

STUDENT RESEARCH

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Medical Appliances & Equipment

Boston Scientific Corp.

Please see the disclaimer at back of this report for important information.

Ticker: • **BSX (NYSE)**

Price: • **\$17.93**

Recommendation: • **SELL**

Price Estimated: • **\$15.26**

12 Months Ending	FY 2015	Est 2016	Est 2017	Est 2018	Est 2019	Est 2020
	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Revenue (m\$)	7,477.0	7,129.4	7,332.1	7,545.7	7,771.1	8,009.3
TA (m\$)	18,133.0	17,974.4	17,895.7	18,491.9	18,496.4	18,702.3
EBITDA Margin	22.3%	24.0%	24.8%	26.5%	26.3%	27.0%
EPS	(0.18)	0.49	0.55	0.65	0.68	0.77
ROE	(0.04)	0.10	0.12	0.14	0.14	0.16

Highlights

Legal issues drive down businesses

We initiate a SELL recommendation for Boston Scientific Corporation (BSX). The estimated price for BSX as of 26 March, 2016 is \$15.26, which is downside of 17% comparing to its current market price of \$17.93.

The recommendations are driven by the following factors:

- **Loss of sales from Women Health Segment** FDA's decision to classify Transvaginal Mesh Device (TMD) - the key product in Urology & Women Health segment (accounted for 9% sales in 2015) as high risk – class 3 category will lead them to lose all of their sales from this women health segment or 7% of total sales.
- Boston Scientific was accused of importing counterfeit plastic resins from China to make the TMD product. The company has spent \$100 mm to settle legal 3,000 cases, and we expect the company will need to spend \$1,167 bn to solve 35,000 more cases outstanding. Each year will incur a litigation charge of \$233 mm.
- Company involving in **many litigation issues**, together with the lawsuits of TMD patients, are raising doubt about the company's business practice and ethical standards. \$1.1bn (15% of sales) were being spent to settle the lawsuit cases of Johnson & Johnson and Mirowski Family Ventures LLC, both are related to patenting problem.
- **Debt/Equity is currently very high at 89%**, highest among top 10 and much higher than industry average of 44.5% as well as Healthcare sector average of 69%. This led to a higher borrowing rate from 4.8% in 2014 to 5.2% in 2015. And we predict this rate of 5.2% will remain in upcoming years.
- **Unhealthy financial situation** with low Cash-to-Total Assets ratio (currently 1.8%, and forecasted 1.9% average for the next 5 years); negative or modest profit, the company may have issues repaying its debt (33% increase from \$4.6bn in 2014 to \$5.3bn in 2015). The use of revolving credit facility will keep this debt level high.

Date **26/03/2016**

Market Profile	
Ticker	BSX
Shares outstanding	1.3 bn
Market Cap	\$24.1 bn
52 w High	\$19.06
52w Low	\$14.18
Beta	1.01
Size	\$18.1 bn
Div Rate	0
EPS	-0.18

Source: Yahoo! Finance, author estimate

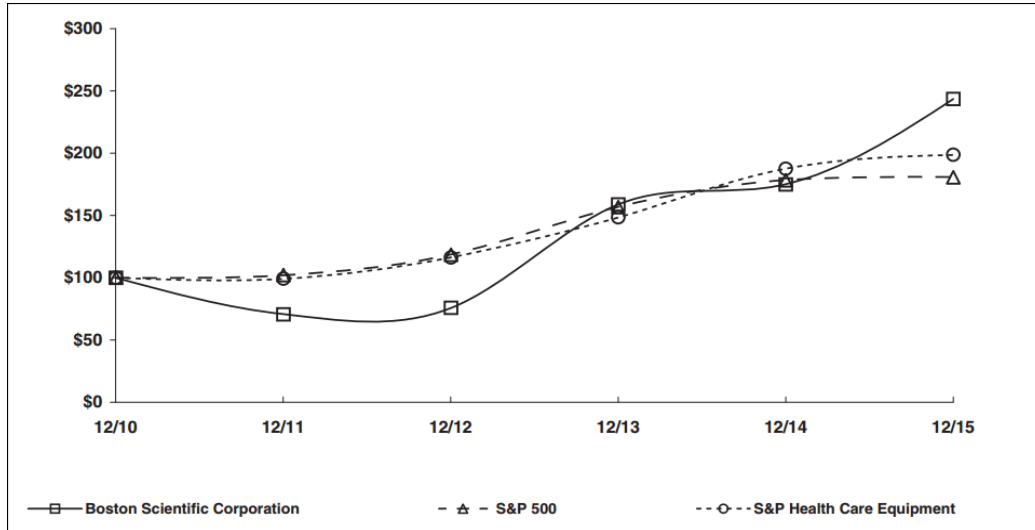


Figure 1. Relative performance of BSX against S&P 500 and S&P Health care equipment
 Assume \$100 investment in the index/ equity at year end 2010.

Source: Company 10K

Business Description

Founded in 1979 by John Abele and Pete Nicholas in Marlborough, Massachusetts, USA, Boston Scientific Corporation BSX is a worldwide developer, manufacturer and marketer of medical devices that are used in a broad range of interventional medical specialties. The company is currently competing in Medical Appliances & Equipment industry, under Healthcare sector.

BSX’s market capitalization is at \$24.1 bn, currently accounts for 0.7% of total value in Medical Appliances & Equipment industry. Market leaders in term of market cap are Abbott Laboratories, Smith & Nephew PLC and Medtronic PLC, as of 26 March 2016.

Abbott Laboratories	30.61%
Smith & Nephew PLC	28.80%
Medtronic PLC	3.05%

Boston Scientific supplies its devices in around 110 countries in the world, mainly the U.S., Europe, the Middle East, Japan, Canada, China, India and Brazil. Historically, the company has been very acquisitive in order to strategically expand its operations and sales.

The company produces various medical devices to deal with heart problems, digestive problems, women health and chronic pain disorder.

The company's sales level of 2015 was \$7.4 bn and sales are expected to drop by \$0.3 bn in 2016 due to the loss of sales from Transvaginal Mesh Device (account for 7% total sales), key product in MedSurg group. However, over the period 2016-2020, we estimate the annual sales growth rate of 2.3% due to the launch of Watchman, so called the leading solution for stroke prevention by experts & doctors, approved by FDA (Food and Drug Association) and granted national coverage certificate by CMS (Centre for medical and Medicaid Services), in US market.

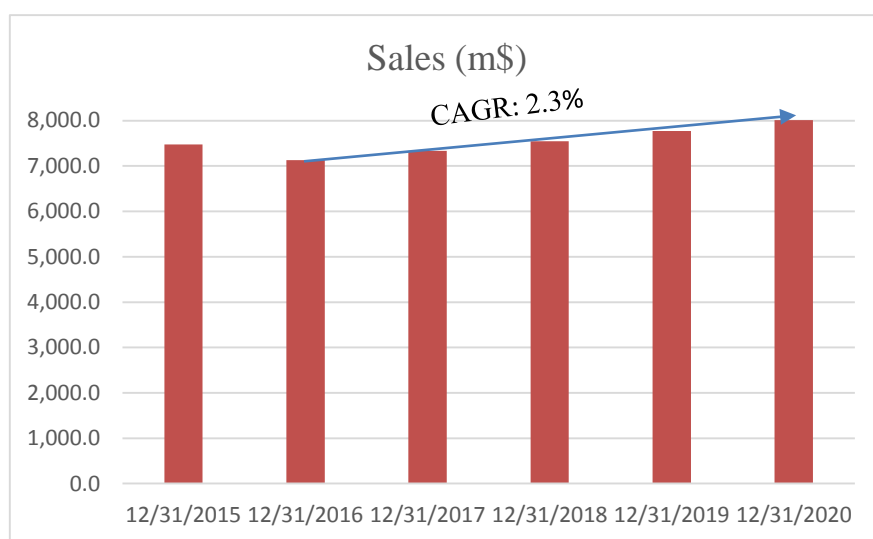


Figure 2. Sales forecast 2016-2020

Source: Bloomberg, Author estimate

Detailed analysis of each product group, as well as competitive, industry landscape in each product group will be as follows:

Products & Sales Forecast

The company are offering seven product segments, falling into three main groups:

- Cardiovascular, currently accounts for 39.3% total sales 2015
- Cardiac Rhythm Management, currently accounts for 27.3% total sales 2015
- MedSurg, currently accounts for 33.4% total sales 2015

We predict that BSX sales in the next five years 2016-2020 will grow at 2.3% per year, and this growth rate is mainly driven by two main products: Watchman (Cardiovascular group) and Transvaginal Mesh Device (Medsurg group).

Cardiovascular

The cardiovascular group comprises of Interventional Cardiology (27.2% total sales) and Peripheral Interventions (12.1% total sales). This group experienced a negative sales growth at -2.2% per year during the period 2011-2015. However, over the period 2016-2020, we predict an average growth of 3.7 % per year for this group due to the launch of Watchman stroke prevention device, the first product of its kind to deal with this type of heart problem.

The first segment is **Interventional Cardiology**. For this segment, we predict an increase in sales at 3.4% per year over 2016-2020 due to the launch of watchman. Watchman is considered the **key growth driver** of Boston Scientific over the upcoming years. Watchman is the only stroke prevention device in the market at the moment. The product was out in international market outside of US from 2009 but patients and doctors have been using this device with caution since the product had not received FDA approval. Until March 2015, after two failed attempts, Watchman received FDA Approval to be sold in US market. Feb 2016, Watchman received national coverage certificate by CMS after being limited to be used only in clinical trials in October 2015.

This approval serves as a quality certificate, which helps firms grab the highly potential market, which currently worth \$2.7 bn.

First, in the US, currently there are 2.5 million people with atrial fibrillation, create a market of around \$2.7 bn. It is expected that each year, there will be additional 100 million people having atrial fibrillation, representing 4% growth each year. Two main treatment for this is pharmacological (warfarin) and non-pharmacological. 30% of people having atrial fibrillation are not eligible for warfarin as they experience serious bleeding as side effect. We predict that Watchman will successfully grab 60% of this market and generate around \$500 mm in revenue over 5 years, with each year increase of \$100 mm. The 60% is due to doctors' expectation.

We make an assumption here that international sales of Watchman will not change materially. This is due to the long existence of Watchman in international market regardless of FDA Approval.

The other segment in this group is Peripheral Interventions. This business segment has been growing at a steady rate of around 5.5% per year from 2011- 2015. Without any plan or changes from the company and the industry, we predict this segment will continue this growth rate of 5.5% in the next five years.

Summary of sales forecast for this group:

In Millions of USD		FY 2014	FY 2015	Est.2016	Est.2017	Est.2018	Est.2019	Est.2020
Revenue		7,380.0	7,477.0	7,129.4	7,332.1	7,545.7	7,771.1	8,009.3
Cardiovascular		2,953.0	2,937.0	3,086.4	3,238.5	3,393.4	3,551.3	3,712.4
	% Sales	40.0%	39.3%	43.3%	44.2%	45.0%	45.7%	46.4%
Interventional Cardiology		2,092.0	2,033.0	2,133.0	2,233.0	2,333.0	2,433.0	2,533.0
	% Sales	28.3%	27.2%	29.9%	30.5%	30.9%	31.3%	31.6%
Peripheral Interventions		861.0	904.0	953.4	1,005.5	1,060.4	1,118.3	1,179.4
	% Sales	11.7%	12.1%	13.4%	13.7%	14.1%	14.4%	14.7%

Table I. Sales forecast: Cardiovascular.

Source: Bloomberg, Author estimates

MedSurg

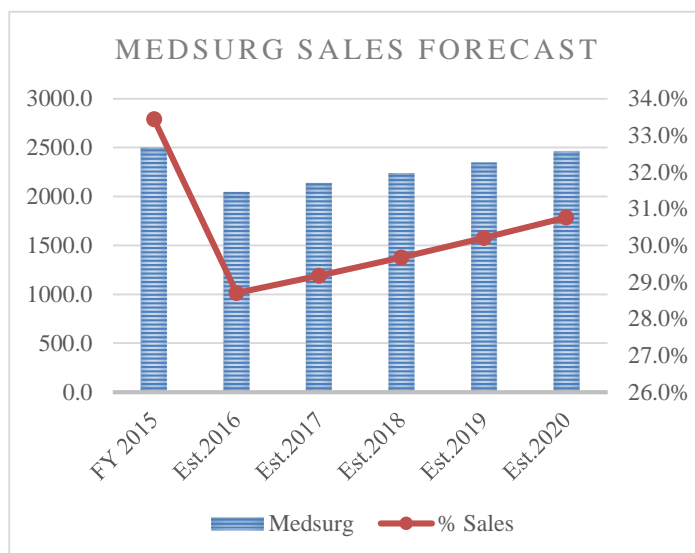
MedSurg is the second largest group in BSX's revenue, which currently accounted for 33.4% total sales in 2015. However, over the period 2016-2020, we predict a big drop in sales from \$2.5bn in 2015 to \$2.2bn in 2020, with a sales shock in 2016 of 24% decrease.

The decrease in sales mainly comes from Urology & Women Health segment with

the loss of sales from Transvaginal Mesh Device (7% total sales). We predict the company will lose complete sales of this product due the following reasons:

- FDA (Food and Drug Administration) classified Transvaginal mesh device as high risk – class 3 category (Class 2: medium risk).
- The situation is worse when Boston Scientific was accused of importing counterfeit plastic resins from China to make vaginal mesh.

As reported, this device has been implanted in women's body of more than 38,000 patients. In 2015, the company has to use \$100 mm to settle 3,000 cases of Transvaginal implants, and we expect the company will need to spend \$1,167 bn ($\$100m \times 35,000 / 3,000$) to solve 35,000 more cases outstanding. Each year will incur a litigation charge of \$233 mm.



The immediate impact on sales will be the loss of this Women Health segment as customers will not use product any more, and this further raise doubt about the company's business practice and ethical standards. The Urology & Women Health segment will represent only around 2% of total sales in upcoming year, after deducting 7% sales from Transvaginal product.

In Millions of USD		FY 2014 12/31/2014	FY 2015 12/31/2015	Est.2016 12/31/2016	Est.2017 12/31/2017	Est.2018 12/31/2018	Est.2019 12/31/2019	Est.2020 12/31/2020
Medsurg		2,359.0	2,500.0	2,013.9	2,073.6	2,139.7	2,213.0	2,294.1
	<i>% Sales</i>	31.6%	33.4%	28.7%	29.2%	29.7%	30.2%	30.8%
Endoscopy		1,343.0	1,306.0	1306.0	1306.0	1306.0	1306.0	1306.0
	<i>% Sales</i>	18.0%	17.5%	18.8%	18.7%	18.6%	18.5%	18.4%
Urology & Women Health		542.0	693.0	153.0	153.0	153.0	153.0	153.0
	<i>% Sales</i>	7.3%	9.3%	2.1%	2.1%	2.0%	2.0%	1.9%
Neuromodulation		474.0	501.0	554.9	614.6	680.7	753.9	835.1
	<i>% Sales</i>	6.3%	6.7%	7.8%	8.4%	9.0%	9.7%	10.4%
Divested Businesses		4.0	0.0	0.0	0.0	0.0	0.0	0.0
	<i>% Sales</i>	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table II. Sales forecast: MedSurg

Source: Bloomberg, Author Estimate

For Endoscopy and Neuromodulation segments, without any changes or other information from the industry and the company, we use average 5 year growth rate of 2.5% and 10% respectively to forecast future sales. The result of this group is presented in table 3.

Cardiac Rhythm Management

The company has been struggling with this segment for years. Sales from this segment has been declining consistently from 2011-2015 at rate of -1.1% per year. Since we see no improvements from the market as well as no new action taken by the company, therefore, we predict the decline of 1.1% per year.

Final sales forecast is as follows:

Items	FY 2014	FY 2015	Est.2016	Est.2017	Est.2018	Est.2019	Est.2020
Total Sales	7,380.0	7,477.0	7,333.4	7,515.9	8,037.1	8,691.6	9,519.6
<i>% Sales</i>	100%	100%	100%	100%	100%	100%	100%
Cardiovascular	2,953.0	2,937.0	3,322.6	3,487.6	3,984.0	4,605.7	5,392.2
<i>% Sales</i>	34.7%	32.8%	39.3%	39.6%	39.3%	45.3%	46.4%
Cardiac Rhythm Management	2,150.0	2,040.0	1,996.9	1,954.7	1,913.4	1,872.9	1,833.3
<i>% Sales</i>	24.0%	22.8%	28.6%	28.8%	27.3%	27.2%	26.0%

Medsurg	2,359.0	2,500.0	2,013.9	2,073.6	2,139.7	2,213.0	2,294.1
% Sales	21.7%	23.5%	31.4%	31.6%	33.4%	27.5%	27.6%

Table III. Sales forecast: Total sales

Source: Bloomberg, Company report, Author estimates

Margin

Gross margin: The Company has gross margin of 71% in 2015, which is an improvement from a gross margin of 67% in 2011. This is the result of the manufacturing cost reduction of 1.8% per year in recent years through restructuring. We predict the company will maintain this gross margin over upcoming years.

Operating margin: The company had operating margin of 15.7% in 2015 or adjusted margin of 22.3% (adjusted for Depreciation & Amortization), which presents a significant improvement of 11% comparing to 2014. With this performance, we predict company will maintain this driver and fully achieve its target of expanding adjusted operating margin to 25% by 2017 and 27% to 28% percent by 2020.

R&D/Sales: The Company always keep R&D/Sales level of around 11-12% to maintain its innovation. The future R&D/ sales will remain at this level. However, it is worth mentioned that majority of key products, including Watchman or even Transvaginal Mesh product are result of acquisitions. The company's innovation investment do not seem to deliver any "organic" result.

Profit Margin

The prediction of gross margin and operating margin are straight forward. However, net income margin are largely affected by abnormal losses (restructuring charges, litigation charges), therefore, need to be carefully addressed. Profit Margin of BSX has been negative at -1.6% and -3.1% in 2014 and 2015 respectively due to the large litigation charge of \$1.1bn (15% Total revenue). Adjusted Profit margin level are around 10% in these two years. We predict that profit margin will be at 9% in 2016 and consistently improve over the next 5 years.

The following items will have significant impact on our prediction of company's profit margin over 2016-2020:

- **Litigation charges:** Boston Scientific was accused of importing counterfeit plastic resins from China to make the TMD product. The company has spent \$100m to settle 3000 cases,

and we expect the company will need to spend \$1,167 bn to solve 35,000 more cases outstanding. Each year will incur a litigation charge of \$233 m

Also in 2015, company spent nearly a billion dollar to settle the lawsuit cases of Johnson & Johnson and Mirowski Family Ventures LLC, both are related to patenting problem. However, we predict this is non- recurring item, and in 2016, the income will revert back to normal.

Overall, the legal issues are causing big trouble for Boston Scientific as customers are losing faith in the company's business practices as well as ethical standards. However, as BSX receives both FDA approvals and CMS coverage for its new product in the same year, we predict this "belief" problem can somehow be resolved.

Restructuring charge: According to restructuring plan in 2014, the restructuring cost incur in 2016 will be around \$255 mm to \$270 mm. I keep my conservative point in doing valuation by using \$270 mm as restructuring cost in 2016.

Dividend payout

Company did not pay cash dividend in 2014 and 2015 and do not intend to do so in the future. Therefore, there will no dividend in calculating retained earnings

Capital Structure

Debt/Equity ratio: Highest among top 10 largest firms of 89.9% in 2015. D/E ratio of BSX is currently higher than industry average of 44.9% and sector average of 69%

At the end 2015, the debt level is at \$5.677 bn, increase by 33% comparing to 2014 level of \$4,244bn. This led to higher borrowing rate of 5.2% on average in 2015 comparing to 4.8% in 2014.

Our prediction for the future debt level: Based on the maturity date of these debts, and assume that company is able to make payment on time, we subtract the debt level from the expected debt matured and arrive at the final debt forecast. However, this assumption seems infeasible since the company will be shortage of cash in 2018-2020, in 2020 will be negative of \$1.1 bn. Therefore, alternative forecast is that the company will finance this debt using another credit facility revolving. So we assume the long term debt will be repaid in full of \$335 mm in 2016 when the debt is small, but in subsequent years, debt will be revolved and

remain at \$5.2 bn. This result in Debt/Equity ratio forecast of 69%, which is in line with sector average.

Further note about the credit rating of the company: Latest rating from S&P and Moody for BSX's new senior note offering is BBB- and Baaa3 respectively. Both rating agencies shows concern about the company's outstanding litigation and tax liabilities. Moody expects BSX to deleverage and bring Debt/EBITDA to 3x with 12-18 months but it is difficult given the current low cash and litigation cost. This is in line with our concern above.

Interest is calculated based on the current average borrowing rate of 5.2%.

PPE

PPE in 2015 is \$247 mm, estimated in 2016 is \$350 mm (company's plan) and remain at this level in future years (straight line).

Other items in Balance sheet:

Standard items like Accounts Payable, Accounts Receivable will be tied to sales.

Items like goodwill and other intangible assets are subject to impairment each year, we use straight line method to forecast these item

Other assets/liability in the balance sheet is either tied to sales (proportion of sales, average) or tied to growth in net income appropriately

Valuation

We employ two-stage Discounted Cash Flow model to value BSX and derive a value of \$15.26 per share, which shows a downside potential of 19% compared to the current market price of \$17.93 per share.

The first stage is from 2016-2020. I use the forecast above to estimate FCFF over the period.

The second stage of perpetuity growth from 2020 onwards.

For Boston Scientific, earnings were negative, resulting in negative P/E 2015, which makes it inappropriate to use P/E to conduct valuation.

FCFF calculation	Est.2016	Est.2017	Est.2018	Est.2019	Est.2020
EBIT	1,247.7	1,283.1	1,396.0	1,437.7	1,481.7
EBIT(1-tax)	995.6	1,023.9	1,114.0	1,147.3	1,182.4
Depre	463.4	476.6	490.5	505.1	520.6
Capital spending	350.0	350.0	350.0	350.0	350.0
Increase in NWC	(157.3)	(222.7)	228.9	178.9	(88.6)
FCFF	1,266	1,373	1,026	1,124	1,442
Discounted FCFF	1182.9	1198.2	835.9	855.4	1025.2

Terminal value calculation:

To estimate the perpetuity growth rate, we base on the following assumptions:

- The company will finish all litigation issue related to Transvaginal product and there are no litigation charge from 2020 onwards.
- We predict, after 2020, when Watchman becomes more popular in the US market, it will obtain further 15% in market share of 30% patients who are not eligible to use warfarin. (Prior assumption is that Watchman only have 60% share of this 30% market size). This prediction is based on the forecast of doctors on the rate
- The “organic” growth rate in cash flow will apply, which mean no further abnormal loss. We re-estimate the growth rate in FCFF from 2016-2020 with assumption of no litigation issue & assumption about sales of Watchman (add back \$233m from EBIT and add sales from Watchman of 15% of 30% market share), we derive organic rate of growth of 4.3% in FCFF. This will be use as terminal growth rate.

Final value per share is calculated as follows

Firm value	43903.53		
MV(Debt value)	23372.56		Share floating
Equity value	20530.98		1345
Price per share	15.26		

The assumption that Watchman will earn 75% share out of 30% patients who cannot use warfarin from 2020 onward seems a bit optimistic since profit is going to be driven down by competition. Yet the price already lower than the market price. For this reason, we believe that Boston scientific is being overpriced.

Other key assumptions when estimating WACC:

WACC calculation	7.06%			
Rd	5.20%		D/(E+D)	41%
Re	9.07%		E/(E+D)	59%
rf	4.35%		beta	1.00887
rm	9.03%			

Beta: Regression of two year daily returns of BSX over S&P 500 returns. I only use two year for the purpose of having an updated beta

Rm: Market return for period from 2006-2016

Rf: 10 year T bond rate from

<http://www.stern.nyu.edu/~adamodar/pc/datasets/histretSP.xls>,

Financial Analysis

There are several points to note in this financial health of this company:

- The company consistently had negative EPS over the past 5 years, which is a big concern for investors

Year	2011	2012	2013	2014	2015
Basic EPS	0.29	-2.89	-0.09	-0.09	-0.18

Our assumption of organic growth, if held true, will significantly improve EPS, turn it into positive.

- Low cash ratio: Consistently low cash ration of around 1.5% really creates trouble for this company. With high demand from R&D investment, the company will not be able to quickly catch investment opportunity.

- As resulting from low cash ratio, the dividend has been cut off. The company did not pay dividend for years and have no intention of paying in the future. Therefore, the company will not attract investors who like dividends. This will likely affect the future stock issuance, if any.
- High debt level and low earnings jointly create trouble for the company. The company will potentially: face higher borrowing rate, be unable to repay debts if litigation expenses continue to rise. The fact that the company is involved in many litigations raises a concern about the abnormality of litigation charge. If this litigation charge turns into normal (I mean, if this happens three year continuously). This is not impossible since the company declares it has received Notices of Deficiency from Internal Revenue Service reflecting audit adjustment for Guidant Corporation that it acquired in 2006. Incremental tax ability is of \$1.162 bn. However, the case is not heard by the Court until later 2016, and BSX has strong evidence to back up and high chance to win, as stated in the 10-K report, I hold my optimistic view about the result of the case. Noted that if the court result is against BSX, the price of PSX is even lower than estimated price of \$15.26. The SELL recommendation holds.

Competitors

The industry is quite concentrated with HHI index of more than 1900. BSX ranks 9th among the top 10 in term of market cap. Direct competitors of BSX (as stated in report 10-K) in Medical Appliances & Equipment are Medtronic plc, Abbot Laboratories, Johnson and Johnson. Let just use Industry average as reference (I do not recommend readers to rely on it since BSX is in top 10 and majority of other firms are too small, the comparison may not be correct).

Comparing to three direct competitors, BSX has lower operating margin. It is the only company in top 10 (and hence, top 3) has negative net income, result in negative EPS and P/E.

	BSX	MDT	ABT	JNJ	Industry average
Market Cap:	24.18B	103.63B	60.79B	298.76B	104.10M
Employees:	25,000	85,000	74,000	127,100	147

Qtrly Rev Growth (yoy):	0.05	0.62	-0.03	-0.02	0.18
Revenue (ttm):	7.40B	25.82B	20.40B	70.07B	34.93M
Gross Margin (ttm):	0.72	0.7	0.57	0.69	0.58
EBITDA (ttm):	1.85B	7.71B	4.46B	22.12B	-1.24M
Operating Margin (ttm):	0.15	0.21	0.15	0.26	-0.13
Net Income (ttm):	-239.00M	2.32B	2.59B	15.41B	N/A
EPS (ttm):	-0.18	1.75	2.93	5.48	N/A
P/E (ttm):	<0	42.27	13.92	19.77	25.83
PEG (5 yr expected):	1.43	2.63	1.99	3.13	1.46
P/S (ttm):	3.31	4.06	2.94	4.27	2.94

Source: Yahoo! Finance

Competitive landscape at a glance (for reference only):

Company name	Ticket	Segment name	% of Total revenue	Market share
Boston Scientific Corporation	BSX	Endosurgery	19.77%	11.87%
COVIDIEN LTD.	COV	Medical Devices	84.81%	74.69%
MEDTRONIC, INC.	MDT	Surgical Technologies	9.39%	13.44%
Boston Scientific Corporation	BSX	Cardiovascular	30.09%	42.58%
MEDTRONIC, INC.	MDT	Cardiovascular	17.02%	57.42%
Boston Scientific Corporation	BSX	Neuromodulation	6.99%	20.58%
MEDTRONIC, INC.	MDT	Neuromodulation	11.31%	79.42%
Boston Scientific Corporation	BSX	Cardiac Rhythm Management	26.38%	26.79%
MEDTRONIC, INC.	MDT	Cardiac Rhythm Management	30.23%	73.21%

Table IV. Market share of BSX in some business segments, 2015

Source: CSI (Company, Sector, Industry analysis)

References

Yahoo Finance

Bloomberg

Company report available at: <http://www.bostonscientific.com/en-US/home.html>

CSI: <http://csimarket.com/>

<http://www.fiercemedicaldevices.com/story/watchman-study-author-says-its-better-warfarin-preventing-hemorrhagic-strok/2015-06-16>

<http://www.bostonscientific.com/en-US/products/laac-system/watchman-device.html>

Appendices

1. Pro forma Income Statement

In Millions of USD except Per Share	FY 2015	Est 2016	Est 2017	Est 2018	Est 2019	Est 2020
12 Months Ending	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Revenue	7,477.0	7,129.4	7,332.1	7,545.7	7,771.1	8,009.3
+ Cost of Goods & Services	2,093.0	2,210.13	2,215.80	2,149.33	2,231.91	2,242.45
(% Revenue)	28.0%	31%	30%	28%	29%	28%
Gross Profit	5,384.0	4,919.3	5,116.3	5,396.4	5,539.2	5,766.9
- Operating Expenses	4,209.0	3,636.0	3,739.4	3,848.3	3,963.3	4,084.8
+ Selling, General & Admin	2,794.0	2,424.0	2,492.9	2,565.5	2,642.2	2,723.2
+ Research & Development	850.0	784.2	806.5	830.0	854.8	881.0
+ Depreciation & Amortization	495.0	427.8	439.9	452.7	466.3	480.6
Operating Income (Loss)	1,175.0	1,283.30	1,376.92	1,548.07	1,575.95	1,682.13
- Non-Operating (Income) Loss	274.0	232	225	214	192	153
+ <i>Interest Expense</i>	280.0	232	225	214	192	153
Pretax Income (Loss), Adjusted	901.0	1,051.30	1,151.92	1,334.07	1,383.95	1,529.13
- Abnormal Losses (Gains)	1,551.0	233	233	233	233	233
+ Legal Settlement	1,105.0	233	233	233	233	233
+ Restructuring	83.0	270	0	0	0	0

Pretax Income (Loss), GAAP	-650.0	818.30	918.92	1,101.07	1,150.95	1,296.13
- Income Tax Expense (Benefit)	-411.0	165.30	185.62	222.42	232.49	261.82
Net Income, GAAP	-239.0	653.00	733.30	878.65	918.46	1,034.31

2. Pro forma Balance sheet

In Millions of USD except Per Share	FY 2015	Est. 2016	Est. 2017	Est. 2018	Est. 2019	Est. 2020
12 Months Ending	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Total Assets						
+ Cash, Cash Equivalents & STI	319.0	157.7	13.1	539.8	471.0	599.4
+ Accounts & Notes Receiv	1,275.0	1215.7	1250.3	1286.7	1325.2	1365.8
+ Inventories	1,016.0	968.8	996.3	1025.3	1056.0	1088.3
+ Derivative & Hedging Assets	237.0	237.0	237.0	237.0	237.0	237.0
+ Deferred Tax Assets	496.0	496.0	496.0	496.0	496.0	496.0
+ Misc ST Assets	365.0	134.2	138.0	142.1	146.3	150.8
Total Current Assets	3,471.0	3,209.4	3,130.7	3,726.9	3,731.4	3,937.3
+ Property, Plant & Equip, Net	1,490.0	1,593.0	1,593.0	1,593.0	1,593.0	1,593.0
+ Other LT Assets	13,172.0	13,172.0	13,172.0	13,172.0	13,172.0	13,172.0
+ Total Intangible Assets	12,667.0	12,667.0	12,667.0	12,667.0	12,667.0	12,667.0
+ <i>Goodwill</i>	6,473.0	6,473.0	6,473.0	6,473.0	6,473.0	6,473.0
+ <i>Other Intangible Assets</i>	6,194.0	6,194.0	6,194.0	6,194.0	6,194.0	6,194.0
+ Derivative & Hedging Assets	—	0.0	0.0	0.0	0.0	0.0
+ Misc LT Assets	505.0	505.0	505.0	505.0	505.0	505.0
Total Noncurrent Assets	14,662.0	14,765.0	14,765.0	14,765.0	14,765.0	14,765.0
Total Assets	18,133.0	17,974.4	17,895.7	18,491.9	18,496.4	18,702.3

Liabilities & Shareholders' Equity						
+ Payables & Accruals	2,179.0	2077.7113	2136.767225	2199.02195	2264.722528	2334.140407
+ ST Debt	3.0	0.0	85	390	150	375
+ Other ST Liabilities	248.0	248.0	248.0	248.0	248.0	248.0
Total Current Liabilities	2,430.0	2,325.7	2,469.8	2,837.0	2,662.7	2,957.1
+ LT Debt	5,674.0	5674	5424	5424	5424	5424
+ LT Borrowings	5,674.0					
+ Other LT Liabilities	3,709.0	3,709.0	3,769.9	3,947.4	4,038.8	4,157.9
+ Deferred Tax Liabilities	735.0	735.0	795.879648	973.432557	1064.770955	1183.865868
+ Derivatives & Hedging	—	0.0	0.0	0.0	0.0	0.0
+ Misc LT Liabilities	2,974.0	2,974.0	2,974.0	2,974.0	2,974.0	2,974.0
Total Noncurrent Liabilities	9,383.0	9,383.0	9,193.9	9,371.4	9,462.8	9,581.9
Total Liabilities	11,813.0	11,708.7	11,663.6	12,208.5	12,125.5	12,539.0
+ Share Capital & APIC	16,876.0	16,876.0	16,876.0	16,876.0	16,876.0	16,876.0
+ Common Stock	16.0	16.0	16.0	16.0	16.0	16.0
+ Additional Paid in Capital	16,860.0	16,860.0	16,860.0	16,860.0	16,860.0	16,860.0
- Treasury Stock	1,717.0	1,717.0	1,717.0	1,717.0	1,717.0	1,717.0
+ Retained Earnings	-8,927.0	(8,981.32)	(9,014.92)	(8,963.59)	(8,876.07)	(8,737.74)
+ Other Equity	88.0	88.0	88.0	88.0	88.0	88.0
Equity Before Minority Interest	6,320.0	6,265.7	6,232.1	6,283.4	6,370.9	6,509.3
+ Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0
Total Equity	6,320.0	6,265.7	6,232.1	6,283.4	6,370.9	6,509.3
Total Liabilities & Equity	18,133.0	17,974.4	17,895.7	18,491.9	18,496.4	18702.3

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