

Value Focus

Medical Device Industry

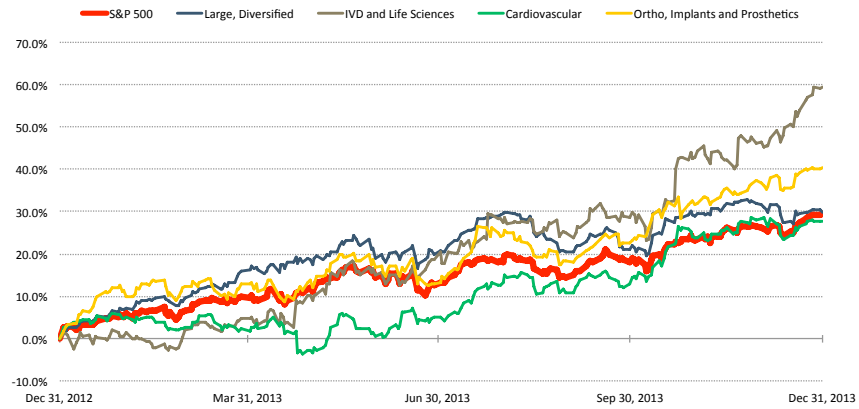
First Quarter 2014

Stock Market Performance

Stock price performance of major medical device sectors was in line with or better than the broader market during 2013. Valuation multiples expanded across all groups during the course of the year, with significant gains for the in-vitro diagnostics and life sciences companies.

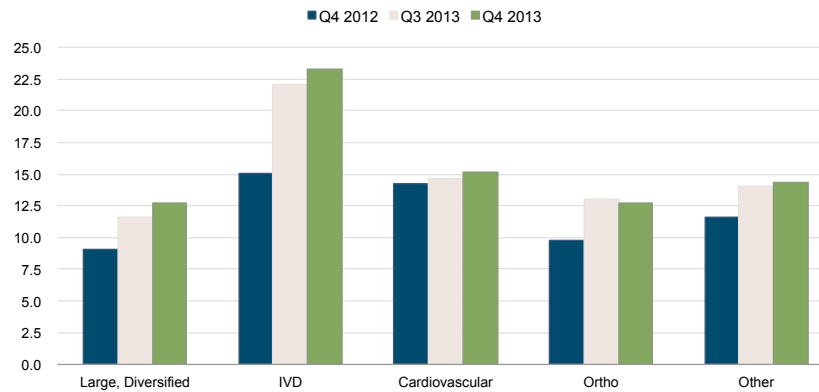
- » On a market capitalization-weighted basis, companies in the IVD and Life Sciences group gained a collective 60% during the year. Among larger companies, significant gainers included Illumina (102%), Quidel Corp (67%), and Techne Corp (39%). More generally, companies developing genomic sequencing and molecular diagnostics applications appeared to benefit from investor enthusiasm for the broader biotechnology sector.
- » Orthopedic, implants and prosthetics companies gained 40% in 2013. Notable gainers included NuVasive (114%), Globus Medical (95%), and Wright Medical (52%). Both NuVasive and Globus delivered double-digit sales growth during the year. While broad-based pricing gains are not expected for established procedures and applications, investors appeared to favor companies seeking to gain market share by developing or acquiring newer and faster-growing product categories.
- » Cardiovascular companies gained a collective 28% during the year. Significant gainers in this groups included St. Jude Medical (75%), Spectranetics (74%), and C.R. Bard (40%). With relatively muted organic top-line growth, the larger companies in this group expect to achieve earnings growth, in part, by controlling manufacturing costs. Acquisition of product portfolios, development of newer applications, and broader geographic presence is expected to drive future market share and sales gains.
- » The larger diversified companies were collectively up 30% in 2013.

Recent Stock Prices



Represents market capitalization weighted index for each group. Data Source: Bloomberg

Industry Multiples



Median EBITDA multiples from each MCM group. Data Source: Bloomberg

Venture Capital Funding and Exit

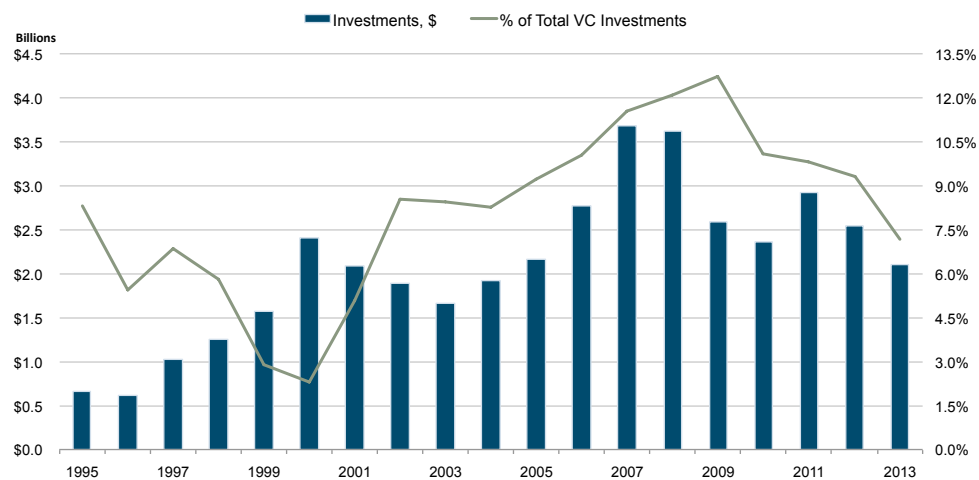
Venture capital investments in the medical devices industry declined for the second consecutive year to a total of \$2.1 billion during 2013 (data compiled in the MoneyTree™ report, as available at <https://www.pwcmoneytree.com/MTPublic/ns/index.jsp>).

- » Following increases during the early 2000s, venture capital investments in the medical device industry peaked at \$3.7 billion in 2007.
- » Medical device industry share of total venture capital investments was 12.8% in 2009 and has declined in each subsequent year.
- » In 2013, early-stage companies raised \$700 million (135 deals) compared to \$1.4 billion for late-stage companies (173 deals). Funding for both early-stage and late-stage companies declined 17% compared to the prior year. ("Medtech Slowdown: (Q4 2013 MoneyTree™ report) at <http://www.pwc.com/us/en/health-industries/publications/life-sciences-money-tree.jhtml>)
- » The impact of the longer-term decline in the venture capital investment share of medical device companies was tempered somewhat by investment interest from larger, more established companies seeking engagement earlier in the development cycle. During the first nine months of 2013, corporate investments represented 10.7% of all venture capital investments in medical device companies.

Exit activity for venture-backed medical devices and healthcare companies was relatively robust in 2013.

- » 10 IPOs raised \$690 million in 2013 for venture-backed medical devices and healthcare companies.
- » During 2013, 32 venture-backed medical devices and healthcare companies entered into strategic M&A transactions with larger companies. Aggregate transaction value for deals with disclosed values totaled \$2 billion.

Venture Capital Investments in Medical Devices



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

Select Venture Funding Deals

Company	Recent Financing		Founded	Notes
	Amount (\$M)	Round		
ViewRay	\$30.0	Venture	2004	Advanced radiation therapy technology that provides continuous soft-tissue imaging during treatment.
MiMedx Group (Surgical Biologics)	\$34.0	Post-IPO Equity	2008	Develops allografts and other products processed from human amniotic membrane.
Xlumena	\$25.0	Series C	2008	Image-guided therapeutic endoscopy products.
TriVascular	\$40.0	Series E	1998	Transluminally placed stent-grafts for the treatment of aneurysmal disease in the abdominal area.
Medical Depot	\$115.0	Debt	1984	Durable medical equipment including bariatric, sleep-surface, self-assist, and personal care products.
LensAR	\$87.0	Private Equity / Debt	2004	Refractive laser-assisted cataract surgery. [\$27 in equity funding and \$60 in debt commitment.]
InfraReDx	\$25.0	Private Equity	1998	Near-infrared spectroscopic technology for coronary imaging.
Hansen Medical	\$39.3	Private Equity	2002	Advanced medical robotics.
ConforMIS	\$168.0	Series E	2004	Partial knee resurfacing implants to treat knee osteoarthritis.
Mevion Medical Systems	\$55.0	Venture	2004	Radiation therapy (proton therapy systems).
Spinal Modulation	\$45.0	Series E	2004	Intraspinal neuromodulation therapy to provide pain management for leg, back and foot.
Topera	\$25.0	Series C	2010	3D analysis and mapping system to assist in the identification of the electric source of complex cardiac arrhythmias.
Auris Medical	\$50.3	Series C	2003	Inner ear disorders.
Watermark Medical	\$32.2	Private Equity	2008	Home sleep testing solutions.
T2 Biosystems	\$40.0	Series E	2006	Diagnostics platform using nanotechnology and miniaturized magnetic resonance technology.
Avedro	\$43.0	Series D	2007	Corneal cross-linking for the treatment of progressive keratoconus.
CardioKinetix	\$23.0	Series E	2003	Transcatheter implant to treat heart attack or myocardial infarction. [Second tranche of total \$48 Series E.]
TearScience	\$70.0	Series D	2005	Clinical identification and treatment of evaporative dry eye.
BAROnova	\$27.3	Series C	2006	Non-surgical non-pharmacologic devices to induce weight loss.
Conisus	\$46.5	Debt	1995	Education program for health professionals to improve care of patients with cancer and blood disorders.
Tryton Medical	\$24.0	Venture	2003	Stent to treat atherosclerotic lesions.
EndoChoice	\$43.0	Venture	2008	Platform technologies for specialists treating gastrointestinal diseases.

Data Source: Crunchbase at TechCrunch.com (medical device funding rounds over \$25 million during 2013)

Select Operating Metrics

Public Medical Device Companies

Segment	Gross Margin		EBITDA Margin		Operating Margin		R&D / Revenue	
	Q4 2013	Q3 2013	Q4 2013	Q3 2013	Q4 2013	Q3 2013	Q4 2013	Q3 2013
Large, Diversified	62.8%	63.2%	22.5%	23.3%	16.3%	17.3%	7.4%	7.3%
IVD & Life Sciences	55.2%	54.6%	10.8%	11.3%	4.5%	5.3%	10.4%	10.4%
Cardiovascular	67.5%	69.0%	13.3%	11.6%	8.0%	7.3%	13.9%	13.7%
Ortho, Implants & Prosthetics	68.5%	68.2%	11.6%	11.6%	4.9%	5.1%	6.7%	6.6%
Other	51.8%	50.4%	5.5%	5.3%	1.3%	1.5%	8.3%	8.6%
All Companies	58.6%	58.4%	11.3%	11.4%	5.9%	5.8%	8.1%	7.9%

Segment	Historical Rev Growth		LT Fwd Op Earn Growth	Debt / EV		Debt / EBITDA	
	Quarterly	Annual	Q4 2013	Q4 2013	Q3 2013	Q4 2013	Q3 2013
Large, Diversified	1.0%	4.6%	9.3%	16.0%	17.6%	1.9	2.0
IVD & Life Sciences	1.4%	12.6%	15.3%	2.6%	2.4%	0.8	0.9
Cardiovascular	2.5%	13.1%	19.2%	0.4%	0.3%	0.0	0.0
Ortho, Implants & Prosthetics	1.5%	5.8%	14.0%	17.7%	15.8%	3.0	3.0
Other	1.4%	4.1%	15.0%	2.0%	2.1%	0.0	0.0
All Companies	1.4%	5.9%	15.0%	6.5%	6.5%	0.7	0.7

Median measures for each group. Data Source: Bloomberg

Medical Devices Select Transactions Summary

(\$Millions)

Acquirer	Target	Date	Deal Size (EV)	Sales	EBITDA	EV / Sales	EV / EBITDA	Segment
Stryker Corp	Patient Safety Technologies Inc	12/31/13	\$84.7	\$17.6	\$0.1	4.82	nm	Disposable Medical Prod
Getinge AB	Pulsion Medical Systems SE	12/4/13	\$150.4	\$44.5	\$14.8	3.38	10.2	Patient Monitoring Equip
Wright Medical Group Inc	Biotech International	10/16/13	\$75.0	\$31.2	na	2.41	nm	Medical Products
Techne Corp	Bionostics Ltd	6/18/13	\$104.0	\$27.1	\$5.5	3.83	19.0	Medical Products
Bayer AG	Conceptus Inc	4/29/13	\$986.3	\$145.8	\$29.7	6.76	33.2	Medical Instruments
Thermo Fisher Scientific Inc	Life Technologies Corp	4/15/13	\$15,901.0	\$3,821.9	\$1,166.7	4.16	13.6	Medical-Biomedical/Gene
Nipro Corp	Goodman Co Ltd	1/24/13	\$174.8	\$127.8	\$5.1	1.37	34.5	Medical Instruments
Stryker Corp	Trauson Holdings Co Ltd	1/17/13	\$677.6	\$67.7	\$31.1	10.00	21.8	Medical Instruments
PAI Partners SAS	Marcolin SpA	12/5/12	\$74.0	\$282.6	\$34.6	0.26	2.1	Optical Supplies
Linden LLC	Young Innovations Inc	12/4/12	\$300.1	\$108.6	\$29.4	2.76	10.2	Medical Instruments
Max Co Ltd	Kawamura Cycle Co Ltd	11/20/12	\$11.6	\$44.6	\$4.0	0.26	2.9	Hospital Beds/Equipment
2iL Orthopaedics Ltd	Corin Group PLC	11/12/12	\$54.5	\$80.0	\$10.3	0.68	5.3	Medical Products
McKesson Corp	PSS World Medical Inc	10/25/12	\$1,809.0	\$1,803.0	\$142.7	1.00	12.7	Medical Products
Medtronic Inc	Lifetech Scientific Corp	10/15/12	\$46.6	\$28.8	\$8.9	1.62	5.2	Medical Products
PAI Partners SAS	Marcolin SpA	10/15/12	\$273.4	\$282.6	\$34.6	0.97	7.9	Optical Supplies
Danaher Corp	IRIS International Inc	9/17/12	\$332.7	\$122.0	\$12.0	2.73	27.7	Diagnostic Equipment
Inception Biosciences	Lifebank Corp	8/10/12	\$3.2	\$3.2	\$0.0	1.00	79.5	Diversified Operations

Data Source: Bloomberg

Public Medical Device Companies

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual	Q4 2013	Q4 2013	Q4 2013	FY 2014	FY 2015	Q4 2013	Q4 2013	2014	2015
Large, Diversified														
Abbott Laboratories	\$38.33	\$33.14	\$30.82	15.7%	24.4%	\$57,824.3	\$21,848.1	\$4,348.6	\$5,494.6	\$6,064.3	2.65	13.3	10.5	9.5
Baxter	\$69.55	\$66.38	\$65.59	4.8%	6.0%	\$44,200.6	\$15,259.0	\$3,491.0	\$4,560.9	\$4,768.8	2.90	12.7	9.7	9.3
Becton, Dickinson and Company	\$110.49	\$99.89	\$77.34	10.6%	42.9%	\$22,888.5	\$8,169.0	\$1,799.9	\$2,276.4	\$2,425.5	2.80	12.7	10.1	9.4
Boston Scientific Corporation	\$12.02	\$11.52	\$5.58	4.3%	115.4%	\$20,072.4	\$7,143.0	\$1,574.0	\$1,762.3	\$1,913.6	2.81	12.8	11.4	10.5
Covidien PLC	\$68.10	\$60.96	\$51.22	11.7%	33.0%	\$34,249.6	\$10,880.0	\$2,914.0	\$2,955.9	\$3,131.4	3.15	11.8	11.6	10.9
Medtronic, Inc.	\$57.39	\$53.00	\$40.75	8.3%	40.8%	\$55,847.3	\$16,899.0	\$5,771.0	\$6,140.3	\$6,429.2	3.30	9.7	9.1	8.7
Johnson & Johnson	\$91.59	\$86.73	\$69.48	5.6%	31.8%	\$247,389.6	\$71,312.0	\$23,061.0	\$24,401.1	\$26,141.4	3.47	10.7	10.1	9.5
Stryker Corporation	\$75.14	\$67.65	\$54.45	11.1%	38.0%	\$27,218.4	\$9,021.0	\$1,611.0	\$2,713.1	\$2,889.1	3.02	16.9	10.0	9.4
IVD & Life Sciences														
Affymetrix, Inc.	\$8.57	\$6.14	\$3.11	39.6%	175.6%	\$703.7	\$330.4	\$21.4	\$43.8	\$48.5	2.13	32.8	16.1	14.5
Bio-Rad Laboratories, Inc.	\$123.61	\$116.99	\$104.21	5.7%	18.6%	\$3,442.0	\$2,132.7	\$327.1	\$363.5	\$393.0	1.61	10.5	9.5	8.8
Bruker Corporation	\$19.77	\$20.54	\$15.05	-3.7%	31.4%	\$3,228.8	\$1,839.4	\$209.5	\$285.0	\$325.6	1.76	15.4	11.3	9.9
Enzo Biochem, Inc.	\$2.92	\$2.52	\$2.68	15.9%	9.0%	\$117.0	\$92.2	(\$14.1)	(\$11.4)	(\$5.3)	1.27	nm	nm	nm
GenMark Diagnostics, Inc.	\$13.29	\$11.64	\$8.71	14.2%	52.6%	\$439.7	\$30.4	(\$27.0)	(\$30.2)	(\$40.3)	14.47	nm	nm	nm
Haemonetics Corporation	\$42.13	\$39.95	\$39.98	5.5%	5.4%	\$2,440.3	\$947.4	\$130.2	\$238.3	\$245.8	2.58	18.7	10.2	9.9
Hologic, Inc.	\$22.35	\$20.91	\$19.91	6.9%	12.3%	\$9,957.6	\$2,473.4	\$722.7	\$850.3	\$894.0	4.03	13.8	11.7	11.1
Illumina, Inc.	\$110.59	\$81.01	\$54.75	36.5%	102.0%	\$13,681.1	\$1,421.2	\$223.0	\$505.7	\$639.4	9.63	61.3	27.1	21.4
Luminex Corporation	\$19.40	\$20.12	\$16.43	-3.6%	18.1%	\$741.5	\$213.4	\$23.1	\$50.0	\$58.9	3.47	32.1	14.8	12.6
MGC Diagnostics Corporation	\$12.66	\$10.96	\$5.90	15.5%	114.6%	\$41.8	\$31.6	\$1.8	na	na	1.32	23.3	nm	nm
OraSure Technology	\$6.29	\$6.16	\$6.69	2.1%	-6.0%	\$256.5	\$98.9	(\$14.0)	(\$12.0)	(\$4.7)	2.59	nm	nm	nm
Quidel Corporation	\$30.89	\$28.18	\$18.47	9.6%	67.2%	\$969.6	\$175.4	\$26.3	\$55.1	\$65.4	5.53	36.9	17.6	14.8
TECHNE Corporation	\$94.67	\$80.16	\$68.36	18.1%	38.5%	\$3,303.2	\$330.2	\$173.9	\$184.0	\$194.0	10.01	19.0	18.0	17.0
Trinity Biotech	\$25.14	\$21.63	\$14.27	16.2%	76.2%	\$529.9	\$86.6	\$8.0	\$22.6	\$30.0	6.12	66.3	23.4	17.7
Vermillion, Inc.	\$2.36	\$2.64	\$1.34	-10.6%	76.1%	\$41.9	\$2.1	(\$8.2)	na	na	19.75	nm	nm	nm

Data Source: Bloomberg

Public Medical Device Companies (continued)

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual				Q4 2013	Q4 2013			Q4 2013	FY 2014
Cardiovascular														
ABIOMED, Inc.	\$26.74	\$18.75	\$13.46	42.6%	98.7%	\$947.6	\$176.9	\$11.3	\$10.2	\$24.3	5.36	83.7	93.2	39.0
CR Bard Inc.	\$133.94	\$115.74	\$95.99	15.7%	39.5%	\$10,771.4	\$3,049.5	\$785.5	\$955.6	\$1,031.1	3.53	13.7	11.3	10.4
CardioNet Inc.	\$7.94	\$9.92	\$2.20	-20.0%	260.9%	\$174.9	\$129.5	\$9.9	\$13.4	\$16.6	1.35	17.7	13.1	10.5
Cardiovascular Systems, Inc.	\$34.29	\$20.07	\$12.21	70.9%	180.8%	\$826.1	\$117.4	(\$25.3)	(\$21.5)	(\$13.7)	7.04	nm	nm	nm
CryoLife, Inc.	\$11.09	\$6.90	\$6.07	60.7%	82.7%	\$284.4	\$140.8	\$18.8	na	na	2.02	15.2	nm	nm
Cyberonics, Inc.	\$65.42	\$50.51	\$51.53	29.5%	27.0%	\$1,648.0	\$275.5	\$88.9	\$98.0	\$111.3	5.98	18.5	16.8	14.8
Edwards Lifesciences Corporation	\$65.76	\$68.79	\$89.27	-4.4%	-26.3%	\$6,850.8	\$2,045.5	\$530.0	\$507.3	\$562.2	3.35	12.9	13.5	12.2
HeartWare International, Inc.	\$93.90	\$73.69	\$81.18	27.4%	15.7%	\$1,407.6	\$207.9	(\$40.3)	(\$28.4)	(\$6.3)	6.77	nm	nm	nm
LeMaitre Vascular, Inc.	\$8.01	\$6.79	\$5.85	18.0%	36.9%	\$108.8	\$64.5	\$7.1	\$9.5	na	1.69	15.4	11.4	nm
Merit Medical Systems, Inc.	\$15.74	\$12.32	\$13.48	27.8%	16.8%	\$909.3	\$449.0	\$70.5	\$76.8	\$85.8	2.02	12.9	11.8	10.6
St. Jude Medical, Inc.	\$61.95	\$52.39	\$35.47	18.2%	74.7%	\$20,457.8	\$5,501.0	\$1,649.0	\$1,790.5	\$1,910.5	3.72	12.4	11.4	10.7
The Spectranetics Corporation	\$25.00	\$16.61	\$14.35	50.5%	74.2%	\$901.5	\$158.8	\$11.0	\$8.2	\$14.8	5.68	82.2	110.3	61.1
Thoratec Corp	\$36.60	\$36.92	\$37.09	-0.9%	-1.3%	\$1,779.3	\$502.8	\$119.4	\$148.6	\$172.8	3.54	14.9	12.0	10.3
Vascular Solutions, Inc.	\$23.15	\$16.48	\$15.25	40.5%	51.8%	\$358.9	\$110.5	\$21.9	\$24.8	\$26.7	3.25	16.4	14.5	13.4
Volcano Corporation	\$21.85	\$23.68	\$23.46	-7.7%	-6.9%	\$1,261.3	\$393.7	\$20.5	\$20.1	\$40.4	3.20	61.4	62.7	31.2

Data Source: Bloomberg

Public Medical Device Companies (continued)

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual				Q4 2013	Q4 2013			Q4 2013	FY 2014
Ortho, Implants and Prosthetics														
Alphatech Holdings	\$2.01	\$1.96	\$1.65	2.6%	21.8%	\$249.8	\$204.4	\$10.0	\$18.9	\$30.1	1.22	24.9	13.2	8.3
Baxano Surgical, Inc.	\$1.01	\$1.42	\$2.42	-28.9%	-58.3%	\$36.8	\$16.8	(\$23.4)	na	na	2.20	nm	nm	nm
Bacterin International Holdings Inc	\$0.50	\$0.60	\$1.33	-16.7%	-62.4%	\$38.8	\$32.9	(\$8.2)	(\$7.4)	(\$9.7)	1.18	nm	nm	nm
Exactech, Inc.	\$23.76	\$20.08	\$16.80	18.3%	41.4%	\$352.5	\$237.1	\$41.2	\$45.4	\$48.8	1.49	8.6	7.8	7.2
Globus Medical, Inc.	\$20.18	\$17.70	\$10.37	14.0%	94.6%	\$1,606.2	\$434.5	\$145.4	\$159.7	\$183.3	3.70	11.0	10.1	8.8
Greatbatch, Inc.	\$44.24	\$33.69	\$22.89	31.3%	93.3%	\$1,279.7	\$663.9	\$88.8	\$159.0	\$181.0	1.93	14.4	8.0	7.1
Intergra LifeSciences Holdings	\$47.71	\$39.91	\$38.25	19.5%	24.7%	\$1,804.2	\$836.2	\$90.1	\$198.1	\$218.0	2.16	20.0	9.1	8.3
NuVasive, Inc.	\$32.33	\$23.97	\$15.14	34.9%	113.5%	\$1,491.5	\$685.2	\$91.9	\$139.8	\$171.4	2.18	16.2	10.7	8.7
Orthofix International N.V.	\$22.82	\$21.55	\$38.52	5.9%	-40.8%	\$430.2	\$446.5	\$92.2	na	na	0.96	4.7	nm	nm
RTI Surgical Inc.	\$3.54	\$3.62	\$4.10	-2.1%	-13.7%	\$292.8	\$198.0	(\$7.0)	\$16.1	\$20.8	1.48	nm	18.2	14.1
Symmetry Medical Inc.	\$10.08	\$8.19	\$10.41	23.1%	-3.2%	\$541.6	\$400.0	\$50.1	\$59.1	\$65.8	1.35	10.8	9.2	8.2
Tornier NV	\$18.79	\$19.24	\$16.29	-2.3%	15.3%	\$923.2	\$311.0	\$16.2	\$21.3	\$31.8	2.97	56.9	43.3	29.1
Wright Medical Group, Inc.	\$30.71	\$26.01	\$20.25	18.1%	51.7%	\$1,538.7	\$306.4	(\$19.9)	(\$20.5)	\$5.1	5.02	nm	nm	299.8
Zimmer Holdings, Inc.	\$93.19	\$82.30	\$65.54	13.2%	42.2%	\$15,801.7	\$4,623.4	\$1,657.8	\$1,832.8	\$1,930.4	3.42	9.5	8.6	8.2

Data Source: Bloomberg

Public Medical Device Companies (continued)

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV Q4 2013	TTM Rev Q4 2013	TTM EBITDA Q4 2013	FWD EBITDA		EV / Sales Q4 2013	EV / EBITDA Q4 2013	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual				FY 2014	FY 2015			2014	2015
Cosmetics														
Cutera, Inc.	\$10.18	\$8.97	\$8.66	13.5%	17.6%	\$60.7	\$74.6	(\$4.0)	\$3.7	na	0.81	nm	16.5	nm
Cynosure, Inc.	\$26.64	\$22.76	\$23.49	17.0%	13.4%	\$482.7	\$226.0	\$1.9	\$48.0	\$55.8	2.14	251.7	10.1	8.7
PhotoMedex, Inc.	\$12.95	\$16.07	\$14.21	-19.4%	-8.9%	\$219.6	\$216.0	\$30.0	\$34.3	\$41.8	1.02	7.3	6.4	5.3
Solta Medical, Inc.	\$2.95	\$2.12	\$2.60	39.2%	13.5%	\$265.0	\$151.1	(\$1.5)	\$7.7	\$16.7	1.75	nm	34.3	15.9
Dental														
Align Technology, Inc.	\$57.14	\$47.78	\$27.07	19.6%	111.1%	\$4,117.4	\$660.2	\$178.1	\$203.2	\$237.0	6.24	23.1	20.3	17.4
DENTSPLY International	\$48.48	\$43.39	\$39.01	11.7%	24.3%	\$8,359.8	\$2,950.8	\$560.4	\$628.1	\$673.4	2.83	14.9	13.3	12.4
Sirona Dental Systems, Inc.	\$70.20	\$67.08	\$62.90	4.7%	11.6%	\$3,729.1	\$1,127.8	\$292.6	\$318.9	\$354.2	3.31	12.7	11.7	10.5
Obesity Treatment														
EnteroMedics Inc.	\$2.04	\$1.22	\$2.70	67.2%	-24.4%	\$110.5	\$0.0	(\$24.9)	(\$22.2)	(\$18.5)	nm	nm	nm	nm
ZELTIQ Aesthetics, Inc.	\$18.91	\$9.00	\$4.48	110.1%	322.1%	\$650.2	\$111.6	(\$18.7)	(\$8.9)	\$1.3	5.83	nm	nm	497.9
Pediatric Medical Devices														
Natus Medical Incorporated	\$22.50	\$13.88	\$10.61	62.1%	112.1%	\$678.6	\$344.1	\$39.5	\$61.5	\$69.6	1.97	17.2	11.0	9.7
Surgery and Life Support Devices														
ArthroCare Corporation	\$40.24	\$35.61	\$33.75	13.0%	19.2%	\$1,011.6	\$378.0	\$84.2	\$96.4	\$104.0	2.68	12.0	10.5	9.7
AtriCure	\$18.68	\$10.96	\$6.65	70.4%	180.9%	\$368.7	\$81.9	(\$6.1)	na	na	4.50	nm	nm	nm
Intuitive Surgical, Inc.	\$384.08	\$367.46	\$479.50	4.5%	-19.9%	\$13,216.2	\$2,265.1	\$919.8	\$818.6	\$903.0	5.83	14.4	16.1	14.6
Misonix, Inc.	\$5.63	\$4.49	\$7.66	25.4%	-26.5%	\$35.5	\$14.0	(\$5.3)	na	na	2.54	nm	nm	nm
NxStage Medical, Inc.	\$10.00	\$12.93	\$10.67	-22.7%	-6.3%	\$524.3	\$263.4	\$9.5	\$3.4	\$14.0	1.99	55.3	155.2	37.6
Stereotaxis, Inc.	\$3.62	\$3.02	\$2.56	19.8%	41.3%	\$87.3	\$38.0	(\$4.8)	na	na	2.30	nm	nm	nm
SurModics Inc.	\$24.39	\$24.17	\$22.01	0.9%	10.8%	\$312.0	\$56.2	\$21.6	\$21.2	\$24.1	5.56	14.4	14.8	12.9
Synergetics USA, Inc.	\$3.62	\$4.39	\$4.79	-17.5%	-24.4%	\$78.0	\$63.7	\$5.2	\$8.7	na	1.22	14.9	9.0	nm
Teleflex, Inc.	\$93.86	\$81.98	\$70.68	14.5%	32.8%	\$4,718.7	\$1,696.3	\$364.7	\$420.0	\$462.0	2.78	12.9	11.2	10.2

Data Source: Bloomberg

Public Medical Device Companies (continued)

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual				Q4 2013	Q4 2013			Q4 2013	FY 2014
General Hospital Devices and Supplies														
BSD Medical Corporation	\$1.19	\$1.46	\$1.55	-18.5%	-23.1%	\$32.9	\$4.3	(\$7.4)	na	na	7.57	nm	nm	nm
CONMED Corporation	\$42.50	\$33.30	\$27.47	27.6%	54.7%	\$1,334.7	\$762.7	\$104.4	\$136.3	\$144.0	1.75	12.8	9.8	9.3
Digirad Corporation	\$3.70	\$2.59	\$2.03	42.9%	82.3%	\$24.7	\$49.4	(\$0.6)	na	na	0.50	nm	nm	nm
Dynatronics Corporation	\$4.15	\$3.16	\$2.98	31.3%	39.3%	\$15.7	\$28.5	\$0.6	na	na	0.55	27.1	nm	nm
FONAR Corporation	\$21.21	\$5.89	\$4.32	260.1%	390.9%	\$142.2	\$74.1	\$15.0	na	na	1.92	9.5	nm	nm
Given Imaging Ltd.	\$30.08	\$19.21	\$17.39	56.6%	73.0%	\$838.3	\$188.9	\$24.4	\$36.3	\$38.6	4.44	34.4	23.1	21.7
Intuitive Surgical, Inc.	\$384.08	\$367.46	\$479.50	4.5%	-19.9%	\$13,216.2	\$2,265.1	\$919.8	\$818.6	\$903.0	5.83	14.4	16.1	14.6
Masimo Corporation	\$29.23	\$26.53	\$20.58	10.2%	42.0%	\$1,557.3	\$547.2	\$99.1	\$104.5	\$111.0	2.85	15.7	14.9	14.0
Medical Action Industries Inc.	\$8.56	\$6.60	\$2.69	29.7%	218.2%	\$195.2	\$433.4	\$20.4	na	na	0.45	9.6	nm	nm
Opko Health, Inc.	\$8.44	\$8.66	\$4.73	-2.5%	78.4%	\$3,457.5	\$92.1	(\$36.7)	na	na	37.54	nm	nm	nm
STERIS Corporation	\$48.05	\$42.68	\$34.64	12.6%	38.7%	\$3,148.2	\$1,585.2	\$288.4	\$334.5	\$359.0	1.99	10.9	9.4	8.8
Varian Medical Systems, Inc.	\$77.69	\$74.18	\$69.62	4.7%	11.6%	\$7,649.4	\$2,976.0	\$675.4	\$701.1	\$752.1	2.57	11.3	10.9	10.2
Vision-Sciences, Inc.	\$1.00	\$0.95	\$1.07	5.5%	-6.5%	\$67.1	\$16.3	(\$6.5)	na	na	4.11	nm	nm	nm
Home Health and Consumer Devices														
Invacare Corporation	\$23.21	\$17.32	\$15.96	34.0%	45.4%	\$758.4	\$1,365.6	\$15.5	\$14.3	\$88.3	0.56	48.9	53.0	8.6
Mine Safety Appliances Company	\$51.21	\$51.33	\$41.55	-0.2%	23.2%	\$2,076.4	\$1,152.6	\$175.8	\$195.8	\$221.0	1.80	11.8	10.6	9.4
ResMed Inc.	\$47.08	\$52.70	\$40.91	-10.7%	15.1%	\$6,152.3	\$1,540.2	\$461.0	\$507.0	\$552.4	3.99	13.3	12.1	11.1
Span-America Medical Systems	\$20.84	\$21.41	\$17.61	-2.7%	18.3%	\$55.7	\$67.0	\$7.5	na	na	0.83	7.4	nm	nm
Syneron Medical Ltd.	\$12.30	\$8.61	\$8.56	42.9%	43.7%	\$322.8	\$256.9	\$0.9	\$25.2	\$39.5	1.26	373.2	12.8	8.2

Data Source: Bloomberg

Public Medical Device Companies (continued)

(\$Millions, except per share figures)

	Price			Δ Stock Price		EV	TTM Rev	TTM EBITDA	FWD EBITDA		EV / Sales	EV / EBITDA	EV / FWD EBITDA	
	Q4 2013	Q3 2013	Q4 2012	Qtrly	Annual				Q4 2013	Q4 2013			FY 2014	FY 2015
Other Medical Device														
Accuray Incorporated	\$8.70	\$7.30	\$6.31	19.2%	37.9%	\$692.8	\$325.7	(\$28.5)	(\$16)	\$20.5	2.13	nm	nm	33.8
Allied Healthcare Products, Inc.	\$2.28	\$2.27	\$2.54	0.4%	-10.4%	\$16.0	\$36.8	(\$1.4)	na	na	0.44	nm	nm	nm
Arrhythmia Research Technology, Inc.	\$3.17	\$2.70	\$2.3	17.4%	40.9%	\$12.3	\$19.8	\$1.2	na	na	0.62	9.8	nm	nm
Dehaier Medical Systems Limited	\$3.88	\$2.02	\$1.92	92.1%	102.1%	\$9.8	\$26.4	\$6.3	na	na	0.37	1.6	nm	nm
Escalon Medical Corp.	\$1.97	\$1.50	\$0.95	31.3%	107.4%	\$13.5	\$12.6	(\$0.7)	na	na	1.07	nm	nm	nm
Hansen Medical, Inc.	\$1.73	\$1.85	\$2.05	-6.5%	-15.6%	\$170.2	\$17.0	(\$37.1)	(\$33.2)	(\$30.4)	10.02	nm	nm	nm
IRIDEX Corporation	\$10.17	\$6.08	\$3.76	67.3%	170.5%	\$82.0	\$38.3	\$2.9	na	na	2.14	28.6	nm	nm
Navidea Biopharmaceuticals, Inc.	\$2.07	\$2.69	\$2.69	-23.0%	-23.0%	\$261.2	\$0.6	(\$32.0)	na	na	433.60	nm	nm	nm
ThermoGenesis Corp.	\$1.02	\$1.08	\$0.86	-5.6%	18.6%	\$11.7	\$17.2	(\$6.0)	na	na	0.68	nm	nm	nm
Uroplasty, Inc.	\$2.73	\$3.31	\$3.24	-17.5%	-15.7%	\$46.1	\$23.8	(\$4.6)	(\$2.6)	(\$2.7)	1.94	nm	nm	nm
Other Diversified Cos with Med-Tech Components														
Agilent Technologies, Inc.	\$57.19	\$51.63	\$39.83	10.8%	43.6%	\$18,932.1	\$6,781.0	\$1,326.0	\$1,588.9	\$1,741.1	2.79	14.3	11.9	10.9
Danaher Corporation	\$77.20	\$69.87	\$55.02	10.5%	40.3%	\$54,273.7	\$19,118.0	\$4,169.9	\$4,551.2	\$4,909.5	2.84	13.0	11.9	11.1
General Electric	\$28.03	\$24.05	\$20.44	16.5%	37.1%	\$456,825.9	\$143,226.0	\$25,992.0	\$29,418.0	\$28,601.4	3.19	17.6	15.5	16.0
PerkinElmer, Inc.	\$41.23	\$38.11	\$31.03	8.2%	32.9%	\$5,394.1	\$2,166.2	\$390.7	\$450.4	\$497.0	2.49	13.8	12.0	10.9
Siemens AG	\$138.51	\$121.78	\$107.70	13.7%	28.6%	\$136,813.3	\$75,752.0	\$8,447.0	\$10,775.1	\$11,579.4	1.81	16.2	12.7	11.8
Thermo Fisher Scientific Inc.	\$111.35	\$93.01	\$62.91	19.7%	77.0%	\$44,895.0	\$13,090.3	\$2,687.2	\$3,986.3	\$4,577.7	3.43	16.7	11.3	9.8

Data Source: Bloomberg

Mercer Capital

Medical Device Industry Services

Mercer Capital provides medical device manufacturers, related start-up enterprises, and private equity funds with valuation services, including purchase price allocation, 409a compliance, goodwill impairment testing, and other transaction and valuation advisory services.

Mercer Capital provides a broad range of specialized valuation advisory services to the medical device industry, helping clients by providing reliable independent valuation opinions and sound guidance. Our services for companies in the medical device industry include purchase price allocation, impairment testing, equity compensation, portfolio valuation, tax compliance, litigation support, and corporate valuation services.

Mercer Capital has significant expertise providing valuation and financial advisory services to companies in the medical device industry, including:

- Biologics
- Cardiovascular
- Dental
- Diagnostics Equipment
- General Surgery
- Orthopedics
- Spinal

We have assisted medical device companies in all stages of development, including publicly traded medical device companies, start-up companies, closely held private companies, and medical device companies sponsored by private equity.

Contact a Mercer Capital professional to discuss your needs in confidence.

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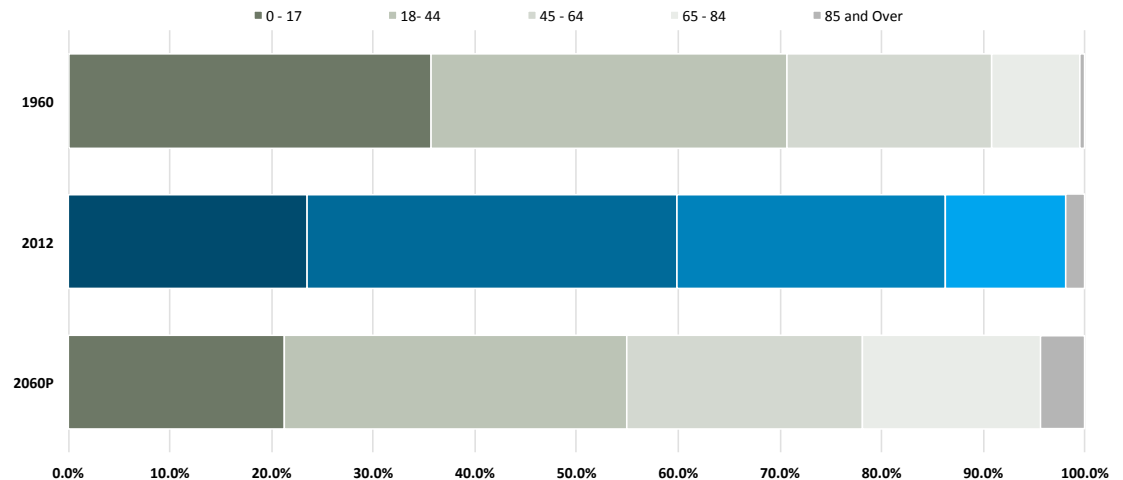
Five Trends to Watch in the Medical Device Industry

The following outlines five structural factors and trends that have, and will likely continue to influence demand and supply of medical devices and related procedures.

1 Demographics Drive Demand

Besides general economic growth, the aging population represents a major demand driver for medical devices. The elderly population (persons 65 and above) in the United States, approximately 37 million in 2012, accounted for about one third of total healthcare consumption. The Census Bureau estimates that the elderly will number 74 million by 2060, approximately 22% of the total population. In addition to the greying population, the prevalence of unmet medical needs and increasing incidence of lifestyle diseases are likely to drive continued growth in the demand for medical devices (see chart on the following page regarding increasing incidences of obesity).

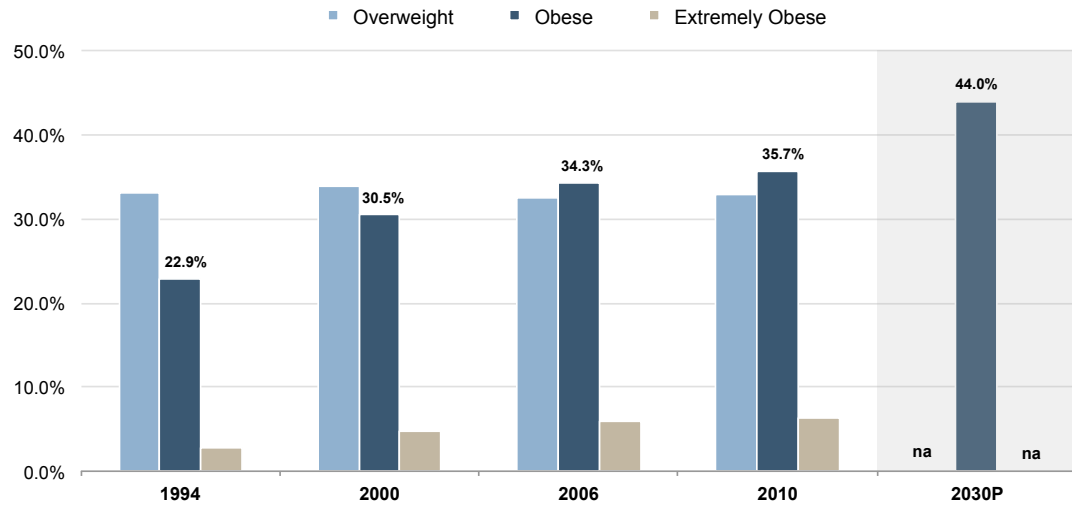
US Population Distribution by Age Group



Data source: US Census Bureau

by Sujan Rajbhandary, CFA
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US Adult Obesity Rates

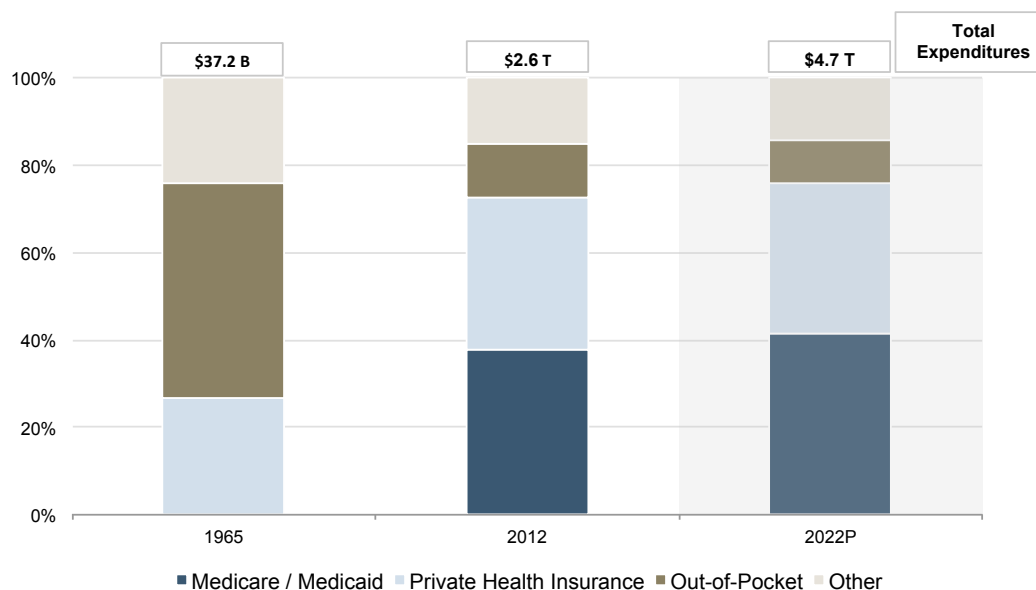


Data source: Centers for Disease Control and Prevention; Trust for America's Health, Robert Wood Johnson Foundation

2 Payor Mix

Since its inception, Medicare has accounted for an increasingly larger proportion of total US healthcare expenditures. Medicare currently provides healthcare benefits for an estimated 50 million elderly and disabled Americans. Along with the aging population, Medicare policies regarding coverage and reimbursement rates will likely have a profound impact on the healthcare business in the US, including the overall demand for and average selling prices of medical devices.

Health Consumption Expenditures // Payor Mix



Data source: National Health Expenditures Accounts, Centers for Medicare & Medicaid Services (Amounts in current dollars)

3 Legislative Landscape

The increasing influence of Medicare in aggregate healthcare consumption suggests that legislative developments can have a potentially outsized effect on the demand and pricing for medical products and services. The Patient Protection and Affordable Care Act (“ACA”) of 2010 incorporates changes that are expected to constrain annual growth in Medicare spending over the next decade and beyond by reducing growth in Medicare payments to health care providers and Medicare Advantage plans, and establishing several new policies and programs designed to reduce costs.

- » Hospitals form the largest market for medical devices. Several elements of the ACA are expected to constrain reimbursement growth for hospitals. Lower reimbursement growth will likely persuade

hospitals to scrutinize medical purchases by adopting i) higher standards to evaluate the benefits of new procedures and devices, and ii) a more disciplined price bargaining stance. The transition of the healthcare delivery paradigm from fee-for-service models to value models is expected to lead to fewer hospital admissions and procedures. Ultimately, lower reimbursement rates will likely limit pricing gains for medical devices and equipment.

- » The ACA instituted a 2.3% excise tax on the sale of medical devices beginning January 1, 2013. Basic medical devices purchased at the retail level are not subject to the tax, which applies to devices sold by wholesalers to healthcare providers. Since the tax will be imposed on sales, companies will be subject to the tax regardless of profitability.

4 Emerging Global Markets

Global medical device sales were estimated at more than \$225 billion in 2009. The United States is the largest medical devices market and accounts for approximately one-third of global sales.

Emerging economies are claiming a growing share of global healthcare consumption, including medical devices and related procedures, owing to relative economic prosperity, growing medical awareness, and increasing (and increasingly aging) populations. Sales to countries outside the US, including emerging economies, represent a potential avenue for growth for domestic medical device companies.

Global Healthcare Expenditures

Region ¹	% of GDP	Per Capita	Growth, Ann.	2012 Payor Mix	
	2012	2012	2005-12	Gov't	Private
United States	18%	\$8,895	4%	46%	54%
Africa	6%	\$147	7%	52%	48%
Americas ex US	7%	\$733	10%	58%	42%
Eastern Mediterranean	5%	\$525	9%	53%	47%
Europe	8%	\$2,349	5%	67%	33%
South-East Asia	4%	\$129	11%	50%	50%
West Pacific	7%	\$982	8%	72%	28%
Select Countries					
Australia	9%	\$6,014	10%	66%	34%
Brazil	9%	\$1,056	15%	46%	54%
Canada	11%	\$5,741	8%	70%	30%
China	5%	\$322	22%	56%	44%
France	12%	\$4,690	3%	77%	23%
Germany	11%	\$4,683	4%	76%	24%
India	4%	\$61	10%	33%	67%
Israel	8%	\$2,289	6%	62%	38%
Japan	10%	\$4,752	7%	82%	18%
Mexico	6%	\$618	4%	52%	48%
Norway	9%	\$9,055	5%	85%	15%
Republic of Korea	8%	\$1,703	8%	54%	46%
Russian Federation	6%	\$887	18%	61%	39%
Singapore	5%	\$2,426	13%	38%	62%
United Kingdom	9%	\$3,647	2%	83%	17%

¹ Expenditures (US Dollars) and share statistics shown are averages for the regions. Growth rates are medians for the regions

Data Source: Global Health Expenditures Database, World Health

5 Competitive Factors

Historically, much of the growth for medical technology companies has been predicated on continual product innovations that make devices easier for doctors to use and improve health outcomes for the patients. Successful product development usually requires significant R&D outlays and a measure of luck. However, viable new devices can elevate average selling prices, market penetration, and market share.

Regulatory Regime

Government regulations curb competition in two ways to foster an environment where firms may realize an acceptable level of returns on their R&D investments. First, firms that are first to the market with a new product can benefit from patents and intellectual property protection giving them a competitive advantage for a finite period. Second, regulations govern medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotions, sales and distribution, export and import, and post market surveillance.

In the US, the FDA generally oversees the implementation of the second set of regulations.

- » Some relatively simple devices deemed to pose low risk are exempt from the FDA's clearance requirement and can be marketed in the US without prior authorization. For the remaining devices, commercial distribution requires marketing authorization from the FDA, which comes in primarily two flavors - premarket notification ("510(k) clearance") and premarket approval ("PMA approval").
- » The 510(k) clearance process requires the manufacturer to demonstrate that a device is "substantially equivalent" to an existing device that is legally marketed in the US. The 510(k) clearance process, which may occasionally require clinical data, generally takes between 90 days and one year for completion.
- » The PMA process is more stringent, time-consuming and expensive than the 510(k) clearance process. A PMA application requires the payment of significant user fees and must be supported by valid scientific evidence, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data. A PMA application must also include a complete description of the device and its components, a detailed description of the methods, facilities and controls used to manufacture the device and proposed labeling. Once the PMA is submitted and found to be complete, the FDA begins an in depth review, which is required by statute to take no longer than 180 days. However, the process typically takes significantly longer, and may require several years to complete.

Summary

Demographic shifts underlie the long-term market opportunity for medical device manufacturers. While efforts to control costs on the part of the government insurer in the US may limit future pricing growth for incumbent products, a growing global market provides domestic device manufacturers with an opportunity to broaden and diversify their geographic revenue base. Developing new products and procedures is risky and perhaps more resource intensive compared to some other growth sectors of the broader economy. However, barriers to entry in the form of existing regulations provide a measure of relief from competition, especially for newly developed products.

References and Data Sources

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Mercer Capital provides a broad range of specialized valuation advisory services to the medical device industry, helping clients by providing reliable independent valuation opinions and sound guidance. Our services for companies in the medical device industry include purchase price allocation, impairment testing, equity compensation, portfolio valuation, tax compliance, litigation support, and corporate valuation services. Contact one of our professionals if we can be of help.