

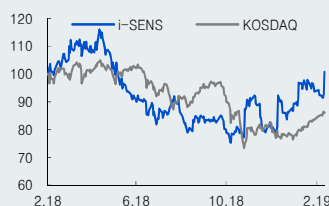
MedTech

Results Comment
February 18, 2019

(Maintain)	Buy
Target Price (12M, W)	▲ 32,000
Share Price (02/15/19, W)	26,300
Expected Return	22%

OP (18F, Wbn)	27
Consensus OP (18F, Wbn)	26
EPS Growth (18F, %)	42.5
Market EPS Growth (18F, %)	4.6
P/E (18F, x)	13.8
Market P/E (18F, x)	9.3
KOSDAQ	738.66
Market Cap (Wbn)	361
Shares Outstanding (mn)	14
Free Float (%)	74.1
Foreign Ownership (%)	42.7
Beta (12M)	0.53
52-Week Low	19,650
52-Week High	30,300

(%)	1M	6M	12M
Absolute	4.4	27.1	-0.8
Relative	-2.5	31.1	13.9



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i-SENS

(099190 KQ)

Earnings surprise for the second straight quarter

4Q18 review: Operating profit surprises to the upside

For 4Q18, i-SENS reported revenue of W50bn (+14.8% YoY), slightly above our expectation. For the core blood glucose monitoring system business, revenue grew 15.6% YoY. Revenue from the PT/INR monitoring system business fell 9.1% YoY, while revenue from the gas analyzer business grew 40.5% YoY. By region, revenue was up 26.2% YoY in the US, 5.3% YoY in Asia, 3.4% YoY in Europe, 11.5% YoY in Korea, and 32% YoY in other markets.

Operating profit came in at W9.6bn (+39.5% YoY; OP margin of 19.2%), well above our projection. The company delivered an earnings surprise for the second straight quarter, driven by leveraging effects from increased shipments to Arkray (orders for Walmart) and top-line growth at overseas subsidiaries.

2019 to be marked by fundamental enhancements for portfolio expansion

1) Mega trend (rise of CGM): The self-glucose monitoring (SGM) market is slowing, due to falling reimbursement rates in the US (the world's largest market), while the continuous glucose monitoring (CGM) market is growing on the back of technological and regulatory developments. Considering the cost picture, we think it is unlikely that CGM will completely supplant SGM. Rather, the market is likely to become divided, with insulin-dependent patients turning to CGM and non-insulin-dependent patients to SGM.

i-SENS' CGM system will be based on the flash glucose monitoring (FGM) method used by Abbott and will likely boast price competitiveness against rival products. Commercialization is targeted for 1H20. CGM systems are one of the key items in the government's recently released medical device deregulation plan. The company is the only CGM developer in the domestic market.

2) In-vitro diagnostics portfolio expansion: i-SENS has continued to reduce its revenue exposure to blood glucose monitoring (from 97.1% in 2010 to 90.1% in 2018) by diversifying its business portfolio. In 2019, we look for the market expansion of US-based CoaguSense and the commercialization of immunoassay systems (for cardiovascular diseases).

3) Potential operation of China plant: i-SENS is seeking manufacturing certification for its China plant for both local sales and exports. We expect the company to gain approval for local sales in 1H19.

Maintain Buy and raise TP to W32,000

We maintain our Buy rating on i-SENS and raise our target price to W32,000 (from W29,000), reflecting our 12-month forward EPS revision. The stock is currently trading at a 12-month forward P/E of 14.1x, a discount to global peers (average of 16x).

In 2019, cost pressures could increase due to the company's expansion of its in-house brand (i.e., meter distribution) and CGM development. That said, we note that KOSDAQ stocks that previously underperformed are lately showing signs of a re-rating. We believe i-SENS' business model is well-recognized among foreign investors and see potential for positive events, such as the operation of the Chinese plant and the commercialization of Korea's first CGM system.

FY (Dec.)	12/15	12/16	12/17	12/18F	12/19F	12/20F
Revenue (Wbn)	102	132	157	175	195	218
OP (Wbn)	19	26	23	27	31	36
OP margin (%)	18.6	19.7	14.6	15.4	15.9	16.5
NP (Wbn)	15	18	16	22	25	29
EPS (W)	1,077	1,280	1,146	1,633	1,818	2,139
ROE (%)	11.8	12.5	10.1	13.0	12.9	13.4
P/E (x)	31.6	23.0	22.1	13.8	14.5	12.3
P/B (x)	3.5	2.7	2.1	1.7	1.7	1.5
Dividend yield (%)	0.0	0.3	0.4	0.4	0.4	0.4

Note: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests

Source: Company data, Mirae Asset Daewoo Research estimates

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Table 1. 4Q18 review

(Wbn, %, %p)

	4Q17	3Q18	4Q18P			Growth	
			Preliminary	Mirae Asset Daewoo	Consensus	YoY	QoQ
Revenue	43.5	45.7	50.0	48.5	48.7	14.8	9.4
Operating profit	6.9	7.4	9.6	8.0	7.8	39.5	30.1
OP margin (%)	15.8	16.2	19.2	16.5	16.0	3.4	3.1
Pretax profit	5.4	8.4	8.4	8.2	7.0	56.8	-0.2
Net profit	4.4	6.7	8.2	6.1	6.0	85.7	23.1

Notes: Based on consolidated K-IFRS; net profit is attributable to controlling interests

Source: FnGuide, company data, Mirae Asset Daewoo Research estimates

Table 2. Earnings forecast revisions

(Wbn, W, %)

	Previous		Revised		% chg.		Note
	19F	20F	19F	20F	19F	20F	
Revenue	192.1	214.1	194.6	217.8	1.3	1.7	Reflects 4Q18 earnings Reflects increase in CGM clinical trial expenses
Operating profit	31.0	36.0	30.9	36.1	-0.3	0.4	
Pretax profit	31.8	37.0	31.2	36.7	-1.8	-0.8	
Net profit	25.4	29.6	25.0	29.4	-1.8	-0.8	
EPS (W)	1,851	2,156	1,818	2,139	-1.8	-0.8	

Notes: Based on consolidated K-IFRS; net profit is attributable to controlling interests

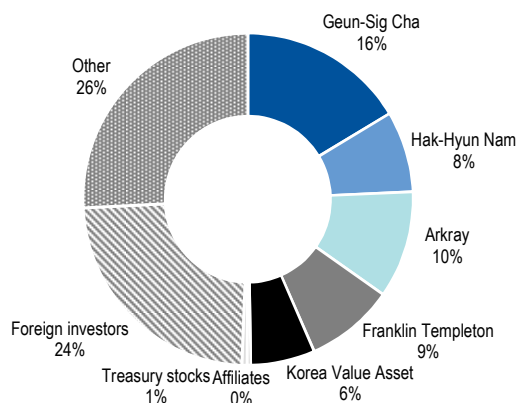
Source: Company data, Mirae Asset Daewoo Research estimates

Table 3. Quarterly and annual earnings

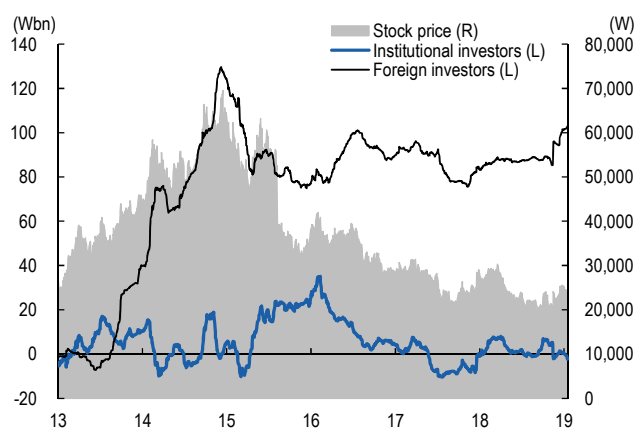
(Wbn, %)

	1Q18	2Q18	3Q18	4Q18P	1Q19F	2Q19F	3Q19F	4Q19F	2018P	2019F	2020F
Revenue	38.3	40.8	45.7	50.0	42.4	45.0	50.9	56.3	174.8	194.6	217.8
Glucose monitoring systems	35.0	36.7	41.1	44.7	38.6	40.2	45.7	50.3	157.4	174.8	195.1
POCT	1.5	2.0	2.2	2.7	1.8	2.4	2.6	3.2	8.3	9.9	11.8
PT/INR monitoring systems	1.8	2.1	2.4	2.5	1.9	2.4	2.5	2.8	8.8	9.6	10.6
Operating profit	5.7	4.5	7.4	9.6	6.8	7.3	7.9	8.8	27.2	30.9	36.1
Pretax profit	4.3	4.3	8.4	8.4	6.8	7.4	8.0	9.0	25.4	31.2	36.7
Net profit	3.2	4.3	6.7	8.2	5.5	5.9	6.4	7.2	22.4	25.0	29.4
OP margin (%)	14.9	10.9	16.2	19.2	16.1	16.3	15.5	15.6	15.5	15.9	16.6
Pretax margin (%)	11.2	10.4	18.5	16.9	16.1	16.4	15.8	15.9	14.5	16.0	16.9
Net margin (%)	8.1	10.4	14.2	16.6	12.9	13.1	12.6	12.7	12.8	12.8	13.5

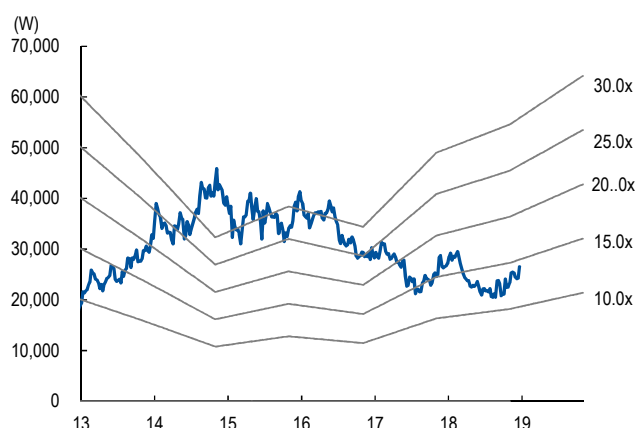
Source: Mirae Asset Daewoo Research estimates

Figure 1. Ownership breakdown

Source: Bloomberg, Mirae Asset Daewoo Research

Figure 2. Institutional and foreign net buying vs. share price

Source: Quantiwise, Mirae Asset Daewoo Research

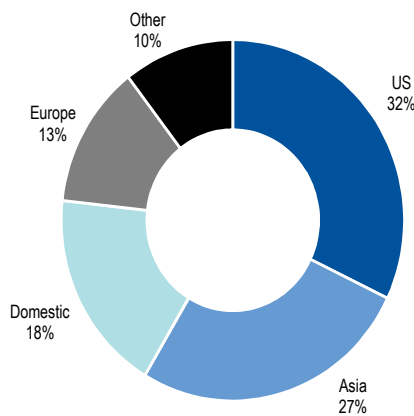
Figure 3. P/E band chart

Source: Mirae Asset Daewoo Research

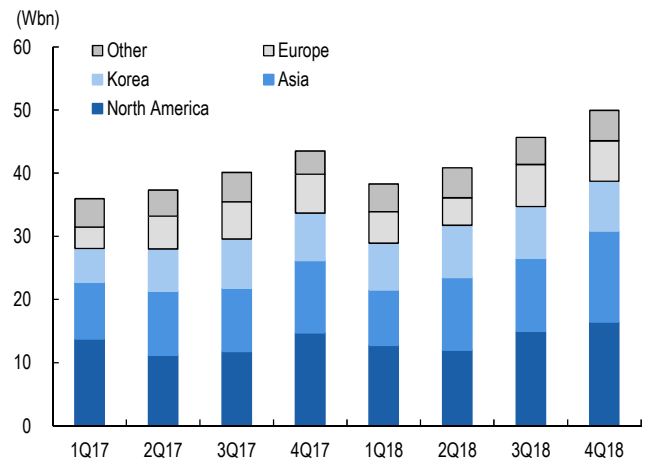
Table 4. Global peer valuation: ROBO index players

Companies	Market cap	OP margin (%)			P/E (x)			P/B (x)			ROE (%)			EV/EBITDA (x)		
		17	18F	19F	17	18F	19F	17	18F	19F	17	18F	19F	17	18F	19F
Roche	261,171	26.0	35.8	36.2	22.0	14.7	14.2	4.1	4.0	3.9	38.8	48.6	40.5	11.8	10.7	10.4
Abbott	146,428	11.9	22.3	23.3	40.7	23.0	20.6	4.3	4.1	3.8	2.8	16.9	16.9	21.9	17.6	15.4
i-SENS	335	14.5	14.9	15.3	17.6	16.3	15.5	2.0	1.9	1.7	11.4	11.6	11.4	9.9	10.7	9.4
Dexcom	14,803	-5.9	-0.4	3.2				14.2	13.1	11.0	9.1	5.7	0.9			
Sinocare Inc.	1,065	28.8	18.8	19.8	21.0	20.2	17.2	4.3	4.0	3.5	14.7	16.5	14.3	-	18.1	15.3
TaiDoc	560	19.0	23.3	25.9	19.3	18.3	14.6	3.7	3.6	3.0	24.3	22.0	25.7	10.9	13.0	11.1
Apex Biotechnology Corp	125	9.0	11.0	14.1	19.3	35.5	13.2	1.7	1.7	1.4	10.7	-	-	7.9	-	-
Bionime Corp	118	13.6	10.7	10.8	25.6	23.3	16.3	1.5	1.6	1.4	5.8	5.9	8.0	12.4	-	-
Tandem	3,186	-58.5	-34.2	-19.5	-	-	-	6.7	17.2	12.9				-	-	-
Insulet	5,648	-1.6	3.7	7.3				9.4	8.9	7.2	-9.9	-3.4	7.3			
Medtronic	138,099	22.2	28.7	28.7	23.5	17.8	16.7	4.1	4.0	3.8	4.5	13.7	12.9	15.5	13.7	13.0
Average		7.2	12.2	15.0	23.6	21.1	16.0	5.1	5.8	4.9	11.2	15.3	15.3	12.9	13.9	12.4

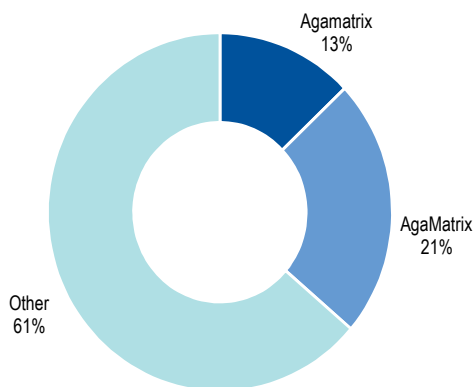
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 4. Revenue breakdown by region (2018)

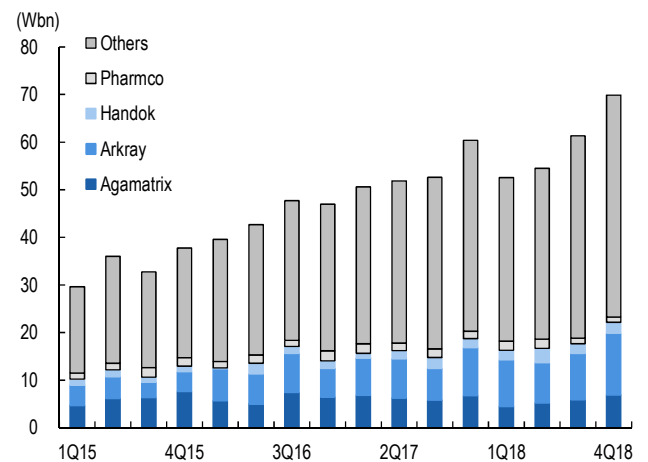
Source: Company data, Mirae Asset Daewoo Research

Figure 5. Quarterly revenue trend by region

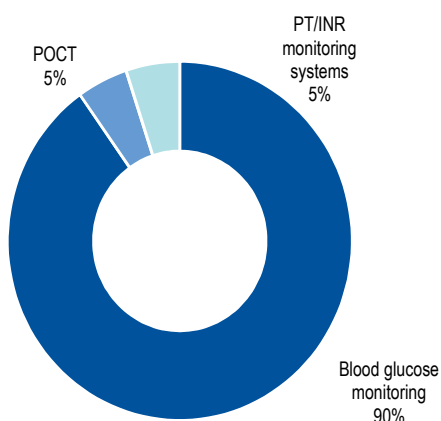
Source: Company data, Mirae Asset Daewoo Research

Figure 6. Revenue breakdown by customer (2018)

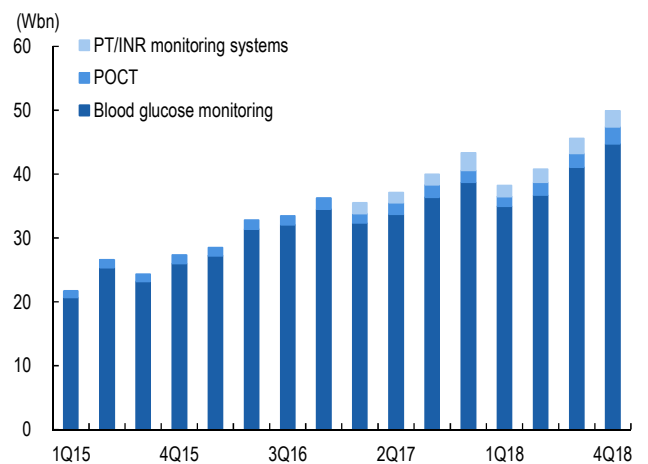
Source: Company data, Mirae Asset Daewoo Research

Figure 7. Blood glucose monitoring system revenue trend by customer

Source: Company data, Mirae Asset Daewoo Research

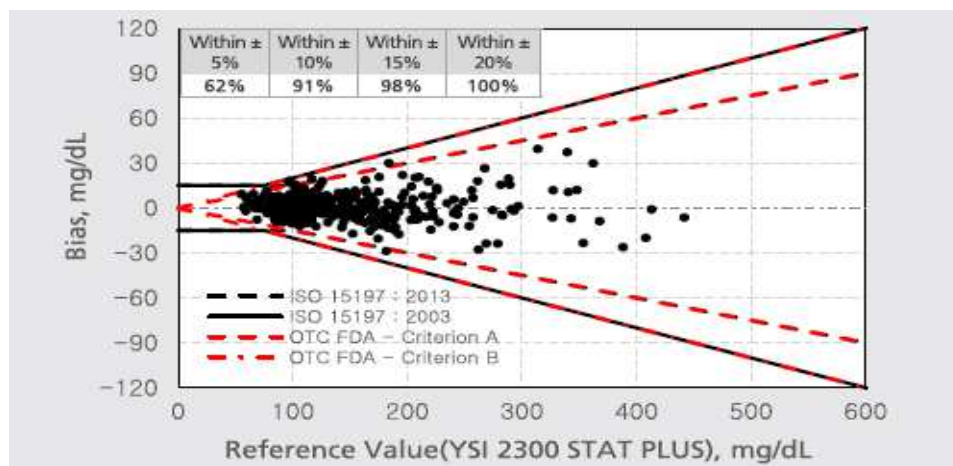
Figure 8. Revenue breakdown by product category (2018)

Source: Company data, Mirae Asset Daewoo Research

Figure 9. Revenue trend by product category

Source: Company data, Mirae Asset Daewoo Research

Figure 10. i-SENS' clinical trial results meet new standards of US FDA



Source: Company data, Mirae Asset Daewoo Research

Figure 11. Two out of six products certified by DTS were i-SENS products

Brand	Blood Glucose Monitor	Test Strip	Valid Trials	N	%
Bayer	Contour Next	Contour Next	312	311	100%
Roche	ACCU-CHEK AVIVA Plus	ACCU-CHEK AVIVA Plus	311	306	98%
Arkray	Walmart ReliOn Confirm (Micro)	ReliOn Confirm/micro	317	307	97%
Agamatrix	CVS Advanced	CVS Advanced	318	307	97%
Abbott	FreeStyle Lite	FreeStyle Lite	312	298	96%
Roche	Accu-Chek Smart View	ACCU-CHEK SmartView	320	305	95%
Arkray	Walmart ReliOn Power	ReliOn Power	312	288	92%
LifeScan	OneTouch Nano	OneTouch Nano	319	294	92%
Prology	Prology Neo Code	Prology Neo Code	312	282	90%
LifeScan	OneTouch Micro	OneTouch Micro	311	280	90%
Alcon	Walmart ReliOn Ultra	ReliOn Ultra	319	285	89%
Bayer	Contour Next	Contour Next	320	284	89%
Omron Health	Omron	Omron OneTouch	319	282	88%
Omron Health	Omron	Omron OneTouch	318	279	88%
Omron Health	Omron	Omron OneTouch	205	187	87%
Omron Health	Omron	Omron OneTouch	228	244	91%
Omron Health	Omron	Omron OneTouch	319	347	92%

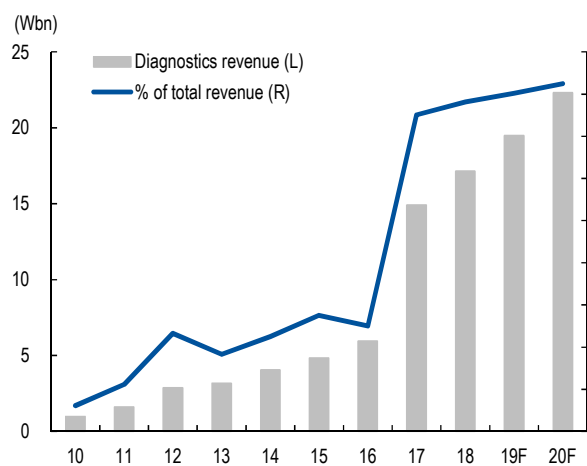
Source: Company data, Diabetes Technology Society, Mirae Asset Daewoo Research

Figure 12. i-SENS' products recommended by UK NHS

Choice dependant on:	Meter company	Test Strip
Basic Monitoring	TEE2 Spirit	TEE2
	WaveSense JAZZ (Wireless)	WaveSense JAZZ
	Agamatrix	
	Accu-Chek Performa Nano	Performa
Visually impaired	Contour Black	Contour
	Ascensia	
Gestational diabetes	CareSens N Voice	CareSens N
	Spirit	
Gestational diabetes / Medtronic Pump	CareSens N	CareSens N
	Spirit	
Carbohydrate counting / Paediatrics	Contour Next (Gestational)	Contour Next
	Contour Next (Link Pump)	Contour Next
Blood Glucose & Ketone testing and for newly diagnosed type 1 diabetes	Ascensia	
	Accu-Chek Expert	Accu-Chek Aviva
	Roche	
	Caresens Dual	Caresens PRO (50)
	Spirit	Ketosens (10)

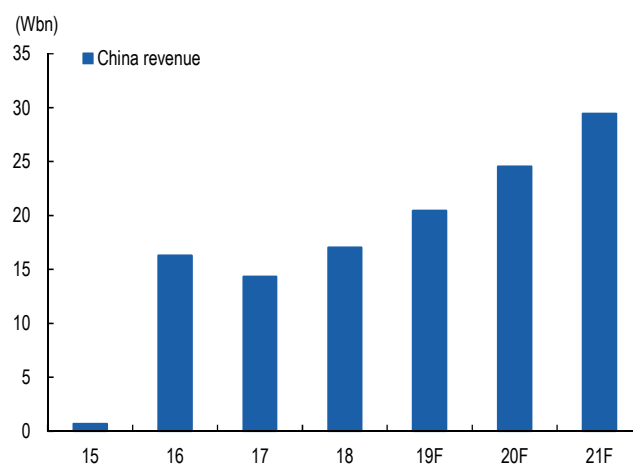
Source: Company data, Mirae Asset Daewoo Research

Figure 13. Size of global blood glucose monitor market

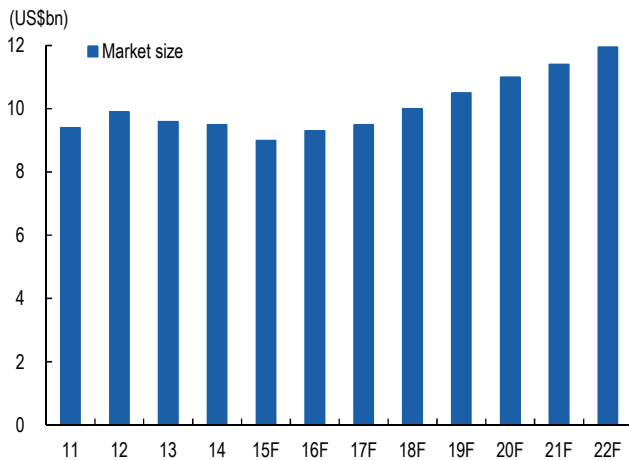


Source: Industry data, Meddevicetracker, Mirae Asset Daewoo Research

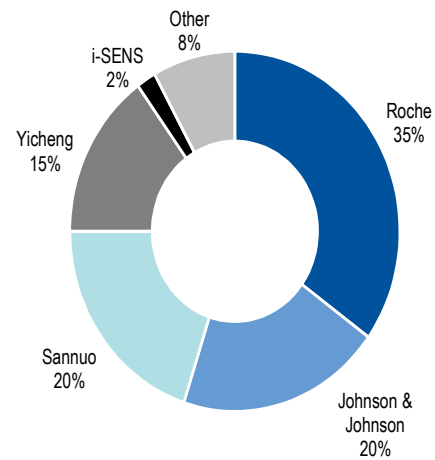
Figure 14. Chinese subsidiary's revenue



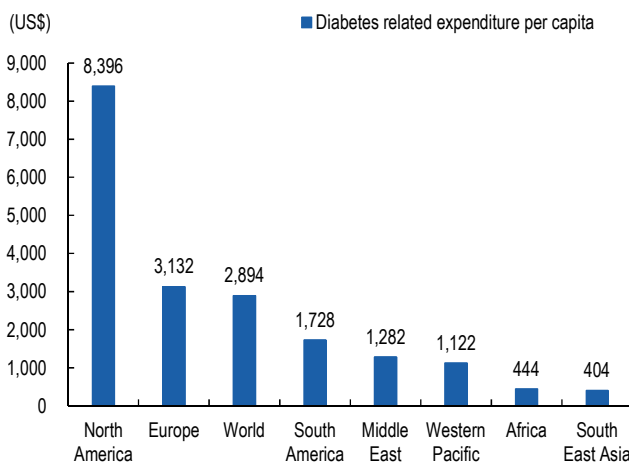
Source: Company data, Mirae Asset Daewoo Research

Figure 15. Size of global blood glucose monitor market

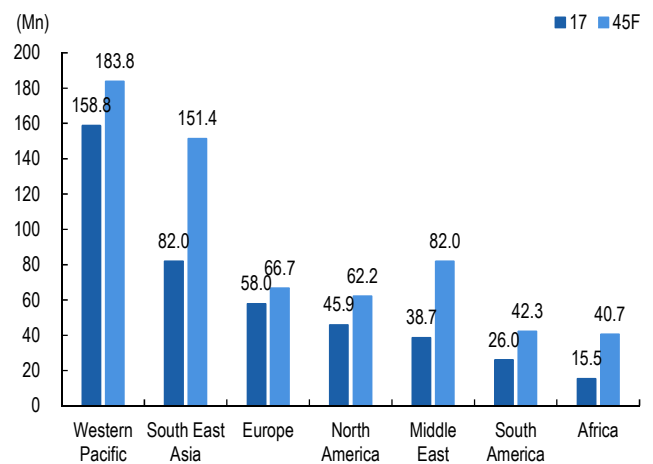
Source: Industry data, Meddevicetracker, Mirae Asset Daewoo Research

Figure 16. Blood glucose monitor market breakdown (by company)

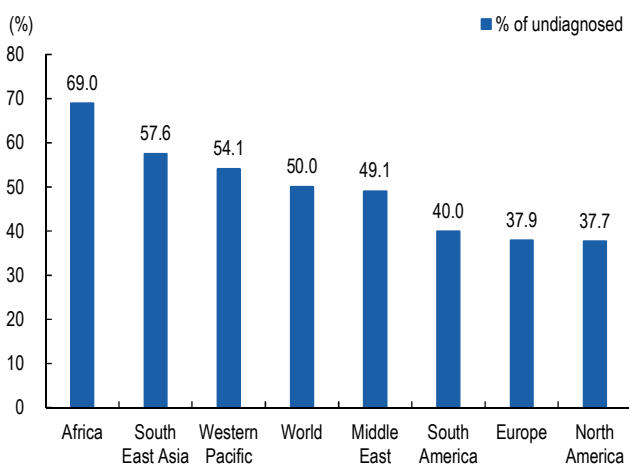
Source: KHIDI, Mirae Asset Daewoo Research

Figure 17. Diabetes-related spending by region

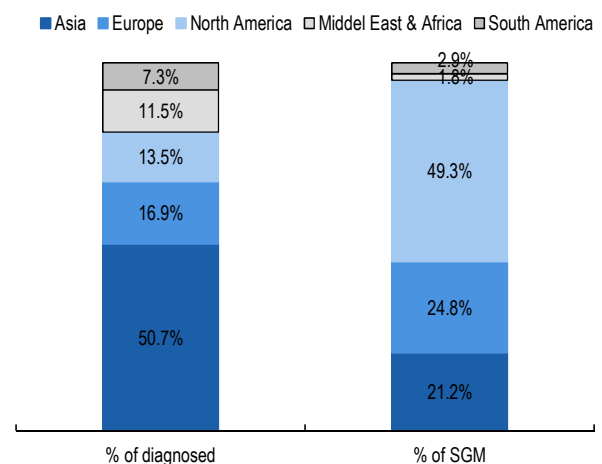
Source: IDF, Mirae Asset Daewoo Research

Figure 18. Number of diabetic patients by region

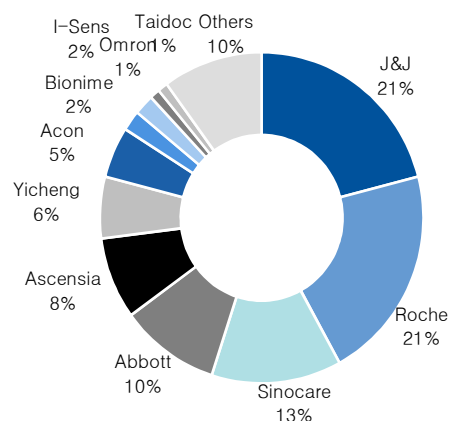
Source: IDF, Mirae Asset Daewoo Research

Figure 19. % of undiagnosed diabetics by region

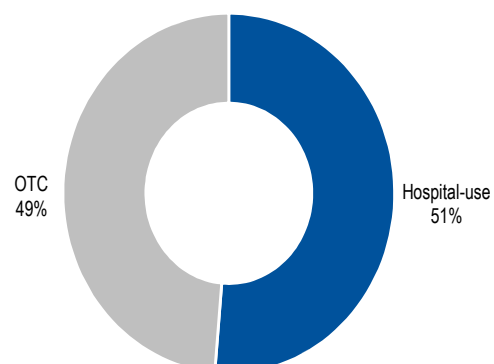
Source: IDF, Mirae Asset Daewoo Research

Figure 20. Global diagnosed diabetes case breakdown vs. blood glucose monitor market breakdown

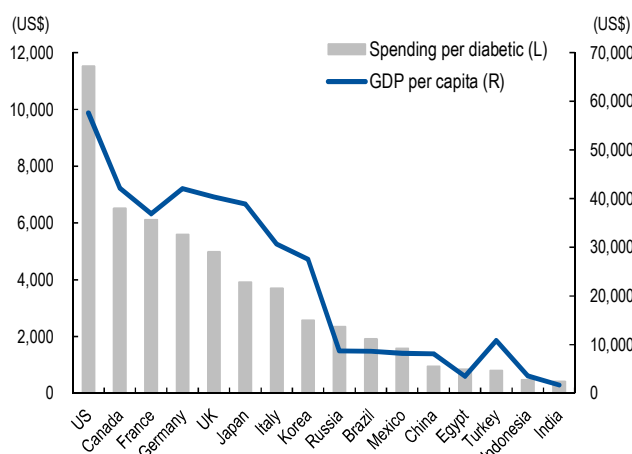
Source: KHIDI, industry data, IDF, Mirae Asset Daewoo Research

Figure 21. Blood glucose monitor M/S breakdown for China

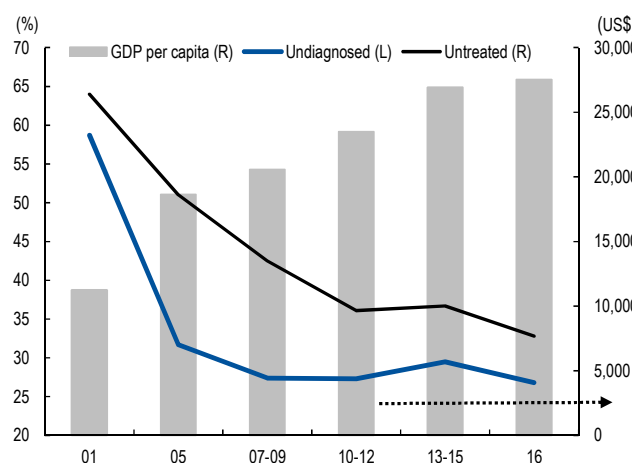
Source: Company data, Mirae Asset Daewoo Research

Figure 22. Chinese test strip market breakdown

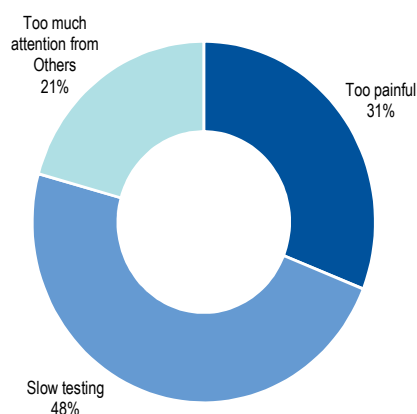
Source: Company data, Mirae Asset Daewoo Research

Figure 23. Diabetes-related spending is correlated with a country's economic level

Source: IDF, IMF, Mirae Asset Daewoo Research

Figure 24. Proportions of undiagnosed and untreated diabetics in Korea have fallen

Source: IMF, MOHW, Korea Centers for Disease Control & Prevention, Mirae Asset Daewoo Research

Figure 25. Reasons for resistance to blood glucose monitoring

Source: FDA, Dexcom, Mirae Asset Daewoo Research

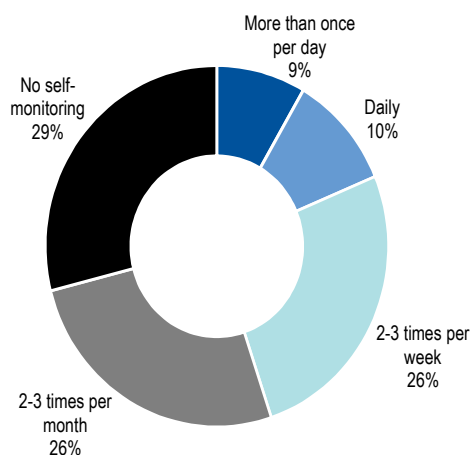
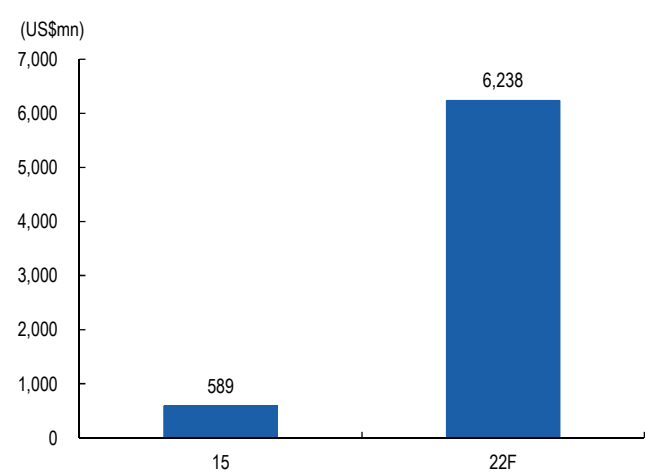
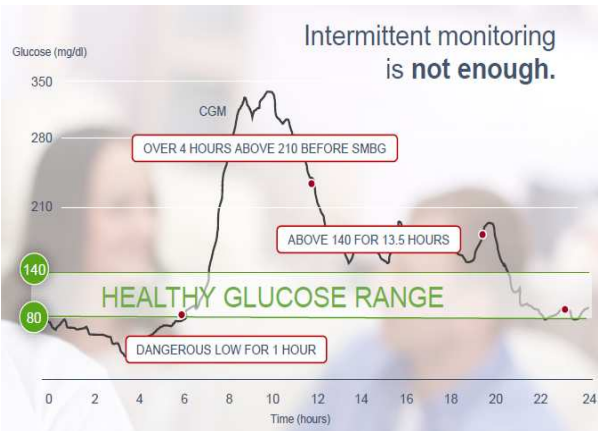
Figure 26. Results of Ascensia's 2015 survey of Korean diabeticsNote: Ascensia surveyed 107 diabetics living in the Seoul capital area in January 2015.
Source: Mirae Asset Daewoo Research

Figure 27. CGM market outlook



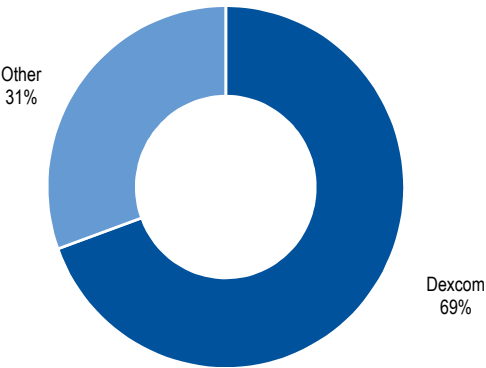
Source: Allied Market Research, Mirae Asset Daewoo Research

Figure 28. CGM offers continuous monitoring of glucose levels



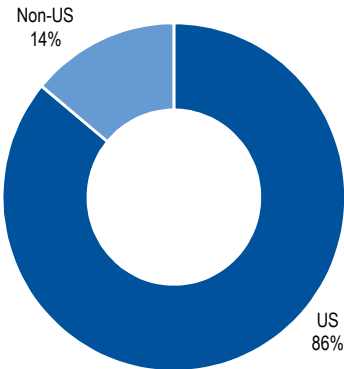
Source: Dexcom, Mirae Asset Daewoo Research

Figure 29. CGM market share



Source: Dexcom, Mirae Asset Daewoo Research

Figure 30. Dexcom's revenue by region



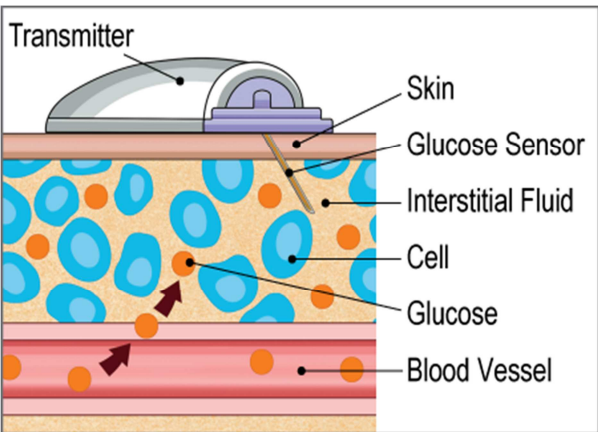
Source: Dexcom, Mirae Asset Daewoo Research

Figure 31. Application of transmitter and sensor



Source: Dexcom, Mirae Asset Daewoo Research

Figure 32. Glucose levels monitored via interstitial fluid



Source: Medtronic, Mirae Asset Daewoo Research

i-SENS (099190 KQ/Buy/TP: W32,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Revenue	157	175	195	218
Cost of Sales	88	96	104	115
Gross Profit	69	79	91	103
SG&A Expenses	46	52	60	66
Operating Profit (Adj)	23	27	31	36
Operating Profit	23	27	31	36
Non-Operating Profit	-4	-2	0	1
Net Financial Income	-1	-1	0	1
Net Gain from Inv in Associates	-2	-1	1	0
Pretax Profit	19	25	31	37
Income Tax	4	3	6	7
Profit from Continuing Operations	15	22	25	29
Profit from Discontinued Operations	0	0	0	0
Net Profit	15	22	25	29
Controlling Interests	16	22	25	29
Non-Controlling Interests	-1	0	0	0
Total Comprehensive Profit	13	22	25	29
Controlling Interests	14	23	26	31
Non-Controlling Interests	-1	-1	-1	-1
EBITDA	30	35	39	43
FCF (Free Cash Flow)	-1	19	27	30
EBITDA Margin (%)	19.1	20.0	20.0	19.7
Operating Profit Margin (%)	14.6	15.4	15.9	16.5
Net Profit Margin (%)	10.2	12.6	12.8	13.3

Statement of Financial Condition (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Current Assets	96	114	148	187
Cash and Cash Equivalents	27	35	60	87
AR & Other Receivables	38	43	49	55
Inventories	29	33	38	42
Other Current Assets	2	3	1	3
Non-Current Assets	138	141	134	128
Investments in Associates	3	4	4	5
Property, Plant and Equipment	99	100	93	87
Intangible Assets	19	19	17	16
Total Assets	234	255	282	314
Current Liabilities	26	29	32	36
AP & Other Payables	16	18	20	23
Short-Term Financial Liabilities	5	5	5	5
Other Current Liabilities	5	6	7	8
Non-Current Liabilities	43	42	42	43
Long-Term Financial Liabilities	38	35	35	35
Other Non-Current Liabilities	5	7	7	8
Total Liabilities	69	71	74	79
Controlling Interests	163	182	206	234
Capital Stock	7	7	7	7
Capital Surplus	46	46	46	46
Retained Earnings	112	133	156	184
Non-Controlling Interests	2	2	2	2
Stockholders' Equity	165	184	208	236

Cash Flows (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Cash Flows from Op Activities	22	25	27	30
Net Profit	15	22	25	29
Non-Cash Income and Expense	13	15	14	14
Depreciation	6	7	6	6
Amortization	1	1	1	1
Others	6	7	7	7
Chg in Working Capital	-3	-11	-6	-7
Chg in AR & Other Receivables	-5	-6	-5	-6
Chg in Inventories	2	-4	-4	-5
Chg in AP & Other Payables	2	1	1	1
Income Tax Paid	-6	-4	-6	-7
Cash Flows from Inv Activities	-28	-9	-1	-1
Chg in PP&E	-24	-6	0	0
Chg in Intangible Assets	-1	-1	0	0
Chg in Financial Assets	2	-1	-1	-1
Others	-5	-1	0	0
Cash Flows from Fin Activities	8	-5	-1	-1
Chg in Financial Liabilities	6	-2	0	0
Chg in Equity	0	0	0	0
Dividends Paid	-1	-1	-1	-1
Others	3	-2	0	0
Increase (Decrease) in Cash	2	8	24	28
Beginning Balance	26	27	35	60
Ending Balance	27	35	60	88

Source: Company data, Mirae Asset Daewoo Research estimates

Forecasts/Valuations (Summarized)

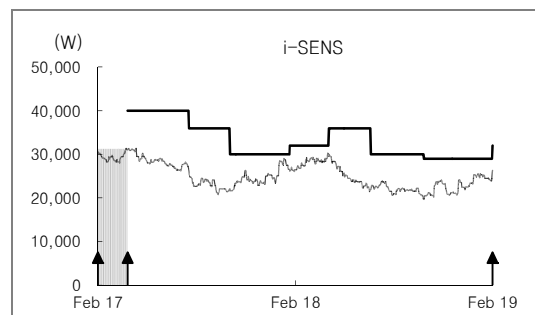
	12/17	12/18F	12/19F	12/20F
P/E (x)	22.1	13.8	14.5	12.3
P/CF (x)	12.3	8.2	9.2	8.3
P/B (x)	2.1	1.7	1.7	1.5
EV/EBITDA (x)	12.1	9.0	8.9	7.3
EPS (W)	1,146	1,633	1,818	2,139
CFPS (W)	2,058	2,728	2,863	3,164
BPS (W)	11,856	13,361	15,080	17,120
DPS (W)	100	100	100	100
Payout ratio (%)	9.1	6.1	5.4	4.6
Dividend Yield (%)	0.4	0.4	0.4	0.4
Revenue Growth (%)	18.9	11.5	11.4	11.8
EBITDA Growth (%)	-6.3	16.7	11.4	10.3
Operating Profit Growth (%)	-11.5	17.4	14.8	16.1
EPS Growth (%)	-10.5	42.5	11.3	17.7
Accounts Receivable Turnover (x)	4.5	4.4	4.4	4.3
Inventory Turnover (x)	5.2	5.6	5.5	5.5
Accounts Payable Turnover (x)	14.0	12.6	12.0	11.9
ROA (%)	6.7	9.1	9.3	9.9
ROE (%)	10.1	13.0	12.9	13.4
ROIC (%)	10.9	13.1	13.7	16.0
Liability to Equity Ratio (%)	41.7	38.3	35.9	33.4
Current Ratio (%)	371.5	391.7	460.3	524.3
Net Debt to Equity Ratio (%)	8.9	2.5	-9.6	-20.2
Interest Coverage Ratio (x)	18.4	17.4	16.0	18.7

APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
i-SENS (099190)	02/15/2019	Buy	32,000
	10/11/2018	Buy	29,000
	07/05/2018	Buy	30,000
	04/18/2018	Buy	36,000
	02/05/2018	Buy	32,000
	10/17/2017	Buy	30,000
	08/02/2017	Buy	36,000
	04/11/2017	Buy	40,000
	08/22/2016	No Coverage	



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 Mirae Asset Daewoo Co., Ltd., 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.

Equity Ratings Distribution & Investment Banking Services

	Buy	Trading Buy	Hold	Sell
Equity Ratings Distribution	81.28%	9.63%	9.09%	0.00%
Investment Banking Services	84.61%	3.85%	11.54%	0.00%

* Based on recommendations in the last 12-months (as of December 31, 2018)

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