	2,036
Long-Term Financial Liabilities	912	1,204	1,407	1,452
Other Non-Current Liabilities	209	325	430	534
Total Liabilities	2,161	2,609	2,946	3,108
Controlling Interests	3,254	3,438	3,676	3,940
Capital Stock	262	262	262	262
Capital Surplus	702	702	702	702
Retained Earnings	1,538	1,855	2,226	2,623
Non-Controlling Interests	3	3	4	4
Stockholders' Equity	3,257	3,442	3,680	3,944

Forecasts/Valuations (Summarized)

	12/12	12/13F	12/14F	12/15F
P/E (x)	23.7	15.0	11.7	11.0
P/CF (x)	11.8	8.7	7.3	6.6
P/B (x)	1.7	1.6	1.5	1.4
EV/EBITDA (x)	11.5	9.5	8.2	7.5
EPS (W)	3,979	6,046	7,791	8,299
CFPS (W)	7,958	10,507	12,481	13,698
BPS (W)	54,157	57,218	61,361	66,063
DPS (W)	750	750	750	750
Payout ratio (%)	0.0	12.0	9.3	8.7
Dividend Yield (%)	0.8	0.8	0.8	0.8
Revenue Growth (%)	7.7	10.9	13.0	8.1
EBITDA Growth (%)	38.1	23.9	19.1	8.9
Operating Profit Growth (%)	44.6	31.5	26.9	6.1
EPS Growth (%)	-21.7	52.0	28.9	6.5
Accounts Receivable Turnover (x)	10.8	8.8	7.7	7.3
Inventory Turnover (x)	7.3	6.8	6.8	6.8
Accounts Payable Turnover (x)	11.9	11.9	11.9	11.8
ROA (%)	4.0	5.5	6.5	6.4
ROE (%)	6.5	9.5	11.5	11.4
ROIC (%)	7.6	9.4	10.3	9.9
Liability to Equity Ratio (%)	66.3	75.8	80.1	78.8
Current Ratio (%)	183.0	207.5	232.6	246.5
Net Debt to Equity Ratio (%)	34.5	42.4	43.6	40.6
Interest Coverage Ratio (x)	8.1	8.8	9.6	9.7

Avaco (083930)

Momentum from OLED and oxide TFT

Technology

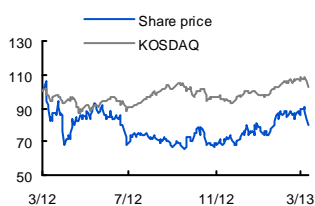
(Maintain)	Buy
Target Price (12M, W)	10,000
Share Price (04/08/13, W)	6,760
Expected Return	48%

OP (13F, Wbn)	9
Consensus OP (13F, Wbn)	9

EPS Growth (13F, %)	TTB
Market EPS Growth (13F, %)	22.9
P/E (13F, x)	14.2
Market P/E (13F, x)	9.1
KOSDAQ	528.78

Market Cap (Wbn)	108
Shares Outstanding (mn)	16
Free Float (%)	70.0
Foreign Ownership (%)	1.8
Beta (12M)	0.88
52-Week Low (W)	5,510
52-Week High (W)	9,480

(%)	1M	6M	12M
Absolute	-6.1	16.2	-10.5
Relative	-1.8	19.3	-5.1



Dipslay

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Turnaround likely this year on a surge in new orders

We forecast Avaco's new orders to surge 162% YoY from W63.1bn to W165.4bn in 2013, including W40bn in OLED equipment orders from LG Display (LGD), W50bn in LCD equipment orders from LGD's Guangzhou 8G lines, and W60bn in LCD equipment orders from BOE's 8G lines (B4/B5). Avaco took LCD conveyance equipment orders of US\$34mn from BOE's 8G lines in 1Q and received additional orders of US\$78.3bn in April.

Furthermore, Avaco has recently received conveyance equipment orders of W8.4bn from LGD. Aiming to mass-produce OLED TVs starting in 2Q14, LGD plans to convert its existing P83 LCD line to produce oxide TFTs (for use in the backplanes of OLED TVs). This year, we expect that Avaco's earnings growth will be driven by BOE's and LGD's OLED investments in 1H and by LGD's Guangzhou investments in 2H.

1QF: Revenue of W28.2bn (+64% YoY); OP of W1bn (turning to black YoY)

In 1Q, LGD decided to invest W706.3bn to build a new 8G OLED line (M2; for use in OLED TVs). Given that Avaco was a supplier of encapsulation equipment worth W7.6bn to LGD's pilot OLED line (M1) in 2012, we expect the company can take M2-related orders (including encapsulation and conveyance equipment orders) worth W40bn this year. Considering that the M2 line is meant to meet demand related to TV mass production, we estimate Avaco to receive related orders worth W40bn this year.

For 1Q, we forecast Avaco to post new orders of W37.4bn (+105% QoQ; +115% YoY), revenue of W28.2bn (+29% QoQ; +64% YoY), and an operating profit of W1bn (+19% QoQ; swinging to positive YoY). The company's 1Q earnings improvement should be minimal in light of its small order backlog (deferred from last year). However, we believe that LGD's orders should boost the company's earnings growth starting in 2Q. Our new order estimate does not include expected orders for sputtering equipment (for use in oxide TFT) due to the still-murky visibility of such orders. However, it should be noted that Avaco is the only sputtering equipment producer in Korea. We believe that oxide capacity expansion should fuel demand for sputtering equipment over the medium to long term.

Maintain Buy call with TP of W10,000

We reiterate our Buy rating with a target price of W10,000. The company boasts a stable supply of conveyance equipment and a broad product lineup (including sputtering and encapsulation equipment). We believe that Avaco should become the largest beneficiary of LGD's OLED investments. Nevertheless, the company faces risks related to longer-than-expected delays to Stion's solar PV line investments (W34.3bn) in Korea.

FY (Dec.)	12/10	12/11	12/12	12/13F	12/14F	12/15F
Revenue (Wbn)	228	249	95	156	197	218
OP (Wbn)	18	10	-1	9	15	17
OP Margin (%)	7.8	4.1	-1.1	5.7	7.8	7.8
NP (Wbn)	15	9	0	8	13	15
EPS (W)	1,173	706	-13	476	815	908
ROE (%)	26.1	12.9	-0.2	8.8	14.5	15.0
P/E (x)	10.9	13.3	-	14.2	8.3	7.5
P/B (x)	2.5	1.6	1.1	1.4	1.3	1.3

Note: All figures are based on non-consolidated K-IFRS

Source: Company data, KDB Daewoo Securities Research estimates

Table 12. 1Q13F earnings preview (under non-consolidated K-IFRS) (Wbn, %, %p)

	1Q12	4Q12	1Q13F		Growth	
			KDB Daewoo	Consensus	YoY	QoQ
Revenue	17	22	28	-	63.5	28.5
Operating profit	-2	1	1	-	TTB	18.6
OP margin	-13.4	3.9	3.6	-	17.1	-0.3
Pretax profit	-2	1	1	-	TTB	7.5
Net profit	-1	1	1	-	TTB	2.5

Note: "TTB" refers to "turning to black". Consensus does not exist as only KDB Daewoo Securities Research provides earnings forecasts. / Source: Avaco, FnGuide, KDB Daewoo Securities Research estimates

Table 13. Earnings forecast revisions (under non-consolidated K-IFRS) (Wbn, %, %p)

	Before			Revised			% Change			Comment
	12	13F	14F	12	13F	14F	12	13F	14F	
Revenue	95	155	196	95	156	197	0.0	0.6	0.6	- Favorable US\$/W rate
Operating profit	-1	9	15	-1	9	15	TTR	1.8	1.4	
Net profit	0	7	13	0	8	13	TTR	1.8	1.4	
EPS	-13	467	804	-13	476	815	TTR	1.8	1.4	
OP margin	-1.1	5.7	7.7	-1.1	5.7	7.8	0.0	0.1	0.1	
Net margin	-0.2	4.8	6.6	-0.2	4.9	6.6	0.0	0.1	0.1	
Avg. US\$/W rate	1,126	1,064	1,045	1,126	1,079	1,065	0.0	1.4	1.9	

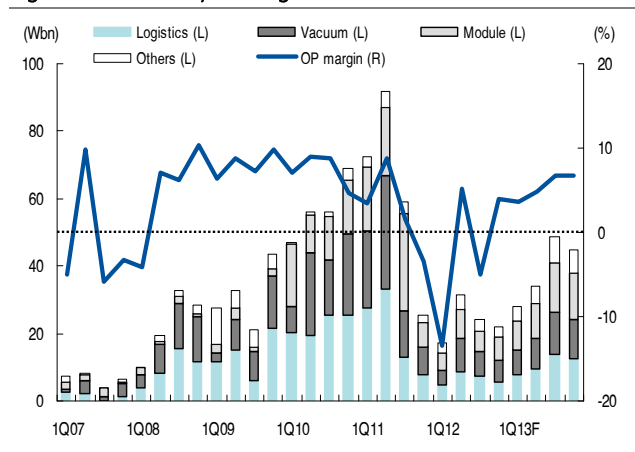
Note: "TTR" refers to "turning to red" / Source: KDB Daewoo Securities Research estimates

Table 14. Quarterly earnings trends and forecasts (under non-consolidated K-IFRS) (Wbn, %)

	1Q12	2Q12	3Q12	4Q12	1Q13F	2Q13F	3Q13F	4Q13F	2012	2013F	2014F
New orders	17.4	21.4	6.0	18.2	37.4	39.8	47.1	42.2	63.1	166.4	198.7
Revenue	17.2	31.4	24.1	21.9	28.2	34.0	48.7	44.8	94.7	155.6	197.0
Logistics	4.8	8.7	7.4	5.8	7.8	9.4	13.6	12.6	26.6	43.3	48.9
Vacuum	4.1	9.9	7.3	6.1	7.3	9.1	12.6	11.4	27.4	40.4	53.0
Module	5.3	8.4	5.9	7.1	8.6	10.3	14.9	13.7	26.7	47.5	64.7
Others	3.1	4.5	3.5	2.9	4.4	5.3	7.6	7.0	14.0	24.4	30.4
Proportion of revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Logistics	27.6	27.6	30.8	26.3	27.7	27.6	27.9	28.1	28.1	27.8	24.8
Vacuum	23.8	31.4	30.2	27.9	26.0	26.7	25.9	25.6	28.9	26.0	26.9
Module	30.6	26.7	24.5	32.5	30.6	30.2	30.6	30.7	28.2	30.5	32.8
Others	18.0	14.2	14.4	13.2	15.8	15.5	15.6	15.7	14.7	15.7	15.4
Operating profit	-2.3	1.6	-1.2	0.9	1.0	1.6	3.3	3.0	-1.0	8.9	15.3
OP margin	-13.4	5.2	-5.0	3.9	3.6	4.7	6.7	6.8	-1.1	5.7	7.8
Net profit	-1.3	1.4	-1.2	0.9	0.9	1.4	2.8	2.6	-0.2	7.6	13.0
Net margin	-7.5	4.6	-5.0	3.9	3.1	4.1	5.7	5.8	-0.2	4.9	6.6

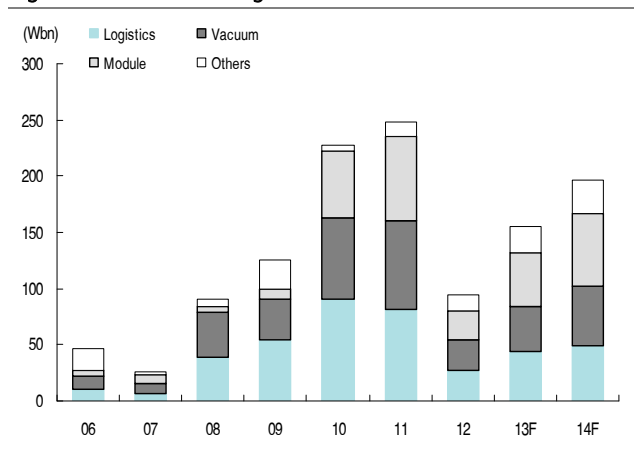
Source: Company data, KDB Daewoo Securities Research estimates

Figure 13. Quarterly earnings trends and forecasts



Source: Company data, KDB Daewoo Securities Research

Figure 14. Annual earnings trends and forecasts



Source: Company data, KDB Daewoo Securities Research

Avaco (083930 KQ/Buy/TP: W10,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Revenue	95	156	197	218
Cost of Sales	89	139	173	192
Gross Profit	6	17	24	26
SG&A Expenses	7	8	8	9
Operating Profit (Adj)	-1	9	15	17
Operating Profit	-1	9	15	17
Non-Operating Profit	1	0	0	0
Net Financial Income	0	1	4	6
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	0	9	15	17
Income Tax	0	1	2	3
Profit from Continuing Operations	0	8	13	15
Profit from Discontinued Operations	0	0	0	0
Net Profit	0	8	13	15
Controlling Interests	0	8	13	15
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	-7	0	6	7
Controlling Interests	-7	0	6	7
Non-Controlling Interests	0	0	0	0
EBITDA	0	10	18	20
FCF (Free Cash Flow)	-16	-29	-8	2
EBITDA Margin (%)	0.4	6.7	8.9	9.1
Operating Profit Margin (%)	-1.1	5.7	7.8	7.8
Net Profit Margin (%)	-0.2	4.9	6.6	6.7

Cash Flows (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Cash Flows from Op Activities	-7	-20	-1	9
Net Profit	0	8	13	15
Non-Cash Income and Expense	4	3	5	5
Depreciation	1	1	1	1
Amortization	0	1	1	2
Others	-2	1	4	6
Chg in Working Capital	-10	-29	-16	-8
Chg in AR & Other Receivables	12	-51	-27	-13
Chg in Inventories	0	-2	-1	-1
Chg in AP & Other Payables	-23	20	10	5
Income Tax Paid	0	-1	-2	-3
Cash Flows from Inv Activities	-9	-7	-7	-7
Chg in PP&E	0	-2	-2	-2
Chg in Intangible Assets	-5	-5	-5	-5
Chg in Financial Assets	-4	0	0	0
Others	0	1	0	0
Cash Flows from Fin Activities	19	26	4	-2
Chg in Financial Liabilities	1	0	0	0
Chg in Equity	19	0	0	0
Dividends Paid	-1	0	0	0
Others	1	-1	-5	-6
Increase (Decrease) in Cash	3	-1	-4	0
Beginning Balance	1	5	4	0
Ending Balance	5	4	0	0

Source: Company data, KDB Daewoo Securities Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/12	12/13F	12/14F	12/15F
Current Assets	61	114	138	152
Cash and Cash Equivalents	5	4	0	0
AR & Other Receivables	49	101	128	141
Inventories	2	4	6	6
Other Current Assets	0	1	1	1
Non-Current Assets	64	70	76	80
Investments in Associates	0	0	0	0
Property, Plant and Equipment	29	30	31	32
Intangible Assets	6	11	15	19
Total Assets	125	184	214	233
Current Liabilities	34	58	70	76
AP & Other Payables	19	39	49	55
Short-Term Financial Liabilities	11	11	11	11
Other Current Liabilities	4	8	9	10
Non-Current Liabilities	4	39	51	56
Long-Term Financial Liabilities	0	27	36	40
Other Non-Current Liabilities	1	8	11	12
Total Liabilities	38	97	121	132
Controlling Interests	87	87	93	101
Capital Stock	8	8	8	8
Capital Surplus	41	41	41	41
Retained Earnings	44	52	65	79
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	87	87	93	101

Forecasts/Valuations (Summarized)

	12/12	12/13F	12/14F	12/15F
P/E (x)	-	14.2	8.3	7.5
P/CF (x)	75.2	11.9	7.1	6.3
P/B (x)	1.1	1.4	1.3	1.3
EV/EBITDA (x)	290.2	13.9	8.9	8.1
EPS (W)	-13	476	815	908
CFPS (W)	79	569	956	1,076
BPS (W)	5,248	4,975	5,082	5,306
DPS (W)	0	0	0	0
Payout ratio (%)	-0.5	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	-61.9	64.3	26.6	10.4
EBITDA Growth (%)	-97.0	2,885.1	68.8	12.4
Operating Profit Growth (%)	TTR	TTB	71.7	11.3
EPS Growth (%)	TTR	TTB	71.3	11.3
Accounts Receivable Turnover (x)	1.7	2.1	1.8	1.7
Inventory Turnover (x)	40.2	47.4	39.4	37.0
Accounts Payable Turnover (x)	3.3	5.9	4.9	4.6
ROA (%)	-0.2	4.9	6.6	6.5
ROE (%)	-0.2	8.8	14.5	15.0
ROIC (%)	-1.8	9.2	11.7	11.3
Liability to Equity Ratio (%)	43.8	110.9	129.9	131.8
Current Ratio (%)	179.3	197.3	197.6	200.1
Net Debt to Equity Ratio (%)	2.5	34.5	45.7	46.1
Interest Coverage Ratio (x)	-3.5	6.5	3.3	3.0

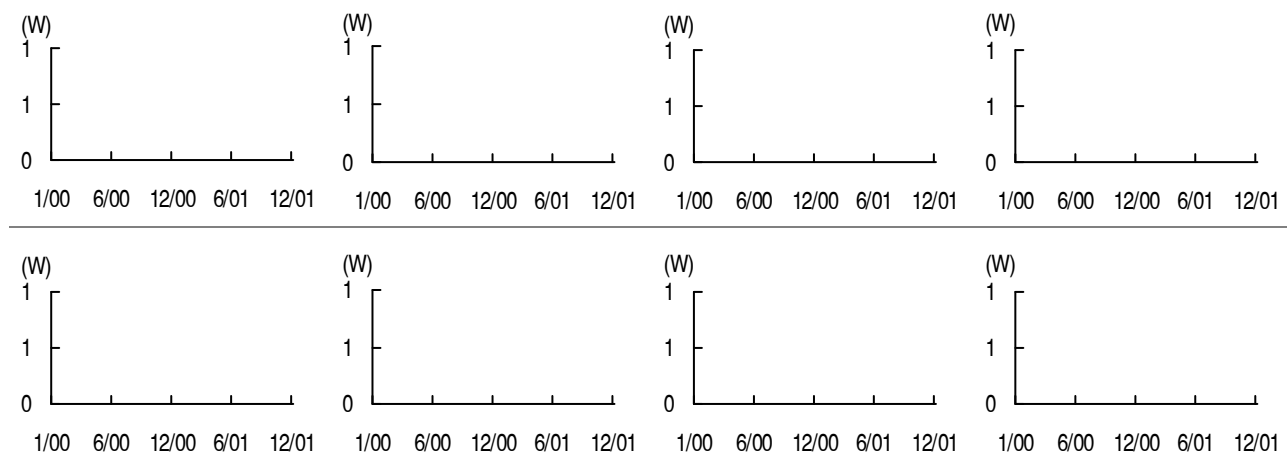
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