

VALUE FOCUS

Medical Device Industry



Fourth Quarter 2017

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Executive Summary

A couple of months ago, Mercer Capital's medical device team attended [a conference focused on the musculoskeletal sub-segment](#) in our home-base of Memphis, Tennessee. A speaker highlighted a few observations regarding new medical technology IPOs that might be of interest for companies contemplating fund-raising in the public markets:

- » In general, medical technology IPOs were sparse in 2017, punctuated by three offerings in October.
- » Upon coming to market, however, each of these offerings were several times oversubscribed, suggesting an appetite for quality names that can make it through the offering process.
- » The speaker identified two profiles for companies that have had success going public in recent years. Smaller companies (revenues between \$20 million and \$100 million) could be attractive if revenue is projected to grow rapidly (in excess of 20% annually). In the alternative, relatively larger companies (revenues exceeding \$100 million) with lower projected growth (between 10% to 20% annual revenue growth) could also be attractive if they are EBITDA-positive.

Our review of related data, which admittedly includes a significant proportion of companies with no revenues, suggests returns from investments in recent IPOs in the broader sector were decidedly mixed but positive returns were generally correlated with (projected) high growth and/or positive EBITDA. (See [Medical Device IPOs section](#) on page 8.)

With early-stage funding for the segment seemingly on the mend but exit activity still appearing anemic (see the [Venture Capital Funding and Exit section](#) on pages 6-7), potential reception of public market investors at the time of going public will surely be an area of continued interest for development-stage medical device companies in the coming years.

As usual, this edition of the medical device quarterly update includes a review of public company returns by sub-sector, select operating metrics, trends in implied valuation multiples, and a summary of transactions in the space. In addition, we also feature a section devoted to a broad overview of the orthopedic and spine sub-sector.

Mercer Capital has broad experience in providing valuation services to medical device start-ups, larger public and private companies, and private equity and venture capital funds involved in the sector. Please contact us to learn how we can be of help.

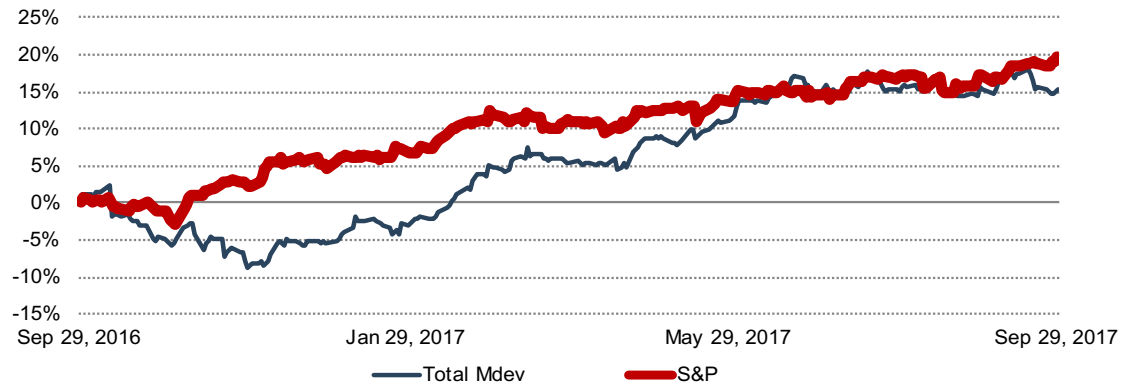
Stock Market Performance

The medical device sector slightly lagged broader markets over the trailing twelve months to the end of 3Q17. In aggregate, total shareholder returns (price appreciation and dividends) for medical device companies were 15.2%, compared to 19.6% for the S&P 500 over the period. Medical device companies did realize strong year-to-date performance (a 21.9% increase) through the end of 3Q17 that outpaced total returns for the S&P 500 (14.2%).

The cardiovascular sub-sector gained the most over the year to the end of 3Q17, with total returns north of 30%. IVD and large diversified companies (included in Mercer Capital groups) gained 23.6% and 13.6%, respectively, over the same period. Orthopedic-focused medical device companies had the worst aggregate performance, with total returns of negative 3.1% over the twelve months to the end of 3Q17.

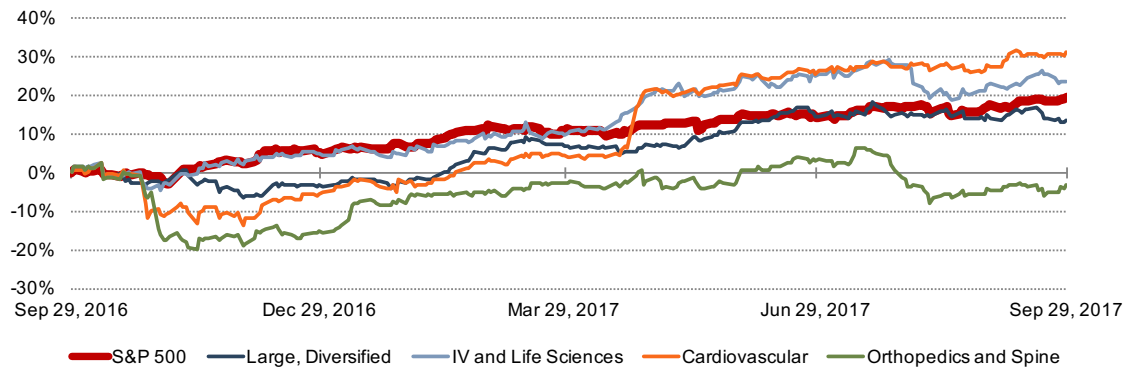
- » IVD companies returned 18.4% year-to-date (first three quarters of 2017). OraSure Technologies gained over 150% year-to-date and nearly 200% YOY to 3Q17. Other companies with large year-to-date returns included Quidel (104.8%) and Bruker (50.9%).
- » Cardiovascular companies returned a collective 31.3% from 3Q16 to 3Q17. The segment also reported nearly 40% returns year-to-date. C.R. Bard's price appreciated significantly following Becton Dickinson's announcement to acquire the company. The transaction is expected to close in the fourth quarter of 2017. Merit Medical (78.2%) also had strong total returns over the year.
- » The orthopedics segment generally tracked broader markets year-to-date on a total return basis (14.6% compared to 14.2% for the S&P 500). However, weakness in 4Q16 led to YOY collective returns of negative 3.1%. Zimmer Biomet's stock price has continued to lag other orthopedic players, coinciding with product supply chain issues and management turnover. Nuvasive (15.7%) also had negative returns over the year stemming from company specific issues. Smith & Nephew (14.6%), Integra Lifesciences (22.0%), and a number of smaller companies did register positive returns over the year, following broader medical device performance trends.
- » The group of large, diversified companies returned 13.6% in the year prior to 3Q17, trailing the S&P 500 over the same period. The group did outperform broader markets year-to-date (17.8% compared to 14.2%) following a weak 4Q16. Abbott (41.5%), Baxter International (42.6%), and Boston Scientific (34.9%) realized the largest year-to-date returns among the large segment.

Industry Stock Price Movement



Represents market capitalization weighted index of all Med Device companies followed by Mercer Capital.
 Source: Bloomberg, Mercer Capital analysis

Sector Stock Price Movement



Individual sub-sectors performance represented by market capitalization weighted indexes for each group. IVD group presented exclusive of ILMN
 Source: Bloomberg, Mercer Capital analysis

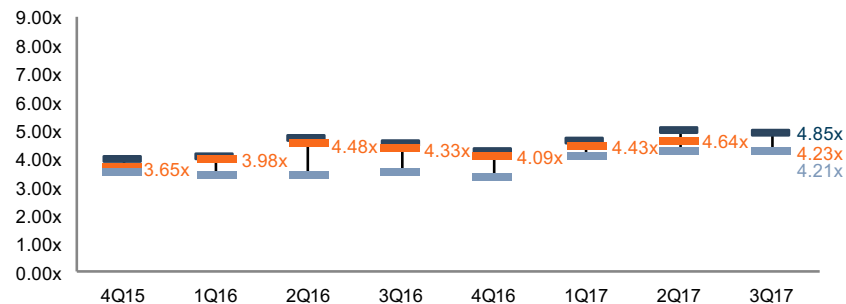
Revenue Multiples

■ 75% Quartile ■ Median ■ 25% Quartile

Median Revenue multiples from each MCM group. Data source: Bloomberg

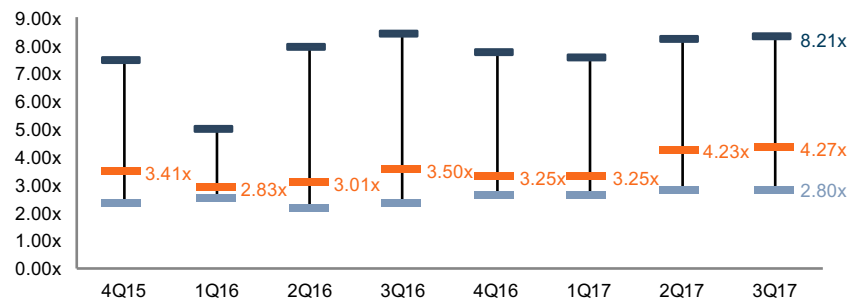
Large Diversified

EV / Trailing LTM EBITDA



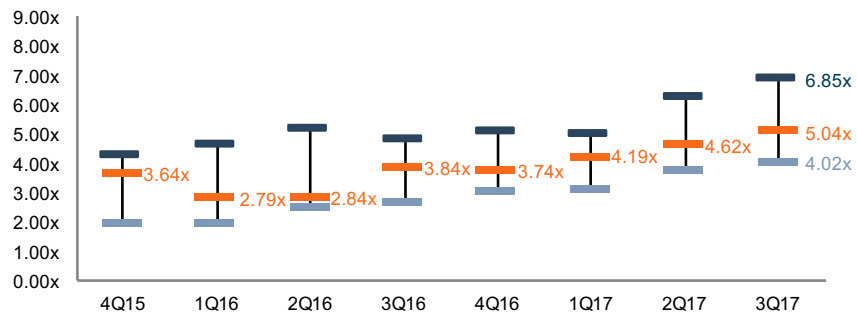
IVD and Life Sciences

EV / Trailing LTM EBITDA



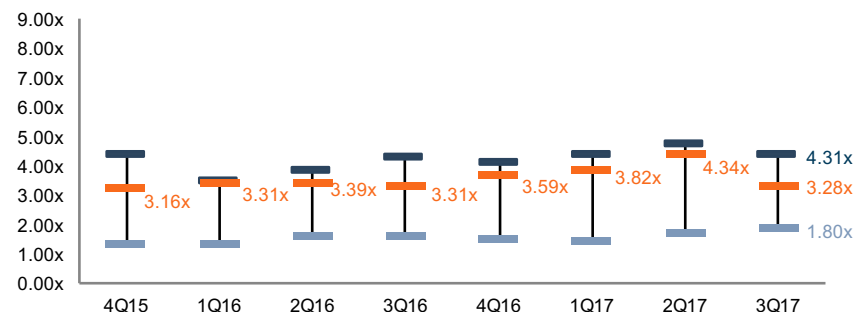
Cardiovascular

EV / Trailing LTM EBITDA



Orthopedics

EV / Trailing LTM EBITDA



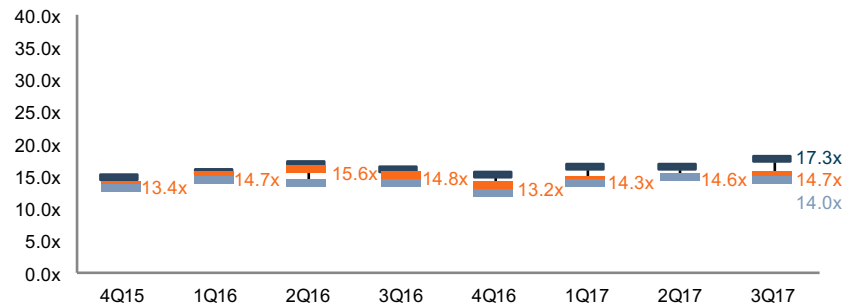
EBITDA Multiples

■ 75% Quartile ■ Median ■ 25% Quartile

Median Revenue multiples from each MCM group. Data source: Bloomberg

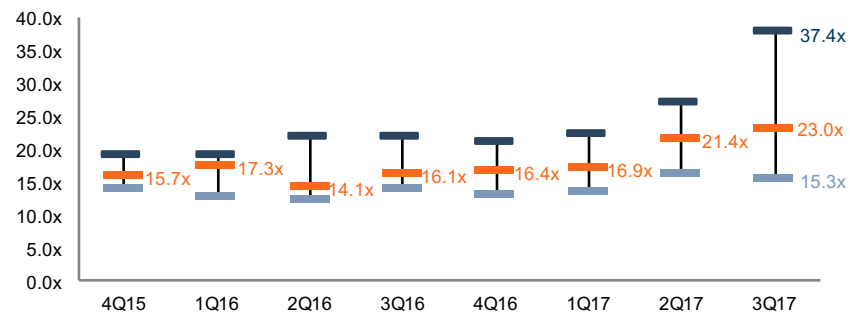
Large Diversified

EV / Trailing LTM Revenue



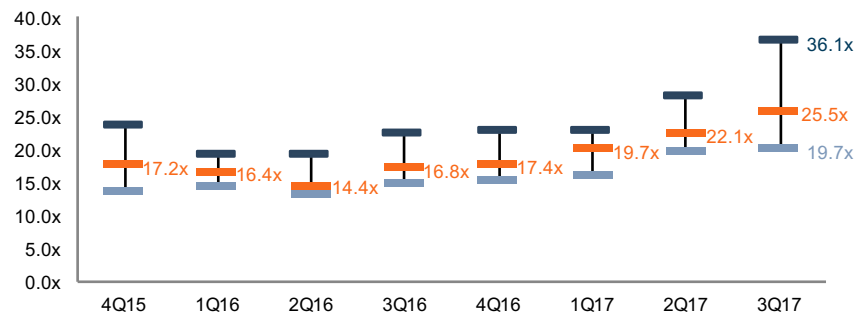
IVD and Life Sciences

EV / Trailing LTM Revenue



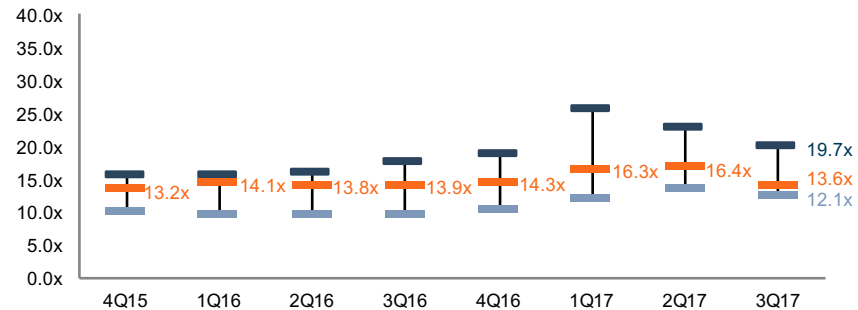
Cardiovascular

EV / Trailing LTM Revenue



Orthopedics

EV / Trailing LTM Revenue

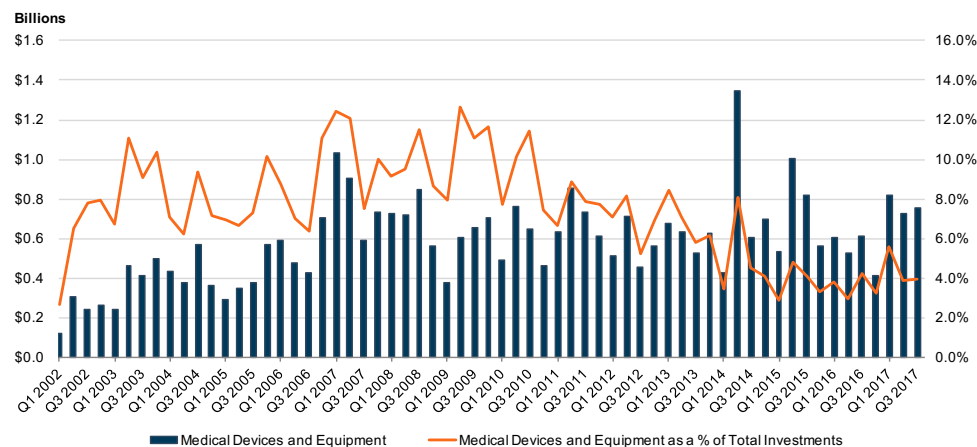


Venture Capital Funding & Exit Activity

Venture Capital funding in medical device companies rose in 3Q17 compared to the prior quarter, increasing 3.7% to \$752 million. Funding during the quarter was also above the recent two year average (\$646.9 million). The increase in the quarter was primarily attributable to a large funding round of \$280M to Auris Surgical Robotics, Inc. Medical device deal volume, however, declined slightly to 48 in 3Q17 compared to 54 in the prior quarter. VC investments in medical device companies accounted for 4.0% of all VC investments during 3Q17 compared to 3.8% in the prior quarter.

Overall healthcare VC funding remains robust at \$3.2 billion in the quarter and \$10.3 billion through the first three quarters of 2017. At the current rate, VC funding directed towards healthcare in 2017 will represent its highest absolute level since the PwC MoneyTree publication began. Deal numbers were relatively constant with an increase of 2% from the prior quarter, with 171 Healthcare deals closing in 3Q17. The average deal value also increased from \$18.0 million in 2Q17 to \$18.6 million in 3Q17.

Venture Capital Investments in Medical Devices

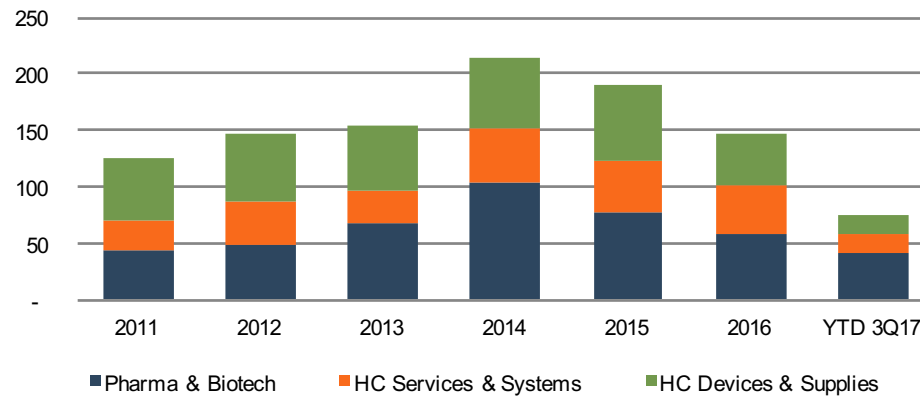


Data Source: MoneyTree Report; PwC/NVCA, Thomson Reuters, Mercer Capital analysis

Venture Capital Funding & Exit Activity (continued)

VC exit activity, which includes acquisitions, secondary buyouts, and IPOs continues to gradually decline from heightened levels seen over the last few years. Total VC exit value totaled \$36.5 billion year-to-date, and 530 exits have been completed through 3Q17. Healthcare, including medical devices, has not been immune to these trends, seeing exit volume decline over the last several periods. At the current rate, 2017 will represent the lowest exit volume for healthcare since 2009.

U.S. Venture-Backed Exits (#) by Sector

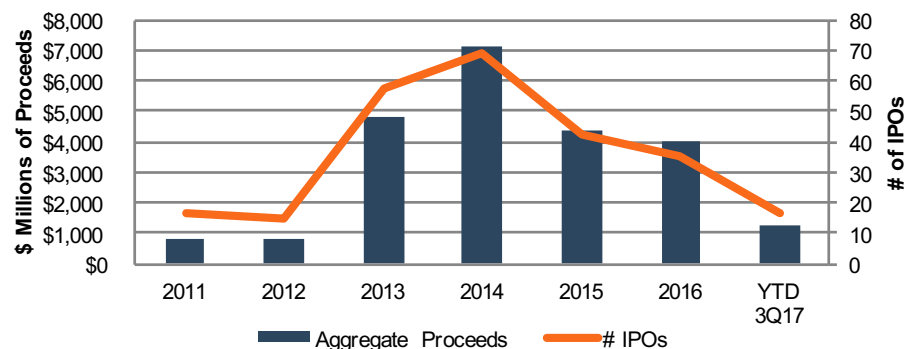


Source: NVCA Venture Monitor: 3Q 2017, Mercer Capital Analysis

Medical Device IPOs

Medical device IPOs slowed since their recent peak in 2014, with 17 recorded medical device companies filing IPOs over 2017 through 3Q17. Year-to-date proceeds of \$1.2 billion are well below aggregate IPO proceeds observed over the last several years.

Medical Device IPOs



Source: Capital IQ, Mercer Capital Analysis

LTM 3Q17 IPO Summary Statistics*

Metrics	Observations
Return Since IPO (through Nov. 1, 2017)	Median returns for companies that went public in 3Q/4Q17 = 12.2% Median returns for companies that IPOed in 3Q16 through 2Q17 = -1.7% Range = -57% to 378%
LTM Performance	12 of 23 companies that went public had no trailing 12-month revenue 3 of 23 companies had positive EBITDA
Projected Revenue Growth	Median projected revenue growth from 2017 to 2018 = 53% Median projected revenue growth from 2018 to 2019 = 171% 10 companies project no revenue in 2017, 8 project no revenue in 2018

Source: Capital IQ, Mercer Capital Analysis

*Summary statistics based on companies that presented estimates or for which projected performance was estimated.

Medical Devices IPOs

10/31/16 - 10/31/2017

Issuer	Offer Date	Offer Price	Current Stock Price	% Return Since IPO	LTM Revenue	LTM EBITDA	Implied 17-18 Growth %	Implied 18-19 Growth %
Ra Pharmaceuticals, Inc.	10/25/16	\$13.00	\$12.41	-4.5%	\$0	(\$42.1)	1733%	nm
Convatec Group Plc	10/26/16	\$2.25	\$2.54	13.0%	\$1,690.7	\$371.8	6%	5%
Myovant Sciences Ltd.	10/26/16	\$15.00	\$13.85	-7.7%	\$0.0	(\$60.6)	nm	138%
Cellink AB (publ)	11/2/16	\$2.92	\$13.96	377.7%	\$2.1	\$0.0	nm	nm
Jounce Therapeutics, Inc.	1/26/17	\$16.00	\$14.33	-10.4%	\$77.8	\$9.1	48%	nm
BeyondSpring Inc.	3/8/17	\$20.00	\$35.81	79.1%	\$0.0	(\$69.6)	nm	nm
Visioneering Technologies, Inc.	3/27/17	\$0.32	\$0.29	-10.1%	\$0.4	(\$8.9)	718%	203%
Tocagen Inc.	4/12/17	\$10.00	\$11.28	12.8%	\$0.0	(\$33.5)	-48%	146815%
Biohaven Pharmaceutical Holding Company Ltd.	5/3/17	\$17.00	\$29.36	72.7%	\$0.0	(\$90.5)	nm	1722%
Ovid Therapeutics Inc.	5/4/17	\$15.00	\$6.51	-56.6%	\$0.0	(\$57.9)	nm	nm
ENDRA Life Sciences Inc.	5/8/17	\$5.00	\$2.41	-51.8%	\$0.6	(\$2.3)	nm	nm
G1 Therapeutics, Inc.	5/16/17	\$15.00	\$22.51	50.1%	\$0.0	(\$44.7)	nm	nm
Athenex, Inc.	6/14/17	\$11.00	\$16.85	53.2%	\$19.9	(\$124.0)	57%	33%
Imagion Biosystems, Inc.	6/21/17	\$0.15	\$0.08	-44.1%	\$0.0	(\$3.7)	nm	nm
Mersana Therapeutics, Inc.	6/27/17	\$15.00	\$15.18	1.2%	\$23.3	(\$21.1)	34%	56%
Aileron Therapeutics, Inc.	6/28/17	\$15.00	\$13.19	-12.1%	\$0.0	(\$18.1)	nm	nm
Co-Diagnostics, Inc.	7/12/17	\$6.00	\$5.61	-6.5%	\$0.0	(\$2.1)	nm	nm
Calyxt, Inc.	7/19/17	\$8.00	\$23.15	189.4%	\$0.5	(\$12.5)	3743%	277%
Krystal Biotech, Inc.	9/19/17	\$10.00	\$9.55	-4.5%	\$0.0	(\$2.1)	nm	nm
Celcuity Inc.	9/20/17	\$9.50	\$18.58	95.6%	\$0.0	(\$4.3)	nm	nm
Deciphera Pharmaceuticals, Inc.	9/27/17	\$17.00	\$19.08	12.2%	\$0.0	(\$32.9)	nm	nm
Rhythm Pharmaceuticals, Inc.	10/4/17	\$17.00	\$26.10	53.5%	\$0.0	(\$27.7)	nm	nm
Restoration Robotics, Inc.	10/11/17	\$7.00	\$7.11	1.6%	\$20.1	(\$17.0)	nm	nm

Source: Capital IQ, Mercer Capital Analysis

Select Operating Metrics

Segment	Gross Margin		EBITDA Margin		Operating Margin		R&D / Revenue	
	Q3 2017	Q2 2017	Q3 2017	Q2 2017	Q3 2017	Q2 2017	Q3 2017	Q2 2017
Large, Diversified	66.1%	66.2%	27.4%	28.1%	12.5%	15.2%	7.3%	7.4%
IVD & Life Sciences	54.5%	57.3%	17.0%	16.8%	7.6%	8.5%	9.5%	9.5%
Cardiovascular	67.4%	66.2%	19.3%	19.6%	9.8%	9.7%	7.6%	7.8%
Ortho, Implants & Prosthetics	72.6%	71.0%	17.4%	17.3%	7.3%	4.8%	5.6%	6.2%
Other	52.3%	51.8%	6.7%	6.9%	-0.9%	0.4%	8.5%	8.6%
All Companies	55.3%	57.0%	18.8%	18.6%	7.6%	9.3%	7.6%	7.7%

Segment	Historical Rev Growth		LT Fwd Op Earn Grwth		Debt / EV		Debt / EBITDA	
	Quarterly	Annual	Q3 2017	Q2 2017	Q3 2017	Q2 2017	Q3 2017	Q2 2017
Large, Diversified	1.4%	3.4%	10.6%	10.1%	12.5%	13.4%	2.4	2.6
IVD & Life Sciences	2.7%	4.9%	10.5%	12.3%	7.3%	6.8%	1.7	1.7
Cardiovascular	1.7%	11.6%	15.4%	15.0%	4.6%	4.1%	1.0	1.0
Ortho, Implants & Prosthetics	1.2%	4.4%	10.0%	10.2%	20.0%	17.2%	3.2	3.6
Other	1.6%	7.1%	12.5%	12.5%	3.6%	2.6%	0.0	0.3
All Companies	1.5%	6.8%	11.3%	11.1%	7.4%	6.9%	1.5	1.4

Median measures for each group. | Data Source: Bloomberg, Mercer Capital Analysis

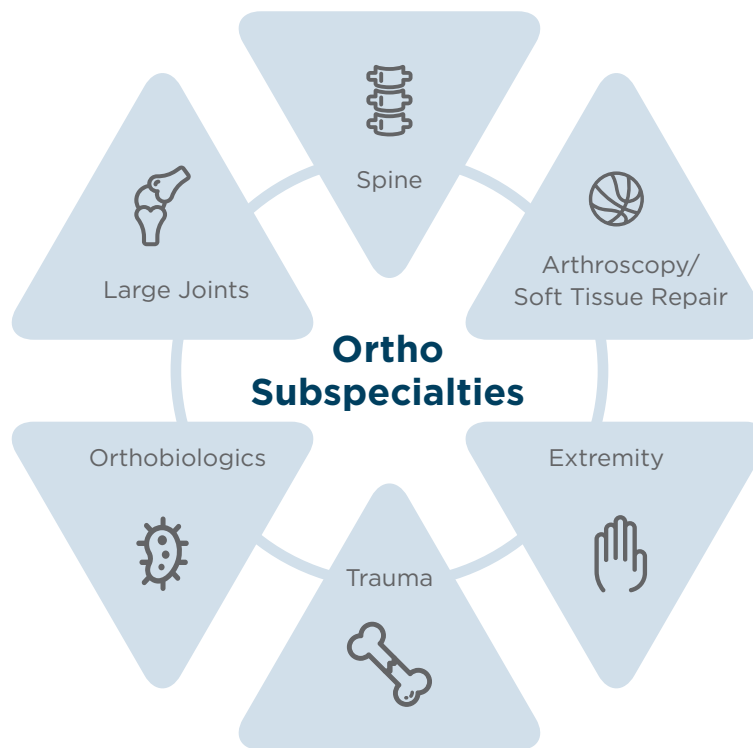
SEGMENT FOCUS

Orthopedics

The worldwide **market for orthopedic products** in 2016 was estimated to be nearly \$48.2 billion, an increase of 3.2% from 2015. Demographics will continue to be a key driver of industry expansion, with population growth and rapidly-growing international markets driving the need for musculoskeletal care. Increasing life spans, the increasing prevalence to remain active, and increasing obesity rates **will impact the number of individuals** with joints subject to degeneration, thereby increasing demand for orthopedic / joint replacement procedures.

Subspecialties

Orthopedic devices are commonly divided into several primary sectors that correspond to the major subspecialties within the orthopedic field. These subspecialties include:



Orthopedics (continued)

- » **Large Joints:** Implants, instruments, and surgical assistance systems to replace or revise failed knee and hip joints. Generally dominated by large medical device players (Zimmer, Stryker, J&J, Smith & Nephew).
- » **Spine:** Implants and instruments and surgical assistance systems used in the treatment of degenerative disc disease, herniated discs, scoliosis, vertebral fractures, or other spinal conditions. Devices used include pedicle screws, plates, rods, interbody cages, artificial discs. Medtronic and J&J are market leaders, with other smaller players (Nuvasive, Globus Medical) controlling sizable share.
- » **Trauma:** Implants and instruments for internal and external use (plates, screws, nails, pins, wires, staples, external fixators). May be referred to as fracture repair. Market led by large incumbents, some smaller players focusing on extremities.
- » **Arthroscopy/Soft Tissue Repair:** Arthroscopy devices include arthroscopic visualization products, fluid management systems, manual instruments, and powered instruments, while soft tissue repair includes devices utilized in cruciate ligament, hip, meniscus, and shoulder fixation. Also referred to as "Sports Medicine." Arthrex and Smith & Nephew have over 50% market share, with J&J and Stryker also controlling a large portion of the total market.
- » **Orthobiologics:** Biologic products such as allograft tissue, synthetic bone grafts, autologous platelet/plasma systems, and cell-based repair systems. Products utilized in other orthopedic segment settings. Low market concentration relative to other orthopedic segments.
- » **Extremity:** Implants, instruments, and surgical assistance systems to replace or revise failed joints in the shoulder, elbow, wrist, ankle and digits. Market led by both large incumbents and small niche players, such as Wright Medical, Exactech, and Orthofix.

Orthopedics (continued)

Product Segmentation

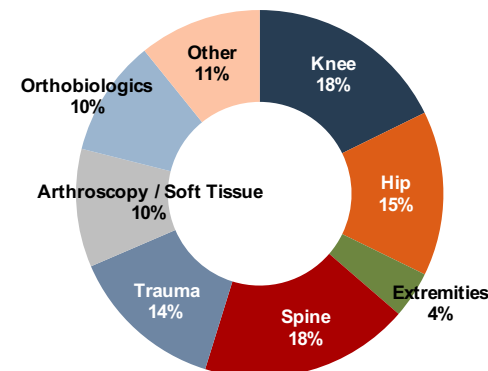
Knee, hip, and spine represent the **largest medical device segment** based on total revenue. These segments are generally controlled by larger, diversified industry participants who are able to leverage their size and efficiencies to capture market share at relatively lower costs. The remaining segments, particularly biologics, arthroscopy, and extremities are smaller pieces of the total market but represent growth opportunities for both small niche players and larger device manufacturers.

Major Companies & Market Shares

Five multi-national companies currently **dominate the orthopedic industry**, each with approximately \$2 billion or more in annual sales and combined revenue of nearly \$29 billion (59% total share). This represents a slight decline over the last several years, falling from 61% total market share in 2015 and 63% in 2014.

Orthopedic Product Segmentation

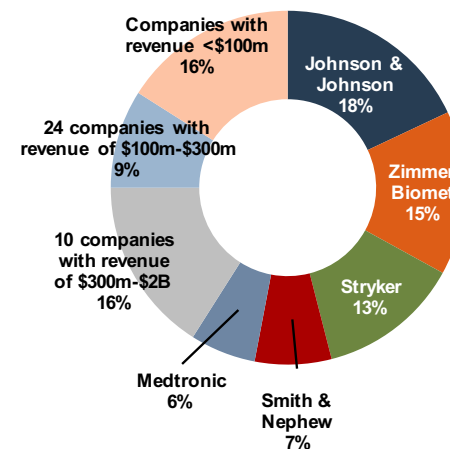
2016



Source: ORTHOWORLD, Mercer Capital Analysis

Orthopedic Market Share

2016



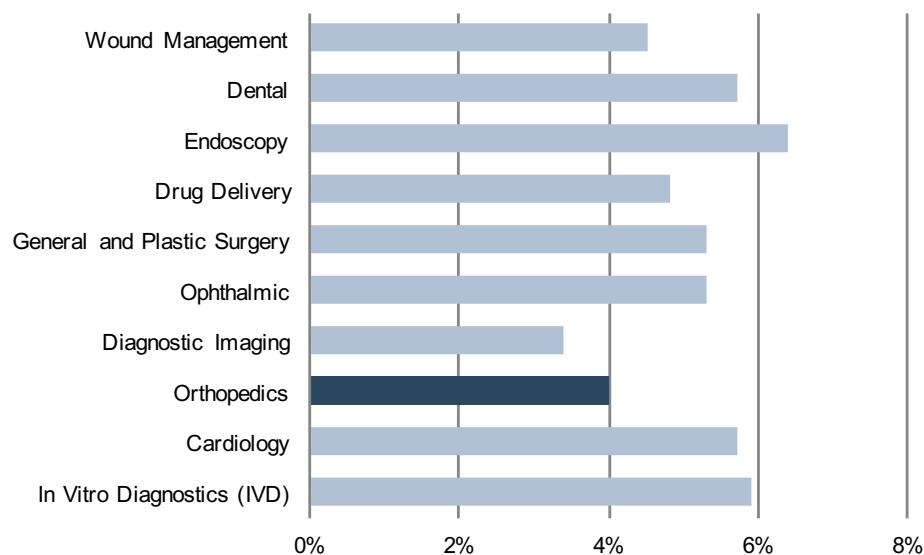
Source: ORTHOWORLD, Mercer Capital Analysis

Orthopedics (continued)

Global Trends

The worldwide orthopedics market is **expected to grow** at an annualized rate of 4.0% between 2016 and 2022, slower than the average growth expected for the medical device industry overall (5.1%). Certain challenges are expected to weigh on the orthopedic device market over the next several years. Increased competition between manufacturers for market share in a mature market will continue to put downward pressure on prices, along with new reimbursement regimes in the U.S. and in Europe.¹

Worldwide MedTech Sales: 2016 - 2022 GAGR (%)



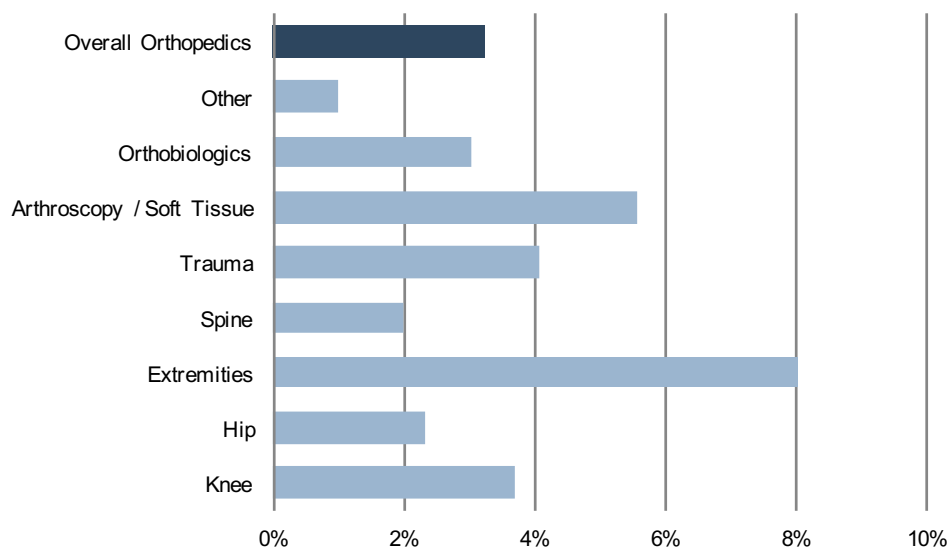
Source: EvaluateMedTech World Preview 2017, Outlook to 2022
Mercer Capital Analysis

¹ Growth estimated per "EvaluateMedTech" utilizes sales data differing from total sales data cited previously. Growth rates utilized for perspective.

Orthopedics (continued)

While overall orthopedic growth is projected to grow slower than other device segments, certain areas within orthopedics are **expected to outperform** over the next several years. The maturing hip (2.3%), spine (2.0%), and knee (3.7%) markets saw slower growth in 2016, while the extremities (8.0%) and arthroscopy / soft tissue segments (5.6%) realized more robust sales growth over the year. Momentum in these niche segments is expected to continue over the next several years as manufacturers look to diversify into these underserved and untapped device markets.

Orthopedics YOY % Growth: 2015-16



Source: ORTHOWORLD, Mercer Capital Analysis

Medical Devices Select Transactions Summary

(\$Millions)

Acquirer	Target	Announce Date	Closed Date	Implied EV	Implied Enterprise Value			Sector
					EBIT	EBITDA	Revenue	
Gilead Sciences, Inc.	Kite Pharma, Inc.	8/27/17	10/2/17	10,444.5	NM	NM	NM	Biotechnology
Fresenius Medical Care Holdings, Inc.	Nxstage Medical, Inc.	8/7/17	NA	2,013.3	NM	141.2x	5.33x	Healthcare Equipment
Bristol-Myers Squibb Company	IFM Therapeutics, Inc.	8/3/17	9/7/17	1,310.0	NA	NA	NA	Biotechnology
Covance Inc.	Chiltern International Limited	7/29/17	8/31/17	1,200.0	NA	NA	NA	Life Sciences Tools and Services
Teleflex Urology Limited	NeoTract, Inc.	9/4/17	10/2/17	1,100.0	NA	NA	21.57x	Healthcare Equipment
Catalent Pharma Solutions, Inc.	Cook Pharmica LLC	9/18/17	10/23/17	950.0	31.6x	NA	5.34x	Life Sciences Tools and Services
Weigao International Medical Hong Kong Limited	Argon Medical Devices, Inc.	8/31/17	NA	850.0	NA	12.5x	3.77x	Healthcare Equipment
Merck & Co., Inc.	Rigontec GmbH	9/6/17	NA	554.2	NA	NA	NA	Biotechnology
CSL Behring LLC	Calimmune, Inc.	8/28/17	NA	416.0	NA	NA	NA	Biotechnology
Evotec AG	Aptuit LLC	7/30/17	8/16/17	300.0	NA	25.8x	3.23x	Life Sciences Tools and Services
Frutarom Industries Ltd.	Enzymotec Ltd.	8/24/17	NA	240.5	NM	NM	5.12x	Biotechnology
Hancom Safety Inc.	Sancheong Co.,Ltd.	7/7/17	NA	227.7	8.7x	6.8x	2.40x	Healthcare Equipment
Shanghai Runda Medical Technology Co., Ltd.	Changchun Jinzerui Medical Technology Co., Ltd.	7/5/17	NA	221.3	NA	NA	4.29x	Healthcare Equipment

Over \$10mm Transaction | Data Source: Bloomberg and Capital IQ

Medical Devices Select Transactions Summary *(continued)*

(\$Millions)

Acquirer	Target	Announce Date	Closed Date	Implied EV	Implied Enterprise Value			Sector
					EBIT	EBITDA	Revenue	
Eurofins Scientific SE	Amatsigroup	7/10/17	NA	193.6	NA	NA	2.83x	Life Sciences Tools and Services
ICON Public Limited Company	MAPI Developpement, SAS	7/27/17	7/27/17	139.5	NA	NA	NA	Life Sciences Tools and Services
Ultragenyx Pharmaceutical Inc.	Dimension Therapeutics, Inc.	9/18/17	NA	121.5	NM	NM	8.16x	Biotechnology
Aclaris Life Sciences, Inc.	Confluence Life Sciences, Inc.	8/3/17	8/3/17	109.4	NA	NA	NA	Life Sciences Tools and Services
Fortissimo Capital	Tuttnauer Co. Ltd.	7/2/17	NA	100.0	NA	NA	1.81x	Healthcare Equipment
Horizon Discovery Group plc	GE Healthcare Dharmacon, Inc.	7/19/17	8/31/17	86.5	NA	16.8x	2.36x	Biotechnology
Entellus Medical, Inc.	Spirox, Inc.	7/6/17	7/13/17	81.3	NA	NA	NA	Healthcare Equipment
Fujian Building Research Technology Co., Ltd.	Eliving Pharmaceutical Co., Ltd.	7/25/17	NA	44.4	NA	NA	11.57x	Life Sciences Tools and Services
Guangxi Yinhe Group Co., Ltd.	Jiangsu Decon Bio-Sci-Technology Co., Ltd.	8/24/17	NA	40.1	18.2x	NA	7.36x	Biotechnology
Vision Technologies Systems, Inc.	Aethon Inc.	7/17/17	8/14/17	36.0	NA	NA	NA	Healthcare Equipment
Tissue Regenix Group plc	CellRight Technologies, LLC	7/20/17	8/9/17	30.0	NA	19.0x	5.53x	Biotechnology
Invitae Corporation	CombiMatrix Corporation	7/31/17	NA	30.0	NM	NM	2.02x	Life Sciences Tools and Services
Charles River Laboratories International, Inc.	Brains On-Line B.V.	8/4/17	8/4/17	29.1	NA	NA	NA	Life Sciences Tools and Services

Over \$10mm Transaction | Data Source: Bloomberg and Capital IQ

Medical Devices Select Transactions Summary *(continued)*

(\$Millions)

Acquirer	Target	Announce Date	Closed Date	Implied EV	Implied Enterprise Value			Sector
					EBIT	EBITDA	Revenue	
*Private shareholders	Stability Biologics, LLC	8/18/17	9/30/17	21.2	NA	NA	NA	Biotechnology
One Health Group, LLC	i4c Innovations Inc.	7/31/17	7/31/17	20.0	NA	NA	NA	Healthcare Equipment
BioVendor - Laboratorni medicina a.s.	DIAsource ImmunoAssays S.A.	8/31/17	9/5/17	18.8	NA	NA	0.98x	Biotechnology
Beijing Beilu Pharmaceutical Co.,Ltd	BioView Ltd.	8/31/17	NA	17.4	34.9x	30.5x	2.18x	Healthcare Equipment
Dynatronics Corporation	Bird and Cronin, Inc.	9/26/17	10/2/17	15.5	7.5x	NA	0.65x	Healthcare Equipment
Cancer Genetics, Inc.	vivoPharm Pty.Ltd.	8/14/17	8/16/17	12.4	NA	NA	NA	Life Sciences Tools and Services
Formosa Pharmaceuticals, Inc.	Activus Pharma Co., Ltd.	8/4/17	NA	12.2	NA	NA	NA	Life Sciences Tools and Services
Probiotec Limited	South Pack Laboratories (Aust) Pty Ltd	9/20/17	10/3/17	11.3	NA	NA	NA	Life Sciences Tools and Services

Over \$10mm Transaction | Data Source: Bloomberg and Capital IQ

* MiMedx Group, Inc. **divested to former stockholders** of Stability, Inc.

Public Medical Device Companies

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual	Q3 2017	Q3 2017	Q3 2017	FY 2017	FY 2018	Q3 2017	Q3 2017	2017	2018
Large, Diversified														
Abbott Laboratories	\$53.10	\$48.23	\$40.24	10.1%	31.9%	\$107,578.5	\$25,134.0	\$7,078.0	\$7,305.2	\$7,783.0	4.28	15.2	14.7	13.8
Baxter International Inc	\$62.75	\$60.00	\$46.42	4.6%	35.2%	\$33,597.3	\$10,432.0	\$2,302.0	\$2,372.8	\$2,675.5	3.22	14.6	14.2	12.6
Becton Dickinson and Co	\$195.95	\$192.52	\$173.66	1.8%	12.8%	\$51,738.4	\$12,157.0	\$2,986.0	\$3,479.1	\$3,742.0	4.26	17.3	14.9	13.8
Boston Scientific Corp	\$29.17	\$27.82	\$23.30	4.9%	25.2%	\$45,496.9	\$8,830.0	\$2,342.0	\$2,521.2	\$2,842.7	5.15	19.4	18.0	16.0
Medtronic PLC	\$77.77	\$87.73	\$83.51	-11.4%	-6.9%	\$126,384.6	\$29,934.0	\$9,248.0	\$9,256.0	\$10,101.7	4.22	13.7	13.7	12.5
Johnson & Johnson	\$130.01	\$131.80	\$114.21	-1.4%	13.8%	\$369,216.4	\$74,361.0	\$25,867.0	\$26,529.7	\$29,583.9	4.97	14.3	13.9	12.5
Stryker Corp	\$142.02	\$138.39	\$114.23	2.6%	24.3%	\$57,660.5	\$12,130.0	\$3,320.3	\$3,436.9	\$3,757.3	4.75	17.4	16.8	15.3
IVD & Life Sciences														
Bio-Rad Laboratories Inc	\$222.22	\$224.16	\$161.96	-0.9%	37.2%	\$6,337.8	\$2,084.9	\$240.8	\$285.0	\$350.7	3.04	26.3	22.2	18.1
Bruker Corp	\$29.75	\$28.80	\$22.24	3.3%	33.8%	\$4,708.9	\$1,664.0	\$284.2	\$316.7	\$336.0	2.83	16.6	14.9	14.0
Enzo Biochem Inc	\$10.47	\$11.35	\$4.92	-7.8%	112.8%	\$423.9	\$107.8	\$0.5	\$2.3	\$5.5	3.93	796.9	185.1	77.2
GenMark Diagnostics Inc	\$9.63	\$12.06	\$10.88	-20.1%	-11.5%	\$454.1	\$50.6	(\$49.9)	(\$46.5)	(\$32.5)	8.98	nm	nm	nm
Haemonetics Corp	\$44.87	\$39.22	\$35.71	14.4%	25.7%	\$2,491.8	\$887.1	\$184.5	\$197.3	\$214.0	2.81	13.5	12.6	11.6
Hologic Inc	\$36.69	\$45.48	\$38.14	-19.3%	-3.8%	\$12,947.9	\$2,982.7	\$1,035.7	\$1,037.4	\$1,092.2	4.34	12.5	12.5	11.9
Illumina Inc	\$199.20	\$176.75	\$176.56	12.7%	12.8%	\$28,348.2	\$2,593.3	\$265.0	\$777.2	\$965.5	10.93	107.0	36.5	29.4
Luminex Corp	\$20.33	\$21.23	\$22.34	-4.3%	-9.0%	\$792.3	\$297.7	\$50.6	\$68.4	\$69.7	2.66	15.7	11.6	11.4
OraSure Technologies Inc	\$22.50	\$17.84	\$7.89	26.1%	185.2%	\$1,177.6	\$140.5	\$29.2	\$29.0	\$34.8	8.38	40.3	40.7	33.8
Quidel Corp	\$43.86	\$27.37	\$20.89	60.2%	110.0%	\$1,442.8	\$214.1	\$41.1	\$67.3	\$159.3	6.74	35.1	21.5	9.1
Bio-Techne Corp	\$120.89	\$117.00	\$106.98	3.3%	13.0%	\$4,706.5	\$563.0	\$206.4	\$240.9	\$265.5	8.36	22.8	19.5	17.7
Trinity Biotech PLC	\$5.61	\$5.97	\$13.09	-6.0%	-57.1%	\$167.7	\$100.7	\$0.0	\$13.2	\$16.0	1.66	nm	12.7	10.5
Vermillion Inc	\$1.80	\$1.90	\$1.29	-5.3%	39.5%	\$96.8	\$3.1	(\$10.5)	nm	nm	31.71	nm	nm	nm

(\$Millions, except per share figures)

Data Source: Bloomberg

Public Medical Device Companies (continued)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual				Q3 2017	Q3 2017			FY 2017	FY 2018
Cardiovascular														
ABIOMED Inc	\$168.60	\$140.24	\$128.42	20.2%	31.3%	\$7,132.4	\$504.6	\$109.2	\$154.0	\$201.3	14.13	65.3	46.3	35.4
CR Bard Inc	\$320.50	\$314.63	\$222.86	1.9%	43.8%	\$23,776.4	\$3,875.4	\$1,228.4	\$1,316.3	\$1,428.2	6.14	19.4	18.1	16.6
BioTelemetry Inc	\$33.00	\$32.05	\$18.46	3.0%	78.8%	\$918.4	\$221.0	\$43.6	\$61.4	\$87.6	4.16	21.1	15.0	10.5
Cardiovascular Systems Inc	\$28.15	\$32.02	\$22.85	-12.1%	23.2%	\$823.3	\$204.8	\$5.0	\$17.4	\$24.7	4.02	166.3	47.4	33.4
CryoLife Inc	\$22.70	\$20.05	\$17.41	13.2%	30.4%	\$775.6	\$183.2	\$30.8	\$28.1	\$39.7	4.23	25.2	27.6	19.5
Edwards Lifesciences Corp	\$109.31	\$117.23	\$119.26	-6.8%	-8.3%	\$22,712.9	\$3,314.5	\$1,040.7	\$1,099.3	\$1,238.7	6.85	21.8	20.7	18.3
Integer Holdings Corp	\$51.15	\$43.15	\$21.25	18.5%	140.7%	\$3,202.2	\$1,431.0	\$275.6	\$280.7	\$301.7	2.24	11.6	11.4	10.6
LeMaitre Vascular Inc	\$37.42	\$30.98	\$19.48	20.8%	92.1%	\$674.3	\$98.0	\$18.7	\$24.7	\$31.1	6.88	36.1	27.4	21.7
Merit Medical Systems Inc	\$42.35	\$37.35	\$23.76	13.4%	78.2%	\$2,377.6	\$694.7	\$115.0	\$123.0	\$139.8	3.42	20.7	19.3	17.0

(\$Millions, except per share figures)

Data Source: Bloomberg

Public Medical Device Companies (continued)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual				Q3 2017	Q3 2017			FY 2017	FY 2018
Ortho, Implants and Prosthetics														
Alphatec Holdings Inc	\$2.26	\$1.86	\$9.33	21.5%	-75.8%	\$76.2	\$106.2	(\$2.3)	\$3.6	\$2.7	0.72	nm	21.2	28.2
Exactech Inc	\$32.95	\$30.40	\$26.15	8.4%	26.0%	\$477.9	\$263.0	\$45.8	\$49.6	\$52.8	1.82	10.4	9.6	9.1
Globus Medical Inc	\$29.72	\$33.37	\$22.35	-10.9%	33.0%	\$2,488.6	\$595.4	\$208.2	\$217.8	\$244.4	4.18	12.0	11.4	10.2
Integra LifeSciences Holdings Corp	\$50.48	\$53.81	\$41.38	-6.2%	22.0%	\$4,630.8	\$1,075.3	\$247.8	\$265.0	\$338.2	4.31	18.7	17.5	13.7
NuVasive Inc	\$55.46	\$77.38	\$65.75	-28.3%	-15.7%	\$3,377.9	\$1,029.0	\$240.8	\$266.4	\$297.1	3.28	14.0	12.7	11.4
Orthofix International NV	\$47.25	\$46.21	\$42.13	2.3%	12.2%	\$814.2	\$418.7	\$57.5	\$79.8	\$86.8	1.94	14.2	10.2	9.4
RTI Surgical Inc	\$4.55	\$5.85	\$3.06	-22.2%	48.7%	\$399.7	\$280.0	\$15.7	\$30.7	\$37.2	1.43	25.5	13.0	10.7
Wright Medical Group NV	\$25.87	\$26.82	\$24.14	-3.5%	7.2%	\$3,313.8	\$707.2	\$33.2	\$81.7	\$122.5	4.69	99.9	40.6	27.0
Zimmer Biomet Holdings Inc	\$117.09	\$127.63	\$126.79	-8.3%	-7.6%	\$33,909.4	\$7,777.6	\$2,744.1	\$3,014.1	\$3,157.5	4.36	12.4	11.3	10.7

(\$Millions, except per share figures)

Data Source: Bloomberg

Public Medical Device Companies (continued)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual	Q3 2017	Q3 2017	Q3 2017	FY 2017	FY 2018	Q3 2017	Q3 2017	2017	2018
Cosmetics														
Cutera Inc	\$41.35	\$25.90	\$11.75	59.7%	251.9%	\$528.2	\$133.8	\$7.1	\$12.5	\$17.6	3.95	74.1	42.4	30.0
Dental														
Align Technology Inc	\$186.27	\$148.62	\$92.41	25.3%	101.6%	\$13,994.2	\$1,345.3	\$306.6	\$370.0	\$480.4	10.40	45.7	37.8	29.1
DENTSPLY SIRONA Inc	\$59.81	\$64.44	\$58.77	-7.2%	1.8%	\$15,078.7	\$3,843.9	\$947.8	\$916.8	\$989.8	3.92	15.9	16.4	15.2
Pediatric Medical Devices														
Natus Medical Inc	\$37.50	\$36.90	\$39.04	1.6%	-3.9%	\$1,267.3	\$477.2	\$70.7	\$82.3	\$99.9	2.66	17.9	15.4	12.7
Surgery and Life Support Devices														
AtriCure Inc	\$22.37	\$24.65	\$15.36	-9.2%	45.6%	\$771.8	\$166.0	(\$19.1)	(\$4.7)	\$3.2	4.65	nm	nm	242.1
Intuitive Surgical Inc	\$348.63	\$310.17	\$240.00	12.4%	45.3%	\$36,849.7	\$2,993.4	\$1,085.1	\$1,218.7	\$1,372.0	12.31	34.0	30.2	26.9
Misonix Inc	\$10.15	\$9.65	\$5.30	5.2%	91.5%	\$83.4	\$27.3	(\$5.5)	nm	nm	3.06	nm	nm	nm
NxStage Medical Inc	\$27.60	\$24.66	\$24.55	11.9%	12.4%	\$1,782.9	\$378.0	\$28.0	\$45.2	\$47.7	4.72	63.8	39.5	37.4
Stereotaxis Inc	\$0.82	\$0.58	\$0.88	41.4%	-6.7%	\$13.3	\$31.1	(\$3.8)	nm	nm	0.43	nm	nm	nm
Surmodics Inc	\$31.00	\$28.23	\$29.29	9.8%	5.8%	\$362.7	\$71.2	\$15.5	\$13.1	\$8.2	5.09	23.5	27.6	44.1
Teleflex Inc	\$241.97	\$205.41	\$163.28	17.8%	48.2%	\$12,221.2	\$1,986.1	\$541.4	\$627.8	\$741.8	6.15	22.6	19.5	16.5

(\$Millions, except per share figures)

Data Source: Bloomberg

Public Medical Device Companies (continued)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual	Q3 2017	Q3 2017	Q3 2017	FY 2017	FY 2018	Q3 2017	Q3 2017	2017	2018
General Hospital Devices and Supplies														
CONMED Corp	\$52.47	\$50.75	\$38.84	3.4%	35.1%	\$1,921.5	\$772.6	\$123.3	\$139.3	\$148.0	2.49	15.6	13.8	13.0
Digirad Corp	\$3.45	\$3.94	\$4.85	-12.5%	-28.8%	\$84.4	\$121.1	\$11.8	\$14.4	\$16.4	0.70	7.1	5.9	5.1
Dynatronix Corp	\$2.26	\$2.85	\$2.41	-20.6%	-6.1%	\$25.0	\$35.8	(\$0.9)	nm	nm	0.70	nm	nm	nm
FONAR Corp	\$30.50	\$27.95	\$20.22	9.1%	50.8%	\$199.3	\$78.0	\$21.2	nm	nm	2.55	9.4	nm	nm
Intuitive Surgical Inc	\$348.63	\$310.17	\$240.00	12.4%	45.3%	\$36,849.7	\$2,993.4	\$1,085.1	\$1,218.7	\$1,372.0	12.31	34.0	30.2	26.9
Masimo Corp	\$86.56	\$91.30	\$58.58	-5.2%	47.8%	\$4,164.5	\$730.1	\$185.8	\$203.5	\$221.0	5.70	22.4	20.5	18.8
OPKO Health Inc	\$6.86	\$6.64	\$10.60	3.3%	-35.3%	\$3,829.3	\$1,183.8	(\$25.9)	(\$32.8)	\$23.6	3.23	nm	nm	162.0
STERIS PLC	\$88.40	\$81.33	\$71.52	8.7%	23.6%	\$8,747.8	\$2,582.3	\$595.0	\$626.3	\$679.0	3.39	14.7	14.0	12.9
Varian Medical Systems Inc	\$100.06	\$102.68	\$87.26	-2.6%	14.7%	\$8,823.7	\$2,819.7	\$593.0	\$581.5	\$622.7	3.13	14.9	15.2	14.2
Home Health and Consumer Devices														
Invacare Corp	\$15.74	\$13.09	\$10.91	20.2%	44.3%	\$595.5	\$980.1	(\$14.3)	(\$21.1)	\$17.3	0.61	nm	nm	34.4
MSA Safety Inc	\$79.51	\$81.00	\$55.12	-1.8%	44.2%	\$3,404.5	\$1,146.7	\$216.0	\$228.0	\$269.8	2.97	15.8	14.9	12.6
ResMed Inc	\$76.96	\$76.72	\$62.93	0.3%	22.3%	\$11,159.2	\$2,124.9	\$589.1	\$658.5	\$722.8	5.25	18.9	16.9	15.4

(\$Millions, except per share figures)

Data Source: Bloomberg

Public Medical Device Companies (continued)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q3 2017	Q2 2017	Q3 2016	Qtrly	Annual				Q3 2017	Q3 2017			Q3 2017	FY 2017
Other Medical Device														
Accuray Inc	\$4.00	\$4.70	\$6.23	-14.9%	-35.8%	\$401.2	\$387.9	\$10.6	\$30.2	\$27.5	1.03	37.9	13.3	14.6
Allied Healthcare Products Inc	\$2.11	\$2.50	\$1.64	-15.6%	28.6%	\$7.5	\$33.5	(\$1.0)	nm	nm	0.22	nm	nm	nm
Cesca Therapeutics Inc	\$3.56	\$3.17	\$3.97	12.3%	-10.3%	\$35.3	\$14.5	(\$7.9)	nm	nm	2.43	nm	nm	nm
Cogentix Medical Inc	\$2.56	\$1.65	\$1.81	55.2%	41.4%	\$131.2	\$53.7	\$3.2	nm	nm	2.45	41.0	nm	nm
EnteroMedics Inc	\$1.77	\$5.10	\$10.05	-65.4%	-82.4%	\$6.8	\$0.6	(\$22.4)	nm	nm	11.86	nm	nm	nm
Escalon Medical Corp	\$0.15	\$0.21	\$0.65	-28.6%	-76.9%	\$1.4	\$11.2	(\$0.5)	nm	nm	0.12	nm	nm	nm
IRIDEX Corp	\$9.37	\$10.13	\$14.28	-7.5%	-34.4%	\$83.8	\$42.8	(\$6.0)	nm	nm	1.96	nm	nm	nm
Micron Solutions Inc	\$3.80	\$3.99	\$4.17	-4.8%	-8.9%	\$16.2	\$20.2	\$0.7	nm	nm	0.80	23.6	nm	nm
Navidea Biopharmaceuticals Inc	\$0.42	\$0.52	\$0.91	-19.5%	-54.5%	\$62.3	\$13.0	(\$4.4)	nm	nm	4.78	nm	nm	nm
Other Diversified Cos with Med-Tech Components														
Agilent Technologies Inc	\$64.07	\$58.68	\$45.85	9.2%	39.7%	\$20,182.4	\$4,394.0	\$1,030.0	\$1,074.7	\$1,182.3	4.59	19.6	18.8	17.1
Danaher Corp	\$85.78	\$83.89	\$76.63	2.3%	11.9%	\$69,856.1	\$17,828.3	\$4,166.5	\$4,233.0	\$4,644.7	3.92	16.8	16.5	15.0
General Electric Co	\$24.18	\$26.75	\$28.55	-9.6%	-15.3%	\$297,949.1	\$120,549.0	\$16,676.0	\$16,914.0	\$19,584.1	2.47	17.9	17.6	15.2
PerkinElmer Inc	\$68.90	\$67.59	\$54.82	1.9%	25.7%	\$8,076.8	\$2,175.9	\$443.9	\$472.8	\$545.6	3.71	18.2	17.1	14.8
Thermo Fisher Scientific Inc	\$189.20	\$173.75	\$155.50	8.9%	21.7%	\$96,970.8	\$19,824.4	\$5,024.1	\$5,201.0	\$5,853.8	4.89	19.3	18.6	16.6

(\$Millions, except per share figures)

Data Source: Bloomberg

Mercer Capital

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