

MedTech

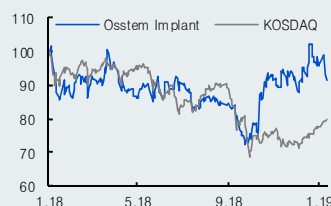
Company Report
February 12, 2019

(Maintain)	Buy
Target Price (12M, W)	74,000
Share Price (02/11/19, W)	53,000
Expected Return	40%

OP (18F, Wbn)	27
Consensus OP (18F, Wbn)	36
EPS Growth (18F, %)	-7.9
Market EPS Growth (18F, %)	5.1
P/E (18F, x)	82.1
Market P/E (18F, x)	9.1
KOSDAQ	733.47

Market Cap (Wbn)	757
Shares Outstanding (mn)	14
Free Float (%)	75.9
Foreign Ownership (%)	47.2
Beta (12M)	0.45
52-Week Low	41,700
52-Week High	59,100

(%)	1M	6M	12M
Absolute	-2.6	6.2	4.7
Relative	-8.8	13.6	20.3



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[MedTech/Healthcare Solutions]

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Osstem Implant

(048260 KQ)

Gauging the potential for margin improvement

Asia's no. 1 dental implant supplier; watch for operating leverage effects

1) Tighter grip on Asia: Since 2006, Osstem Implant has generated 1.1 to 2.5 times the revenue of global leader Straumann in Asia. In 2019, we expect Osstem Implant's Asia revenue to expand 11.9% YoY (or +22.3% YoY excluding Korea). In the maturing domestic market, we believe the company remains the biggest beneficiary of the dental implant co-payment rate cut. Overall, we see robust top-line growth continuing in 2019, led by overseas markets (+21% YoY), especially in Asia.

2) Poised to become a total dental solutions provider: A notable trend in the global dental equipment market is that many companies are expanding across the value chain to provide total dental solutions. Osstem Implant already generates 28-30% of its revenue from products other than dental implants. In the same way that it expanded its dental chair business into overseas markets, the company is likely to take its digital imaging equipment business overseas once it establishes a stable footing domestically.

3) Operating leverage effects: For Osstem Implant, operating leverage is critical because the company's business strategy involves heavy investments in fixed assets. Despite continued top-line growth, one-off expenses have repeatedly derailed earnings. However, the company has increased its provisions (bad debt provisions, return allowances, etc.) in the process. As such, we expect one-off expenses to dramatically subside going forward.

Maintain Buy and TP of W74,000

We reaffirm our Buy rating and target price of W74,000 on Osstem Implant. The stock is currently trading at a 12-month forward P/E of 25.2x, a premium to global peers (24.7x).

Because asset values are typically not reflected in the valuations of Medtech stocks, share prices are largely driven by earnings growth, which is ultimately determined by top-line growth and cost control. For Osstem Implant, we see little cause for concern on the top-line front. Overseas subsidiaries are continuing to enjoy robust growth, while, domestically, the company is continuing to benefit strongly from the implant co-payment rate cut.

The problem lies in the repeated occurrence of one-off expenses. Given the size of the company's allowances at end-2018, we believe risks of additional, massive, one-off expenses have receded. We believe operating leverage effects will now come into view. That said, any meaningful rise in share prices will depend on how quickly the company restores investor confidence.

FY (Dec.)	12/15	12/16	12/17	12/18F	12/19F	12/20F
Revenue (Wbn)	278	345	398	454	516	586
OP (Wbn)	33	34	22	27	46	56
OP margin (%)	11.9	9.9	5.5	5.9	8.9	9.6
NP (Wbn)	18	24	10	9	29	36
EPS (W)	1,259	1,645	708	652	2,046	2,526
ROE (%)	18.1	22.1	9.3	8.0	21.7	21.6
P/E (x)	64.4	36.9	83.5	82.1	25.9	21.0
P/B (x)	10.6	6.7	6.1	5.3	4.3	3.6
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0

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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4Q18 review: Earnings shock

For 4Q18, Osstem Implant reported revenue of W118.6bn (+14.4% YoY), in line with the consensus. Domestic revenue climbed 20.8% YoY, driven by dental implants (+27.4% YoY to W32.8bn). Looking overseas, revenue grew 30.4% YoY in China, 22.6% YoY in North America, and 20.3% YoY in Europe. Revenue in Asia declined 21.2% YoY (due to returns in India). Operating profit came in at W0.3bn (turning to profit YoY; OP margin of 0.2%), far below the market consensus.

Expenses recognized in the quarter exceeded market expectations by roughly W10bn, primarily due to higher cost of revenue (W7.4bn for products and W1bn for clinical services). The increase in cost of revenue for products was attributable to larger return allowances resulting from accounting standard changes. For services, training costs related to the expansion of digital dentistry were mainly to blame.

Table 1. 4Q18 review

(Wbn, %, %p)

	4Q17	3Q18	4Q18P			Growth	
			Preliminary	Mirae Asset Daewoo	Consensus	YoY	QoQ
Revenue	103.7	114.0	118.6	117.8	118.9	14.4	4.0
Operating profit	-0.3	12.2	0.3	10.6	10.0	TTB	-97.7
OP margin (%)	-0.3	10.7	0.2	9.0	8.4	0.5	-10.4
Pretax profit	3.3	0.6	-0.6	8.2	7.2	TTR	TTR
Net profit	-3.2	-0.9	0.5	6.0	5.8	TTB	TTB

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.		Notes
	19F	20F	19F	20F	19F	20F	
Revenue	520.2	591.4	515.9	585.9	-0.8	-0.9	Reflected 4Q18 earnings
Operating profit	54.4	64.6	46.1	55.6	-15.3	-13.8	
Pretax profit	50.2	60.6	41.7	51.5	-16.8	-14.9	
Net profit	35.1	42.4	29.2	36.1	-16.8	-14.9	
EPS (W)	2,457.4	2,967.9	2,045.7	2,525.9	-16.8	-14.9	

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	108.5	112.7	114.0	118.6	124.5	128.6	127.4	135.4	453.8	515.9	585.9
Domestic	56.3	51.7	52.4	60.0	58.1	57.2	55.6	62.1	220.5	233.0	245.8
China	14.9	22.6	22.4	26.9	23.2	26.4	27.0	30.1	86.9	106.7	129.9
North America	15.9	19.1	19.2	18.6	18.9	22.8	22.2	21.8	72.9	85.7	101.4
Other	21.3	19.2	20.0	13.1	24.3	22.2	22.6	21.4	73.6	90.5	108.8
Operating profit	6.9	7.2	12.2	0.3	10.8	11.8	11.4	12.1	26.6	46.1	55.6
Domestic	10.7	12.1	13.9	6.1	10.8	11.0	11.2	11.2	42.9	44.3	46.9
China	-2.6	-2.3	-0.5	0.3	-0.2	0.2	0.3	0.3	-5.1	0.6	2.3
North America	-0.3	0.6	0.4	-1.2	-0.2	0.3	0.2	0.2	-0.4	0.4	2.4
Other	-0.9	-3.2	-1.6	-5.0	0.4	0.3	-0.2	0.3	-10.8	0.8	3.9
Pretax profit	6.3	7.3	0.6	-0.6	9.7	10.7	10.4	11.0	13.6	41.7	51.5
Net profit	5.4	4.3	-0.9	0.5	6.8	7.5	7.3	7.7	9.3	29.2	36.1
OP margin (%)	6.4	6.4	10.7	0.2	8.7	9.1	9.0	8.9	5.9	8.9	9.5
Pretax margin (%)	5.8	6.5	0.6	-0.5	7.8	8.3	8.1	8.1	3.0	8.1	8.8
Net margin (%)	3.7	2.7	-2.0	-2.3	5.5	5.8	5.7	5.7	2.1	5.7	6.2

Source: Mirae Asset Daewoo Research estimates

Gauging potential for OP margin improvement

1. Why the fourth quarter is typically bad: Recurrence of one-off expenses

Looking at Osstem Implant's quarterly earnings over the past three years, the fourth quarter has consistently been rather bad. OP margin averaged just 2% in the fourth quarters of the last three years, primarily due to one-off expenses (return allowances, bad debt expenses, inventory valuation losses, etc.). Adjusting for the one-off expenses, average OP margin was much higher (10%). As irregular items, one-off expenses do not factor heavily into the valuation of a company's fundamentals. The problem with Osstem Implant is that such expenses have occurred far too frequently and on a significant scale.

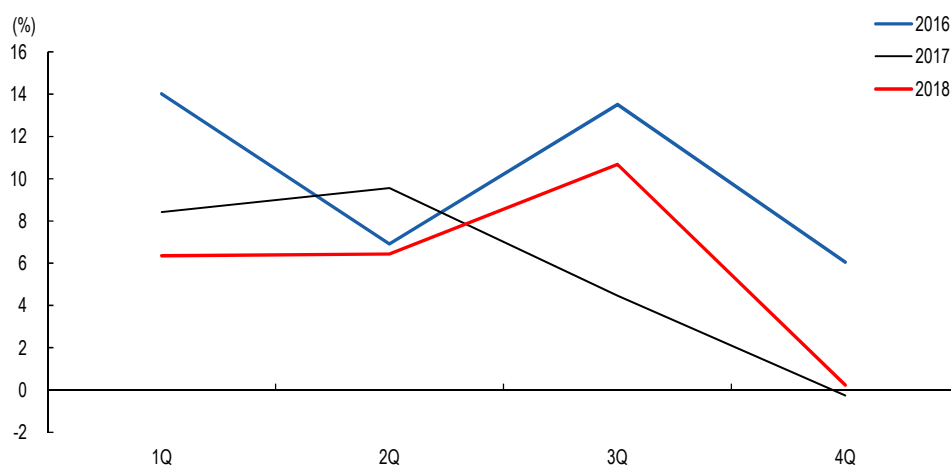
The one-off expenses recognized over the past several years were almost impossible for analysts to estimate. As a result, uncertainties surrounding 4Q earnings have repeatedly clouded the company's outlook.

Table 4. Fourth-quarter OP margin and adjusted OP margin over the past three years (Wbn)

	4Q16	4Q17	4Q18
Revenue	102.9	103.7	118.6
Operating profit	6.2	-0.3	0.3
OP margin (%)	6.0	-0.3	0.2
One-off expenses	- Bad debt expenses: W8.7bn	- Inventory valuation losses: W4bn - Bad debt expenses: W3.3bn	- Return allowances: W10bn
Adjusted operating profit	14.9	7	10.3
Adjusted OP margin	14.5%	6.8%	8.7%

Source: Company data, Mirae Asset Daewoo Research

Figure 1. Quarterly OP margin trend



Source: Mirae Asset Daewoo Research

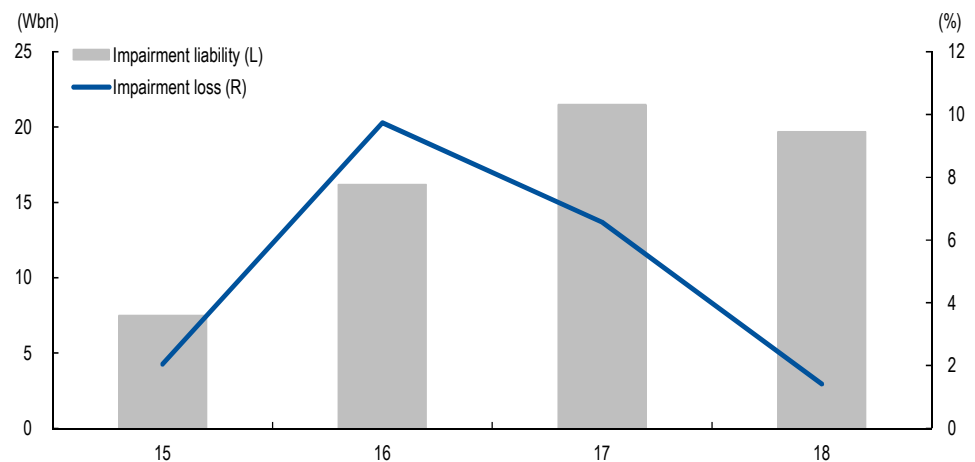
2. Risks of additional one-off expenses appear limited

We believe risks of additional massive one-off expenses have declined materially. The biggest sources of one-off expenses have been allowances for sales returns and bad debt expenses. Because of the frequent occurrence of product returns and exchanges in the implant industry, many suppliers set aside allowances to manage risks. While there is no set rule as to what the appropriate size of allowances should be, we note that Osstem Implant's allowances have increased substantially compared to the past.

The company's bad debt allowances increased 2.6 times from W7.5bn at end-2015 to W19.7bn at end-2018. In the process, bad debt expenses (which had ballooned to W9.7bn) declined to W6.6bn in 2017 and to W1.4bn in 2018. Return allowances increased 2.3 times from W16.7bn at end-2015 to W38.2bn at end-2018, a record level that is equivalent to 12% of annual implant revenue.

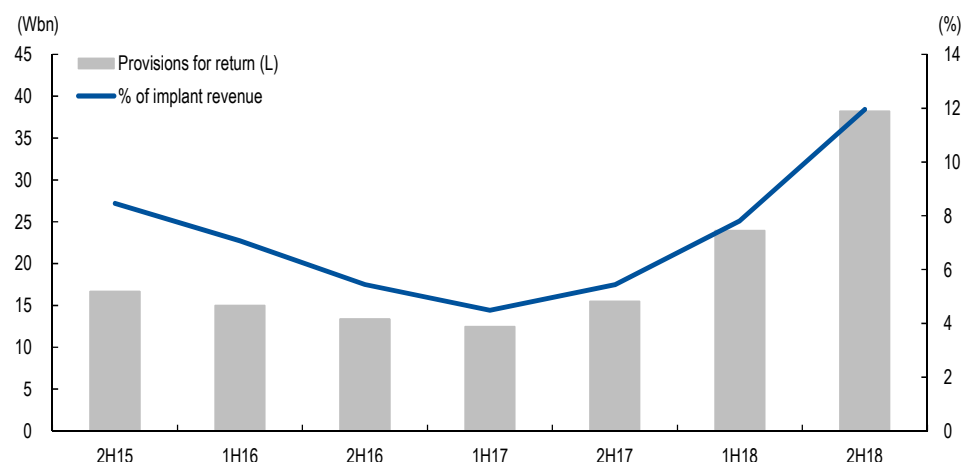
In a sense, the increase in allowances indicates that the company had not managed risks properly. That said, it also suggests the company is now working toward more conservative accounting, which we believe bodes well for the future.

Figure 2. Allowances have increased 2.6x since end-2015



Source: Company data, Mirae Asset Daewoo Research

Figure 3. Return allowances increased to 12% of annual implant revenue



Note: Implant revenue is based on: (1) consolidated product sales minus sales parent-based digital dentistry/chairs; and (2) combined implant revenue in the previous four quarters

Source: Company data, Mirae Asset Daewoo Research

3. When will leverage effects materialize?

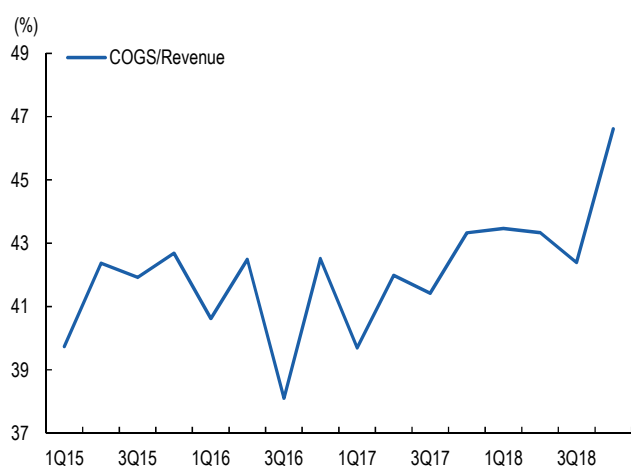
Given the size of return and bad debt allowances, we believe the risk of additional massive one-off expenses (which are difficult to estimate) has receded, meaning we can now focus on the company's fundamentals.

Osstem Implant relies heavily on direct sales. The company employs more than 3,000 people and spends more than W100bn on labor every year, which leads to much higher fixed costs compared with rivals. Generating operating leverage effects through top-line growth is therefore critical for the company to improve its earnings.

We expect operating leverage effects to materialize in 2H19. The recent rise in the company's cost of revenue is due to not only one-time factors like return allowances but also the increasing mix of "other" revenue (merchandise and services). For products, gross margin is around 77-79%. In comparison, gross margin for this other revenue is just 5-11%.

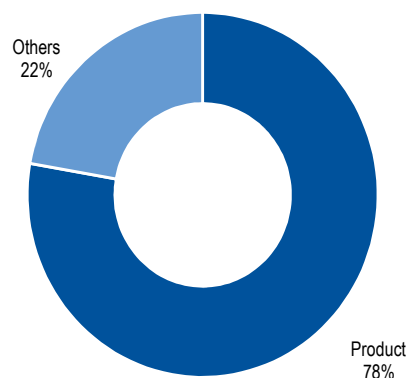
The growth in other revenue stems from the increase in service revenue (i.e., user training) related to the expansion of digital dentistry; for services, the cost of revenue is higher than revenue itself. While this may be seen as an investment in future growth, it is likely to squeeze margins in the near term. We believe operating leverage effects from the proliferation of digital dentistry and overseas subsidiary growth will gather steam heading into 2H19.

Figure 4. COGS-to-revenue ratio



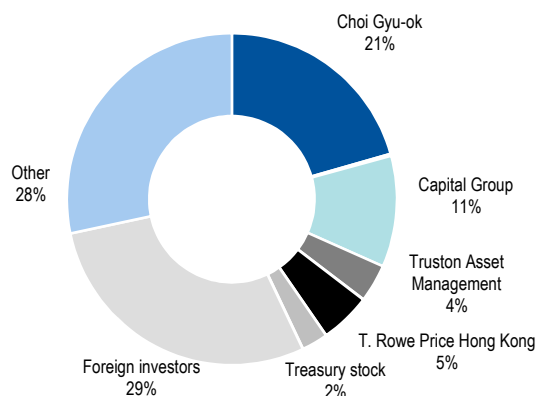
Source: Company data, Mirae Asset Daewoo Research

Figure 5. Revenue breakdown: Products vs. others (merchandise and services) (2018)



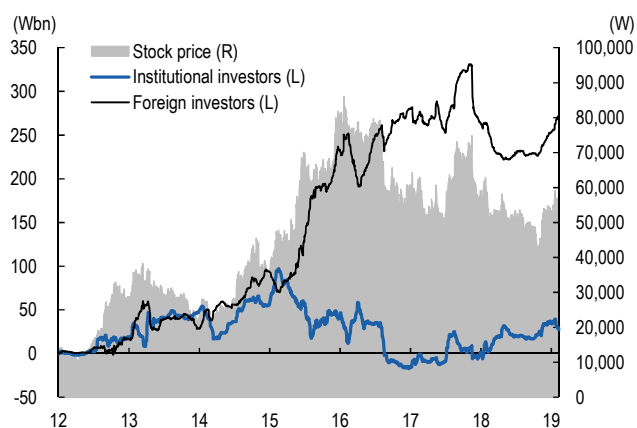
Source: Company data, Mirae Asset Daewoo Research

Figure 6. Ownership breakdown



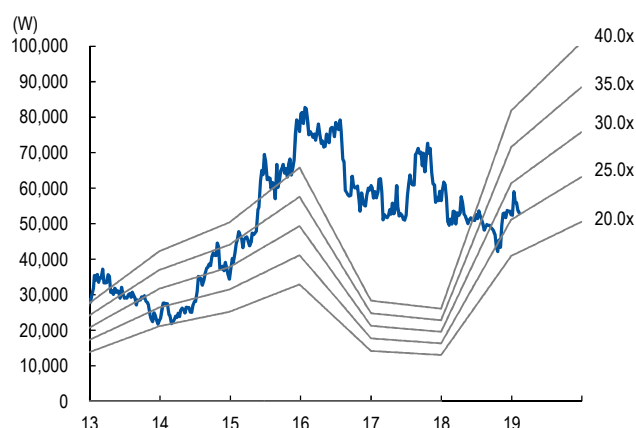
Source: Bloomberg, Mirae Asset Daewoo Research

Figure 7. Institutional and foreign net buying vs. share price



Source: Mirae Asset Daewoo Research

Figure 8. P/E band chart

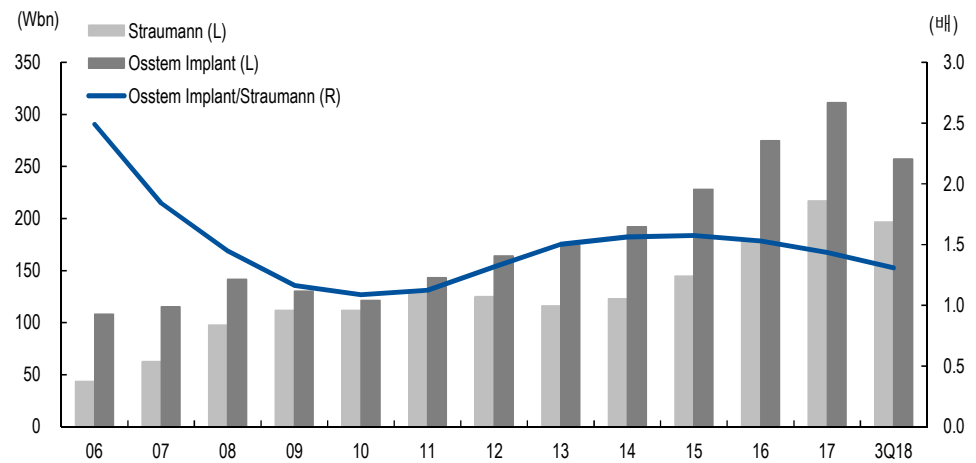


Source: Mirae Asset Daewoo Research

Table 5. Valuation comparison

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
Straumann	12,627	25.5	25.7	26.3	42.4	39.1	32.0	8.9	8.3	7.2	30.1	24.5	25.1	33.2	28.1	24.1
Zimmer Biomet	27,642	0.4	27.4	28.2	22.7	15.4	14.5	3.1	3.1	3.0	15.5	13.4	12.5	27.5	11.9	11.4
Dentsply Sirona	10,658	-39.1	15.2	16.7	27.0	21.7	19.5	2.4	2.4	2.4	-26.4	7.8	9.7	-	14.3	13.1
Align Technology	21,683	23.7	22.6	24.8	49.1	47.1	34.9	9.8	8.0	6.6	33.3	29.0	32.0	60.8	30.0	22.8
Danaher	85,530	17.1	21.3	22.0	28.9	22.7	21.0	3.8	3.7	3.6	9.7	11.0	10.7	17.3	17.0	16.0
Dentium	771	27.3	25.0	25.7	18.2	21.0	17.4	3.5	4.3	3.6	19.1	20.8	20.9	20.0	17.2	14.4
Osstem Implant	769	5.9	8.7	9.3	135.2	24.1	20.2	1.7	1.5	1.4	4.7	22.2	21.3	19.5	14.3	12.3
DIO Implant	387	25.1	20.4	21.2	44.5	25.0	22.7	3.8	3.9	3.4	6.7	14.6	14.8	19.7	16.2	14.0
Average		10.7	20.8	21.8	46.0	27.0	22.8	4.6	4.4	3.9	11.6	17.9	18.4	28.3	18.6	16.0

Source: Bloomberg, Mirae Asset Daewoo Research

Figure 9. Osstem Implant vs. Straumann revenue from Asia

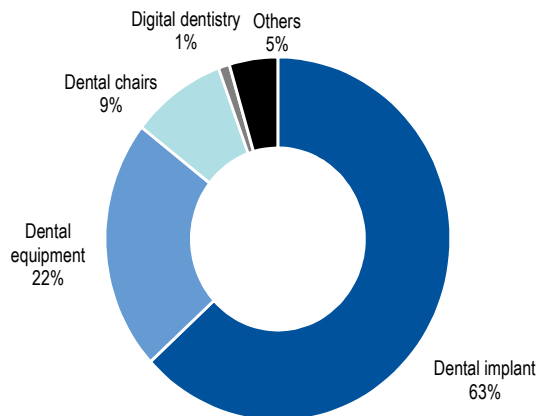
Source: Company data, Mirae Asset Daewoo Research

Table 6. Osstem Implant sales cost breakdown

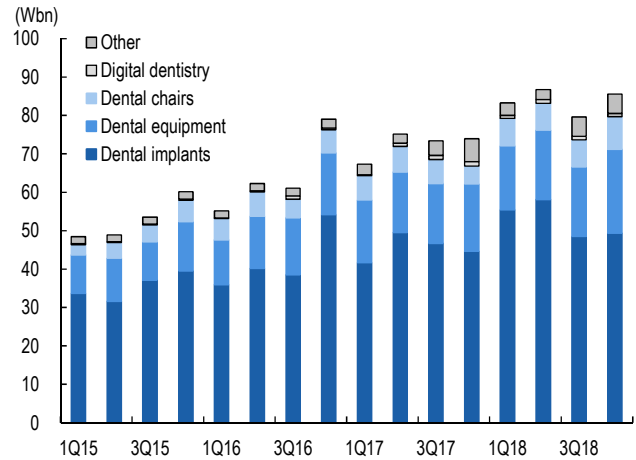
(Wbn, %, %p)

	2016	2017	2018	2019F	2020F	2017	2018F	2019F	2020F
Revenue	344.6	397.8	453.8	515.9	585.9	15.4%	14.1%	13.7%	13.6%
Domestic	179.0	191.8	220.5	233.0	245.8	7.1%	15.0%	5.7%	5.5%
Overseas	165.6	206.0	233.3	282.9	340.1	24.4%	13.2%	21.3%	20.2%
China	58.4	73.7	86.9	106.7	129.9	26.2%	17.9%	22.9%	21.7%
North America	53.2	61.2	72.9	85.7	101.4	15.1%	19.1%	17.7%	18.3%
Other	54.0	71.2	73.6	90.5	108.8	31.7%	3.4%	23.0%	20.3%
ratio of sales cost	41.0%	41.7%	44.0%	43.6%	44.7%	0.7%	2.3%	-0.4%	1.1%
Domestic	26.9%	21.2%	22.2%	24.3%	24.0%	-5.7%	1.0%	2.0%	-0.2%
Overseas	56.1%	60.7%	64.6%	59.5%	59.6%	4.5%	3.9%	-5.0%	0.0%
China	65.5%	73.9%	70.5%	66.4%	67.3%	8.5%	-3.4%	-4.1%	0.9%
North America	37.5%	37.0%	42.3%	38.1%	37.7%	-0.5%	5.4%	-4.3%	-0.4%
Other	64.3%	67.2%	79.5%	71.7%	70.8%	2.9%	12.2%	-7.7%	-1.0%
SG&A Expenses /Revenue	49.1%	52.9%	50.2%	47.5%	45.8%	3.8%	-2.7%	-2.7%	-1.6%
Domestic	44.3%	54.3%	53.9%	51.7%	51.9%	10.0%	-0.5%	-2.1%	0.2%
Overseas	54.3%	51.6%	46.6%	44.0%	41.4%	-2.7%	-4.9%	-2.7%	-2.5%
China	49.9%	48.2%	35.3%	33.0%	30.9%	-1.7%	-12.9%	-2.3%	-2.1%
North America	61.6%	60.3%	58.2%	61.5%	59.9%	-1.3%	-2.0%	3.2%	-1.6%
Other	51.9%	47.5%	48.5%	40.3%	36.8%	-4.3%	1.0%	-8.2%	-3.6%
OPM	9.9%	5.5%	5.9%	8.9%	9.5%	-4.5%	0.4%	3.1%	0.6%
Domestic	28.8%	24.4%	23.9%	24.0%	24.0%	-4.3%	-0.5%	0.1%	0.0%
Overseas	-10.4%	-12.2%	-11.2%	-3.5%	-1.0%	-1.8%	1.0%	7.7%	2.5%
China	-15.3%	-22.2%	-5.9%	0.6%	1.8%	-6.8%	16.3%	6.5%	1.2%
North America	0.9%	2.7%	-0.6%	0.4%	2.4%	1.9%	-3.3%	1.0%	2.0%
Other	-16.2%	-14.8%	-28.0%	-12.1%	-7.5%	1.4%	-13.2%	15.9%	4.5%

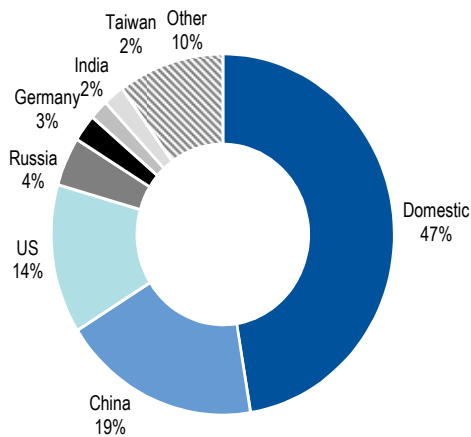
Source: Company data, Mirae Asset Daewoo Research

Figure 10. Revenue breakdown by category (2017)

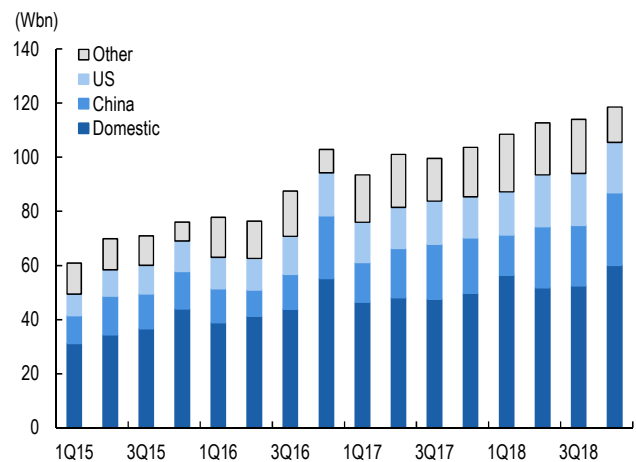
Note: Based on non-consolidated data
Source: Company data, Mirae Asset Daewoo Research

Figure 11. Revenue from key products

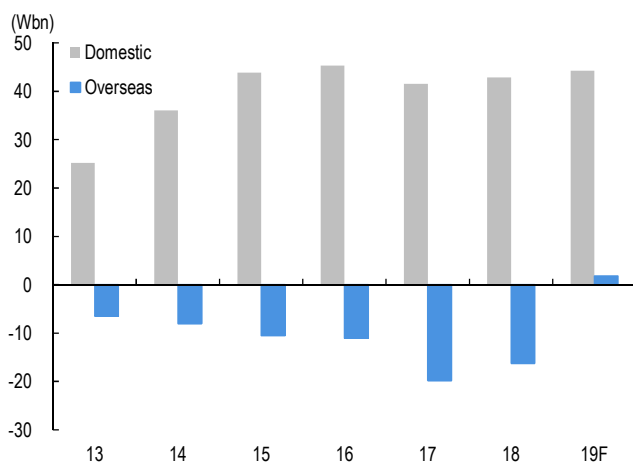
Note: Based on non-consolidated data
Source: Company data, Mirae Asset Daewoo Research

Figure 12. Revenue breakdown by region (2018)

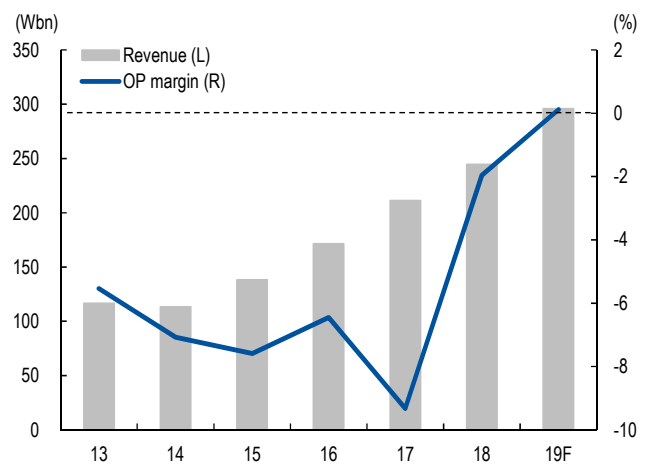
Source: Company data, Mirae Asset Daewoo Research

Figure 13. Revenue in key regions

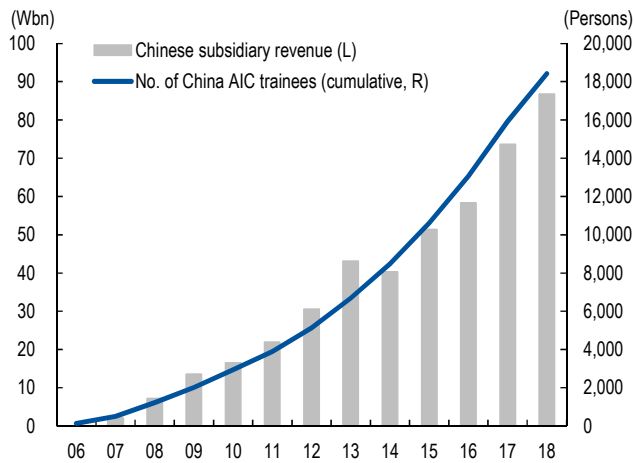
Source: Company data, Mirae Asset Daewoo Research

Figure 14. Operating profit: Domestic vs. overseas

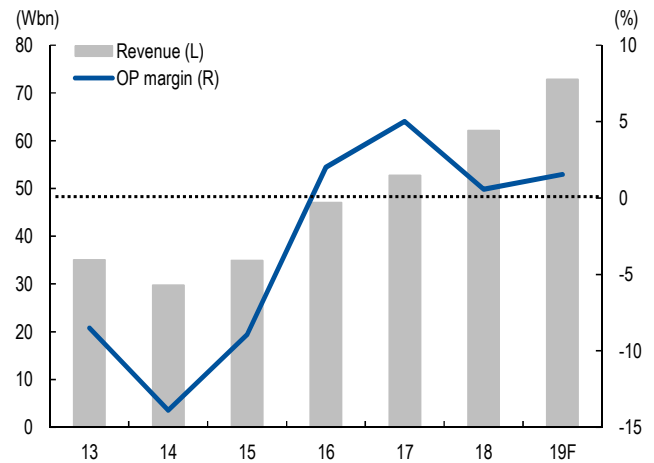
Source: Company data, Mirae Asset Daewoo Research

Figure 15. Overseas revenue vs. OP margin

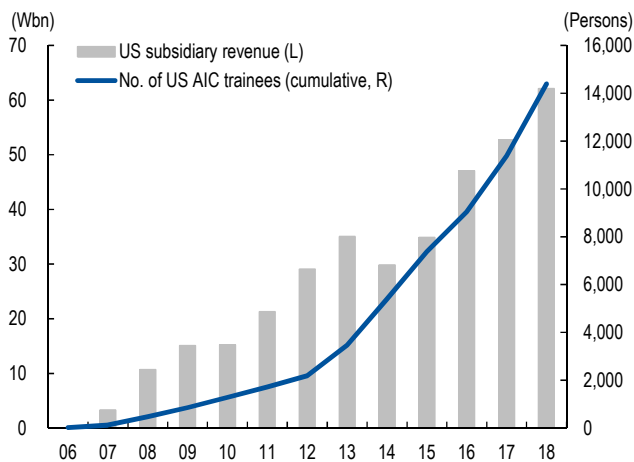
Source: Company data, Mirae Asset Daewoo Research

Figure 16. US revenue vs. no. of US AIC trainees

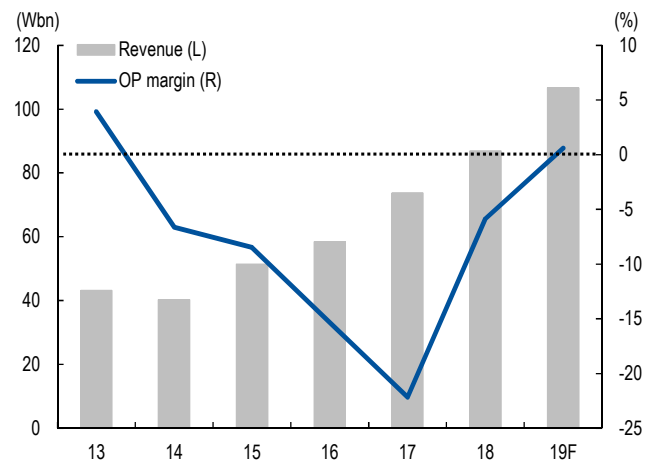
Note: AIC is Osstem Implant's implant clinical training institute
Source: Company data, Mirae Asset Daewoo Research

Figure 17. US subsidiary: Revenue and OP margin

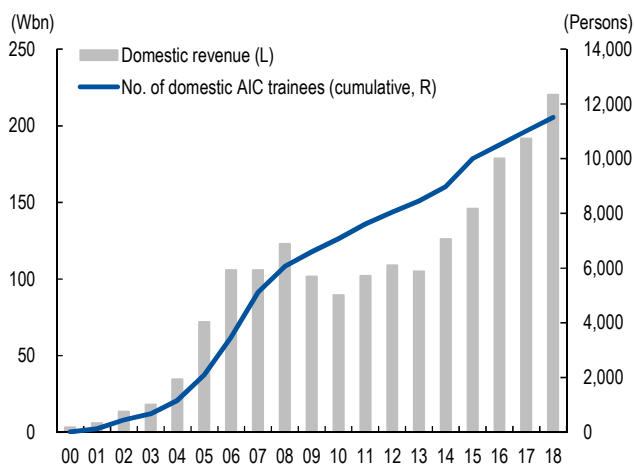
Source: Company data, Mirae Asset Daewoo Research

Figure 18. Chinese revenue vs. no. of Chinese AIC trainees

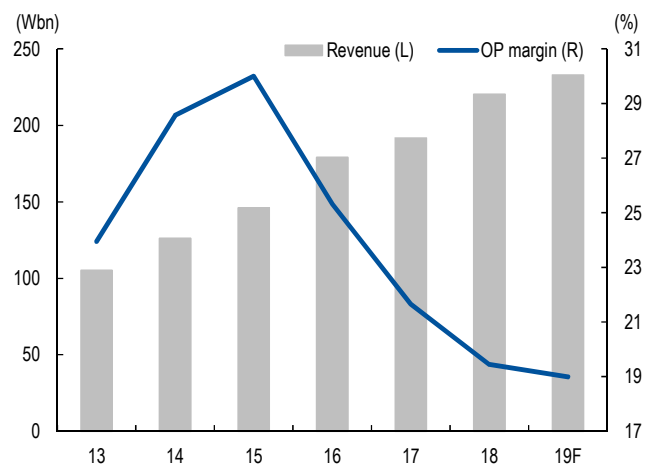
Source: Company data, Mirae Asset Daewoo Research

Figure 19. Chinese subsidiary: Revenue and OP margin

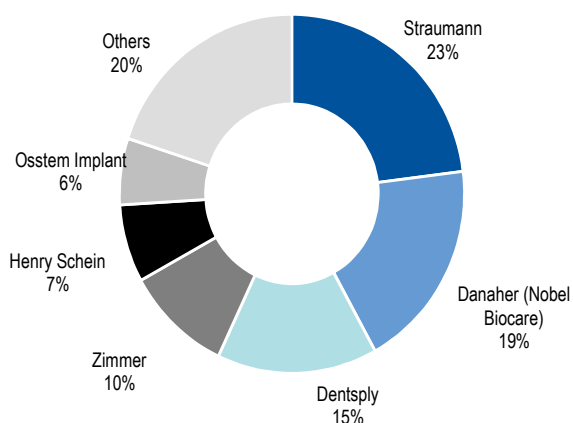
Source: Company data, Mirae Asset Daewoo Research

Figure 20. Domestic revenue vs. no. of domestic AIC trainees

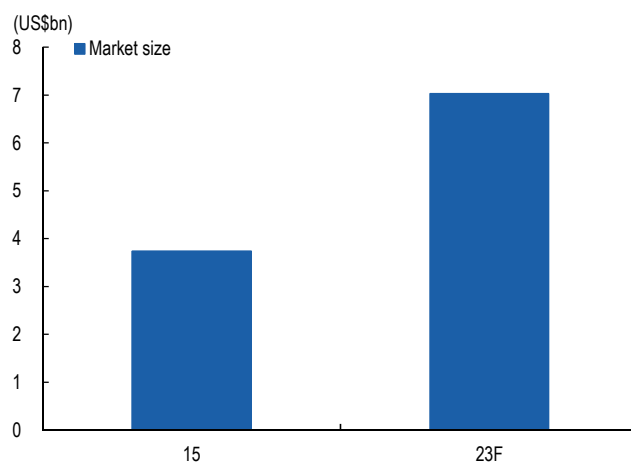
Source: Company data, Mirae Asset Daewoo Research

Figure 21. Domestic revenue and OP margin

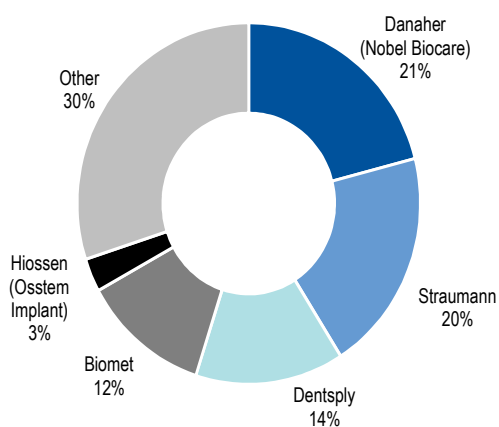
Source: Company data, Mirae Asset Daewoo Research

Figure 22. Global implant M/S breakdown

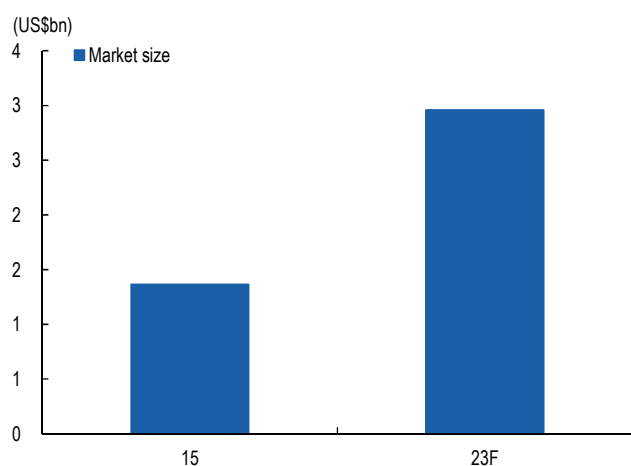
Source: Straumann, company data, Mirae Asset Daewoo Research

Figure 23. Global implant market growth (8.2% CAGR)

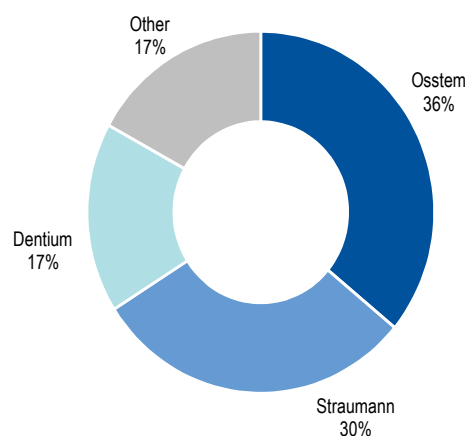
Source: MRG, Mirae Asset Daewoo Research

Figure 24. US M/S breakdown

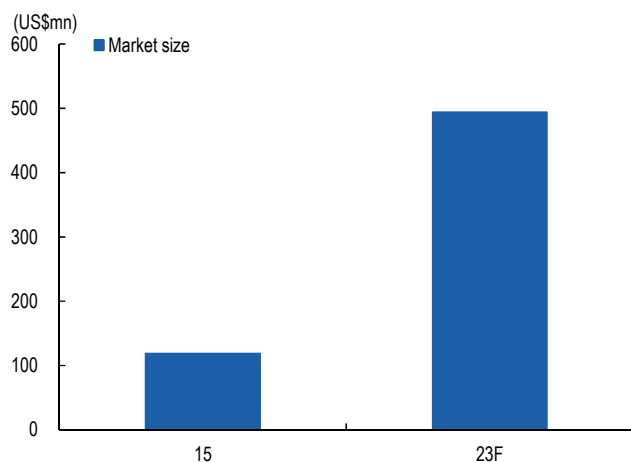
Source: Company data, Mirae Asset Daewoo Research

Figure 25. US implant market growth (10.2% CAGR)

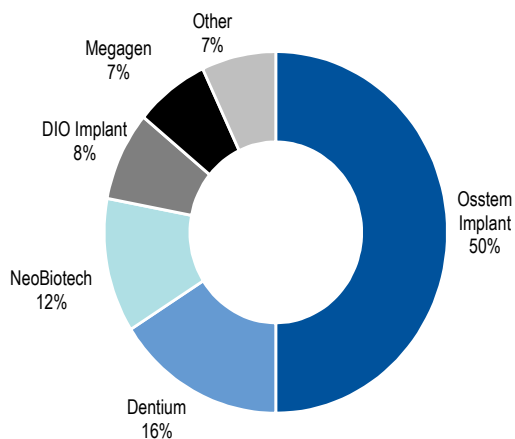
Source: MRG, Mirae Asset Daewoo Research

Figure 26. Chinese M/S breakdown

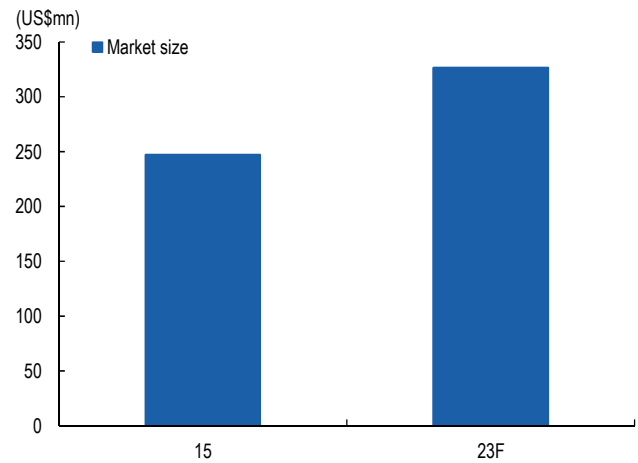
Source: Straumann, company data, Mirae Asset Daewoo Research

Figure 27. Chinese implant market growth (19.5% CAGR)

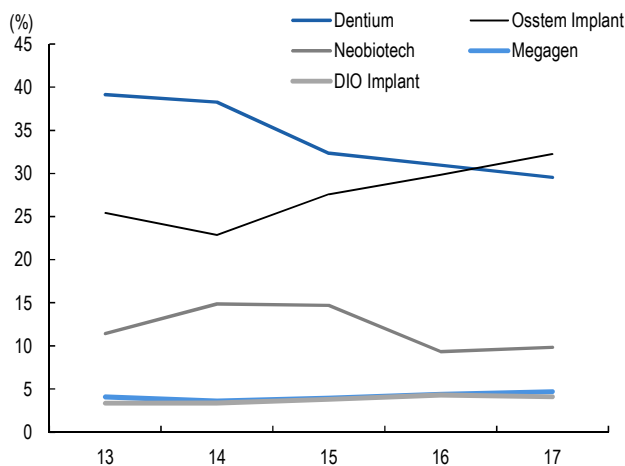
Source: MRG, Mirae Asset Daewoo Research

Figure 28. Domestic implant M/S breakdown

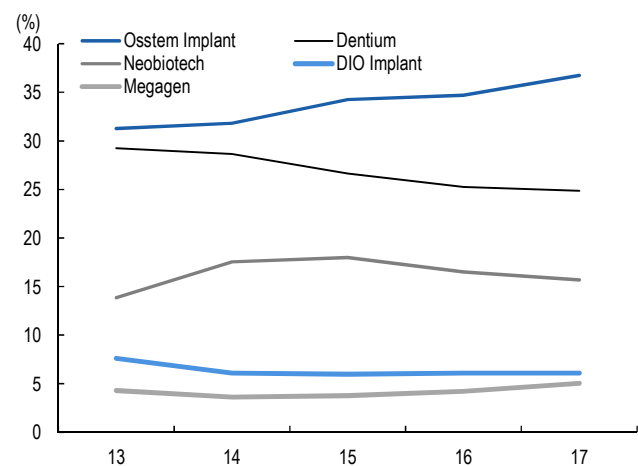
Source: KHIDI, Mirae Asset Daewoo Research

Figure 29. Domestic implant market growth (3.5% CAGR)

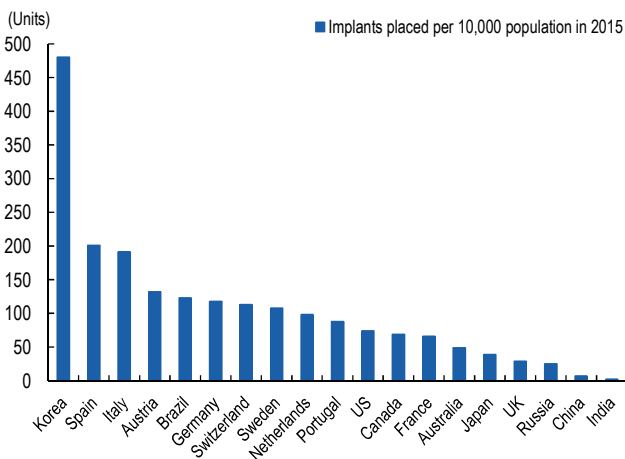
Source: MRG, Mirae Asset Daewoo Research

Figure 30. Brands most preferred by dentists

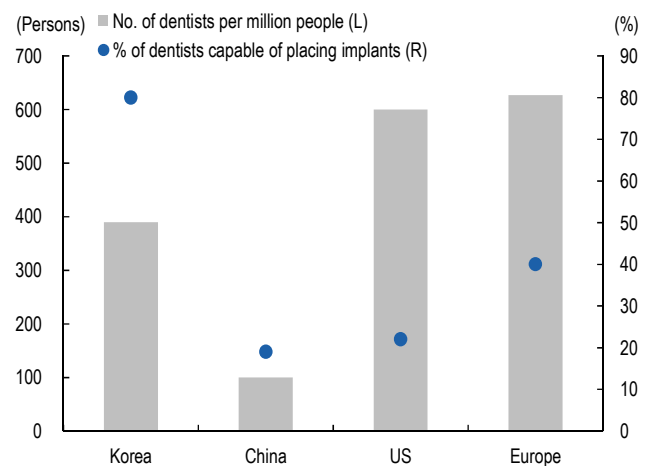
Source: Dentphoto, Mirae Asset Daewoo Research

Figure 31. Brands most widely used by dentists

Source: Dentphoto, Mirae Asset Daewoo Research

Figure 32. Implants placed per 10,000 people in key countries (2015)

Source: MRG, Straumann, Mirae Asset Daewoo Research

Figure 33. No. of dentists vs. % of dentists capable of placing implants

Source: Company data, Mirae Asset Daewoo Research

Osstem Implant (048260 KQ/Buy/TP: W74,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Revenue	398	454	516	586
Cost of Sales	166	200	225	262
Gross Profit	232	254	291	324
SG&A Expenses	210	228	245	269
Operating Profit (Adj)	22	27	46	56
Operating Profit	22	27	46	56
Non-Operating Profit	-3	-13	-4	-4
Net Financial Income	-4	-4	-4	-4
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	19	14	42	52
Income Tax	14	12	13	15
Profit from Continuing Operations	6	2	29	36
Profit from Discontinued Operations	0	0	0	0
Net Profit	6	2	29	36
Controlling Interests	10	9	29	36
Non-Controlling Interests	-4	-7	0	0
Total Comprehensive Profit	6	1	29	36
Controlling Interests	10	8	5	6
Non-Controlling Interests	-4	-6	24	30
EBITDA	31	37	56	64
FCF (Free Cash Flow)	-40	0	53	61
EBITDA Margin (%)	7.8	8.1	10.9	10.9
Operating Profit Margin (%)	5.5	5.9	8.9	9.6
Net Profit Margin (%)	2.5	2.0	5.6	6.1

Cash Flows (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Cash Flows from Op Activities	47	26	53	61
Net Profit	6	2	29	36
Non-Cash Income and Expense	23	37	26	28
Depreciation	7	8	8	7
Amortization	2	2	2	1
Others	14	27	16	20
Chg in Working Capital	14	-5	14	16
Chg in AR & Other Receivables	-8	-12	-13	-15
Chg in Inventories	-12	-14	-15	-17
Chg in AP & Other Payables	6	-7	2	2
Income Tax Paid	-5	-11	-13	-15
Cash Flows from Inv Activities	-47	-35	-5	-5
Chg in PP&E	-75	-25	0	0
Chg in Intangible Assets	-3	-2	0	0
Chg in Financial Assets	-2	-4	-5	-5
Others	33	-4	0	0
Cash Flows from Fin Activities	36	17	0	0
Chg in Financial Liabilities	36	11	0	0
Chg in Equity	0	0	0	0
Dividends Paid	0	0	0	0
Others	0	6	0	0
Increase (Decrease) in Cash	35	7	48	56
Beginning Balance	76	111	118	166
Ending Balance	111	118	166	222

Source: Company data, Mirae Asset Daewoo Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/17	12/18F	12/19F	12/20F
Current Assets	318	355	437	531
Cash and Cash Equivalents	111	118	166	222
AR & Other Receivables	82	94	108	123
Inventories	90	103	117	134
Other Current Assets	35	40	46	52
Non-Current Assets	237	256	246	238
Investments in Associates	3	3	3	3
Property, Plant and Equipment	190	209	201	193
Intangible Assets	14	13	11	10
Total Assets	556	611	684	770
Current Liabilities	352	440	483	532
AP & Other Payables	20	23	27	30
Short-Term Financial Liabilities	91	141	141	141
Other Current Liabilities	241	276	315	361
Non-Current Liabilities	83	44	45	46
Long-Term Financial Liabilities	78	39	39	39
Other Non-Current Liabilities	5	5	6	7
Total Liabilities	435	485	528	578
Controlling Interests	113	119	149	185
Capital Stock	7	7	7	7
Capital Surplus	56	56	56	56
Retained Earnings	85	91	121	157
Non-Controlling Interests	7	7	7	7
Stockholders' Equity	120	126	156	192

Forecasts/Valuations (Summarized)

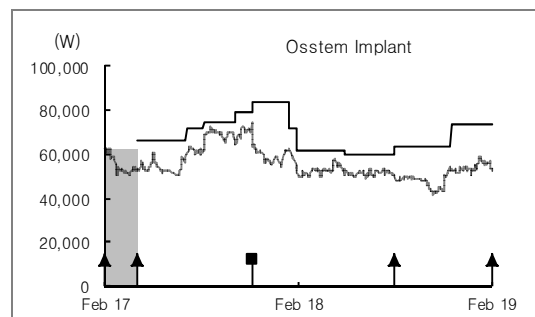
	12/17	12/18F	12/19F	12/20F
P/E (x)	83.5	82.1	25.9	21.0
P/CF (x)	29.3	19.8	13.6	11.8
P/B (x)	6.1	5.3	4.3	3.6
EV/EBITDA (x)	28.5	21.8	13.3	10.6
EPS (W)	708	652	2,046	2,526
CFPS (W)	2,015	2,697	3,894	4,488
BPS (W)	9,691	10,166	12,212	14,738
DPS (W)	0	0	0	0
Payout ratio (%)	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	15.4	14.1	13.7	13.6
EBITDA Growth (%)	-24.4	19.4	51.4	14.3
Operating Profit Growth (%)	-35.3	22.7	70.4	21.7
EPS Growth (%)	-57.0	-7.9	213.8	23.5
Accounts Receivable Turnover (x)	4.7	5.2	5.2	5.1
Inventory Turnover (x)	4.7	4.7	4.7	4.7
Accounts Payable Turnover (x)	16.2	16.7	16.5	16.8
ROA (%)	1.1	0.3	4.5	5.0
ROE (%)	9.3	8.0	21.7	21.6
ROIC (%)	4.9	2.4	23.0	32.5
Liability to Equity Ratio (%)	361.6	383.0	339.0	301.2
Current Ratio (%)	90.3	80.7	90.5	99.9
Net Debt to Equity Ratio (%)	25.0	23.7	-14.6	-43.5
Interest Coverage Ratio (x)	4.4	5.3	9.1	11.0

APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
Osstem Implant (048260)	11/26/2018	Buy	74,000
	08/12/2018	Buy	64,000
	05/08/2018	Trading Buy	60,000
	02/07/2018	Trading Buy	62,000
	01/24/2018	Trading Buy	72,000
	11/15/2017	Trading Buy	84,000
	10/15/2017	Buy	79,000
	08/15/2017	Buy	75,000
	07/14/2017	Buy	72,000
	04/11/2017	Buy	66,000
	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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