

How to be upwardly mobile

2014 Outlook for Global Technology

- Mobile devices feature heavily in our 8 key investment themes for global tech in 2014
- We highlight Lenovo, MediaTek, Hon Hai, Catcher, SK Hynix, and Iljin Display as beneficiaries of the rise of mobile gadgets
- In the Japan tech space, we like Sony, Hitachi Kokusai Electric, and Nidec



Eric Chen

(852) 2773 8702
eric.chen@hk.daiwacm.com

Takumi Sado

(81) 3 5555 7085
takumi.sado@daiwa.co.jp

Global Tech Team

How to be upwardly mobile

2014 Outlook for Global Technology

- Mobile devices feature heavily in our 8 key investment themes for global tech in 2014
- We highlight Lenovo, MediaTek, Hon Hai, Catcher, SK Hynix, and Iljin Display as beneficiaries of the rise of mobile gadgets
- In the Japan tech space, we like Sony, Hitachi Kokusai Electric, and Nidec



Eric Chen

(852) 2773 8702
eric.chen@hk.daiwacm.com

Takumi Sado

(81) 3 5555 7085
takumi.sado@daiwa.co.jp

Global Tech Team

■ What's new

We identify 9 stocks that we believe will be the big beneficiaries of our mobile-centric themes for 2014.

■ What's the impact

Our themes are as follows: 1) Apple, Samsung Electronics (SEC), and the China brands are likely to set the pace for smartphone shipment growth, 2) an increase in the content value of smartphones, especially memory and application processors (APs), 3) growth in demand for OLED displays as a differentiator in high-end phones, 4) strong growth in SEC's tablet shipments, favouring the tablet supply chain, 5) select

Japan tech firms should benefit from robust demand in key sub-segments, 6) strong demand from emerging 4G infrastructure for content, cloud computing and analytics, 7) demand for micro-electro-mechanical systems (MEMS)/sensor chips, and 8) a new wave of wearable/mobile devices (autos, healthcare).

■ What we recommend

We forecast global smartphone shipments to expand by 26% YoY to 1.3bn units in 2014, and believe smartphones are entering a volume-growth stage whereby premium brands and high-performance/low-cost devices will stand out. We see **Lenovo**, **MediaTek**, **Hon Hai**, **Precision Industry**, and **Catcher Technology** as beneficiaries.

We expect the semiconductor content value of smartphones and tablets to continue rising as specs improve. **SK Hynix** offers sound exposure here, in our view.

We forecast more modest declines in 2014 (vs. 2013E) of 4% YoY in global PC shipments (to 302m units), and

4.5% YoY in global notebook shipments (to 172m units), due to: 1) the growing popularity of Android- and Windows-based tablets and smartphones, and 2) 2-in-1 devices, driven by Intel's Bay Trail chips.

Lenovo will be the main beneficiary of this theme, in our view.

We forecast SEC's tablet-PC shipments to rise by 41% YoY for 2014, much higher than the 24% YoY growth we forecast for its smartphones, and hence prefer SEC's tablet supply chain. We like **Iljin Display** for its high revenue exposure (68%) to SEC.

In Japan tech, we see several catalysts: 1) steady growth in demand for automotive electronics, 2) component requirements from China smartphones (high-end models), 3) high growth in memory makers' equipment capex, and 4) major restructuring. We focus on **Nidec** (auto electronics), **Sony** (consumer electronics) and **Hitachi Kokusai Electric** (semi production equipment).

■ Daiwa's global tech picks for 2014

Company	BBG code	Rating	Target price (LC)	Upside (%)	Daiwa comments
Lenovo	992 HK	Buy	10.7	18.8	Best positioned in the PC hardware sector, with wide coverage of growing product segments, namely smart- or 2-in-1 devices
Nidec	6594 JP	Buy	12,000	14.5	Acquisition synergies should emerge and automotive-product segment should benefit from rising use of its electronic systems
Hitachi Kokusai Electric	6756 JP	Outperform	1,530	2.3	Tight DRAM supply should trigger the memory makers' to add capacity, which should bolster earnings
Sony	6758 JP	Buy	2,700	42.6	Game business offers medium-to long-term earnings-growth potential
SK Hynix	000660 KS	Buy	44,000	13.3	Solid fundamentals should stay underpinned by resilient DRAM price trend and strong DRAM demand for mobile devices
Iljin Display	020760 KS	Buy	23,000	58.1	SEC's likely strong tablet-PC shipment growth should be a share-price catalyst given high revenue exposure to SEC
MediaTek	2454 TT	Buy	526	27.7	Beneficiary of China smartphone market growth, with ASP and margins likely improving on rising shipments of its octa-core APs
Hon Hai	2317 TT	Buy	91	13.0	Set to benefit from Apple's product upgrades in 2014 with its leading position in the smartphone manufacturing space
Catcher	2474 TT	Outperform	222	11.3	Product shipments could surprise positively, in particular for Apple and Sony smartphones and the iPad mini

Source: Daiwa

Note: based on 9 January 2014 closing prices

Sector stocks: key indicators

Company Name	Stock code	Share Price	Rating		Target price (local curr.)			EPS (local curr.)					
			New	Prev.	New	Prev.	% chg	FY1			FY2		
								New	Prev.	% chg	New	Prev.	% chg
Catcher Technology	2474 TT	199.50	Outperform	Outperform	222.00	222.00	0.0%	18.627	18.627	0.0%	18.480	18.480	0.0%
Hon Hai Precision Industry	2317 TT	80.50	Buy	Buy	91.00	91.00	0.0%	7.743	7.743	0.0%	8.555	8.555	0.0%
Ijii Display	020760 KS	14,550	Buy	Buy	23,000	23,000	0.0%	2,204	2,204	0.0%	2,807	2,807	0.0%
Lenovo Group	992 HK	9.01	Buy	Buy	10.70	10.70	0.0%	0.079	0.079	0.0%	0.095	0.095	0.0%
MediaTek	2454 TT	412.00	Buy	Buy	526.00	526.00	0.0%	20.083	20.083	0.0%	26.306	26.306	0.0%
SK Hynix	000660 KS	38,850	Buy	Buy	44,000	44,000	0.0%	3,633	3,633	0.0%	4,871	4,871	0.0%
Nidec	6594 JP	10,480	Buy	Buy	12,000	12,000	0.0%	427.81	427.81	0.0%	561.96	561.96	0.0%
Hitachi Kokusai Electric	6756 JP	1,495	Outperform	Outperform	1,530	1,530	0.0%	98.27	98.27	0.0%	105.08	105.08	0.0%
Sony	6758 JP	1,894	Buy	Buy	2,700	2,700	0.0%	19.3	19.3	0.0%	52	52	0.0%

Source: Daiwa forecasts

Contents

How to be upwardly mobile	6
Global tech: sector by sector	9
Asia semiconductor	10
Asia smartphone/handset	13
Asia PC/notebook	16
Korea hardware	18
Korea handset components	20
Japan electronic components	22
Japan semiconductor production equipment	25
Japan precision instruments	27
Japan consumer electronics	28
US hardware	30
Global software	32
Global tech: Daiwa's stock picks	34
Asia semiconductor – MediaTek	35
Asia smartphone/handset – Hon Hai Precision Industry	38
Asia PC/notebook – Catcher Technology	41
Asia PC/notebook – Lenovo	44
Korea hardware – SK Hynix	47
Korea handset components – Iljin Display	50
Japan electronic components – Nidec	53
Japan SPE – Hitachi Kokusai Electric	57
Japan consumer electronics – Sony	60
Global tech universe	62

Daiwa's Global Tech Team

Hong Kong



Eric CHEN

Semiconductors (Regional)

(852) 2773 8702

eric.chen@hk.daiwacm.com

Advanced Semiconductor Engineering (2311 TT)
Kinsus Interconnect Technology (3189 TT)
MediaTek (2454 TT)
Semiconductor Manufacturing Int'l Corp (981 HK)
Siliconware Precision (2325 TT)
Taiwan Semiconductor Manufacturing (2330 TT)
United Microelectronics (2303 TT)

Korea



Jae H. LEE

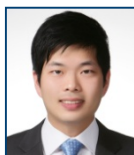
Korea IT Hardware

(82) 2 787 9173

jhlee@kr.daiwacm.com

Advanced Process Systems (054620 KS)
Samsung Electronics (005930 KS)
SK Hynix (000660 KS)
Wonik IPS (030530 KS)
LG Display (034220 KS)
LG Electronics (066570 KS)
Samsung SDI (006400 KS)

SFA Engineering Corp (056190 KS)



Joshua OH

Korea Handset Components

(82) 2 787 9176

joshua.oh@kr.daiwacm.com

Duksan Hi-Metal (077360 KS)
Iljin Display (020760 KS)
Interflex (051370 KS)
LG Innotek (011070 KS)
Melfas Inc (096640 KS)
Samsung Electro-Mechanics (009150 KS)
Soulbrain (036830 KS)

Taiwan



Steven TSENG

PC/Notebook Hardware

(886) 2 8758 6252

steven.tseng@daiwacm-cathay.com.tw

Acer (2353 TT)
ASUSTeK Computer (2357 TT)
Casetek Holdings (5264 TT)
Catcher Technology (2474 TT)
Compal Electronics (2324 TT)
Foxconn Technology (2354 TT)
Ju Teng International (3336 HK)

Lenovo Group (992 HK)
Pegatron Corp (4938 TT)
Quanta Computer (2382 TT)
Simplo Technology (6121 TT)
Wistron (3231 TT)



Christine WANG

Automation

(886) 2 8758 6249

christine.wang@daiwacm-cathay.com.tw

Advantech (2395 TT)
Chroma ATE (2360 TT)
Delta Electronics (2308 TT)
Hiwin Technologies Corp (2049 TT)



Kylie HUANG

Handsets & Components

(886) 2 8758 6248

kylie.huang@daiwacm-cathay.com.tw

AAC Technologies (2018 HK)
HTC Corp (2498 TT)
Hon Hai Precision Industry (2317 TT)
Largan Precision (3008 TT)
TPK (3673 TT)
TXC Corp (3042 TT)



Lynn CHENG

Semiconductors

(852) 2773 8822

lynn.cheng@hk.daiwacm.com

Sunny Optical Technology (2382 HK)
Novatek Microelectronics (3034 TT)
Realtek Semiconductor (2379 TT)

Daiwa's Global Tech Team (cont'd)

Japan



Takumi SADO

Electronic Components

(81) 3 5555 7085

takumi.sado@daiwa.co.jp

Ibiden (4062 JP)
Minebea (6479 JP)
Mabuchi Motor (6592 JP)
Nidec (6594 JP)
Sanken Electric (6707 JP)
TDK (6762 JP)
Mitsumi Electric (6767 JP)
Alps Electric (6770 JP)
Nihon Dempa Kogyo (6779 JP)
Hosiden (6804 JP)

Hirose Electric (6806 JP)
Japan Aviation Electronics Industry (6807 JP)
Iriso Electronics (6908 JP)
Rohm (6963 JP)
Kyocera (6971 JP)
Taiyo Yuden (6976 JP)
Murata Manufacturing (6981 JP)
Nitto Denko (6988 JP)
Nippon Chemi-Con (6997 JP)



Hirokazu MITSUDA

**Semiconductor Production
Equipment, Precision Instrument**

(81) 3 5555 7124

hirokazu.mitsuda@daiwa.co.jp

Fujifilm Holdings (4901 JP)
Konica Minolta (4902 JP)
Disco (6146 JP)
Brother Industries (6448 JP)
Seiko Epson (6724 JP)
Hitachi Kokusai Electric (6756 JP)
Advantest (6857 JP)
Ushio (6925 JP)

Nikon (7731 JP)
Dainippon Screen Mfg. (7735 JP)
Hoya (7741 JP)
Canon (7751 JP)
Ricoh (7752 JP)
Tokyo Electron (8035 JP)
Hitachi High-Technologies (8036 JP)



Junya AYADA

**Consumer Electronics, Precision
Instruments**

(81) 3 5555 7091

junya.ayada@daiwa.co.jp

Panasonic (6752 JP)
Sharp (6753 JP)
Fujitsu General (6755 JP)
Sony (6758 JP)
Pioneer (6773 JP)
Alpine Electronics (6816 JP)
Funai Electric (6839 JP)

Casio Computer (6952 JP)
Olympus (7733 JP)
Citizen Holdings (7762 JP)

United States



Kazuya NISHIMURA

US Software

(1) 212-612-6114

kazuya.nishimura@us.daiwacm.com

Amazon Com (AMZN US)
eBay (EBAY US)
Google (GOOG US)
International Business Machines (IBM US)
Linkedin (LNKD US)
Microsoft (MSFT US)
Netflix, Inc. (NFLX US)

Oracle (ORCL US)
priceline.com (PCLN US)
Yahoo! (YHOO US)
Salesforce.com (CRM US)
Facebook (FB US)



Yoko YAMADA

US Electronics

(1) 212-612-6102

yoko.yamada@us.daiwacm.com

Apple (AAPL US)
Cisco Systems (CSCO US)
EMC (EMC US)
F5 Networks (FFIV US)
Hewlett-Packard (HPQ US)
Intel (INTC US)
Juniper Networks (JNPR US)

Nokia (NOK1V FH)
QUALCOMM (QCOM US)
Seagate Technology (STX US)
Texas Instruments (TXN US)
Vmware (VMW US)
Western Digital (WDC US)

How to be upwardly mobile

Eight key themes for 2014

Daiwa's tech strategy for 2014 centres on 8 key themes, all of which are connected to the strong growth we expect in demand for mobile devices this year.

1) We forecast global smartphone shipments to rise by 26% YoY in 2014, with Apple (major new product upgrades), SEC (strong smartphone product portfolio) and the China brands (providing low-priced but high-performing handsets) likely to fare the best in terms of shipment growth. **MediaTek**, **Hon Hai**, **Lenovo** and **Catcher** are our favoured picks to benefit from robust smartphone shipment growth.

2) We expect the semiconductor content value of smartphones to increase, on the back of the rising use in smartphones of mobile DRAM, NAND Flash and application processors (APs), due to higher AP speeds and more advanced hardware specs. We see **SK Hynix** as the main beneficiary of this theme, as a major supplier of smartphone semiconductor components.

3) Flexible displays could be adopted as a differentiator in high-end smartphones, which should drive growth in demand for OLED displays.

4) We forecast SEC's shipments of tablet PCs to rise by 41% YoY for 2014, and prefer its tablet-PC supply chain over its smartphone supply chain. **Iljin Display**, with its high revenue exposure to SEC, is our top pick in the Korea handset component space.

5) Some Japan tech companies stand to benefit from the strong demand for smartphone components, memory equipment and automotive electronics, notably Nidec and Hitachi Kokusai Electric.

6) We envisage high demand from emerging 4G infrastructure for content, cloud computing and analytics.

7) Demand for micro-electro-mechanical systems (MEMS)/sensor chips is likely to be driven by new Android operating system (OS) support for more sensors.

8) Finally, we expect demand for electronic components to be driven by a new wave of wearable gadgets and devices for use in the auto and medical-care fields. Some of the electronic-component makers, such as **Sony**, should benefit from this trend.

Sector summary

Asia semiconductors

We forecast semiconductor revenue globally to increase by 7% YoY for 2014, with the top foundry and fabless players (eg, Taiwan Semiconductor Manufacturing [TSMC] and MediaTek) likely to outperform backend players (like Advanced Semiconductor Engineering [ASE] and Siliconware Precision [SPIL]) in terms of top-line growth, on the back of robust demand in China's mobile device market and industry consolidation among Asia semiconductor players.

In this context, we expect the following trends to provide business-growth and share-price catalysts for Asia semiconductor firms during 2014 : 1) the content value of smartphones and tablets looks poised to increase on the back of growing use of application processors (AP), mobile DRAM, NAND Flash, and sensor ICs, 2) roll-outs of 4G licences should result in an increase in the available bandwidth and thus in cloud-computing demand, and 3) demand for micro-MEMS and sensor chips is likely to be driven by new Android OS and a new wave of wearable gadgets.

Asia smartphone/handsets

We project global smartphone shipments to grow by 26% YoY to 1.3bn units for 2014 (from 1.0bn units we forecast for 2013) driven by demand in Asia markets, for Apple and SEC's premium brands, and for low-end and mid-range smartphones. Against a backdrop of fiercer competition, leading brands such as Apple (we expect its new products to contain major spec upgrades) and SEC (with a portfolio spanning the full smartphone range) are likely to try and become more competitive with their respective offerings, while China brands should also be market-share winners given their efforts to provide low-priced but high-performing handsets. We expect spec upgrades to continue but believe product differentiation will become harder to achieve.

Asia PC/notebooks

Following a 10% YoY decline (to 315m units) we expect for 2013, we forecast global PC shipments to dip by a more modest 4% YoY (to 302m units) in 2014, and global notebook shipments to decline by 4.5% YoY (to 172m units) this year (compared with a 12% YoY decline we expect for 2013).

We see 3 major drivers for Asia PC- and notebook-related companies in 2014: 1) Android- and Windows-based tablets and smartphones are likely to become more important drivers for PC original equipment manufacturers (OEM), 2) Intel's assertive push to market its Bay Trail chips could help the growth of 2-in-1 devices (such as combined notebook/tablets) and 3) we expect PC demand from corporates to remain solid.

Korea IT hardware

We believe Korea makers of end-electronic tech devices will actively seek ways to differentiate their products so as to avoid market-share erosion during 2014. For instance, we expect SEC to change the design of its flagship smartphones this year. Also, flexible displays could be adopted in high-end smartphones of SEC and others in an effort to differentiate them, which would drive growth in demand for OLED displays. We remain positive on the outlook for the memory-chip market for 2014, as inventory levels in the market are currently very low.

Korea handset components

Though our industry research indicates that Korea handset-component companies suffered from weaker component orders versus market expectations and increased pricing pressure in 2013, the sector stands to benefit in 2014 from SEC's planned launches of new smartphones (and cutting-edge specs for its Galaxy S5) and tablet PCs. As noted, for 2014 we forecast SEC's tablet-PC shipments to rise by 41% YoY, compared with 24% YoY growth for its smartphone shipments.

Japan electronic components

We maintain our positive view on the Japan Electronic Components Sector for 2014, as we still expect some benefits from the Yen's depreciation last year to flow through to cost competitiveness and earnings. Also, some Japan electronic-component makers look well placed to benefit from the following trends: 1) a continuous steady rise in the number of electronic components used in automobiles, 2) strong global smartphone market growth and a shift towards high-performance models in China, and 3) new features for high-end smartphones.

Regarding the second and third points, wireless technology spectrum upgrades in China (from 2G to 3G and then 4G) could result in smartphones being equipped with more advanced components, thereby enhancing Japan component makers' exposure to China's fast-growing smartphone market.

Japan semiconductor production equipment (SPE)

We project Japan's semiconductor makers to increase their capex by 5% YoY for 2014, and within this we forecast almost an 8% YoY increase in capex by memory-chip makers. Smartphones and tablet PCs are likely to remain the key business-growth drivers for the Japan SPE sector in 2014, especially China's smartphone market (which took off in 2013 and for which Daiwa forecasts even stronger sales-growth momentum in 2014). Mobile DRAM demand looks set to be particularly significant for the SPE sector, as we forecast the DRAM per handset to double YoY over 2014.

Japan precision instruments

We believe the market's focus on Japan's precision-instrument sector in 2014 will be on whether demand for cameras with interchangeable lenses is likely to recover, and whether companies in the sector will be able to increase sales volumes so that they see a relatively high profit margin, given that the favourable effect on profitability of last year's Yen depreciation is likely to fade this year.

Japan consumer electronics

The sector's key focus in 2014 is likely to revolve around the progress in structural reforms (such as Panasonic's cost-cutting drive), the prospects for businesses that we believe still offer solid growth potential (eg, gaming), and new business areas and operations (such as adapting consumer technology for use in medical applications).

US hardware

We believe a large number of US (as well as European) hardware manufacturers will see market-share erosion in 2014. This is because: 1) though Daiwa forecasts double-digit YoY growth in both shipments and revenue for global smartphones, from a geographical standpoint this should be driven by emerging markets (notably Asia), and 2) Daiwa forecasts global PC shipments to decline further by both value and volume this year.

Also, we believe the US hardware firms related to IT investment will continue to suffer from sluggish sales and earnings growth in 2014, as we expect IT spending growth to remain modest over the year.

US software

We believe a sharp rebound in overall IT spending is unlikely in 2014 as a result of forced US Government spending cuts from January-March, and thus foresee continued moderate growth (as in 2013). Cloud computing looks set to remain the key theme for the US Software Sector, and we expect cloud computing to increase its contribution to US software companies' earnings this year. Within cloud computing, our eyes are on the enterprise resource planning (ERP) field, which we believe offers the highest growth prospects within the US software space.

Global tech: sector by sector

Asia semiconductor

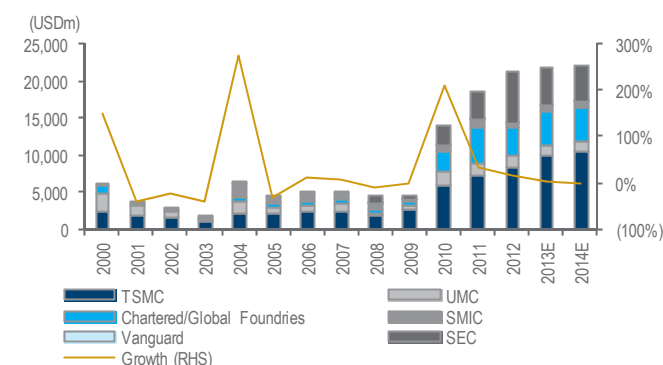
Eric Chen
(eric.chen@hk.daiwacm.com)

Lynn Cheng
(lynn.cheng@hk.daiwacm.com)

What happened in 2013?

- 2013 saw the China smartphone/tablet PC supply chain outperform the global brands' supply chain for these products in terms of share-price performances. Reflecting this, the share prices of semiconductor makers with exposure to the China smartphone market fared well, notably MediaTek and Spreadtrum Communications (Spreadtrum) in the mobile AP space, and SK Hynix in the mobile DRAM segment.
- In addition, big semiconductor players outperformed their peers in terms of market-share gains, and their share prices outpaced those of their peers and their respective country indices over 2013. For example, on both of the above criteria, Qualcomm outperformed among the US fabless players, while Taiwan Semiconductor Manufacturing (TSMC) outperformed among the Asia foundry players.

Major foundry players: capex trend

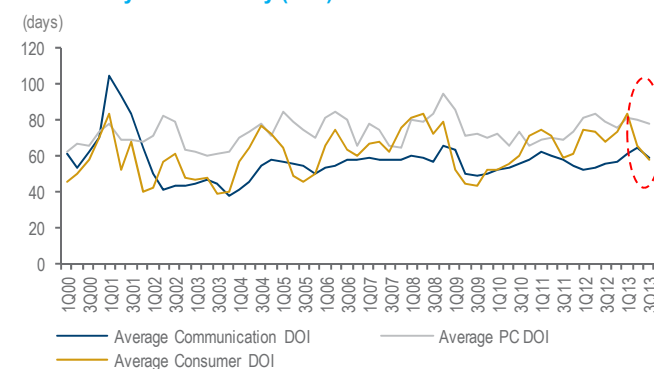


Source: Bloomberg, Companies, Daiwa forecasts

Where are we now?

We are seeing improving efficiency in the semiconductor industry and continuous industry consolidation. We project revenue growth for the Asia semiconductor industry of about 7% YoY, very similar to the 6% YoY growth we forecast for 2013. Our industry research indicates the global semiconductor industry ended 2013 with healthy inventory levels.

Global PC, consumer, and communications semiconductor makers: days of inventory (DOI)



Source: Companies, Daiwa

What will happen in 2014?

In the Asia foundry industry, we expect the main themes in 2014 to be 28nm wafer-price competition, capex competition (among TSMC, SEC and Intel), and further expansion in China for Semiconductor Manufacturing International Corp (SMIC). We believe TSMC's revenue upside potential this year will be limited by its rivals' aggressive 28nm wafer-price offerings. Separately, the China Government plans to more actively support domestic semiconductor players, such as SMIC and Spreadtrum, in the field of geometry migration.

In the Asia back-end segment, TSMC entered the back-end services area in 2H13, but this business is increasingly revolving around orders for Qualcomm's and MediaTek's products, and could be subject to slower revenue and capex growth YoY in 2014 compared with 2013. We believe this year's share-price upside for Advanced Semiconductor Engineering (ASE), Siliconware Precision (SPIL), and Kinsus Interconnect Technology will rest on how much market share these companies can take from Qualcomm and MediaTek globally.

In the Asia fabless industry, the main themes we expect in 2014 are industry consolidation (MediaTek's takeover of MStar Semiconductor, due to be completed on 1 February 2014, and the confirmed acquisition of Spreadtrum and RDA Electronics by Tsinghua Unigroup), high revenue growth in the China smartphone-IC market, uncertainty over demand for 64bit/octa-core smartphone ICs, and emerging growth in demand for 4K2K-panel TVs.

We expect the leading fabless and foundry players to continue to outperform the leading back-end players in terms of top- and bottom-line growth in 2014, on the back of strong smartphone demand from China and further industry consolidation.

■ **TSMC's share-price outperformance vs. Asia semiconductor stocks**



Source: Bloomberg

Thematic ideas

We are positive on the Asia Semiconductor Sector in 2014, on the back of the following themes. 1) We expect the content value of smartphones and tablets to increase as a result of growing use of AP, mobile DRAM, NAND Flash and sensor ICs (in smartphones). 2) We expect 4G licence roll-outs (in China and Taiwan, among other countries) to result in an increase in the available bandwidth and demand for cloud-computing services. 3) Demand for MEMS sensor chips is likely to be driven by new Android OS. 4) In addition, we expect semiconductor demand to be driven by a new wave of wearable gadgets and devices for use in the auto and medical-care industries.

Companies active in mobile AP, mobile DRAM, NAND Flash and sensor ICs should see the sector's highest shipment growth in 2014, due to strong growth in China smartphone shipments and an increase in the content value of smartphones; and our top sector picks provide exposure to this theme.

Our top sector picks are MediaTek and SK Hynix. Both companies outperformed their peers in terms of share-price performance in 2013 by building on their leading market positions, and we expect them to do so again in 2014.

Upside to our 2014 earnings forecasts for MediaTek would come from its smartphone-IC shipments carrying a better mix of octa-core smartphone ICs, while for SK Hynix we see increasing memory content per device as a key share-price catalyst.

Lower or higher smartphone-IC shipments in 2014 compared with our expectations would be the main risk to our sector view.

■ Asia Semiconductor Sector: valuation summary

Company	Bloomberg code	Rating	Share price (local curr.)	PER (x)		PBR (x)		BVPS (local curr.)		Market cap (USDbn)	2013 share price chg (%)
				2013E	2014E	2013E	2014E	2013E	2014E		
Foundry companies											
TSMC	2330 TT	Hold	101	14.4	13.5	3.1	2.7	32.45	36.76	87.6	9.3%
UMC	2303 TT	Hold	12.85	14.3	15.0	0.8	0.7	17.11	17.33	5.4	6.0%
Vanguard	5347 TT	Not rated	35.4	13.2	12.1	2.4	2.2	14.81	16.36	1.9	75.7%
SMIC	981 HK	Hold	0.63	14.3	13.3	1.0	0.9	0.08	0.09	2.6	55.8%
Average				14.3	13.5	2.9	2.6				
Semi backend companies											
ASE	2311 TT	Underperform	27.35	13.1	12.1	1.8	1.6	15.61	17.19	6.9	9.5%
SPIL	2325 TT	Outperform	36.35	20.7	15.2	1.9	1.8	19.24	20.06	3.8	15.6%
Kinsus	3189 TT	Underperform	98.5	12.4	11.5	1.8	1.6	56.26	61.13	1.5	8.3%
Nan Ya PCB	8046 TT	Not rated	38.2	- 42.6	49.2	0.8	0.8	50.11	50.89	0.8	-31.2%
Average				11.7	15.3	1.7	1.6				
Fabless companies											
MediaTek	2454 TT	Buy	412	20.5	15.7	2.7	2.5	151.02	166.54	18.5	37.4%
Spreadtrum	SPRD US	Not rated	30.93	12.6	11.0	3.4	2.8	9.05	10.95	1.5	75.5%
Realtek	2379 TT	Hold	79.8	14.6	13.7	2.2	2.1	36.93	38.45	1.3	-13.3%
Novatek	3034 TT	Hold	130.5	15.4	13.5	3.1	2.9	42.45	44.45	2.6	2.1%
MStar	3697 TT	Not rated	324	19.2	18.0	4.8	4.5	67.49	72.60	5.7	59.2%
Richtek	6286 TT	Not rated	157.5	17.5	15.7	3.6	3.3	43.49	47.26	0.8	-18.0%
WPG	3702 TT	Not rated	34.6	11.8	10.6	1.4	1.3	24.10	25.69	1.9	-9.7%
Qualcomm	QCOM US	Hold	73.91	16.7	14.0	3.4	3.1	21.82	23.78	124.9	20.0%
Market-cap weighted average				17.1	14.2	3.3	3.0				
Korea semiconductor/ IT hardware											
SK Hynix	000660 KS	Buy	38,850	10.5	7.8	2.2	1.7	17,588	22,396	25.9	42.9%

Source: Bloomberg, Daiwa forecasts for rated stocks

Note: Based on closing share prices as at 9 Jan 2014; shaded companies represent our top picks

Asia smartphone/ handset

Kylie Huang

(kylie.huang@daiwacm-cathay.com.tw)

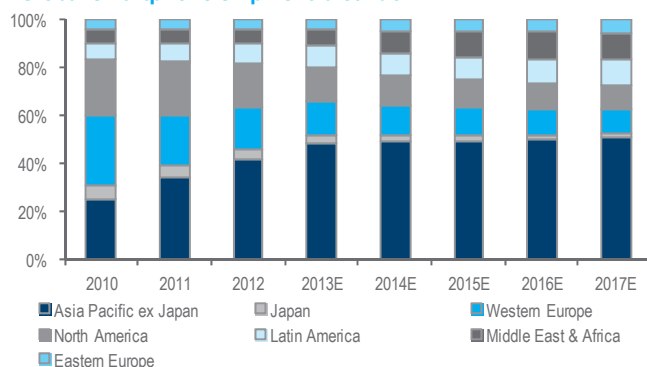
What happened in 2013?

The smartphone industry enjoyed stellar growth in 2013; we forecast global smartphone shipments to have totalled 1bn units, representing 47.6% YoY growth and driven in large part by Asia (up 73.5% YoY to 484m, units on our forecasts).

Both Asia and other emerging countries were likely the key growth contributors to smartphone market growth in 2013. Thanks to aggressive promotions by brands and carriers and wider coverage of 3G networks, we estimate that smartphone penetration rates in Asia Pacific ex-Japan, Latin America, and Eastern Europe increased to 30-50% in 2013, from 20-30% at the end of 2012.

Also, our industry research indicates developed countries saw steady high-teen YoY smartphone shipment growth, on the back of a further gradual rise in smartphone penetrations despite a high base.

Global smartphone shipment breakdown



Source: Gartner for 2010-12 ("Forecast: Devices by Operating System and User Type, Worldwide, 2010-2017, 3Q13 Update", authors include Carolina Milanese, Lillian Tay, Roberta Cozza, Ranjit Atwal, Tuong Huy Nguyen, Tracy Tsai, Annette Zimmermann, CK Lu, published on 25 September 2013), Daiwa forecasts for 2013E-17E

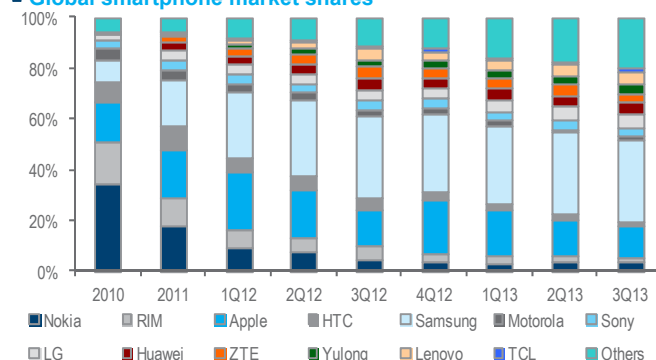
SEC remains the global leader in terms of shipments and expanded its market share further to 32% in 3Q13 (from 30% in 2012) thanks to its comprehensive product offering spanning high-end, mid-range and low-end smartphones, and we forecast its market share for the full-year 2013 at 32%.

Apple remains the second-largest smartphone provider but its market share dropped to 12% in 3Q13 (from 19% in 2012) due to product transition and slower growth in the high-end segment, which is Apple's focus. We believe Apple's market share improved in 4Q13 on the back of its ramp-up of the iPhone 5S, and forecast it at 15% for 2013 overall.

Chinese brands such as Huawei, Coolpad and Lenovo, were the major market-share winners in 2013, on the back of China's fast-growing demand for smartphones. As of 3Q13, Lenovo became the third-largest smartphone OEM globally with a 5.1% market share.

Blackberry and HTC were the major market-share losers in 2013, due to their lack of competitive models in the mid-range and low-end segments, and weak sell-through of flagship models at the high end.

Global smartphone market shares



Source: Gartner "Market Share: Mobile Phones by Region and Country, 3Q13", authors include Anshul Gupta, Carolina Milanese, Roberta Cozza, CK Lu, Annette Zimmermann, Tuong Huy Nguyen, Hugues J. De La Vergne, Atsuro Sato, Sandy Shen and David Glenn, published on 13 November 2013

Note: LG - LG Electronics

Where we are now?

Moving into a volume growth stage with high-end shipment growth decelerating ...

After a few years of rapid growth, we estimate global smartphone penetration exceeded 50% in 2013 and believe the industry is now shifting into a volume-growth stage. On our forecasts, global high-end smartphone shipment growth decelerated to 22% YoY for 2013, considerably slower than overall shipment growth.

All statements in this report attributable to **Gartner** represent [Bank's/Issuer's/Client's] interpretation of data, research opinion or viewpoints published as part of a syndicated subscription service by **Gartner**, Inc., and have not been reviewed by **Gartner**. Each **Gartner** publication speaks as of its original publication date (and not as of the date of this [presentation/report]). The opinions expressed in **Gartner** publications are not representations of fact, and are subject to change without notice.

... while mid-range and low-end segments are now driving growth

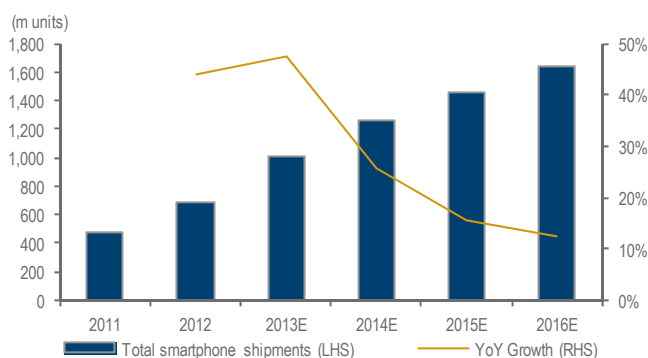
Mid-range and low-end smartphones are now becoming the key drivers of rising smartphone adoption in Asia countries and other emerging countries. For 2013, we forecast shipment growth of about 50% YoY for mid-range smartphone shipments and close to 80% YoY for low-end smartphone shipments.

What will happen in 2014?

We forecast solid shipment growth of 26% YoY globally

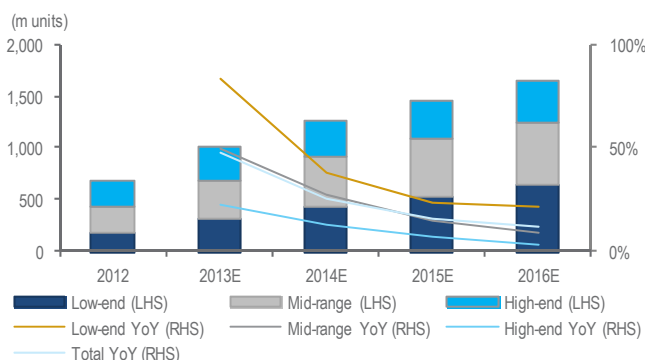
We forecast global smartphone shipments to increase by 26% YoY to 1.3bn units in 2014. We expect the low-end and mid-range segments to drive growth, with shipment increases of 38% YoY and 27% YoY, respectively, while growth in high-end smartphone shipments decelerates to 12 % YoY.

■ Global smartphone shipments: 2011-16E



Source: Gartner for 2011-12 ("Forecast: Devices by Operating System and User Type, Worldwide, 2010-2017, 3Q13 Update", authors include Carolina Milanese, Lillian Tay, Roberta Cozza, Ranjit Atwal, Tuong Huy Nguyen, Tracy Tsai, Annette Zimmermann, CK Lu, published on 25 September 2013), Daiwa forecasts for 2013E-16E

■ Global smartphone shipments by segment



Source: IDC, Daiwa forecasts

Note: We define low-end smartphones as those that cost less than USD200, mid-range as those costing USD200-500 and those costing more than USD500 as high-end

By geographic area, we still see substantial room for shipment growth in Asia and other emerging countries due to their relatively low smartphone adoption rates. We believe emerging countries should remain the key growth drivers in 2014.

As for developed regions, such as North America and Western Europe, we forecast still-healthy smartphone shipment growth of 10-15% YoY on the back of a further rise in smartphone penetration (from 75-85% in 2013E to 85-90% in 2014E).

■ Smartphone penetration by region

Smartphone penetration (%)	2010	2011	2012	2013E	2014E	2015E	2016E	2017E
Asia Pacific ex-Japan	9.7%	18.1%	32.4%	51.6%	62.2%	68.9%	75.6%	82.3%
Japan	52.3%	66.9%	82.0%	87.7%	90.9%	92.8%	94.7%	96.3%
Western Europe	43.5%	54.1%	69.2%	78.3%	86.3%	92.9%	96.6%	98.5%
North America	37.6%	54.7%	68.7%	83.9%	89.4%	93.2%	95.9%	96.6%
Latin America	11.8%	18.3%	28.8%	47.7%	60.5%	70.3%	80.8%	86.5%
Middle East & Africa	11.9%	16.5%	20.5%	34.1%	54.6%	68.6%	78.3%	84.0%
Eastern Europe	12.6%	18.3%	28.7%	44.9%	56.7%	70.2%	80.0%	88.9%
Total (Daiwa)*	18.8%	26.6%	38.9%	55.4%	66.3%	74.1%	80.8%	86.3%

Source: Gartner for 2010-12 ("Forecast: Devices by Operating System and User Type, Worldwide, 2010-2017, 3Q13 Update", authors include Carolina Milanese, Lillian Tay, Roberta Cozza, Ranjit Atwal, Tuong Huy Nguyen, Tracy Tsai, Annette Zimmermann, CK Lu, published on September 25, 2013), Daiwa forecasts, * Daiwa forecasts for 2013-17E

Apple, SEC and Chinese brands are likely to be winners amid fiercer competition

Given our belief that the smartphone industry is moving into a volume-growth stage, and also that industry competition will intensify this year, we expect premium brands – Apple and SEC – and budget devices (high-performance /low-cost) providers, notably Chinese brands, to hold up well in 2014. Brands without economic scale or brand premium, such as HTC and Blackberry, are likely to be squeezed further.

Apple and SEC: both are likely to try and become even more competitive in 2014, in our view. Our market research indicates that Apple could release its next flagship model, the iPhone 6, in 3Q14. Unlike the iPhone 5S, the iPhone 6 may contain more major upgrades (such as a larger display, long-awaited by many consumers), which would likely lead to Apple increasing its market share further in the high-end segment. We believe SEC will remain very competitive in 2014, offering the full range of smartphones, and may add more models or variants in its high-end product portfolio (it now has both the Galaxy S and Note series) to reaffirm its global market lead.

Chinese brands: we expect Lenovo, ZTE, Huawei and Coolpad to garner further market share by expanding their portfolios to the mid-range to high-end segments (retail prices ranging CNY2,500-3,500), from their current focus on low-to-mid range products (retail prices spanning CNY800-2,500). Rising brands such as Xiaomi and TCL are also likely to play a more important role in the Asia smartphone space in 2014.

Spec upgrades should continue but product differentiation likely to become harder

We expect to see more spec upgrades in the smartphone space during 2014, with the main ones as follows:

- 1) Displays – mainstream display sizes are likely to move from 3.5-4 inches to 4-4.5 inches, while high-end flash models could see their display sizes reach 5-5.5 inches. Also, some niche models with flexible displays could be made available to test market feedback.
- 2) Resolution – we expect more smartphones to carry high-definition (HD)/full-HD resolution displays.
- 3) Cameras – pixel migration looks likely to continue. We expect to see more smartphones with cameras of 8-10M or above in 2014. In addition, we foresee other upgrades on the camera side such as an increase in the aperture range, OIS function add-ons, and software enhancements of picture quality.
- 4) Acoustics – we believe more smartphones will carry speaker boxes (for a better sound).
- 5) Central processing units (CPU) – these are becoming faster and faster, and we expect more devices to carry 64 bit and quad-core/octa-core CPUs.
- 6) Memory – the content per unit looks set to increase to fulfil the requirement from faster CPUs and other hardware/software upgrades.
- 7) Other upgrades –near field communication (NFC) and fingerprint sensors could become more widely adopted.

Despite these potential spec upgrades, we believe it will become harder for smartphone providers to differentiate their products (indeed, this already appears to be the case). In this context, we believe smartphone OEMs will need to have either a very strong brand image or very cost-competitive/budget phones with good sound quality in order to win in the smartphone space in 2014.

Thematic ideas

Overall, we are positive/neutral on the outlook for the Asia smartphone/handset sector in 2014.

Hon Hai remains our top pick in the Greater China smartphone supply chain, as we believe the company will be the major beneficiary of new i-devices and expect its upward profit-margin trend to continue in 2014 due to better operating leverage, competitive cost control and a more stable ASP.

We are more cautious on the components makers, such as AAC, as we think Apple's product mix shift is unfavourable for component makers, and believe limited product upgrades in new iPhones would result in more margin pressure.

Among the components suppliers, we still prefer Largan Precision (Largan) (3008 TT, TWD1,130, Hold [3]) over AAC Technologies (AAC) (2018 HK, HDK37.20, Underperform [4]), as we envisage less competition for Largan due to its peer's (Genius Electronic Optical) poor production-yield rate in 8MP lens modules. We reiterate our Sell (5) rating on TPK (3673 TT, TWD173.50, Sell [5]), as we believe the company is facing stiffer competition in all its business segments (smartphones, tablets and notebooks).

In the smartphone OEM space, we are pessimistic on HTC (2498 TT, TWD128.50, Sell [5]), given ongoing shipment weakness in its high-end smartphones, rising competition, and the limited benefits we see from the company's recent changes in management/chip supplier/marketing plan, etc. However, we like SEC (005930 KS, KRW1,275,000, Buy [1]) for its strategy to differentiate its smartphone products and reaffirm its leading position.

Asia PC/notebook

Steven Tseng
(steven.tseng@daiwacm-cathay.com.tw)

What happened in 2013?

Corporate demand outpaced consumer demand

The top-line and stock-market performance of the PC sector remained disappointing in 2013, as global shipments continued to decline due to pressure from smart devices. Intel's new Haswell processor and Microsoft's Windows 8.1 upgrade did not do much to support overall PC demand. The consumer PC segment was particularly weak in terms of shipments, as most consumers remained price-sensitive and were not particularly attracted by touch-enabled PCs, priced typically at a premium to regular PCs due to their higher component costs.

Fortunately, the corporate PC segment showed signs of a recovery from 2Q13, as the fact that Microsoft will no longer provide support for its Windows XP onwards of April 2014 started to stimulate some corporate PC-replacement demand; and we expect improving corporate PC demand to continue in 1H14.

Data from consultancy IDC shows the YoY decline in global PC shipments narrowed steadily over 1Q-3Q13, from -14% YoY in 1Q13, to -11% YoY in 2Q13 and -8% YoY in 3Q13. Although we expect global PC shipments to still show YoY declines for 4Q13 and the next few quarters, we believe the downward trend is stabilising.

For 2013 overall, we forecast global PC shipments declined by 10% YoY to 315m units, of which notebook PC shipments were down 12% YoY to 180m units and desktop PC shipments dropped 8% YoY to 135m units.

Where are we now?

Bay Trail could help boost demand

Intel's Bay Trail processor (under the Atom product family) offers a very competitive price/performance package and may help to beef up shipments of Windows-based 2-in-1 devices and tablets. In fact, Intel announced in late November 2013 that it would be taking drastic action to gain market share in tablets in 2014, and we believe Bay Trail will be its key weapon.

The Bay-Trail-based product launch cycle is still in the early stages, with ASUSTeK's Transformer Book T100 looking like a more eye-catching model. Intel's aggressive promotion of its Bay Trail processor (and likely of the Merrifield, the smartphone version of the Bay-Trail chip, which Intel says could be launched in 1Q14) should bring some opportunities for PC OEMs in 2014.

■ ASUS Transformer Book T100



Source: Company

■ The specs of ASUSTeK's Transformer Book T100

Components	Key specs
Processor	Intel Atom Bay Trail-T Z3740 Quad Core
Operating system	Window 8.1 with MS Office Home & Student 2013
Display	10.1-inch HD (1366*768) IPS with Multi-touch
Graphics	Intel HD graphics
Memory	2GB
Storage	32GB/64GB eMMC with ASUS WebStorage
Webcam	1.2MP camera
Connectivity	Tablet
	1 x Micro USB (support charging and USB device)
	1 x Micro HDMI
	1 x Micro SD Card Reader
	1 x Audio Jack: Head phone/Mic
	1 x Home key
	Dosk
	USB3.0, Clickpad Keyboard
Audio	Stereo speakers with ASUS SonicMaster Technology
	Internal array mic
Battery	31Whr (11hrs)
Size & weight	10.4" x 6.7" x 0.93"; 2.4lbs
	Tablet only: 10.4" x 6.7" x 0.41"; 1.2lbs

Source: Company

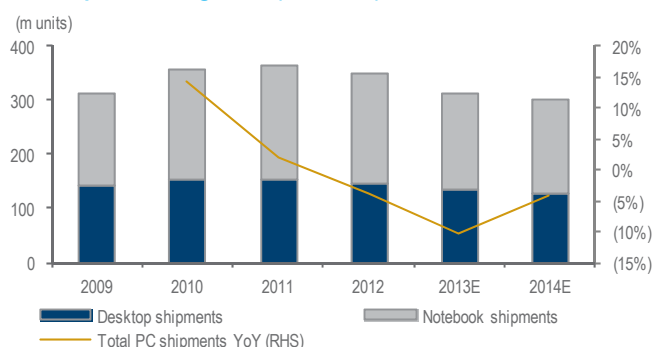
What will happen in 2014?

Smart devices likely to be the focus

We forecast worldwide PC shipments of 302m for 2014, down 4% YoY, with notebook and desktop shipments of 172m (down 4.5% YoY) and 130m (down 3.5% YoY), respectively. The YoY decline in global PC shipments may narrow in 2014, but we do not expect a major recovery in the PC industry.

We remain cautious about the demand outlook for touch notebooks. While we believe prices may come down due to falling component costs, the main hurdle is still the lack of killer apps on touch PC platforms.

■ PC shipment and growth (2010-14E)



Source: Daiwa forecasts

As PC demand is likely to remain generally lacklustre, we expect most PC OEM/ODMs to focus on smart devices in 2014. For tablets, we estimate global shipments reached 220m in 2013 (up 62% YoY) and will further increase to 277m in 2014 (up 26% YoY). As Apple and SEC currently dominate the high-end tablet segment, while Chinese players dominate the low-end space, we think there may not be as much room for shipment growth for most PC OEM/ODMs as the market forecasts seem to suggest.

However, Intel's ambitious plan for the tablet market, as mentioned above (ie, based on its Bay Trail processor), could boost tablet shipments for PC players in 2014. Intel could help enhance the cost competitiveness of PC OEM/ODMs with its marketing subsidies, while Windows-based 2-in-1 devices and tablets may achieve some differentiation in the tablet market, which is still mainly occupied by iOS and Android platforms.

Thematic ideas

We see three major drivers for PC-related companies in 2014:

- **Smart devices.** Tablets and smartphones will become more important drivers for PC-related players. Android- and Windows-based products will be the focus of the PC OEMs, while more PC ODMs and component players may be eligible to win more orders for i-devices.
- **2-in-1 devices.** We see two potential drivers: 1) Intel's ambitious push with its Bay Trail chips could help boost the shipment growth of 2-in-1 devices in 2014, 2) a number of recent media reports have suggested the possibility of Apple developing a 12-13" device. Should this occur and the device be a 2-in-1 device (which we consider more likely given the size), shipments for this product category could increase in 2014 as others soon follow suit.
- **Enterprise demand.** We expect enterprise demand to remain resilient in 2014, driven by corporate PC replacement and cloud computing.

Our top pick in the regional PC hardware sector is Lenovo, as we believe the company is one of the few companies in the PC industry that could benefit from all the above-mentioned drivers in 2014.

Korea hardware

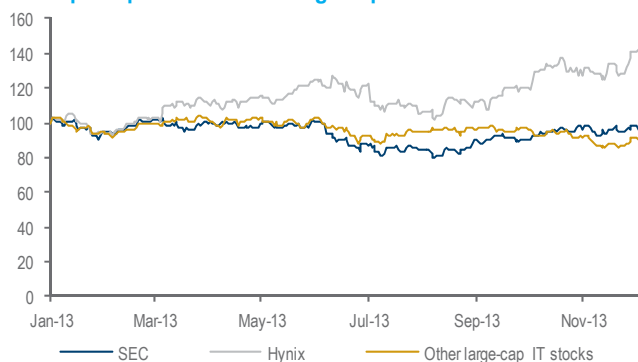
Jae H. Lee

(jhlee@kr.daiwacm.com)

What happened in 2013?

Though the overall performance of large-cap Korean IT stocks was relatively weak in 2013, SK Hynix (Hynix) stood out as a winner on the back of firm memory-chip fundamentals. DRAM prices rallied during 1H13, driven by strong memory content as well as volume growth of mobile devices. In addition, production disruption at Hynix's Wuxi fab led to another round of DRAM price hikes that started in September. Meanwhile, SEC was a market performer in 2013, as heightened concerns over its smartphone business outweighed the positives from the memory-chip operations.

■ Share price performance of large-cap Korean IT stocks



Source: FnData

Note: Other large-cap IT stocks include LG Electronics, LG Display, Samsung SDI and Samsung Electro-Mechanics

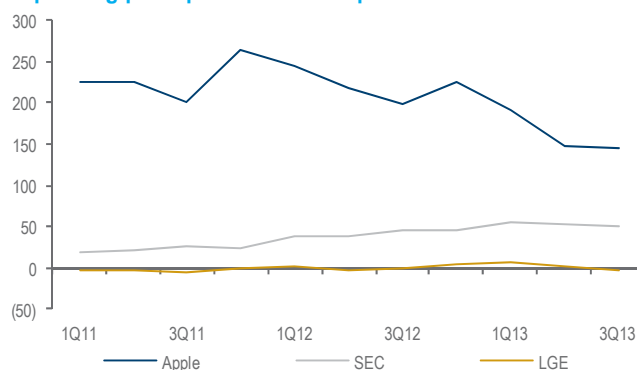
As most smartphone makers focused on improving the functionality of their products mainly on the hardware side, standing out from the crowd became more difficult in 2013. SEC also experienced dwindling sales of its flagship smartphone, Galaxy S4, after just a few months of its launch due to the absence of a 'wow' factor, in our view. As a result, the components companies, ranging from camera modules to touch screens, faced weaker-than-expected shipments of their products, while profitability was adversely affected by increased pricing pressure.

Where are we now?

Challenges in expanding handset earnings

We forecast the global smartphone market to grow by 44% YoY for 2013 and continue to see robust shipment growth over the next few years, but we expect the bulk of the sales growth to come from the emerging markets. As a result, we believe the driver of growth will shift from high-end smartphones to the low-end and mid-range segments, becoming more challenging for handset makers to expand their earnings.

■ Operating-profit per handset comparison

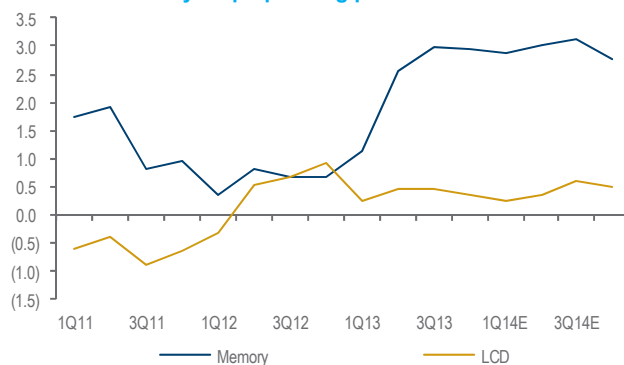


Source: Companies, Strategy Analytics, Daiwa

Stronger earnings momentum for memory chips than that of LCDs

Memory-chip companies' earnings continue to expand on healthy supply-and-demand dynamics. However, LCD-panel makers face chronic overcapacity due to slowing demand and a continuous ramp-up in new capacity. As a result, we believe LCD-panel makers' operating-profit margin will remain at low-to mid-single digit percentage over the next few quarters.

■ LCD and memory-chip operating profit trend



Source: Companies, Daiwa forecasts

Note: memory-chip operating profit for SEC and Hynix and LCD operating profit for Samsung Display and LGD

What will happen in 2014?

From smartphones to TVs, many makers of electronics products globally are facing slowing market demand and falling product prices. Keen to avoid ceding market share to their rivals, these companies are actively seeking ways to differentiate their products.

For SEC, we expect the company to change the design of its flagship smartphones in 2014. In an attempt to stay competitive in the premium smartphone market, SEC could replace its plastic cases on flagship models with aluminium, magnesium or carbon fibre casing.

In addition, next-generation flexible displays, such as wrap-around or bended displays, are likely to be adopted in high-end smartphones in 2014, following the launch of smartphones with the first generation flexible displays (curved) in 2H13.

■ Design concepts for phones with OLED displays

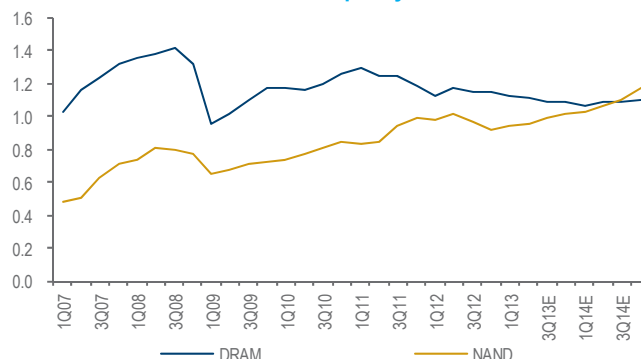


Source: Companies

In TVs, LCD-TV makers will likely aggressively market ultra high-definition (UHD) TVs to spur replacement demand. However, UHD-TVs (3,840 x 2,160 pixels) still carry a substantial price premium (2-3 times) over conventional full-HD TVs (1,920 x 1,080 pixels) and there is very little native UHD content available. Although we forecast UHD-TV sales to reach slightly over 1m units for 2013, we forecast about 5m units for 2014, which would be equivalent to only 2-3% of global LCD-TV demand for 2014.

We remain positive on the outlook for the memory-chip market in 2014 as a result of a limited increase in capacity, and as process migration technology becomes more complex. For DRAM, prices could be under pressure once Hynix's Wuxi fab normalises in 1Q14. However, given that inventory levels for the industry are very low at present, any price decline would result in inventory build-ups by key industry participants, in our view.

■ DRAM and NAND-flash wafer capacity trend



Source: Companies, Daiwa forecasts

Thematic idea – OLED displays

Organic light-emitting diode (OLED) displays have been in commercial use since 2007, when SEC started using them in its mobile phones. In comparison with LCDs, OLED displays offer better picture quality in many respects and weigh less, as they have fewer components. Although OLED displays were mainly used in high-end smartphones as an alternative to LCD screens, we expect increasing adoption of flexible displays (based on OLED) which would allow device makers to differentiate their products.

In playing the OLED theme in Korea, Samsung Display (Not listed) and LG Display are the key display makers, while there are many small processing-equipment and material companies supplying these two OLED makers exclusively.

■ Korea OLED companies: revenue contribution from OLED

Company	Ticker	Market cap (KRWbn)	2012 OLED revenue (%)	2013E OLED revenue (%)
SEC	005930 KS	187,807	5.3	6.7
LG Display	034220 KS	9,250	0.0	0.1
Soulbrain	036830 KS	726	26.8	34.4
SFA Engineering	056190 KS	718	40.8	59.8
Duksan Hi-Metal*	077360 KS	510	54.9	51.7
Wonik IPS*	030530 KS	730	6.3	17.4
SNU	080000 KS	199	76.0	60.0
AP System	054620 KS	219	88.1	89.9
ICD	040910 KS	164	76.7	74.5
Tera Semicon	123100 KS	162	30.0	55.0
Viatron	141000 KS	112	14.0	55.0
LIG ADP	079950 KS	115	0.0	30.0
LTS	138690 KS	59	5.0	30.0
Avaco	083930 KS	63	10.0	26.7

Source: Companies, Daiwa forecasts

* Parent-company basis

Note: market cap based on 9 Jan 2014 closing prices

Korea handset components

Joshua Oh, CFA
(joshua.oh@kr.daiwacm.com)

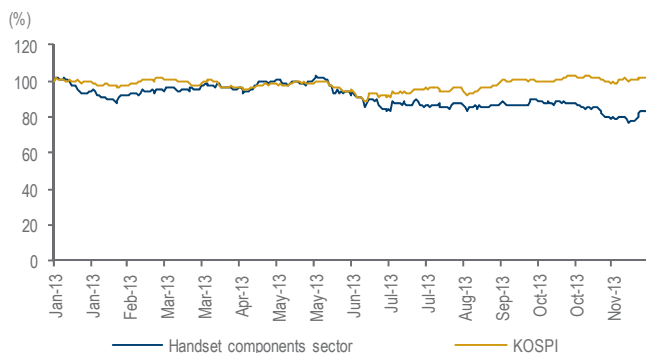
Jae H. Lee
(jhlee@kr.daiwacm.com)

What happened in 2013?

Korea's handset components sector suffered from weaker-than-expected component orders and increased pricing pressure during 2013. The sector underperformed the KOSPI by 24% in 2013. Although sales expectations for the new flagship smartphones were high, monthly sales of SEC's Galaxy S4 weakened just a few months after their initial launch in April 2013, given that there were no significant changes in the design and overall hardware from its predecessor.

While the Galaxy Note3 (launched in September 2013) is selling at a faster pace (monthly basis) than the Note2, given that the Galaxy Note3 shares similar components as in the Galaxy S4, the benefits to the component makers have been relatively small. Components companies in SEC's smartphone supply chain reported strong earnings up to 2Q13. However, earnings momentum weakened starting in 3Q13 on sales volume and inventory adjustments for smartphones by SEC.

■ Korea handset components sector vs. KOSPI

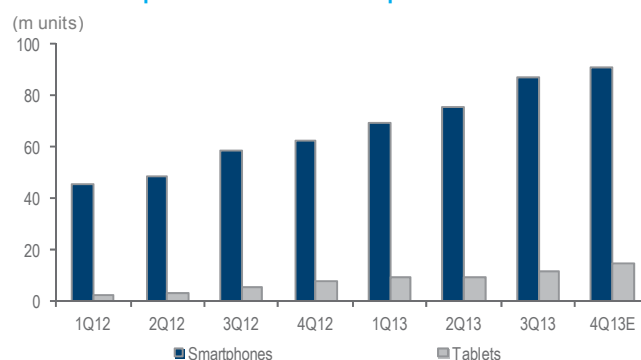


Source: Companies

Meanwhile, SEC's tablet-PC supply chain was relatively better off as SEC looks likely to have shipped 43m

tablet PCs in 2013 from 17m units in 2012. SEC continues to offer a large variety of products to meet the different needs of its customers. The company sold more than 10m tablet-PCs in 3Q13 for the first time, and accounted for 20% of global tablet-PC sales in 3Q13 from only 8% in 1Q12. As result, core suppliers including Iljin Display (020760 KS, KRW16,950, Buy [1]) reported robust revenue and earnings for 3Q13, and we think this is likely to extend into 2014.

■ SEC's smartphone and tablet-PC shipments



Source: Company, Daiwa forecasts

Where are we now?

Although most of companies in the sector suffered from inventory adjustments at SEC in 3Q13, orders are likely to have recovered slightly from 4Q13 due to an increase in orders for the Galaxy Note3. Our market research with component companies indicates that monthly shipments of the Galaxy Note3 decreased to 3-4m units a month in November from 4-5m units a month in October. However, this is still higher than 3m units a month for Galaxy Note2 during its peak selling season.

What will happen in 2014?

We believe SEC is keen to develop differentiated smartphone and tablet-PC products, and the sector is likely to benefit from SEC's new smartphone and tablet-PC launches in 2014.

Although SEC launched previous versions of Galaxy S smartphones in 2Q, our channel checks with its supply chain revealed that the company may bring forward the launch schedule for Galaxy S5 to 1Q14, and that this new smartphone is likely to have cutting-edge specs, including a 64-bit application processor, 3GB of RAM and a 16 mega-pixel camera module. We are also hearing that Galaxy S5 may adopt an unbreakable OLED display and metal casing to distinguish itself from the crowd.

■ SEC's Galaxy S4 and S5

	Galaxy S4	Galaxy S5
AP	Qualcomm MSM8974 Snapdragon 600 Quad-core 1.9 GHz	Qualcomm Snapdragon or Exynos (64-bit ARM Cortex)
DRAM	2GB	3GB
Display	5-inch Super AMOLED	5-inch unbreakable AMOLED
Resolution	1080x1920 (441ppi)	FHD
Rear-facing camera	13.0MP	16.0MP
Front-facing camera	2.0MP	2.0MP
Battery capacity	2600mAh (Li-ion)	n.a.
OS	Android 4.2.2 Jellybean	Android 4.4 Kitkat
Size	137x70x8mm	n.a.
Weight	130g	n.a.
Launch date	Apr-13	1Q14

Source: Companies, Daiwa estimates

Among the Korea handset components companies, we think Samsung Electro-Mechanics (SEMCO) (009150 KS, KRW80,400, Hold [3]) is well positioned to benefit from the launch of Galaxy S5, as it is likely to supply the largest variety of components, including 16 mega-pixel camera modules, multi layer ceramic capacitors (MLCC), flip-chip chip scale packages (FC CSP), and flexible printed circuit boards (FPCB) for this new smartphone. In addition, due to the shift to high-end components, we think the value of the company's components in the Galaxy S5 will rise to over USD40 versus USD35 for the Galaxy S4.

■ Potential suppliers to Galaxy S5

Component	Ticker	Manufacturer	Revenue from SEC	SEC allocation
Application processor	005930 KS	Samsung Electronics	n.a.	n.a.
Memory	005930 KS	Samsung Electronics	n.a.	100
Camera module	009150 KS	Samsung Electro-Mechanics	60	50
	091700 KS	Partron	80	13
	050110 KS	Cammsys	100	10
Display	Not listed	Samsung Mobile Display	n.a.	100
Touch sensor chip	SYNA US	Synaptics	n.a.	n.a.
FPCB	009150 KS	Samsung Electro-Mechanics	60	35
	051370 KS	Interflex	60	35
	065270 KS	Flexcom	80	n.a.
	090460 KS	BH	50	n.a.
PCB	004130 KS	Daeduck GDS	50	n.a.
	009150 KS	Samsung Electro-Mechanics	60	50
	008060 KS	Daeduck Electronics	60	n.a.
FC CSP	007810 KS	Korea Circuit	50	n.a.
MLCC	009150 KS	Samsung Electro-Mechanics	60	50
Antenna	6981 JP	Murata	8	30-40
	091700 KS	Partron	80	60
	052710 KS	Amotech	20	n.a.
	061040 KS	RF Tech	95	n.a.
Casing	049070 KS	Intops	100	25
	086830 KS	Shinyang	100	6
	101330 KS	Mobase	100	5
	082660 KS	CrucialEms	100	n.a.
Battery	006400 KS	Samsung SDI	30	80
Wireless charger	009150 KS	Samsung Electro-Mechanics	60	n.a.
	061040 KS	RF Tech	95	n.a.
	004710 KS	Hansol Technics	70	n.a.
	079960 KS	Dong Yang E&P	90	n.a.

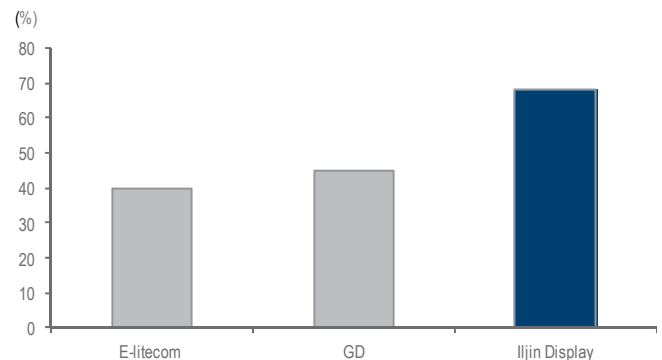
Source: Companies, Daiwa estimates

As for tablet PCs, SEC may launch a 12-inch Galaxy Note and Galaxy Tab later in January 2014. We believe these tablet PCs would replace low-end notebooks on the back of their large displays, and SEC is also planning to launch an OLED tablet-PC in 2014.

In our view, Iljin Display will continue to benefit from this trend, as it has the largest revenue exposure to SEC's tablet PCs among the Korea handset component companies of 68% for 2013, and the ability to maintain its profitability due to its cost-reduction efforts. The company is also one of the largest sapphire wafer makers globally, and may benefit from further expansion in general-lighting LED market for 2014.

We also like Duksan Hi-Metal (077360 KS, KRW17,350, Buy [1]), and Soulbrain (036830 KS, KRW44,800, Outperform [2]), as we believe these companies are well-positioned to benefit from the potential launch of SEC's OLED tablet-PCs in 2014.

■ 2013E revenue exposures to SEC's tablet-PCs



Source: Companies, Daiwa forecasts

Note: Only component companies with more than 20% revenue exposure were subject to our analysis

Thematic ideas

As we forecast SEC's tablet PC shipments to rise by 41% YoY for 2014, which is substantially higher than the 24% we forecast for its smartphones, we prefer SEC's tablet-PC supply chain over its smartphone supply chain. Our top pick in the sector is Iljin Display as we believe the company has the ability to generate stable profitability, and it has the largest revenue exposure to SEC's tablet-PCs among the companies in the sector.

Japan electronic components

Takumi Sado
(takumi.sado@daiwa.co.jp)

What happened in 2013?

On an aggregate basis, 1H FY13 results for the 15 major Japan electronic components makers showed a rise in sales of 18% YoY and a rise in operating profit of 71% YoY. The profit growth was mainly driven by Yen depreciation —excluding this factor, we estimate that operating profit declined by roughly 11% YoY.

Earnings from automotive components were brisk, driven by the growing number of electronic components used in automobiles, as well as strong automobile sales in the US and other regions. Sales of smartphone components were also strong, reflecting the growth of the end-product market.

Back in 1H FY12, higher sales of such components did not translate to profit growth because: 1) companies pulled forward increases in fixed costs in order to sharply boost production, 2) product launches were delayed, 3) yields worsened on a start to the production of high-performance products, and 4) companies stepped up discounting to win large orders.

But in 1H FY13, higher sales did translate to higher profits, since the companies were able to plan in advance for output increases and did not need to make drastic performance upgrades. In addition, profit margins for components used in flagship models appear to have expanded, despite slowing sales. Telecommunications-use high-frequency components and ultra-slim chip components showed especially sharp sales growth (up twofold YoY), reflecting the rising number of such parts used per smartphone as LTE-capable handsets increased.

Components for smartphones manufactured in China also showed an increase, but because component sales per smartphone for such models are still small, this did not have a meaningful impact on earnings. In addition, industrial components contributed to profit growth, as sales returned to normal levels from extremely weak performance a year ago. Meanwhile, demand for

components for PC and audiovisual products continued to decline, but this did not have a significant impact, since components makers have already been reducing fixed costs. Thus far, trends in 2H FY13 have been similar to those in 1H FY13, reflecting continued Yen depreciation.

■ Japan electronic companies: FY13 earnings (JPYm)

		1H			FY13			Full-year	
		results	YoY %	HoH %	2H CP	YoY %	HoH %	CP	YoY %
4062 Ibiden	Sales	151,551	7.5	4.5	148,449	2.4	-2.0	300,000	4.9
	Op profit	10,912	78.2	Profit	10,088	Profit	-7.6	21,000	287.5
6594 Nidec	Sales	429,634	21.5	20.8	420,366	18.2	-2.2	850,000	19.8
	Op profit	39,337	-5.7	Profit	40,663	Profit	3.4	80,000	354.6
6707 Sanken Electric	Sales	68,631	10.0	7.2	77,569	21.2	13.0	146,200	15.7
	Op profit	2,729	44.1	-0.1	5,871	115.0	115.1	8,600	85.9
6762 TDK	Sales	484,728	17.6	12.2	445,272	3.0	-8.1	930,000	10.2
	Op profit	16,770	-17.4	1094.4	13,230	842.3	-21.1	30,000	38.4
6767 Mitsumi Electric	Sales	76,095	11.4	-9.2	87,905	4.9	15.5	164,000	7.8
	Op profit	-1,682	Loss	Loss	3,182	776.6	Profit	1,500	Profit
6770 Alps Electric	Sales	328,250	24.1	16.4	319,750	13.4	-2.6	648,000	18.6
	Op profit	11,138	292.7	177.4	12,862	220.3	15.5	24,000	250.3
6779 Nihon Dempa Kogyo	Sales	25,572	-0.6	2.7	25,428	2.1	-0.6	51,000	0.7
	Op profit	312	-55.2	Profit	388	Profit	24.4	700	197.9
6806 Hirose Electric	Sales	61,667	31.9	25.4	57,333	16.6	-7.0	119,000	24.0
	Op profit	17,452	59.2	74.1	12,548	25.2	-28.1	30,000	43.0
6807 Japan Aviation Electronics Industry	Sales	73,093	20.9	5.7	81,907	18.4	12.1	155,000	19.6
	Op profit	6,051	53.5	29.9	6,449	38.4	6.6	12,500	45.3
6963 Rohm	Sales	167,979	11.4	18.6	152,021	7.3	-9.5	320,000	9.4
	Op profit	10,338	291.3	Profit	8,662	Profit	-16.2	19,000	Profit
6971 Kyocera	Sales	699,663	15.0	4.2	730,337	8.7	4.4	1,430,000	11.7
	Op profit	58,203	124.8	14.0	81,797	60.3	40.5	140,000	82.0
6976 Taiyo Yuden	Sales	105,550	10.6	8.3	104,450	7.2	-1.0	210,000	8.9
	Op profit	7,196	393.9	112.1	6,804	100.5	-5.4	14,000	188.7
6981 Murata Manufacturing	Sales	414,131	31.6	13.0	405,869	10.8	-2.0	820,000	20.4
	Op profit	67,419	176.9	96.6	52,581	53.4	-22.0	120,000	104.7
6988 Nitto Denko	Sales	365,311	12.1	5.8	387,689	12.3	6.1	728,000	8.5
	Op profit	36,326	12.6	0.3	47,674	31.6	31.2	62,000	-9.5
6997 Nippon Chemi-Con	Sales	54,680	20.9	14.6	49,320	3.4	-9.8	104,000	11.9
	Op profit	2,428	Profit	Profit	2,572	Profit	5.9	5,000	Profit
Total of 15 companies	Sales	3,506,535	17.9	10.4	3,468,665	9.2	-1.1	6,975,200	13.4
	Op profit	284,929	71.3	145.0	283,371	143.6	-0.5	568,300	101.1

Source: Company materials, compiled by Daiwa
Note: CP: company projections

Where are we now?

With the main growth drivers in the electronics market shifting from PCs, audiovisual products, and mobile phones to smartphones and tablets, electronics components makers have been forced to overhaul their business portfolios. Now that structural reforms to do so are largely complete, this issue should no longer be a drag, in our view.

However, with devices made by China manufacturers now becoming the main drivers of volume growth in the smartphone/tablet market, fewer opportunities are left for Japan parts makers to benefit except for those companies that command high global market shares for essential components. In light of this trend, Japan companies have begun to shift their focus to markets that demand greater reliability, such as the automotive, industrial, and medical sectors. Since such efforts will take time to pay off, whether or not firms have taken a lead in moving into these markets will likely show in sales growth differences over the next five years.

What will happen in 2014?

Our focus for FY14 is on the following areas: 1) automotive electronics, 2) the growth of the smartphone market and shift to high-performance models in China, and 3) new features for high-end smartphones. The number of electronic components used in automobiles has been rising steadily. Major Japanese electronic component makers' sales of automotive components have shown average annual growth of at least 10% over the past decade — much higher than the

average rate of growth in sales for auto parts majors (4%) during the same period, which may be attributed to the growth of automotive electronics. The average weighting of such sales in the total doubled from 10% to 20% during the same period. Thus, even if growth remains constant, the impact has doubled. In our view, growth in sales of such components could even accelerate as automakers strive to improve vehicle fuel efficiency (in line with environmental regulations), safety, and with the increase in automated driving functions.

■ Japan electronic component companies: sales of automotive offerings (JPYbn)

	FY03	04	05	06	07	08	09	10	11	12	CAGR
Ibiden (4062)											
Sales	220.5	247.6	319.0	398.6	413.5	309.3	274.2	305.0	300.9	285.9	16.6%
DPFs, sealing materials	16.5	24.1	57.8	82.3	100.0	52.5	47.3	58.0	62.6	65.5	
Sales weighting for automotive offerings (%)	7	10	18	21	24	17	17	19	21	23	
Mabuchi Motor (6592)											
Sales	105.7	99.3	93.9	100.5	107.6	92.6	70.4	82.8	78.9	85.3	5.6%
Automotive brushed motors (door locks, mirrors, A/C dampers, power windows, power seats)	30.1	30.4	31.6	36.8	42.8	38.6	30.3	40.1	40.7	49.1	
Sales weighting for automotive offerings (%)	28	31	34	37	40	42	43	48	52	58	
Nidec (6594)											
Sales	277.5	485.9	511.6	611.3	724.4	592.8	571.6	676.0	682.3	709.3	18.6%
Automotive motors (EPS, variable speed valve, motorized clutch, cooling pump, etc.)	18.8	19.5	20.5	32.0	65.1	53.7	56.3	69.6	84.6	87.1	
Sales weighting for automotive offerings (%)	7	4	4	5	9	9	10	10	12	12	
Sanken Electric (6707)											
Sales	147.2	156.2	173.5	203.8	184.3	147.0	134.1	144.9	131.8	126.4	7.2%
Power IC, motor drivers, hall sensors	27.7	29.2	33.0	36.5	40.6	34.3	33.6	44.6	47.2	52.0	
Sales weighting for automotive offerings (%)	19	19	19	18	22	23	25	31	36	41	
TDK (6762)											
Sales	655.8	657.9	795.2	862.0	866.3	727.4	808.9	871.9	814.5	851.6	12.9%
MLCCs, inductors, magnets	46.8	49.1	61.9	68.3	65.4	65.7	95.9	110.5	127.6	139.8	
Sales weighting for automotive offerings (%)	7	7	8	8	8	9	12	13	16	16	
Alps Electric (6770)											
Sales	375.7	387.0	412.6	396.4	391.4	292.0	274.2	296.2	268.9	268.1	3.9%
Automotive electronics (switch modules, keyless entry)	70.1	69.4	81.4	97.2	109.1	78.1	80.0	89.0	92.2	99.3	
Sales weighting for automotive offerings (%)	19	18	20	25	28	27	29	30	34	37	
Nihon Dempa Kogyo (6779)											
Sales	55.9	60.7	63.6	73.3	78.1	59.2	52.6	54.9	50.8	50.6	5.4%
Quartz devices (navigation, keyless entry, ECU, ABS, tire monitors, etc.)	9.8	11.0	11.0	12.6	14.1	9.9	13.0	15.3	15.0	15.7	
Sales weighting for automotive offerings (%)	18	18	17	17	18	17	25	28	30	31	
Hosiden (6804)											
Sales	225.4	249.0	218.0	312.8	419.5	453.7	307.9	201.7	172.9	230.9	4.0%
LCD panels, microphones, switches	12.6	16.2	20.0	24.9	29.4	23.9	18.3	21.8	20.0	18.0	
Sales weighting for automotive offerings (%)	6	7	9	8	7	5	6	11	12	8	
Hirose Electric (6806)											
Sales	79.0	89.6	104.4	115.5	118.0	89.9	84.5	92.4	94.8	95.9	15.4%
Automotive connectors	4.0	4.5	5.2	5.8	8.3	6.3	8.4	11.1	12.3	14.4	
Sales weighting for automotive offerings (%)	5	5	5	5	7	7	10	12	13	15	
Japan Aviation Electronics Industry (6807)											
Connectors sales	81.6	84.0	96.4	103.9	119.9	92.4	81.4	85.4	87.8	109.8	11.8%
Automotive connectors	13.8	15.3	21.1	24.0	25.3	21.6	23.7	26.9	29.3	37.6	
Sales weighting for automotive offerings (%)	17	18	22	23	21	23	29	32	33	34	
Rohm (6963)											
Sales	355.6	369.0	387.8	395.1	373.4	317.1	335.6	341.9	304.7	292.4	17.0%
Semiconductors (navigation systems, audio systems, analog device)	17.4	18.1	20.2	22.5	29.9	27.3	33.6	37.9	67.0	71.6	
Sales weighting for automotive offerings (%)	5	5	5	6	8	9	10	11	22	25	
Murata Manufacturing (6981)											
Sales	414.2	424.5	490.8	566.8	631.7	523.9	530.8	618.0	584.7	681.0	9.7%
MLCCs, coils, ultrasound sensors	44.3	51.5	54.9	61.5	67.4	54.0	66.5	79.7	85.4	102.0	
Sales weighting for automotive offerings (%)	11	12	11	11	11	10	13	13	15	15	
Nippon Chemi-Con (6997)											
Sales	102.3	105.7	120.9	135.1	143.2	114.6	105.9	127.8	100.3	93.0	8.4%
Aluminum capacitors, capacitors for regenerative braking systems	8.1	9.6	10.2	11.0	12.9	11.3	10.9	15.3	15.0	16.7	
% of sales for automotive offerings (%)	8	9	8	8	9	10	10	12	15	18	
Aggregate for 13 majors											
Sales	3,096.5	3,416.3	3,787.7	4,275.3	4,571.4	3,811.9	3,632.0	3,898.8	3,673.2	3,880.1	10.2%
Sales of automotive offerings	320.0	347.8	428.7	515.3	610.3	477.2	517.9	619.8	698.9	768.9	
Sales weighting for automotive offerings (%)	10	10	11	12	13	13	14	16	19	20	

Source: Various materials; compiled by Daiwa

Notes: 1) Sales of automotive offerings include Daiwa estimates.

2) Sales weighting for automotive offerings for Rohm based on new standards from FY11. FY11 weighting based on previous standards is 15.1%. Figures for FY10 and earlier based on previous standards.

3) Figures retroactively adjusted to the extent possible to factor in changes in accounting standards, discontinued operations, and other events, but continuity lacking in some areas.

China smartphone manufacturers have been reporting rising sales volumes. But the value of Japan-made components used in such smartphones is currently equivalent to around one-fifth to one-tenth of that for global flagship models, so contributions to earnings are still small. However, as wireless technology grows more advanced in China (from 2G to 3G and then 4G), smartphones are being equipped with more advanced processors, displays, and cameras. As this trend progresses, the number of Japan-made components used in China smartphones should also increase.

We do not expect the number of components used per smartphone to be as high as for global flagship models due to price limitations. But with China smartphones growing to account for half of global production, even a small increase in the number of components used should have a meaningful impact.

In the high-end smartphone market, our focus will be on the continued growth of LTE-compatible models and optical image stabilisation.

Thematic ideas

We maintain our Positive stance on the electronic components sector for 2014 given continued Yen depreciation. Our stock recommendations for each of our areas in focus are as follows: 1) Nidec (6594 JP, JPY10,480, Buy [1]) for automotive electronics, 2) Murata Manufacturing (6981 JP, JPY9,850, Outperform [2]) for the growth of the smartphone market and shift to high-performance models in China, and 3) Alps Electric (6770 JP, JPY1,189, Outperform [2]) for new high-end smartphone features.

Japan semiconductor production equipment

Hirokazu Mitsuda
(hirokazu.mitsuda@daiwa.co.jp)

What happened in 2013?

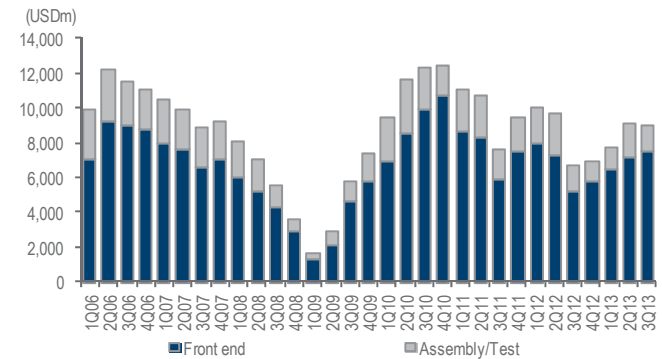
Major chip makers' capital spending likely fell 0.2% in 2013E

Semiconductor maker TSMC is likely to have topped SPE in terms of capex in 2013, as it did for 2012. We forecast TSMC's capex to amount to USD9.7bn, up from USD8.3bn for 2012. Spending centred on 28nm process equipment in 1H13 and 20nm process equipment in 2H13, and played a key role in the equipment makers' share-price performance.

Another focal point for 2013 was a recovery in the memory-chip makers' investment on capex, which increased for the first time in three years. Semiconductor makers were increasingly willing to invest in capex as broadening demand for smartphones and tablets tightened supplies of DRAM and NAND-flash memory.

These factors drove a rebound in demand for the equipment makers supplying front end semiconductor manufacturing, such as foundries, while back-end equipment makers faced relatively weak demand. Front-end players likely did better than backend equipment makers due to a pullback from the 2012 surge in spending by outsourced semiconductor assembly and test companies for new businesses, such as application processors for mobile devices.

Quarterly SPE orders



Source: SEMI, compiled by Daiwa

Where are we now?

Front-end equipment orders brisk

SPE orders have been brisk since 2H13, underpinned by TSMC starting up its 20nm line, Intel's investment to prepare for mass production using 14nm technology, and SEC's stepping up spending on NAND-flash memory facilities in Xi'an, China.

However, semiconductor fabrication plant utilisation rates are lacklustre. Competition between foundries for orders has delayed inventory reductions, while NAND-flash memory demand is peaking due to seasonal factors. There appears to be a disconnect between brisk equipment orders and fab utilisation rates.

What will happen in 2014?

We forecast SPE investment to rise by 5% YoY, with an 8% YoY rise in spending by chip-memory makers in 2014

We forecast the major semiconductor makers to increase capital spending by 5% YoY for 2014, including a nearly 8% YoY rise by the memory-chip makers.

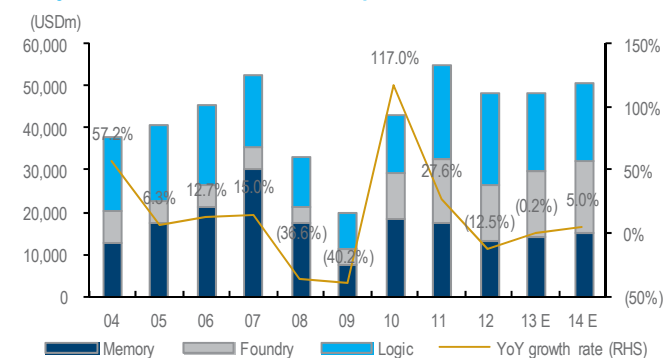
Smartphones and tablets are likely to remain the key drivers of the semiconductor sector this year. The China smartphone market took off in 2013 and is likely to show even greater sales momentum in 2014.

China smartphones are cheap, but high-spec. This reflects the importance consumers in the Mainland place on product specifications. We think mobile DRAM demand will increase particularly significantly, as we expect DRAM per handset to double this year.

The DRAM chip makers are likely to raise capex further. Elpida Memory, which has been acquired by Micron Technology, is likely to undertake aggressive capex and SEC is likely to invest strongly in response to demand.

Overall, the NAND-flash memory makers' capex should also be solid. SEC and Toshiba (6502 JP) have adopted a forward-looking investment approach in order to meet recent brisk demand for mobile devices and in anticipation of growth in demand for solid-state drives. Signs of investment in magnetic RAM and ferro-electric RAM, potential next-generation memory chip technologies, could also emerge.

■ **Major semiconductor makers: capex**



Source: Companies, Daiwa forecasts

Thematic ideas/action points

Focus on memory-chip equipment makers

We recommend a bullish investment stance on SPE makers, focusing heavily on memory chip equipment, particularly DRAM equipment, in 2014. Our top picks are Hitachi Kokusai Electric (6756 JP, JPY1,495 Outperform [2]), for which a relatively high proportion of sales are to memory-chip makers, and Tokyo Electron (8035 JP, JPY5,700, Outperform [2]), which is set to benefit from a pick-up in memory-chip makers' capex as well as improved cost efficiency following a planned merger with US firm Applied Materials.

The DRAM makers' strong investment has started stimulating demand for probe cards. Micronics Japan (6871) saw a sharp improvement in earnings for FY13 (the year ended September 2013).

Japan precision instruments

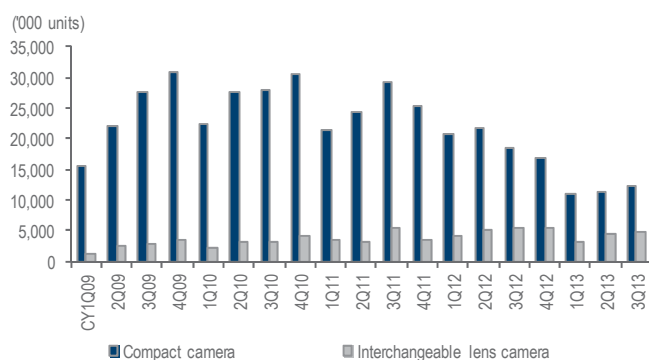
Hirokazu Mitsuda
(hirokazu.mitsuda@daiwa.co.jp)

What happened in 2013?

Yen depreciation should help offset weakened digital-camera demand

The depreciation of the Yen last year against the major currencies helped earnings for the precision instruments sector improve substantially. However, the digital-camera businesses continued to weigh on earnings. Integrated camera functions in smartphones began more clearly affecting compact-camera sales in emerging nations. Meanwhile, reductions in the inventory of interchangeable lens cameras persisted. End-market demand for interchangeable lens cameras showed signs of a downturn. We forecast 2013 digital-camera shipment volume globally to drop by 35% YoY for 2013.

■ Digital-camera shipment volume globally



Source: CIPA, compiled by Daiwa

Where are we now?

Office, medical equipment operations firm

Office-equipment businesses, which account for the majority of the profit in the precision instruments sector, are maintaining relatively strong operating profit. Companies' medical equipment operations have been steadily increasing their revenue recently. Digital-camera demand is one of the few areas where industry earnings are a concern for us.

What will happen in 2014?

Focus on recovery in interchangeable-lens cameras

The main focus in 2014 will be whether demand starts to recover for interchangeable-lens cameras, which we think still have sales growth potential. It will take time to see whether or not firms develop strategies to stimulate demand in emerging nations, particularly given the low level of supply-chain inventory.

Thematic ideas

Focus on firms increasing volume

With the benefits of Yen depreciation likely to fade in 2014, those firms in the sector that are able to increase sales volume should see a relatively high profit margin. We are focusing on Konica Minolta (4902 JP, JPY1,100, Outperform [2]), which could see sales growth in its overseas colour multifunction-printer business, and Hoya (7741 JP, JPY3,010, Hold [3]), which is steadily expanding its eyeglass lens and other life-care businesses.

Japan consumer electronics

Junya Ayada
 (junya.ayada@daiwa.co.jp)

What happened in 2013?

In 2013, the consumer electronics stocks we cover gained 89% (weighted average), outperforming the broader market (the Topix gained 50.4%). The robust performance was due mostly to the strong performance of large caps, such as Panasonic (6752 JP, JPY1,315, Hold [3]), Olympus (7733 JP, JPY3,235, Hold [3]), and Sony (6758 JP, JPY1,894, Buy [1]).

Panasonic benefited from a recovery in net profit in FY13, driven by spending cuts across the business lines and restructuring efforts for unprofitable businesses. Also, a major order from Tesla Motors helped improve the outlook for the battery business.

Sony's share price performed the best in 1H FY13, but lacked strength in 2H FY13, as an earnings downgrade by the Bloomberg consensus, along with weaker-than-expected 2Q FY13 results and other developments ran counter to the market's expectations of an improvement in profit. While Xperia smartphone sales were brisk in 2Q FY13, its PC and TV businesses incurred operating losses. The picture business was

also in the red due to weak revenue in 2Q FY13. We believe issues remain for 2014. Meanwhile, Olympus shares performed well for the year, as the firm was removed from the list of Tokyo Stock Exchange (TSE) securities on alert on 11 June 2013 and its mainstay endoscope business put in a strong showing for 2Q FY13.

Where are we now?

The near-term focal point has been the Christmas shopping season. Products such as TVs and console games got off to a strong start in the Black Friday sales in the US at the end of November. In the TV sector, Funai Electric (6839) is likely to have gained market share, driven by sales of low-end models. Based on preliminary figures, Black Friday retail sales of TVs for the market as a whole fell by 3.9% YoY, the first decline since 2009. Overall, TV demand looks unlikely to strengthen in the absence of discounts in North America. Excluding Funai Electric, we think the Japanese and Korean TV makers are likely to continue to struggle.

Meanwhile, Sony's PlayStation 4, which was released in North America on 15 November 2013 is likely to have captured market share from Microsoft in North America. First-day sales topped 1m units in North America alone, and are likely to have beaten first-day sales for Microsoft's Xbox One (released on 22 November) in the region. The PlayStation 4 was released in Europe on 29 November, but with the initial production lots probably already sold out, production is unlikely to keep pace with demand due to capacity constraints.

■ Share-price performances (2013)

	Share price (JPY) 30 Dec 2013	Market cap (JPYbn) 30 Dec 2013	Absolute performance (%)					Performance relative to Topix (%)					180-day beta (Topix)	YTD High/low			
			2013 1Q	2Q	3Q	4Q	YTD	2013 1Q	2Q	3Q	4Q	YTD		High (JPY)	Date	Low (JPY)	Date
6752 Panasonic	1,224	2829.4	25.3	21.9	18.9	29.1	134.5	4.9	12.3	13.6	20.1	83.0	1.08	1,260	24-Dec	502	9-Jan
6753 Sharp	334	564.7	-10.2	47.1	-10.0	-7.2	10.2	-30.6	37.5	-15.3	-16.3	-41.2	1.39	633	21-May	234	3-Apr
6758 Sony	1,826	1894.7	71.4	26.6	1.0	-13.0	90.6	51.1	17.0	-4.4	-22.0	39.1	1.06	2,413	22-May	918	9-Jan
6773 Pioneer	220	80.8	-21.5	14.9	-12.4	30.2	2.8	-41.8	5.3	-17.7	21.1	-48.7	1.26	313	14-May	146	2-Sep
6816 Alpine Electronics	1,473	102.8	14.4	10.4	6.6	38.1	85.8	-6.0	0.8	1.3	29.0	34.3	1.13	1,510	30-Dec	768	24-Jan
6839 Funai Electric	1,369	46.7	2.8	-14.7	8.8	29.3	23.3	-17.6	-24.3	3.5	20.2	-28.1	0.97	1,520	7-Feb	935	27-Jun
6952 Casio Computer	1,287	346.0	-3.7	20.6	3.9	41.7	70.9	-24.1	11.0	-1.4	32.7	19.5	1.17	1,296	26-Dec	685	15-Feb
7733 Olympus	3,330	1139.7	32.8	36.4	-1.1	11.6	100.0	12.4	26.8	-6.4	2.6	48.5	1.01	3,570	23-May	1,613	8-Jan
7762 Citizen Holdings	886	287.1	9.3	12.1	24.2	28.8	96.0	-11.1	2.6	18.9	19.7	44.6	1.24	890	30-Dec	439	9-Jan
Consumer electronics weighted avg.			30.2	27.1	5.4	9.9	91.7	9.8	17.6	0.1	0.8	40.2					
Consumer electronics simple avg.			13.4	19.5	4.4	21.0	68.2	-7.0	9.9	-0.9	11.9	16.8					
Topix	1,302.29		20.3	9.6	5.3	9.1	51.5							1,302	30-Dec	872	8-Jan

Source: QUICK, compiled by Daiwa

Note: Data as at 30 December 2013

What will happen in 2014?

Our main sector focal points for 2014 include progress on structural reforms, the potential for existing businesses, and new business areas and operations.

In 2013, the consumer-electronics makers undertook some structural reforms. And, we think reforms will remain a key theme in 2014, because the earnings environment should remain tough. Panasonic is pursuing major structural reforms. In FY14, focal points will include whether Panasonic moves to improve margins for its LCD operations, as well as its struggling digital-camera and system-large scale integrated circuit businesses.

Meanwhile, Sony is likely to announce measures to streamline its PC business along with its 3Q FY13 results due on 7 February 2014. We see a good chance of the company coming out with plans to reduce fixed costs, particularly R&D and marketing expenses, given the speed at which the PC market is contracting.

In the car-electronics business, Pioneer (6773 JP, JPY220, Hold [3]) and JVC Kenwood Holdings (Not rated) sharply reduced costs, particularly labour costs, in FY13. The aftermarket car-electronics outlook for FY14 and beyond remains unfavourable, in our view. Profitability could fall if labour costs rise in FY14.

Companies with solid earnings potential for FY14 include the game, automotive, healthcare, and other non-audiovisual electronics businesses. Sony boosted its monthly fee structure with the launch of the PlayStation 4. It has integrated previously free online multiplayer games into its paid *PlayStation Plus* subscriber service. The move should contribute to growth as a stable source of revenue from 2H FY14 as the number of *PlayStation 4* consoles in use grows.

Panasonic warrants attention for its automotive-electronics business. The carmakers at the November Tokyo Motor Show unveiled cars with larger displays and more smart capabilities in their infotainment systems. This bodes well for Panasonic, which is strong in terms of OEM production. Another focal point is companies that make small rechargeable and other auto batteries. We wait to see whether Olympus, which should benefit from a new-product cycle for endoscopes in FY14, will take advantage of healthy medical-equipment earnings to rationalise its audiovisual-equipment operations.

For audiovisual equipment, a focal point will be whether a shift in China demand to high-end smartphones will improve the utilisation rate at Sharp's (6753) Kameyama LCD plant. Additionally, we expect 4K TVs of all the makers to account for over 10% of LCD-TVs sold in 2014. These TVs could end the deterioration of the Japan TV makers' earnings, especially if the greater availability of content helps drive take-up.

New areas within the automotive and medical equipment businesses could also warrant attention. We wait to see whether Sony will pursue a marketing alliance with Olympus given Sony's highly competitive position based on its ability to adapt consumer technology, such as 4K, OLED, and head-mounted displays to medical applications. Another likely focal point for 2014 will be the use of complementary metal oxide semiconductor (CMOS) sensors and camera modules in the automotive-device field.

Thematic ideas

Key themes include structural reforms, automotive and medical equipment, and games, as stated above. Other focal points include 4K displays (margin improvement amid volume growth) and LCDs (increased capacity utilisation in the wake of the rising popularity of high-spec smartphones in China) because the market's expectations for these products are low. That said, these are unlikely to have a large impact.

In terms of stocks, we are focusing on Sony, which is highly likely to unveil new structural-reform plans at the 3Q FY13 results release. Sony's platform strategy of leveraging its games business should provide medium-to long-term earnings growth potential.

US hardware

Yoko Yamada
(yoko.yamada@us.daiwacm.com)

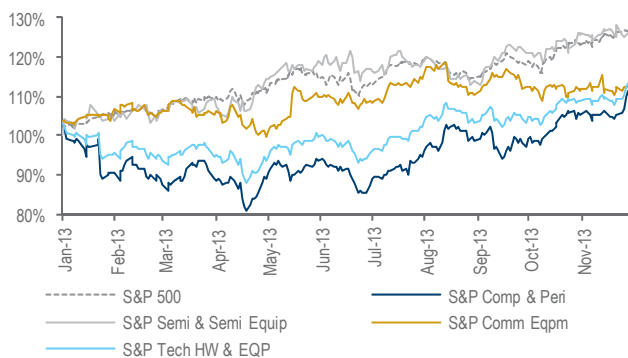
What happened in 2013?

Sluggish year for US hardware makers

In 2013, US hardware manufacturers faced sluggish demand for IT equipment, as well as lacklustre share-price performances. The shares of the hardware manufacturers, except for the semiconductor and semiconductor-equipment makers, underperformed the S&P 500 index. We expect the global smartphone-shipment volume to grow at a double-digit percentage for 2013. However, unit-shipment growth has come from the emerging markets globally, and has led to a greater presence for the China manufacturers.

Nokia's (NOK US: USD8.05, Hold [3]) share price appreciated on 24 December following the company's announcement that it was selling its cellular phone business in September 2013, and the deal will be closed by the end of March 2014. Furthermore, despite the market's expectations that the shipment volume for the iPhone will grow at a double-digit percentage for 2013, Apple shares have been underperforming the S&P 500 index since the start of the year.

■ US Tech - Hardware: sub-sector share-price performance since January 2013



Source: Bloomberg

Note: Share price data as at 2 Jan-2 Dec 2013

A decline in consumer demand for PCs (desktop, laptop) is clear, more noticeably in the emerging regions than in the industrialised nations. The smartphone market in the emerging regions is rapidly expanding, leading to consumers' decreased desire to buy PCs in these regions, in our opinion. It was a sluggish year for the hardware manufacturers engaged in IT-related businesses, such as makers of servers, networking equipment, and storage.

Customer priority has been on spending for improved cost efficiency, mainly focused on investment in software rather than hardware. The major IT-related companies have generally underperformed the S&P 500 index for 2013, except for Hewlett-Packard (HPQ US, USD27.61, Hold [3]), which has seen multiple expansion in the wake of reduced investor concerns about an earnings decline.

Where are we now?

Continued sluggish demand during the holiday season

We think consumer demand is likely to have focused mainly on smartphones and tablet devices during the year-end holiday shopping season. However, given that demand is currently stronger in the emerging regions than industrialised nations, the makers of IT products in the developed regions are unlikely to gain market share, except for Apple, which should benefit from increased sales of its new products.

Manufacturers have introduced new products such as hybrid-type PCs with detachable portable displays, and low-priced Chromebook laptops, but we expect demand to decline YoY for October-December 2013. However, recent demand has been stronger from the corporate side than from the consumer side, helping Hewlett-Packard gain market share relatively easily, in our view.

We believe demand at IT-related firms remained sluggish for October-December 2013. Looking at conditions by region, we are concerned about the economic slowdown in China. Statistics show that demand for some categories of IT equipment remains brisk in China, but the PRC Government's favouring of domestically made products has left US and European firms unable to benefit from this increased demand.

What will happen in 2014?

Smartphone sales/shipment growth likely to have limited benefit for the US, European makers

We forecast the global smartphone market to grow at a double-digit percentage, in both value and volume terms, in 2014. Given the large impact the emerging markets are having on the growth of the smartphone market globally, we believe that a large number of US and European manufacturers are likely to lose market share in 2014. We forecast the PC market to decline, in terms of both value and volume, in 2014. However, we expect demand for January-March to be strong, supported by a rise in demand from US and Japanese firms ahead of the expiry of Windows XP support in April 2014.

We also expect IT-related firms to continue to see sluggish demand during the year. We expect demand from the emerging regions and investments from the cloud operators to help drive revenue growth. However, the major cloud operators design their own data centres so they do not have to buy equipment from the major companies in the developed regions.

Furthermore, we believe that Asia firms will gain revenue share in the emerging regions globally and, consequently, we expect the growth in revenue and unit shipments for the companies in developed regions to be small this year.

Focus on Dell

In the PC and IT-related markets, we are interested in Dell (Not listed), which completed the privatisation of its shares and delisted from the Nasdaq in October 2013, as we now believe the company will be able to aggressively pursue measure to expand its market share due to the increased freedom of its management. We would like to see how the company proceeds with its pricing strategies of PCs for corporate clients, as well as for its server and storage markets.

Thematic ideas

Beneficiaries of IT spending again in focus as economy picks up

Although we have yet to see signs that a sharp recovery in IT spending will emerge in the first half of 2014, we expect replacement purchases of high-end servers and storage systems (renewals of which have been sluggish) to pick up as the macroeconomic recovery gains traction globally.

We peg EMC Corporation (EMC US, USD25.33, Hold [3]) and Cisco Systems (CSCO US, USD22.09, Outperform [2]) as beneficiaries if such high-end hardware sales recover. We are also focusing on investments in core routers by service providers. Several service providers in the US are apparently already running test installations. Adoption is likely to fuel earnings recoveries at both Cisco Systems and Juniper Networks (JNPR US, USD22.83, Hold [3]).

Global software

Kazuya Nishimura
(kazuya.nishimura@us.daiwacm.com)

What happened in 2013?

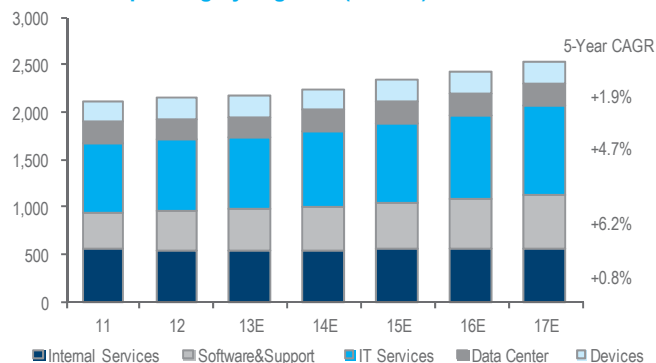
The year kicked off with muted growth in total IT spending (including software, hardware, IT services) as a result of forced US Government spending cuts from January-March. Later, IT spending began to recover slowly in the US, but has been in the doldrums in emerging nations since April-June. In the latter half of the year, investment in IT in Europe finally showed signs of bottoming out, but overall, globally, IT investment was not brisk. All told, there was no full-fledged rebound in IT spending in 2013.

The year was marked by the faster-than-expected move of IT resources to cloud computing. Amid sluggish growth in overall IT spending, there was a clear distinction between the winners (those tapping the cloud-computing market) and the losers (those left behind in that market).

Leading the winners are the pure cloud-computing plays. Of note, the software as a service (SaaS) firms are faring particularly well and are sharply increasing their share of the software market globally. Meanwhile, the losers are typically hardware firms. Amid the switch to cloud computing, which translates into the increased use of external IT resources, hardware replacement demand is languishing.

Also, the major software companies are among the losers. These firms, too, are beefing up cloud-related sales. At the same time, sales of their most profitable packaged software offerings are losing momentum. Indeed, the drag from falling packaged software sales is outweighing the boost from cloud-computing offerings. Over the long term, we expect the benefits from cloud computing to overshadow the drop in conventional software, but this could take a few more years.

■ Global IT spending by segment (USDbn)



Source: Gartner "Forecast: Enterprise IT Spending by Vertical Industry Market, Worldwide, 2011-2017, 3Q13 Update" By Vittorio D'Orazio, Derry Finkeldey, Susan Courmoyer, Rishi Sood, Venecia Liu, Kenneth Brant, Jeff Roster, Christine Arcaris, Anurag Gupta, Rika Narisawa, Jennifer Mazzucca and Rajesh Kandaswamy, Published 3 October 2013; compiled by Daiwa

Where are we now?

Notable sluggishness in demand in emerging nations, hardware market

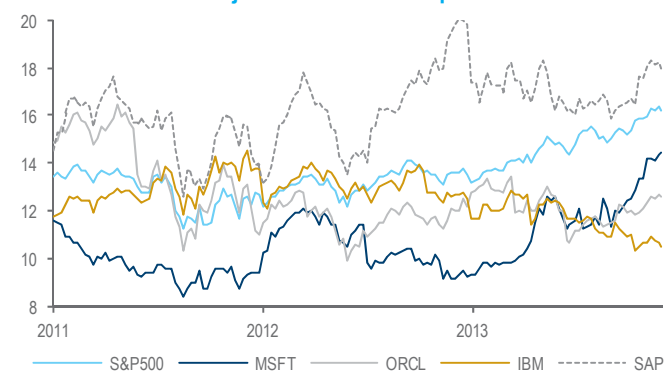
Currently, investment in the overall IT sector is a mixed bag. While it is steady in the US and is starting to rebound moderately in Europe, the outlook for China and other emerging nations is murky. The contrast between brisk cloud computing demand and floundering conventional systems is becoming sharper. The malaise at IBM's hardware business is especially severe.

Major software firms' valuations contracting; cloud-computing stocks performing strongly, but valuations already high

Investor interest has been shifting away from the major software names to cloud-computing firms that are seeing strong top-line growth. Cloud-computing names have greatly outperformed the broader market over the past 12 months. In contrast, the four major global software companies – Microsoft (MSFT US, USD35.30, Hold [3]), Oracle (ORCL US, USD37.65, Outperform [2]), IBM (IBM US, USD187.38, Hold [3]) and SAP (Not rated) – have seen their share prices perform weakly, leading to their PERs contracting in some cases. Having no hardware business, the current 2013 PER of SAP is higher than that for the S&P 500, at 18.9x based on the 2013 Bloomberg-consensus forecast, compared with 15.5x for the S&P 500. That said, the stock's valuation premium to the S&P 500 has narrowed over the past 12 months.

Meanwhile, with the sharp slump in hardware sales over the past year, the contraction in IBM's PER has been striking. The stock appears to be undervalued at the current level, but we do not expect the multiples to expand meaningfully any time soon given the sluggish growth in earnings likely amid the shift toward cloud computing.

■ PERs of the four major US software companies



Source: Bloomberg

What will happen in 2014?

Cloud computing should remain the main theme

A sharp rebound in overall IT demand/spending, including hardware and IT services, is unlikely even in 2014. We foresee continued moderate growth, as in 2013. Cloud computing looks set to remain the main theme, and we expect its impact on each firm's earnings to increase. Within the cloud-computing segment, we expect the enterprise resource planning (ERP) market to grow significantly in 2014, due to its higher sales-growth prospects.

In fact, cloud-computing-related sales account for more than 40% of total software sales in the customer relationship management (CRM) field but only 10% in the ERP area. Incorporating complex technologies and mission-critical data, the ERP field has been slow to move to the cloud, but these issues are gradually being resolved. ERP pure-play Workday is enjoying sharp sales growth, while Oracle, SAP and the other leading firms are also selling ERP cloud solutions. Clearly, these imply a trend toward the increased use of cloud computing.

We also expect the market for big data, and mobile and social software to expand over the medium- to long-term. Our expectations are especially high for big data. However, it will likely take some time before big-data operations have a large impact on earnings at individual firms.

Thematic ideas

Cloud-computing companies outshining software majors

As we expect the move to cloud computing to accelerate over the coming years, we see the spotlight remaining on pure-play cloud-computing companies, notably Salesforce.com (CRM US, USD56.29, Buy [1]), which is our top pick for 2014, rather than on the major software firms.

For the four major software firms, the focal point will be the balance between the positive from cloud computing and the negative from lacklustre hardware and conventional software operations. As these stocks look undervalued based on PER multiples, we expect them to appreciate if there are clearer signs of the latter bottoming out. At this stage, however, we think caution is warranted as regards to the outlooks for hardware and conventional software firms.

In this report, we refrain from making a top pick from among the four major software firms (Microsoft, Oracle, IBM and SAP).

Global tech: Daiwa's stock picks

Asia semiconductor – MediaTek

Eric Chen
(eric.chen@hk.daiwacm.com)

2014 revenue-growth catalysts

We expect 4Q13 revenue to beat the company's guidance slightly. We forecast revenue growth for the quarter of 2% QoQ, above the company's guidance range of a decline of 5% QoQ to flat QoQ, and driven by strong smartphone-IC shipments and an increase in its blended ASP.

Our market research suggests there is currently a shortage in China of MediaTek's MTK 6572 and MT 6589 chips, reflecting strong demand (ahead of the Lunar New Year), but also because the company is controlling the pace at which it sells these chips to the market. MediaTek's action should help to avoid an inventory build-up at its distributors after the Lunar New Year).

We forecast the company's 1Q14 revenue, excluding that from its acquisition of MStar Semiconductor (consolidated from 1 February 2014), to fall by 7% QoQ, but this is much better than its past-3-year average decline for the first quarter of the year of 12% QoQ.

Our 1Q14 revenue forecast reflects the following: 1) some smartphone-IC shipments being postponed from 4Q13 to 1Q14, and 2) a higher blended ASP on a QoQ basis, driven by strong octa-core smartphone-IC shipments. We forecast the company's octa-core smartphone-IC shipments to amount to 5m units for 1Q14, up from 1m units for 4Q13E.

We recently raised our 2014-15 revenue forecasts mildly by 3.3% to reflect a stronger business outlook and better ASP trends than we envisaged before, translating into 3.2-3.3% increases in our EPS forecasts to TWD26.3/32.1 for 2014/15, respectively.

For 2014, we forecast revenue growth of 21% YoY, excluding MStar Semiconductor. We expect its revenue growth to be driven mainly by a higher ASP. We forecast a blended ASP increase for MediaTek's handset ICs of 26% YoY for 2014, driven by higher smartphone-IC shipments with quad-core.

We note that currently the ASP for MediaTek's octa-core smartphone ICs is USD32, compared with USD13 for quad-core ones, and USD8.5 for dual-core ones, and we believe the company's gross margin for quad-core and octa-core smartphone-ICs are above 50% and 60%, respectively.

Valuation and risks

We have a 6-month target price of TWD526, based on our 2014E EPS and assign a target PER of 20x, based on the stock's past-2-year average. We reiterate our Buy (1) rating for MediaTek. The key risk to our view would be lower smartphone-IC shipments compared with our expectations for 2014 and 2015.

We remain more positive than the market on the gross margin for the company's 2014-15 smartphone-IC business.

Financial summary

■ Key assumptions

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Average selling price (USD)	6.6	6.5	5.0	4.0	4.5	5.5	5.6	5.8
Change in ASP (%)	(4)	(2)	(22)	(21)	13	22	2	2
WCDMA smartphone IC market share (%)	n.a.	n.a.	n.a.	18.8	43.6	66.1	61.1	64.1
Rev percentage from smartphone +3G handsets (%)	n.a.	n.a.	n.a.	7.3	39.8	56.9	71.5	72.5

■ Profit and loss (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Handset IC Revenues	60,351	82,134	80,389	57,662	69,189	98,306	146,593	161,252
TV & DVD IC Revenues	19,499	18,655	17,534	17,954	17,013	33,751	50,329	55,362
Other Revenue	10,552	14,723	15,599	11,242	13,060	3,989	5,949	6,544
Total Revenue	90,402	115,512	113,522	86,857	99,263	136,046	202,871	223,158
Other income	0	0	0	0	0	0	0	0
COGS	(41,819)	(47,695)	(52,614)	(47,513)	(58,201)	(76,458)	(112,669)	(119,836)
SG&A	(5,000)	(7,245)	(6,519)	(5,816)	(6,174)	(7,446)	(11,182)	(11,742)
Other op.expenses	(21,275)	(24,185)	(23,311)	(21,184)	(22,384)	(27,303)	(37,473)	(40,470)
Operating profit	22,308	36,387	31,079	12,345	12,505	24,839	41,547	51,110
Net-interest inc./(exp.)	1,290	494	586	1,007	1,621	900	842	842
Assoc./forex/extraord./others	(2,500)	550	623	852	2,494	3,030	1,102	1,102
Pre-tax profit	21,098	37,431	32,288	14,203	16,620	28,769	43,491	53,054
Tax	(1,924)	(725)	(1,351)	(587)	(971)	(1,669)	(2,740)	(3,342)
Min. int./pref. div./others	16	0	25	7	39	0	0	0
Net profit (reported)	19,190	36,706	30,961	13,623	15,688	27,100	40,751	49,711
Net profit (adjusted)	19,190	36,706	30,961	13,623	15,688	27,100	40,751	49,711
EPS (reported)(TWD)	17.886	33.624	28.293	12.246	12.818	20.083	26.306	32.090
EPS (adjusted)(TWD)	17.886	33.624	28.293	12.246	12.818	20.083	26.306	32.090
EPS (adjusted fully-diluted)(TWD)	17.886	33.624	28.293	12.246	12.818	20.083	26.306	32.090
DPS (TWD)	14.637	11.010	20.720	16.414	7.004	7.470	13.335	17.467
EBIT	22,308	36,387	31,079	12,345	12,505	24,839	41,547	51,110
EBITDA	25,603	39,632	34,056	15,074	16,202	30,354	47,338	57,190

■ Cash flow (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Profit before tax	21,098	37,431	32,288	14,203	16,620	28,769	43,491	53,054
Depreciation and amortisation	3,295	3,245	2,978	2,729	3,696	5,515	5,791	6,080
Tax paid	(1,924)	(725)	(1,351)	(587)	(971)	(1,669)	(2,740)	(3,342)
Change in working capital	4,016	2,423	(4,487)	379	(3,650)	(8,072)	(9,451)	(2,541)
Other operational CF items	9,113	12,876	(20)	(16)	(4,252)	7,127	6,776	790
Cash flow from operations	35,599	55,250	29,408	16,707	11,442	31,671	43,866	54,042
Capex	(1,705)	(1,574)	(2,122)	(2,585)	(2,268)	(2,495)	(2,745)	(2,882)
Net (acquisitions)/disposals	(1,394)	4,620	(3,035)	1,886	1,414	0	0	0
Other investing CF items	(7,385)	(1,277)	(1,117)	1,714	(3,322)	26	0	0
Cash flow from investing	(10,483)	1,769	(6,274)	1,016	(4,177)	(2,469)	(2,745)	(2,882)
Change in debt	(40)	0	0	4,255	4,768	0	0	0
Net share issues/(repurchases)	0	0	0	0	0	4,203	0	0
Dividends paid	(19,630)	(15,024)	(28,343)	(21,999)	(10,328)	(12,145)	(24,888)	(32,601)
Other financing CF items	(3,213)	125	270	(2,172)	139	(529)	0	0
Cash flow from financing	(22,883)	(14,899)	(28,073)	(19,917)	(5,421)	(8,471)	(24,888)	(32,601)
Forex effect/others	0	0	0	0	0	0	0	0
Change in cash	2,233	42,120	(4,940)	(2,194)	1,844	20,730	16,233	18,559
Free cash flow	33,894	53,676	27,285	14,123	9,174	29,175	41,121	51,159

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (TWDm)

As at 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Cash & short-term investment	57,594	96,847	92,073	91,032	90,276	111,030	127,264	145,822
Inventory	5,547	8,173	9,388	9,392	13,867	21,245	31,306	33,298
Accounts receivable	5,429	7,267	7,164	7,384	6,585	12,910	19,251	21,176
Other current assets	2,656	1,751	3,970	4,234	7,343	10,611	15,823	17,406
Total current assets	71,226	114,038	112,595	112,042	118,071	155,796	193,644	217,702
Fixed assets	6,504	6,889	7,808	9,810	10,708	12,706	13,797	14,727
Goodwill & intangibles	12,375	11,005	9,897	16,472	16,344	18,718	19,365	19,561
Other non-current assets	8,970	6,662	7,734	9,417	65,120	67,877	68,177	68,477
Total assets	99,074	138,594	138,035	147,741	210,243	255,097	294,983	320,467
Short-term debt	1	0	0	4,107	8,910	9,040	9,040	9,040
Accounts payable	4,907	11,794	8,419	9,022	9,047	14,678	21,629	23,005
Other current liabilities	12,324	17,660	17,367	17,299	14,916	25,312	37,300	39,672
Total current liabilities	17,232	29,454	25,786	30,428	32,873	49,029	67,969	71,717
Long-term debt	0	0	0	148	114	765	765	765
Other non-current liabilities	83	248	535	837	1,482	1,508	1,508	1,508
Total liabilities	17,316	29,702	26,321	31,413	34,469	51,302	70,241	73,990
Share capital	10,732	10,901	10,999	11,475	13,494	13,497	13,497	13,497
Reserves/R.E./others	70,879	97,970	100,714	104,803	162,246	190,298	211,245	232,980
Shareholders' equity	81,611	108,871	111,713	116,278	175,740	203,795	224,741	246,477
Minority interests	148	21	0	50	34	0	0	0
Total equity & liabilities	99,074	138,594	138,035	147,741	210,243	255,097	294,983	320,467
EV	498,527	459,146	463,899	469,244	474,753	454,746	438,512	419,953
Net debt/(cash)	(57,593)	(96,847)	(92,073)	(86,777)	(81,253)	(101,226)	(117,459)	(136,018)
BVPS (TWD)	75.229	98.993	101.560	101.330	130.237	151.021	166.544	182.651

■ Key ratios (%)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sales (YoY)	12.1	27.8	(1.7)	(23.5)	14.3	37.1	49.1	10.0
EBITDA (YoY)	(24.7)	54.8	(14.1)	(55.7)	7.5	87.4	56.0	20.8
Operating profit (YoY)	(30.0)	63.1	(14.6)	(60.3)	1.3	98.6	67.3	23.0
Net profit (YoY)	(42.9)	91.3	(15.7)	(56.0)	15.2	72.8	50.4	22.0
Core EPS (fully-diluted) (YoY)	(44.2)	88.0	(15.9)	(56.7)	4.7	56.7	31.0	22.0
Gross-profit margin	53.7	58.7	53.7	45.3	41.4	43.8	44.5	46.3
EBITDA margin	28.3	34.3	30.0	17.4	16.3	22.3	23.3	25.6
Operating-profit margin	24.7	31.5	27.4	14.2	12.6	18.3	20.5	22.9
Net profit margin	21.2	31.8	27.3	15.7	15.8	19.9	20.1	22.3
ROAE	22.9	38.5	28.1	12.0	10.7	14.3	19.0	21.1
ROAA	19.4	30.9	22.4	9.5	8.8	11.6	14.8	16.2
ROCE	26.6	38.2	28.2	10.6	8.2	12.5	18.5	20.8
ROIC	81.5	197.1	188.0	48.1	19.0	23.7	37.1	44.0
Net debt to equity	net cash	net cash	net cash	net cash	net cash	net cash	net cash	net cash
Effective tax rate	9.1	1.9	4.2	4.1	5.8	5.8	6.3	6.3
Accounts receivable (days)	25.3	20.1	23.2	30.6	25.7	26.2	28.9	33.1
Current ratio (x)	4.1	3.9	4.4	3.7	3.6	3.2	2.8	3.0
Net interest cover (x)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net dividend payout	81.8	32.7	73.2	134.0	54.6	37.2	50.7	54.4
Free cash flow yield	6.1	9.7	4.9	2.5	1.7	5.2	7.4	9.2

Source: FactSet, Daiwa forecasts

Asia smartphone/ handset – Hon Hai Precision Industry

Kylie Huang

(kylie.huang@daiwacm-cathay.com.tw)

2014 earnings-growth catalysts

Hon Hai reported sales for 3Q13 of TWD919.3bn (up 3% QoQ and 5% YoY) and an operating profit of TWD31.8bn (up 71% QoQ and 6% YoY). The latter beat our forecast by 11%. The operating margin expanded to 3.46% (from 2.08% for 2Q13), surpassing our and the Bloomberg-consensus forecasts of 3.1-3.2%.

The company attributed this impressive margin expansion to solid opex control, an enhanced product mix, and an improved production yield rate on its new products. Due to higher non-operating income and a lower tax rate, 3Q13 EPS was TWD2.36, significantly above our and the consensus forecasts of TWD1.83 and TWD1.99, respectively.

During the 3Q13 results presentation, Hon Hai did not give quantitative guidance, but said it expected sequential revenue growth for October-November. Also, the company expressed confidence that it would be able to expand its margin further in 4Q13. This positive outlook should ease prior market concerns about potential iPhone order adjustments and underpins our expectations.

For 4Q13, we forecast 23% QoQ revenue growth, driven by the ramp-up of the iPhone 5S and iPad Air, and seasonal factors. We forecast the operating margin to expand to 4.0% and EPS to rise by 20% QoQ to TWD2.83, on a faster yield rate ramp-up for new iPhones/iPads, a more favourable product mix, and better economic scale.

We believe Hon Hai's strong margin delivery in 3Q13 is just the start of a quarterly upward margin trend. We forecast its operating margin to expand to 2.9% YoY for 2013 and 3.2% YoY for 2014, up from 2.8% YoY for 2012, on the back of its competitive cost structure, improved economies of scale, and as we expect more stable ASPs.

Valuation and risks

We have a 6-month target price to TWD91, based on our 1-year-forward EPS forecast and assign a target PER of 11x (the stock's past-3-year average). We reiterate our Buy (1) rating on Hon Hai. The key risk to our call would be slower-than-expected margin expansion.

Compared with the market, we are more positive on margin expansion over the coming quarters and less concerned about the change in iPhone orders.

Financial summary

■ Key assumptions

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Consumer related sales growth	31.1	5.3	11.6	11.5	18.0	19.1	15.4	18.0
PC and networking related sales growth (YoY%)	9.4	(7.2)	44.8	(5.4)	(19.5)	(1.8)	(0.5)	1.6
iPhone shipment (mn units)	13.7	25.1	47.2	80.5	119.7	114.0	136.0	156.4
iPad shipment (mn units)	0.0	0.0	14.3	40.0	60.1	55.0	63.5	74.3

■ Profit and loss (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
PC/NB/networking Revenues	1,041,906	1,009,676	1,521,104	1,531,057	1,322,734	1,258,490	1,207,847	1,216,916
Consumer electronics Revenues	357,896	376,979	420,625	468,801	553,134	658,579	760,005	896,647
Other Revenue	550,680	572,527	1,055,476	1,452,823	2,029,527	1,834,931	2,234,398	2,503,957
Total Revenue	1,950,481	1,959,182	2,997,205	3,452,681	3,905,395	3,752,000	4,202,250	4,617,520
Other income	0	0	0	0	0	0	0	0
COGS	(1,782,377)	(1,772,629)	(2,753,003)	(3,186,299)	(3,575,766)	(3,503,618)	(3,919,018)	(4,309,531)
SG&A	(73,837)	(76,982)	(119,265)	(142,691)	(175,552)	(90,236)	(97,786)	(104,448)
Other op.expenses	(23,660)	(26,082)	(38,791)	(40,847)	(45,627)	(48,588)	(52,654)	(56,241)
Operating profit	70,607	83,489	86,146	82,845	108,450	109,558	132,791	147,299
Net-interest inc./(exp.)	(1,964)	(435)	492	2,721	3,752	1,967	4,249	5,872
Assoc/forex/extraord./others	3,951	4,977	4,839	16,970	6,177	18,563	4,079	4,543
Pre-tax profit	72,594	88,031	91,477	102,536	118,379	130,089	141,119	157,714
Tax	(15,904)	(11,651)	(16,005)	(20,602)	(26,592)	(29,140)	(28,929)	(31,543)
Min. int./pref. div./others	(1,557)	(695)	1,682	(344)	2,975	120	125	145
Net profit (reported)	55,133	75,685	77,155	81,591	94,762	101,069	112,315	126,316
Net profit (adjusted)	55,133	75,685	77,155	81,591	94,762	101,069	112,315	126,316
EPS (reported)(TWD)	4.430	5.949	6.034	6.339	7.314	7.743	8.555	9.621
EPS (adjusted)(TWD)	4.430	5.949	6.034	6.339	7.314	7.743	8.555	9.621
EPS (adjusted fully-diluted)(TWD)	4.430	5.949	6.034	6.339	7.314	7.743	8.555	9.621
DPS (TWD)	0.655	1.349	0.756	1.246	1.370	1.947	2.139	2.405
EBIT	70,607	83,489	86,146	82,845	108,450	109,558	132,791	147,299
EBITDA	103,343	121,888	127,276	134,301	176,334	174,554	206,242	228,782

■ Cash flow (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Profit before tax	72,594	88,031	91,477	102,536	118,379	130,089	141,119	157,714
Depreciation and amortisation	32,736	38,399	41,131	51,456	67,883	64,996	73,451	81,483
Tax paid	(15,904)	(11,651)	(16,005)	(20,602)	(26,592)	(29,140)	(28,929)	(31,543)
Change in working capital	(19,401)	(17,186)	(37,014)	(64,472)	90,647	21,258	(14,917)	(13,181)
Other operational CF items	(3,524)	(3,694)	(1,552)	(3,067)	1,016	(7,416)	(1,375)	(1,766)
Cash flow from operations	66,501	93,899	78,038	65,852	251,333	179,787	169,349	192,707
Capex	(79,568)	(13,618)	(74,394)	(128,885)	(93,086)	(71,536)	(68,046)	(64,732)
Net (acquisitions)/disposals	30,767	(17,095)	(52,600)	64,657	(12,350)	(14,990)	(13,990)	(12,990)
Other investing CF items	(14,433)	(7,186)	(4,517)	(15,164)	(15,290)	(954)	(973)	(993)
Cash flow from investing	(63,234)	(37,899)	(131,511)	(79,392)	(120,727)	(87,480)	(83,009)	(78,715)
Change in debt	(4,398)	20,152	166,043	73,134	71,362	25,182	26,441	27,763
Net share issues/(repurchases)	0	0	0	0	0	0	0	0
Dividends paid	(18,872)	(8,156)	(17,158)	(9,661)	(16,034)	(17,754)	(25,413)	(28,079)
Other financing CF items	(25,785)	11,160	(19,259)	25,309	(10,028)	12,930	0	0
Cash flow from financing	(49,055)	23,155	129,626	88,782	45,300	20,358	1,028	(316)
Forex effect/others	0	0	0	0	0	0	0	0
Change in cash	(45,789)	79,155	76,153	75,242	175,906	112,665	87,367	113,676
Free cash flow	(13,067)	80,281	3,644	(63,033)	158,247	108,251	101,303	127,975

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (TWDm)

As at 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Cash & short-term investment	99,988	179,143	255,296	330,538	506,445	619,109	706,477	820,153
Inventory	166,725	180,980	259,384	380,522	349,883	350,362	391,902	430,953
Accounts receivable	267,349	307,606	409,819	476,050	633,049	513,973	575,651	632,537
Other current assets	24,688	31,846	40,049	96,558	53,582	68,218	76,405	83,955
Total current assets	558,749	699,574	964,548	1,283,668	1,542,957	1,551,662	1,750,434	1,967,598
Fixed assets	253,931	234,618	272,150	355,373	390,298	396,838	391,433	374,683
Goodwill & intangibles	0	0	0	0	0	0	0	0
Other non-current assets	65,940	87,753	143,835	91,270	111,148	134,628	151,092	166,986
Total assets	878,621	1,021,945	1,380,532	1,730,311	2,044,404	2,083,129	2,292,959	2,509,267
Short-term debt	77,582	86,245	230,455	271,512	355,790	363,415	381,585	400,665
Accounts payable	266,104	300,530	427,153	548,494	638,371	623,932	697,907	767,451
Other current liabilities	78,403	88,462	113,644	171,710	255,863	187,600	210,113	230,876
Total current liabilities	422,089	475,236	771,252	991,716	1,250,024	1,174,947	1,289,605	1,398,991
Long-term debt	50,628	62,649	87,955	115,979	105,688	121,138	127,195	133,555
Other non-current liabilities	44,737	44,205	40,732	44,785	42,159	44,267	46,480	48,804
Total liabilities	517,454	582,090	899,939	1,152,480	1,397,871	1,340,351	1,463,280	1,581,350
Share capital	74,146	85,789	96,612	106,891	118,359	131,289	131,289	131,289
Reserves/R.E./others	287,021	354,066	383,980	470,941	528,174	611,489	698,390	796,628
Shareholders' equity	361,167	439,855	480,593	577,832	646,532	742,777	829,679	927,916
Minority interests	0	0	0	0	0	0	0	0
Total equity & liabilities	878,621	1,021,945	1,380,532	1,730,311	2,044,404	2,083,129	2,292,959	2,509,267
EV	1,085,096	1,026,625	1,119,988	1,113,826	1,011,908	922,317	859,178	770,941
Net debt/(cash)	28,222	(30,249)	63,114	56,953	(44,966)	(134,557)	(197,696)	(285,933)
BVPS (TWD)	28.517	34.488	37.451	44.743	49.700	56.576	63.195	70.678

■ Key ratios (%)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sales (YoY)	14.6	0.4	53.0	15.2	13.1	(3.9)	12.0	9.9
EBITDA (YoY)	(13.6)	17.9	4.4	5.5	31.3	(1.0)	18.2	10.9
Operating profit (YoY)	(24.5)	18.2	3.2	(3.8)	30.9	1.0	21.2	10.9
Net profit (YoY)	(29.0)	37.3	1.9	5.8	16.1	6.7	11.1	12.5
Core EPS (fully-diluted) (YoY)	(30.5)	34.3	1.4	5.1	15.4	5.9	10.5	12.5
Gross-profit margin	8.6	9.5	8.1	7.7	8.4	6.6	6.7	6.7
EBITDA margin	5.3	6.2	4.2	3.9	4.5	4.7	4.9	5.0
Operating-profit margin	3.6	4.3	2.9	2.4	2.8	2.9	3.2	3.2
Net profit margin	2.8	3.9	2.6	2.4	2.4	2.7	2.7	2.7
ROAE	15.5	18.9	16.8	15.4	15.5	14.5	14.3	14.4
ROAA	6.3	8.0	6.4	5.2	5.0	4.9	5.1	5.3
ROCE	14.5	15.5	12.4	9.4	10.5	9.4	10.4	10.5
ROIC	15.2	18.1	14.9	11.2	13.6	14.1	17.0	18.5
Net debt to equity	7.8	net cash	13.1	9.9	net cash	net cash	net cash	net cash
Effective tax rate	21.9	13.2	17.5	20.1	22.5	22.4	20.5	20.0
Accounts receivable (days)	49.1	53.6	43.7	46.8	51.8	55.8	47.3	47.8
Current ratio (x)	1.3	1.5	1.3	1.3	1.2	1.3	1.4	1.4
Net interest cover (x)	36.0	191.7	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net dividend payout	14.8	22.7	12.5	19.7	18.7	25.1	25.0	25.0
Free cash flow yield	n.a.	7.6	0.3	n.a.	15.0	10.2	9.6	12.1

Source: FactSet, Daiwa forecasts

Asia PC/notebook – Catcher Technology

Steven Tseng

(steven.tseng@daiwacm-cathay.com.tw)

Jason Chen

(Jason.chen@daiwacm-cathay.com.tw)

2014 revenue-growth catalysts

Catcher Technology just reported its December revenue (TWD3.9bn, -16% MoM), leading to 4Q13 revenue of TWD13.1bn (+26% QoQ), which was ahead of our estimate of TWD12.7bn by 3%. This was much stronger than the company's guidance of 5-10% QoQ growth.

We believe the strength in revenue is coming from the following areas:

- **Sony Xperia Z1:** we estimate this business contributed 14% of Catcher's 4Q13 revenue, up from 8% in 3Q13. Junya Ayada, Daiwa's analyst covering Sony, expects Sony's total smartphone shipments to reach 48.5m in fiscal 2014 (up 21% YoY from 40m in its 2013 financial year), suggesting more potential upside for Catcher in 2014.
- **Apple iPad mini:** we believe Catcher handles about 30% of the iPad mini casing business. Shipments of the new retina iPad mini should have been ramping up since November after a bottleneck with panel supply was resolved, and we expect volumes to increase further in 1Q14, in light of the favourable demand.
- **Apple Macbooks:** Macbook shipments (both Air and Pro) were generally lacklustre in 2013 but started to show seasonal strength from 4Q13, based on our market research. The relatively high ASPs and profit margins on Macbook orders should contribute positively to Catcher's 4Q13 performance, in our view.

We recently raised our 2013E core EPS by 3% to TWD18.627 following upward revisions to our 4Q13 forecasts.

For 2014 and 2015, we raised our core EPS forecasts by 8-11% (to TWD18.480 and TWD20.573, respectively), to factor in: 1) likely better-than-expected product shipments, in particular for smartphones (Sony/Apple) and tablets (Apple), and 2) better operating leverage on the stronger shipment scale.

Valuation and risks

We recently raised our 6-month target price to TWD222 (from TWD189), based on a 2014E PER of 12x. We raised our target PER slightly to 12x, from 11.5x, to reflect the better earnings growth that we expect going forward. Our target multiple is still in the mid-cycle of the stock's past-3-year trading range of 6-18x.

Catcher's share price has reacted favourably to the stronger-than-expected top line in 4Q13, and we expect more upside to come, thanks mainly to the shipment growth of smart devices (iPad mini orders, and likely ramping-up of shipments of HTC orders in 1Q14 and iPhone casing from 2Q14). The main risk to our call would be lower-than-expected order allocations from key clients.

Our 2013-15E EPS are 6-7% above the Bloomberg-consensus forecasts, as we are more optimistic on Catcher's shipment and profit-margin outlook.

Financial summary

■ Key assumptions

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
PC casing ASP YoY%	(0.2)	(1.5)	(2.5)	(2.1)	(2.2)	(2.8)	(3.2)	(3.0)
PC casing shipment YoY%	6.5	(3.3)	17.4	59.9	6.5	(24.6)	(0.8)	3.1
Handset casing ASP YoY%	(3.1)	(3.8)	142.1	27.0	(5.7)	19.4	0.7	(1.7)
Handset casing shipment YoY%	39.0	(25.6)	22.9	92.4	(8.2)	23.6	31.0	23.9

■ Profit and loss (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
NB casings Revenues	12,212	12,055	13,350	19,520	20,592	14,952	14,283	14,286
Mobile device casings Revenues	2,912	2,162	6,226	14,200	12,454	18,233	23,928	29,121
Other Revenue	3,925	2,771	2,268	2,194	3,982	9,642	11,208	12,389
Total Revenue	19,049	16,988	21,845	35,914	37,029	42,827	49,418	55,795
Other income	0	0	0	0	0	0	0	0
COGS	(11,446)	(10,983)	(14,092)	(19,023)	(20,990)	(24,455)	(28,123)	(32,109)
SG&A	(1,759)	(1,508)	(1,964)	(2,897)	(2,942)	(3,320)	(3,721)	(4,177)
Other op.expenses	(902)	(937)	(701)	(781)	(939)	(936)	(1,049)	(1,178)
Operating profit	4,941	3,560	5,087	13,213	12,158	14,116	16,525	18,331
Net-interest inc./(exp.)	83	(61)	20	126	338	149	182	228
Assoc/forex/extraord./others	(92)	356	80	366	1,455	3,234	892	1,039
Pre-tax profit	4,932	3,854	5,187	13,705	13,951	17,499	17,600	19,598
Tax	(571)	(523)	(740)	(3,040)	(3,042)	(3,516)	(3,727)	(4,154)
Min. int./pref. div./others	(15)	(11)	(17)	12	(19)	0	0	0
Net profit (reported)	4,346	3,320	4,430	10,677	10,890	13,983	13,873	15,444
Net profit (adjusted)	4,346	3,320	4,430	10,677	10,890	13,983	13,873	15,444
EPS (reported)(TWD)	6.627	5.021	6.662	14.977	14.507	18.627	18.480	20.573
EPS (adjusted)(TWD)	6.627	5.021	6.662	14.977	14.507	18.627	18.480	20.573
EPS (adjusted fully-diluted)(TWD)	6.627	5.021	6.662	14.977	14.507	18.627	18.480	20.573
DPS (TWD)	0.914	2.011	4.006	5.265	6.000	7.451	7.392	8.229
EBIT	4,941	3,560	5,087	13,213	12,158	14,116	16,525	18,331
EBITDA	6,433	5,509	7,122	15,778	16,433	18,724	21,835	24,402

■ Cash flow (TWDm)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Profit before tax	4,932	3,854	5,187	13,705	13,951	17,499	17,600	19,598
Depreciation and amortisation	1,492	1,950	2,035	2,564	4,275	4,608	5,310	6,071
Tax paid	(571)	(523)	(740)	(3,040)	(3,042)	(3,516)	(3,727)	(4,154)
Change in working capital	(4,950)	(279)	584	2,401	(3,417)	(2,145)	(2,179)	(2,095)
Other operational CF items	(60)	(124)	(100)	(87)	(104)	(86)	(95)	(104)
Cash flow from operations	843	4,878	6,965	15,543	11,663	16,361	16,909	19,316
Capex	(6,991)	(231)	(4,579)	(9,943)	(6,742)	(6,000)	(6,500)	(7,000)
Net (acquisitions)/disposals	137	(13)	(473)	(230)	(208)	(90)	(90)	(90)
Other investing CF items	(1,068)	(1,553)	1,272	58	(249)	(2,423)	(116)	(112)
Cash flow from investing	(7,922)	(1,797)	(3,780)	(10,115)	(7,199)	(8,513)	(6,706)	(7,202)
Change in debt	4,226	7,271	1,513	5,877	6,211	316	319	323
Net share issues/(repurchases)	0	0	0	0	0	0	0	0
Dividends paid	(2,166)	(600)	(1,330)	(2,664)	(3,753)	(4,504)	(5,593)	(5,549)
Other financing CF items	1,422	(215)	(2,382)	15,122	(1,917)	0	0	0
Cash flow from financing	3,482	6,455	(2,199)	18,335	540	(4,188)	(5,274)	(5,227)
Forex effect/others	0	0	0	0	0	0	0	0
Change in cash	(3,597)	9,536	986	23,763	5,004	3,660	4,930	6,887
Free cash flow	(6,148)	4,647	2,386	5,600	4,921	10,361	10,409	12,316

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (TWDm)

As at 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Cash & short-term investment	7,375	16,910	17,896	41,659	46,663	50,323	55,253	62,140
Inventory	2,964	2,194	2,136	2,538	2,449	3,057	3,515	4,014
Accounts receivable	8,112	6,246	9,502	12,323	15,173	17,549	20,250	22,863
Other current assets	4,333	6,728	4,926	1,475	2,347	2,715	3,133	3,537
Total current assets	22,783	32,079	34,461	57,995	66,633	73,644	82,151	92,554
Fixed assets	19,894	18,297	20,931	28,408	30,998	32,509	33,815	34,856
Goodwill & intangibles	0	0	0	0	0	0	0	0
Other non-current assets	1,950	3,507	2,702	2,875	3,295	5,774	5,959	6,153
Total assets	44,627	53,883	58,094	89,278	100,926	111,928	121,925	133,564
Short-term debt	6,785	9,911	18,274	17,993	28,767	31,946	32,266	32,588
Accounts payable	2,242	2,046	3,199	3,258	3,338	3,819	4,392	5,014
Other current liabilities	1,882	1,559	2,386	4,500	4,636	5,362	6,187	6,986
Total current liabilities	10,910	13,516	23,859	25,751	36,741	41,127	42,845	44,588
Long-term debt	4,084	8,225	1,307	7,413	2,863	0	0	0
Other non-current liabilities	190	194	263	314	301	301	301	301
Total liabilities	15,184	21,936	25,428	33,478	39,906	41,429	43,146	44,890
Share capital	5,997	6,649	6,649	7,506	7,507	7,507	7,507	7,507
Reserves/R.E./others	23,446	25,299	26,016	48,294	53,513	62,992	71,272	81,167
Shareholders' equity	29,443	31,948	32,665	55,801	61,020	70,499	78,779	88,674
Minority interests	0	0	0	0	0	0	0	0
Total equity & liabilities	44,627	53,883	58,094	89,278	100,926	111,928	121,925	133,564
EV	153,260	150,991	151,449	133,512	134,732	131,388	126,778	120,213
Net debt/(cash)	3,495	1,225	1,684	(16,253)	(15,033)	(18,377)	(22,987)	(29,552)
BVPS (TWD)	44.666	48.048	49.128	74.337	81.284	93.911	104.941	118.121

■ Key ratios (%)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sales (YoY)	5.3	(10.8)	28.6	64.4	3.1	15.7	15.4	12.9
EBITDA (YoY)	(23.4)	(14.4)	29.3	121.5	4.2	13.9	16.6	11.8
Operating profit (YoY)	(33.6)	(28.0)	42.9	159.7	(8.0)	16.1	17.1	10.9
Net profit (YoY)	(39.6)	(23.6)	33.4	141.0	2.0	28.4	(0.8)	11.3
Core EPS (fully-diluted) (YoY)	(40.0)	(24.2)	32.7	124.8	(3.1)	28.4	(0.8)	11.3
Gross-profit margin	39.9	35.3	35.5	47.0	43.3	42.9	43.1	42.5
EBITDA margin	33.8	32.4	32.6	43.9	44.4	43.7	44.2	43.7
Operating-profit margin	25.9	21.0	23.3	36.8	32.8	33.0	33.4	32.9
Net profit margin	22.8	19.5	20.3	29.7	29.4	32.7	28.1	27.7
ROAE	15.7	10.8	13.7	24.1	18.6	21.3	18.6	18.4
ROAA	10.7	6.7	7.9	14.5	11.5	13.1	11.9	12.1
ROCE	13.6	7.9	9.9	19.8	14.0	14.5	15.5	15.8
ROIC	16.0	9.3	12.9	27.8	22.2	23.0	24.1	25.1
Net debt to equity	11.9	3.8	5.2	net cash	net cash	net cash	net cash	net cash
Effective tax rate	11.6	13.6	14.3	22.2	21.8	20.1	21.2	21.2
Accounts receivable (days)	151.3	154.2	131.6	110.9	135.5	139.4	139.6	141.0
Current ratio (x)	2.1	2.4	1.4	2.3	1.8	1.8	1.9	2.1
Net interest cover (x)	n.a.	57.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net dividend payout	13.8	40.1	60.1	35.2	41.4	40.0	40.0	40.0
Free cash flow yield	n.a.	3.1	1.6	3.7	3.3	6.9	7.0	8.2

Source: FactSet, Daiwa forecasts

Asia PC/notebook – Lenovo

Steven Tseng
(steven.tseng@daiwacm-cathay.com.tw)

Jason Chen
(Jason.chen@daiwacm-cathay.com.tw)

2014 earnings-growth catalysts

Wuhan capacity should support smart device business. On 19 December 2013, Lenovo officially opened its R&D and production base for smart devices in Wuhan, on which it expects to spend CNY5bn over 5 years (starting in 2013). Currently, the annual capacity is about 12m units (including both smartphones and tablets), and should expand to 30m by end-2014, and further to 100m in the long run. As Lenovo's smart device shipments have reached critical mass (we expect FY14 shipments to reach 66m, up over 100% YoY), we expect its in-house capacity to enhance its cost competitiveness and boost its production flexibility to cope with the typically shorter profit life cycle of smart devices (vs. PCs).

Limited impact from iPhone. Apple's agreement with China Mobile to launch the iPhone (from 17 January 2014) may add more pressure to China's already competitive smartphone market, but we expect the impact on Lenovo to be limited, as: 1) the impact from the iPhone will be concentrated on the high-end segment, where Lenovo still has limited exposure, 2) Lenovo's increasing push toward retail channels, or what it dubs the "open market", should be another shipment-growth driver for its smart devices, 3) ex-China emerging markets (eg, Indonesia, Russia, etc) also offer promising opportunities and potentially better gross margins (than those in China).

Near-term outlook still solid. We maintain our forecast of 7% QoQ revenue growth for 3Q FY14 (ie, 4Q13), ahead of the company's guidance of 5% QoQ. Our recent market surveys indicate rush orders for notebook PCs in both Europe and Asia, which we believe have been driven by inventory build-up for seasonal demand (ie, Christmas and Lunar New Year), and the likely windfall benefit from Acer's (2353 TT, TWD18.55, Underperform [4]) overall business

weakness due to its ongoing restructuring. While DRAM prices remain high, we do not expect this to have a big impact on Lenovo's profit margins, given its leadership in the PC market in terms of volume, and the potential savings from other cost areas, such as price discounts from Intel's CPUs and Microsoft's royalty fees.

Valuation and risks

We recently raised our 6-month target price to HKD10.7 (from HKD9.9), based on an unchanged 15x one-year forward PER (fiscal 4Q14 to 3Q15, vs. fiscal 3Q14 to 2Q15 previously). We reiterate our Buy (1) rating, with Lenovo remaining the top pick in our regional PC hardware universe. The main risk to our view would be weaker-than-expected IT demand in China.

Financial summary

Year to 31 Mar	2009	2010	2011	2012	2013	2014E	2015E	2016E
PC Shipment (m unit)	21.5	27.5	35.3	47.6	52.4	53.0	54.1	55.0
PC shipment growth YoY (%)	2	28	28	35	10	1	2	2
Notebook shipment (m unit)	10.4	15.6	20.3	27.6	30.7	31.2	32.4	33.4
Smartphone shipment (m unit)	n.a.	n.a.	0.5	5.6	29.6	56.0	88.6	118.6

■ Profit and loss (USDm)

Year to 31 Mar	2009	2010	2011	2012	2013	2014E	2015E	2016E
Notebook Revenues	8,707	10,405	13,007	16,703	17,936	18,722	18,772	18,768
Desktop Revenues	5,897	5,868	7,266	9,873	10,525	10,077	9,732	9,403
Other Revenue	298	332	1,321	2,999	5,413	9,244	13,978	17,866
Total Revenue	14,901	16,605	21,594	29,574	33,873	38,043	42,482	46,037
Other income	1	83	0	1	20	0	0	0
COGS	(13,160)	(14,815)	(19,230)	(26,128)	(29,800)	(33,066)	(36,899)	(39,979)
SG&A	(1,566)	(1,406)	(1,758)	(2,421)	(2,735)	(3,162)	(3,518)	(3,722)
Other op. expenses	(386)	(248)	(224)	(442)	(559)	(772)	(785)	(873)
Operating profit	(210)	219	382	584	800	1,042	1,280	1,464
Net-interest inc./(exp.)	22	(43)	(24)	(1)	2	(31)	(34)	(34)
Assoc./forex/extraord./others	0	0	(0)	(1)	(1)	11	0	0
Pre-tax profit	(188)	176	358	582	801	1,021	1,246	1,430
Tax	(38)	(47)	(85)	(107)	(170)	(216)	(263)	(301)
Min. int./pref. div./others	(0)	0	(0)	(2)	4	10	0	0
Net profit (reported)	(226)	129	273	473	635	814	984	1,129
Net profit (adjusted)	(226)	129	273	473	635	814	984	1,129
EPS (reported)(USD)	(0.026)	0.014	0.028	0.047	0.062	0.079	0.095	0.109
EPS (adjusted)(USD)	(0.026)	0.014	0.028	0.047	0.062	0.079	0.095	0.109
EPS (adjusted fully-diluted)(USD)	(0.026)	0.014	0.028	0.047	0.062	0.079	0.095	0.109
DPS (USD)	0.020	0.001	0.009	0.011	0.019	0.019	0.024	0.000
EBIT	(210)	219	382	584	800	1,042	1,280	1,464
EBITDA	71	440	600	826	1,087	1,288	1,541	1,727

■ Cash flow (USDm)

Year to 31 Mar	2009	2010	2011	2012	2013	2014E	2015E	2016E
Profit before tax	(188)	176	358	582	801	1,021	1,246	1,430
Depreciation and amortisation	281	222	218	242	287	246	261	263
Tax paid	(75)	(82)	(76)	(148)	(192)	(216)	(263)	(301)
Change in working capital	(50)	696	598	1,389	(823)	(257)	(550)	(380)
Other operational CF items	(22)	(41)	(72)	(82)	(8)	107	34	34
Cash flow from operations	(54)	970	1,025	1,982	66	901	728	1,045
Capex	(194)	(108)	(148)	(329)	(441)	(513)	(564)	(616)
Net (acquisitions)/disposals	20	4	30	(179)	(139)	0	0	0
Other investing CF items	519	(222)	84	(557)	5	(25)	30	29
Cash flow from investing	345	(327)	(34)	(1,065)	(575)	(538)	(535)	(587)
Change in debt	124	(219)	(223)	(212)	229	229	229	229
Net share issues/(repurchases)	(44)	14	(61)	11	(38)	0	0	0
Dividends paid	(179)	(12)	(88)	(115)	(195)	(195)	(250)	(301)
Other financing CF items	(17)	0	0	0	(91)	(298)	0	0
Cash flow from financing	(116)	(217)	(373)	(316)	(94)	(263)	(20)	(72)
Forex effect/others	(7)	12	58	16	(10)	0	0	0
Change in cash	169	438	677	618	(613)	100	173	386
Free cash flow	(248)	862	877	1,653	(375)	388	164	429

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (USDm)

As at 31 Mar	2009	2010	2011	2012	2013	2014E	2015E	2016E
Cash & short-term investment	1,863	2,238	2,954	3,758	3,454	3,424	3,914	4,678
Inventory	450	879	804	1,218	1,965	2,335	2,799	3,100
Accounts receivable	704	1,408	1,761	2,994	3,458	4,271	4,899	5,347
Other current assets	1,083	1,711	2,418	3,850	3,513	3,787	3,787	3,787
Total current assets	4,101	6,236	7,936	11,820	12,390	13,817	15,399	16,912
Fixed assets	367	277	251	510	700	838	890	925
Goodwill & intangibles	1,853	2,066	2,134	3,091	3,326	3,271	3,143	3,020
Other non-current assets	301	377	384	439	465	523	523	523
Total assets	6,622	8,956	10,706	15,861	16,882	18,449	19,954	21,380
Short-term debt	20	65	72	63	176	480	581	581
Accounts payable	1,669	3,236	2,279	4,178	3,724	4,670	5,212	5,581
Other current liabilities	2,777	3,119	5,682	7,569	8,192	8,555	8,555	8,555
Total current liabilities	4,467	6,419	8,033	11,810	12,091	13,704	14,347	14,716
Long-term debt	230	200	0	0	303	16	16	16
Other non-current liabilities	614	731	838	1,603	1,807	1,797	1,797	1,797
Total liabilities	5,311	7,350	8,871	13,413	14,202	15,517	16,160	16,529
Share capital	30	31	32	33	33	33	33	33
Reserves/R.E./others	1,281	1,574	1,803	2,328	2,633	2,895	3,757	4,814
Shareholders' equity	1,311	1,606	1,835	2,361	2,667	2,928	3,790	4,847
Minority interests	0	0	0	87	14	4	4	4
Total equity & liabilities	6,622	8,956	10,706	15,861	16,882	18,449	19,954	21,380
EV	10,401	10,042	9,133	8,405	9,052	9,078	8,689	7,925
Net debt/(cash)	(1,613)	(1,973)	(2,883)	(3,695)	(2,975)	(2,929)	(3,317)	(4,081)
BVPS (USD)	0.148	0.176	0.190	0.233	0.259	0.283	0.367	0.469

■ Key ratios (%)

Year to 31 Mar	2009	2010	2011	2012	2013	2014E	2015E	2016E
Sales (YoY)	(8.9)	11.4	30.0	37.0	14.5	12.3	11.7	8.4
EBITDA (YoY)	(90.1)	520.3	36.2	37.7	31.7	18.5	19.7	12.0
Operating profit (YoY)	n.a.	n.a.	74.8	52.8	37.0	30.3	22.8	14.4
Net profit (YoY)	n.a.	n.a.	111.2	73.1	34.3	28.2	20.8	14.8
Core EPS (fully-diluted) (YoY)	n.a.	n.a.	99.8	64.6	32.0	27.8	20.8	14.8
Gross-profit margin	11.7	10.8	10.9	11.7	12.0	13.1	13.1	13.2
EBITDA margin	0.5	2.7	2.8	2.8	3.2	3.4	3.6	3.8
Operating-profit margin	n.a.	1.3	1.8	2.0	2.4	2.7	3.0	3.2
Net profit margin	(1.5)	0.8	1.3	1.6	1.9	2.1	2.3	2.5
ROAE	n.a.	8.9	15.9	22.5	25.3	29.1	29.3	26.1
ROAA	n.a.	1.7	2.8	3.6	3.9	4.6	5.1	5.5
ROCE	n.a.	12.7	20.2	26.4	28.2	31.6	32.7	29.8
ROIC	(226.2)	(47.9)	(41.2)	(41.6)	(81.8)	(563.4)	420.3	185.3
Net debt to equity	net cash	net cash	net cash	net cash	net cash	net cash	net cash	net cash
Effective tax rate	n.a.	26.6	23.6	18.4	21.2	21.2	21.1	21.1
Accounts receivable (days)	22.5	23.2	26.8	29.3	34.8	37.1	39.4	40.6
Current ratio (x)	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1
Net interest cover (x)	n.a.	5.1	15.8	738.4	n.a.	33.3	38.2	43.6
Net dividend payout	n.a.	9.2	32.2	24.2	30.7	23.9	25.4	0.0
Free cash flow yield	n.a.	7.2	7.3	13.8	n.a.	3.2	1.4	3.6

Source: FactSet, Daiwa forecasts

Korea hardware – SK Hynix

Jae H. Lee
(jhlee@kr.daiwacm.com)

2014 earnings-growth catalysts

During our recent visit, Hynix commented that DRAM prices are tracking better than it expected, while NAND-flash prices have been softening due to weak seasonal demand. Though DRAM spot and contract prices are up more than 15% QoQ according to the available data for 4Q13, the company believes the increase in its DRAM ASPs will be much smaller as its major customers have signed quarterly supply contracts.

Regarding its Wuxi fab, Hynix said this fab resumed normal operations in early December, and thus the production disruption issue will be resolved fully during 1Q14 on an output basis. The company maintains its guidance for its DRAM bit shipments to decline by a low-teen percentage QoQ, and for a mid-to high-teen percentage QoQ decline in NAND-flash shipments.

Separately, following a news report by *MoneyToday* on 18 December that Hynix will build a new DRAM fab, the company said the investment decision has not been finalised. Hynix has said that rather than adding new capacity, this fab will replace its existing production line (M10) as the latter is becoming outdated.

Given the global DRAM industry's wafer capacity has been declining in the past few years, Hynix's decision to build a new fab could be taken negatively by some investors. However, we note that this will not have any impact on industry capacity in 2014 as Hynix has to construct the building first and it could be ramped up in 2015-16, in our view. We still forecast global DRAM wafer capacity to decline by 4% YoY for 2014.

Valuation and risks

Due to robust DRAM prices, we forecast a 4Q13 operating profit for Hynix of KRW823bn (raised from KRW760bn in a prior report we published on 29 October 2013), which compares with the Bloomberg-consensus forecast of KRW763bn. Factoring in increased memory-chip pricing assumptions, we recently raised our 2013-15 EPS forecasts by 4.1-10.4%. Accordingly, we raised our six-month target price to KRW44,000 (from KRW40,000), now based on the stock's mid- to-peak-cycle PBR of 2.0x applied to our 2014E BVPS (previously a 1.8x PBR).

Notwithstanding Hynix's strong share-price rise in 2013, we believe its earnings momentum will continue to stand out among major Korean tech companies, given many of them have guided for a weaker outlook for their businesses over the next few months. Thus, we reaffirm our Buy (1) rating, on the strong memory-chip market fundamentals we see for 2014.

Risks to our view would include weak demand for core IT products and increasing competition. Our 2013-15 EPS forecasts are 0.6-2.5% above the consensus, reflecting our stronger assumptions for memory-chip prices.

Financial summary

■ Key assumptions

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
DRAM shipment (m 1Gb equiv.)	1,862.5	2,399.0	3,308.0	5,005.0	7,535.0	10,135.0	12,810.0	16,275.0
NAND shipment (m 8Gb equiv.)	533.8	426.9	910.0	2,264.0	3,540.0	5,120.0	7,420.0	11,580.0
Global semiconductor capex (US\$bn)	33.3	19.9	43.3	55.2	48.3	48.2	50.6	52.4

■ Profit and loss (KRWbn)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
DRAM	4,984	6,002	9,555	7,408	7,242	10,380	11,820	12,236
NAND & Other	1,834	1,905	2,551	2,988	2,920	3,866	4,084	4,514
Other Revenue	0	0	0	0	0	0	(0)	0
Total Revenue	6,818	7,906	12,106	10,396	10,162	14,246	15,904	16,750
Other income	0	0	0	0	0	0	0	0
COGS	(7,363)	(6,280)	(7,644)	(8,705)	(8,551)	(9,016)	(9,629)	(10,525)
SG&A	(1,375)	(1,435)	(1,461)	(1,322)	(1,839)	(1,812)	(1,966)	(2,038)
Other op.expenses	(1,277)	(441)	(26)	0	0	0	0	0
Operating profit	(3,197)	(249)	2,975	369	(227)	3,418	4,309	4,188
Net-interest inc./(exp.)	(329)	(404)	(279)	(254)	(238)	(226)	(158)	(98)
Assoc/forex/extraord./others	(1,249)	282	(30)	(70)	266	(337)	139	112
Pre-tax profit	(4,775)	(371)	2,666	45	(199)	2,854	4,290	4,201
Tax	30	38	(69)	(101)	41	(214)	(751)	(777)
Min. int./pref. div./others	0	0	0	0	0	0	0	0
Net profit (reported)	(4,745)	(333)	2,598	(56)	(159)	2,640	3,540	3,424
Net profit (adjusted)	(4,745)	(333)	2,598	(56)	(159)	2,640	3,540	3,424
EPS (reported)(KRW)	(10,328)	(593)	4,401	(95)	(229)	3,718	4,984	4,821
EPS (adjusted)(KRW)	(10,328)	(593)	4,401	(95)	(229)	3,718	4,984	4,821
EPS (adjusted fully-diluted)(KRW)	(9,901)	(573)	4,258	(89)	(218)	3,633	4,871	4,712
DPS (KRW)	0	0	200	0	0	0	200	200
EBIT	(3,197)	(249)	2,975	369	(227)	3,418	4,309	4,188
EBITDA	(366)	2,458	6,124	3,836	2,976	6,472	7,514	7,487

■ Cash flow (KRWbn)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Profit before tax	(4,775)	(371)	2,666	45	(199)	2,854	4,290	4,201
Depreciation and amortisation	2,831	2,707	3,149	3,467	3,204	3,055	3,204	3,300
Tax paid	30	38	(69)	(101)	41	(214)	(751)	(777)
Change in working capital	(1,256)	(894)	(68)	(813)	(762)	273	(477)	(374)
Other operational CF items	2,794	(141)	205	258	(71)	129	127	127
Cash flow from operations	(376)	1,340	5,884	2,856	2,212	6,098	6,394	6,476
Capex	(2,173)	(756)	(3,264)	(3,554)	(3,737)	(3,500)	(3,500)	(3,600)
Net (acquisitions)/disposals	(36)	(55)	(731)	330	(490)	(707)	(1,250)	(1,080)
Other investing CF items	172	(194)	(689)	(165)	(472)	(196)	(70)	(49)
Cash flow from investing	(2,038)	(1,004)	(4,683)	(3,389)	(4,698)	(4,403)	(4,820)	(4,730)
Change in debt	1,117	(735)	(1,140)	608	(411)	(1,248)	(750)	(1,118)
Net share issues/(repurchases)	0	1,031	0	0	2,329	80	0	0
Dividends paid	0	0	0	(89)	0	0	0	(142)
Other financing CF items	54	58	0	(0)	(0)	30	(125)	16
Cash flow from financing	1,171	355	(1,140)	519	1,917	(1,137)	(874)	(1,243)
Forex effect/others	67	(8)	(16)	5	(16)	0	0	0
Change in cash	(1,175)	682	44	(9)	(585)	558	699	503
Free cash flow	(2,549)	585	2,619	(698)	(1,525)	2,598	2,894	2,876

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (KRWbn)

As at 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Cash & short-term investment	719	1,518	2,202	1,876	1,785	3,027	4,968	6,545
Inventory	1,092	1,057	1,282	1,184	1,509	1,184	1,430	1,529
Accounts receivable	750	1,730	1,605	1,541	1,720	2,018	2,174	2,324
Other current assets	198	612	328	336	300	389	445	490
Total current assets	2,759	4,917	5,416	4,937	5,314	6,618	9,017	10,887
Fixed assets	12,363	10,143	10,591	10,899	11,586	12,031	12,327	12,627
Goodwill & intangibles	496	462	604	708	984	1,132	1,182	1,226
Other non-current assets	958	781	802	694	765	913	1,006	1,070
Total assets	16,576	16,304	17,412	17,238	18,649	20,694	23,531	25,810
Short-term debt	2,612	2,971	2,578	2,830	2,719	1,448	1,454	1,463
Accounts payable	2,625	2,798	875	678	593	702	756	785
Other current liabilities	0	0	1,897	1,308	1,129	1,404	1,453	1,492
Total current liabilities	5,238	5,769	5,350	4,817	4,441	3,554	3,664	3,740
Long-term debt	5,136	3,984	3,477	3,946	3,753	3,776	3,020	1,894
Other non-current liabilities	676	631	678	600	715	873	942	973
Total liabilities	11,050	10,384	9,505	9,363	8,909	8,204	7,626	6,607
Share capital	2,316	2,966	2,969	2,978	3,488	3,569	3,569	3,569
Reserves/R.E./others	2,775	2,487	4,937	4,897	6,252	8,922	12,337	15,635
Shareholders' equity	5,090	5,452	7,906	7,876	9,740	12,491	15,906	19,204
Minority interests	436	467	2	(0)	(1)	(1)	(1)	(1)
Total equity & liabilities	16,576	16,304	17,412	17,238	18,649	20,694	23,531	25,810
EV	35,493	33,962	31,448	32,491	32,277	29,787	27,097	24,401
Net debt/(cash)	7,029	5,437	3,853	4,901	4,687	2,197	(493)	(3,188)
BVPS (KRW)	11,075	9,247	13,394	13,300	14,032	17,588	22,396	27,040

■ Key ratios (%)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sales (YoY)	(21.1)	16.0	53.1	(14.1)	(2.2)	40.2	11.6	5.3
EBITDA (YoY)	n.a.	n.a.	149.1	(37.4)	(22.4)	117.5	16.1	(0.4)
Operating profit (YoY)	n.a.	n.a.	n.a.	(87.6)	n.a.	n.a.	26.1	(2.8)
Net profit (YoY)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	34.1	(3.3)
Core EPS (fully-diluted) (YoY)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	34.1	(3.3)
Gross-profit margin	n.a.	20.6	36.9	16.3	15.9	36.7	39.5	37.2
EBITDA margin	n.a.	31.1	50.6	36.9	29.3	45.4	47.2	44.7
Operating-profit margin	n.a.	n.a.	24.6	3.6	n.a.	24.0	27.1	25.0
Net profit margin	(69.6)	(4.2)	21.5	(0.5)	(1.6)	18.5	22.3	20.4
ROAE	n.a.	n.a.	38.9	n.a.	n.a.	23.8	24.9	19.5
ROAA	n.a.	n.a.	15.4	n.a.	n.a.	13.4	16.0	13.9
ROCE	n.a.	n.a.	22.2	2.6	n.a.	20.1	22.6	19.5
ROIC	(25.6)	(2.1)	25.1	(3.7)	(1.7)	21.7	23.6	21.7
Net debt to equity	138.1	99.7	48.7	62.2	48.1	17.6	net cash	net cash
Effective tax rate	n.a.	n.a.	2.6	224.0	n.a.	7.5	17.5	18.5
Accounts receivable (days)	45.4	57.2	50.3	55.2	58.6	47.9	48.1	49.0
Current ratio (x)	0.5	0.9	1.0	1.0	1.2	1.9	2.5	2.9
Net interest cover (x)	n.a.	n.a.	10.7	1.5	n.a.	15.1	27.2	42.6
Net dividend payout	n.a.	n.a.	4.5	n.a.	n.a.	0.0	4.0	4.1
Free cash flow yield	n.a.	2.1	9.5	n.a.	n.a.	9.4	10.5	10.4

Source: FactSet, Daiwa forecasts

Korea handset components – Iljin Display

Joshua Oh, CFA
 (joshua.oh@kr.daiwacm.com)

Jae H. Lee
 (jhlee@kr.daiwacm.com)

2014 revenue-growth catalysts

For 3Q13, Iljin generated revenue of KRW207.1bn (up 35% QoQ) and an operating profit of KRW20.2bn (up 37% QoQ), which were slightly higher than our forecasts for revenue of KRW203.1bn and an operating profit of KRW19.3bn.

We estimate Iljin's market share in SEC's tablet PCs increased to 46% for 3Q13 (from 31% for 2Q13), on the back of new glass/film/film (GFF) touch screens. Iljin's new GFF touch screen uses a photolithography process, allowing a narrow bezel of displays used in tablet PCs by reducing the thickness of electrodes, and Iljin is one of only a few suppliers worldwide that is currently able to mass-produce this new touch screen. The company started supplying new GFF touch-screens to SEC's 7.0-, 8.0-, and 10.1-inch Galaxy Tab3 models launched in July, and we forecast its market share with SEC's tablet PCs to expand to 38% for 2013 and 43% for 2014.

We remain positive on the outlook for Iljin's sapphire wafer business for 2014, due to government policies globally to promote the use of LED lighting, and as the price gap is narrowing between LED and conventional lighting products. We forecast growth in its revenue for sapphire wafers to KRW34bn for 2013 (up 3% YoY) and KRW52bn for 2014 (up 53% YoY).

■ Iljin Display: quarterly results

(KRWbn)	1Q13	2Q13	3Q13P	4Q13E	2013E
Revenue	172.5	153.6	207.1	194.8	728.0
Operating profit	14.7	14.8	20.2	18.2	67.8
OP margin (%)	8.5	9.6	9.7	9.3	9.3
Pre-tax profit	16.9	14.9	23.5	15.7	70.9
PP margin (%)	9.8	9.7	11.3	8.0	9.7
Net profit	16.9	8.4	20.8	16.3	62.4
NP margin (%)	9.8	5.5	10.0	8.4	8.6

Source: Company Note: P-preliminary

Valuation and risks

In light of the slightly higher-than-expected 3Q13 results and our more positive outlook for the profitability of the company's touch-screen business, we recently raised our 2013-15 EPS forecasts by 1.2-5.2%. We maintain our 6-month target price of KRW23,000, based on a target PER of 10.5x (representing Iljin's peak trading PER) applied to our 2013E EPS.

Though Iljin's share-price performance was weak in 2013 due to concerns about market-share losses and pricing pressure, we believe such concerns are overdone, as demonstrated by its 3Q13 results. As such, we reiterate our Buy (1) rating on Iljin, as we believe it will continue to gain market share and maintain robust profitability.

The key risk to our call would be a slowdown in touch-screen and sapphire-wafer orders from its main customers.

We are more positive than the market on the prospects for Iljin's touch-screen and sapphire-wafer businesses.

Financial summary

■ Key assumptions

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
TSM sales (W bn)	0.0	0.0	33.2	269.4	563.1	693.7	859.2	889.5
Global handset market (m units)	1,222.3	1,211.2	1,596.8	1,775.7	1,746.2	1,793.9	1,885.8	1,987.9
Global smartphone market (m units)	139.3	172.4	298.2	472.9	680.1	911.2	1,157.2	1,382.7

■ Profit and loss (KRWbn)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sapphire-wafer	5	23	70	53	33	34	52	68
Tablet-PC TSM	0	0	32	173	361	455	585	579
Other Revenue	5	11	12	99	202	238	274	311
Total Revenue	10	34	114	324	597	728	912	957
Other income	0	0	0	0	0	0	0	0
COGS	(11)	(28)	(93)	(275)	(505)	(629)	(775)	(801)
SG&A	(3)	(5)	(6)	(13)	(27)	(31)	(47)	(61)
Other op.expenses	0	0	0	0	0	0	0	0
Operating profit	(4)	1	14	36	65	68	90	95
Net-interest inc./(exp.)	(1)	(1)	(3)	(3)	(1)	(1)	(1)	0
Assoc/forex/extraord./others	(27)	1	(0)	(3)	(5)	4	2	1
Pre-tax profit	(32)	1	12	31	60	71	90	96
Tax	0	(0)	(0)	0	5	(9)	(11)	(11)
Min. int./pref. div./others	0	0	0	0	0	0	0	0
Net profit (reported)	(32)	1	11	31	64	62	79	84
Net profit (adjusted)	(32)	1	11	31	64	62	79	84
EPS (reported)(KRW)	(7,555)	25	447	1,133	2,344	2,204	2,807	2,974
EPS (adjusted)(KRW)	(7,555)	25	447	1,133	2,344	2,204	2,807	2,974
EPS (adjusted fully-diluted)(KRW)	(7,555)	25	447	1,133	2,344	2,204	2,807	2,974
DPS (KRW)	0	0	0	100	200	200	200	200
EBIT	(4)	1	14	36	65	68	90	95
EBITDA	(2)	4	20	44	74	77	99	106

■ Cash flow (KRWbn)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Profit before tax	(32)	1	12	31	60	71	90	96
Depreciation and amortisation	2	3	6	7	10	10	9	11
Tax paid	0	(0)	(0)	0	5	(9)	(11)	(11)
Change in working capital	2	(0)	(12)	(29)	11	6	14	(11)
Other operational CF items	27	(0)	2	9	11	2	2	3
Cash flow from operations	(1)	3	7	18	96	80	104	88
Capex	(1)	(8)	(41)	(15)	(33)	(80)	(50)	(50)
Net (acquisitions)/disposals	0	0	0	0	(1)	(0)	(0)	(0)
Other investing CF items	(1)	(8)	5	(5)	(12)	(3)	(8)	(4)
Cash flow from investing	(2)	(16)	(36)	(20)	(46)	(83)	(58)	(54)
Change in debt	1	(6)	33	9	(23)	8	(6)	(3)
Net share issues/(repurchases)	0	23	0	7	1	(43)	0	0
Dividends paid	0	0	0	0	(3)	(5)	(6)	(6)
Other financing CF items	0	0	0	(2)	6	2	2	2
Cash flow from financing	1	17	33	13	(19)	(39)	(10)	(6)
Forex effect/others	0	0	0	0	0	0	0	0
Change in cash	(1)	4	4	12	31	(42)	36	28
Free cash flow	(2)	(4)	(34)	3	63	(0)	54	38

Source: FactSet, Daiwa forecasts

Financial summary continued ...

■ Balance sheet (KRWbn)

As at 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Cash & short-term investment	3	12	13	22	58	18	59	92
Inventory	2	7	28	28	25	22	27	28
Accounts receivable	3	8	21	34	62	73	73	86
Other current assets	0	5	8	12	13	16	20	21
Total current assets	8	32	69	96	158	128	179	227
Fixed assets	12	19	55	63	87	158	199	238
Goodwill & intangibles	20	19	18	21	18	20	23	22
Other non-current assets	0	0	2	1	10	7	6	5
Total assets	41	70	144	181	273	313	407	492
Short-term debt	17	12	44	49	33	44	38	35
Accounts payable	2	11	33	20	55	58	71	73
Other current liabilities	3	6	11	10	25	38	48	51
Total current liabilities	22	28	88	79	113	141	157	159
Long-term debt	3	2	3	10	4	0	0	0
Other non-current liabilities	0	1	1	2	5	8	12	16
Total liabilities	25	31	92	91	122	149	169	175
Share capital	27	13	13	14	14	14	14	14
Reserves/R.E./others	(12)	25	38	76	137	150	224	302
Shareholders' equity	15	38	51	90	151	164	238	316
Minority interests	0	0	0	0	0	0	0	0
Total equity & liabilities	41	70	144	181	273	313	407	492
EV	429	414	446	448	391	439	391	355
Net debt/(cash)	17	2	34	36	(21)	27	(21)	(57)
BVPS (KRW)	3,661	1,840	1,999	3,310	5,514	5,796	8,403	11,178

■ Key ratios (%)

Year to 31 Dec	2008	2009	2010	2011	2012	2013E	2014E	2015E
Sales (YoY)	82.9	241.1	237.5	184.7	83.9	22.0	25.2	5.0
EBITDA (YoY)	n.a.	n.a.	413.4	118.2	69.1	4.3	27.6	7.1
Operating profit (YoY)	n.a.	n.a.	2,486.5	151.9	77.6	4.9	32.3	5.8
Net profit (YoY)	n.a.	n.a.	2,108.2	167.8	108.6	(2.7)	27.4	6.0
Core EPS (fully-diluted) (YoY)	n.a.	n.a.	1,687.9	153.7	106.9	(6.0)	27.4	6.0
Gross-profit margin	n.a.	17.5	18.2	15.3	15.4	13.6	15.0	16.3
EBITDA margin	n.a.	11.6	17.6	13.5	12.4	10.6	10.8	11.0
Operating-profit margin	n.a.	1.7	12.7	11.2	10.8	9.3	9.8	9.9
Net profit margin	(319.3)	1.5	10.1	9.5	10.8	8.6	8.7	8.8
ROAE	n.a.	1.9	25.6	43.6	53.3	39.6	39.5	30.4
ROAA	n.a.	0.9	10.8	18.9	28.3	21.3	22.1	18.7
ROCE	n.a.	1.3	19.1	29.5	38.4	34.2	37.0	30.2
ROIC	(12.8)	1.5	22.7	34.3	50.4	37.2	38.7	35.1
Net debt to equity	114.0	6.4	66.7	40.5	net cash	16.3	net cash	net cash
Effective tax rate	n.a.	1.6	0.5	n.a.	n.a.	12.0	12.0	12.0
Accounts receivable (days)	68.0	56.8	45.2	30.5	29.4	33.9	29.2	30.3
Current ratio (x)	0.4	1.1	0.8	1.2	1.4	0.9	1.1	1.4
Net interest cover (x)	n.a.	0.5	5.4	13.4	124.7	115.2	97.7	n.a.
Net dividend payout	n.a.	0.0	0.0	8.8	8.5	9.1	7.1	6.7
Free cash flow yield	n.a.	n.a.	n.a.	0.8	15.3	n.a.	13.2	9.2

Source: FactSet, Daiwa forecasts

Japan electronic components – Nidec

Takumi Sado
(takumi.sado@daiwa.co.jp)

2014 revenue-growth catalysts

Nidec is the global leader in brushless DC motors, and has maintained an aggressive approach toward M&A activities. Amid efforts to transform its business portfolio, earnings were sluggish in FY08-12, but the end of such restructuring efforts is now in sight, and the firm appears to have entered a new period of profit growth.

We believe there are 4 main aspects in which Nidec warrants attention: 1) the automotive, appliance, commercial & industrial products segment (positioned as a new sales-growth driver) has begun setting new operating profit records on a quarterly basis, 2) hard disk drive (HDD) motor operations now appear capable of expanding profits even amid revenue declines, following restructuring in FY12, 3) operations in small precision motors outside the HDD area have begun to achieve growth, and 4) companies acquired earlier have recently started to provide cost synergies.

We are also focusing on the acquisition of electronic control unit (ECU) maker Honda Elesys (to be completed by end-March 2014). Honda Elesys supplies advanced safety systems, including millimetre-wave radars and ECUs, such as electric power steering (EPS) and anti-lock braking systems (ABS). Given product cycles in the automotive industry, synergies from the acquisition seem unlikely to emerge before 2016, but should, in our view, eventually provide significant benefits. We believe the business integration will

enhance Nidec's ability to make proposals, while also enabling it to boost margins for its automotive motor business far above those for simple motor sales. It will also give Nidec a foothold in the market for advanced safety systems, thereby expanding its reach beyond motors.

For Honda Elesys, Nidec is an attractive owner, because Nidec already has a global presence, and Honda Elesys should be able to tap into its customer base as well as its sales, R&D and production resources. All told, we think the acquisition will quickly thrust Nidec into the forefront as a leading candidate to benefit from likely sharp growth in the number of electronic components and systems used in automobiles in coming years.

We forecast sales of JPY867.5bn (up 22% YoY) and operating profit of JPY83.0bn (up 372%) for FY13, and sales of JPY905bn (up 4%) and operating profit of JPY105bn (up 27%) for FY14. As such, we expect profit in FY14 to top the firm's current record.

Valuation

The shares are trading at around 18x our FY14 EPS forecast, in line with the electronic component sector average PER. Going forward, we think the stock will again be afforded a valuation premium, given that it now seems to rank as a major beneficiary of the growing use of automotive electronics, and profit is now on track to beat its previous full-year record. We have a 6- to 12-month target price of JPY12,000, or roughly 21x our FY14 EPS forecast.

Our investment opinion factors in not only nominal profit growth but also the company's efforts to maximise shareholder value via an increase in free cash flow and other measures. As a result, our target price is roughly 20% higher than the figure implied by the Bloomberg-consensus estimates. Risks to our outlook include a greater-than-expected contraction in the hard-disk market.

■ Nidec: earnings breakdown

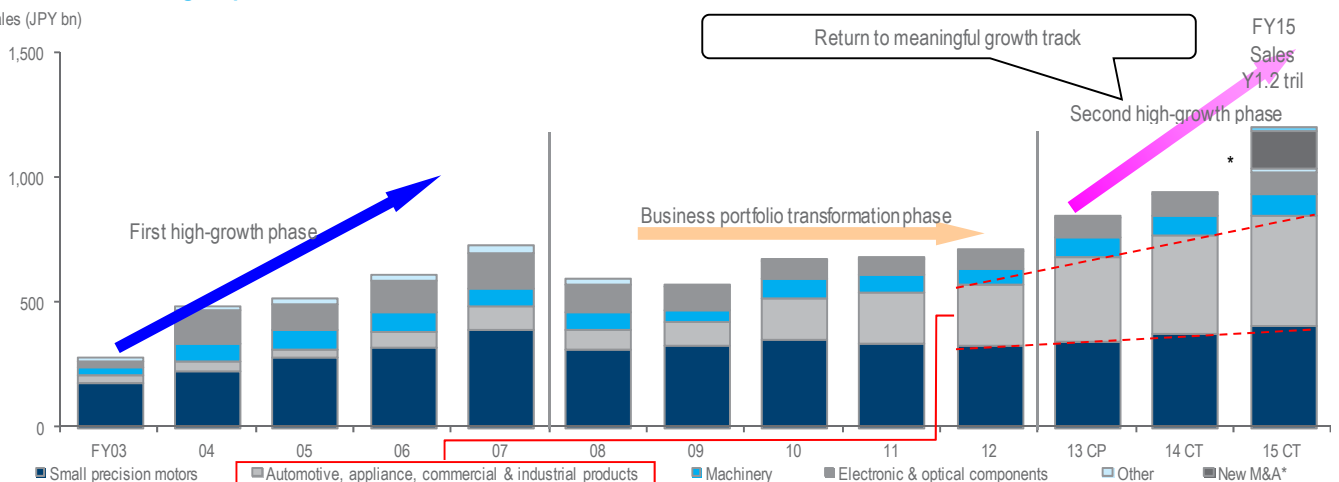
(JPYm)	FY12		13 CP		13E		14E	
	% of total	YoY	% of total	YoY	% of total	YoY	% of total	YoY
Sales	709,270	3.9%	850,000	19.8%	867,500	22.3%	905,000	4.3%
Small precision motors (fan motors, small vibrating motors, motors for HDDs, CDs, DVDs, etc.)	319,724	-3.5%			361,000	12.9%	367,000	1.7%
Automotive, household, commercial & industrial products (home appliances motors, industrial motors, automotive motors, auto parts etc.)	45.1%				41.6%		40.6%	
Machinery	248,464	19.2%			334,500	34.6%	380,000	13.6%
(variable decelerators, FA equipment)	35.0%				38.6%		42.0%	
Electronic and optical components	63,526	-2.1%			89,000	40.1%	78,000	-12.4%
(electronic components, optical components)	9.0%				10.3%		8.6%	
Other	69,188	-0.3%			75,000	8.4%	72,000	-4.0%
(pivot assemblies, etc.)	9.8%				8.6%		8.0%	
	8,368	3.7%			8,000	-4.4%	8,000	0.0%
	1.2%				0.9%		0.9%	
Operating profit	17,598	-75.9%	80,000	354.6%	83,000	371.6%	105,000	26.5%
Operating profit margin	2.5%		9.4%		9.6%		11.6%	
Small precision motors	22,649	-58.2%			53,200	134.9%	60,000	12.8%
Operating profit margin	7.1%				14.7%		16.3%	
Automotive, household, commercial & industrial products	2,678	-71.4%			22,200	729.0%	35,800	61.3%
Operating profit margin	1.1%				6.6%		9.4%	
Machinery	7,014	5.6%			12,400	76.8%	11,200	-9.7%
Operating profit margin	11.0%				13.9%		14.4%	
Electronic and optical components	(8,465)	Loss			2,100	Profit	5,000	138.1%
Operating profit margin	-				2.8%		6.9%	
Other	893	-11.7%			200	-77.6%	0	-100.0%
Operating profit margin	10.7%				2.5%		0.0%	
Eliminations and unallocated	(7,171)	-			(7,100)	-	(7,000)	-
Pre-tax income	13,398	-81.1%	78,000	482.2%	81,800	510.5%	105,000	28.4%
Net income	7,986	-80.4%	55,000	588.7%	59,000	638.8%	77,500	31.4%
EPS (JPY)	59.28		404.26		427.82		561.96	
CFPS (JPY)	343.25		-		743.24		888.26	
Capex	61,368	48.1%	43,500	-29.1%	43,500	-29.1%	50,000	14.9%
Depreciation	38,255	17.5%	43,500	13.7%	43,500	13.7%	45,000	3.4%
R&D	34,278	14.1%	38,000	10.9%	38,000	10.9%	38,000	0.0%
Cash flow (net income + depreciation)	46,241	-36.9%	98,500	113.0%	102,500	121.7%	122,500	19.5%
EBITDA (operating profit + depreciation)	55,853	-47.1%	123,500	121.1%	126,500	126.5%	150,000	18.6%

Source: Company, Daiwa forecasts

Notes: Net income attributable to shareholders of parent. CP: company projections.

■ Growth accelerating on portfolio transformation

Sales (JPY bn)



Source: Company materials, compiled by Daiwa

* Includes projected sales contribution of JPY18bn in FY15 on acquisition of Mitsubishi Materials C.M.I.

CP: Company projections. CT: Company targets.

■ Honda Elesys: major products (for automobiles)

Advanced safety system capabilities	Millimeter-wave radar
	Camera (lane-keeping assist)
	ACC & CMS (adaptive cruise control, collision mitigation system)
	EPT (seatbelt pretensioner)
	ODS (occupant detection system, occupant position detection system)
Electronic control units	EPS (electric power steering)
	ABS (anti-lock braking system)
	ESC (electronic stability control)
	ESB (electric servo brake)

Source: Company materials, compiled by Daiwa

■ Nidec: consolidated income statement (JPYm)

	FY08	09	10	11	12
Sales	610,803	586,029	675,988	682,320	709,270
COGS	480,475	435,035	500,034	523,729	572,634
Gross profit	130,328	150,994	175,954	158,591	136,636
Gross margin (%)	21.3	25.8	26.0	23.2	19.3
SG&A	51,488	48,025	55,348	55,471	84,760
R&D	26,825	24,456	27,737	30,050	34,278
Operating profit	52,015	78,513	92,869	73,070	17,598
Operating profit margin (%)	8.5	13.4	13.7	10.7	2.5
Net non-operating income	-4,745	-3,330	-10,903	-2,214	-4,200
Non-operating income	2,536	890	1,049	1,634	1,831
Interest/dividend income	2,536	838	1,049	1,634	1,831
Non-operating expenses	7,281	4,220	11,952	3,848	6,031
Interest expenses	1,403	702	355	299	679
Net financial income	1,133	136	694	1,335	1,152
Pretax income	47,270	75,183	81,966	70,856	13,398
Pretax income margin (%)	7.7	12.8	12.1	10.4	1.9
Income taxes	12,475	17,530	18,309	18,801	6,562
Equity-method income/losses	-48	-45	6	0	13
Net income from continuing ops	34,747	57,608	63,663	52,055	-
Net loss from discontinued ops	-3,512	-1,457	-6,171	-7,768	-
Net income before deduction of non-controlling interests	31,235	56,151	57,492	44,287	6,849
Less: net income attributable to non-controlling interests	-2,882	-4,190	-5,159	-3,556	1,137
Net income	28,353	51,961	52,333	40,731	7,986
Net income margin (%)	4.6	8.9	7.7	6.0	1.1

Source: Company materials, compiled by Daiwa

Note: Figures retroactively adjusted insofar as possible to reflect assets acquired/obligations taken on as result of acquisitions and moves to discontinue certain operations, but some data lacks consistency with previous fiscal years.

■ Nidec: consolidated balance sheet (JPYm)

	FY08	09	10	11	12
Current assets	402,016	374,883	373,097	439,287	500,690
Cash and cash equivalent	200,966	123,309	94,321	130,290	193,420
Accounts receivable	123,211	162,398	165,577	182,462	159,085
Inventories	57,475	69,503	90,377	91,453	99,826
Other	20,364	19,673	22,822	35,082	48,359
Investment and loans	14,893	18,076	15,926	15,572	17,060
Tangible fixed assets	189,685	201,307	234,409	230,831	277,977
Goodwill	71,060	72,231	82,107	80,525	132,775
Other	25,230	26,294	42,666	34,186	76,915
Total assets	702,884	692,791	748,205	800,401	1,005,417
Current liabilities	317,743	262,265	206,835	252,360	364,877
Accounts payable	70,398	109,143	112,759	107,345	134,165
Short-term borrowing	221,342	115,467	52,018	86,608	32,798
Long-term borrowing due within one year	1,883	1,497	1,124	674	133,628
Other	24,120	36,158	40,934	57,733	64,286
Long-term liabilities	27,454	28,995	130,864	122,430	186,723
Straight bonds and long-term borrowings	2,578	1,745	101,819	101,236	146,271
Retirement allowances/pension costs payable	15,684	15,542	12,824	12,715	19,235
Other	9,192	11,708	16,221	8,479	21,217
Total liabilities	345,197	291,260	337,699	374,790	551,600
Shareholders' equity	297,148	340,309	355,250	370,182	415,653
Non-controlling interests	60,539	61,222	55,256	55,429	38,164
Net assets	357,687	401,531	410,506	425,611	453,817
Total liabilities and net assets	702,884	692,791	748,205	800,401	1,005,417
Total assets	702,884	692,791	748,205	800,401	1,005,417
Interest-bearing debt (1)	225,803	118,709	154,961	188,518	312,697
Liquidity on hand (2)	200,966	123,309	94,321	130,290	193,420
Net interest-bearing debt (1) - (2)	24,837	-4,600	60,640	58,228	119,277
Shareholders' equity	297,148	340,309	355,250	370,182	415,653
Equity / assets (%)	42.3	49.1	47.5	46.2	41.3
Debt / equity (X)	0.8	0.3	0.4	0.5	0.8
Book value per share (Y)	2,133.3	2,443.2	2,565.3	2,705.3	3,086.2
Current ratio (%)	127	143	180	174	137
Fixed assets / shareholders' equity (%)	77	72	82	76	89
Fixed assets / (long-term liabilities + shareholders' equity) (%)	71	67	60	57	62
Inventories	57,475	69,503	90,377	91,453	99,826
Inventories / average monthly sales (months)	1.1	1.4	1.6	1.6	1.7

Source: Company materials, compiled by Daiwa

Note: Figures retroactively adjusted insofar as possible to reflect assets acquired/obligations taken on as result of acquisitions and moves to discontinue certain operations, but some data lacks consistency with previous fiscal years.

■Nidec: consolidated cash flow statement (JPYm)

	FY08	FY09	FY 10	FY 11	FY 12
I. Cash flow from operating activities					
Net income before deduction of non-controlling interests	31,235	56,151	57,492	44,287	6,849
Adjustments to reconcile net income to net cash provided by operating activities					
Depreciation and amortization	34,080	31,139	35,710	34,330	39,720
(Gain) loss from marketable securities, net	1,305	-52	238	200	87
Loss (gain) on sales, disposal or impairment of property, plant and equipment	1,282	1,088	545	15,705	10,300
Loss recovery and gain on property, plant and equipment damaged in flood	-	-	-	-19,662	-4,027
Deferred income taxes	1,085	-740	-4,496	12,835	-12,055
Equity in net loss (income) of affiliated companies	48	45	-6	0	-13
Foreign currency adjustments	2,091	4,036	5,523	236	1,744
Increase (decrease) in accrued retirement benefits & pension costs	366	-1,457	-3,745	-915	-
Changes in operating assets and liabilities					
(Increase) decrease in notes and accounts receivable	38,041	-32,537	3,995	-14,819	53,221
(Increase) decrease in inventories	11,238	-8,442	-15,856	-257	14,090
Increase (decrease) in notes and accounts payable	-46,469	29,799	-3,058	-8,061	-1,257
Increase (decrease) in accrued income taxes	-3,631	5,995	-124	-2,259	-7,263
Other	-4,440	5,055	6,866	-4,908	8,890
Net cash provided by operating activities	66,231	90,080	83,084	56,712	110,286
II. Cash flows from investing activities					
Additions to property, plant and equipment	-38,501	-36,608	-55,010	-41,446	-61,368
Proceeds from sales of property, plant and equipment	865	633	960	2,725	1,036
Insurance proceeds related to property, plant and equipment damaged in flood	-	-	-	20,804	880
Purchases of marketable securities	-3,609	-10	-12	-213	-147
Proceeds from sales or redemption of marketable securities	76	94	72	414	692
Acquisitions of business, net of cash acquired	-756	-4,396	-51,594	5,201	-79,884
Other	-1,448	-227	-1,358	-7,403	4,937
Net cash used in investing activities	-43,373	-40,514	-106,942	-19,918	-133,854
III. Cash flows from financing activities:					
Increase (decrease) in short-term borrowings	153,934	-109,100	-63,205	26,060	-52,199
Proceeds from issuance of long-term debt	-	-	-	-	71,307
Repayments of long-term debt	-2,067	-1,733	-2,016	-1,229	-12,392
Proceeds from issuance of bonds	-	-	100,500	-	100,000
Redemption of bonds	-26,412	-	-	-	-
Repurchase of shares	-23,775	-11	-11,226	-10,155	-31,277
Payments for additional investments in subsidiaries	-9,286	-3,152	-7,827	-454	-92
Loans to shareholders	-14,500	-	-	-	-
Collection of loans to shareholders	14,500	-	-	-	-
Dividends paid to shareholders of Nidec Corporation	-8,699	-7,661	-11,143	-12,399	-12,125
Dividends paid to non-controlling interests	-2,205	-1,197	-1,655	-1,444	-1,421
Other	384	75	336	-1,193	-684
Net cash (used in) provided by financing activities	81,874	-122,779	3,764	-814	61,117
IV. Effect of exchange rate changes on cash and cash equivalents	-4,575	-4,444	-8,894	-11	25,581
V. Net increase (decrease) in cash and cash equivalents	100,157	-77,657	-28,988	35,969	63,130
VI. Cash and cash equivalents at beginning of period	100,809	200,966	123,309	94,321	130,290
VII. Cash and cash equivalents at end of period	200,966	123,309	94,321	130,290	193,420

Source: Company materials, compiled by Daiwa

Note: Figures retroactively adjusted as far as possible to reflect assets acquired/obligations taken on as result of acquisitions and moves to discontinue certain operations, but some data lacks consistency with previous fiscal years

Japan SPE –Hitachi Kokusai Electric

Hirokazu Mitsuda
(hirokazu.mitsuda@daiwa.co.jp)

2014 revenue-growth catalysts

Hitachi Kokusai Electric's 3Q FY13 orders in the mainstay eco- and thin-film processing segment were solid through November, pointing to the possibility of an order amount of JPY23bn, up 92% YoY and 54% QoQ for the quarter.

Driving the order growth in 3Q FY13 was business with a South Korea memory maker in the NAND flash memory space. Although not noticeably high, investments in finer design rules in the DRAM space appear to be steadily emerging. Orders from Taiwan foundries and US microprocessor units (MPU) makers appear to have remained relatively high, as in 2Q.

A further order buildup from the 3Q FY13 level is unlikely in 4Q, but the company seems set to see additional orders from the Korea NAND flash memory maker. Another Korea manufacturer should restart its IT spending following a restoration of operations after an accident at its factory.

We expect DRAM supply conditions to be even tighter in 2014, assuming increased on-board memory on smartphones. Although investments in DRAM production technology do not seem as aggressive as that seen with NAND flash memory recently, we expect them to be a major driver of earnings at the company in 2014.

Meanwhile, the video and wireless network segment appears to be doing well in general, in line with the firm's expectations. Japan's Cabinet has approved an FY13 supplementary budget that places a big emphasis on disaster prevention and safety measures. This bodes well for demand for the segment's mainstays: wireless disaster prevention radio systems, fire-fighting radio systems, and video monitoring systems.

We forecast FY13 sales of JPY162.5bn (up 17% YoY) and an operating profit of JPY13.2bn (up 115% YoY). The latter reflects the recent JPY500m upward revision to our previous forecast (see our report published on 24 December 2013) taking into account earlier-than-expected orders for eco and thin-film processing systems. We expect its earnings to remain on an uptrend in FY14, and forecast an operating profit of JPY16.5bn (up 25% YoY).

Valuation and risks

We have an Outperform (2) rating on the stock, backed by a 3- to 6-month target price of JPY1,530, equivalent to roughly 2.0x our end-FY13 book value forecast of JPY763.

The stock has recently traded at a PBR of nearly 2x, near the upper end of its past-5-year range (0.5-2.0x). However, given the expected high level of investments by memory chip makers heading into 2014, the company's 3Q FY13 orders in the eco- & thin-film processing segment look set to surpass the highest quarterly level in the past 5 years. With that in mind, we do not think the current trading levels are unwarranted based on the historical correlation between orders and the PBR. The key risk would be a slowdown in global semiconductor capital equipment spending.

■ Hitachi Kokusai Electric: financial summary

(JPYm)	FY07 Mar-08	FY08 Mar-09	FY09 Mar-10	FY10 Mar-11	FY11 Mar-12	FY12 Mar-13	FY13E Mar-14	FY14E Mar-15	FY15E Mar-16
Sales	197,983	128,586	122,088	142,706	147,184	138,801	162,500	174,100	174,200
Video & wireless network segment	119,657	96,704	94,717	80,503	81,129	86,125	90,400	95,000	98,900
Eco- & thin-film processing segment	78,325	31,881	27,370	61,405	65,330	51,945	71,100	78,100	74,300
Other, eliminations/unallocated	0	0	0	798	725	731	1,000	1,000	1,000
Operating profit	16,933	-11,407	-4,298	3,956	8,314	6,130	13,200	16,500	15,700
Video & wireless network segment	3,885	-5,172	-2,933	-5,160	302	2,880	3,900	4,600	5,000
Eco- & thin-film processing segment	13,046	-6,234	-1,365	9,313	8,293	3,287	9,800	12,500	11,300
Other, eliminations/unallocated	2	-1	0	-197	-281	-37	-500	-600	-600
Recurring profit	18,405	-10,996	-3,142	3,689	8,636	6,461	13,400	16,500	15,700
Net income	11,804	-24,880	-1,807	-5,065	5,120	6,165	10,100	10,800	10,300
YoY									
Sales	2%	-35%	-5%	17%	3%	-6%	17%	7%	0%
Operating profit	9%	From profit to loss	loss narrowed	From loss to profit	110%	-26%	115%	25%	-5%
Recurring profit	22%	From profit to loss	loss narrowed	From loss to profit	134%	-25%	107%	23%	-5%
Net income	40%	From profit to loss	loss narrowed	loss expanded	From loss to profit	20%	64%	7%	-5%
Eco- & thin-film processing segment's orders	73,345	22,350	33,239	67,625	60,175	51,105	78,200	72,000	72,000
YoY	-13%	-70%	49%	103%	-11%	-15%	53%	-8%	0%

Source: Company, Daiwa forecasts

■ Hitachi Kokusai Electric: balance sheet

(JPYm)	FY03 Mar-04	FY04 Mar-05	FY05 Mar-06	FY06 Mar-07	FY07 Mar-08	FY08 Mar-09	FY09 Mar-10	FY10 Mar-11	FY11 Mar-12	FY12 Mar-12
Current asset	139,447	129,841	144,313	165,491	156,404	102,621	117,101	121,411	120,944	123,109
Cash and cash equivalents	20,710	22,971	22,826	27,388	25,905	36,162	17,668	10,775	12,001	9,278
Account receivable	48,168	49,399	57,390	62,338	56,932	35,798	40,885	40,044	39,705	41,642
Financial receivables	-	-	-	-	-	-	-	-	-	-
Inventories	22,515	23,983	30,709	41,569	39,986	26,501	24,065	30,042	28,988	26,351
Other current assets	48,054	33,488	33,388	34,196	33,581	4,160	34,483	40,550	40,250	45,838
Property and equipment	47,473	46,825	48,269	49,458	46,652	35,925	31,964	28,373	31,121	29,411
Tangible assets	27,601	26,763	25,341	26,814	27,291	25,565	23,107	20,999	21,448	20,542
Intangible assets	566	417	865	1,543	1,778	1,964	1,839	2,466	5,226	1,648
Investments and other assets	19,305	19,645	22,061	21,100	17,582	8,395	7,017	4,908	4,447	5,977
Total assets	186,921	176,667	192,582	214,950	203,057	138,546	149,065	149,784	152,065	152,520
Current liabilities	68,858	52,123	61,758	78,863	66,468	30,588	44,338	50,923	50,600	47,310
Notes and accounts payable	28,559	30,793	34,606	46,530	35,529	15,222	27,515	28,813	30,980	24,965
Short-term debt	3,074	1,667	1,567	1,567	1,417	1,417	1,417	815	554	551
Other accrued liabilities	37,225	19,663	25,585	30,766	29,522	13,949	15,406	21,295	19,066	21,794
Fixed liabilities	36,033	37,048	34,204	33,426	26,617	26,640	26,526	25,158	23,222	20,048
Bond and convertible bond	6,000	12,000	12,000	12,000	-	-	-	-	-	-
Long-term debt	-	-	-	-	-	-	-	32	218	165
Other liabilities	30,033	25,048	22,204	21,426	26,617	26,640	26,526	25,126	23,004	19,883
Liabilities	104,892	89,172	95,963	112,290	93,086	57,229	70,865	76,081	73,822	67,358
Minority stockholders' equity	100	149	192	-	-	-	-	-	-	-
Total net worth	81,929	87,346	96,426	-	-	-	-	-	-	-
Net asset	-	-	-	102,660	109,971	81,317	78,200	73,703	78,243	85,162
Total liabilities and net assets	186,921	176,667	192,582	214,950	203,057	138,546	149,065	149,784	152,065	152,520

Source: Company materials, compiled by Daiwa

■ Hitachi Kokusai Electric: cash flow

(JPYm)	FY03 Mar-04	FY04 Mar-05	FY05 Mar-06	FY06 Mar-07	FY07 Mar-08	FY08 Mar-09	FY09 Mar-10	FY10 Mar-11	FY11 Mar-12	FY12 Mar-13
Net earnings	2,508	10,778	8,936	15,061	18,405	(10,996)	(3,142)	(2,548)	6,588	7,053
Depreciation and amortization	4,012	3,228	3,461	4,277	4,889	5,330	4,591	4,244	3,397	3,147
Change in working capital	(1,040)	(357)	(11,001)	(3,943)	(4,140)	14,206	9,782	(3,803)	3,035	(4,552)
Trade receivables	(5,392)	(1,163)	(7,878)	(5,001)	5,087	20,983	(4,793)	246	793	(1,412)
Inventory assets	(2,327)	(1,422)	(6,746)	(10,834)	1,324	13,385	2,392	(5,347)	416	3,166
Trade payables	6,679	2,228	3,623	11,892	(10,551)	(20,162)	12,183	1,298	1,826	(6,306)
Others	5,675	1,487	1,465	400	(11,497)	(9,706)	207	5,762	(5,413)	(7,893)
Cash flow from operating activities:	11,155	15,136	2,861	15,795	7,657	(1,166)	11,438	3,655	7,607	(2,245)
Payments for purchase of tangible fixed assets	(1,813)	(2,800)	(3,539)	(8,580)	(6,290)	(3,993)	(1,718)	(1,707)	(2,566)	(3,268)
Others	3,632	(664)	(475)	62	1,361	(1,532)	1,106	(761)	(3,575)	9,235
Cash flow from investing activities:	1,819	(3,464)	(4,014)	(8,518)	(4,929)	(5,525)	(612)	(2,468)	(6,141)	5,967
Change in interest-bearing debt	3,369	(21,422)	(100)	0	(150)	(6,000)	0	(602)	(406)	(24)
Short-term loans	(2,631)	(1,422)	(100)	-	(150)	-	-	(602)	(406)	(24)
Long-term loans	-	-	-	-	-	-	-	-	-	-
Bond	6,000	(20,000)	-	-	-	(6,000)	-	-	-	-
Cash dividends paid	(637)	(847)	(872)	(1,487)	(1,659)	(1,959)	(1,352)	(1,266)	(1,238)	(1,577)
Expense of acquisition of own stocks	-	-	-	(771)	(1,218)	(30)	(19)	(23)	(13)	(12)
Others	(3,411)	21,324	(395)	(2)	149	5,996	(5)	601	100	13
Cash flow from financing activities:	2,690	(22,367)	(1,467)	(2,260)	(3,028)	(7,993)	(1,376)	(1,892)	(1,963)	(1,624)
Effect of exchange rate changes on cash and cash equivalents	(185)	58	133	123	(533)	(458)	(161)	(325)	(143)	1,067
Free cash flow	12,974	11,672	(1,153)	7,277	2,728	(6,691)	10,826	1,187	1,466	3,722

Source: Company materials, compiled by Daiwa

Japan consumer electronics – Sony

Junya Ayada
(junya.ayada@daiwa.co.jp)

2014 earnings-growth catalysts

Our main focus areas for the Japan consumer electronics space in 2014 include progress on structural reforms, the potential for existing businesses, and new business areas and operations. Our pick in the sector is Sony, which we think is likely to announce plans to restructure its business, and whose platform strategy of leveraging its games business offers medium- to long-term earnings-growth potential.

Among the various products and services unveiled by Sony at CES, our main focus is on those involving its game business. We view the unveiling of its new PlayStation Now cloud gaming service as a positive, in addition to the stronger-than-expected *PS4* sales.

Sony announced it had sold 4.2m *PS4* game consoles between the 15 November 2013 North American rollout and 28 December (sell-through basis). *PS4* sales during the key year-end shopping season appear to have been quite robust considering Sony's FY13 sales target of 5m units and Xbox One sales only just topping 3m units. For the same period, sales of Sony game software came to 9.7m units.

Furthermore, Sony announced plans to begin offering from this summer its PlayStation Now cloud-based game streaming service in the US. Through this service, users can directly access Sony's library of past PlayStation games for use on not only *PS4*, *PS3*, and *PS Vita* terminals, but also on smartphones, tablets, and TVs. Many details are still unclear, but in the case of TVs, users will purchase special controllers to directly play games through Internet-linked Sony Bravia TVs. The firm said that eight of the nine new Bravia models to be rolled out in the US in 2014 will be compatible with PlayStation Now.

Capturing fixed-rate users through this service could potentially boost subscription revenue along with that from the existing *PS Plus* service (¥500 monthly fee in Japan).

In addition to games, we are also following Sony's moves in the wearable and 4K fields. In the wearable field, Sony unveiled its Core wristband-type fitness tracker. Apparently the sensor section can be removed and attached to shoes and other locations besides the wristband. We suspect this product could be integrated with the Walkman in the future. We also feel that Sony remains the leader in the 4K market, for both hardware and software. In terms of hardware, Sony continues to enhance its lineup of 4K products including TVs, camcorders, and media players. On the software front, Sony announced a partnership with Netflix under which its Bravia TV sets will support the 4K content produced by Netflix from 2014.

In our view, Sony is very likely to unveil new structural-reform plans when it announces its 3Q FY13 results (scheduled for 7 February 2014), such as streamlining its PC business. We see a good chance of the company coming out with plans to reduce fixed costs for its PC business, particularly R&D and marketing expenses, given the speed at which the PC market is contracting. For the games business, Sony boosted its monthly fee structure with the launch of the PlayStation 4. It has integrated previously free online multiplayer games into its paid PlayStation Plus subscriber service. The move should contribute to growth as a stable source of revenue from 2H FY14 as the number of PlayStation 4 consoles in use grows.

Valuation

We retain our Buy (1) investment rating and 6- to 12-month sum-of-the-parts target price of JPY2,700 (based on our FY15 estimates). In arriving at our price objective, we applied EV/EBITDA multiples of 4.5X to Sony's electronics business and 9.5X to its entertainment business. While short-term performance likely warrants some caution, Sony remains our top pick for the sector. Risks include weaker-than-expected performance, mainly from its TVs, PCs and cameras.

■ Sony: income summary

(JPYm, YoY %)	Year to	Sales		Op profit		Pretax income		Net income		EPS (JPY)	CFPS (JPY)	DPS (JPY)
Consol (SEC)	3/11	7,181,273	(-0)	199,821	(529)	205,013	(662)	-259,585	(loss)	-258.7	65.6	25.00
	3/12	6,493,212	(-10)	-67,275	(loss)	-83,186	(loss)	-456,660	(loss)	-455.0	-136.6	25.00
	3/13	6,800,851	(5)	230,100	(profit)	245,681	(profit)	43,034	(profit)	42.8	371.6	25.00
	3/14 E	7,641,000	(12)	150,000	(-35)	160,000	(-35)	20,000	(-54)	19.3	346.9	25.00
	3/15 E	7,945,000	(4)	230,000	(53)	220,000	(38)	54,000	(170)	52.0	379.7	25.00
	3/16 E	8,040,000	(1)	310,000	(35)	300,000	(36)	98,000	(81)	94.4	422.1	25.00
	3/14 PE	7,536,000	(11)	150,000	(-35)	159,000	(-35)	21,000	(-51)	20.2	347.9	25.00
	3/15 PE	7,711,000	(2)	230,000	(53)	220,000	(38)	54,000	(157)	52.0	379.7	25.00
	3/16 PE	7,796,000	(1)	290,000	(26)	280,000	(27)	87,000	(61)	83.8	411.5	25.00
3/14 CP	7,700,000	(13)	170,000	(-26)	180,000	(-27)	30,000	(-30)	-	-	-	

Source: E: Daiwa estimates. PE: Previous Daiwa estimates. CP: Company projections.

Note: Net income is that attributable to shareholders of the parent.

■ Sony: consolidated earnings

(JPYm)	FY11	12	13 E	14 E	15 E
Sales	6,493,212	6,800,851	7,641,000	7,945,000	8,040,000
Imaging products & solutions (IP&S)	761,317	730,372	741,000	698,000	674,000
Game	804,966	707,078	808,000	790,000	739,000
Mobile products & communications (MP&C)	622,677	1,257,618	1,647,000	1,945,000	2,140,000
Home entertainment & sound (HE&S)	1,283,156	994,827	1,118,000	1,097,000	1,077,000
Devices	1,026,568	848,575	811,000	820,000	820,000
Pictures	657,721	732,739	823,000	838,000	846,000
Music	442,789	441,708	494,000	479,000	464,000
Financial services	871,895	1,007,736	1,071,000	1,100,000	1,100,000
Other	530,343	588,841	597,000	648,000	650,000
Eliminations/unallocated	-508,220	-508,643	-469,000	-470,000	-470,000
Operating profit	-67,275	230,100	150,000	230,000	310,000
Imaging products & solutions (IP&S)	18,592	1,436	8,000	8,000	5,000
Game	29,302	1,735	-13,000	23,000	55,000
Mobile products & communications (MP&C)	7,246	-97,170	-9,000	20,000	33,000
Home entertainment & sound (HE&S)	-203,211	-84,315	-38,000	-23,000	-18,000
Devices	-22,126	43,895	23,700	27,000	30,000
Pictures	34,130	47,800	44,000	59,000	63,000
Music	36,887	37,218	47,000	50,000	53,000
Financial services	131,421	145,807	165,000	165,000	165,000
Other	-54,082	101,486	-300	-21,000	5,000
Eliminations/unallocated	-45,434	32,208	-77,800	-78,000	-81,000
Pretax income	-83,186	245,681	160,000	220,000	300,000
Net income	-456,660	43,034	20,000	54,000	98,000
Depreciation (incl. amortization of intangible assets, deferred insurance acquisition costs)	319,594	330,554	340,000	340,000	340,000
Capex (increase in tangible fixed assets)	295,139	188,627	190,000	190,000	190,000
R&D expenses	433,477	473,610	460,000	450,000	450,000
Unit sales of key electronics products (000)					
Consumer electronics products					
Video cameras	4,400	3,700	2,260	1,810	1,540
Digital cameras	-	17,000	11,050	8,500	7,400
Smartphones	22,500	33,000	40,300	51,800	59,300
PCs	8,400	7,600	5,460	4,600	4,100
LCD televisions	19,600	13,500	13,320	12,670	12,070
Game hardware					
PS2/3	18,000	16,500	8,400	5,300	4,200
PS4	-	-	6,800	10,000	10,000
PSP/PS VITA	6,800	7,000	4,500	4,100	3,600

Source: Company materials; compiled by Daiwa.

E: Daiwa estimates.

Global tech universe

■ Ratings and valuation summary

	Bloomberg		Market cap		Share price	PER		PBR	
Company	code	Subsector	(USDm)		(local curr.)				
			(9-Jan-14)	Rating	(9-Jan-14)	2013E	2014E	2013E	2014E
Foundry									
TSMC	2330 TT	Foundry	87,580	Hold	101.00	14.4	13.5	3.1	2.7
UMC	2303 TT	Foundry	5,407	Hold	12.85	14.3	15.0	0.8	0.7
SMIC	981 HK	Foundry	2,603	Hold	0.63	14.3	13.3	1.0	0.9
Fabless									
MediaTek	2454 TT	IC design	18,487	Buy	412.00	20.5	15.7	2.7	2.5
Novatek	3034 TT	IC design	2,639	Hold	130.50	15.4	13.5	3.1	2.9
Realtek	2379 TT	IC design	1,338	Hold	79.80	14.6	13.7	2.2	2.1
Semiconductor backend									
ASE	2311 TT	Semiconductor backend	6,918	Underperform	27.35	13.1	12.1	1.8	1.6
SPIL	2325 TT	Semiconductor backend	3,767	Outperform	36.35	20.7	15.2	1.9	1.8
Kinsus	3189 TT	Substrate/PCB	1,461	Underperform	98.50	12.4	11.5	1.8	1.6
Korea Technology - IT hardware									
SEC	005930 KS	IT hardware	176,386	Buy	1,275,000	6.3	6.0	1.3	1.1
SK Hynix	000660 KS	Memory	25,913	Buy	38,850	10.5	7.8	2.2	1.7
LG Display	034220 KS	Display	8,687	Hold	25,850	15.7	12.8	0.9	0.8
Samsung SDI	006400 KS	Display	6,354	Hold	148,500	15.1	12.2	0.9	0.8
LG Electronics	066570 KS	IT hardware	10,129	Hold	65,900	26.6	12.1	0.8	0.8
Displays/touch-panel components									
TPK	3673 TT	Touch panel	1,887	Sell	173.50	6.7	14.4	1.2	1.2
Smartphone									
HTC	2498 TT	Handset	3,599	Sell	128.50	n.a.	n.a.	1.4	1.4
Smartphone/component/EMS									
AAC Technologies	2018 HK	Hardware / Component	5,891	Underperform	37.20	13.8	14.4	4.5	3.8
Largan	3008 TT	Hardware / Component	5,040	Hold	1,130.00	16.7	15.1	5.1	4.3
Hon Hai	2317 TT	Hardware / Component	35,142	Buy	80.50	10.4	9.4	1.4	1.3
TXC	3042 TT	Hardware / Component	388	Hold	37.65	12.7	11.4	1.4	1.3
Catcher	2474 TT	Hardware / Component	4,980	Outperform	199.50	10.7	10.8	2.1	1.9
Ju Teng	3336 HK	Hardware / Component	773	Buy	5.21	8.2	6.0	1.0	0.8
Casetek	5264 TT	Hardware / Component	1,807	Hold	160.00	8.8	8.5	2.3	2.0
Foxconn Technology	2354 TT	Hardware / Component	3,058	Underperform	70.40	11.8	11.6	1.3	1.2
Simplo	6121 TT	Hardware / Component	1,409	Outperform	137.50	13.4	12.3	2.2	2.0
Sunny Optical	2382 HK	Hardware / Component	1,013	Buy	7.95	12.9	9.7	2.0	1.8
Automation									
Chroma ATE	2360 TT	Automation	774	Outperform	61.80	18.0	15.0	3.0	2.8
Hiwin	2049 TT	Automation	2,186	Outperform	259.00	32.3	19.8	5.8	4.7
Advantech	2395 TT	Industrial PC	3,790	Hold	201.50	26.6	23.9	5.8	5.2
Delta Electronics	2308 TT	Component	13,323	Outperform	165.00	22.8	19.5	4.6	4.2
PC/NB hardware									
Lenovo	992 HK	PC hardware	12,017	Buy	9.01	14.8	12.2	4.1	3.2
ASUSTeK	2357 TT	PC hardware	6,891	Underperform	279.00	9.9	11.8	1.6	1.5
Acer	2353 TT	PC hardware	1,748	Underperform	18.55	n.a.	n.a.	0.8	0.9
Compal Electronics	2324 TT	PC hardware	3,353	Outperform	22.85	45.9	9.6	1.0	1.0
Quanta	2382 TT	PC hardware	8,961	Outperform	70.00	14.0	11.2	2.3	2.1
Wistron	3231 TT	PC hardware	1,997	Sell	25.25	9.8	9.9	1.2	1.1
Pegatron	4938 TT	PC hardware	3,007	Outperform	39.05	10.2	9.5	0.9	0.8
Korea Technology - Hardware component									
SFA Engineering	056190 KS	Semiconductor equipment / OLED	675	Buy	40,000	10.3	7.6	1.8	1.5
Ijin Display	020760 KS	Display	387	Buy	14,550	6.6	5.2	2.5	1.7
Melfas	096640 KS	Display	159	Hold	9,420	186.0	12.2	1.0	0.9
Samsung Electro-Mechanics	009150 KS	Components	4,791	Hold	68,300	11.9	11.5	1.2	1.1
Interflex	051370 KS	Components	322	Underperform	20,900	19.4	11.3	0.9	0.8
LG Innotek	011070 KS	Components	1,929	Hold	86,800	37.6	15.0	1.3	1.2
Wonik IPS	030530 KS	Semiconductor equipment / OLED	685	Buy	9,960	23.6	13.2	2.4	2.1
Duksan Hi-Metal	077360 KS	OLED/electronic material	479	Buy	17,350	14.7	11.1	2.3	1.9
Advanced Process Systems	054620 KS	OLED equipment	204	Buy	9,520	11.7	6.9	2.1	1.6
Soulbrain	036830 KS	OLED/electronic material	696	Outperform	44,800	9.2	7.2	1.8	1.4

Source: Bloomberg, Daiwa forecasts

Note: Our top Asia tech picks are highlighted in mustard

Daiwa's Asia Pacific Research Directory

HONG KONG			
Hiroaki KATO	(852) 2532 4121	hiroaki.kato@hk.daiwacm.com	
<i>Regional Research Head</i>			
John HETHERINGTON	(852) 2773 8787	john.hetherington@hk.daiwacm.com	
<i>Regional Deputy Head of Asia Pacific Research</i>			
Rohan DALZIELL	(852) 2848 4938	rohan.dalziell@hk.daiwacm.com	
<i>Regional Head of Product Management</i>			
Kevin LAI	(852) 2848 4926	kevin.lai@hk.daiwacm.com	
<i>Deputy Head of Regional Economics; Macro Economics (Regional)</i>			
Christie CHIEN	(852) 2848 4482	christie.chien@hk.daiwacm.com	
<i>Macro Economics (Taiwan)</i>			
Jonas KAN	(852) 2848 4439	jonas.kan@hk.daiwacm.com	
<i>Head of Hong Kong Research; Head of Hong Kong and China Property</i>			
Jeff CHUNG	(852) 2773 8783	jeff.chung@hk.daiwacm.com	
<i>Automobiles and Components (China)</i>			
Grace WU	(852) 2532 4383	grace.wu@hk.daiwacm.com	
<i>Head of Greater China FIG; Banking (Hong Kong, China)</i>			
Jerry YANG	(852) 2773 8842	jerry.yang@hk.daiwacm.com	
<i>Banking (Taiwan); Insurance (Taiwan and China)</i>			
Leon QI	(852) 2532 4381	leon.qi@hk.daiwacm.com	
<i>Banking (Hong Kong, China); Broker (China)</i>			
Winston CAO	(852) 2848 4469	winston.cao@hk.daiwacm.com	
<i>Capital Goods – Machinery (China)</i>			
Alison LAW	(852) 2532 4308	alison.law@hk.daiwacm.com	
<i>Head of Regional Consumer; Consumer (Hong Kong/China)</i>			
Jamie SOO	(852) 2773 8529	jamie.soo@hk.daiwacm.com	
<i>Consumer (Hong Kong/China)</i>			
Anson CHAN	(852) 2532 4350	anson.chan@hk.daiwacm.com	
<i>Consumer (Hong Kong/China)</i>			
Eric CHEN	(852) 2773 8702	eric.chen@hk.daiwacm.com	
<i>Pan-Asia/Regional Head of IT/Electronics; Semiconductor/IC Design (Regional)</i>			
Felix LAM	(852) 2532 4341	felix.lam@hk.daiwacm.com	
<i>Head of Materials (Hong Kong, China); Cement and Building Materials (China, Taiwan); Property (China)</i>			
Dennis IP	(852) 2848 4068	dennis.ip@hk.daiwacm.com	
<i>Power; Utilities; Renewables and Environment (Hong Kong/China)</i>			
John CHOI	(852) 2773 8730	john.choi@hk.daiwacm.com	
<i>Regional Head of Small/Mid Cap; Small/Mid Cap (Regional); Internet (China)</i>			
Jackson YU	(852) 2848 4976	jackson.yu@hk.daiwacm.com	
<i>Small/Mid Cap (Regional)</i>			
Joey CHEN	(852) 2848 4483	joey.chen@hk.daiwacm.com	
<i>Steel (China)</i>			
Kelvin LAU	(852) 2848 4467	kelvin.lau@hk.daiwacm.com	
<i>Head of Transportation (Hong Kong, China); Transportation (Regional)</i>			
Jibo MA	(852) 2848 4489	jibo.ma@hk.daiwacm.com	
<i>Head of Custom Products Group; Custom Products Group</i>			
Thomas HO	(852) 2773 8716	thomas.ho@hk.daiwacm.com	
<i>Custom Products Group</i>			
PHILIPPINES			
Norman H PENA	(63) 2 813 7344 ext 301	norman.pena@dbpdaiwacm.com.ph	
<i>Banking/Property</i>			
Michael David MONTEMAYOR	(63) 2 813 7344 ext 293	michael.montemayor@dbpdaiwacm.com.ph	
<i>Consumer/Retail</i>			
Patricia PALANCA	(63) 2 813 7344 ext 408	patricia.palanca@dbpdaiwacm.com.ph	
<i>Utilities/Mining</i>			

SOUTH KOREA			
Chang H LEE	(82) 2 787 9177	chlee@kr.daiwacm.com	
<i>Head of Korea Research; Strategy; Banking</i>			
Sung Yop CHUNG	(82) 2 787 9157	sychung@kr.daiwacm.com	
<i>Pan-Asia Co-head/Regional Head of Automobiles and Components; Automobiles; Shipbuilding; Steel</i>			
Jun Yong BANG	(82) 2 787 9168	junyong.bang@kr.daiwacm.com	
<i>Tyres; Chemicals</i>			
Mike OH	(82) 2 787 9179	mike.oh@kr.daiwacm.com	
<i>Capital Goods (Construction and Machinery)</i>			
Sang Hee PARK	(82) 2 787 9165	sanghee.park@kr.daiwacm.com	
<i>Consumer/Retail</i>			
Jae H LEE	(82) 2 787 9173	jhlee@kr.daiwacm.com	
<i>IT/Electronics (Tech Hardware and Memory Chips)</i>			
Joshua OH	(82) 2 787 9176	joshua.oh@kr.daiwacm.com	
<i>IT/Electronics (Handset Components)</i>			
Thomas Y KWON	(82) 2 787 9181	yskwon@kr.daiwacm.com	
<i>Pan-Asia Head of Internet & Telecommunications; Software (Korea) – Internet/On-line Game</i>			

TAIWAN			
Mark CHANG	(886) 2 8758 6245	mark.chang@daiwacm-cathay.com.tw	
<i>Head of Taiwan Research</i>			
Steven TSENG	(886) 2 8758 6252	steven.tseng@daiwacm-cathay.com.tw	
<i>IT/Technology Hardware (PC Hardware)</i>			
Christine WANG	(886) 2 8758 6249	christine.wang@daiwacm-cathay.com.tw	
<i>IT/Technology Hardware (Automation); Cement; Consumer</i>			
Kylie HUANG	(886) 2 8758 6248	kylie.huang@daiwacm-cathay.com.tw	
<i>IT/Technology Hardware (Handsets and Components)</i>			
Lynn CHENG	(886) 2 8758 6253	lynn.cheng@daiwacm-cathay.com.tw	
<i>IT/Electronics (Semiconductor)</i>			

INDIA			
Punit SRIVASTAVA	(91) 22 6622 1013	punit.srivastava@in.daiwacm.com	
<i>Head of India Research; Strategy; Banking/Finance</i>			
Navin MATTA	(91) 22 6622 8411	navin.matta@in.daiwacm.com	
<i>Automobiles and Components</i>			
Saurabh MEHTA	(91) 22 6622 1009	saurabh.mehta@in.daiwacm.com	
<i>Capital Goods; Utilities</i>			
Mihir SHAH	(91) 22 6622 1020	mihir.shah@in.daiwacm.com	
<i>FMCG/Consumer</i>			
Deepak PODDAR	(91) 22 6622 1016	deepak.poddar@in.daiwacm.com	
<i>Materials</i>			
Nirmal RAGHAVAN	(91) 22 6622 1018	nirmal.raghavan@in.daiwacm.com	
<i>Oil and Gas; Utilities</i>			

SINGAPORE			
Adrian LOH	(65) 6499 6548	adrian.loh@sg.daiwacm.com	
<i>Head of Singapore Research, Regional Head of Oil and Gas; Oil and Gas (ASEAN and China); Capital Goods (Singapore)</i>			
Angeline LOH	(65) 6499 6570	angeline.loh@sg.daiwacm.com	
<i>Banking/Finance, Consumer/Retail</i>			
David LUM	(65) 6329 2102	david.lum@sg.daiwacm.com	
<i>Property and REITs</i>			
Ramakrishna MARUVADA	(65) 6499 6543	ramakrishna.maruvada@sg.daiwacm.com	
<i>Head of ASEAN & India Telecommunications; Telecommunications (ASEAN & India)</i>			

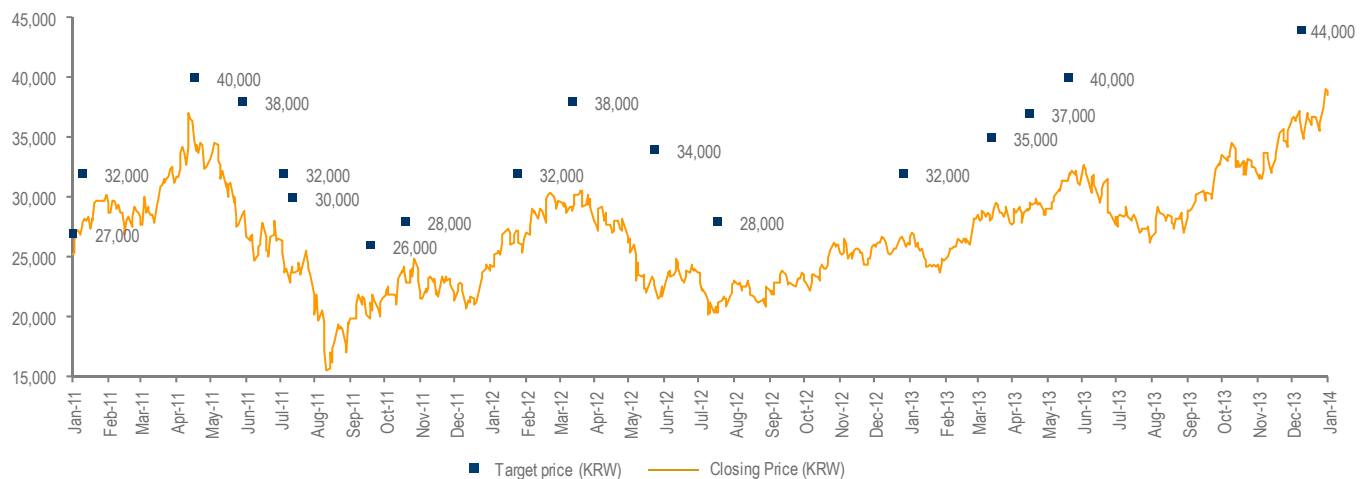
Daiwa's Offices

Office / Branch / Affiliate	Address	Tel	Fax
DAIWA SECURITIES GROUP INC			
HEAD OFFICE	Gran Tokyo North Tower, 1-9-1, Marunouchi, Chiyoda-ku, Tokyo, 100-6753	(81) 3 5555 3111	(81) 3 5555 0661
Daiwa Securities Trust Company	One Evertrust Plaza, Jersey City, NJ 07302, U.S.A.	(1) 201 333 7300	(1) 201 333 7726
Daiwa Securities Trust and Banking (Europe) PLC (Head Office)	5 King William Street, London EC4N 7JB, United Kingdom	(44) 207 320 8000	(44) 207 410 0129
Daiwa Europe Trustees (Ireland) Ltd	Level 3, Block 5, Harcourt Centre, Harcourt Road, Dublin 2, Ireland	(353) 1 603 9900	(353) 1 478 3469
Daiwa Capital Markets America Inc	Financial Square, 32 Old Slip, New York, NY10005, U.S.A.	(1) 212 612 7000	(1) 212 612 7100
Daiwa Capital Markets America Inc. San Francisco Branch	555 California Street, Suite 3360, San Francisco, CA 94104, U.S.A.	(1) 415 955 8100	(1) 415 956 1935
Daiwa Capital Markets Europe Limited	5 King William Street, London EC4N 7AX, United Kingdom	(44) 20 7597 8000	(44) 20 7597 8600
Daiwa Capital Markets Europe Limited, Frankfurt Branch	Trianon Building, Mainzer Landstrasse 16, 60325 Frankfurt am Main, Federal Republic of Germany	(49) 69 717 080	(49) 69 723 340
Daiwa Capital Markets Europe Limited, Paris Representative Office	36, rue de Naples, 75008 Paris, France	(33) 1 56 262 200	(33) 1 47 550 808
Daiwa Capital Markets Europe Limited, London, Geneva Branch	50 rue du Rhône, P.O.Box 3198, 1211 Geneva 3, Switzerland	(41) 22 818 7400	(41) 22 818 7441
Daiwa Capital Markets Europe Limited, Moscow Representative Office	Midland Plaza 7th Floor, 10 Arbat Street, Moscow 119002, Russian Federation	(7) 495 641 3416	(7) 495 775 6238
Daiwa Capital Markets Europe Limited, Bahrain Branch	7th Floor, The Tower, Bahrain Commercial Complex, P.O. Box 30069, Manama, Bahrain	(973) 17 534 452	(973) 17 535 113
Daiwa Capital Markets Hong Kong Limited	Level 28, One Pacific Place, 88 Queensway, Hong Kong	(852) 2525 0121	(852) 2845 1621
Daiwa Capital Markets Singapore Limited	6 Shenton Way #26-08, DBS Building Tower Two, Singapore 068809, Republic of Singapore	(65) 6220 3666	(65) 6223 6198
Daiwa Capital Markets Australia Limited	Level 34, Rialto North Tower, 525 Collins Street, Melbourne, Victoria 3000, Australia	(61) 3 9916 1300	(61) 3 9916 1330
DBP-Daiwa Capital Markets Philippines, Inc	18th Floor, Citibank Tower, 8741 Paseo de Roxas, Salcedo Village, Makati City, Republic of the Philippines	(632) 813 7344	(632) 848 0105
Daiwa-Cathay Capital Markets Co Ltd	14/F, 200, Keelung Road, Sec 1, Taipei, Taiwan, R.O.C.	(886) 2 2723 9698	(886) 2 2345 3638
Daiwa Securities Capital Markets Korea Co., Ltd.	One IFC, 10 Gukjegeumyung-Ro, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-876, Korea	(82) 2 787 9100	(82) 2 787 9191
Daiwa Securities Capital Markets Co Ltd, Beijing Representative Office	Room 301/302, Kerry Center, 1 Guanghua Road, Chaoyang District, Beijing 100020, People's Republic of China	(86) 10 6500 6688	(86) 10 6500 3594
Daiwa SSC Securities Co Ltd	45/F, Hang Seng Tower, 1000 Lujiazui Ring Road, Pudong, Shanghai 200120, People's Republic of China	(86) 21 3858 2000	(86) 21 3858 2111
Daiwa Securities Capital Markets Co. Ltd, Bangkok Representative Office	18th Floor, M Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand	(66) 2 252 5650	(66) 2 252 5665
Daiwa Capital Markets India Private Ltd	10th Floor, 3 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra East, Mumbai – 400051, India	(91) 22 6622 1000	(91) 22 6622 1019
Daiwa Securities Capital Markets Co. Ltd, Hanoi Representative Office	Suite 405, Pacific Palace Building, 83B, Ly Thuong Kiet Street, Hoan Kiem Dist. Hanoi, Vietnam	(84) 4 3946 0460	(84) 4 3946 0461
DAIWA INSTITUTE OF RESEARCH LTD			
HEAD OFFICE	15-6, Fuyuki, Koto-ku, Tokyo, 135-8460, Japan	(81) 3 5620 5100	(81) 3 5620 5603
MARUNOUCHI OFFICE	Gran Tokyo North Tower, 1-9-1, Marunouchi, Chiyoda-ku, Tokyo, 100-6756	(81) 3 5555 7011	(81) 3 5202 2021
New York Research Center	11th Floor, Financial Square, 32 Old Slip, NY, NY 10005-3504, U.S.A.	(1) 212 612 6100	(1) 212 612 8417
London Research Centre	3/F, 5 King William Street, London, EC4N 7AX, United Kingdom	(44) 207 597 8000	(44) 207 597 8550

Share price and Daiwa recommendation trend

■ SK Hynix: share price and Daiwa recommendation trend

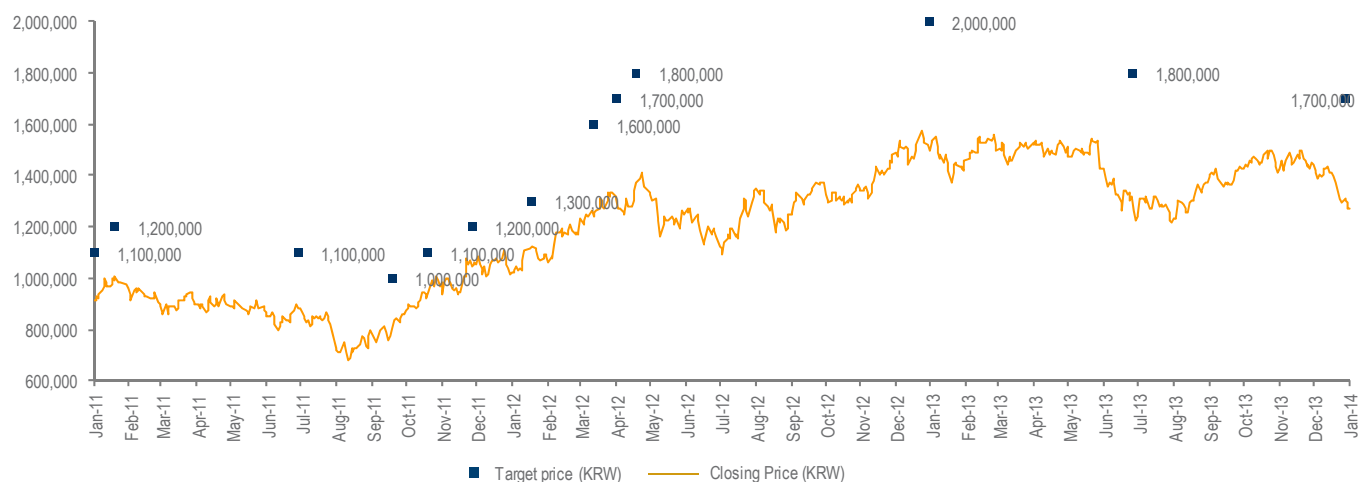
Date	Target price	Rating	Date	Target price	Rating	Date	Target price	Rating
26/04/11	40,000	Outperform	27/10/11	28,000	Outperform	04/01/13	32,000	Buy
07/06/11	38,000	Outperform	02/02/12	32,000	Outperform	22/03/13	35,000	Buy
13/07/11	32,000	Outperform	21/03/12	38,000	Buy	24/04/13	37,000	Buy
21/07/11	30,000	Outperform	01/06/12	34,000	Buy	28/05/13	40,000	Buy
27/09/11	26,000	Outperform	26/07/12	28,000	Buy	18/12/13	44,000	Buy



Source: Daiwa

■ Samsung Electronics: share price and Daiwa recommendation trend

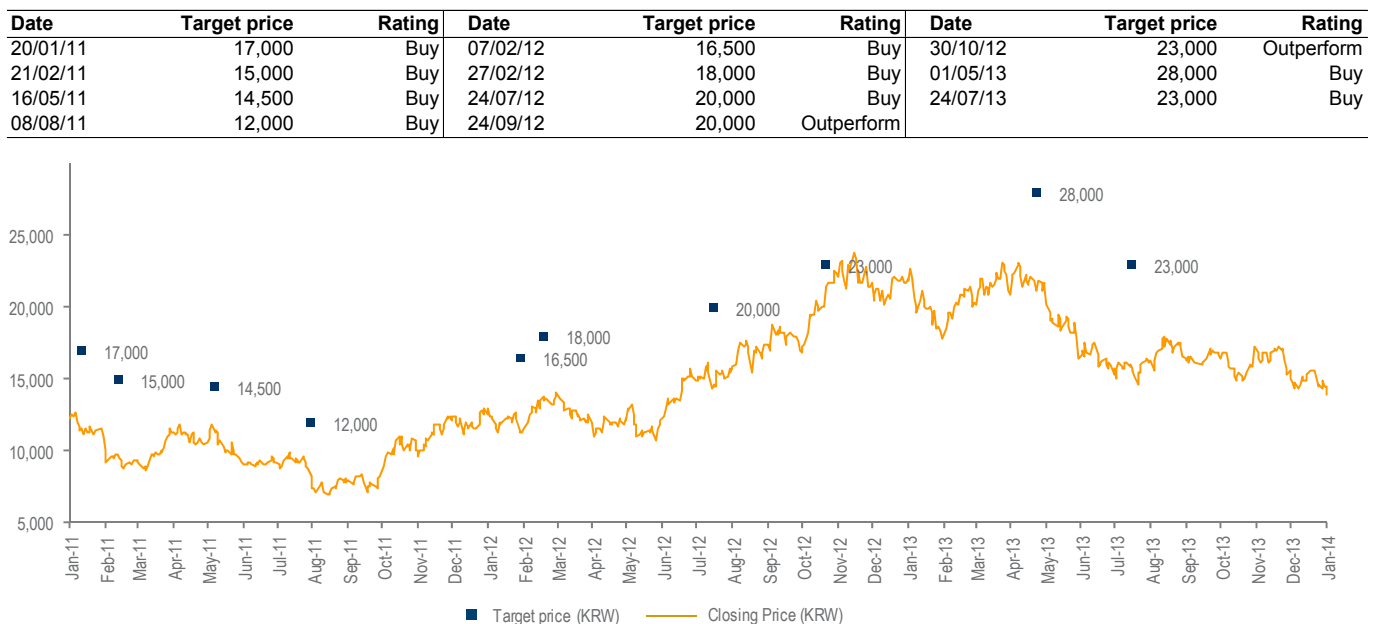
Date	Target price	Rating	Date	Target price	Rating	Date	Target price	Rating
07/07/11	1,100,000	Outperform	27/01/12	1,300,000	Outperform	08/01/13	2,000,000	Buy
27/09/11	1,000,000	Outperform	21/03/12	1,600,000	Buy	05/07/13	1,800,000	Buy
28/10/11	1,100,000	Outperform	10/04/12	1,700,000	Buy	07/01/14	1,700,000	Buy
06/12/11	1,200,000	Outperform	27/04/12	1,800,000	Buy			



Source: Daiwa

■ Soulbrain: share price and Daiwa recommendation trend

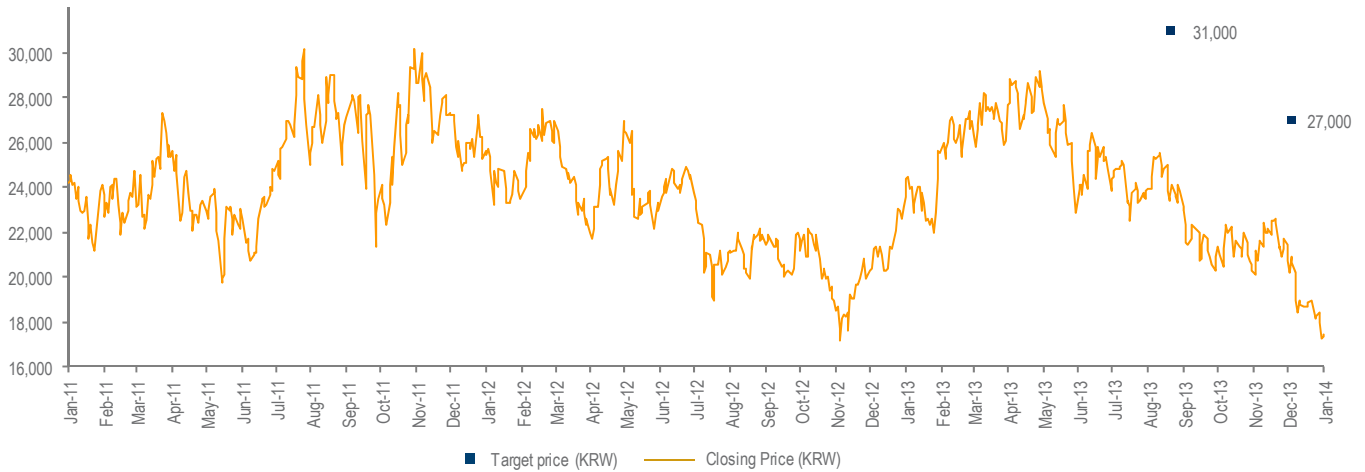

Source: Daiwa

■ Iljin Display: share price and Daiwa recommendation trend


Source: Daiwa

■ **Duksan Hi-Metal: share price and Daiwa recommendation trend**

Date	Target price	Rating	Date	Target price	Rating	Date	Target price	Rating
29/08/13	31,000	Buy	13/12/13	27,000	Buy			



Source: Daiwa

Disclaimer

This publication is produced by Daiwa Securities Group Inc. and/or its non-U.S. affiliates, and distributed by Daiwa Securities Group Inc. and/or its non-U.S. affiliates, except to the extent expressly provided herein. This publication and the contents hereof are intended for information purposes only, and may be subject to change without further notice. Any use, disclosure, distribution, dissemination, copying, printing or reliance on this publication for any other purpose without our prior consent or approval is strictly prohibited. Neither Daiwa Securities Group Inc. nor any of its respective parent, holding, subsidiaries or affiliates, nor any of its respective directors, officers, servants and employees, represent nor warrant the accuracy or completeness of the information contained herein or as to the existence of other facts which might be significant, and will not accept any responsibility or liability whatsoever for any use of or reliance upon this publication or any of the contents hereof.

Neither this publication, nor any content hereof, constitute, or are to be construed as, an offer or solicitation of an offer to buy or sell any of the securities or investments mentioned herein in any country or jurisdiction nor, unless expressly provided, any recommendation or investment opinion or advice. Any view, recommendation, opinion or advice expressed in this publication may not necessarily reflect those of Daiwa Securities Capital Markets Co. Ltd., and/or its affiliates nor any of its respective directors, officers, servants and employees except where the publication states otherwise. This research report is not to be relied upon by any person in making any investment decision or otherwise advising with respect to, or dealing in, the securities mentioned, as it does not take into account the specific investment objectives, financial situation and particular needs of any person.

Daiwa Securities Group Inc., Thanachart Securities, Bahana Securities, their respective subsidiaries or affiliates, or their respective directors, officers and employees from time to time have trades as principals, or have positions in, or have other interests in the securities of the company under research including derivatives in respect of such securities or may have also performed investment banking and other services for the issuer of such securities. The following are additional disclosures.

Japan

Daiwa Securities Co. Ltd. and Daiwa Securities Group Inc.

Daiwa Securities Co. Ltd. is a subsidiary of Daiwa Securities Group Inc.

Investment Banking Relationship

Within the preceding 12 months, The subsidiaries and/or affiliates of Daiwa Securities Group Inc. * has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: China Precious Metal Resources Holdings Company Limited (1194 HK); Jiangnan Group Limited (1366 HK); Blackgold International Holdings Ltd (BGG AU); Tosei Corporation (8923 JP); Modern Land (China) Co. Ltd (1107 HK); China Everbright Bank Company Limited (6818 HK); econtext Asia Ltd (1390 HK).

*Subsidiaries of Daiwa Securities Group Inc. for the purposes of this section shall mean any one or more of:

- Daiwa Capital Markets Hong Kong Limited
- Daiwa Capital Markets Singapore Limited
- Daiwa Capital Markets Australia Limited
- Daiwa Capital Markets India Private Limited
- Daiwa-Cathay Capital Markets Co., Ltd.
- Daiwa Securities Capital Markets Korea Co., Ltd

Disclosure of Interest of Bahana Securities

Investment Banking Relationship

Within the preceding 12 months, Bahana Securities has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: Sri Rejeki Isman (SRIL LJ); Semen Baturaja (Persero) (SMBR LJ); Tiphone Mobile Indonesia (TELE LJ); Austindo Nusantara Jaya (ANJT LJ); Telekomunikasi Indonesia (Persero) (TLKM LJ); Garuda Indonesia (Persero) (GIAA LJ)

Hong Kong

This research is distributed in Hong Kong by Daiwa Capital Markets Hong Kong Limited ("DHK") which is regulated by the Hong Kong Securities and Futures Commission. Recipients of this research in Hong Kong may contact DHK in respect of any matter arising from or in connection with this research.

Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

Investment Banking Relationship

For "Investment Banking Relationship", please visit BlueMatrix disclosure Link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

Relevant Relationship (DHK)

DHK may from time to time have an individual employed by or associated with it serves as an officer of any of the companies under its research coverage.

DHK market making

DHK may from time to time make a market in the securities covered by this research.

Korea

The developing analyst of this research and analysis material hereby states and confirms that the contents of this material correctly reflect the analyst's views and opinions and that the analyst has not been placed under inappropriate pressure or interruption by an external party.

Name of Analyst : Jae H Lee/Joshua Oh, CFA

Disclosure of Analysts' Interests

If an analyst engaging in or a person who exercises influences on the preparation or publication of a Research Report containing recommendations for general investors to trade financial investment instruments with regard to which the analyst or the influential person has personal interests and if the recommendations contained in the Report may have impacts on the personal interests, Daiwa Securities Capital Markets Korea Co., Ltd. ("Daiwa Securities Korea") shall ensure that the Analyst or the influential person notifies that he/she has personal interests with regard to:

1. The equity, the equity-linked bonds and the instruments with the subscription right to the equity issued by the legal entity covered in the Research Report (or the legal entity subject to the investment recommendations);
2. The stock option granted by the legal entity covered in the Research Report (or the legal entity subject to the investment recommendations); or
3. The equity futures, the equity options and the equity-linked warrants backed by the equity prescribed in the preceding Paragraph 1 as the underlying assets.

Legal Entities subject to Research Report Coverage Restrictions

Daiwa Securities Korea hereby states and confirms that Daiwa Securities Korea has no conflicts of interests with the legal entity covered in this Research Report:

1. In that Daiwa Securities Korea does NOT offer direct or indirect payment guarantee for the legal entity by means of, for instance, guarantee, endorsement, provision of collaterals or the acquisition of debts;
2. In that Daiwa Securities Korea does NOT own one-hundredth (or 1/100) or more of the total number of outstanding equities issued by the legal entity;
3. In that The legal entity is NOT an affiliated company of Daiwa Securities Korea pursuant to Sub-paragraph 3, Article 2 of the Monopoly Regulation and Fair Trade Act of Korea;
4. In that, although Daiwa Securities Korea offers advisory services for the legal entity with regard to an M&A deal, the size of the M&A deal does NOT exceed five-hundredths (or 5/100) of the total asset size or the total number of equities issued and outstanding of the legal entity;
5. In that, although Daiwa Securities Korea acted in the capacity of a Lead Underwriter for the initial public offering of the legal entity, more than one-year has passed since the IPO date;
6. In that Daiwa Securities Korea is NOT designated by the legal entity as the 'tender offer agent' pursuant to the Paragraph 2, Article 133 of the Financial Services and Capital Market Act or the legal entity is NOT the issuer of the equity subject to the proposed tender offer; this requirement, however applies until the maturity of the tender offer period; or
7. In that Daiwa Securities Korea does NOT have significant or material interests with regard to the legal entity.

Disclosure of Prior Distribution to Third Party

This report has not been distributed to the third party in advance prior to public release.

The following explains the rating system in the report as compared to KOSPI, based on the beliefs of the author(s) of this report.

"1": the security could outperform the KOSPI by more than 15% over the next six months.

"2": the security is expected to outperform the KOSPI by 5-15% over the next six months.

"3": the security is expected to perform within 5% of the KOSPI (better or worse) over the next six months.
"4": the security is expected to underperform the KOSPI by 5-15% over the next six months.
"5": the security could underperform the KOSPI by more than 15% over the next six months.

"Positive" means that the analyst expects the sector to outperform the KOSPI over the next six months.
"Neutral" means that the analyst expects the sector to be in-line with the KOSPI over the next six months
"Negative" means that the analyst expects the sector to underperform the KOSPI over the next six months

Additional information may be available upon request.

Singapore

This research is distributed in Singapore by Daiwa Capital Markets Singapore Limited and it may only be distributed in Singapore to accredited investors, expert investors and institutional investors as defined in the Financial Advisers Regulations and the Securities and Futures Act (Chapter 289), as amended from time to time. By virtue of distribution to these category of investors, Daiwa Capital Markets Singapore Limited and its representatives are not required to comply with Section 36 of the Financial Advisers Act (Chapter 110) (Section 36 relates to disclosure of Daiwa Capital Markets Singapore Limited's interest and/or its representative's interest in securities). Recipients of this research in Singapore may contact Daiwa Capital Markets Singapore Limited in respect of any matter arising from or in connection with the research.

Australia

This research is distributed in Australia by Daiwa Capital Markets Stockbroking Limited and it may only be distributed in Australia to wholesale investors within the meaning of the Corporations Act. Recipients of this research in Australia may contact Daiwa Capital Markets Stockbroking Limited in respect of any matter arising from or in connection with the research.

Ownership of Securities

For "Ownership of Securities" information, please visit BlueMatrix disclosure Link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

India

This research is distributed by Daiwa Capital Markets India Private Limited (DAIWA) which is an intermediary registered with Securities & Exchange Board of India. This report is not to be considered as an offer or solicitation for any dealings in securities. While the information in this report has been compiled by DAIWA in good faith from sources believed to be reliable, no representation or warranty, express or implied, is made or given as to its accuracy, completeness or correctness. DAIWA its officers, employees, representatives and agents accept no liability whatsoever for any loss or damage whether direct, indirect, consequential or otherwise howsoever arising (whether in negligence or otherwise) out of or in connection with or from any use of or reliance on the contents of and/or omissions from this document. Consequently DAIWA expressly disclaims any and all liability for, or based on or relating to any such information contained in or errors in or omissions in this report. Accordingly, you are recommended to seek your own legal, tax or other advice and should rely solely on your own judgment, review and analysis, in evaluating the information in this document. The data contained in this document is subject to change without any prior notice DAIWA reserves its right to modify this report as maybe required from time to time. DAIWA is committed to providing independent recommendations to its Clients and would be happy to provide any information in response to any query from its Clients. This report is strictly confidential and is being furnished to you solely for your information. The information contained in this document should not be reproduced (in whole or in part) or redistributed in any form to any other person. We and our group companies, affiliates, officers, directors and employees may from time to time, have long or short positions, in and buy sell the securities thereof, of company(ies) mentioned herein or be engaged in any other transactions involving such securities and earn brokerage or other compensation or act as advisor or have the potential conflict of interest with respect to any recommendation and related information or opinion. DAIWA prohibits its analyst and their family members from maintaining a financial interest in the securities or derivatives of any companies that the analyst cover. This report is not intended or directed for distribution to, or use by any person, citizen or entity which is resident or located in any state or country or jurisdiction where such publication, distribution or use would be contrary to any statutory legislation, or regulation which would require DAIWA and its affiliates/ group companies to any registration or licensing requirements. The views expressed in the report accurately reflect the analyst's personal views about the securities and issuers that are subject of the Report, and that no part of the analyst's compensation was, is or will be directly or indirectly, related to the recommendations or views expressed in the Report. This report does not recommend to US recipients the use of Daiwa Capital Markets India Private Limited or any of its non – US affiliates to effect trades in any securities and is not supplied with any understanding that US recipients will direct commission business to Daiwa Capital Markets India Private Limited.

Taiwan

This research is distributed in Taiwan by Daiwa-Cathay Capital Markets Co., Ltd and it may only be distributed in Taiwan to institutional investors or specific investors who have signed recommendation contracts with Daiwa-Cathay Capital Markets Co., Ltd in accordance with the Operational Regulations Governing Securities Firms Recommending Trades in Securities to Customers. Recipients of this research in Taiwan may contact Daiwa-Cathay Capital Markets Co., Ltd in respect of any matter arising from or in connection with the research.

Philippines

This research is distributed in the Philippines by DBP-Daiwa Capital Markets Philippines, Inc. which is regulated by the Philippines Securities and Exchange Commission and the Philippines Stock Exchange, Inc. Recipients of this research in the Philippines may contact DBP-Daiwa Capital Markets Philippines, Inc. in respect of any matter arising from or in connection with the research. DBP-Daiwa Capital Markets Philippines, Inc. recommends that investors independently assess, with a professional advisor, the specific financial risks as well as the legal, regulatory, tax, accounting, and other consequences of a proposed transaction. DBP-Daiwa Capital Markets Philippines, Inc. may have positions or may be materially interested in the securities in any of the markets mentioned in the publication or may have performed other services for the issuers of such securities.

For relevant securities and trading rules please visit SEC and PSE Link at <http://www.sec.gov.ph/irr/AmendedIRRfinalversion.pdf> and <http://www.pse.com.ph/> respectively.

United Kingdom

This research report is produced by Daiwa Capital Markets Europe Limited and/or its affiliates and is distributed in the European Union, Iceland, Liechtenstein, Norway and Switzerland. Daiwa Capital Markets Europe Limited is authorised and regulated by The Financial Conduct Authority ("FCA") and is a member of the London Stock Exchange, Eurex and NYSE Liffe. Daiwa Capital Markets Europe Limited and/or its affiliates may, from time to time, to the extent permitted by law, participate or invest in other financing transactions with the issuers of the securities referred to herein (the "Securities"), perform services for or solicit business from such issuers, and/or have a position or effect transactions in the Securities or options thereof and/or may have acted as an underwriter during the past twelve months for the issuer of such securities. In addition, employees of Daiwa Capital Markets Europe Limited and/or its affiliates may have positions and effect transactions in such securities or options and may serve as Directors of such issuers. Daiwa Capital Markets Europe Limited may, to the extent permitted by applicable UK law and other applicable law or regulation, effect transactions in the Securities before this material is published to recipients.

This publication is intended for investors who are not Retail Clients in the United Kingdom within the meaning of the Rules of the FCA and should not therefore be distributed to such Retail Clients in the United Kingdom. Should you enter into investment business with Daiwa Capital Markets Europe's affiliates outside the United Kingdom, we are obliged to advise that the protection afforded by the United Kingdom regulatory system may not apply; in particular, the benefits of the Financial Services Compensation Scheme may not be available.

Daiwa Capital Markets Europe Limited has in place organisational arrangements for the prevention and avoidance of conflicts of interest. Our conflict management policy is available at <http://www.uk.daiwacm.com/about-us/corporate-governance-and-regulatory>. Regulatory disclosures of investment banking relationships are available at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

Germany

This document has been approved by Daiwa Capital Markets Europe Limited and is distributed in Germany by Daiwa Capital Markets Europe Limited, Niederlassung Frankfurt which is regulated by BaFin (Bundesanstalt fuer Finanzdienstleistungsaufsicht) for the conduct of business in Germany.

Bahrain

This research material is issued/compiled by Daiwa Capital Markets Europe Limited, Bahrain Branch, regulated by The Central Bank of Bahrain and holds Investment Business Firm – Category 2 license and having its official place of business at the Bahrain World Trade Centre, South Tower, 7th floor, P.O. Box 30069, Manama, Kingdom of Bahrain. Tel No. +973 17534452 Fax No. +973 535113

This material is provided as a reference for making investment decisions and is not intended to be a solicitation for investment. Investment decisions should be made at your own discretion and risk. Accordingly, no representation or warranty, express or implied, is made as to and no reliance should be placed on the fairness, accuracy, completeness or correctness of the information and opinions contained in this document. Content herein is based on information available at the time the research material was prepared and may be amended or otherwise changed in the future without notice. All information is intended for the private use of the person to whom it is provided without any liability whatsoever on the part of Daiwa Capital Markets Europe Limited, Bahrain Branch, any associated company or the employees thereof. If you are in doubt about the suitability of the product or the research material itself, please consult your own financial adviser. Daiwa Capital Markets Europe Limited, Bahrain Branch retains all rights related to the content of this material, which may not be redistributed or otherwise transmitted without prior consent.

United States

This report is distributed in the U.S. by Daiwa Capital Markets America Inc. (DCMA). It may not be accurate or complete and should not be relied upon as such. It reflects the preparer's views at the time of its preparation, but may not reflect events occurring after its preparation; nor does it reflect DCMA's views at any time. Neither DCMA nor the preparer has any obligation to update this report or to continue to prepare research on this subject. This report is not an offer to sell or the solicitation of any offer to buy securities. Unless this report says otherwise, any recommendation it makes is risky and appropriate only for sophisticated speculative investors able to incur significant losses. Readers should consult their financial advisors to determine whether any such recommendation is consistent with their own investment objectives, financial situation and needs. This report does not recommend to U.S. recipients the use of any of DCMA's non-U.S. affiliates to effect trades in any security and is not supplied with any understanding that U.S. recipients of this report will direct commission business to such non-U.S. entities. Unless applicable law permits otherwise, non-U.S. customers wishing to effect a transaction in any securities referenced in this material should contact a Daiwa entity in their local jurisdiction. Most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as a process for doing so. As a result, the securities discussed in this report may not be eligible for sales in some jurisdictions. *Customers wishing to obtain further information about this report should contact DCMA: Daiwa Capital Markets America Inc., Financial Square, 32 Old Slip, New York, New York 10005 (telephone 212-612-7000).*

Ownership of Securities:

For "Ownership of Securities" information please visit BlueMatrix disclosure Link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

Investment Banking Relationships:

For "Investment Banking Relationships" please visit BlueMatrix disclosure link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

DCMA Market Making:

For "DCMA Market Making" please visit BlueMatrix disclosure link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>.

Research Analyst Conflicts:

For updates on "Research Analyst Conflicts" please visit BlueMatrix disclosure link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>. The principal research analysts who prepared this report have no financial interest in securities of the issuers covered in the report, are not (nor are any members of their household) an officer, director or advisory board member of the issuer(s) covered in the report, and are not aware of any material relevant conflict of interest involving the analyst or DCMA, and did not receive any compensation from the issuer during the past 12 months except as noted: no exceptions.

Research Analyst Certification:

For updates on "Research Analyst Certification" and "Rating System" please visit BlueMatrix disclosure link at <https://daiwa3.bluematrix.com/sellside/Disclosures.action>. The views about any and all of the subject securities and issuers expressed in this Research Report accurately reflect the personal views of the research analyst(s) primarily responsible for this report (or the views of the firm producing the report if no individual analyst(s) is named on the report); and no part of the compensation of such analyst(s) (or no part of the compensation of the firm if no individual analyst(s) is named on the report) was, is, or will be directly or indirectly related to the specific recommendations or views contained in this Research Report.

Additional information may be available upon request.

Japan - additional notification items pursuant to Article 37 of the Financial Instruments and Exchange Law

(This Notification is only applicable where report is distributed by Daiwa Securities Co. Ltd.)

If you decide to enter into a business arrangement with us based on the information described in materials presented along with this document, we ask you to pay close attention to the following items.

- In addition to the purchase price of a financial instrument, we will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction.
- In some cases, we may also charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident of Japan.
- For derivative and margin transactions etc., we may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by us.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

*The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with us.

Corporate Name:	Daiwa Securities Co. Ltd. Financial instruments firm: chief of Kanto Local Finance Bureau (Kin-sho) No.108
Memberships:	Japan Securities Dealers Association, Financial Futures Association of Japan Japan Securities Investment Advisers Association Type II Financial Instruments Firms Association