

Medical Devices

INDUSTRY SUMMARY

COGENT VALUATION identified **Medical Devices** publicly traded companies, IPOs, and recent M&A transactions within the Medical Devices industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since December 31, 2016, the median 52-week share price return of the Medical Devices industry was 14.6%. Between December 31, 2015 and December 31, 2017, the median EV/EBITDA multiple increased from 13.8 to 18.2. Furthermore, the median price-to-earnings multiple increased from 33.4 to 43.7 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 0.8% and 9.9%, respectively.

Public Company Key Statistics

Median 52-Week
Return

-0.7%

Median 3-Year CAGR
Return

13.6%

Median EV/Revenue
Multiple

3.8x

Median EV/EBITDA
Multiple

18.2x

Median Price/Earnings
Multiple

43.7x

Median EV/Gross CF
Multiple

30.2x

Comparable Public Company Market Price Returns as of December 31, 2017

	YTD	3 Month	1 Year	2 Year	3 Year	2016	2015	2014
ABIOMED, Inc.	107.6%	17.7%	31.1%	34.8%	89.4%	137.2%	42.3%	99.0%
AngioDynamics, Inc.	37.0%	5.4%	-2.6%	13.8%	7.6%	-36.1%	10.8%	56.1%
Atossa Genetics Inc.	-94.5%	6.0%	-74.8%	-78.6%	-70.3%	-77.6%	-38.4%	-40.5%
AtriCure, Inc.	-18.7%	-7.8%	41.4%	1.0%	15.0%	12.4%	6.9%	170.7%
Becton, Dickinson and Company	38.9%	0.4%	9.0%	21.5%	19.9%	10.7%	25.9%	41.3%
BIOLASE, Inc.	-49.3%	-37.9%	63.0%	-18.2%	-37.7%	-68.0%	-6.6%	56.1%
Boston Scientific Corporation	34.4%	5.2%	-70.7%	33.3%	35.2%	39.2%	10.2%	109.8%
Cardiovascular Systems, Inc.	56.7%	-12.7%	-13.2%	33.3%	6.0%	-49.7%	-12.3%	173.2%
CAS Medical Systems, Inc.	-56.5%	-20.7%	-7.6%	-14.2%	-22.0%	7.3%	-2.9%	-20.9%
CryoLife, Inc.	77.6%	2.0%	-44.1%	52.7%	32.0%	-4.9%	2.2%	78.0%
Cutera, Inc.	254.6%	-15.2%	29.2%	77.8%	60.0%	19.8%	4.9%	13.1%
Cytosorbents Corporation	16.7%	5.5%	-89.0%	-0.9%	2.6%	-44.0%	218.4%	-3.8%
Daxor Corporation	-39.8%	-12.2%	24.6%	-23.1%	-6.2%	8.9%	2.2%	-10.1%
DexCom, Inc.	-40.3%	-30.5%	48.5%	-24.5%	7.0%	48.8%	55.5%	160.6%
Endologix, Inc.	-54.9%	9.0%	11.9%	-39.7%	-25.1%	-35.3%	-12.3%	22.5%
Escalon Medical Corp.	-85.8%	-67.7%	-77.6%	-64.0%	-53.7%	-34.2%	-18.3%	107.3%
Globus Medical, Inc.	6.8%	-8.1%	31.7%	19.9%	14.7%	17.0%	17.8%	92.4%
InspireMD, Inc.	-98.2%	-40.1%	-80.5%	-90.1%	-91.0%	-88.7%	-68.4%	-36.9%
Median of Industry Public Companies	13.6%	19.9%	88.6%	75.2%	75.9%	125.5%	-4.5%	39.5%

Multiple year periods are calculated as the average annual return.

■ Highest Return
 ■ Lowest Return
 ■ Median Return

Public Company Median Multiples by Quarter

	12/31/17	9/30/17	6/30/17	3/31/17	12/31/16	9/30/16	6/30/16	3/31/16
EV/Revenues Multiple	3.8x	4.1x	4.4x	4.2x	3.9x	3.7x	3.1x	3.1x
EV/EBITDA Multiple	18.2x	15.6x	17.3x	16.9x	16.4x	17.1x	15.8x	14.9x
Price/Earnings Multiple	43.7x	46.6x	45.9x	46.7x	38.5x	42.2x	35.3x	35.7x
EV/Gross Cash Flows Multiple	30.2x	29.3x	29.6x	28.9x	27.6x	29.1x	27.7x	27.7x

■ Highest Multiple
 ■ Lowest Multiple
 ■ Median Multiple

Industry Initial Public Offerings—Industry: Medical Devices (dollars in millions, except share prices)

Offer Date	Company Name	Offer Price	Shares Offered	Amount Raised	Total Assets	Debt	LTM Revenues	LTM EBITDA	LTM Net Income	LTM Cash Flows
11/22/17	IRRAS AB	\$5.37	5.1	\$11.4	\$3.4	\$1.2	\$3.9	(\$0.0)	(\$0.0)	\$0.0
10/11/17	Biom'Up S.A.	\$12.44	8.0	\$15.3	N/A	N/A	N/A	N/A	N/A	N/A
6/20/17	Sedana Medical AB (publ)	\$2.22	35.0	\$5.4	\$7.1	\$0.5	\$0.2	(\$4.3)	(\$5.1)	(\$4.2)
12/8/16	Acarix A/S	\$1.93	5.0	\$75.0	\$18.5	\$9.9	\$3.6	(\$16.5)	(\$17.8)	(\$16.3)
11/3/16	Neurotech International Limited	\$0.15	89.3	\$16.4	\$379.1	\$10.5	\$462.5	\$89.9	\$48.3	\$91.6
10/5/16	Obalon Therapeutics, Inc.	\$15.00	1.1	\$5.3	\$0.8	\$0.0	\$0.0	\$0.0	(\$2.3)	\$0.0
7/12/16	Vincent Medical Holdings Limited	\$0.13	3.0	\$1.1	\$3.9	(\$0.3)	\$0.5	\$0.0	(\$1.1)	\$0.0
4/28/16	PAVmed Inc.	\$5.00	4.7	\$75.0	\$208.7	\$23.2	\$85.8	\$1.6	(\$18.2)	\$10.1
2/28/16	Invent Medic Sweden AB (publ)	\$0.35	6.4	\$95.3	\$102.7	\$39.5	\$64.3	(\$39.7)	(\$58.0)	(\$34.1)
11/10/15	Advanced Accelerator Applications S.A.	\$16.00	5.0	\$65.0	\$24.4	\$28.7	\$11.2	(\$23.6)	(\$32.0)	(\$22.0)
6/4/15	EndoChoice Holdings, Inc.	\$15.00	1.4	\$8.0	\$2.6	\$0.0	\$0.0	(\$0.7)	(\$0.7)	(\$0.7)
11/5/14	Nevro Corp.	\$13.00	7.0	\$126.0	\$56.1	\$0.0	\$29.1	(\$27.7)	(\$29.1)	(\$27.6)
5/7/14	K2M Group Holdings, Inc.	\$5.75	8.8	\$132.4	\$301.9	\$57.9	\$162.2	(\$9.3)	(\$41.8)	(\$2.7)
4/15/14	TriVascular Technologies, Inc.	\$18.00	6.5	\$78.0	\$58.6	\$47.7	\$23.6	(\$46.0)	(\$53.4)	(\$45.0)
11/13/13	Tandem Diabetes Care, Inc.	\$15.00	8.0	\$120.0	\$48.6	\$29.3	\$21.0	(\$37.1)	(\$48.1)	(\$34.2)
10/8/13	LDR Holding Corporation	\$15.00	5.0	\$75.0	\$77.7	\$53.2	\$104.6	\$2.6	(\$15.3)	\$5.7
8/2/12	Globus Medical, Inc.	\$12.00	8.3	\$100.0	\$367.3	\$0.0	\$363.0	\$127.1	\$67.0	\$144.5
6/27/12	Tesaro, Inc.	\$13.50	6.0	\$81.0	\$93.0	\$0.0	\$0.0	(\$23.2)	(\$23.2)	(\$23.2)
4/30/12	Supernus Pharmaceuticals, Inc.	\$5.00	3.4	\$50.0	\$43.2	\$29.1	\$1.0	(\$35.5)	\$55.6	(\$34.9)
11/17/11	Sphere Medical Holding PLC	\$1.46	15.1	\$22.1	\$12.4	\$0.0	\$0.0	(\$4.5)	(\$5.1)	(\$4.2)
5/20/15	Median of all IPOs	nm	nm	\$62.5	\$43.2	\$9.1	\$11.2	(\$4.3)	(\$10.9)	(\$3.6)

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought
12/1/17	Harpoon Medical, Inc.	Team Youn Bio Medicine	\$1.2	76%
12/1/17	JOTEC GmbH	Philips Holding USA Inc.	\$2,117.3	100%
8/31/17	Eternity Healthcare, Inc.	Philips Holding USA Inc.	\$38.6	100%
8/9/17	The Spectranetics Corporation	Entellus Medical, Inc.	\$81.3	100%
7/21/17	Electrical Geodesics, Inc.	Novanta Europe GmbH	\$132.2	100%
7/13/17	Spirox, Inc.	Sinclair Pharma plc	\$7.3	100%
7/3/17	BarioSurg, Inc.	EnteroMedics Inc. (nka:ReShape Lifesciences)	\$31.3	100%
6/19/17	Nuelle, Inc.	Aytu BioScience, Inc.	\$32.6	100%
5/22/17	Ergon Medical Limited	InnovaDerma PLC	\$1.6	100%
2/17/17	Vascular Solutions, Inc.	Teleflex Incorporated	\$1,007.2	100%
1/4/17	St. Jude Medical, Inc.	Abbott Laboratories	\$30,336.5	100%
12/8/16	Lifeline Scientific, Inc.	Shanghai Genext Medical	\$81.4	100%
11/21/16	EndoChoice Holdings, Inc.	Boston Scientific	\$250.7	100%
9/16/16	Laborie Medical Technologies, Inc.	Patricia Industries AB	\$640.0	97%

■ USA
 ■ International
 ■ Highest
 ■ Lowest
 ■ Median

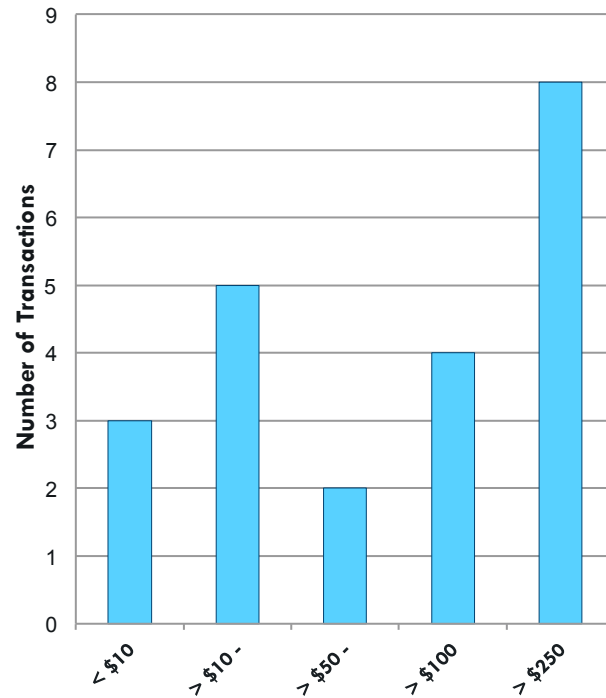
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Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought
9/1/16	Magellan Diagnostics, Inc.	Meridian Bioscience, Inc.	\$66.0	100%
8/22/16	TriVascular Technologies, Inc.	Endologix, Inc.	\$173.1	100%
7/14/16	Inova Labs, Inc.	ResMed Inc.	\$110.0	100%
6/29/16	Cardiac Science Corporation	CFS 915 LLC	\$82.7	100%
5/2/16	NorMedix, Inc.	SurModics, Inc.	\$14.0	100%
4/29/16	Lazarus Effect, Inc.	Medtronic plc	\$100.0	100%
4/8/16	DreamCIS, Inc.	Hangzhou Tigermed Consulting Co.	\$28.6	98%
4/4/16	CardioInsight Technologies Inc.	Medtronic plc	\$123.0	100%
9/1/16	Magellan Diagnostics, Inc.	Meridian Bioscience, Inc.	\$66.0	100%
8/22/16	TriVascular Technologies, Inc.	Endologix, Inc.	\$173.1	100%
Median of the 22 M&A Transaction Targets		ResMed Inc.	\$110.0	100%

USA
 International
 Highest
 Lowest
 Median

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of December 31, 2017



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Definitions of Financial Terms Used in this Quarterly Industry Update: Enterprise Value (EV): Market Value of Equity + Market Value of Debt
—Cash Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA): Profitability metric sometimes also referred to as operating profit or operating earnings.

Gross Cash Flows: Net Income + Depreciation and Amortization Expense Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

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