

Cardiovascular Equipment

INDUSTRY SUMMARY

COGENT VALUATION identified **Cardiovascular Equipment** publicly traded companies, IPOs, and recent M&A transactions within the Cardiovascular Equipment 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, 2017, the median 52-week share price return of the Cardiovascular Equipment industry was 35.9%. Between December 31, 2016 and December 31, 2018, the median EV/EBITDA multiple increased from 16.3 to 21.8. Furthermore, the median price-to-earnings multiple increased from 30.9 to 56.5 over the same period. The median revenue growth and EBITDA margins for the industry for the quarter were 3.0% and 26.9%, respectively.

Public Company Key Statistics

Median 52-Week
Return

35.9%

Median 3-Year CAGR
Return

24.7%

Median EV/Revenue
Multiple

5.7x

Median EV/EBITDA
Multiple

21.8x

Median Price/Earnings
Multiple

56.5x

Median EV/Gross CF
Multiple

51.4x

Comparable Public Company Market Price Returns as of December 31, 2018

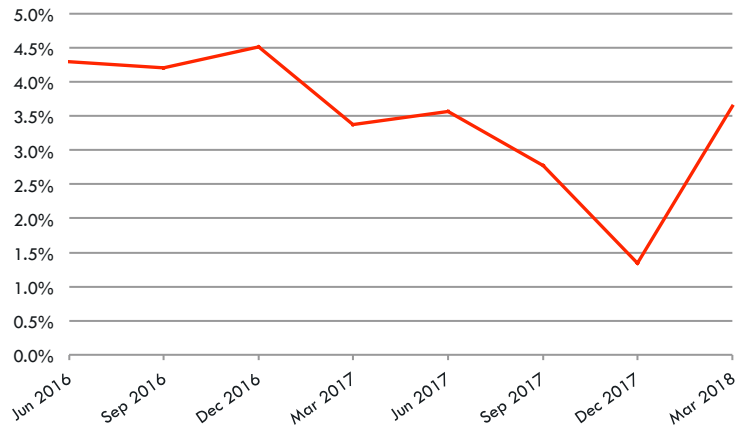
	YTD	3 Month	1 Year	2 Year	3 Year	2016	2015	2014
ABIOMED, Inc.	140.0%	9.9%	66.3%	75.2%	78.6%	24.8%	137.2%	42.3%
BioTelemetry, Inc.	115.6%	43.2%	33.8%	63.0%	67.1%	91.4%	16.5%	26.3%
Boston Scientific Corporation	55.3%	17.7%	14.6%	20.5%	29.5%	17.3%	39.2%	10.2%
Cardiovascular Systems, Inc.	65.2%	21.0%	-2.1%	45.4%	1.1%	60.1%	-49.7%	-12.3%
CryoLife, Inc.	83.8%	26.4%	20.3%	25.8%	30.6%	77.6%	-4.9%	2.2%
Edwards Lifesciences Corporation	54.5%	19.6%	13.4%	3.4%	40.2%	18.6%	24.0%	93.7%
Medtronic plc	21.8%	14.9%	32.4%	7.4%	11.7%	-7.4%	6.5%	25.8%
St. James's Place plc	-9.9%	-1.4%	66.3%	27.4%	5.6%	-15.8%	17.1%	5.3%
Teleflex Incorporated	6.9%	-0.8%	105.2%	27.4%	18.8%	62.7%	-56.4%	38.3%
Median of Industry Public Companies	55.3%	17.7%	34.4%	75.2%	29.5%	22.6%	14.5%	24.4%

Multiple year periods are calculated as the average annual return.

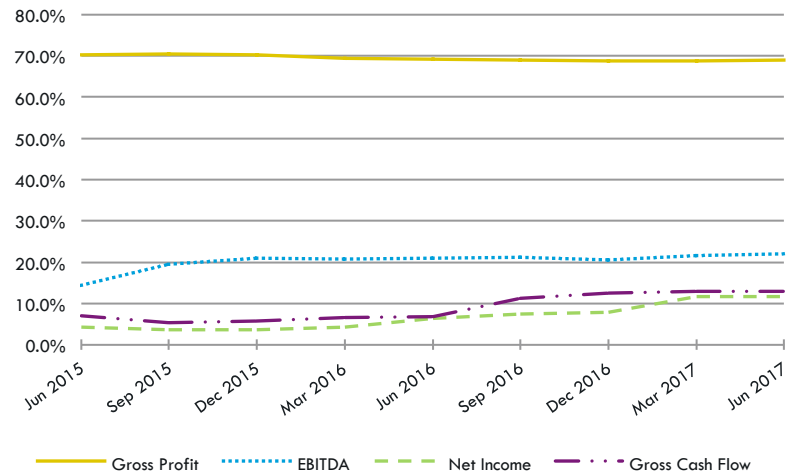
■ Highest Return
 ■ Lowest Return
 ■ Median Return

Industry Revenue Growth and Profit Margins for the Past Two Years

Median Quarterly Revenue Growth of Cardiovascular Equipment Companies



Median Gross Profit, EBITDA, Net Income, and Gross Cash Flow Margins



Public Company Median Multiples by Quarter

	12/31/18	9/30/18	3/31/18	12/31/17	9/30/17	6/30/17	3/31/17	12/31/16
EV/Revenues Multiple	5.7x	5.4x	4.5x	4.5x	5.2x	4.9x	4.5x	4.1x
EV/EBITDA Multiple	21.8x	20.0x	19.9x	20.3x	22.3x	22.3x	19.0x	15.7x
Price/Earnings Multiple	56.5x	46.4x	45.6x	44.1x	44.3x	44.7x	36.0x	34.8x
EV/Gross Cash Flows Multiple	51.4x	64.1x	45.8x	54.7x	40.7x	39.2x	31.9x	30.6x

■ Highest Multiple
 ■ Lowest Multiple
 ■ Median Multiple

Industry Initial Public Offerings—Cardiovascular (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
5/31/18	Hancock Jaffe Laboratories, Inc.	\$5.00	15.1	\$22.1	\$1.5	\$3.8	\$0.3	(\$6.3)	(\$7.0)	(\$6.3)
11/17/11	Sphere Medical Holding PLC	\$1.46	7.0	\$10.4	\$4.4	\$1.5	\$0.0	(\$7.0)	(\$3.4)	(\$3.0)
4/18/11	InspireMD, Inc.	\$1.50	2.1	\$16.5	\$7.2	\$0.0	\$4.5	(\$3.3)	(\$10.2)	(\$8.6)
2/10/11	Kips Bay Medical, Inc.	\$8.00	4.5	\$81.0	\$103.0	\$2.8	\$0.2	(\$8.6)	(\$0.4)	\$8.9
3/18/08	BioTelemetry, Inc.	\$18.00	6.8	\$54.4	\$62.0	\$31.1	\$64.9	\$4.8	(\$17.8)	\$0.5
6/14/06	Volcano Corporation	\$8.00	14.4	\$47.0	\$11.8	\$7.4	\$95.3	(\$4.2)	(\$13.0)	(\$8.2)
12/12/05	Lombard Medical Technologies Limited	\$2.82	4.0	\$48.0	\$12.4	\$0.0	\$0.1	(\$9.5)	(\$9.7)	(\$3.7)
8/5/05	AtriCure, Inc.	\$12.00	5.5	\$44.0	\$41.1	\$6.0	\$25.5	(\$5.8)	(\$30.5)	(\$29.2)
Median of all IPOs		nm	nm	\$45.5	\$12.1	\$3.3	\$2.4	(\$6.1)	(\$9.9)	(\$5.0)

Multiple year periods are calculated as the average annual return.

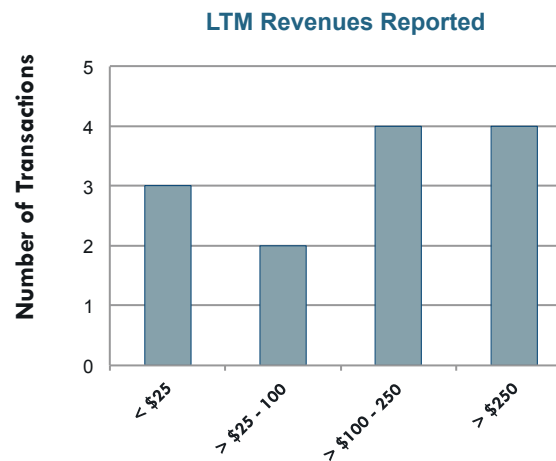
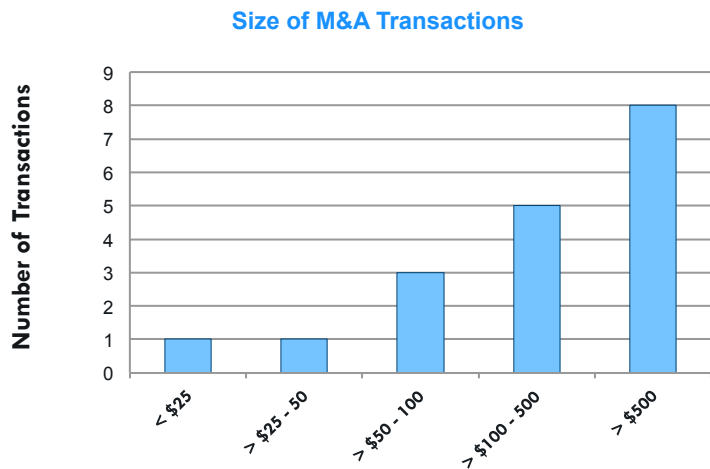
■ Highest Return
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Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
12/29/17	C. R. Bard, Inc.	Becton, Dickinson	\$25,785.2	100%	\$3,779.3	6.6x
12/29/17	JOTEC GmbH	CryoLife, Inc.	\$253.6	100%	\$51.0	5.0x
12/29/17	The Spectranetics Corporation	Philips Holding USA Inc.	\$2,117.3	100%	\$277.6	7.5x
12/1/17	Vascular Solutions, Inc.	Teleflex Incorporated	\$1,007.2	100%	\$160.0	6.1x
8/9/17	St. Jude Medical, Inc.	Abbott Laboratories	\$30,336.5	100%	\$5,644.0	5.3x
2/17/17	Selexys Pharmaceuticals	Novartis AG	\$665.0	100%	N/A	N/A
1/4/17	Creganna-Tactx Medical	Tyco Electronics UK Holdings Ltd.	\$895.0	100%	\$249.0	3.6x
11/18/16	Thoratec Corp.	St. Jude Medical, Inc.; SJM International, Inc.	\$3,683.3	100%	\$483.8	7.0x
4/4/16	Lazarus Effect, Inc.	Medtronic plc	\$100.0	100%	N/A	N/A
10/8/15	Altura Medical, Inc.	Lombard Medical, Inc.	\$49.0	81%	N/A	N/A
9/28/15	CardioInsight Technologies	Medtronic plc	\$123.0	100%	N/A	N/A
7/30/15	CardioMEMS, Inc.	St. Jude Medical Inc.	\$375.0	100%	N/A	N/A
6/18/15	Oscor Inc., Lead Business	Sorin SpA	\$20.0	100%	N/A	N/A
5/30/14	CircuLite, Inc.	Heartware International	\$401.8	100%	\$1.3	N/A
2/20/14	Cardiacom	Medtronic	\$200.0	100%	\$50.0	4.0x
12/1/13	eResearchTechnology	Genstar Capital	\$423.5	100%	\$193.7	1.9x
8/11/13	SunTech Medical Group	Halma	\$57.0	81%	\$23.0	2.3x
7/3/12	ZOLL Medical	Asahi Kasei	\$2,216.2	100%	\$544.3	3.9x
Median of the 19 M&A Transaction Targets			\$452.0	100%	\$160.0	5.0x

■ Highest
 ■ Lowest
 ■ Median

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of December 31, 2018



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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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