KDB Daewoo Securities

Medical Equipment

Population aging, technological advances, and customization to drive growth

Overweight (Initiate)

Initiation Report

November 28, 2014

Daewoo Securities Co., Ltd.

[Small Cap]

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Market to be driven by population aging, technological advances, customization

Efficiency improvement is one of the key issues for the healthcare industry, as: 1) population aging is a major demographic trend in many countries, and 2) increased fiscal spending on healthcare is not viable for many governments at present. Backed by IT and telecom technologies, healthcare services are increasingly moving toward digitalization, remote monitoring, and customization. Against this backdrop, the medical equipment market is likely to continue to grow.

Samsung SDS has introduced smart healthcare services, which combine IT and medical services, targeting the telehealth market. The growth of the telehealth market should boost demand for medical equipment for home diagnostics and testing.

Recommend Vieworks and Huvitz as our top picks

We recommend Vieworks (100120 KQ/Buy/TP: W44,000) and Huvitz (065510 KQ/Buy/TP: W22,000) as our top picks. JVM (054950 KQ/Not Rated) and InBody (041830 KQ/Not Rated) also look promising.

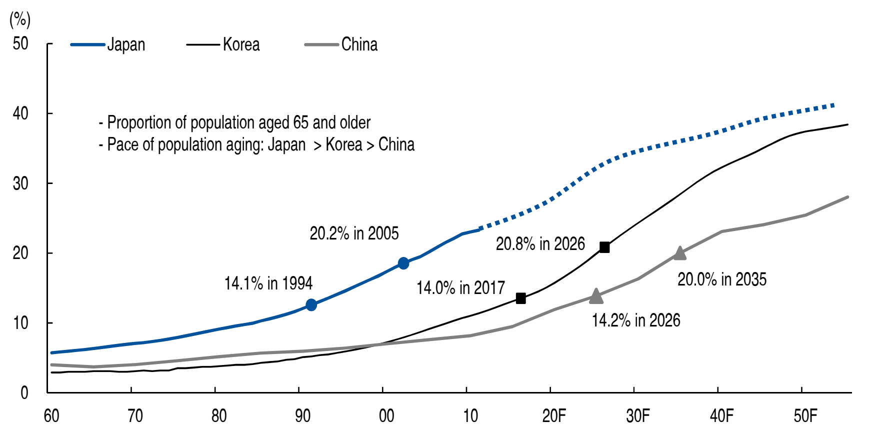
Vieworks, the largest ultra-HD imaging solutions company in Korea, should be one of the biggest beneficiaries of the medical industry’s transition to digital X-ray imaging. Flat-panel digital radiography (FP-DR) revenue is increasing via large device makers in North America and Europe. The company's expected entries into the markets for dental equipment and industrial products are anticipated to boost earnings further.

Huvitz, Korea’s largest optical/ophthalmic equipment maker, is projected to benefit from population aging, the growing popularity of mobile devices, and potential demand growth from China. Earnings are expected to be driven by: 1) the completion of expense recognition related to optical microscopes, 2) the recovery of flagship businesses, and 3) capacity expansion and earnings improvements at the Chinese subsidiary.

JVM is the world’s largest automatic tablet dispensing and packaging system (ATDPS) producer, with a domestic market share of 80% and an overseas share of more than 70%. The company is trying to develop automated dispensing cabinets (ADC), aiming for product launches next year. Once the prescription and distribution of drugs are separated in China, demand for ATDPS is likely to soar. We believe JVM will become the largest beneficiary of Chinese market expansion.

InBody is the world’s leading producer of body composition analyzers. We see the company as a major beneficiary of the growing trend toward health and diet consciousness. Indeed, new demand is emerging amid the launches of B2C products such as InBody Dial and InLab (a wearable device). In light of the company’s ongoing capacity expansion, we foresee earnings momentum to emerge next year.

Development of efficient medical equipment is taking on increasing importance amid population aging



Source: KDB Daewoo Securities

C O N T E N T S

Growth potential of medical equipment market

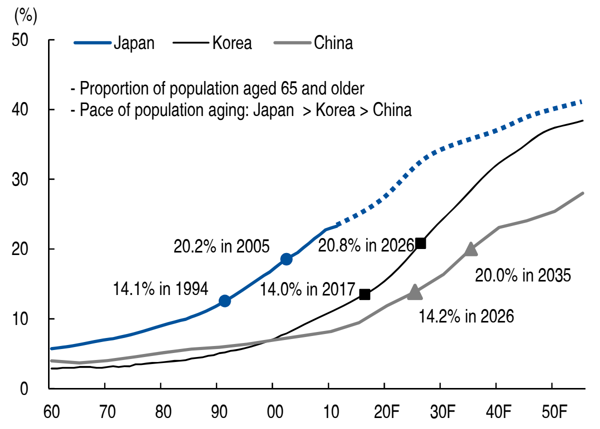
Growth of the medical equipment market seems inevitable

A country in which people aged 65 and older account for 20% of the total population is considered a super-aged society. (14% is the percentage at which a country is considered an aged society.) Japan became a super-aged society in 2005, while Korea and China are forecast to enter that stage in 2026 and 2035, respectively.

As population aging progresses in many countries around the world, we expect the medical equipment market to continue to grow going forward. The size of the global market reached US$298.8bn, equivalent to 32% of the global medicine market (US$942.2bn as of 2011). The medical equipment market grew at a CAGR of 7.9% between 2006 and 2011. In addition to population aging, increased attention to health and wellness as well as healthcare demand growth (especially in fast-growing emerging markets) are expected to be support the expansion of the medical equipment market.

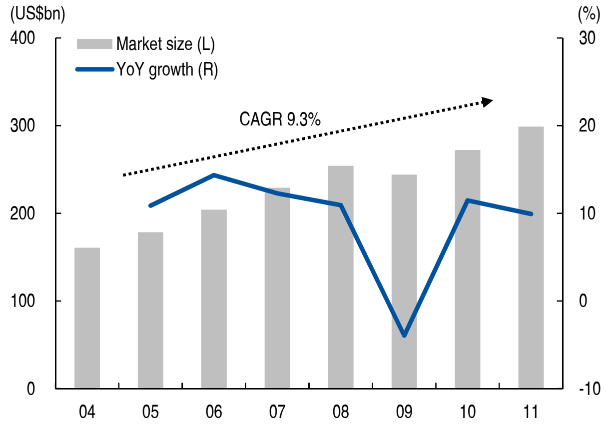
By region, North and South America account for 46% of the world's medical equipment market, followed by the eurozone (21%), the Asia-Pacific region (20%), other parts of Europe (10%), and the Middle East/Africa (4%). By nation, the US represents 39% of the market, followed by Japan (10%), Germany (8%), France (5%), and China (4%). Korea is the 13th largest market with a 1.3% share.

Figure 1. Population aging trends of Japan, Korea, China



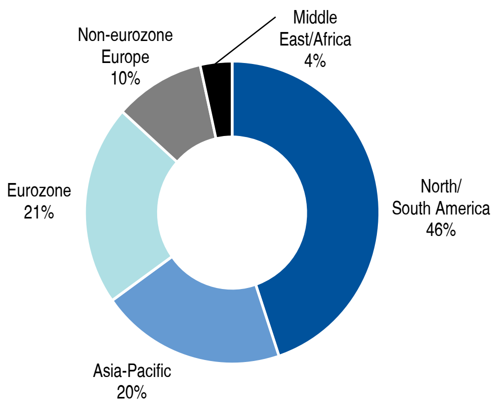
Source: Statistics Korea, KDB Daewoo Securities Research

Figure 2. Global medical equipment market



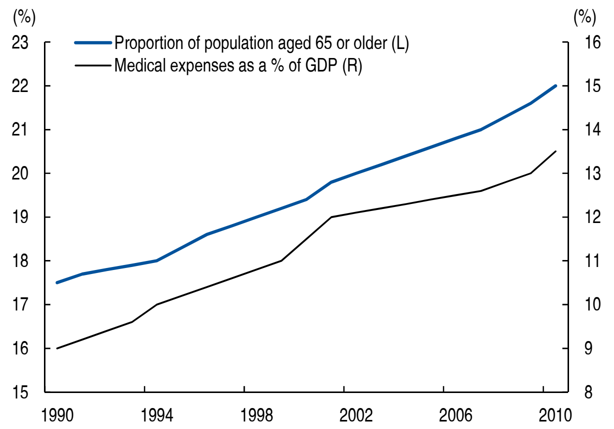
Source: KHIDI, KDB Daewoo Securities Research

Figure 3 Global medical equipment market by region



Source: KHIDI, KDB Daewoo Securities Research

Figure 4. Medical expenses on the rise



Source: UN, OECD, KDB Daewoo Securities Research

Strong IT infrastructure to support Korean medical equipment market

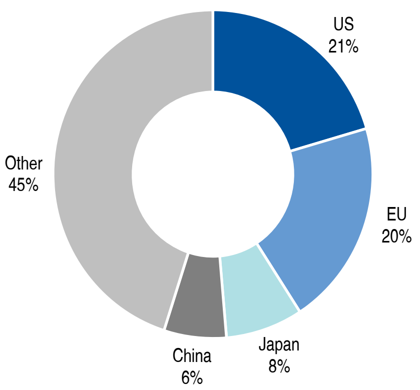
The US, EU, and Japan combined represent more than 80% of the global medical equipment market. These three markets are all characterized by aging populations, solid welfare programs, and well-developed IT infrastructures. The convergence of IT and medical equipment has opened up the door to increasingly digitalized, remotely operated, and customized healthcare services.

By category, electronic medical equipment accounts for the largest proportion (45%) of the global market. Global companies, such as Johnson & Johnson, Siemens Healthcare, GE Healthcare and Philips, were the first to incorporate IT into traditional medical equipment, paving the way for the high-tech, high-end medical equipment industry.

More recently, the growing use of smartphones has facilitated the spread of ubiquitous healthcare (U-healthcare) services such as B2C remote monitoring and personal health record (PHR) solutions, catalyzing the growth of the consumer medical equipment market. Against this backdrop, we believe Korean medical equipment makers will gain the upper hand in overseas markets by leveraging their experience with robust domestic IT infrastructure systems.

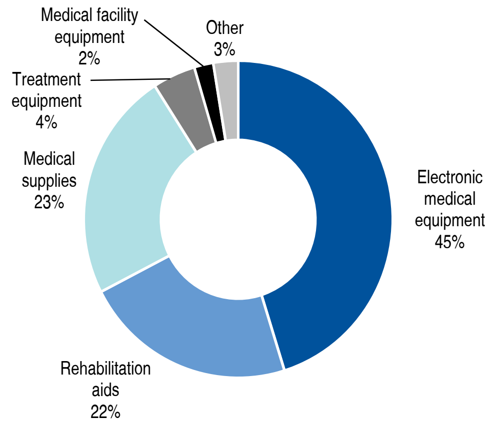
Most notably, Korea's medical equipment exports to China and Southeast Asia are solid. Exports to China and ASEAN countries soared 75.9% and 16.9%, respectively, in 2012. Among exports to China, shipments of medicine jumped 48.5%, while medical equipment shipments leaped by 75.9%. We foresee Korean firms to find great opportunities in the US (thanks to the huge size of the market) and China (which is experiencing population aging and urbanization).

Figure 5. Global medical equipment market by country



Source: KHIDI, KDB Daewoo Securities Research

Figure 6. Global medical equipment market share by category

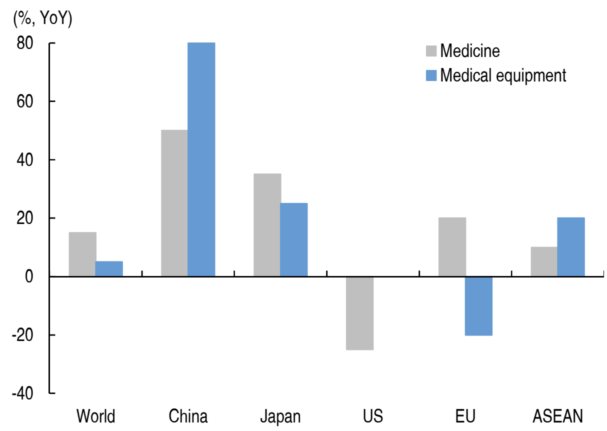


Source: : KHIDI, KDB Daewoo Securities Research

Figure 7. Telehealth services via smartphone apps

Source: KDB Daewoo Securities Research

Figure 8. Medical equipment export growth (2012)



Source: : KHIDI, KDB Daewoo Securities Research

Samsung SDS and the telehealth market

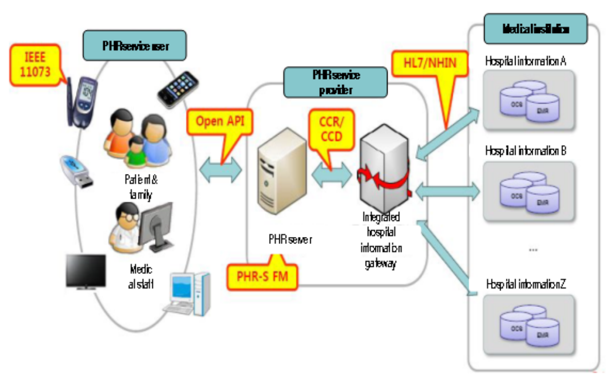
Following Samsung SDS's IPO, the Samsung Group's future growth drivers—such as the Internet of Things (IoT), healthcare, Big Data, and cloud services—have been drawing increasing attention. In particular, Samsung SDS has introduced smart healthcare services, which combine IT and medical services to target the telehealth market.

One of Samsung SDS's key businesses in the healthcare arena is the construction of hospital information systems (HIS). Indeed, the company has provided services to Samsung Medical Center and Seoul National University Hospital. The company also provides customized health information via mobile devices based on PHR (e.g., gene information, medical history, allergies, environmental factors).

Open Tide Korea (Samsung SDS owns a 70.2% stake) acquired the telehealth service provider 365 Homecare, which provides customized health consulting services to users in partnership with 120 mid- and large-sized hospitals and medical professionals (who include doctors, nurses, oriental medical practitioners, personal trainers, and nutritionists).

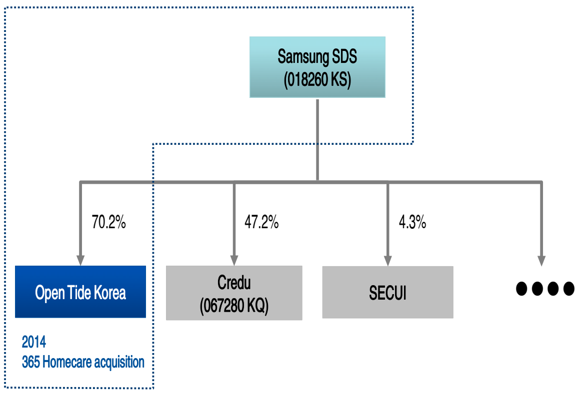
The full-scale opening of the Korean telehealth market is being delayed by regulations, conflicts of interest, and safety concerns. We advise investors to keep tabs on the progress of the industry; indeed, once the market is opened fully, demand for diagnostics and testing equipment should soar.

Figure 9. U-healthcare and PHR solutions based on IT telecom infrastructure



Source: : KHIDI, KDB Daewoo Securities Research

Figure 10. Acquisition of 365 Homecare by Samsung SDS's subsidiary



Source: KDB Daewoo Securities Research

Figure 11. 365 Homecare website: Family doctor service

Source: Company data, KDB Daewoo Securities Research

Figure 12. Examples of telehealth devices

Source: KDB Daewoo Securities Research

Medical equipment industry

Industry overview: High entry barriers and low price elasticity

Broadly speaking, medical equipment includes all instruments, systems, and materials designed to diagnose, treat, and prevent diseases. The medical equipment industry represents marriages between medical and other technologies (e.g., electric, electronic, mechanical, and optical technologies).

Key industry characteristics can be summarized as follows:

First, due to the advances of IT and biotechnology, there exists a wide array of medical equipment products (which are becoming more and more complex). Major categories include disposable items (e.g., syringes), basic medical supplies, MRI machines, CT scanners and surgical robots.

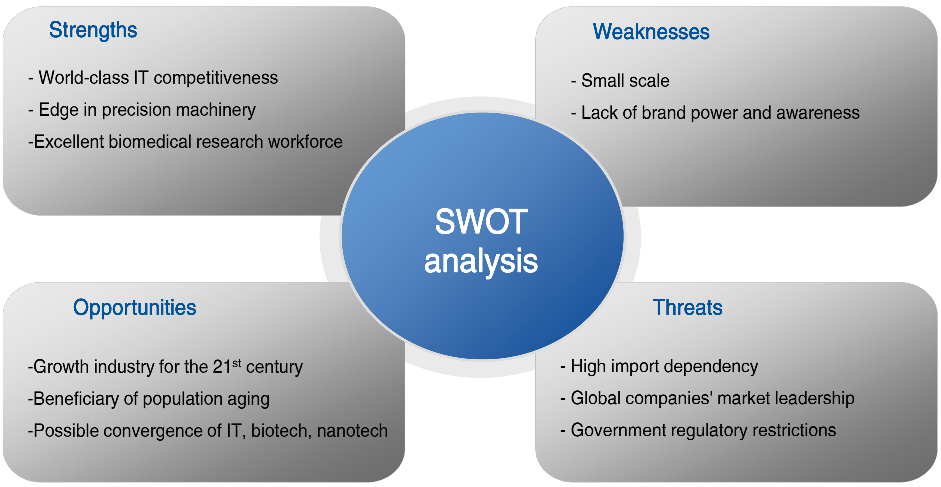
Second, a wide variety of items are produced in small quantities. There are thousands of different types of medical equipment on the market, most of which are produced in quantities smaller than 100,000 units. Low- to mid-end standardized products are mostly manufactured by smaller firms, while the high-end, high-tech market is led by only a handful of large companies.

Third, the industry is closely tied to government policies. Because of its direct impact on human lives, the medical equipment sector is tightly regulated by the government, which aims to ensure safety in manufacturing, clinical trials, and distribution (as well as the protection of intellectual property). It should be noted that licensing rules differ significantly country by country—a key roadblock to cross-border trade. For example, it generally takes just over seven months to obtain licensing from the US Food and Drug Administration (FDA) and about 13 months from China.

Fourth, the market has high barriers to entry and low price elasticity. Hospitals, the industry's main customers, tend to prefer well-established brands with proven track records. In other words, brand reputation has a strong influence. Generally speaking, high barriers to entry and customer loyalty make the industry less vulnerable to economic downturns.

Fifth, it is essential for medical equipment maker to spend continuously on R&D. The industry is capital- and technology-intensive, with development periods usually ranging between three and five years. Furthermore, because each individual product typically has a small market and short life cycle, constant R&D investment is a must.

Figure 13. SWOT analysis for Korea's medical equipment industry



Source: KDB Daewoo Securities Research

Overseas markets: US and China

The two most important markets to watch are the US and China. As the world's largest medical equipment market, the US offers useful insights into global trends and the future trajectory of emerging markets. Although China's market is just one-tenth the size of the US market, it has the most room for growth and will be instrumental in determining the success of domestic medical equipment companies.

In 2011, the US medical equipment market grew 9.5% YoY to US$115.4bn, accounting for 38.6% of the global market. Market conditions—population dynamics, macro growth, healthcare costs, and exports/imports—remain supportive to the continued growth of the industry. As of 2011, the US had the world's third-largest population (310mn), of which 13.2% (41mn) were aged 65 or older. Total healthcare spending in 2011 was around 18% of the country's GDP. The US also has a well-developed healthcare infrastructure, and US companies, such as GE Healthcare and Johnson & Johnson, boast both domestic and global leadership.

China's medical equipment market grew 25% in 2011 to US$11.5bn, comprising 3.8% of the global market. The Chinese market is likely to continue to display strong expansion, in light of the country's slowing but still solid growth as well as supportive healthcare policies and solid export/import trends. 8.4% of China's 1.3bn residents are aged 65 or older, and the country is still growing at a faster rate than developed economies. Although the country has the highest number of hospital beds, it has just 2.1 beds per 1,000 persons (vs. three beds per 1,000 persons in the US), suggesting there is still much room for growth.

The Chinese government has already introduced compulsory insurance policies in both urban and rural areas and has pledged US$124bn to revamp the country's healthcare system. There are a large number of multinationals currently operating in China, in addition to around 15,000 local companies. Whereas multinational firms are focused on high-end products, local suppliers are geared toward the low- to mid-end segment.

Table 1. Comparison of medical equipment market conditions

Division	Item	Unit	US	China	Germany	Brazil
Economic	GDP	US$bn	15,006	7,035	3,588	2,485
indicators	GDP per capita	US$	47,910	5,330	43,930	12,890
	Medical expenses	US$bn	2,697	367	418	220
	Medical expenses per capita	US$	8,610	278	5,122	1,140
	% of medical expenses in GDP	%	18.0	5.2	11.7	8.8
Demographics	Population	mn persons	313	1,320	82	193
	% of population aged 65 or older	%	13.2	8.4	20.4	6.7
Medical	No. of hospitals (excluding public hospitals)	no.	5,749	17,637	2,047	6,698
Industry metrics	No. of hospital beds per 1,000 persons	no.	3.0	2.1	6.2	2.4
	No. of doctors	persons	809,396	2,042,628	337,764	284,612
	Per 1,000 persons	persons	2.6	1.5	4.1	1.5
	No of dentists (including hygienist)s	person	659,372	132,000	6,827	89,930
	Per 1,000 persons	persons	2.1	0.1	0.8	0.5

Source: KHIDI, KDB Daewoo Securities Research

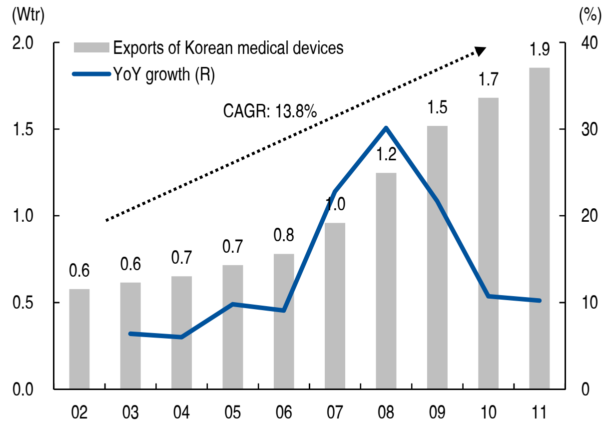
Domestic market: Export-led growth strategy

The domestic medical equipment market grew 10.3% to W4.3tr in 2011 and has grown at a solid CAGR of 7.5% since 2002. Still, Korea is heavily reliant on imports of medical equipment, which accounted for 58% of demand in 2011. (The country has recorded annual medical equipment trade deficits of around W1tr for many years.) More than 80% of imports are from multinational firms based in the US, EU, and Japan, such as Johnson & Johnson, GE Healthcare, Siemens Healthcare, and Toshiba.

Faced with limitations in the domestic market, Korean medical equipment suppliers have been looking overseas to boost growth. Since 2002, Korea's exports of medical equipment have increased 13.8% CAGR, far outpacing domestic demand expansion (7.5%). Such export growth has been attributable to domestic suppliers' stronger competitiveness, supported by advances in IT and precision machinery technologies. Won depreciation during the 2008 global crisis also played a key role in the advance overseas.

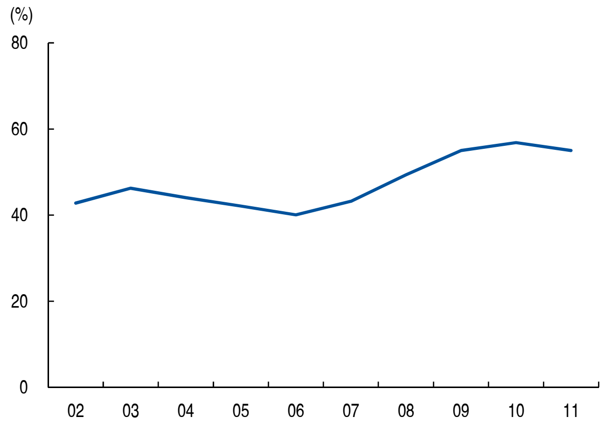
Key export categories include diagnostic imaging, dental products, orthopedics, implantable devices, and disposable items, among others. While large multinationals have diversified their business portfolios, domestic companies tend to advance abroad with limited product portfolios: Vieworks with FP-DR, Huvitz with optical/ophthalmic devices, JVM with ATDPS, Vatech with digital X-ray equipment, and InBody with body composition analyzers.

Figure 14. Medical equipment export trend



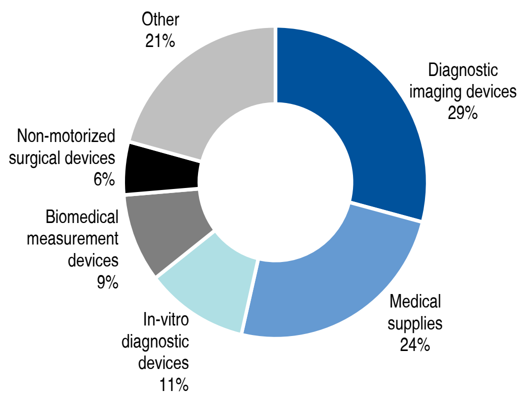
Source: KHIDI, KDB Daewoo Securities Research

Figure 15. Domestic medical equipment makers' export exposure on the rise



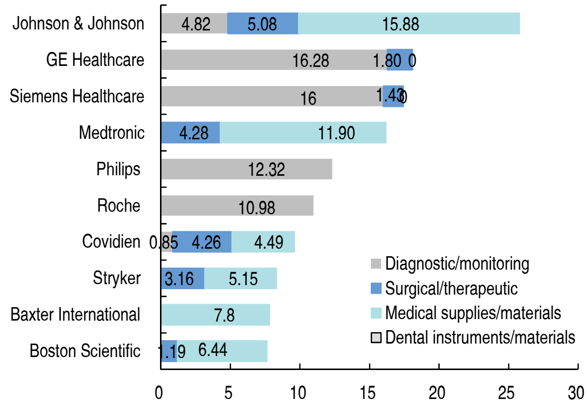
Source: KHIDI, KDB Daewoo Securities Research

Figure 16 Medical equipment export breakdown by item (2012)



Source: KDB Daewoo Securities Research

Figure 17. Global medical equipment companies have diversified their business portfolios



Source: Bloomberg, KDB Daewoo Securities Research

Table 2. Top 30 domestic medical equipment/devices by value (Wbn)

Rank	Classification no.	Item	06	07	08	09	10	11
1	A26380	Ultrasound imaging devices	234.1	256.0	321.4	286.7	330.8	380.4
2	C12050	Dental implants	104.2	159.3	192.3	179.1	188.0	249.7
3	C01020	Dental alloys	189.2	221.1	265.7	254.0	229.6	231.9
4	A77010	Eyeglass lenses	158.3	161.8	161.9	167.6	160.8	177.1
5	A77030	Soft contact lenses	31.2	39.4	53.1	72.3	78.7	99.0
6	A83060	Medical-use personal heaters	39.4	68.0	101.6	131.4	81.1	94.9
7	A83080	Combination stimulators	85.7	80.0	76.1	68.8	82.3	93.2
8	B03160	Internal fixation devices	29.5	39.4	41.8	39.1	57.6	89.7
9	A58020	Medical probes	33.7	42.7	36.0	70.3	94.6	82.3
10	A37010	Surgical lasers	26.4	39.2	48.2	58.2	63.6	72.5
11	A11110	Digital radiography devices	33.9	28.5	53.7	68.9	102.7	69.8
12	A54010	Syringes	55.9	51.3	57.9	64.5	65.2	60.7
13	B10010	Blood glucose test strips	6.3	27.5	31.0	35.5	35.6	59.7
14	A26430	Image processing software for medical devices	45.5	68.8	45.1	77.7	69.9	47.0
15	A68010	Dental care devices and chairs	33.3	33.6	49.1	46.6	47.4	44.4
16	A11010	Computed radiography device s	25.3	26.9	31.1	53.7	43.2	44.4
17	A78010	Hearing aids	23.4	25.2	27.9	28.4	40.1	43.0
18	A79030	Intravenous fluid administration sets	28.6	25.1	27.7	33.9	34.7	39.5
19	B05010	Splints	21.1	22.4	27.2	31.7	35.8	38.5
20	A55030	Surgical drill handpieces	16.2	20.8	26.6	27.9	33.7	37.5
21	C12090	Dental implant assemblies	6.7	16.1	19.9	17.3	23.1	36.6
22	A79010	Infusion pumps	13.9	20.9	24.7	25.3	27.3	33.6
23	A22030	Blood glucose meter	7.6	10.1	18.0	16.5	22.1	32.8
24	A86010	Medicinal substance-producing equipment	27.8	37.6	40.1	27.1	27.3	29.0
25	A02010	Hospital beds	15.6	19.3	29.3	33.5	37.4	27.1
26	A11020	Diagnostic X-ray imaging apparatus	18.0	20.9	18.6	17.4	19.7	25.9
27	A53010	Needles	11.0	14.2	16.9	20.0	21.9	25.7
28	A37020	Medical laser apparatus	15.6	20.7	14.3	15.7	18.7	25.5
29	A17100	Compression sleeves	6.6	7.6	11.0	13.0	14.9	25.4
30	A79160	Direct infusion devices	11.0	11.9	13.4	15.8	17.4	24.0
		Total of top 30 (A)	1,355.0	1,616.3	1,881.6	1,997.9	2,105.2	2,340.8
		Total value of medical device production (B)	1,949.2	2,217.0	2,525.2	2,764.3	2,964.4	3,366.4
		% (A/B)	69.5	72.9	74.5	72.3	71.0	69.5

Note: Shading indicates products of listed companies
Source: MFDS, KHIDI, KDB Daewoo Securities Research

Medical equipment categories and competitive landscape

The Korean medical industry can be largely divided into medical services (80%), pharmaceuticals (10%), medical equipment (5%), and other (5%). The medical equipment market can be broken down into a wide array of different segments. According to the official industry classifications by the Ministry of Strategy & Finance and the Ministry of Health & Welfare, medical equipment can be grouped into the following categories: diagnostic imaging, dental products, orthopedics, implantable devices, disposable items, and other.

Table 3. Medical device types and major producers

Categories	Main products	Major companies	
		Domestic	Global
Diagnostic imaging equipment	- X-ray, ultrasound - CT, MRI, digital radiography - Gamma camera, bone mineral density testing equipment - Endoscope, infrared diagnostic devices	Vieworks*, Vatech *, Medison, Listem	GE, Siemens, Philips, Toshiba, Hitachi, Olympus
Dental devices	- Radiation medical treatment device - Dental drills, syringes - Exam tables, dental clinic equipment,	Osstem Implant*, DIO*, Dentium, Shinhung, Heesung Catalysts, Alphadent	Dentsply, Danaher, Nobel Biocare, 3M Health Care
Orthopedic devices	- Replacement joints, bone graft materials, spinal implants - Biomaterials	Solco Biomedical*, U&I, Korea Bone Bank	Johnson & Johnson, Zimmer, DePuy, Stryker
Disposable items	- Wound care, syringes, needles - Condoms, elastic bands, vascular hosiery - Contact lenses, catheters	Unidus*, Hankook Latex, Bescon, Lucid Korea, Litex, Handok Optec	Johnson & Johnson, Becton Dickinson, Medtronic, Carolon
Other	- Treatment and surgical instruments - Rehab and oriental medical devices - In-vivo measurement devices - Medical information systems and other	Infinitt Healthcare*, BIT Computer*, ITC, Daeseong, Cosmic, Meridian, LG CNS	Accuray, Conmed, Ottobock, OG Giken, GE Healthcare, Agfa

Note: * denotes listed domestic company
Source: Five ministries, including Ministry of Strategy and Finance (2010), KDB Daewoo Securities Research

The Korea Health Industry Development Institute (KHIDI) classifies medical equipment into the following four groups: diagnostic/monitoring equipment, surgical/therapeutic devices, medical supplies/materials, and dental instruments/materials. In our view, the KHIDI classification system is more useful for analyzing foreign and domestic companies' product portfolios.

Table 4. Four major types of medical devices

Type	Details
Diagnostic/monitoring equipment	Machines or equipment used to diagnose any disease or injury (e.g., ultrasound devices, CT scanners, and MRI machines), monitor vital signs (e.g., electrocardiograms, blood pressure monitors), or measure blood glucose levels (e.g., glucose meters and centrifuges); dental instruments are not included
Surgical/therapeutic devices	Machines or equipment used to treat diseases (e.g., electrosurgical units, laser surgical apparatus, anesthesia machines, and endoscopes) or used for therapeutic purposes (e.g., electric neuromuscular stimulators and heating units); dental instruments are not included
Medical supplies/materials	Prosthetics (e.g., replacement joints), materials used to treat disease or trauma (e.g., stents and heart valves), or disposable items used in medical institutions (e.g., syringes and sutures); dental instruments are not included
Dental instruments/materials	Materials, machines, or equipment used to diagnose dental disease or trauma (e.g., dental CT scanners and X-rays) or treat dental disease (e.g., resin and implants)

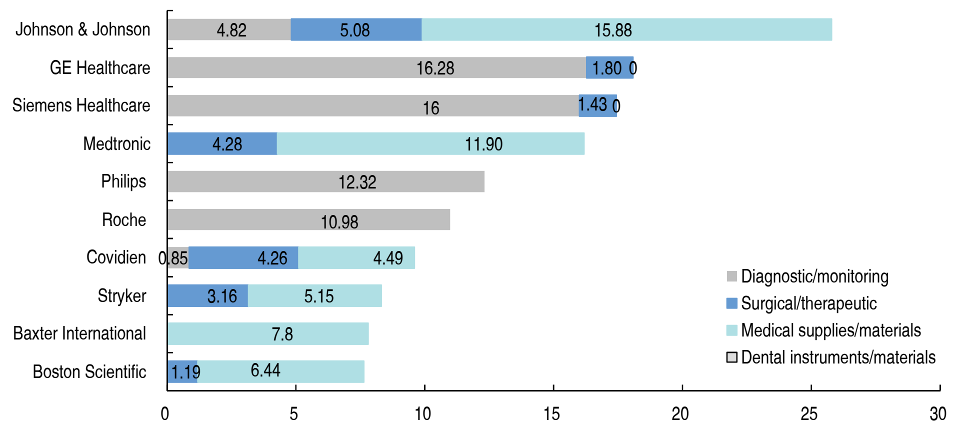
Source: KHIDI, KDB Daewoo Securities Research

Global competition led by multinationals

The revenue of the top 10 global firms is evenly dispersed across diagnostic/monitoring equipment, surgical/therapeutic devices, and medical supplies/materials. (However, some smaller foreign manufacturers specialize in specific areas).

The world's largest medical equipment maker, Johnson & Johnson, has products in all three categories, generating related revenue of US$26bn in 2011. In the diagnostic/monitoring equipment segment, affiliates of GE, Siemens, Philips, and Roche are the market leaders, while Johnson & Johnson, Medtronic, and Covidien dominate the surgical/therapeutic device market. The joint prosthesis, stent, and disposable item markets are controlled by Johnson & Johnson, Medtronic, Baxter International, and Boston Scientific. The top 10 global players do not manufacture dental devices and materials. Major global players in this segment include Dentsply, Zimmer, Straumann and Nobel Biocare.

Figure 18. Revenue breakdowns of top 10 global medical equipment companies (2011)



Source: KHIDI, KDB Daewoo Securities Research

Table 5. Revenue breakdowns of top 10 global medical device companies (2011) (%)

Rank	Company	4 major sales breakdowns by product type (Year 2011)				Major items
		Diagnostic/ monitoring	Surgical/ therapeutic	Medical supplies/ materials	Dental instruments/ materials	
1	Johnson & Johnson	18.7	19.7	61.6	-	Orthopedics (spinal and other), implants, minimally invasive surgical equipment, suture products, contact lenses, blood glucose meters, catheters, stents, etc
2	GE Healthcare	90.1	9.9	-	-	CT/PET scanners, MRI machines, ultrasound diagnostic devices, PACS, hospital information systems, patient monitoring systems, etc.
3	Siemens Healthcare	91.8	8.2	-	-	CT scanners, MRI machines, X-ray machines, ultrasound diagnostic devices, diagnostic testing equipment, etc.
4	Medtronic.	-	26.5	73.5	-	Orthopedic supplies; defibrillators, pacemakers, stents, catheters, bone graft materials, etc.
5	Philips	100.0	-	-	-	X-ray machines, CT scanners, MRI machines, ultrasound imaging devices, PACS, patient monitoring systems, etc.
6	Roche	100.0	-	-	-	In-vitro diagnostic devices
7	Covidien	8.9	44.4	46.7	-	Orthopedic supplies; laparoscopic devices, surgical staplers, return electrodes, stents, etc.
8	Stryker	-	38.0	62.0	-	Orthopedic implants, endoscopic and arthroscopic surgical devices, etc.
9	Baxter International	-	-	100.0	-	Kidney dialysis machines, catheters, drug injectors, etc.
10	Boston Scientific	-	15.6	84.4	-	Drug-eluting coronary stents, catheters, internal defibrillators, pacemakers, stents, etc.

Source: KHIDI KDB Daewoo Securities Research

Domestic competition

As mentioned earlier, many leading domestic suppliers tend to specialize in specific areas. The domestic market still relies heavily on imports (60%) due to the head starts of global players and high entry barriers. This has prompted many domestic firms to focus on exporting specialized products, mainly to emerging markets.

Major domestic suppliers of diagnostic and monitoring devices include Samsung Medison (unlisted; ultrasound systems), Huvitz (ophthalmic/optical devices), Vieworks (medical cameras) and i-SENS (glucose monitors). In the surgical/therapeutic equipment segment, key players include CU Medical Systems (defibrillators) and Lutronic (laser devices).

Major players in the medical supply/materials market are Samyung Trading (ophthalmic lenses), Interojo (contact lenses) and Sewoon Medical (closed wound drainage systems), while Osstem Implant (dental implants) and Vatech (digital X-ray equipment) lead the dental equipment and materials market. Other domestic medical equipment manufacturers include JVM (ATDPS) and Infinitt Healthcare (medical imaging and information solutions).

Table 6. Domestic medical device companies status by type

Category	Ticker.	Companies	Major business areas
Diagnostic/ monitoring	065510 KQ	Huvitz	Ophthalmic equipment including automatic refractometers, lensmeters, and lens edgers
	100210 KQ	Vieworks	Medical cameras including special medical still image digital detectors
	099190 KQ	i-SENS	Medical biosensors including glucose meters, glucose test strips, blood analyzers, etc.
	036220 KQ	Infopia	In-vitro diagnostic equipment including glucose meters and sensors
	006140 KQ	PJ Electronics	Diagnostic ultrasound systems
	041830 KQ	InBody	Body composition analyzers
	039860 KQ	NanoEnTek	In-vitro diagnostic equipment including cell counters
Surgical/ therapeutic	115480 KQ	CU Medical Systems	Defibrillators (AED, non-AED)
	085370 KQ	Lutronic	Laser equipment
Medical supplies/ materials	100700 KQ	Sewoon Medical	Closed wound drainage systems, catheters, stents, etc.
	104540 KQ	Corentec	Prosthetic joints
	002810 KS	Samyung Trading	Plastic lenses
	119610 KQ	Interjo	Contact lenses
	043100 KQ	Solco Biomedical	Implants, surgical units, etc.
	042520 KQ	Hans Biomed	Skin and bone graft materials, silicon products, etc.
Dental instruments/ materials	048260 KQ	Osstem Implant	Dental implants and equipment
	039840 KQ	DIO	Dental implants, equipment, and stents
	043150 KQ	Vatech	Dental devices (digital X-ray machines, CT scanners)
	059210 KQ	Meta Biomed	Dental products including root canal sealants and biodegradable sutures
	138610 KQ	Nibec	Dental bone grafts, dental whitening materials, etc.
	004080 KS	Shinhung	Dental alloys, dental chairs, etc.
	039200 KQ	Oscotec	Bone graft materials, etc.
IT solutions and other	054950 KQ	JVM	ATDPS
	071200 KQ	Infinitt Healthcare	Medical imaging and information solutions
	032850 KQ	BIT Computer	Medical information software, U-healthcare, etc.
	033230 KQ	Insung Information	U-healthcare devices and platforms

Source: KDB Daewoo Securities Research

Table 7. Performance metrics of global medical equipment companies (%, Wbn)

Company	Share performance		Revenue			Operating profit			OP margin			Net profit		
	-1M	-3M	12	13F	14F	12	13F	14F	12	13F	14F	12	13F	14F
Seegene	-13.5	-3.2	52	66	-	12	-	-	23.6	-	-	9	15	-
Samyung Trading	-14.8	-16.6	275	-	-	5	-	-	1.9	-	-	22	-	-
JVM	-13.2	4.6	78	98	-	14	22	-	18.4	21.9	-	6	14	-
Osstem Implant	-6.3	-8.4	201	223	260	20	22	30	10.1	9.7	11.6	6	16	26
Huvitz	-4.6	-7.8	67	78	87	13	15	17	18.7	19.0	19.5	11	12	13
Vieworks	14.7	19.5	47	63	80	8	12	16	16.0	18.2	20.6	6	10	14
Vatech	-14.7	-26.1	176	210	-	12	25	-	6.8	11.9	-	6	12	-
i-SENS	-4.7	7.1	67	87	110	8	17	22	11.9	19.3	20.3	9	14	19
Infopia	-8.5	-16.4	57	-	-	-1	-	-	-1.4	-	-	-5	-	-
Medtronic, Inc.	-2.3	3.9	18,489	18,657	19,265	5,436	5,947	6,187	29.4	31.9	32.1	3,864	4,263	4,483
Covidien	-2.8	6.6	13,519	11,126	11,572	2,857	2,478	2,635	21.1	22.3	22.8	2,173	1,901	2,016
Stryker	-2.0	4.1	9,752	9,799	10,264	2,046	2,340	2,534	21.0	23.9	24.7	1,462	1,766	1,909
Baxter International	-2.1	3.5	15,985	16,539	18,300	3,178	3,703	4,130	19.9	22.4	22.6	2,620	2,781	3,055
Boston Scientific	5.0	26.3	8,166	7,776	8,001	1,049	1,020	1,113	12.8	13.1	13.9	-4,583	640	730
Dentsply	6.1	10.1	3,299	3,252	3,377	459	537	583	13.9	16.5	17.3	354	374	410
Zimmer	-2.8	6.6	13,519	11,126	11,572	2,857	2,478	2,635	21.1	22.3	22.8	2,173	1,901	2,016
Straumann	-2.0	4.1	9,752	9,799	10,264	2,046	2,340	2,534	21.0	23.9	24.7	1,462	1,766	1,909
Nobel Biocare	-2.1	3.5	15,985	16,539	18,300	3,178	3,703	4,130	19.9	22.4	22.6	2,620	2,781	3,055
Industry average	**-3.9**	**1.2**	-	-	-	-	-	-	**15.9**	**19.9**	**21.2**	-	-	-

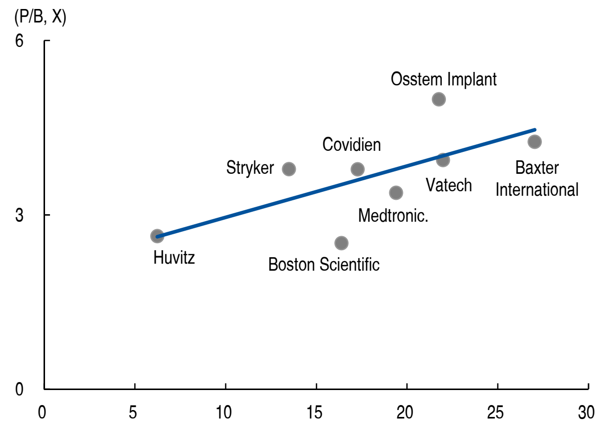
Source: Bloomberg, KDB Daewoo Securities Research

Table 8. Valuation metrics of global medical equipment companies (x, %)

Companies	EV/EBITDA			P/E			P/B			ROE		
	12	13F	14F	12	13F	14F	12	13F	14F	12	13F	14F
Seegene	68.9	40.2	28.8	96.4	56.6	-	20.9	15.1	8.2	22.0	30.8	29.4
Samyung Trading	19.2	-	-	11.5	-	-	1.2	-	-	11.2	-	-
JVM	-	-	-	-	22.4	-	-	-	-	-	-	-
Osstem Implant	18.8	17.7	13.4	64.7	25.0	16.1	5.5	4.4	3.6	9.2	18.5	19.1
Huvitz	9.4	11.2	9.6	18.4	17.2	15.8	3.3	2.9	2.4	20.0	17.8	17.7
Vieworks	18.5	15.6	11.5	38.5	22.9	15.5	4.1	3.6	2.9	11.1	15.7	20.4
Vatech	12.5	6.6	-	28.3	14.4	-	2.3	-	-	7.9	14.8	-
i-SENS	-	14.4	11.5	33.8	22.9	17.5	4.3	4.0	3.2	13.7	20.3	21.6
Infopia	-	-	-	-	-	-	-	-	-	-6.4	-	-
Medtronic	9.6	8.7	8.5	14.3	14.2	13.2	2.9	2.7	2.4	19.9	20.8	22.5
Covidien	10.2	11.1	10.6	14.7	16.7	15.3	3.0	2.9	2.6	17.6	17.9	17.5
Stryker	11.6	9.9	9.1	16.9	16.4	15.0	3.1	2.8	2.5	13.8	17.2	17.6
Baxter International	11.2	10.0	8.9	15.6	15.5	14.0	5.4	5.0	4.3	32.1	32.7	30.4
Boston Scientific	12.6	12.2	11.5	28.3	27.6	23.6	2.4	2.4	2.2	-11.6	8.2	9.3
Dentsply	13.3	13.1	12.3	18.0	19.2	17.5	2.9	2.7	2.4	16.1	12.9	13.4
Zimmer	10.2	11.1	10.6	14.7	16.7	15.3	3.0	2.9	2.6	17.6	17.9	17.5
Straumann	11.6	9.9	9.1	16.9	16.4	15.0	3.1	2.8	2.5	13.8	17.2	17.6
Nobel Biocare	11.2	10.0	8.9	15.6	15.5	14.0	5.4	5.0	4.3	32.1	32.7	30.4
Industry average	**16.6**	**13.4**	**11.7**	**27.9**	**21.2**	**16.0**	**4.5**	**4.2**	**3.3**	**14.1**	**19.7**	**20.3**

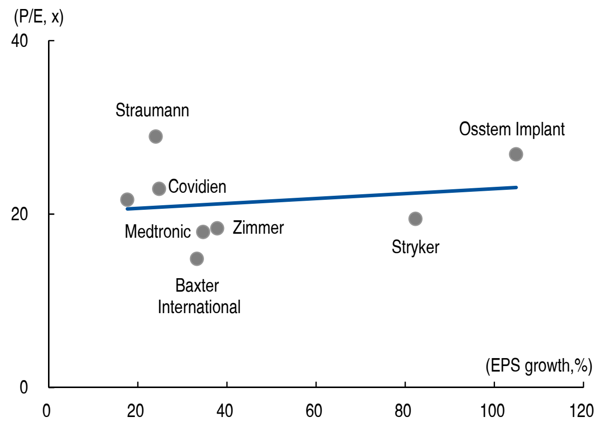
Source: Bloomberg, KDB Daewoo Securities Research

Figure 19. P/B-ROE comparison



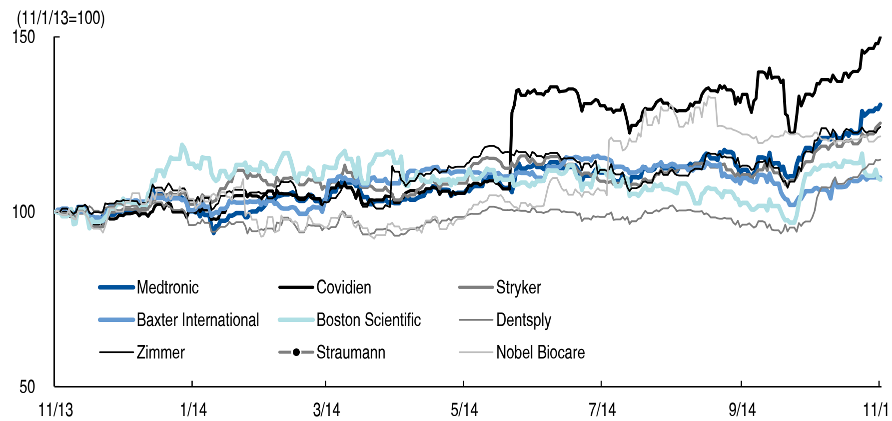
Source: Bloomberg, KDB Daewoo Securities Research

Figure 20. P/E-EPS growth comparison



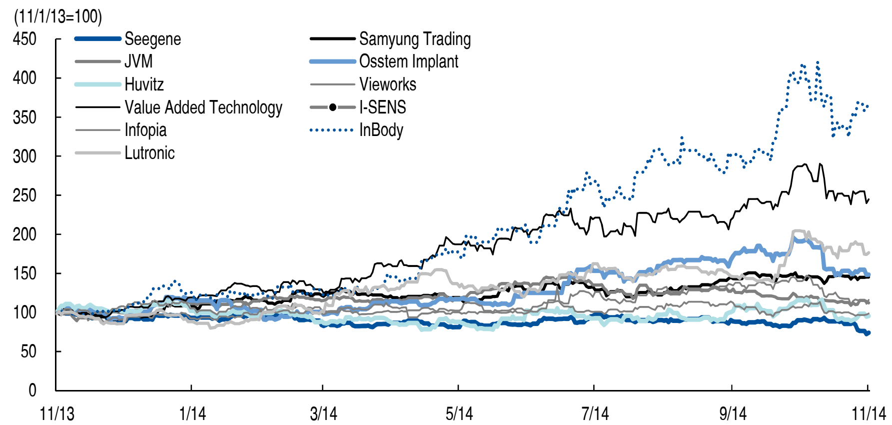
Source: Bloomberg, KDB Daewoo Securities Research

Figure 21. Share price trends of non-Korean medical equipment companies



Source: Bloomberg, KDB Daewoo Securities Research

Figure 22. Share price trends of domestic medical equipment companies



Source: Bloomberg, KDB Daewoo Securities Research

Vieworks (100120 KQ)

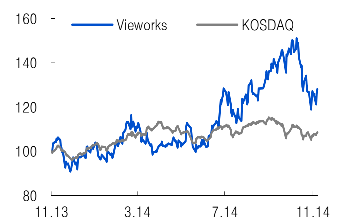
Poised to see significant benefits from digital conversion of X-ray equipment

Medical Equipment

(Initiate)	Buy
Target Price (12M, W)	44,000
Share Price (11/26/14, W)	32,550
Expected Return	35.2%

OP (14F, Wbn)	15
Consensus OP (14F, Wbn)	16
EPS Growth (14F, %)	17.2
Market EPS Growth (14F, %)	1.2
P/E (14F, x)	29.3
Market P/E (14F, x)	13.1
KOSDAQ	547.34
Market Cap (Wbn)	326
Shares Outstanding (mn)	10
Free Float (%)	64.7
Foreign Ownership (%)	20.8
Beta (12M)	1.09
52-Week Low	23,100
52-Week High	38,350

(%)	1M	6M	12M
Absolute	-11.5	22.4	22.8
Relative	-9.4	22.7	14.6



Snapshot: Leading medical imaging solutions provider in Korea

Founded in 1999 by former Samsung Techwin engineers, Vieworks is the largest medical imaging solutions provider in Korea. By product, medical imaging solutions accounted for 80% of 2012 revenue, industrial cameras 17%, and contract manufacturing 3%. Around 70% of overall revenue came from exports.

Many hospitals have been switching from film to digital X-ray detectors, and, as a result, Vieworks has seen growing sales of its digital products, such as flat-panel digital radiography (FP-DR) and charge-coupled detector digital radiography (CCD-DR) equipment. In addition, the company produces industrial cameras mounted on semiconductor and LCD inspection equipment. Of note, Vieworks is widening the applications of its cameras, which are based on advanced ultra-HD technology, to encompass defense, entertainment, and sports.

Earnings to grow steadily on robust FP-DR sales and new product launches

In line with the accelerating digital conversion of X-ray equipment, Vieworks' FP-DR sales are projected to grow steadily from W29.5bn in 2013 to W43.8bn in 2014 and W61.9bn in 2015. Having secured a North American customer in 2013, Vieworks added a European company to its customer list in mid-2014. Thus, revenue growth should gather steam in 2015. In addition, the company is also anticipated to expand its FP-DR reach to the dental equipment segment and introduce new industrial-use products next year.

Revenue growth is forecast to accelerate by 21%p next year from 9% YoY to 30% YoY. For 2015, we anticipate that the company will record historic-high earnings, with revenue of W94.1bn (+30% YoY), operating profit of W20.1bn (+37% YoY), and net profit of W16.6bn (+51% YoY).

By quarter, 3Q15 results are expected to be weaker than the previous year's levels, weighed down by a high base of comparison and slowing demand for CCD-DRs (cannibalized by demand for FD-DRs). However, the company will likely resume growth in 4Q, posting W20.5bn in revenue (+2% YoY), W4.1bn in operating profit (-3% YoY), and W3.4bn in net profit (+240% YoY).

Initiate coverage with Buy and TP of W44,000

We initiate our coverage on Vieworks with a Buy call and a target price of W44,000. Based on the belief that the company's revenue models and growth momentum will strengthen in 2015, we applied the 2015F average P/E (26x) of global medical equipment makers to our EPS estimate of W1,664. In our view, Vieworks is the most attractive among medical equipment makers under our coverage in light of current industry trends, its technological competitiveness, and its medium- to long-term earnings outlook. In addition, the company is expected to further expand into the sports, entertainment, and defense spaces.

FY (Dec.)	12/11	12/12	12/13	12/14F	12/15F	12/16F
Revenue (Wbn)	36	47	67	73	94	119
OP (Wbn)	8	8	13	15	20	27
OP margin (%)	22.2	17.0	19.4	20.5	21.3	22.7
NP (Wbn)	7	6	9	11	17	22
EPS (W)	671	566	946	1,110	1,664	2,229
ROE (%)	14.7	11.1	16.4	16.6	20.9	22.7
P/E (x)	13.6	35.7	26.2	29.3	19.6	14.6
P/B (x)	1.9	3.8	4.0	4.5	3.7	3.0

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

Korea's leading medical imaging solutions provider

Founded in 1999 by former Samsung Techwin engineers, Vieworks is the largest medical imaging solutions provider in Korea. By product, medical imaging solutions accounted for 80% of 2012 revenue, industrial cameras 17%, and contract manufacturing 3%. Around 70% of overall revenue came from exports. B2B transactions account for most of the company's revenue.

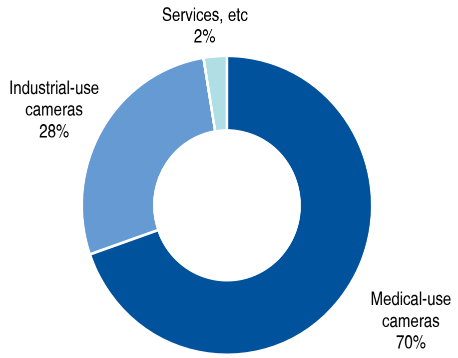
Many hospitals have been switching from film to digital X-ray detectors, and, as a result, Vieworks has seen growing sales of FP-DR. The company is broadening the applications of FP-DR to encompass dental devices. Furthermore, we foresee a shift from still images to video.

In addition, Vieworks is producing industrial-use cameras that can be mounted on semiconductor and LCD inspection equipment. In light of their advanced ultra-HD technology, these cameras are expected to have defense, entertainment, and sports broadcasting applications going forward.

Figure 23. Product lineup

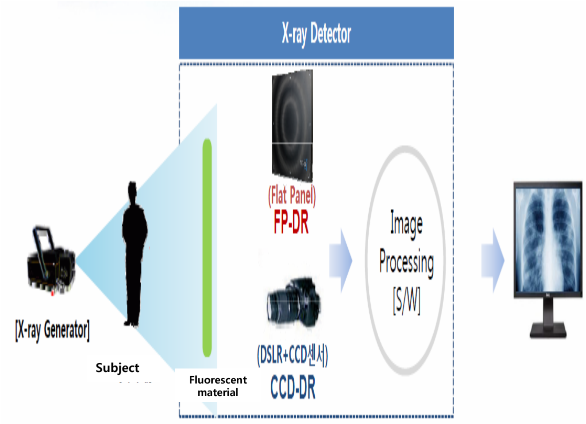
Source: Company data, KDB Daewoo Securities Research

Figure 24. Revenue breakdown by product



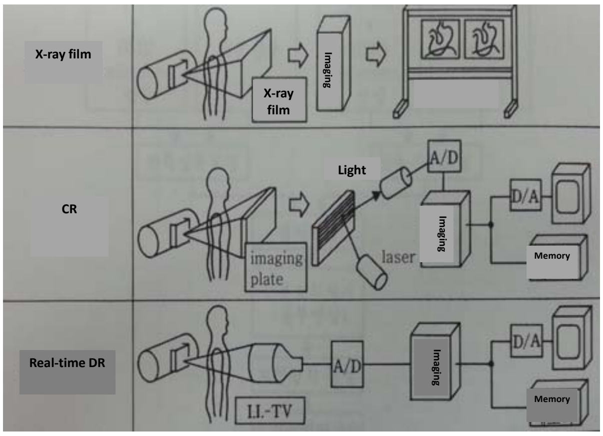
Source Company data, KDB Daewoo Securities Research

Figure 25. FP-DR and CCD-DR detectors



Source: Company data, KDB Daewoo Securities Research

Figure 26. X-ray system overview



Source: KDB Daewoo Securities Research

Largest beneficiary of digital conversion of X-ray equipment

An X-ray unit is composed of a generator, a detector, and a cassette. According to Global Business Intelligence, the global X-ray detector market is forecast to reach US$4.8bn by 2016, expanding at a 4% CAGR between 2009 and 2016.

X-ray imaging technology is largely classified into film-based and digital radiography. Digital radiography technology was first introduced in the late 1960s, with computed radiography and real-time digital radiography being rolled out in the early 1980s and the 2000s, respectively. Currently, more than 80% of hospital X-ray detectors are based on film. Fueled by growing demand for digital conversion, we expect the FP-DR market to expand to W2tr (by annual revenue) in the coming years.

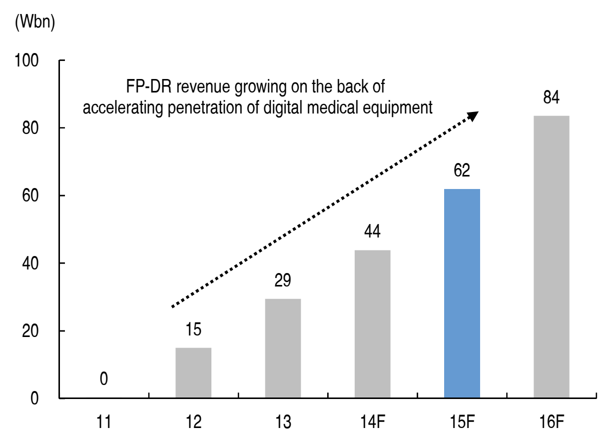
Despite bearing higher prices, FP-DR is more competitive than CCD-DR, in our view, given its lower radiation doses, greater convenience, and higher accuracy levels. Vieworks added FP-DR to its portfolio in 2012 and has steadily expanded exports in cooperation with global players. We project the company’s FP-DR sales to grow at a CAGR of 43% between 2012 and 2015 from (W14.9bn to W61.9bn), serving as the major driver of top-line growth.

Table 9. Growth strategy by item and region

		Current	Short-term	Long-term
Item	Medical-use	- FP-DR (still image) - CCD-DR (still image)	- FP-DR (video) FP-DR model diversification	- Hybrid low-dose PF-DR development - Development of DR-based finished products
	Industrial-use	- R/F (video) - 140MP shifting cameras - 29MP cooling cameras - VGA-29MP cameras	- Line scan cameras - High-speed cameras 500fps	- Video modules for use in FPD tests - Video module for semiconductors
	Defense-use, etc.	- NTOD cameras - Head-up displays (HUD)	- Defense-use cameras	- Broadcasting-use cameras - Defense-use video modules
Region	Medical-use	- US, Japan, Europe, Central and South America, etc. - Direct access to China		- Export-zone diversification
	Industrial-use	- US, Japan, China, Taiwan, Singapore, etc.	- Overseas expansion(Russia and India)	

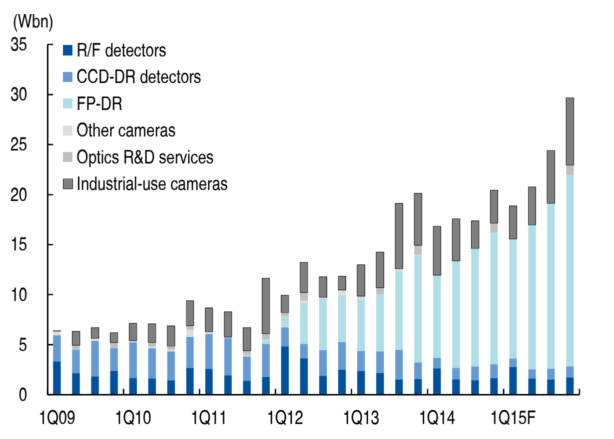
Source: Company data KDB Daewoo Securities Research

Figure 27. FP-DR revenue forecasts



Source Company data, KDB Daewoo Securities Research

Figure 28. Revenue forecasts by item: FP-DR showing a sharp rise



Source: Company data KDB Daewoo Securities Research

Earnings to grow steadily on robust FP-DR sales and new product launches

In line with the accelerating digital conversion of X-ray equipment, Vieworks' FP-DR revenue is projected to grow steadily from W29.5bn in 2013 to W43.8bn in 2014 and W61.9bn in 2015. Having secured a North American customer in 2013, Vieworks added a European company to its customer base in mid-2014. Thus, revenue growth should gather more steam in 2015. In addition, the company is also anticipated to: 1) expand its FP-DR reach to include dental equipment and 2) introduce new industrial-use products next year.

Revenue growth is forecast to surge from 9% YoY in 2014 to 30% YoY in 2015. For 2015, we anticipate that the company will record historic-high earnings, with revenue of W94.1bn (+30% YoY), operating profit of W20.1bn (+37% YoY), and net profit of W16.6bn (51% YoY). By quarter, 3Q15 results are expected to be weaker than the previous year's levels, weighed down by a high base of comparison and slowing demand for CCD-DRs (cannibalized by FD-DR demand). However, growth should resume in 4Q,

Table 10. Annual revenue (Wbn, %)

	Business unit	2012	2013	2014F	2015F	2016F
Revenue		46.8	66.5	72.7	94.1	118.6
%, YoY		31	42	9	30	26
By business unit	Medical camera manufacturing	37.3	46.3	56.5	74.0	94.9
	R/F detectors	12.9	7.7	7.3	7.6	8.0
	CCD-DR detectors	8.6	8.8	5.0	4.0	2.8
	FP-DR detectors	14.9	29.5	43.8	61.9	83.6
	Other	0.8	0.4	0.4	0.4	0.5
	Optics R & D services	1.3	1.7	1.0	1.1	1.2
	Industrial cameras	8.2	18.4	15.2	19.1	22.5
Operating profit		7.5	12.8	14.7	20.1	26.7
%, YoY		-0	71	15	37	33
Pretax profit		6.6	12.2	13.4	20.3	27.2
Net profit attributable to controlling interests		5.7	9.5	11.1	16.6	22.3
%, YoY		-16	67	17	51	34
OP margin		16.0	19.3	20.2	21.3	22.5
Net margin		12.1	14.2	15.2	17.7	18.8
Revenue proportion	Medical camera manufacturing	80	70	78	79	80
by business unit	Optics R & D services	28	12	10	8	7
	Industrial cameras	18	13	7	4	2

Source: Company data, KDB Daewoo Securities Research

Table 11. Quarterly revenue (Wbn, %)

	2014F				2015F				2013	2014F	2015F
	1Q	2Q	3QF	4QF	1QF	2QF	3QF	4QF			
Revenue	16.9	17.7	17.6	20.5	18.9	20.9	24.7	29.8	66.5	72.7	94.1
%, QoQ	-16	5	-0	17	-8	10	18	21	-	-	-
%, YoY	30	24	-8	2	12	18	40	45	42	9	30
Operating profit	3.7	3.6	3.3	4.1	3.9	4.4	5.3	6.5	12.8	14.7	20.1
%, QoQ	-12	-3	-10	26	-6	13	21	24	-	-	-
%, YoY	106	165	-40	-3	4	21	63	60	71	15	37
Pretax profit	4.0	2.0	3.3	4.1	3.9	4.4	5.4	6.6	12.2	13.4	20.3
Net profit	3.2	1.9	2.7	3.4	3.2	3.6	4.4	5.4	9.5	11.1	16.6
%, QoQ	218	-54	4	7	72	36	30	68	-	-	-
%, YoY	160	3,640	43	240	-20	41	39	189	67	17	51
OP margin	22.0	20.4	18.5	20.0	20.5	21.0	21.5	22.0	19.3	20.2	21.3
Net margin	18.7	10.6	15.2	16.4	17.0	17.4	17.8	18.2	14.2	15.2	17.7

Notes: All figures are based on consolidated K-IFRS
Source Company data, KDB Daewoo Securities Research

Vieworks (100120 KQ/Buy/TP: W44,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Revenue	67	73	94	119
Cost of Sales	35	38	49	61
Gross Profit	32	35	45	58
SG&A Expenses	18	20	25	31
Operating Profit (Adj)	13	15	20	27
Operating Profit	13	15	20	27
Non-Operating Profit	-1	-2	0	0
Net Financial Income	0	0	0	1
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	12	13	20	27
Income Tax	3	2	4	5
Profit from Continuing Operations	9	11	17	22
Profit from Discontinued Operations	0	0	0	0
Net Profit	9	11	17	22
Controlling Interests	9	11	17	22
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	9	11	17	22
Controlling Interests	9	11	17	23
Non-Controlling Interests	0	0	0	-1
EBITDA	16	18	23	30
FCF (Free Cash Flow)	3	5	9	15
EBITDA Margin (%)	23.9	24.7	24.5	25.2
Operating Profit Margin (%)	19.4	20.5	21.3	22.7
Net Profit Margin (%)	13.4	15.1	18.1	18.5

Statement of Financial Condition (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Current Assets	45	50	66	89
Cash and Cash Equivalents	11	13	18	29
AR & Other Receivables	9	10	13	17
Inventories	12	13	17	21
Other Current Assets	13	14	18	22
Non-Current Assets	31	37	39	40
Investments in Associates	0	0	0	0
Property, Plant and Equipment	19	28	32	35
Intangible Assets	10	7	5	3
Total Assets	76	87	105	129
Current Liabilities	6	6	8	10
AP & Other Payables	2	2	3	4
Short-Term Financial Liabilities	0	0	0	0
Other Current Liabilities	4	4	5	6
Non-Current Liabilities	9	9	10	10
Long-Term Financial Liabilities	7	7	7	7
Other Non-Current Liabilities	2	2	3	3
Total Liabilities	14	15	18	20
Controlling Interests	62	72	88	109
Capital Stock	5	5	5	5
Capital Surplus	10	10	10	10
Retained Earnings	46	56	72	93
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	62	72	88	109

Cash Flows (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Cash Flows from Op Activities	14	14	14	19
Net Profit	9	11	17	22
Non-Cash Income and Expense	8	6	7	8
Depreciation	1	1	1	1
Amortization	2	2	2	2
Others	5	3	4	5
Chg in Working Capital	-1	-2	-5	-6
Chg in AR & Other Receivables	-2	-1	-3	-3
Chg in Inventories	1	-1	-4	-4
Chg in AP & Other Payables	1	0	0	1
Income Tax Paid	-2	-2	-4	-5
Cash Flows from Inv Activities	-14	-11	-9	-8
Chg in PP&E	-11	-9	-5	-4
Chg in Intangible Assets	-1	0	0	0
Chg in Financial Assets	-2	-1	-4	-4
Others	0	-1	0	0
Cash Flows from Fin Activities	6	-1	-1	-1
Chg in Financial Liabilities	-	-	-	-
Chg in Equity	0	0	0	0
Dividends Paid	-1	-1	-1	-1
Others	-	-	-	-
Increase (Decrease) in Cash	6	2	5	11
Beginning Balance	5	11	13	18
Ending Balance	11	13	18	29

Forecasts/Valuations (Summarized)

	12/13	12/14F	12/15F	12/16F
P/E (x)	26.2	29.3	19.6	14.6
P/CF (x)	14.1	18.7	14.0	10.8
P/B (x)	4.0	4.5	3.7	3.0
EV/EBITDA (x)	14.7	17.3	12.9	9.5
EPS (W)	946	1,110	1,664	2,229
CFPS (W)	1,759	1,745	2,330	3,011
BPS (W)	6,184	7,194	8,758	10,887
DPS (W)	100	100	100	100
Payout ratio (%)	10.6	9.0	6.0	4.5
Dividend Yield (%)	0.4	0.3	0.3	0.3
Revenue Growth (%)	42.6	9.0	28.8	26.6
EBITDA Growth (%)	60.0	12.5	27.8	30.4
Operating Profit Growth (%)	62.5	15.4	33.3	35.0
EPS Growth (%)	67.1	17.3	49.9	34.0
Accounts Receivable Turnover (x)	8.6	7.8	8.4	8.3
Inventory Turnover (x)	5.2	5.9	6.4	6.3
Accounts Payable Turnover (x)	28.8	23.9	25.8	25.2
ROA (%)	14.0	13.6	17.3	19.0
ROE (%)	16.4	16.6	20.9	22.7
ROIC (%)	22.7	23.7	28.0	33.1
Liability to Equity Ratio (%)	23.4	21.0	20.0	18.5
Current Ratio (%)	806.2	815.2	828.3	886.7
Net Debt to Equity Ratio (%)	-24.3	-24.5	-29.7	-37.2
Interest Coverage Ratio (x)	0.0	0.0	0.0	0.0

Source: Company data, KDB Daewoo Securities Research estimates

Huvitz (065510 KQ)

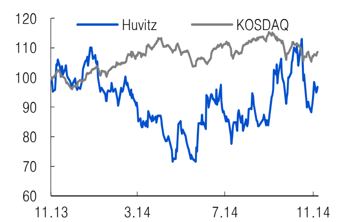
Earnings recovery to gain momentum

Medical Equipment

(Initiate)	Buy
Target Price (12M, W)	22,000
Share Price (11/26/14, W)	15,350
Expected Return	43%

OP (14F, Wbn)	5
Consensus OP (14F, Wbn)	6
EPS Growth (14F, %)	-
Market EPS Growth (14F, %)	1.2
P/E (14F, x)	55.8
Market P/E (14F, x)	13.1
KOSDAQ	547.34
Market Cap (Wbn)	161
Shares Outstanding (mn)	11
Free Float (%)	70.6
Foreign Ownership (%)	21.1
Beta (12M)	1.26
52-Week Low	11,350
52-Week High	17,900

(%)	1M	6M	12M
Absolute	-12.0	20.9	-3.8
Relative	-9.9	21.2	-10.2



Snapshot: No. 1 domestic ophthalmic equipment maker

Established in 1999, Huvitz is the leading ophthalmic and optical equipment maker in Korea, specializing in medical equipment used for ophthalmic diagnostics and lens measurement. The global ophthalmic equipment market is estimated to be around W1.5tr, of which more than 60% is controlled by large corporations, including Nidek (Japan) and Essilor (France). Huvitz is likely to benefit from population aging, rising smartphone penetration, and Chinese market growth.

By division, ophthalmic and optical equipment is projected to account for 62% of 2014F consolidated revenue, with lens instruments and optical microscope systems projected to contribute 15% and 4%, respectively. The company's Chinese subsidiary, Shanghai Huvitz, is expected to account for 18%. Exports to Europe, North America, and China make up more than 80% of revenue. The parent firm, based in Korea, mostly produces high-end products, while its Chinese subsidiary (67% stake) manufactures low- to mid-end products, which are sold in China or exported around the globe via the parent firm.

Investment points

Huvitz has reported sluggish earnings since 2H13 due to the weak performance of the optical microscope division. However, we expect the company's earnings to turn around in 4Q14, backed by 1) the completion of expense recognition related to optical microscopes, 2) a recovery in parent-based earnings, 3) earnings growth at Shanghai Huvitz, and 4) the rising US$/W rate. We believe the company has steadily streamlined its business structure amid the slowdown in earnings by refraining from pursuing new businesses and reducing inventories. Shanghai Huvitz will likely complete capacity expansion this year and continue to deliver robust sales in China next year.

In 2015, we expect Huvitz's earnings to recover markedly, with consolidated revenue of W72.6bn (+11% YoY), operating profit of W9.8bn (+105% YoY), and net profit (attributable to controlling interests) of W7.1bn (+86% YoY). Earnings have improved gradually since 1Q14, and will likely continue to recover in 4Q. Investor sentiment is likely to pick up full swing starting in 4Q.

Initiate coverage with Buy rating and TP of W22,000

We initiate our coverage on Huvitz with a Buy rating and target price of W22,000. We derived our target price by applying the 2015 global medical equipment sector average P/E of 26x to our 2016F EPS of W851. We may raise our earnings estimates going forward in the event of earnings improvement. For now, from a medium- to long-term perspective, we recommend that investors focus on an earnings turnaround rather than valuation merits. Although the company has displayed weak performance over the past year, we believe that its fundamentals remain solid.

FY (Dec.)	12/11	12/12	12/13	12/14F	12/15F	12/16F
Revenue (Wbn)	57	67	64	66	73	80
OP (Wbn)	11	13	6	5	10	13
OP margin (%)	19.3	19.4	9.4	7.6	13.7	16.3
NP (Wbn)	9	11	0	3	7	10
EPS (W)	862	1,054	-25	275	598	851
ROE (%)	19.9	20.0	-0.4	5.0	9.8	12.5
P/E (x)	14.3	14.0	-	55.8	25.7	18.0
P/B (x)	2.5	2.5	2.6	2.6	2.4	2.1

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

Snapshot: No. 1 domestic ophthalmic equipment maker

Established in 1999, Huvitz is the leading ophthalmic and optical equipment maker in Korea, specializing in medical equipment used for ophthalmic diagnostics and lens measurement. The global ophthalmic equipment market is estimated to be around W1.5tr, of which more than 60% is controlled by large corporations, including Nidek (Japan) and Essilor (France). The company is likely to benefit from population aging, rising smartphone penetration, and Chinese market growth.

By division, ophthalmic and optical equipment is projected to account for 62% of 2014F consolidated revenue, with lens instruments and optical microscope systems projected to contribute 15% and 4%, respectively. The company's Chinese subsidiary, Shanghai Huvitz, is expected to account for 18%. Exports to Europe, North America, and China make up more than 80% of revenue.

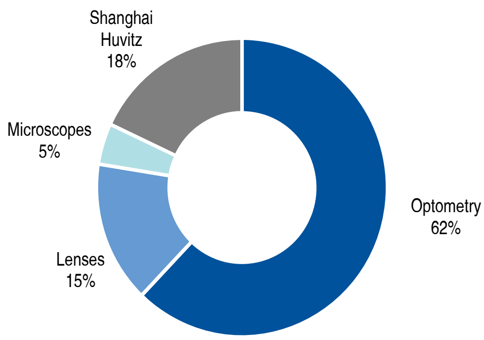
The parent firm, based in Korea, mostly produces high-end products, and its Chinese subsidiary (67% stake) manufactures low- to mid-end products, which are sold in China or exported around the globe via the parent firm. Although the Korean ophthalmic and optical equipment market is already saturated, the Chinese market is in an early stage of growth and has high growth potential. Huvitz has been steadily expanding its production base and sales networks since entering the Chinese market in 2008.

Although the company has recently penetrated the optical microscope market, the new business is unlikely to generate tangible results anytime soon, as the market is currently dominated by global makers, including Sony and Olympus. On a positive note, the company appears to have advanced technology related to lens instruments, suggesting that the company has secured another growth driver in addition to ophthalmic and optical equipment.

Figure 29. Product lineup

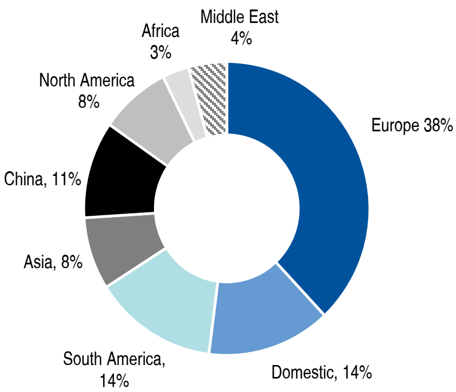
Source: Company data, KDB Daewoo Securities Research

Figure 30. Revenue breakdown by business unit (2014F)



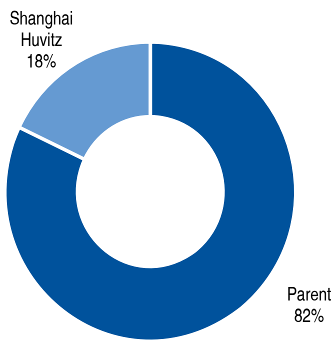
Source: Company data , KDB Daewoo Securities Research

Figure 31. Revenue breakdown by region (2012)



Source: Company data , KDB Daewoo Securities Research

Figure 32. Parent/subsidiary revenue breakdown (2014F)



Source: Company data , KDB Daewoo Securities Research

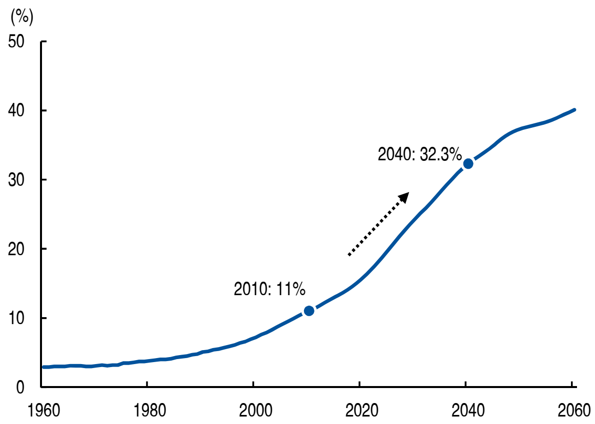
Growth driven by population aging and widespread use of mobile devices

The widespread use of mobile devices has been raising a variety of ophthalmologic problems, including eyesight deterioration and an increased prevalence of farsightedness. Although farsightedness is typically an issue for those in their mid-40s, an increasing number of those in their 30s are dealing with the condition.

There are also mounting concerns about dry eye syndrome (DES). DES is caused by either decreased tear production or increased tear film evaporation. The use of mobile devices often reduces the rate of blinking. According to the medical community, lower blinking rates could drive up the incidence of DES by up to 30%.

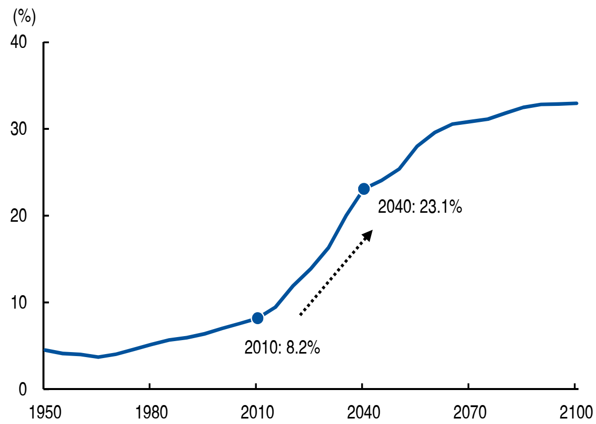
We believe that increases in people wearing glasses and ophthalmic patients arising from the spread of mobile devices will be positive for Huvitz, as the company supplies ophthalmic and optical equipment to opticians' and ophthalmic clinics.

Figure 33. Proportion of Korean population aged 65 and older



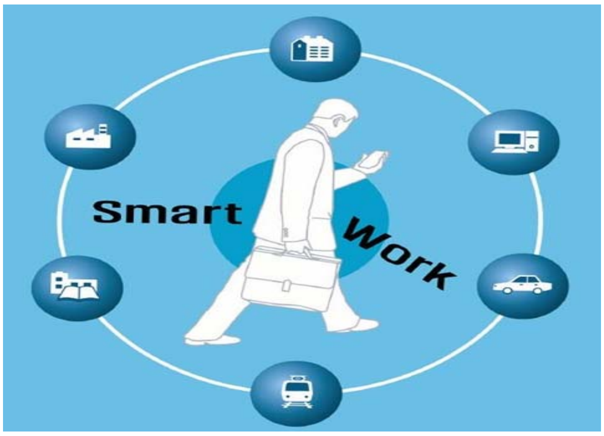
Source: KOSTAT, KDB Daewoo Securities Research

Figure 34. Proportion of Chinese population aged 65 and older



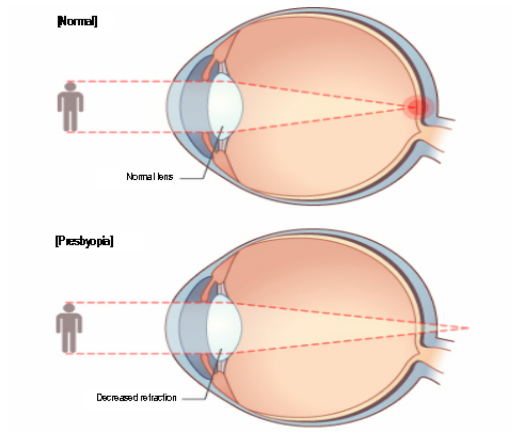
Source: UNFPA, KDB Daewoo Securities Research

Figure 35. Increasing mobile device usage



Source: Google Trends, KDB Daewoo Securities Research

Figure 36. Increasing prevalence of farsightedness



Source: Industry data, KDB Daewoo Securities Research

Earnings to turn around in 4Q

Huvitz has reported sluggish earnings since 2H13 due to the weak performance of the optical microscope division. However, we expect the company's earnings to turn around in 4Q14, backed by: 1) the completion of expense recognition related to optical microscopes, 2) earnings growth at Shanghai Huvitz, and 4) the rising US$/W rate. We believe the company has steadily streamlined its business structure amid the slowdown in earnings by refraining from pursuing new businesses and reducing inventories. Shanghai Huvitz will likely complete capacity expansion this year and continue to deliver robust sales in China next year.

In 2015, we expect Huvitz's earnings to recover markedly, with consolidated revenue of W72.6bn (+11% YoY), operating profit of W9.8bn (+105% YoY), and net profit (attributable to controlling interests) of W7.1bn (+86% YoY). Earnings have improved gradually since 1Q14, and will likely continue to recover in 4Q. Investor sentiment is likely to pick up full swing starting in 4Q.

Table 11. Annual revenue (Wbn, %)

	Business unit	2012	2013	2014F	2015F	2016F
Revenue		67.3	64.1	65.3	72.6	79.7
%, YoY		18	-5	2	11	10
By business unit	Optometry	48.0	43.6	44.9	50.1	54.1
	Lenses	13.9	13.2	11.1	12.4	13.5
	Microscopes	1.2	2.2	3.2	3.9	4.6
	Shanghai Huvitz	12.1	12.1	13.0	15.4	17.4
Parent/subsidiary	Parent	63.1	59.3	59.7	66.2	72.1
	Shanghai Huvitz	12.1	12.1	13.0	15.4	17.4
Operating profit		12.6	5.7	4.8	9.8	13.2
%, YoY		9	-55	-15	105	34
Pretax profit		12.7	-1.5	4.3	9.7	13.5
Net profit		11.1	-0.3	3.8	7.1	10.0
%, YoY		26	TTR	TTB	86	42
OP margin		18.7	8.8	7.3	13.5	16.6
Net margin		16.4	-0.4	5.8	9.7	12.5
Revenue contribution by business unit	Optometry	64	61	62	61	60
	Lenses	18	19	15	15	15
	Microscopes	2	3	4	5	5
	Shanghai Huvitz	16	17	18	19	19

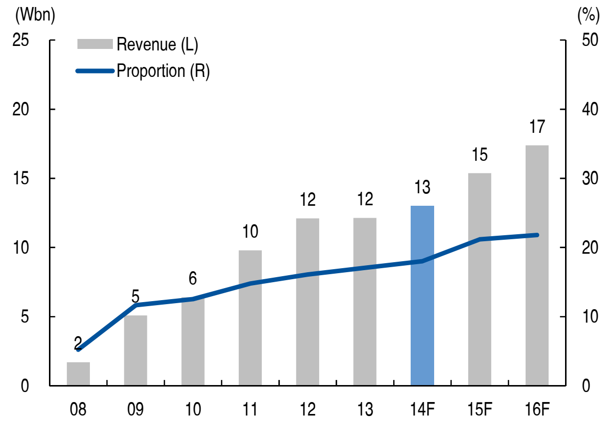
Source: Company data, KDB Daewoo Securities Research

Table 12. Quarterly revenue (Wbn, %)

	2014F				2015F				2013	2014F
	1Q	2Q	3QP	4QF	1QF	2QF	3QF	4QF		
Revenue	15.4	17.2	16.6	16.1	16.7	18.5	18.6	18.8	64.1	65.3
%, QoQ	16	12	-3	-3	3	11	1	1	-	-
%, YoY	2	-8	-1	21	8	7	12	17	-5	2
Operating profit	-0.0	1.8	1.4	1.6	2.0	2.4	2.6	2.8	5.7	4.8
%, QoQ	-0.0	TTR	-18	11	24	20	9	8	-	-
%, YoY	TTR	-47	-21	TTB	TTB	36	80	75	-55	-15
Pretax profit	0.5	1.0	1.2	1.5	1.9	2.3	2.6	2.8	-1.5	4.3
Net profit	0.4	1.0	1.4	1.0	1.4	1.7	1.9	2.1	-0.3	3.8
%, QoQ	TTB	126	42	-26	41	17	12	9	-	-
%, YoY	-2	-59	37	TTB	234	74	37	102	TTR	TTR
OP margin	-0.2	10.3	8.7	10.0	12.0	13.0	14.0	15.0	8.8	7.3
Net margin	2.8	5.6	8.3	6.3	8.6	9.1	10.1	10.9	-0.4	5.8

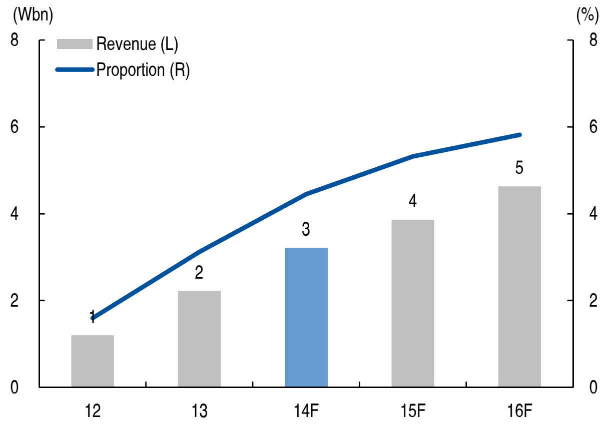
Note: All figures are based on consolidated K-IFRS
Source Company data, KDB Daewoo Securities Research

Figure 18. Revenue of Shanghai Huvitz



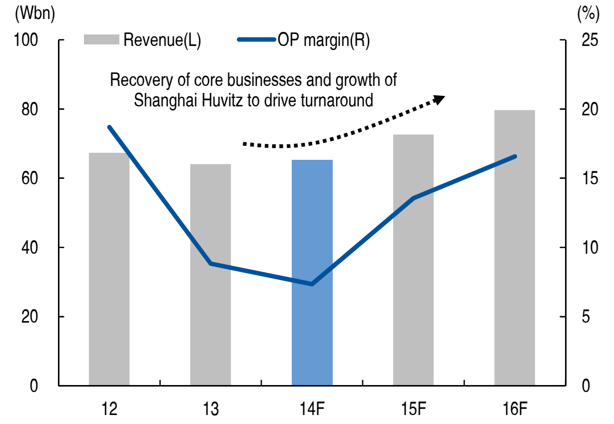
Source: Company data , KDB Daewoo Securities Research

Figure 38. Revenue of microscope division



Source: Company data , KDB Daewoo Securities Research

Figure 19. Revenue of Huvitz



Source: Company data , KDB Daewoo Securities Research

Figure 20. Shanghai Huvitz post-capacity expansion

Source: Company data , KDB Daewoo Securities Research

Huvitz (065510 KQ/Buy/TP: W22,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Revenue	64	66	73	80
Cost of Sales	40	43	45	48
Gross Profit	24	23	28	32
SG&A Expenses	19	18	18	18
Operating Profit (Adj)	6	5	10	13
Operating Profit	6	5	10	13
Non-Operating Profit	-8	-1	0	1
Net Financial Income	0	0	0	0
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	-2	4	10	14
Income Tax	-2	0	1	1
Profit from Continuing Operations	0	4	9	12
Profit from Discontinued Operations	0	0	0	0
Net Profit	0	4	9	12
Controlling Interests	0	3	7	10
Non-Controlling Interests	1	1	2	2
Total Comprehensive Profit	1	4	9	12
Controlling Interests	1	2	4	6
Non-Controlling Interests	1	2	5	6
EBITDA	11	10	15	18
FCF (Free Cash Flow)	-12	9	11	15
EBITDA Margin (%)	17.2	15.2	20.5	22.5
Operating Profit Margin (%)	9.4	7.6	13.7	16.3
Net Profit Margin (%)	0.0	4.5	9.6	12.5

Statement of Financial Condition (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Current Assets	42	51	64	82
Cash and Cash Equivalents	13	21	32	46
AR & Other Receivables	11	11	13	14
Inventories	14	15	16	18
Other Current Assets	4	4	3	4
Non-Current Assets	60	55	50	45
Investments in Associates	0	0	0	0
Property, Plant and Equipment	44	41	39	36
Intangible Assets	11	8	6	3
Total Assets	102	105	114	127
Current Liabilities	19	19	19	20
AP & Other Payables	4	4	5	5
Short-Term Financial Liabilities	14	14	14	14
Other Current Liabilities	1	1	0	1
Non-Current Liabilities	18	13	13	13
Long-Term Financial Liabilities	16	11	11	11
Other Non-Current Liabilities	2	2	2	2
Total Liabilities	36	32	32	33
Controlling Interests	61	69	75	85
Capital Stock	5	6	6	6
Capital Surplus	8	12	12	12
Retained Earnings	48	50	57	66
Non-Controlling Interests	4	5	7	9
Stockholders' Equity	65	74	82	94

Cash Flows (Summarized)

(Wbn)	12/13	12/14F	12/15F	12/16F
Cash Flows from Op Activities	6	9	11	15
Net Profit	0	4	9	12
Non-Cash Income and Expense	12	6	6	6
Depreciation	3	3	3	3
Amortization	2	2	2	2
Others	7	1	1	1
Chg in Working Capital	-4	-1	-3	-3
Chg in AR & Other Receivables	2	0	-1	-1
Chg in Inventories	-4	0	-2	-2
Chg in AP & Other Payables	0	0	0	0
Income Tax Paid	-2	0	-1	-1
Cash Flows from Inv Activities	-21	0	0	0
Chg in PP&E	-18	0	0	0
Chg in Intangible Assets	-5	0	0	0
Chg in Financial Assets	0	0	0	0
Others	2	0	0	0
Cash Flows from Fin Activities	17	-1	-1	-1
Chg in Financial Liabilities	-	-	-	-
Chg in Equity	0	5	0	0
Dividends Paid	-2	-1	-1	-1
Others	-	-	-	-
Increase (Decrease) in Cash	2	8	11	14
Beginning Balance	11	13	21	32
Ending Balance	13	21	32	45

Forecasts/Valuations (Summarized)

	12/13	12/14F	12/15F	12/16F
P/E (x)	-	55.8	25.7	18.0
P/CF (x)	13.1	18.2	12.1	9.9
P/B (x)	2.6	2.6	2.4	2.1
EV/EBITDA (x)	16.8	17.0	10.8	8.1
EPS (W)	-25	275	598	851
CFPS (W)	1,162	844	1,268	1,558
BPS (W)	5,829	5,834	6,383	7,184
DPS (W)	50	50	50	50
Payout ratio (%)	160.8	13.9	6.6	4.8
Dividend Yield (%)	0.3	0.3	0.3	0.3
Revenue Growth (%)	-4.5	3.1	10.6	9.6
EBITDA Growth (%)	-35.3	-9.1	50.0	20.0
Operating Profit Growth (%)	-53.8	-16.7	100.0	30.0
EPS Growth (%)	-	-	117.5	42.3
Accounts Receivable Turnover (x)	5.6	6.0	6.2	6.2
Inventory Turnover (x)	5.3	4.6	4.8	4.7
Accounts Payable Turnover (x)	12.6	13.0	12.9	12.4
ROA (%)	0.4	4.1	8.0	10.2
ROE (%)	-0.4	5.0	9.8	12.5
ROIC (%)	-1.7	5.8	11.9	16.5
Liability to Equity Ratio (%)	55.6	42.8	39.4	35.2
Current Ratio (%)	223.6	269.5	333.2	411.0
Net Debt to Equity Ratio (%)	25.1	4.5	-8.8	-22.7
Interest Coverage Ratio (x)	9.4	12.2	98.9	0.0

Source: Company data, KDB Daewoo Securities Research estimates

InBody (041830 KQ)

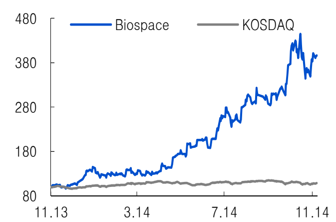
B2C sales to rise on growing efforts to tackle obesity

Medical Equipment

Not Rated	
Target Price (12M, W)	-
Share Price (11/26/14, W)	30,300
Expected Return	-

OP (14F, Wbn)	11
Consensus OP (14F, Wbn)	12
EPS Growth (14F, %)	64.3
Market EPS Growth (14F, %)	1.2
P/E (14F, x)	40.7
Market P/E (14F, x)	13.1
KOSDAQ	547.34
Market Cap (Wbn)	415
Shares Outstanding (mn)	14
Free Float (%)	65.6
Foreign Ownership (%)	9.6
Beta (12M)	0.97
52-Week Low	7,390
52-Week High	34,000

(%)	1M	6M	12M
Absolute	-2.7	127.8	286.0
Relative	-0.4	128.4	260.0



Snapshot: World's foremost body composition analyzer brand

Established in 1996 as Biospace, InBody is now the world's largest body composition analyzer brand. Body composition analyzers measure hydration, protein, mineral, and body fat levels by sending extremely weak electrical currents through the user's body. High-end models are mostly used in gyms, schools, public institutions, and clinics. Meanwhile, home-use analyzers can be paired with smartphones. As such, sales are anticipated to rise sharply once the U-healthcare market (B2C) takes off. InBody has started B2B sales for InLab, a wearable device launched in the middle of 2014. The positive impact from the new product launch will likely become more palpable next year.

From B2B to B2C

The world is at war with obesity, which has proven to be a major health risk factor. The weight loss market targeting young, health-conscious people is growing at an accelerating pace. In the US, fitness equipment, health supplements, etc. collectively form a market worth US$60bn (or W63tr).

China's weight loss market grew by 530% between 2006 (RMB11bn) and 2012 (RMB70bn). Given that about 25% of China's population (335mn) was overweight as of 2012 (obese and potentially obese), the market appears to have a significant upside. The strong growth of Chinese demand should be positive for InBody, given its high brand value and advanced technologies.

For 2015, we expect InBody to post K-IFRS-based consolidated revenue of W61bn (+30% YoY), operating profit of W16bn (+45%), and net profit of W14bn (+40%). With OP margin forecast to rise above 25%, we expect strong operating leverage to kick in next year. In our view, the company appears to have robust growth potential in both the B2B and B2C segments (with concerns over likely profit deterioration arising from the increasing mix of B2C revenue easing).

Unrivaled technology and possible growth in the B2C segment

The stock is currently trading at 2014F and 2015F P/Es of 40.7x and 29.1x, respectively, higher than the medical equipment peer average of 18x. Although the company is not attractively valued, we believe that the high valuation is justifiable, in light of the firm's unrivaled technology, growth potential in the B2C space, high profitability, and sound financial position.

FY (Dec.)	12/11	12/12	12/13	12/14F	12/15F
Revenue (Wbn)	32	33	37	47	61
OP (Wbn)	4	5	7	11	16
OP margin (%)	12.5	15.2	18.9	23.4	26.2
NP (Wbn)	6	6	6	10	14
EPS (W)	404	412	453	744	1,043
ROE (%)	14.1	12.8	12.7	18.1	21.0
P/E (x)	30.2	14.1	19.2	40.7	29.1
P/B (x)	4.0	1.7	2.3	6.7	5.5

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

The world's foremost body composition analyzer band

Established in 1996 as Biospace, InBody is now the world's largest body composition analyzer brand. Body composition analyzers measure hydration, protein, mineral, and body fat levels by sending extremely weak electrical currents through the user's body.

High-end models are mostly used in gyms, schools, public institutions, and clinics. Home-use analyzers can be paired with smartphones. As such, sales are anticipated to rise sharply once the U-healthcare market (B2C) takes off.

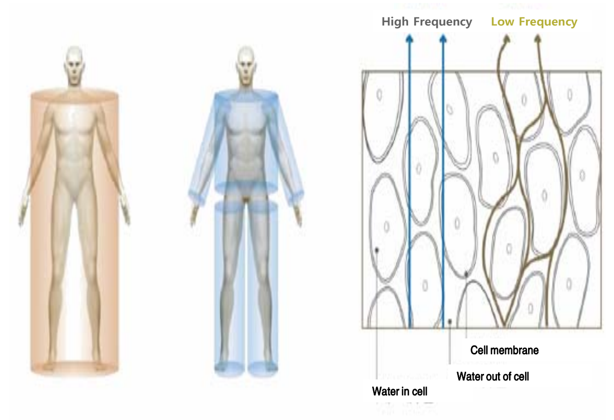
Figure 21. Professional-use body composition analyzers

Source: Company data, KDB Daewoo Securities Research

Figure 22. Mobile healthcare solutions

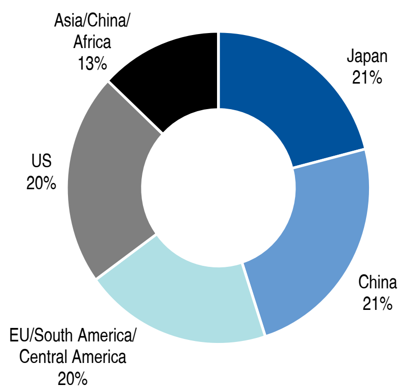
Source: Company data, KDB Daewoo Securities Research

Figure 43. 99% accuracy rate for body composition analyzers



Source: KDB Daewoo Securities Research

Figure 23. Revenue breakdown by region (2013 consolidated)



Source: KDB Daewoo Securities Research

At war with obesity

The world is at war with obesity, which has proven to be a major health risk factor. The weight loss market targeting young, health-conscious people is expanding at an accelerating pace. Growing awareness of the obesity epidemic is positive for InBody, given its high brand value and advanced technologies.

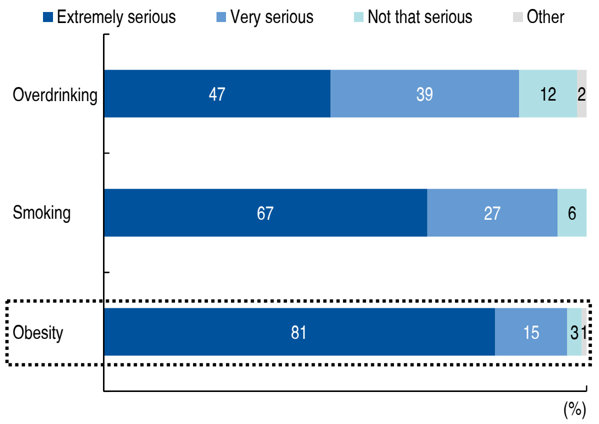
The US has long been afflicted with obesity, and public institutions are taking the lead in fighting the condition. Fitness equipment, obesity management medical devices, health supplements, etc. collectively form a market worth US$60bn (or W63tr) in the country. Meanwhile, in Japan, weight loss began to draw strong attention in the 1970s. According to an online survey, 54 out of 100 Japanese males, and 64 out of 100 females were on a diet.

China is not an exception. About 25% of China's population (335mn) was overweight as of 2012, up from 15% in 2006. China's weight management market grew by 530% between 2006 (RMB11bn) and 2012 (RMB 70bn).

Figure 45. World is at war with obesity

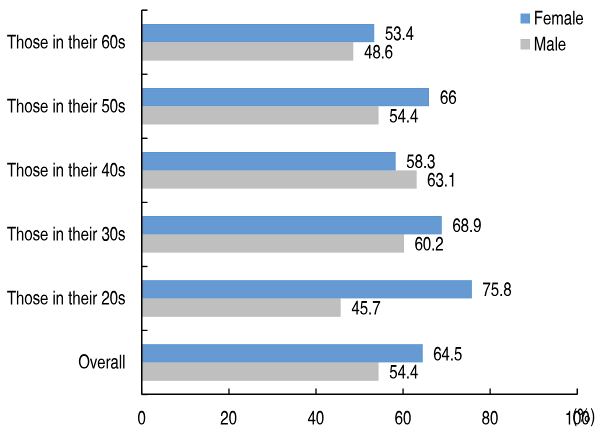
Source: Press materials, KDB Daewoo Securities Research

Figure 46. A consensus on the gravity of the obesity epidemic



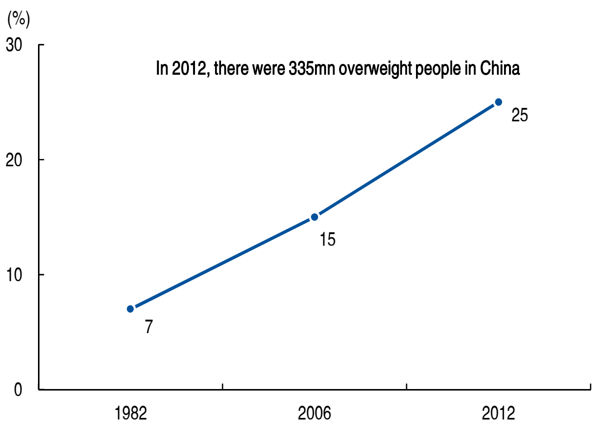
Source: Gallup, KDB Daewoo Securities Research

Figure 47. Japanese survey respondents who said that they were on a diet



Source: Nikkei Insight Consumption, KDB Daewoo Securities Research

Figure 48. Proportion of overweight people in China on the rise



Source: People's Daily Online, KDB Daewoo Securities Research

InBody (041830 KQ/Not Rated)

Comprehensive Income Statement (Summarized)

(Wbn)	12/13	12/14F	12/15F
Revenue	37	47	61
Cost of Sales	11	13	17
Gross Profit	26	34	44
SG&A Expenses	20	23	29
Operating Profit (Adj)	7	11	16
Operating Profit	7	11	16
Non-Operating Profit	0	1	0
Net Financial Income	1	1	1
Net Gain from Inv in Associates	0	0	0
Pretax Profit	7	12	16
Income Tax	1	2	2
Profit from Continuing Operations	6	10	14
Profit from Discontinued Operations	0	0	0
Net Profit	6	10	14
Controlling Interests	6	10	14
Non-Controlling Interests	0	0	0
Total Comprehensive Profit	6	10	14
Controlling Interests	6	10	14
Non-Controlling Interests	0	0	0
EBITDA	7	12	16
FCF (Free Cash Flow)	-2	9	12
EBITDA Margin (%)	18.9	25.5	26.2
Operating Profit Margin (%)	18.9	23.4	26.2
Net Profit Margin (%)	16.2	21.3	23.0

Statement of Financial Condition (Summarized)

(Wbn)	12/13	12/14F	12/15F
Current Assets	32	42	56
Cash and Cash Equivalents	4	7	11
AR & Other Receivables	4	5	7
Inventories	4	6	7
Other Current Assets	20	24	31
Non-Current Assets	22	22	22
Investments in Associates	1	1	1
Property, Plant and Equipment	16	16	15
Intangible Assets	2	2	2
Total Assets	54	64	78
Current Liabilities	2	2	3
AP & Other Payables	1	1	1
Short-Term Financial Liabilities	0	0	0
Other Current Liabilities	1	1	2
Non-Current Liabilities	0	0	0
Long-Term Financial Liabilities	0	0	0
Other Non-Current Liabilities	0	0	0
Total Liabilities	2	3	4
Controlling Interests	52	61	75
Capital Stock	7	7	7
Capital Surplus	1	1	1
Retained Earnings	45	54	68
Non-Controlling Interests	0	0	0
Stockholders' Equity	52	61	75

Cash Flows (Summarized)

(Wbn)	12/13	12/14F	12/15F
Cash Flows from Op Activities	7	9	12
Net Profit	6	10	14
Non-Cash Income and Expense	1	2	2
Depreciation	1	1	1
Amortization	0	0	0
Others	0	1	1
Chg in Working Capital	-1	-2	-3
Chg in AR & Other Receivables	-1	-1	-2
Chg in Inventories	0	-1	-2
Chg in AP & Other Payables	0	0	0
Income Tax Paid	0	-2	-2
Cash Flows from Inv Activities	-6	-6	-8
Chg in PP&E	-9	0	0
Chg in Intangible Assets	0	0	0
Chg in Financial Assets	3	-6	-8
Others	0	0	0
Cash Flows from Fin Activities	-1	-1	-1
Chg in Financial Liabilities	-	-	-
Chg in Equity	0	0	0
Dividends Paid	-1	-1	-1
Others	-	-	-
Increase (Decrease) in Cash	0	3	4
Beginning Balance	5	4	7
Ending Balance	4	7	11

Forecasts/Valuations (Summarized)

	12/13	12/14F	12/15F
P/E (x)	19.2	40.7	29.1
P/CF (x)	15.9	34.8	25.2
P/B (x)	2.3	6.7	5.5
EV/EBITDA (x)	13.1	32.3	22.8
EPS (W)	453	744	1,043
CFPS (W)	548	871	1,200
BPS (W)	3,787	4,491	5,493
DPS (W)	40	40	40
Payout ratio (%)	8.8	5.3	3.8
Dividend Yield (%)	0.5	0.1	0.1
Revenue Growth (%)	12.1	27.0	29.8
EBITDA Growth (%)	16.7	71.4	33.3
Operating Profit Growth (%)	40.0	57.1	45.5
EPS Growth (%)	10.0	64.2	40.2
Accounts Receivable Turnover (x)	10.1	10.1	10.1
Inventory Turnover (x)	8.5	9.3	9.4
Accounts Payable Turnover (x)	178.0	95.4	96.8
ROA (%)	12.2	17.3	20.1
ROE (%)	12.7	18.1	21.0
ROIC (%)	25.4	34.9	46.3
Liability to Equity Ratio (%)	4.1	4.4	4.7
Current Ratio (%)	1,653.0	1,712.4	1,767.0
Net Debt to Equity Ratio (%)	-42.3	-47.9	-53.1
Interest Coverage Ratio (x)	0.0	0.0	0.0

Source: Company data, KDB Daewoo Securities Research estimates

JVM (054950 KQ)

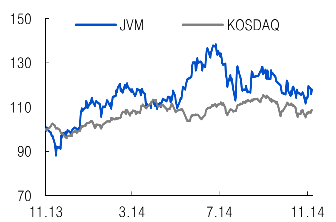
New product launch and potential of Chinese market to drive growth

Medical Equipment

	Not Rated
Target Price (12M, W)	-
Share Price (11/26/14, W)	57,500
Expected Return	-

OP (14F, Wbn)	20
Consensus OP (14F, Wbn)	20
EPS Growth (14F, %)	-1.9
Market EPS Growth (14F, %)	1.2
P/E (14F, x)	24.7
Market P/E (14F, x)	13.1
KOSDAQ	547.34
Market Cap (Wbn)	364
Shares Outstanding (mn)	6
Free Float (%)	60.1
Foreign Ownership (%)	10.2
Beta (12M)	0.59
52-Week Low	43,050
52-Week High	67,500

(%)	1M	6M	12M
Absolute	0.5	4.2	19.3
Relative	3.0	4.5	11.3



Snapshot: World's largest ATDPS producer

Founded in 1977, JVM is the world's largest manufacturer of automatic tablet dispensing and packaging systems (ATDPS), which are designed to automatically manage, sort, dispense, and package medications based on prescription data input by doctors or pharmacists.

The global ATDPS market was estimated at US$2.6bn in 2012 and is expected to grow at an 8% CAGR through2017, fueled by population aging, rising industry labor costs, and the promotion of patients' rights. JVM is currently the global market leader, controlling 71% of the North American market, 75% of the European market, and 88% of the Korean market. The company has grown at a CAGR of 21.7% over the past decade.

Focus on new business and potential of Chinese market

JVM is seeking to enter the automated dispensing cabinet (ADC) market. ADCs are automated devices installed in hospitals that help reduce distribution time, ensure distribution accuracy, and enable real-time tracking. JVM has launched an ADC called INTIPharm and has been testing the product in major domestic hospitals. The company has also partnered with McKesson, the largest US medical supply distributor, in order to advance into the US market, which is estimated at W3tr and displays ADC penetration of 90%. Despite the already-high penetration rate, we believe the US represents a huge opportunity.

We believe that the separation of drug prescription and distribution should provide JVM with a huge opportunity. Currently, the misuse of medicine is a serious problem in China, where consumers tend to buy medicine in bulk. (Pouch packaging is still not used.) If China carries out massive medical reforms in 2016, JVM should enjoy significant benefits.

This year, JVM struggled with delays to the launch of the ADC business and sluggish online sales. However, the company's earnings are forecast to improve next year on the back of the liftoff of ADCs. We forecast JVM's earnings to hit a record high next year with revenue of W107bn (+24% YoY), an operating profit of W29bn (+45% YoY), and a net profit of W2.3bn (+53% YoY).

2015: New product launch, and earnings momentum

Currently, the stock is trading at a 2014F P/E of 24.7x and a 2015F P/E of 15.9x. Still, we believe the stock warrants a premium in light of the strong potential of the new ADC business and the Chinese market. In particular, we expect to see an ADC supply contract in 1H as well as export growth in 2H.

FY (Dec.)	12/11	12/12	12/13	12/14F	12/15F
Revenue (Wbn)	76	78	82	86	107
OP (Wbn)	20	15	18	20	29
OP margin (%)	26.3	19.2	22.0	23.3	27.1
NP (Wbn)	13	7	15	15	23
EPS (W)	1,979	1,033	2,374	2,328	3,627
ROE (%)	20.0	8.9	17.8	15.1	19.7
P/E (x)	21.7	44.9	20.7	24.7	15.9
P/B (x)	3.8	3.7	3.3	3.4	2.8

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

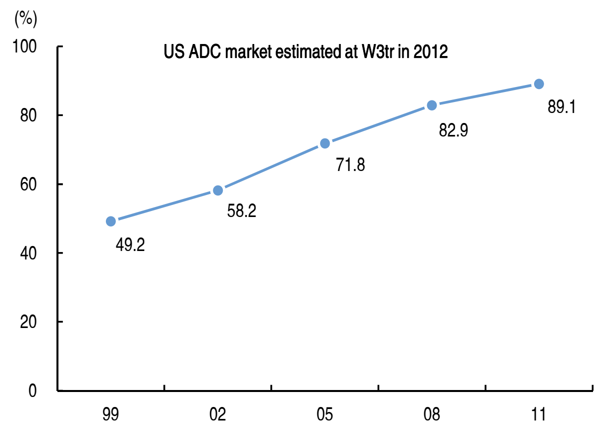
Figure 24. ATDPS

Source: Company data, KDB Daewoo Securities Research

Figure 50. INTIPharm

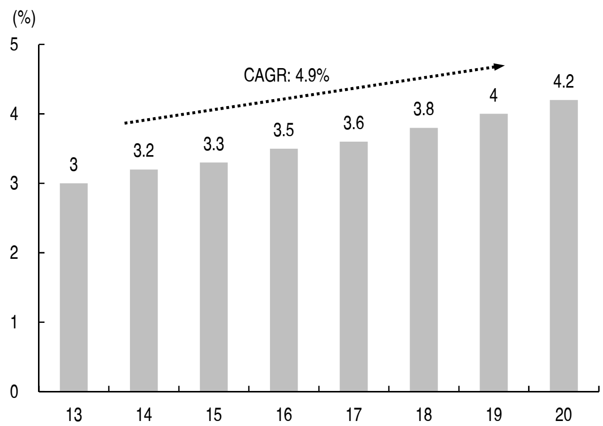
Source: Company data, KDB Daewoo Securities Research

Figure 51. ADC usage in US hospitals



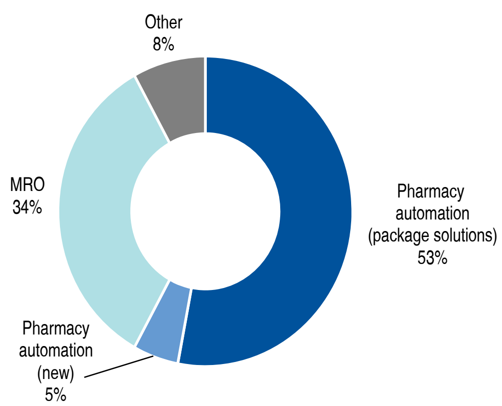
Source: Company data, KDB Daewoo Securities Research

Figure 52. ADC market trend in US



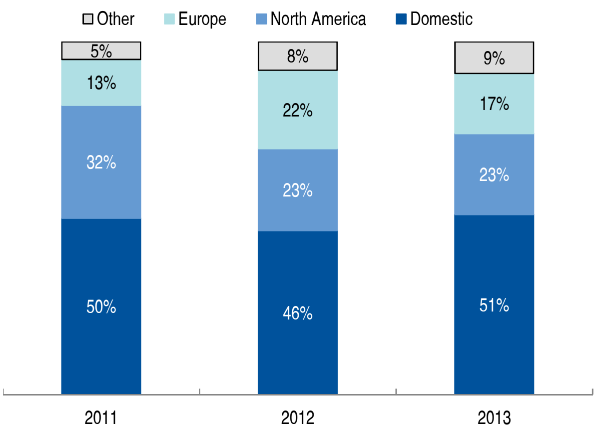
Source: Company data, KDB Daewoo Securities Research

Figure 53. Revenue breakdown by item (2013)



Source: Company data, KDB Daewoo Securities Research

Figure 54. Revenue breakdown by region (2013)



Source: Company data, KDB Daewoo Securities Research

JVM (054950 KQ/Not Rated)

Comprehensive Income Statement (Summarized)

(Wbn)	12/13	12/14F	12/15F
Revenue	82	86	107
Cost of Sales	47	48	59
Gross Profit	35	38	48
SG&A Expenses	16	18	19
Operating Profit (Adj)	18	20	29
Operating Profit	18	20	29
Non-Operating Profit	-2	-2	0
Net Financial Income	0	0	0
Net Gain from Inv in Associates	1	1	0
Pretax Profit	16	18	29
Income Tax	1	4	6
Profit from Continuing Operations	15	15	23
Profit from Discontinued Operations	0	0	0
Net Profit	15	15	23
Controlling Interests	15	15	23
Non-Controlling Interests	0	0	0
Total Comprehensive Profit	15	15	23
Controlling Interests	15	15	23
Non-Controlling Interests	0	0	0
EBITDA	22	24	33
FCF (Free Cash Flow)	22	17	19
EBITDA Margin (%)	26.8	27.9	30.8
Operating Profit Margin (%)	22.0	23.3	27.1
Net Profit Margin (%)	18.3	17.4	21.5

Statement of Financial Condition (Summarized)

(Wbn)	12/13	12/14F	12/15F
Current Assets	80	99	129
Cash and Cash Equivalents	2	18	28
AR & Other Receivables	30	32	40
Inventories	7	7	9
Other Current Assets	41	42	52
Non-Current Assets	82	78	76
Investments in Associates	0	0	0
Property, Plant and Equipment	39	37	35
Intangible Assets	12	10	8
Total Assets	162	177	205
Current Liabilities	68	69	73
AP & Other Payables	12	13	16
Short-Term Financial Liabilities	54	54	54
Other Current Liabilities	2	2	3
Non-Current Liabilities	3	3	4
Long-Term Financial Liabilities	0	0	0
Other Non-Current Liabilities	3	3	4
Total Liabilities	72	72	77
Controlling Interests	90	105	128
Capital Stock	3	3	3
Capital Surplus	48	48	48
Retained Earnings	42	57	80
Non-Controlling Interests	0	0	0
Stockholders' Equity	90	105	128

Cash Flows (Summarized)

(Wbn)	12/13	12/14F	12/15F
Cash Flows from Op Activities	23	17	19
Net Profit	15	15	23
Non-Cash Income and Expense	10	8	10
Depreciation	2	2	2
Amortization	2	2	2
Others	6	4	6
Chg in Working Capital	-2	-1	-8
Chg in AR & Other Receivables	0	-1	-8
Chg in Inventories	0	0	-2
Chg in AP & Other Payables	2	0	2
Income Tax Paid	0	-4	-6
Cash Flows from Inv Activities	-6	-2	-11
Chg in PP&E	-1	0	0
Chg in Intangible Assets	-5	0	0
Chg in Financial Assets	-2	-2	-11
Others	2	0	0
Cash Flows from Fin Activities	-15	0	0
Chg in Financial Liabilities	-	-	-
Chg in Equity	0	0	0
Dividends Paid	0	0	0
Others	-	-	-
Increase (Decrease) in Cash	1	15	10
Beginning Balance	1	2	18
Ending Balance	2	18	28

Source: Company data, KDB Daewoo Securities Research estimates

Forecasts/Valuations (Summarized)

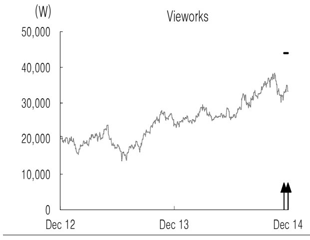
	12/13	12/14F	12/15F
P/E (x)	20.7	24.7	15.9
P/CF (x)	12.6	16.2	11.1
P/B (x)	3.3	3.4	2.8
EV/EBITDA (x)	14.8	15.3	10.4
EPS (W)	2,374	2,328	3,627
CFPS (W)	3,915	3,542	5,197
BPS (W)	14,768	17,096	20,723
DPS (W)	0	0	0
Payout ratio (%)	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0
Revenue Growth (%)	5.1	4.9	24.4
EBITDA Growth (%)	22.2	9.1	37.5
Operating Profit Growth (%)	20.0	11.1	45.0
EPS Growth (%)	129.8	-1.9	55.8
Accounts Receivable Turnover (x)	2.7	2.8	3.0
Inventory Turnover (x)	11.0	11.8	12.9
Accounts Payable Turnover (x)	8.2	6.6	7.1
ROA (%)	9.2	8.7	12.0
ROE (%)	17.8	15.1	19.7
ROIC (%)	16.0	15.6	22.8
Liability to Equity Ratio (%)	79.5	69.1	60.3
Current Ratio (%)	116.4	143.0	176.8
Net Debt to Equity Ratio (%)	16.9	-1.9	-16.7
Interest Coverage Ratio (x)	11.1	198.2	96.7

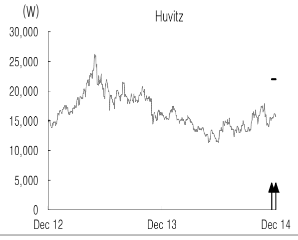
APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price	Company (Code)	Date	Rating	Target Price
Vieworks (100120)	11/27/2014	Buy	44,000	Huvitz (065510)	11/27/2014	Buy	22,000





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

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

Ratings and Target Price History (Share price (—), Target price (▬), Not covered (■), Buy (▲), Trading Buy (■), Hold (●), Sell (◆))
* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.
* Although it is not part of the official ratings at Daewoo Securities, we may call a trading opportunity in case there is a technical or short-term material development.
* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.
* The achievement of the target price may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

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