



CFRA

Industry Surveys

Health Care Equipment & Supplies

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NEW THEMES



What's Changed: The medical device market is expected to reach \$678 billion by 2028. See page 13 for a breakdown of the medical device market by segment.



What's Changed: While recent medical technology innovations have been highly beneficial to patients, they also present a potential cybersecurity hazard. Read more on pages 16-17.

EXECUTIVE SUMMARY

CFRA has a neutral fundamental outlook on the Health Care Equipment & Supplies industry over the next 12 months. We expect the industry to report average sales growth in the mid-single digits, and light EPS growth in 2023 in the low-single digits, given the expansion of base businesses, partially offset by Covid-19 testing headwinds including vaccines and therapeutics. We believe supply chain pressures from 2022 have already peaked and will gradually improve throughout 2023.

Sales Growth Expected to Return to 10-Year Average

Medical device companies have been waiting for health care visits and medical procedure volumes to return to normal. In addition, there's likely a sizeable backlog of procedures to be worked through. Given the backlog, we expect medical device companies to report a continued recovery in sales growth back to near the 10-year average. However, we anticipate a slight deceleration in sales growth in 2023, following the general market trend with softening GDP growth. We expect surgery volumes to grow around 2.5% in 2023, comparable to historical levels before the pandemic disruption.

Covid-19 Testing to Moderate as the Pandemic Subsides

Many diagnostics companies introduced Covid-19 tests, which have contributed massively to sales over the past few years. Rapid antigen tests were used to support the reopening of schools and workplaces. Molecular tests are still the most accurate tests for active infection, making them particularly useful for treatment decisions. Also, antibody tests are being widely used to study the long-term effectiveness of vaccines. However, we anticipate test sales to fall precipitously as more populations become vaccinated and as the pandemic subsides.

R&D Margins Are at a Peak

MedTech companies are reinvesting in their growth pipelines at record rates. While this follows a longer-term trend generally, the 50-basis-point median jump in R&D margin growth in 2023 was larger than most years. We believe an influx of cash on the balance sheet from strong Covid-19 testing and therapeutics are now being redeployed towards organic growth. We expect this trend to continue in 2023.

The M&A Environment Has Been Tepid

The M&A environment appears to be lukewarm, with deal counts since the pandemic started over a third lower than the 10-year average. However, the annual total deal value during the pandemic years is up sizably versus pre-pandemic. Recent deals include companies seeking to increase their exposure to nascent technologies (e.g., diagnostics) with significant growth potential. Many companies are looking to take advantage of trends that have been accelerated by the pandemic, such as the adoption of remote monitoring and telehealth. There has been a modest level of M&A activity in 2023 so far, with deal counts trending upwards year-to-date versus 2022.

An Aging Population Continues to Support Long-term Industry Growth

From a long-term perspective, people are living longer and will likely continue to live longer because of continued medical innovations and growth in per-capita health care spending across the world, especially in emerging and developing markets. As a result, the elderly population is becoming a larger and larger proportion of the total population, leading to increasing demand for innovative devices and supplies that keep people alive and in good health. In addition, the strengthening impact and capabilities of technology on our lives have led to increased development and interest in wearable medical devices.

HEALTH CARE EQUIPMENT & SUPPLIES

Outlook: Neutral

MARKET CAP BREAKDOWN*

RANK NO.	COMPANY NAME	MARKET CAP (\$ billion)
1	Danaher Corp.	183.8
2	Abbott	176.0
3	Stryker Corp.	108.1
4	Medtronic	107.3
5	Intuitive Surgical	89.5
	Others†	567.8

Source: CFRA, S&P Global Market Intelligence.

*Data as of March 31, 2023.

†Refer to the "Comparative Company Analysis" section of this survey for the list of companies.

BY THE NUMBERS

18%

2023-2030
CAGR for global
procedures
performed using
robotic surgery

1.4%

Average growth
in same
facility/hospital
surgeries in 2022

\$678 billion

Estimated total
medical device
market value by
2028

18.3%

Estimated
increase in
industry's
operating
margin in 2023

5%

Expected annual
growth of global
medical device
sales from 2022
to 2028

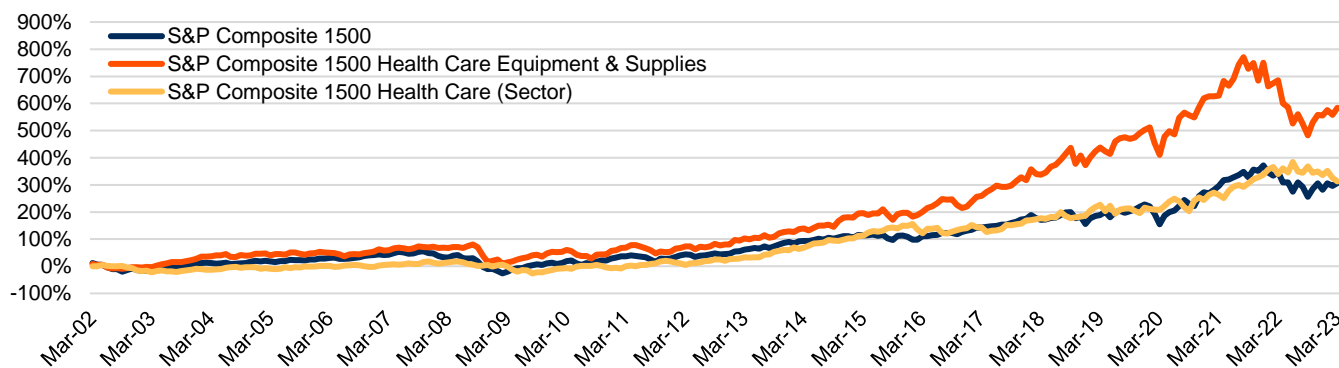
25x

Forward earnings
– MedTech
companies are
trading near a 10-
year high

ETF FOCUS

XLV Health Care Select Sector SPDR Fund	AUM (\$M) 38,179.8	Expense Ratio 0.10
VHT Vanguard Health Care	AUM (\$M) 16,388.2	Expense Ratio 0.10
IYH iShares U.S. Healthcare	AUM (\$M) 3,127.1	Expense Ratio 0.39
IHF iShares U.S. Healthcare Providers	AUM (\$M) 1,148.7	Expense Ratio 0.39
XHS SPDR S&P Health Care Services	AUM (\$M) 106.2	Expense Ratio 0.35

20-YEAR INDEX PERFORMANCE*



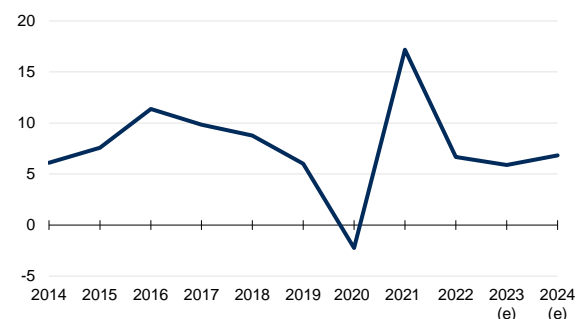
*Data through March 31, 2023.

Source: S&P Global Market Intelligence.

FINANCIAL METRICS

Revenue Growth

(percent change, Y/Y)



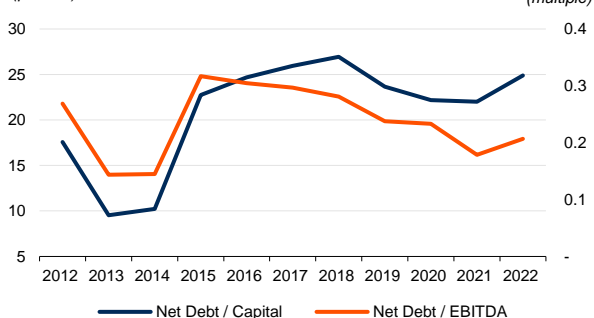
e-Estimate

Source: CFRA, S&P Global Market Intelligence.

- ◆ Revenue growth for constituents in the S&P Composite 1500 Health Care Equipment & Supplies Index is forecast to marginally decline to 5.9% in 2023 from 6.7% in 2022, as demand for health care equipment and supplies remains contingent on the full return of in-person medical services and elective procedures recovery.
- ◆ CFRA expects the industry's revenue to continue showing improvement of 6.8% growth in 2024, with a three-year compound annual growth rate (2022-2024 CAGR) of 2.7%.

Net Debt-to-Capital and Net Debt-to-EBITDA

(percent)

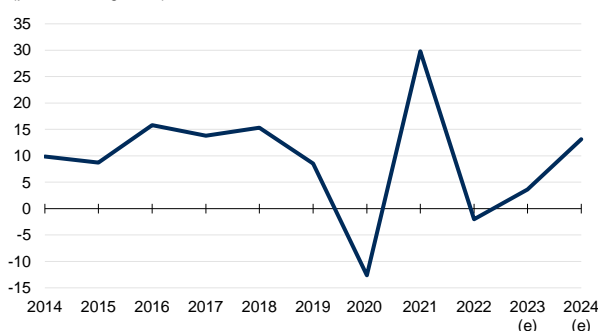


Source: CFRA, S&P Global Market Intelligence.

- ◆ The net debt-to-capital and net debt-to-EBITDA for the industry have been moderate for the past several years due to persistent low interest rates.
- ◆ Looking forward, we foresee a cutback in debt and equity issuance propelled by weaker economic environment amid recessionary pressure.

Adjusted EPS Growth

(percent change, Y/Y)

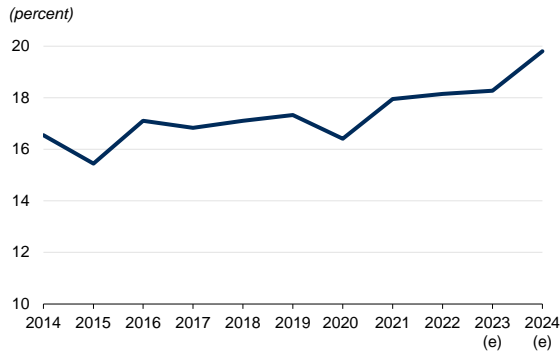


e-Estimate

Source: CFRA, S&P Global Market Intelligence.

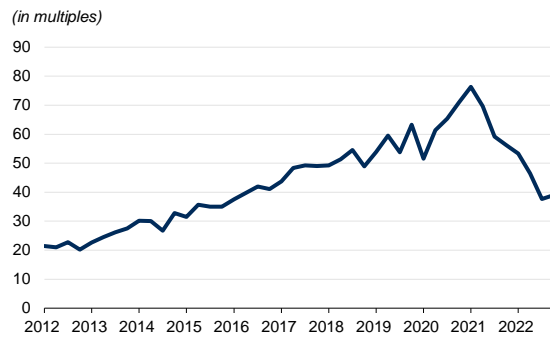
- ◆ We project the industry's adjusted EPS for medical device companies to grow 3.7% in 2023, from a 2% decline the previous year, as the impact of supply chain bottleneck issues gradually subsides.
- ◆ We expect adjusted EPS growth to further improve reaching 13.1% in 2024, assuming a healthier outlook on medical supply chain in the near term.

EBIT Margin



- ◆ As Covid-19 test sales continue to moderate through the first quarter of 2023, we expect the industry's EBIT margin to remain flat, marginally increase by 12 basis points to 18.3% by the end of the year and reach 19.8% in 2024.
- ◆ The pandemic had a divergent impact on the operating margins of medical device companies. Companies exposed to pandemic upsides (e.g., diagnostics firms) achieved record margins, while those exposed heavily to procedure volumes experienced a sharp decline in margins.

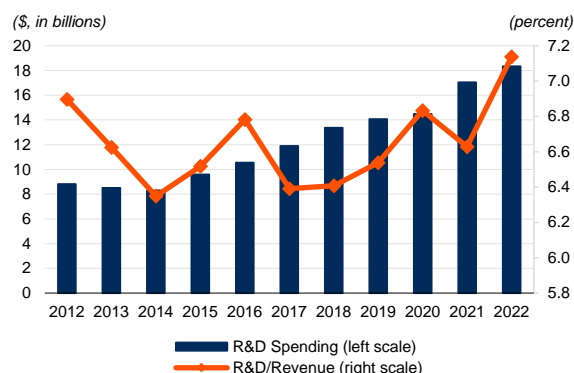
Normalized Price-to-Earnings Ratio



- ◆ The median normalized price-to-earnings (P/E) multiple for the constituents of the S&P Composite 1500 Health Care Equipment & Supplies Index reached 39.0x in the fourth quarter of 2022 from 56.2x in the same period the previous year.
- ◆ We attribute the forecasted lower P/E ratio in 2022 to the downturn in the equity markets, largely impacted by the increase in interest rates and the end of easy money policies.
- ◆ We forecast the median normalized P/E multiple to stand at 51.4x in the first half of 2023.

KEY INDUSTRY DRIVERS

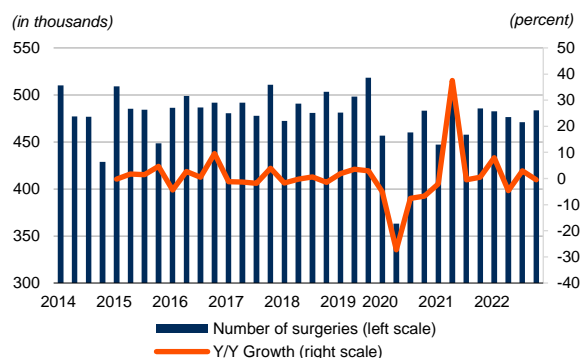
R&D Spending



Source: CFRA, S&P Global Market Intelligence.

- ◆ The average industry research & development (R&D) spending as a percentage of revenue has increased in the last few years as companies developed innovative new products such as continuous glucose monitors (CGMs) and surgical robot systems.
- ◆ R&D margins have been healthy in recent years, and we think R&D spending will continue its upward trend going forward.

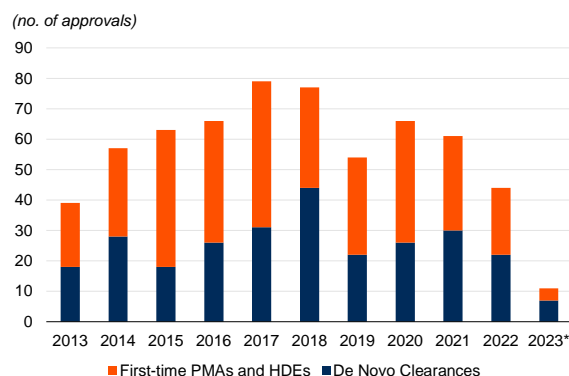
Growth in Same Facility/Hospital Surgeries†



†HCA Healthcare and Tenet Healthcare
Source: Company reports.

- ◆ Hospitals are key consumers of medical devices and supplies. In the fourth quarter of 2022, surgery volumes reached a total of nearly 484,000 surgeries, slightly down from 486,000 in the fourth quarter of 2021.
- ◆ Looking forward, we estimate an average volume growth for same facility/hospital surgeries of 2.5% in 2023.

Number of New Device Approvals

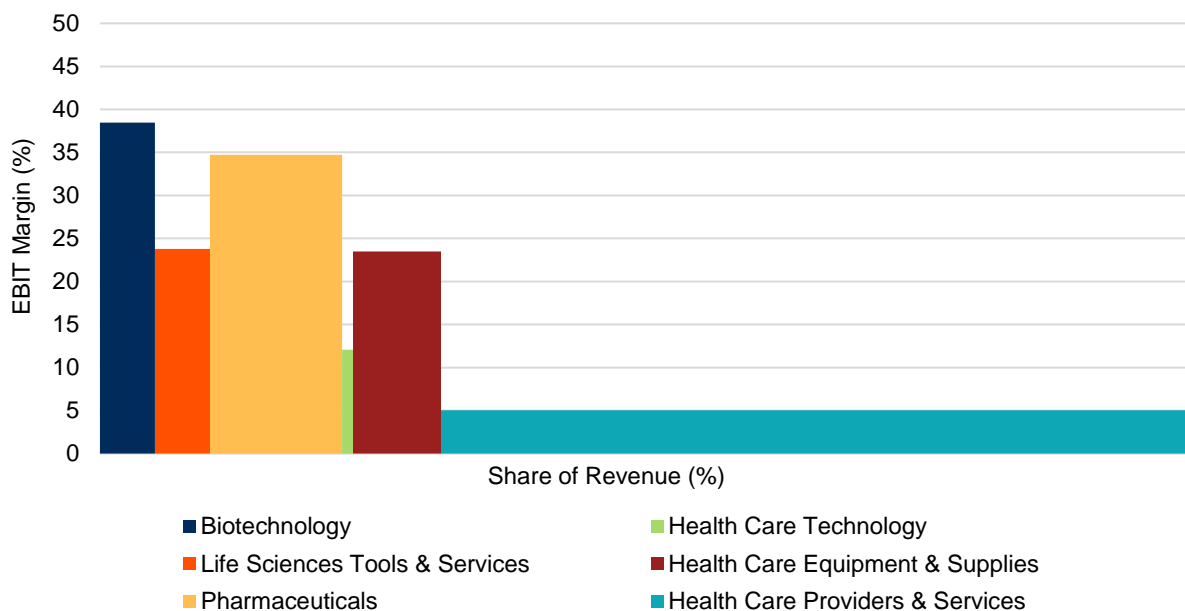


*Data as of April 4, 2023.
Source: Evaluate.

- ◆ Despite the pandemic and regulatory burden from the U.S. Food and Drug Administration (FDA), new device approvals – defined as first-time premarket approvals (PMAs), humanitarian device exceptions (HDEs), and de novo clearances – were 44 in 2022, compared to 61 in 2021.
- ◆ A higher number of device approvals is generally a positive trend for the industry; however, it can be negative if it is driven by lax safety standards, which could lead to device recalls and lawsuits.
- ◆ As of April 4, 2023, 11 new devices have been approved so far this year.

INDUSTRY TRENDS

PROFIT SHARE MAP OF THE HEALTH CARE INDUSTRY*
(for the full year of 2022)



*Companies within the S&P Composite 1500 Index as of March 31, 2023.

Source: CFRA, S&P Global Market Intelligence.

As seen in the chart above, the Health Care Equipment & Supplies industry comprises 7.6% of the entire Health Care sector's revenues, with an EBIT margin of 23.5%, which stems from the high-margin profile of the industry's products.

Competitive Environment

The medical technology (MedTech) market is highly competitive due to its numerous opportunities for rapid sales growth and high margins. However, competition in certain product categories is often limited to several key competitors due to various challenges, such as regulation, pricing pressures, product liability, and entrenched competition. Only the most innovative or well-funded companies are capable of breaking into well-established MedTech markets.

Worldwide MedTech sales are expected to grow at a CAGR of 5% between 2022 and 2028 to reach \$751.4 billion, according to EvaluateMedTech. Another source, Fortune Business Insights, estimated that the value of the global medical device market would grow at a CAGR of 5.5% between 2022 and 2029 to reach \$718.9 billion.

The table on the next page provides an overview of the largest anticipated MedTech companies in 2028. Medtronic is projected to be the market leader in 2028, with estimated sales of \$39.8 billion.

LARGEST GLOBAL MEDICAL TECHNOLOGY COMPANIES

(ranked by 2028 projected MedTech sales)

RANK NO.	COMPANY NAME	SALES (in \$, billions)			MARKET SHARE (in percent)	
		2022	2028	CAGR (%) 2022– 2028e	2022	2028e
1	Medtronic	30.9	39.8	4.3	5.8	1.0
2	Johnson & Johnson	27.4	36.2	4.8	5.1	0.9
3	Abbott Laboratories	31.2	34.1	1.5	5.8	0.8
4	Siemens Healthineers	23.2	31.9	5.5	4.3	0.8
5	Stryker	18.4	26.7	6.4	3.4	0.7
6	GE HealthCare	0.0	23.6	0.0	0.0	0.6
7	Becton Dickinson	17.5	23.0	4.7	3.3	0.6
8	Roche	18.6	21.2	2.2	3.5	0.5
9	EssilorLuxottica	16.9	20.9	3.6	3.2	0.5
10	Philips	15.2	19.3	4.1	2.8	0.5
11	Boston Scientific	12.7	18.8	6.7	2.4	0.5
12	Baxter International	11.3	14.2	3.9	2.1	0.4
13	B. Braun Melsungen	9.1	12.0	4.7	1.7	0.3
14	Danaher	10.8	12.0	1.6	2.0	0.3
15	Alcon	0.0	10.4	0.0	0.0	0.3
16	Laboratory Corporation of America	9.3	10.0	1.2	1.7	0.2
17	Zimmer Biomet	6.9	8.5	3.5	1.3	0.2
18	Terumo	5.9	9.1	7.6	1.1	0.2
19	Cardinal Health	6.3	7.4	2.7	1.2	0.2
20	Intuitive Surgical	5.2	9.6	10.8	1.0	0.2
	Others	257.1	3,625.7	55.4	48.1	90.3
Top 20		276.9	388.8	5.8	51.9	9.7
Total Industry		534.0	4,014.5	40.0	100.0	100.0

Source: EvaluateMedTech.

PORTER'S FIVE FORCES ANALYSIS

Below, we outline Porter's Five Forces framework as a tool to analyze the competitive environment of the Health Care Equipment & Supplies industry.

Porter's Five Forces Analysis	
Threat of New Entrants or New Entry (Low)	<p>The medical device market typically has high barriers to entry, primarily in the form of substantial R&D expenditures, regulatory requirements, and entrenched competition. These factors, among others, often stand in the way of potential new competitors.</p> <p>i. Significant R&D Expenditure Medical device companies must often spend significant amounts of money and time on developing commercially successful products. New entrants, especially small companies, may not have the ability or willingness to finance the R&D expenditures necessary to develop products that represent an improvement over existing options.</p> <p>ii. Strict Regulations Regulatory barriers for device makers include lengthy animal and human clinical tests and voluminous FDA-mandated documentation. To launch a new device successfully, a company must also have manufacturing site clearance from the FDA. On top of that, receiving FDA approval for a device does not preclude a firm from being sued for issues with the device.</p> <p>iii. Entrenched Competition New entrants often must compete against expansive, experienced, and diversified device manufacturers when vying for contracts with large hospital-supply purchasing collectives, individual clinical sites, and physicians' offices. Would-be rivals usually have a tough time dislodging existing products that are already accepted as safe and effective, unless the new device or equipment proves to be significantly better or more affordable. Some physicians have long-standing loyalties to their favorite brands or salespeople, and those physicians do not readily shift their demand to alternative manufacturers selling similar products. Third-party payers usually need to be convinced to reimburse a new device for said device to be successful since consumers are usually averse to paying out-of-pocket costs.</p> <p>Additionally, the costs to train (both the salesforce and physicians) and litigate (against competitors and consumers) can be quite high.</p>
Bargaining Power of Suppliers (Low to Moderate)	<p>This industry has numerous suppliers that are globally located, which weakens the power of suppliers. However, there may be critical suppliers that provide complex or unique components that are less substitutable. Because medical devices are often used in or on the human body, suppliers may be subject to strict regulatory requirements, potentially providing more power to the suppliers that can consistently follow specific protocols and procedures.</p>

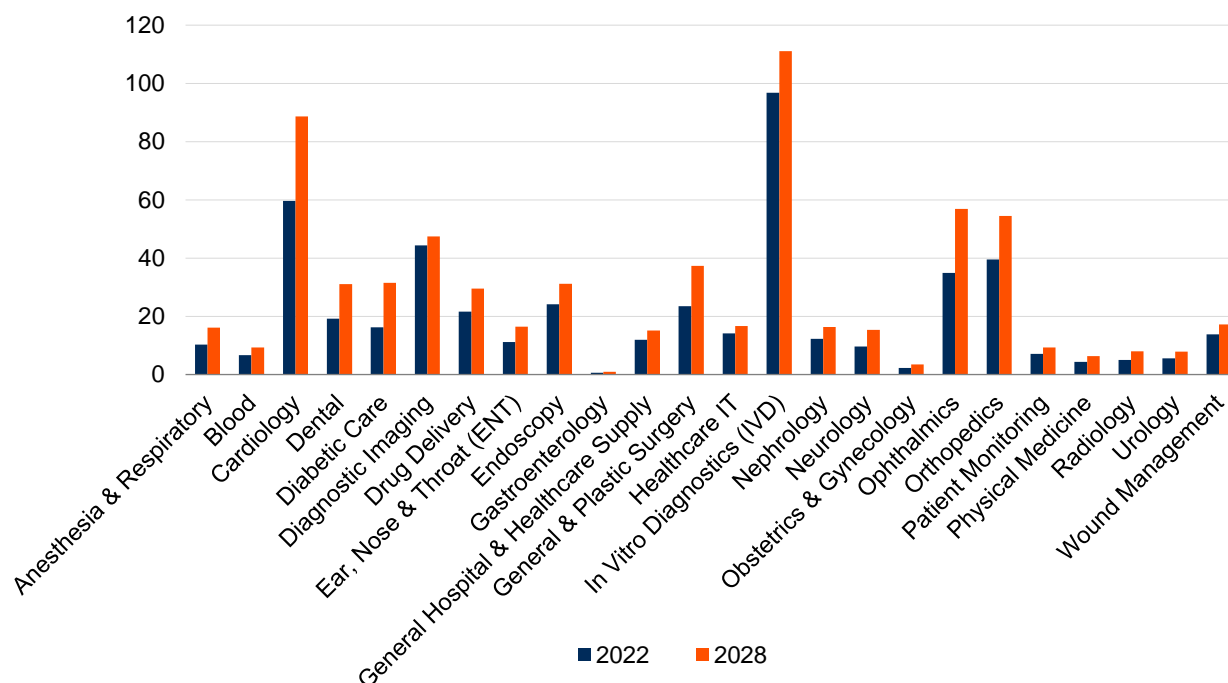
Bargaining Power of Customers (Moderate)	<p>Buyers have traditionally been health care providers (<i>i.e.</i>, hospitals, for the most part). These providers have undergone a significant amount of consolidation activity in the past several years, leading to increased leverage over health care equipment & supplies companies. Ironically, large provider organizations tend to also be the best customers because they can negotiate high reimbursement rates from health insurers for medical procedures.</p> <p>Hospital organizations often look to purchase a wide array of equipment and supplies, making smaller manufacturers of such products less attractive. Buyer power is weaker for some products, particularly those with no substitutes or those that are superior or essential to addressing specific health care issues.</p>
Degree of Rivalry/Competition (High)	<p>In medical device and supply markets with multiple participants, intense rivalry often exists among competitors because companies that make the most effective product stand to capture the most market share. The life cycles of medical devices can be short, as next-generation devices can enter the market within a year or two of the preceding versions. Even if a firm has technological dominance in a certain area, dominance should not be expected to last because there are many well-funded companies continually searching for new, high-growth markets to penetrate through massive investment in some combination of R&D and M&A.</p>
Threat of Substitutes (Low to Moderate)	<p>For large and expensive equipment, the threat of substitution is often low because switching costs can be very high for buyers. For example, suppose a hospital bought a \$1.5 million robotic surgery platform several years ago and trained numerous surgeons on the machine. In that case, it is unlikely that the hospital would revert to traditional surgery or even switch to a competitor's robotic surgery platform. To switch to a substitute, the hospital would likely have to retrain surgeons, write off the remaining value of the \$1.5 million machine, and invest in new equipment – costs that most hospitals would not want to bear.</p> <p>Switching costs are moderate when it comes to smaller, less expensive medical devices because physicians grow accustomed to performing procedures in a certain way. Changing techniques or products used in procedures can lead to adverse outcomes for patients. Also contributing to the low threat of substitutes is that product differentiation can take a few years in this industry because new medical devices often require follow-up studies and evaluations to prove their marginal value to physicians and health insurers.</p>

GROWTH OPPORTUNITIES

Despite accelerating revenue growth over the past several years, mature large-cap medical device companies have increased R&D spending at an even faster pace, resulting in R&D margin expansion. Before Covid-19, companies in this industry had traded at valuations near 10-year highs; yet the growth opportunities in many therapeutic areas may well have justified such valuations. According to data from Evaluate, the medical device market is forecast to reach a total of \$678 billion by 2028 and will be dominated by the top three leading therapeutic areas. These areas comprise in vitro diagnostics' (IVD) 2028 estimated revenue of \$111 billion, followed by cardiology's 2028 estimated revenue of \$89 billion, and ophthalmics' 2028 estimated revenue of \$57 billion.

MEDICAL DEVICE MARKET BY SEGMENT

(in \$, billions)



Source: Evaluate.

Some of the other promising therapeutic areas include diabetes, structural heart issues, and robotic surgery. Below, we discuss the promise of medical devices in diabetes and structural heart disease, as well as the future of robotic surgery.

1. DIABETES

Overview

The number of diabetics globally is projected to rise from an estimated 573 million people in 2021 to 783 million by 2045, according to the latest available data from the International Diabetes Federation. Given the rising diagnosis and survival rates of type 1 diabetes and the increasing levels of obesity (a common cause of type 2 diabetes), we expect the prevalence of diabetes to continue increasing worldwide, suggesting that there will be growing demand for diabetes-related therapies and devices, such as continuous glucose monitoring (CGM) systems and automated insulin pumps. According to Grand View Research, the global CGM market is estimated to be valued at \$7.8 billion in 2022 and is forecasted to grow by a CAGR of 4.4% from 2023 to 2030. Some of the big players that possess the biggest market shares in 2022 in the diabetic care segment include Abbott Laboratories (29.4%), Dexcom (17.9%), and Medtronic (13.7%).

Growing Competition in CGM Market

On March 14, 2022, Dexcom announced that its next-generation CGM, Dexcom G7, has secured CE Mark (Conformité Européenne), enabling the company to tap into the European market. The G7 offers upgraded features and improvements from the previous version, G6. In comparison, the G7 is 60% smaller in size and has a more circular shape, enabling the device to be affixed to the upper arm, the abdomen, or the upper buttocks for children aged between 2 and 17. Another instrumental feature is that the G7 has a shorter warm-up time of only 30 minutes for a 10-day lifespan, compared to the two-hour warm-up time for the G6. The G7 also provides more accurate glucose monitoring than the G6, with a mean absolute relative difference (MARD) of 8.2%, compared to the G6's MARD of 9% and Abbott's Freestyle Libre 2's MARD of 9.3%. MARD refers to a percentage describing how far a user can expect the sensor reading to deviate from the actual blood glucose level. The lower the percentage, the more accurate the sensor is. Nevertheless, the company received some queries from the FDA on the G7's software update after its official data review submission in early 2022. In December 2022, the company managed to secure FDA clearance for its G7. It has successfully launched the product in the U.S. in February 2023.

On March 16, 2022, Abbott's Freestyle Libre 3 got the nod to be available for use in the U.K. Abbott claimed its Freestyle Libre 3 sensor to be the world's smallest, thinnest sensor (about the size of two stacked U.S. pennies) and can be worn on the upper arm for up to 14 days. The Freestyle Libre 3 system provides accurate real-time glucose readings by integrating its sensor with users' smartphones, and it has a MARD of 9.2%. The company has also been promoting its Libre system as a more affordable option than CGMs offered by its rival, Dexcom. The Freestyle Libre 3 obtained FDA approval on May 31, 2022.

2. STRUCTURAL HEART DISEASE

Overview

Heart disease is the leading cause of death globally, with structural heart issues affecting many older people. According to the United Nations (UN), the share of global population aged 65 and above is expected to rise from 10% in 2022 (latest available) to 16% in 2025. In the UN's words, "population aging is poised to become one of the most significant social transformations of the 21st century, with implications for nearly all sectors of society." We see it as a favorable implication for certain MedTech firms, such as Edward Lifesciences (EW). As a significant population of people live into their golden years, we expect to see substantial demand for devices that treat structural heart issues. Within the cardiology segment, Medtronic, Abbott Laboratories, and Boston Scientific lead the pack in 2022, with the highest market shares of 19%, 15.2%, and 13.1%, respectively.

Emerging Heart Valve Technology Poised for Robust Growth

Transcatheter mitral valve (TMV) replacement, an emerging technology, is expected by device manufacturers to be a multi-billion-dollar market in several years. TMV replacement is a minimally invasive medical procedure that replaces the function of the heart's mitral valve. Patients most appropriate for this procedure are those threatened by significant (moderate-to-severe) mitral regurgitation (MR).

A parallel for the TMV replacement market is the transcatheter aortic valve replacement (TAVR) market. Since the first TAVR was approved by the FDA in 2011, the TAVR market has expanded to a value of \$5.7 billion in 2022 and is expected to grow by a CAGR of 7.2% from 2023 to 2030. TAVR has been revolutionary as many otherwise inoperable patients could undergo TAVR due to the procedure's minimally invasive nature, unlike surgical replacement.

TMV replacement promises similar potential to, if not greater potential than, TAVR. A few research studies have shown significant MR to be a more prevalent disease than aortic stenosis (the disease that

TAVR addresses). Based on company disclosures, medical device companies could obtain the first FDA approval within a few years for a TMV replacement therapy, presenting a multi-billion market opportunity.

TMV repair, first FDA approved in 2013, had positive data in September 2018 that is encouraging for the future of TMV replacement. Data from the COAPT (Cardiovascular Outcomes Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients with Functional Mitral Regurgitation) trial demonstrated that TMV repair reduced heart failure hospitalizations within 24 months by 47% relative to medical therapy only treatments. These results bolstered investors' and device manufacturers' confidence in the viability of TMV replacement therapies, which many companies are working on developing.

Based on the Framingham Heart Study, the "Burden of valvular heart diseases" study, and U.S. Census Bureau data, CFRA estimates the prevalence of significant MR in the U.S. to be roughly 1.7%, or 5.6 million Americans. We expect the TMV replacement market to reach \$4 billion in 2025, driven by growing awareness, positive clinical evidence, and the commercialization of numerous approaches toward addressing significant MR.

We expect the market for TMV replacement therapies to reach \$11.8 billion by 2027. Given the successes of minimally invasive surgery in the form of TAVR, and the historical difficulties of addressing MR, we think TMV replacement has rapid growth potential. MR has historically been an undertreated disease because of high surgical morbidity as well as high rates of recurring MR. A minimally invasive approach like that used in transcatheter procedures would likely substantially reduce morbidity risk for patients.

3. ROBOTIC SURGERY

Robotic surgery promises to significantly reduce the chance of human error in the operating room and increase the efficiency with which procedures are performed. In the future, we expect that tired, overworked surgeons and unsteady hands will no longer be concerns.

In the field of general surgery robotics, North America leads the world with the largest market share of 50.2% in 2022, according to Grand View Research, with Intuitive Surgical being the dominant player in the market for many years. Intuitive Surgical currently focuses on five surgical specialties: general surgery, urologic surgery, gynecologic surgery, cardiothoracic surgery, and head and neck surgery. However, in recent years, numerous companies have introduced products or made explicit their intention to enter the field of robotic surgery, such as Verb Surgical (partially owned by Johnson & Johnson), Medtronic, and TransEnterix. Surgical robotic systems for orthopedic procedures have also experienced tremendous interest as evidenced by the strong recent sales of offerings, such as Stryker's Mako system, Medtronic's Mazor systems, and Zimmer Biomet's Rosa system. Over the next several years, we expect competition and innovation in surgical robotics to continue intensifying, with potential competition from Asensus Surgical, avateramedical GmbH, Johnson & Johnson, Medcaroid, and others. As of 2023, we believe that the vast majority of surgical procedures in the world (>90%) are done without the aid of surgical robotic systems, meaning that the market for surgical robotic systems has a lot of room for growth.

Operating Environment

The medical device business is heavily regulated (but not as heavily as the drug business) and highly dependent on technological innovation. Companies must navigate the varying regulations and demands of different regions while also defending their intellectual property.

Protective Patents

Makers of innovative medical devices can protect their products through U.S. and foreign patents. Patent protection can cover novel technologies, as well as incremental improvements to existing products and even manufacturing processes.

Patent specifications are generally less precise for medical devices than for pharmaceuticals, which leads to much litigation throughout the industry. Many medical technology firms are involved in some type of patent infringement action with competitors; therefore, to resolve challenges and get their products on the market, companies often cross-license the rights to each other's patents.

Medical equipment and supplies companies are typically less reliant on patents than drug makers because medical device patents are often easy to circumvent, and medical device products often have shorter life cycles. Manufacturers often develop new technologies that render existing ones obsolete before patents expire on the existing technologies. For example, pacemakers and angioplasty catheters were revolutionary technologies that had 17-year long patents; however, technological advancements quickly rendered those products obsolete. As a result, the patents were of little value in preventing new competition. The rapid evolution of medical technology often creates many opportunities for patent disputes.

Overseas patent protections vary by country. Some nations do little to enforce patents; as a result, their domestic markets are flooded with copycat products, which discourage innovation. These nations tend to have few domestic companies that invest heavily in R&D, and foreign companies are unwilling to supply state-of-the-art patent-protected products. Intellectual property protection (IPP) is a key element of U.S. and international trade negotiations.

Product Liability: A Potential Concern

In the U.S., medical device companies often face product liability risks for injuries allegedly resulting from the use of their products. Device makers that market in the U.S. can be sued for injuries, even if the FDA has approved the product for safety and efficacy. Although most companies protect themselves with product liability insurance, their coverage does not typically absorb the entire risk for their most widely used products. Thus, many firms must assume some risks themselves.

In a well-publicized case, Johnson & Johnson recalled its ASR Hip Implant (made by subsidiary DePuy Orthopaedics) in 2010. A study indicated that the five-year failure rate of the hip implant was approximately 13%. Even when the defective devices were replaced, hazardous fragments could be left behind in patients' bodies. On March 7, 2016, Johnson & Johnson was forced to pay \$360 million in punitive damages to five plaintiffs in the U.S. In May 2019, the Delhi High Court in India directed Johnson & Johnson to pay approximately \$34,000 each to 67 patients involved in an ASR hip implants case.

Heightened Threat of Cyberattacks: A Growing Concern

The MedTech business is seeing growth across global markets, aided by emerging technologies, such as the Internet of Things (IoT), artificial intelligence (AI), and 5G technology. These recent innovations offer increased benefits to patients; however, they also present a potential cybersecurity hazard for medical device makers. One reason for this issue is the Health Internet of Thing (HIoT) medical devices are developed with such miniature design, limiting their hardware capacity to run latest operating systems and the storage to support a patched application.

Many manufacturers refrain from spending money outside of their initial business model, particularly on developing or testing patches or security fixes. Instead, they typically prefer their customers to purchase a newer, more secure device although their current device may still work perfectly fine, other than the security risk it may present to the medical network and safety of patients. In light of this, health care facilities face the prospect of retiring the devices early, carrying the risk and cost of patching these devices outside of manufacturer warranties. Many hospitals today own tens of thousands of medical devices linked to their network, and most of them are never patched, heightening their vulnerabilities to cybersecurity threats. However, thanks to the 2022 Patch Act, the FDA has imposed a rule where new devices seeking FDA approval after 2023 are required to be designed with more advanced levels of security and patient safety. This will push manufacturers to initiate continuous risk analysis for their systems and to release timely patches to health care providers. Nevertheless, the Act does not address the inevitable gap between a vulnerability being discovered, a patch being made and tested, and that patch being applied to all at-risk medical devices in a health system. Patch deployment can be a very labor-intensive and time-consuming activity, so this unfortunately could provide opportunities for hackers to exploit weaknesses, just as it does for IT systems that have yet to receive their updates.

Therefore, it is imperative for health care leaders to implement an additional security strategy of compensating security controls, to address the need for greater levels of automation with AI-based tools, as security risks continue to be a growing concern in the health care landscape.

Growing Interest in Developing Markets

While the U.S. has the largest and most profitable medical device market in the world, there are significant growth opportunities in emerging markets like China, India, Latin America, and the Middle East. These geographies have an expanding middle class, rising GDP, and ever-increasing health care investments.

Given the growing wealth in Asia, it is not surprising that this region is driving the growth of MedTech sales. The Asia-Pacific MedTech industry is anticipated to achieve a value of \$225 billion by 2030 at a CAGR of 4.4% from 2022 to 2030, according to GlobalData.

China

According to Global Data, China's medical device market is expected to increase over 2022-2025 by a CAGR of more than 5%, with a market size of \$42.6 billion in 2022. The increasing size of the medical device market in China can be partly attributed to the Chinese government's health care reforms, with companies anticipating easier access to the Chinese health care market. According to the Chinese Ministry of Health and the National Bureau of Statistics of China, China's health care expenditures increased to 6.6% of the country's GDP in 2021 (latest available) from 6.4% in 2017. For comparison, health care expenditure as a percent of GDP for the U.S. was 18.3% in 2021 (latest available).

China's aging demographics and recent wealth are attractive to foreign businesses. Additional factors that could entice foreign companies to do business in the country include a growing awareness of medical conditions, increasing availability of treatment options, and higher incomes, according to health care research firm Global Data. In 2022, China's population was at 1.43 billion and it is expected to shrink to 1.32 billion by 2050, according to Visual Capitalist. According to The British Medical Journal, China achieved near-universal health coverage (UHC) in 2020 but needs another decade to fully achieve UHC through its "Healthy China 2030" program. As part of the program, the Chinese government has laid out multiple initiatives to incentivize the improvement and growth of health care in the country, which will directly impact the MedTech market. The initiative aims to spur health care growth in China by providing full support to local manufacturers. This could hurt foreign manufacturers. Consequently, MedTech companies will need to consider local investments and partnerships with local players to penetrate the market.

India

India is on its way to becoming a key medical device market. The country's medical device market was worth \$11.9 billion in 2021 (latest available), and it is estimated to grow to \$50 billion by 2025 (a 35.4% CAGR), according to India Brand Equity Foundation. The country's private health care sector is expanding rapidly to meet the needs of its growing middle class, which has experienced rising disposable incomes and medical expectations. While India is certainly well-positioned to see a boom in its MedTech market, we believe that a \$50 billion market by 2025 is overly optimistic.

Demand for high-tech medical devices, such as cancer diagnostics, medical imaging, ultrasonic scanning, plastic surgery equipment, and polymerase chain reaction technologies, is met primarily by imports, which constitute about 12 billion of the Indian medical device market in 2021, according to the International Trade Administration. However, the market is becoming increasingly competitive due to low barriers to entry, the increasing presence of multinational corporations, and an expanding consumer base.

Domestic production consists primarily of low-technology products, such as surgical textiles and other medical supplies. The exports consist mainly of dental instruments, surgical items, and other laboratory equipment. Despite strong growth rates, the market is relatively small, given the very low per-capita spending and lack of health insurance and health care facilities, especially in rural areas, according to a report by the National Institute of Pharmaceutical Education and Research.

M&A Environment

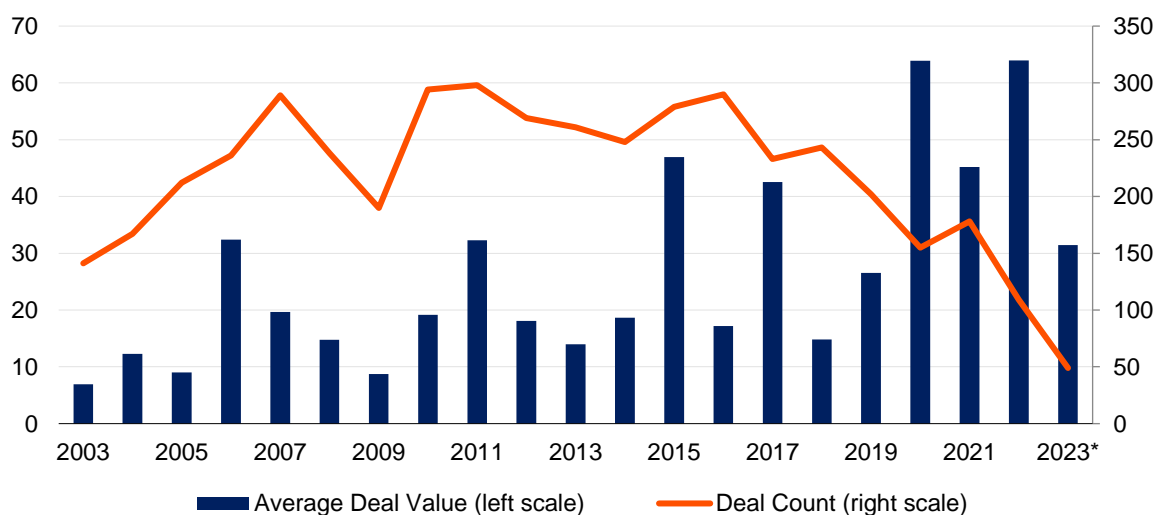
Innovative, disruptive new technologies are often discovered and developed by small companies. Because of this, large, well-established medical device companies often look to invest in or acquire small firms to bolster their product pipelines. The relationship is usually mutually beneficial because small firms benefit from the know-how, infrastructure, and vast resources of a large firm. Large firms, on the other hand, get to partake in the commercialization of often innovative new technologies. As a result, larger companies are often the chief suppliers (either directly or indirectly) of most breakthrough medical devices. Large deals are driven by several factors, in CFRA's view, such as the growing need to keep up with costly innovative technologies or a need to maintain sufficient leverage in negotiations with large-scale customers, who have become increasingly common over the past decade because of industry consolidation.

According to data provider Evaluate, the average deal value transacted in 2022 for medical device companies stood at \$63.9 billion, with a deal count of 109. Some of the largest MedTech deals closed in 2022 were Oracle's acquisition of Cerner for \$28.3 billion, Archimed's acquisition of Natus Medical for \$1.2 billion, Johnson & Johnson's acquisition of Abiomed for \$16.6 billion, and QuidelOrtho's acquisition of Ortho Clinical Diagnostics for \$8.4 billion. 2021's deals included Baxter's acquisition of Hillrom for \$15 billion and Siemens Healthineers' acquisition of Varian Medical Systems for \$16.4 billion. 2023 M&A activity has been strong so far, with 49 deals concluded at a total of \$31.4 billion as of early April 2023.

AVERAGE DEAL VALUE & M&A DEAL COUNT

(\$, in millions)

(number of deals)



*Data through April 4, 2023.

Source: Evaluate.

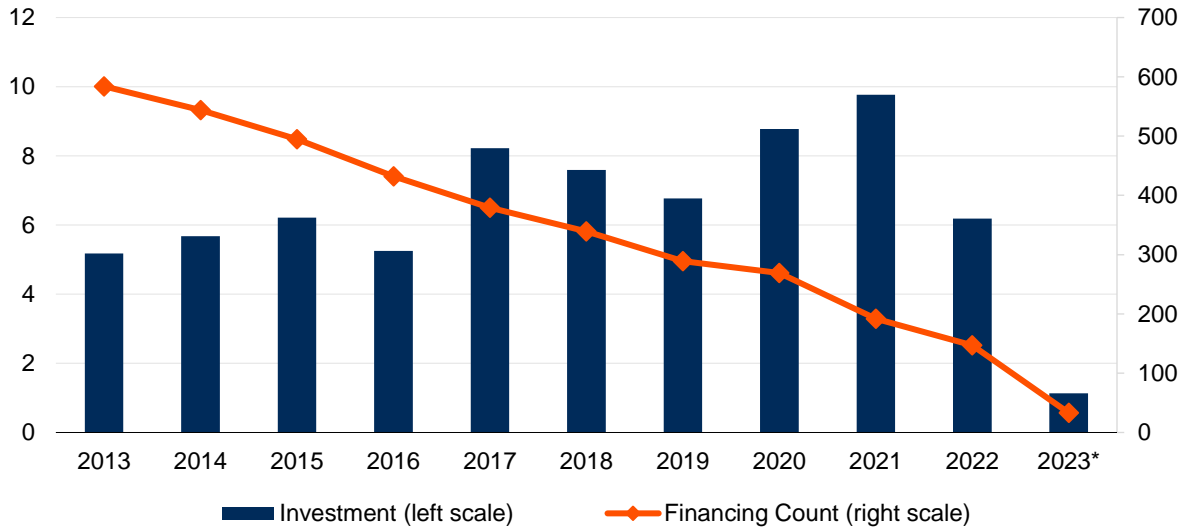
Venture Capital Financing Is Crucial for Smaller MedTech Companies

Venture capital (VC) financing is crucial to the medical device market because it is how budding technologies and innovations get off the ground. Transformative technologies are often eventually acquired by mature MedTech firms and then nurtured to become the next standard of care. Over the past three calendar years, the average annual VC financing totaled \$8.2 billion, with an average deal count of 203. In 2022, VC financing remained resilient, reaching \$6.2 billion across 147 deals. Recently, much of VC financing has gone to diagnostics companies since diagnostics is relatively easy-to-scale and is one of the fastest-growing therapeutic areas. In fact, six of the top 10 financing rounds in 2022 were for diagnostics companies. As of early April 2023, year-to-date VC MedTech financing was \$1.1 billion across 33 deals.

VENTURE CAPITAL INVESTMENT & FINANCING COUNT

(\$, in billions)

(financing count)



*Data through April 4, 2023.

Source: Evaluate.

VC deals have been following a similar pattern as M&A activities, with the total deal count diminishing while the average deal size has been getting larger over recent years. Bigger investments are seen to be safer for VC firms because the higher funding provides burgeoning firms with a better opportunity to execute their strategies. However, investors are probably wary after the 2018 high-profile downfall of Theranos, a once-promising diagnostics company that lied about its core capabilities. If funding becomes constrained for young medical device companies, the future pace of growth in the medical device market could decelerate.

HOW THE INDUSTRY OPERATES

The Health Care Equipment & Supplies industry is exceptionally diversified – it is comprised of businesses in many different therapeutic areas, supplying hundreds of thousands of products. The Federal Food, Drug, and Cosmetic Act of 1938 defines a medical device as “an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article that is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease.”

Medical products can be divided into two categories: conventional devices, which have little technological differentiation and a wide variety of uses (e.g., a syringe); and high-technology products, which depend on cutting-edge science to address highly specific therapeutic and diagnostic applications (e.g., continuous glucose monitor).

Items in the first category, conventional devices, are sold based on price to professional buyers representing institutions. Their margins tend to be narrow, and manufacturers depend on high sales volumes for profits. Intravenous products, anesthesia items, surgical apparel, traditional wound dressings, kits, trays, and a wide range of other products fall into this first category.

The second category consists of more technologically advanced products that can command premium pricing if they demonstrate clinical utility, and they face limited competition. Manufacturers profit from the attractive margins of these products, at least until competitors catch up – an inevitable evolution, given the weakness of patents in the medical device field. Implantable cardiovascular and orthopedic devices, advanced wound care management, and some surgical instruments fall into this second category, as do a few in vitro diagnostic (IVD) tests.

Major therapeutic areas in the Health Care Equipment & Supplies industry include cardiovascular, orthopedics, diagnostics, and surgical instruments. Large corporations with global scale – such as Medtronic Inc., Johnson & Johnson, and Becton, Dickinson & Co. – dominate these fields, offering comprehensive lines of both conventional hospital supplies and high-tech products. However, small and mid-sized companies can find opportunities in niche markets, particularly those that could benefit from innovation. Medical device manufacturers share common end markets, such as hospitals, physicians, and other health care providers, and are subject to third-party reimbursement.

Nearly all the world’s leading medical product manufacturers are based in the U.S. – only a handful of foreign companies have a major influence on the industry. Among the largest are Smith & Nephew plc (headquartered in London), and the diversified conglomerates Royal Philips Electronics NV (Amsterdam) and Siemens Healthineers AG (spun-off from Siemens AG and based in Munich).

In the medical products business, decision making for the purchasing process is often complex and varied. The people making buying decisions may or may not be the end-users or the payers. Hospitals, physician offices, clinics, clinical laboratories, nursing homes, and standalone imaging centers may have dedicated administrators who select suppliers for most items. The users of the products selected are physicians, nurses, or patients. The payers may often be the health care provider, an insurance company, or both.

Regulation: The FDA’s Role

Manufacturers must obtain U.S. FDA approval of their products before selling them in the U.S. or exporting them abroad. The FDA does not regulate devices that are both made and sold abroad by U.S. companies. The agency requires medical device manufacturers to provide extensive documentation of their products’ safety and effectiveness before granting approval. The FDA has the authority to encourage and even force manufacturers to recall products, restrict approvals of new products, suspend the sales of items that are deemed harmful, and levy fines and penalties on companies that violate FDA regulations within U.S. borders.

The Road to FDA Approval

Medical devices – most of which, in contrast to pharmaceuticals, do not have systemic biological interaction with the body – generally are not required to undergo as stringent a review process as pharmaceuticals before commercialization. There are three risk classes for medical devices, which are shown below. A device's risk rating is typically key in determining which approval process a device should follow.

Device Classifications Determine the Process

Low Risk (Class I)	Moderate Risk (Class II)	High Risk (Class III)
<ul style="list-style-type: none">• Devices that present minimal potential harm to users, e.g., elastic bandages and toothbrushes• 35% of device types are Class I and 93% are exempt from premarket review• Most of these devices do not require clinical evidence for safety and efficacy	<ul style="list-style-type: none">• Devices with moderate risk of harm, e.g., powered wheelchairs and needles• 53% of device types are Class II, most of which require the 510(k) process• Clinical evidence is often required, but at a level that is less stringent than for Class III devices	<ul style="list-style-type: none">• Devices that sustain or support life are implanted, or that are high risk of injury or illness, e.g., pacemakers• 9% of device types are Class III and require the premarket approval (PMA) or humanitarian device exemptions (HDE) process• Investigational device exemptions (IDE) are typically required for a device to be used in a clinical study to collect safety and efficacy data

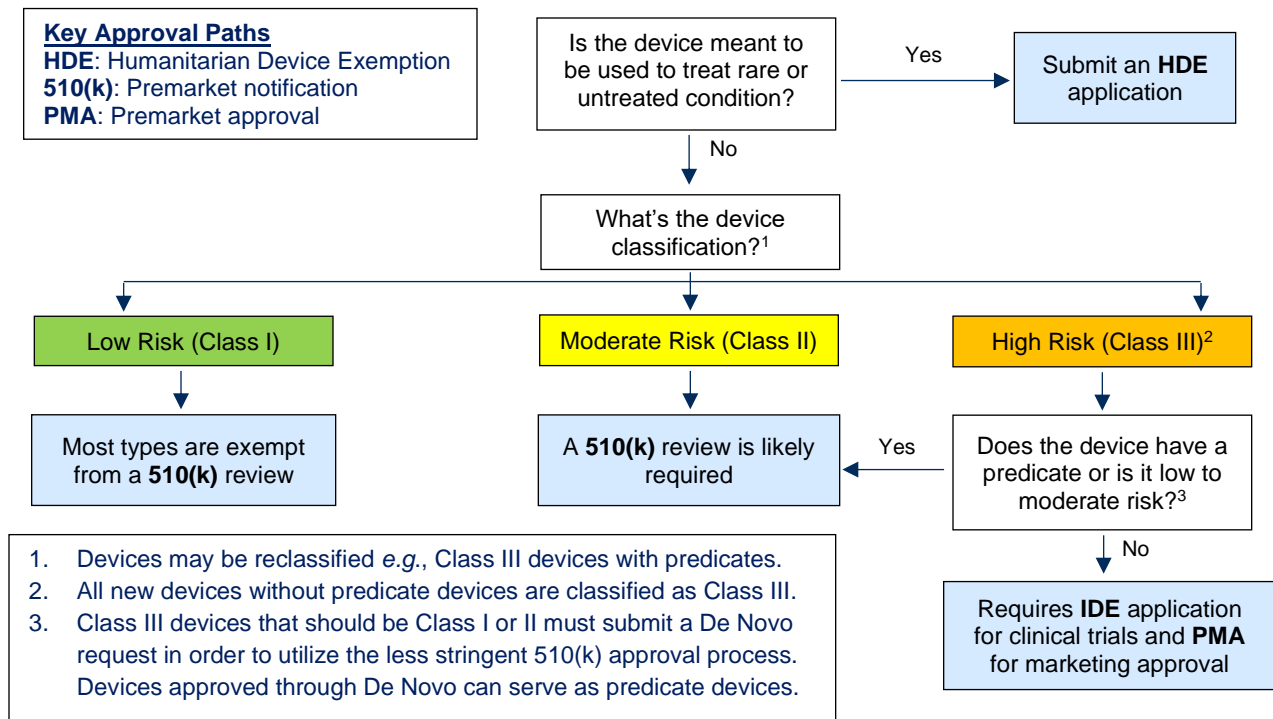
Source: CFRA, FDA.

To be legally able to commercialize their products, manufacturers must submit their products through one of the FDA's key approval processes, which include the:

- **Premarket notification [510(k)]**, which is a process used for low- to moderate-risk devices and devices with a predicate (*i.e.*, a similar predecessor device).
- **De Novo** process, which enables novel devices of low to moderate risk without a predicate device to be classified as Class I or II. These devices may use the 510(k) process.
- **Premarket approval (PMA)**, which is the FDA review required to evaluate the safety and effectiveness of high-risk devices.
- **Humanitarian device exemptions (HDE)**. This process allows a device to be marketed without evidence of effectiveness. It is meant for devices that aim to benefit patients with a rare disease or condition for which there are no alternative therapies.

In addition, companies developing complex devices often need an **investigational device exemption (IDE)**, which is an FDA approval for companies to test their devices in the clinical trials that come before a PMA or 510(k). Below, we illustrate the typical decision process in determining which pathway a new device should follow.

Simplified Process Decision Chart



Source: CFRA, FDA.

Health Care Policy in the U.S.

Health care has long been a critical issue for American voters. There has been a fierce, ongoing debate between the Republican and Democratic parties over the best way to provide health care to the nation. Republican party members have been trying to reduce health care regulation by attempting to repeal the health care reform (*i.e.*, the Affordable Care Act or ACA) passed in 2010, while Democratic party members have generally attempted to expand the government's role in health care regulation. In December 2018, a judge in Texas ruled the ACA to be unconstitutional. In early March 2020, the Supreme Court agreed to hear the challenge to the ACA, and in June 2021 reached a favorable decision that the ruling is reversed (*i.e.*, the ACA will remain).

HOW TO ANALYZE A COMPANY IN THIS INDUSTRY

The commercial success of a new medical device does not come easily. A health care equipment & supplies manufacturer must invest heavily in R&D, obtain product approval from the U.S. FDA and foreign regulators, get clearance for reimbursement by Medicare and private managed care payers, and achieve acceptance and awareness of the product in key hospital and physician markets. Leading companies also need global marketing capabilities and must compete effectively with foreign device manufacturers.

Researching the Business

In analyzing a health care equipment & supplies company, here are some important questions to consider:

What are the company's principal products? Most large-cap companies in this industry offer both commodity medical products and proprietary items (*i.e.*, MedTech). Proprietary items, especially high-tech devices, have high margins when they are introduced, considering that competition is relatively thin or, in some instances, nonexistent. Analysts and investors often focus heavily on key growth driving products for companies.

Margins are typically lower on commodity-like products that have been in the market for a long time – although cash flow from these products often supports R&D efforts. Investors and analysts generally do not assign as much value to this important revenue stream as they should because cash flow from these product lines, while important to the aims of the organization, is not seen as a growth area. However, these revenue streams tend to have a high level of consistency and help to fund working capital requirements.

What are the growth dynamics of core business lines? For companies participating in the Health Care Equipment & Supplies industry, sales growth is influenced by several factors, including pricing, foreign currency fluctuations, the establishment of insurance reimbursement, and marketing prowess. Since some products in this industry have relatively short life cycles and may be subject to volatile market share swings, be sure to consider whether a company can sustain growth in certain product areas, such as a company's core competencies, and whether a company is likely to achieve attractive returns on new areas of investment.

How does the company rank within its principal markets? Size and scale are generally beneficial for manufacturers of medical devices and supplies. Large firms usually have the financial resources to support the R&D expenditures, even in tough times, needed to move experimental devices through the discovery, testing, and regulatory filing stages. These companies also have the funds to maintain the large sales forces needed to market products in key domestic and foreign areas. New markets can often be expensive and difficult to navigate because of differing regulations and processes.

Large manufacturers have also become an increasingly attractive investment in recent years because of the consolidation activity among hospitals and other health care firms. Customers (*e.g.*, hospitals) have gained increased bargaining power through consolidation and often want fewer suppliers so as to reduce costs, making large equipment and supplies manufacturers attractive because they can provide a full range of products, often on a volume-discounted basis.

However, small innovative companies should not be written off since large firms often make tuck-in acquisitions to gain access to fast-growing products.

How efficient is manufacturing? Being the low-cost producer in a competitive segment of the Health Care Equipment & Supplies industry often makes the difference between success and failure. This is especially true as governments globally are constantly seeking to rein in health care costs by limiting reimbursement and, in some countries, by controlling the price of medical products. Many Western medical products companies outsource manufacturing to countries with low production costs, mostly in Latin America and East Asia. Tax credits provide an incentive to manufacture in regions – such as Ireland and Puerto Rico – that were previously ignored by major foreign manufacturers. We look at the gross margins of target companies and their peers to get a sense of how MedTech firms compare to each other.

Are R&D efforts productive? Generally, larger and better-funded firms have a clear advantage in developing new medical technologies. They can typically afford to hire top scientists and conduct more costly clinical trials necessary to obtain regulatory approval of their products. Most leading innovation-oriented medical device makers spend between 5% and 15% of their sales dollars on R&D programs. However, their success in creating lucrative new medical products differs markedly. In a market dominated by managed care and the U.S. government (via Medicare), a key determinant of success is a manufacturer's ability to develop new devices that are both a therapeutic breakthrough and cost effective. New products that produce similar results to existing therapies are less likely to achieve commercial success.

To what extent has the firm diversified abroad? The U.S. remains the largest, and hence most important, market to U.S.-based health care equipment & supplies companies, as well as for many foreign-based firms. Foreign markets, especially in developing nations, are rapidly growing and driving growth for many medical devices and supplies companies. Having exposure to foreign markets is increasingly important, especially key foreign markets for medical technology, such as Germany and Japan. China is also an important market, given the size of the market and recent rapid rise in middle-class Chinese citizens. Companies that have significant foreign sales exposure can often be materially impacted by foreign exchange fluctuations, especially if they are not effectively hedged. Although such fluctuations are generally transitory in nature, these fluctuations must be considered in near-term revenue and earnings projections.

How effective is the company in working with regulatory bodies and third-party payors? All medical devices sold in the U.S. must first be cleared by the FDA. Therefore, firms must be able to work with the agency and understand its criteria. Here again, size and experience can help. While most large and well-established medical products manufacturers are adept at working with the FDA, smaller and newer firms are less proficient and often encounter major snags in seeking approval for their products.

To be commercially successful, medical device companies must also navigate a complex third-party payor landscape, which includes government payors and commercial payors (*i.e.*, health insurers), in order to obtain reimbursement for their products and services. MedTech firms must stay in front of commercial payors if they want to quickly gain reimbursement coverage for their devices since commercial payors are often flooded with applications and make decisions on a cycle. Government reimbursement also requires handling, but the process is much more standardized and transparent.

Does management make effective, strategic acquisitions? Many companies seek to grow through acquisitions as part of a broader effort to fill out product lines and position themselves as suppliers with a broad range of products for hospital-supply buying collectives and other large purchasers of medical products. Companies often utilize M&As to sustain and grow revenues and margins. To evaluate management's ability to make value-creating acquisitions, we often consider the prices that management pay, the synergies gained, and how well management's historic acquisitions have performed.

Have alliances been fruitful? Analysis of a major producer's strategic alliances with smaller start-ups and development-stage device makers also can provide clues to future growth prospects. Leading medical device firms, such as Johnson & Johnson, Medtronic, and Boston Scientific Corp., have benefited from acquisitions and alliances with development-stage companies. Smaller firms are typically eager to align themselves with big producers, as larger firms can provide them with needed funds to finance clinical trials and the commercialization of products. Many companies also maintain relationships with scientists at leading medical colleges or other organizations, such as the federal government's National Institutes of Health (NIH). These connections can be helpful in developing new products.

Analyzing Financial Statements

When comparing the financial statements of health care equipment & supplies companies, some key financial figures and ratios to examine are sales, operating margins, pretax and net returns, return on equity (ROE) and return on assets (ROA), and cash flow. The balance sheet also provides some useful measures.

What are sales trends? Was growth generated through volume, pricing, acquisitions, or through some combination of the three? To what extent are foreign currency translations built into forward revenue expectations? Companies are more valuable when they have sustainable long-term growth sources.



Watch Out! Recognition of unbilled receivables is necessary for accounting for long-term contracts because timing of billings does not always coincide with timing of costs incurred on the contract. However, the amount of revenue recognized is based on estimates and there is no affirmation from customers that legitimate costs have been incurred because a bill has not yet been sent. As a result, recording revenues and booking an unbilled receivable can be used to manipulate revenues by either recording the revenues too early or by recording bogus revenues.

How healthy are operating margins? Health care equipment & supplies companies typically have high operating margins relative to other industries, reflecting their value-added products and the industry's generally high barriers to entry. A company's operating margin is typically measured as earnings before interest, taxes, and nonrecurring expenses, expressed as a percentage of sales. Operating margins can vary significantly based on therapeutic area, manufacturing efficiency, and complexity of the product.

The industry's high margins also reflect relatively low raw material and selling, general, and administrative (SG&A) costs. R&D costs are often quite high, and substantial expenses are incurred to develop new products. Once those costs are covered, the bulk of revenue flows to the bottom line. A company's SG&A and R&D expenses should be compared with industry averages and the company's historical levels. The margins of established firms should at least match industry norms. Companies in the development stage are likely to have lower-than-average operating margins because they typically spend a higher proportion of their funds on R&D, production, and marketing infrastructures.



Watch Out! Companies can boost earnings by capitalizing R&D costs that should be expensed. R&D costs should be expensed as incurred until the related product has reached commercial feasibility which in this industry normally occurs when a product is approved by the FDA. A material increase in capitalized R&D costs not explained by the timing of FDA approval may indicate over capitalization of R&D, which could pressure future earnings growth.



Watch Out! Management of medical supply companies must make a variety of estimates in calculating provisions for discounts, rebates, returns and any other appropriate allowances at the time of sale. Since revenues are presented net of these provisions, they have a direct impact on reported sales. Because these provisions are based on management's estimates, we caution that in robust periods management may provision very high levels and in leaner times may use these excess reserves to boost sales and income by either recording a lower provision or reversing a portion of the reserve into revenues.

What are pretax and net returns? Medical product companies have higher pretax and net income returns than most industries. One of the main reasons for this is because these companies typically have already invested significant amounts of money for many years prior to the commercialization of their products. Other reasons for higher returns include successful product innovation, favorable product pricing, and high R&D productivity.



Watch Out! Companies in the health care supplies industry are fixed asset intensive, making depreciation a significant expense for most of these companies. Since depreciation is based on estimates of asset lives, management can manipulate these estimates to manage earnings. Specifically, extending the depreciable life of an asset will boost a company's earnings while shortening depreciable lives will decrease earnings.

What are the company's ROE, ROA, retention rate, and reinvestment rate? ROE, or net earnings as a percentage of average stockholders' equity, is a key measure of managerial effectiveness in the Health Care Equipment & Supplies industry. Generally, the more sophisticated and value-added a company's product mix is, the higher its ROE.

For companies with a more commodity-oriented sales mix, ROE can often fall into the high single-digit area. Sometimes, ROE ratios can be misleading, as in the case of a firm that had its equity depleted by a sustained period of losses. Thus, analysts also look at a company's ROA, a ratio that measures earnings against total assets, which do not fluctuate in value as much as stockholders' equity does.

Another important financial measure is the retention rate (net earnings minus dividends, divided by net earnings), which reveals the percentage of earnings available for reinvestment in the business. Companies that finance growth through reinvested earnings tend to be among the most profitable. Most medical device companies do not pay dividends. The reinvestment rate (ROE times the retention rate) is another tool for evaluating a company's growth potential.

How healthy is the cash flow? Analysts often look to free cash flow (FCF) as a measure of the company's operational strength because FCF focuses on what many analysts consider to be the most important aspect of a business: its ability to generate cash. FCF reveals how much cash is available after deducting operating costs and capital expenditures from revenues. FCF is excess cash that a company can allocate in many ways, such as share buybacks, dividend increases, acquisitions, debt paydowns, and increased business investment. Analysts typically seek to project FCF into the future and discount all future cash flows to determine the current value of a company.



Watch Out! Medical supply companies sometimes provide equipment to their customers that requires certain disposable products also made by the same supplier. In certain instances, the equipment is provided free of charge to the customer and 'ownership' is maintained by the supplier. Many companies do not record any revenue or cost of goods sold at the time the equipment is supplied. Rather, the cost of the equipment is recorded as a capital expenditure and depreciated over the estimated useful life of the equipment.



Watch Out! Some companies engage in supplier financing arrangements (aka reverse factoring). This effectively lengthens the supplier payment terms and thus improves working capital. However, operating cash flows can be overstated if the cash payment to the financial institution is presented as financing outflows rather than operating cash flows, which would be the case if the company pays the supplier directly. Furthermore, companies may not reclassify accounts payable under reverse factoring programs into financial liabilities, which may understate leverage ratios.

Looking at the balance sheet. An analysis of current assets and liabilities can provide an indication of a firm's short-term financial health. This is usually less of a concern for an established firm than for a smaller start-up. For example, if the start-up's experimental product takes longer than expected to develop, the firm might run low on cash and need external financing to continue operating. An often-used tool in testing liquidity is the current ratio, which is calculated by dividing current assets by current liabilities. When this ratio is less than 1.0, it can suggest that a company is at higher risk of having short-term liquidity issues.

Analysts also often consider how manageable a company's debt burden is. If a company has a significant amount of debt, it may have to pay so much in interest that it cannot fully fund R&D activities. Net debt relative to total capital is a typical way of measuring debt. Analysts and lenders also often consider net debt (or just debt) relative to trailing-12-month EBITDA (earnings before interest, taxes, depreciation, and amortization). A ratio of over 4.0x is usually cause for concern. An elevated level of debt also means that a company has less flexibility to engage in M&A activity if enticing opportunities arise.

Given the rapidity with which many high-tech medical devices and diagnostic instruments become obsolete, it is also important to check inventory levels. When inventory levels rise at a faster pace than sales, it may signal that a company is building inventory for future sales. Alternatively, it may indicate that older products remain in warehouses, unsold. The inventory turnover ratio (cost of goods sold divided by average inventory) measures the speed at which inventories are sold.



Watch Out! Inventory represents one of the most substantial assets on the balance sheets of health care equipment & supplies companies and can be a leading indicator of financial condition. A company's choices with respect to inventory accounting can have a significant impact on the company's results.

Equity Valuation

The process of assigning values to the stocks of health care equipment & supplies companies is similar to that applied to stocks in other industries. Many analysts utilize comparative price-to-forward-earnings (P/E) ratios. Investors may compare P/E ratios for a company relative to peers or to a broader group, such as the S&P Composite 1500 Health Care Equipment Index or even the S&P 500. Analysts may also consider how the difference between P/E ratios change over time. Another comparative technique involves using the ratio of enterprise value (market capitalization, or the number of shares times the share price, plus debt, minority interest, and preferred shares, minus total cash and cash equivalents) to the company's EBITDA. The difficulty in making valuation comparisons of health care equipment & supplies companies is that most of them have idiosyncratic growth drivers. Health care equipment & supplies companies specialize in different therapeutic areas and devices of varying complexity.

As a result, analysts often use a valuation method called the discounted cash flow (DCF) model, which determines a stock price by calculating the net present value of all future cash flows. This method typically produces a value that is more tied to a specific company's financials, but it requires more effort and inputs.

GLOSSARY

Angioplasty—A surgical procedure that employs a balloon catheter threaded into a constricted blood vessel to widen it and improve blood flow.

Cardiac pacemaker—A device that supplies electrical impulses to the heart to keep it beating at a regular rate. It consists of a small electronic device and a power source connected to the heart by electrical wire.

Clinical trials—Studies that must be performed before a new medical device or drug can be approved by the U.S. Food and Drug Administration (FDA). The new product is administered to humans in a controlled setting to determine its safety and efficacy.

Continuous glucose monitoring (CGM)—A method to track glucose levels throughout the day and night. CGM systems take glucose measurements at regular intervals, 24 hours a day, and translate the readings into dynamic data, generating glucose direction and rate of change reports.

Extracorporeal membrane oxygenation—An extracorporeal technique of providing prolonged cardiac and respiratory support to persons whose heart and lungs are unable to provide an adequate amount of gas exchange or perfusion to sustain life.

Investigational device exemption (IDE)—An exemption that grants manufacturers the permission to use their devices in clinical trials that will support a PMA filing.

In vitro diagnostics (IVD)—Tests performed on samples taken from the body (blood, urine, tissue, saliva, or other substances) to identify abnormalities that indicate disease. (In vitro translates literally as “in glass”).

Medicaid—A joint U.S. federal/state program that pays for medical treatment for low-income patients, as well as nursing home services for the indigent elderly. Overseen by the Centers for Medicare & Medicaid Services (CMS).

Medicare—A federally funded U.S. national health insurance program for persons aged 65 and older, as well as for all disabled persons. Overseen by the CMS, Medicare is the single largest health insurer in the U.S.

Premarket approval (PMA)—The formal filing submitted to the FDA by device makers seeking approval to market an innovative (Class III) product—one that is not like anything already on the market. The document must contain clinical evidence of the device's safety and efficacy. After a PMA is submitted, the FDA scientific advisory panel evaluates the product through a public meeting and will recommend whether the product should be approved or not. Although the FDA is not bound to follow the panel's recommendations, the recommendation tends to have considerable weight with the FDA. All told, the PMA process often takes 18 months to two years.

Premarket notification/510(k) filing—A submission made to the FDA by a manufacturer of a new product that is substantially equivalent to products already on the market. In a 510(k) filing, applicants must compare the safety and efficacy of their devices to similar products already on the market, and back their claims with evidence. The FDA has established criteria for the nature of the supportive data required, depending on the degree of risk associated with the device. The FDA reviews 510(k) submissions and gives marketing clearance (rather than formal approvals) to those that it accepts in a process that typically lasts three to six months.

Renal replacement therapy—A therapy that replaces the normal blood-filtering function of the kidneys. It is used when the kidneys are not working well, which is called kidney failure and includes acute kidney injury and chronic kidney disease.

Transcatheter aortic valve replacement (TAVR, also known as TAVI)—This minimally invasive surgical procedure repairs the valve without removing the old, damaged valve. Rather, it wedges a collapsible replacement valve into the aortic valve's place through a catheter.

Transcatheter mitral valve repair—This is a minimally invasive approach to repair a leaky mitral valve.

Transcatheter mitral valve replacement—This is a minimally invasive structural heart disease treatment to replace a damaged mitral valve without open-heart surgery.

INDUSTRY REFERENCES

PERIODICALS

Global Data

globaldata.com

A data analytics company that provides unique data, expert analysis, and innovative solutions to companies in the world's largest industries.

The British Medical Journal

bmj.com

A weekly peer-reviewed medical trade journal, published by the trade union, the British Medical Association.

Visual Capitalist

visualcapitalist.com

One of the fastest growing online publishers globally, it focused on topics such as markets, technology, energy, and the global economy.

RESEARCH FIRMS

Evaluate Ltd.

evaluategroup.com

Provides commercial intelligence such as product sales and consensus forecasts for commercial teams and their advisors within the global life science industry.

Fortune Business Insights

fortunebusinessinsights.com

Leading publisher that delivers market research reports and custom services for multiple industries.

Grand View Research

grandviewresearch.com

Business consulting firm offering action-ready market research reports, custom market analysis, and consulting services.

TRADE ASSOCIATIONS

American Diabetes Association

diabetes.org

Nonprofit organization that seeks to educate the public about diabetes.

International Diabetes Federation

idf.org

Umbrella organization that leads the global diabetes community in more than 160 countries and territories.

The Commonwealth Fund

commonwealthfund.org

Private U.S. foundation that aims to promote a high performing health care system for the society.

GOVERNMENT AGENCIES

Centers for Medicare & Medicaid Services

cms.gov

Supervises the Medicare program, the federal portion of Medicaid, and several related programs; formerly called the Health Care Financing Administration.

India Brand Equity Foundation

ibef.org

A trust established by India's Department of Commerce, Ministry of Commerce and Industry.

National Center for Health Statistics

cdc.gov/nchs

The federal government's principal agency that collects vital and health statistics; it is a division of the Centers for Disease Control and Prevention (which is under the umbrella of the Department of Health and Human Services).

National Institutes of Health

nih.gov

Government-funded medical research agency that undertakes basic and clinical research on medical conditions and funds external research at academic medical centers.

United Nations

un.org

Intergovernmental organization that aims to maintain international peace and security, achieve international cooperation, and be a center for harmonizing the actions of nations.

U.S. Food and Drug Administration's (FDA) Center for Devices and Radiological Health (CDRH)

fda.gov/aboutfda/centersoffices/officeofmedicalproductsandtobacco/cdrh

The FDA, a division of the Department of Health and Human Services, is the chief U.S. government agency in charge of supervising the food and pharmaceutical industries. Its CDRH unit regulates medical device manufacturers.

COMPARATIVE COMPANY ANALYSIS

			Operating Revenues																
Ticker	Company	Yr. End	Million \$								CAGR(%)			Index Basis (2011=100)					
			2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017	
Healthcare Equipment																			
ABT	ABBOTT LABORATORIES	DEC	43,653.0	43,075.0	34,608.0	31,904.0	30,578.0	27,390.0	20,853.0	8.6	9.8	1.3	209	207	166	153	147	131	
ANGO	ANGIODYNAMICS, INC.	# MAY	0.0	316.2	291.0	264.2	270.6	261.7	269.8	3.6	3.2	8.7	0	117	108	98	100	97	
BAX	BAXTER INTERNATIONAL INC.	DEC	15,113.0	12,784.0	11,673.0	11,362.0	11,099.0	10,584.0	10,163.0	0.8	7.4	18.2	149	126	115	112	109	104	
BDX	BECTON, DICKINSON AND COMPANY	SEP	18,870.0	19,131.0	16,074.0	17,290.0	15,983.0	12,093.0	12,483.0	9.4	9.3	(1.4)	151	153	129	139	128	97	
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	12,682.0	11,888.0	9,913.0	10,735.0	9,823.0	9,048.0	8,386.0	5.8	7.0	6.7	151	142	118	128	117	108	
CMD	PROSHARES TRUST II - PROSHARES ULT#	JAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	236.2	259.0	236.5	248.0	217.0	204.9	176.9	11.1	2.9	(8.8)	134	146	134	140	123	116	
CNMD	CONMED CORPORATION	DEC	1,045.5	1,010.6	862.5	955.1	859.6	796.4	763.5	3.1	5.6	3.4	137	132	113	125	113	104	
CUTR	CUTERA, INC.	DEC	252.4	231.3	147.7	181.7	162.7	151.5	118.1	12.6	10.7	9.1	214	196	125	154	138	128	
DHR	DANAHER CORPORATION	DEC	31,471.0	29,453.0	22,284.0	17,911.0	17,049.0	15,518.8	16,882.4	5.6	15.2	6.9	186	174	132	106	101	92	
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	5,382.4	5,232.5	4,386.3	4,348.0	3,722.8	3,435.3	2,963.7	11.0	9.4	2.9	182	177	148	147	126	116	
GKOS	GLAUKOS CORPORATION	DEC	282.9	294.0	225.0	237.0	181.3	159.3	114.4	60.9	12.2	(3.8)	247	257	197	207	158	139	
GMED	GLOBUS MEDICAL, INC.	DEC	1,022.8	958.1	789.0	785.4	713.0	636.0	564.0	10.2	10.0	6.8	181	170	140	139	126	113	
HKSA	HESKA CORPORATION	DEC	257.3	253.7	197.3	122.7	127.4	129.3	130.1	13.5	14.7	1.4	198	195	152	94	98	99	
HOLX	HOLOGIC, INC.	SEP	4,862.8	5,632.3	3,776.4	3,367.3	3,217.9	3,058.8	2,832.7	9.3	9.7	(13.7)	172	199	133	119	114	108	
IDXX	IDEXX LABORATORIES, INC.	DEC	3,367.3	3,215.4	2,706.7	2,406.9	2,213.2	1,969.1	1,775.4	10.0	11.3	4.7	190	181	152	136	125	111	
INGN	INOGEN, INC.	DEC	377.2	358.0	308.5	361.9	358.1	249.4	202.8	22.7	8.6	5.4	186	177	152	178	177	123	
ITGR	INTEGRER HOLDINGS CORPORATION	DEC	1,376.1	1,221.1	1,073.4	1,258.1	1,215.0	1,136.1	1,075.5	7.9	3.9	12.7	128	114	100	117	113	106	
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	1,557.7	1,542.4	1,371.9	1,517.6	1,472.4	1,188.2	992.1	6.5	5.6	1.0	157	155	138	153	148	120	
ISRG	INTUITIVE SURGICAL, INC.	DEC	6,222.2	5,710.1	4,358.4	4,478.5	3,724.2	3,138.2	2,706.5	11.1	14.7	9.0	230	211	161	165	138	116	
LMAT	LEMATRE VASCULAR, INC.	DEC	161.7	154.4	129.4	117.2	105.6	100.9	89.2	11.0	9.9	4.7	181	173	145	131	118	113	
LIVN	LIVANOVA PLC	DEC	1,021.8	1,035.4	934.2	1,084.2	1,107.0	1,012.3	964.9	16.7	0.2	(1.3)	106	107	97	112	115	105	
MASI	MASIMO CORPORATION	DEC	2,035.8	2,035.8	1,239.2	937.8	858.3	790.2	712.9	15.2	20.8	64.3	286	286	174	132	120	111	
MDT	MEDTRONIC PLC	# APR	0.0	31,686.0	30,117.0	28,913.0	30,557.0	29,953.0	29,710.0	6.9	1.3	5.2	0	107	101	97	103	101	
MLAB	MESA LABORATORIES, INC.	# MAR	0.0	184.3	133.9	117.7	103.1	96.2	93.7	16.6	14.5	37.6	0	197	143	126	110	103	
NUVA	NUVASIVE, INC.	DEC	1,201.9	1,139.0	1,050.6	1,168.1	1,101.7	1,026.7	962.1	6.8	3.2	5.5	125	118	109	121	115	107	
OFIX	ORTHOFIX MEDICAL INC.	DEC	460.7	464.5	406.6	460.0	453.0	433.8	409.8	0.5	1.2	(0.8)	112	113	99	112	111	106	
PEN	PENUMBRA, INC.	DEC	847.1	747.6	560.4	547.4	444.9	333.8	263.3	NA	20.5	13.3	322	284	213	208	169	127	
RMD	RESMED INC.	JUN	3,578.1	3,196.8	2,957.0	2,606.6	2,340.2	2,066.7	1,838.7	10.1	11.6	11.9	195	174	161	142	127	112	
STE	STERIS PLC	# MAR	0.0	4,585.1	3,107.5	3,030.9	2,782.2	2,620.0	2,612.8	12.5	11.9	47.5	0	175	119	116	106	100	
SYK	STRYKER CORPORATION	DEC	18,449.0	17,108.0	14,351.0	14,884.0	13,601.0	12,444.0	11,325.0	7.9	8.2	7.8	163	151	127	131	120	110	
SRDX	SURMODICS, INC.	SEP	100.0	105.1	94.9	100.1	81.3	73.1	71.4	6.8	6.5	(4.9)	140	147	133	140	114	102	
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	246.8	208.1	187.1	189.5	143.8	109.3	84.5	NA	17.7	18.6	292	246	221	224	170	129	
TFX	TELEFLEX INCORPORATED	DEC	2,791.0	2,809.6	2,537.2	2,595.4	2,448.4	2,146.3	1,868.0	6.1	5.4	(0.7)	149	150	136	139	131	115	
VREX	VAREX IMAGING CORPORATION	SEP	859.4	818.1	738.3	780.6	773.4	698.1	620.1	NA	4.2	5.0	139	132	119	126	125	113	
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	6,939.9	6,827.3	6,127.5	7,982.2	7,932.9	7,803.3	7,668.4	4.5	(2.3)	1.6	90	89	80	104	103	102	

Note: Data as originally reported. CAGR-Compound annual growth rate. [Company included in the S&P 500. †Company included in the S&P MidCap 400. \$Company included in the S&P Small Cap 600. #Of the following calendar year.

Source: S&P Capital IQ.

		Operating Revenues (Cont.)																	
Ticker	Company		Million \$								CAGR(%)			Index Basis (2011=100)					
Healthcare Supplies		Yr. End	2021	2020	2019	2018	2017	2016	2015	10-Yr.	5-Yr.	1-Yr.	2021	2020	2019	2018	2017	2016	
ALGN	□ ALIGN TECHNOLOGY, INC.	DEC	3,734.6	3,952.6	2,471.9	2,406.8	1,966.5	1,473.4	1,079.9	20.9	20.4	(5.5)	346	366	229	223	182	136	
AVNS	§ AVANOS MEDICAL, INC.	DEC	820.0	744.6	714.8	697.6	652.3	611.6	566.2	(6.9)	6.0	10.1	145	132	126	123	115	108	
XRAY	□ DENTSPLY SIRONA INC.	DEC	3,922.0	4,231.0	3,339.0	4,022.0	3,986.0	3,993.4	3,745.3	3.0	(0.4)	(7.3)	105	113	89	107	106	107	
HAE	† HAEMONETICS CORPORATION	# APR	0.0	993.2	870.5	988.5	967.6	903.9	886.1	3.2	2.3	14.1	0	112	98	112	109	102	
ICUI	† ICU MEDICAL, INC.	DEC	2,280.0	1,316.3	1,271.0	1,266.2	1,400.0	1,292.6	379.4	21.8	12.0	73.2	601	347	335	334	369	341	
LNTH	§ LANTHEUS HOLDINGS, INC.	DEC	935.1	425.2	339.4	347.3	343.4	331.4	301.9	12.5	23.1	119.9	310	141	112	115	114	110	
VIVO	§																		
MMSI	§ MERIT MEDICAL SYSTEMS, INC.	DEC	1,151.0	1,074.8	963.9	994.9	882.8	727.9	603.8	11.3	9.6	7.1	191	178	160	165	146	121	
NEOG	† NEOGEN CORPORATION	# MAY	0.0	527.2	468.5	418.2	414.2	397.9	358.3	11.1	8.0	12.5	0	147	131	117	116	111	
OSUR	§ ORASURE TECHNOLOGIES, INC.	DEC	387.5	233.7	171.7	154.6	181.7	166.4	122.8	16.0	18.4	65.8	316	190	140	126	148	135	
COO	□ THE COOPER COMPANIES, INC.	OCT	3,308.4	2,922.5	2,430.9	2,653.4	2,532.8	2,139.0	1,966.8	8.6	9.1	13.2	168	149	124	135	129	109	
WST	□ WEST PHARMACEUTICAL SERVICES, INC	DEC	2,886.9	2,831.6	2,146.9	1,839.9	1,717.4	1,599.1	1,509.1	8.6	12.5	2.0	191	188	142	122	114	106	

Note: Data as originally reported. CAGR-Compound annual growth rate. □Company included in the S&P 500. †Company included in the S&P MidCap 400. \$Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

			Net Income															
Ticker	Company	Yr. End	Million \$							CAGR(%)			Index Basis (2011=100)					
			2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
Healthcare Equipment																		
ABT	ABBOTT LABORATORIES	DEC	6,933.0	7,071.0	4,495.0	3,687.0	2,368.0	477.0	1,400.0	1.5	70.8	(2.0)	495	505	321	263	169	34
ANGO	ANGIODYNAMICS, INC.	# MAY	0.0	(26.5)	(31.5)	(166.8)	61.3	16.3	5.0	17.7	NM	(15.9)	0	(530)	(630)	NM	1,225	326
BAX	BAXTER INTERNATIONAL INC.	DEC	(2,433.0)	1,284.0	1,102.0	1,001.0	1,546.0	602.0	4,965.0	NA	NM	NM	(49)	26	22	20	31	12
BDX	BECTON, DICKINSON AND COMPANY	SEP	1,779.0	2,092.0	874.0	1,233.0	311.0	1,100.0	976.0	4.3	10.1	(15.0)	182	214	90	126	32	113
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	698.0	1,041.0	(82.0)	4,700.0	1,671.0	104.0	347.0	NA	46.3	(32.9)	201	300	(24)	1,354	482	30
CMD	PROSHARES TRUST II - PROSHARES ULTF#	JAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	(36.9)	(13.4)	(27.2)	(0.3)	1.7	(1.8)	(56.0)	8.2	83.2	175.2	66	24	49	0	(3)	3
CNMD	CONMED CORPORATION	DEC	(80.6)	62.5	9.5	28.6	40.9	55.5	14.7	NA	NM	NM	(550)	427	65	195	279	378
CUTR	CUTERA, INC.	DEC	(82.3)	2.1	(23.9)	(12.3)	(30.8)	30.0	2.6	28.8	NM	NM	NM	80	(927)	(479)	NM	1,164
DHR	DANAHER CORPORATION	DEC	7,209.0	6,433.0	3,646.0	3,008.0	2,651.0	2,492.1	2,553.7	11.7	23.7	12.1	282	252	143	118	104	98
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	1,521.9	1,503.1	823.4	1,046.9	722.2	583.6	569.5	18.0	21.1	1.3	267	264	145	184	127	102
GKOS	GLAUKOS CORPORATION	DEC	(99.2)	(49.6)	(120.3)	15.4	(13.0)	(0.1)	4.5	17.8	304.1	100.0	NM	NM	NM	341	(286)	(2)
GMED	GLOBUS MEDICAL, INC.	DEC	190.2	149.2	102.3	155.2	156.5	107.3	104.3	9.9	12.1	27.5	182	143	98	149	150	103
HKSA	HESKA CORPORATION	DEC	(19.9)	(1.1)	(14.4)	(1.5)	5.9	10.0	10.5	NA	NM	1632.5	(189)	(11)	(137)	(14)	56	95
HOLX	HOLOGIC, INC.	SEP	1,302.0	1,871.5	1,115.2	(203.6)	(111.3)	755.5	330.8	NA	11.5	(30.4)	394	566	337	(62)	(34)	228
IDXX	IDEXX LABORATORIES, INC.	DEC	679.1	744.8	581.8	427.7	377.0	263.1	222.0	14.3	20.9	(8.8)	306	335	262	193	170	119
INGN	INOGEN, INC.	DEC	(83.8)	(6.3)	(5.8)	21.0	51.8	21.0	20.5	NA	NM	1222.8	(408)	(31)	(28)	102	253	102
ITGR	INTEGER HOLDINGS CORPORATION	DEC	66.4	96.8	77.3	96.3	168.0	66.7	6.0	NA	(0.1)	(31.4)	1,114	1,624	1,296	1,616	2,818	1,119
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	180.6	169.1	133.9	50.2	60.8	64.7	74.6	15.9	22.8	6.8	242	227	180	67	82	87
ISRG	INTUITIVE SURGICAL, INC.	DEC	1,322.3	1,704.6	1,060.6	1,379.3	1,127.9	670.9	738.3	7.3	14.5	(22.4)	179	231	144	187	153	91
IVC																		
LMAT	LEMAITRE VASCULAR, INC.	DEC	20.6	26.9	21.2	17.9	22.9	17.2	10.6	23.2	3.7	(23.3)	195	254	200	169	217	162
LIVN	LIVANOVA PLC	DEC	(86.2)	(135.8)	(348.8)	(157.6)	(189.4)	(25.1)	(62.8)	NA	28.0	(36.5)	137	216	556	251	302	40
MASI	MASIMO CORPORATION	DEC	143.5	143.5	229.6	196.2	193.5	124.8	311.1	8.7	2.8	(37.5)	46	46	74	63	62	40
MDT	MEDTRONIC PLC	# APR	0.0	5,039.0	3,606.0	4,789.0	4,631.0	3,104.0	4,028.0	3.4	4.6	39.7	0	125	90	119	115	77
MLAB	MESA LABORATORIES, INC.	# MAR	0.0	1.9	3.3	1.8	7.5	(3.0)	11.2	(13.4)	(30.1)	(42.9)	0	17	29	16	67	(26)
NUVA	NUVASIVE, INC.	DEC	40.4	(64.1)	(37.2)	65.2	12.5	81.6	37.2	29.1	(13.1)	NM	109	(172)	(100)	175	34	219
OFIX	ORTHOFIX MEDICAL INC.	DEC	(19.7)	(38.4)	2.5	(28.5)	13.8	6.2	3.1	NA	NM	(48.5)	(646)	NM	82	(931)	452	204
PEN	PENUMBRA, INC.	DEC	(2.0)	5.3	(15.7)	48.5	6.6	4.7	14.8	NA	NM	NM	(14)	36	(106)	327	45	31
RMD	RESMED INC.	JUN	779.4	474.5	621.7	404.6	315.6	342.3	352.4	11.8	17.9	64.3	221	135	176	115	90	97
STE	STERIS PLC	# MAR	0.0	243.9	397.4	407.7	303.7	290.9	110.0	6.0	17.3	(38.6)	0	222	361	371	276	265
SYK	STRYKER CORPORATION	DEC	2,358.0	1,994.0	1,599.0	2,083.0	3,553.0	1,020.0	1,647.0	6.2	18.2	18.3	143	121	97	126	216	62
SRDX	SURMODICS, INC.	SEP	(27.3)	4.2	1.1	7.6	(4.5)	3.9	10.0	NA	NM	NM	(273)	42	11	76	(45)	39
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	(17.9)	(11.8)	(0.6)	11.0	6.6	5.9	2.9	NA	NM	51.3	(621)	(410)	(22)	381	230	203
TFX	TELEFLEX INCORPORATED	DEC	363.1	485.4	335.3	461.5	200.8	152.5	237.4	NA	18.9	(25.2)	153	204	141	194	85	64
VREX	VAREX IMAGING CORPORATION	SEP	30.3	17.4	(57.9)	15.5	27.5	51.6	68.5	NA	(10.1)	74.1	44	25	(85)	23	40	75
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	231.4	401.6	(138.9)	1,131.6	(379.2)	1,813.8	305.9	(11.2)	(33.8)	(42.4)	76	131	(45)	370	(124)	593

Note: Data as originally reported. CAGR-Compound annual growth rate. []Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

		Net Income (Cont.)																
Ticker	Company		Million \$							CAGR(%)			Index Basis (2011=100)					
Healthcare Supplies		Yr. End	2022	2021	2020	2019	2018	2017	2016	10-Yr.	5-Yr.	1-Yr.	2022	2021	2020	2019	2018	2017
ALGN	▮ ALIGN TECHNOLOGY, INC.	DEC	361.6	772.0	1,775.9	442.8	400.2	231.4	189.7	19.9	9.3	(53.2)	191	407	936	233	211	122
AVNS	§ AVANOS MEDICAL, INC.	DEC	50.5	6.3	(29.0)	(45.9)	57.5	79.3	39.8	(10.5)	(8.6)	701.6	127	16	(73)	(115)	144	199
XRAY	▮ DENTSPLY SIRONA INC.	DEC	(950.0)	411.0	(73.0)	256.0	(1,011.0)	(1,550.0)	429.9	NA	(9.3)	NM	(221)	96	(17)	60	(235)	(361)
HAE	† HAEMONETICS CORPORATION	# APR	0.0	43.4	79.5	76.5	55.0	45.6	(26.3)	(4.2)	NM	(45.4)	0	(165)	(303)	(291)	(209)	(173)
ICUI	† ICU MEDICAL, INC.	DEC	(74.3)	103.1	86.9	101.0	28.8	68.6	63.1	NA	NM	NM	(118)	163	138	160	46	109
LNTH	§ LANTHEUS HOLDINGS, INC.	DEC	28.1	(71.3)	(13.5)	31.7	40.5	123.4	26.8	NA	(25.6)	NM	105	(266)	(50)	118	151	461
VIVO	§																	
MMSI	§ MERIT MEDICAL SYSTEMS, INC.	DEC	74.5	48.5	(9.8)	5.5	42.0	27.5	20.1	14.2	22.0	53.8	370	241	(49)	27	209	137
NEOG	† NEOGEN CORPORATION	# MAY	0.0	48.3	60.9	59.5	60.2	63.1	43.8	7.9	2.0	(20.7)	0	110	139	136	137	144
OSUR	§ ORASURE TECHNOLOGIES, INC.	DEC	(17.9)	(23.0)	(14.9)	16.7	20.4	30.9	19.7	1.7	NM	(22.0)	(91)	(117)	(76)	84	103	157
COO	▮ THE COOPER COMPANIES, INC.	OCT	385.8	2,944.7	238.4	466.7	139.9	372.9	273.9	4.5	0.7	(86.9)	141	1,075	87	170	51	136
WST	▮ WEST PHARMACEUTICAL SERVICES, INC	DEC	585.9	661.8	346.2	241.7	206.9	150.7	143.6	21.9	31.2	(11.5)	408	461	241	168	144	105

Note: Data as originally reported. CAGR-Compound annual growth rate. □Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Return on Revenues (%)						Return on Assets (%)						Return on Equity(%)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
Healthcare Equipment																				
ABT	ABBOTT LABORATORIES	DEC	15.9	16.4	13.0	11.6	7.7	1.7	9.3	9.4	6.2	5.4	3.5	0.6	19.0	20.5	13.9	11.9	7.6	1.4
ANGO	ANGIODYNAMICS, INC.	# MAY	0.0	NM	NM	NM	22.7	6.2	NA	NM	NM	NM	7.3	2.3	0.0	NM	NM	NM	NM	NM
BAX	BAXTER INTERNATIONAL INC.	DEC	NM	10.0	9.4	8.8	13.9	5.7	NM	3.8	5.5	5.5	9.8	3.5	NM	14.5	13.3	12.8	18.3	7.0
BDX	BECTON, DICKINSON AND COMPANY	SEP	9.4	10.9	5.4	7.1	1.9	9.1	3.4	3.9	1.6	2.4	0.6	2.9	6.7	6.8	1.6	5.9	1.8	10.7
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	5.5	8.8	NM	43.8	17.0	1.1	2.1	3.2	NM	15.4	8.0	0.5	4.1	6.5	NM	41.6	21.2	1.5
CMD	PROSHARES TRUST II - PROSHARES ULTF#	JAN	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	NM	NM	NM	NM	0.8	NM	NM	NM	NM	NM	0.8	NM	NM	NM	NM	NM	1.4	NM
CNMD	CONMED CORPORATION	DEC	NM	6.2	1.1	3.0	4.8	7.0	NM	3.5	0.5	1.6	3.0	4.1	NM	8.4	1.3	4.2	6.3	9.2
CUTR	CUTERA, INC.	DEC	NM	0.9	NM	NM	NM	19.8	NM	0.7	NM	NM	NM	27.0	NM	3.6	NM	NM	NM	47.6
DHR	DANAHER CORPORATION	DEC	22.9	21.8	16.4	16.8	15.5	16.1	8.5	7.7	4.8	4.8	5.5	5.3	15.1	14.9	10.4	8.3	8.8	8.8
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	28.3	28.7	18.8	24.1	19.4	17.0	18.4	17.7	11.4	16.1	13.6	10.3	26.1	28.9	18.9	28.7	23.7	20.9
GKOS	GLAUKOS CORPORATION	DEC	NM	NM	NM	6.5	NM	NM	NM	NM	NM	1.9	NM	NM	NM	NM	NM	3.6	NM	NM
GMED	GLOBUS MEDICAL, INC.	DEC	18.6	15.6	13.0	19.8	21.9	16.9	9.2	7.6	6.1	10.1	12.0	10.0	10.6	9.2	7.0	12.0	14.5	11.9
HKSA	HESKA CORPORATION	DEC	NM	NM	NM	NM	4.6	7.7	NM	NM	NM	NM	3.7	7.3	NM	NM	NM	NM	5.3	10.1
HOLX	HOLOGIC, INC.	SEP	26.8	33.2	29.5	NM	NM	24.7	14.4	21.0	15.5	NM	NM	9.5	28.6	54.0	46.1	NM	NM	30.7
IDXX	IDEXX LABORATORIES, INC.	DEC	20.2	23.2	21.5	17.8	17.0	13.4	24.7	30.6	25.4	23.3	24.5	15.4	104.6	112.6	143.6	507.5	NM	NM
INGN	INOGEN, INC.	DEC	NM	NM	NM	5.8	14.5	8.4	NM	NM	NM	4.7	13.8	7.6	NM	NM	NM	6.4	19.3	10.3
ITGR	INTEGER HOLDINGS CORPORATION	DEC	4.8	7.9	7.2	7.7	13.8	5.9	2.4	3.7	3.3	4.1	7.2	2.3	4.7	7.1	6.4	8.2	4.8	10.8
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	11.6	11.0	9.8	3.3	4.1	5.4	4.6	4.5	3.7	1.5	2.0	2.0	10.3	10.6	9.1	3.6	5.2	7.2
ISRG	INTUITIVE SURGICAL, INC.	DEC	21.3	29.9	24.3	30.8	30.3	21.4	10.2	12.6	9.5	14.2	14.4	11.6	11.7	15.9	11.8	18.5	19.6	12.7
IVC																				
LMAT	LEMAITRE VASCULAR, INC.	DEC	12.8	17.4	16.4	15.3	21.7	17.0	6.6	9.2	8.4	9.5	15.0	13.6	7.9	12.6	13.2	12.9	19.1	17.4
LIVN	LIVANOVA PLC	DEC	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.1
MASI	MASIMO CORPORATION	DEC	7.0	18.5	21.0	20.9	22.5	15.8	4.5	12.2	14.0	14.1	16.8	13.8	9.9	15.5	18.7	18.4	22.9	19.4
MDT	MEDTRONIC PLC	# APR	0.0	15.9	12.0	16.6	15.2	10.4	NA	5.5	3.9	5.3	5.2	3.4	0.0	9.7	7.1	9.5	9.2	6.1
MLAB	MESA LABORATORIES, INC.	# MAR	0.0	1.0	2.4	1.5	7.3	NM	NA	0.3	0.5	0.4	4.8	NM	0.0	0.5	1.0	1.1	7.1	NM
NUVA	NUVASIVE, INC.	DEC	3.4	NM	NM	5.6	1.1	7.9	1.8	NM	NM	3.5	0.7	5.0	4.9	NM	NM	7.5	1.5	10.6
OFIX	ORTHOFIX MEDICAL INC.	DEC	NM	NM	0.6	NM	3.0	1.4	NM	NM	0.5	NM	3.0	1.5	NM	NM	0.7	NM	4.4	2.6
PEN	PENUMBRA, INC.	DEC	NM	0.7	NM	8.9	1.5	1.4	NM	0.4	NM	7.3	1.3	1.0	NM	0.3	NM	10.4	0.7	1.4
RMD	RESMED INC.	JUN	21.8	14.8	21.0	15.5	13.5	16.6	15.3	10.0	13.6	9.8	10.3	9.9	25.0	17.6	27.2	19.6	15.7	18.7
STE	STERIS PLC	# MAR	0.0	5.3	12.8	13.5	10.9	11.1	NA	2.1	6.0	7.5	6.0	5.6	0.0	4.7	10.9	12.4	9.5	9.7
SYK	STRYKER CORPORATION	DEC	12.8	11.7	11.1	14.0	26.1	8.2	6.4	5.8	4.7	6.9	13.0	4.6	15.0	14.3	12.4	17.0	32.7	10.4
SRDX	SURMODICS, INC.	SEP	NM	4.0	1.2	7.6	NM	5.4	NM	2.2	0.7	4.7	NM	2.9	NM	3.1	0.9	6.6	NM	3.6
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	NM	NM	NM	5.8	4.6	5.4	NM	NM	NM	7.2	6.2	6.6	NM	NM	NM	10.9	8.2	8.8
TFX	TELEFLEX INCORPORATED	DEC	13.0	17.3	13.2	17.8	8.2	7.1	5.2	7.1	4.7	7.3	3.2	2.5	9.3	13.7	10.6	16.7	7.9	6.8
VREX	VAREX IMAGING CORPORATION	SEP	3.5	2.1	NM	2.0	3.6	7.4	2.6	1.5	NM	1.5	2.8	5.0	5.9	3.7	NM	3.5	6.8	11.2
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	3.3	5.9	NM	14.2	NM	23.2	1.1	1.7	NM	4.6	NM	7.0	2.4	3.6	NM	9.6	NM	16.9

Note: Data as originally reported. CAGR-Compound annual growth rate. [Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar Source: S&P Capital IQ.

Ticker	Company	Yr. End	Return on Revenues (%) (Cont.)							Return on Assets (%) (Cont.)						Return on Equity(%) (Cont.)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	
Healthcare Supplies																					
ALGN	□ ALIGN TECHNOLOGY, INC.	DEC	9.7	19.5	71.8	18.4	20.4	15.7	6.1	13.0	36.8	17.7	19.5	13.0	10.0	22.5	77.5	34.1	33.3	21.5	
AVNS	§ AVANOS MEDICAL, INC.	DEC	6.2	0.8	NM	NM	8.8	13.0	2.8	0.4	NM	NM	3.1	3.6	3.9	0.5	NM	NM	NM	NM	
XRAY	□ DENTSPLY SIRONA INC.	DEC	NM	9.7	NM	6.4	NM	NM	NM	4.4	NM	3.0	NM	NM	NM	8.3	NM	5.0	NM	NM	
HAE	† HAEMONETICS CORPORATION	# APR	0.0	4.4	9.1	7.7	5.7	5.0	NA	2.3	4.4	6.0	4.3	3.7	0.0	5.9	12.1	12.2	7.7	6.1	
ICUI	† ICU MEDICAL, INC.	DEC	NM	7.8	6.8	8.0	2.1	5.3	NM	5.5	4.9	6.0	1.8	4.6	NM	6.6	6.0	7.7	2.3	7.4	
LNTH	§ LANTHEUS HOLDINGS, INC.	DEC	3.0	NM	NM	9.1	11.8	37.2	2.1	NM	NM	7.8	9.2	32.1	6.2	NM	NM	34.1	85.9	NM	
VIVO	§																				
MMSI	§ MERIT MEDICAL SYSTEMS, INC.	DEC	6.5	4.5	NM	0.5	4.8	3.8	4.5	2.9	NM	0.3	2.6	2.5	6.8	4.8	NM	0.6	5.2	4.7	
NEOG	† NEOGEN CORPORATION	# MAY	0.0	9.2	13.0	14.2	14.5	15.9	NA	4.9	6.6	7.5	8.6	10.2	0.0	5.6	7.8	8.7	10.0	12.3	
OSUR	§ ORASURE TECHNOLOGIES, INC.	DEC	NM	NM	NM	10.8	11.2	18.6	NM	NM	NM	4.8	6.5	10.4	NM	NM	NM	5.6	7.5	13.9	
COO	□ THE COOPER COMPANIES, INC.	OCT	11.7	100.8	9.8	17.6	5.5	17.4	3.4	30.7	3.5	7.4	2.3	7.7	5.5	54.7	6.4	13.5	4.3	12.7	
WST	□ WEST PHARMACEUTICAL SERVICES, INC	DEC	20.3	23.4	16.1	13.1	12.0	9.4	16.2	20.0	12.4	10.3	10.5	8.1	23.3	31.6	20.2	16.3	15.5	12.6	

Note: Data as originally reported. CAGR-Compound annual growth rate. □Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Current Ratio							Debt/Capital Ratio(%)							Debt as a % of Net Working Capital						
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017			
Healthcare Equipment																							
ABT	ABBOTT LABORATORIES	DEC	1.6	1.8	1.7	1.4	1.6	2.3	28.2	32.4	36.4	35.2	39.1	47.0	149.2	155.3	219.6	351.0	348.0	244.0			
ANGO	ANGIODYNAMICS, INC.	# MAY	0.0	1.9	2.4	3.0	4.3	2.9	NA	5.6	4.4	8.1	16.8	13.8	NA	36.2	24.0	39.4	51.4	78.2			
BAX	BAXTER INTERNATIONAL INC.	DEC	1.7	2.1	2.5	2.3	2.1	2.6	73.4	66.3	39.6	39.6	30.2	27.8	473.6	374.9	112.7	117.8	108.4	79.0			
BDX	BECTON, DICKINSON AND COMPANY	SEP	1.0	1.3	1.5	1.2	1.0	5.6	35.5	41.9	42.0	46.2	49.1	59.0	4207.9	773.5	549.8	1792.0	10053.3	122.1			
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	1.5	1.5	1.8	1.0	0.8	0.7	33.6	34.6	37.3	41.3	42.9	35.2	455.3	430.6	302.8	NM	NM	NM			
CMD	PROSHARES TRUST II - PROSHARES ULTIF	JAN	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	6.1	5.2	6.5	4.3	4.5	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CNMD	CONMED CORPORATION	DEC	2.0	2.3	2.2	2.1	2.3	2.4	56.9	46.1	50.9	51.5	39.8	42.8	346.0	255.1	324.5	360.6	205.5	228.1			
CUTR	CUTERA, INC.	DEC	4.3	3.4	2.0	1.6	1.8	2.0	103.8	70.4	5.9	0.0	0.0	0.0	120.6	76.4	6.8	0.0	0.0	0.0			
DHR	DANAHER CORPORATION	DEC	1.9	1.4	1.9	5.2	1.5	1.4	27.6	32.9	34.8	41.5	25.6	28.1	254.7	631.9	331.1	104.1	430.2	501.9			
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	3.0	3.1	3.5	3.3	2.6	1.8	9.3	9.3	11.5	12.5	15.9	30.5	28.8	27.7	27.1	28.6	42.1	91.8			
GKOS	GLAUKOS CORPORATION	DEC	6.1	7.7	9.4	4.6	5.8	5.6	34.7	32.3	22.1	0.0	0.0	0.0	75.7	66.2	45.1	0.0	0.0	0.0			
GMED	GLOBUS MEDICAL, INC.	DEC	6.2	6.2	6.8	6.2	6.6	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
HKSA	HESKA CORPORATION	DEC	6.7	7.3	4.1	4.3	3.1	3.2	18.5	18.7	14.6	23.1	4.7	5.6	42.4	36.3	37.9	43.2	14.3	13.8			
HOLX	HOLOGIC, INC.	SEP	4.1	2.4	1.8	1.7	1.2	0.8	36.5	39.2	50.3	56.8	52.7	43.8	96.0	147.7	278.4	385.0	843.6	NM			
IDXX	IDEXX LABORATORIES, INC.	DEC	0.9	1.3	1.8	0.9	0.8	1.0	97.7	57.9	57.6	79.7	101.6	109.7	NM	441.9	178.9	NM	NM	NM			
INGN	INOGEN, INC.	DEC	4.7	5.4	5.4	5.8	6.8	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
ITGR	INTEGER HOLDINGS CORPORATION	DEC	2.5	2.8	2.6	2.3	2.5	2.5	39.1	37.6	35.5	40.4	45.6	63.9	271.5	278.1	272.9	330.1	352.8	488.9			
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	3.6	3.4	3.1	2.6	3.0	2.4	43.8	47.6	49.4	48.6	49.4	64.9	167.2	188.2	177.0	254.6	261.7	376.7			
ISRG	INTUITIVE SURGICAL, INC.	DEC	4.4	5.1	6.9	4.5	5.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
IVC																							
LMAT	LEMAITRE VASCULAR, INC.	DEC	6.4	6.4	3.7	4.4	4.8	6.1	0.0	0.0	17.1	0.0	0.0	0.0	0.0	0.0	51.4	0.0	0.0	0.0			
LIVN	LIVANOVA PLC	DEC	3.0	1.0	2.3	1.1	1.1	2.1	30.2	1.0	37.0	16.1	8.8	6.4	88.4	(70.7)	162.2	717.3	397.7	26.1			
MASI	MASIMO CORPORATION	DEC	2.1	4.6	4.7	5.8	5.4	4.3	41.3	0.0	0.0	0.0	0.0	0.0	138.8	0.0	0.0	0.0	0.0	0.0			
MDT	MEDTRONIC PLC	# APR	0.0	1.9	2.6	2.1	3.4	3.0	NA	27.8	33.8	30.6	33.2	33.3	NA	190.6	187.5	191.2	145.1	149.0			
MLAB	MESA LABORATORIES, INC.	# MAR	0.0	2.6	9.3	4.7	1.4	1.9	NA	35.7	26.4	38.9	15.6	31.0	NA	286.3	53.7	144.9	206.9	303.7			
NTUS																							
NUVA	NUVASIVE, INC.	DEC	1.2	4.0	1.9	3.7	3.4	3.5	33.8	52.7	45.5	40.5	41.9	42.2	297.8	147.1	105.6	111.8	137.3	146.2			
OFIX	ORTHOFIX MEDICAL INC.	DEC	3.1	2.5	2.6	3.1	2.8	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PEN	PENUMBRA, INC.	DEC	5.2	5.5	5.8	5.1	6.2	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
RMD	RESMED INC.	JUN	2.8	1.7	2.5	2.1	2.1	4.6	18.5	18.2	31.8	37.8	11.6	35.5	61.6	97.0	126.4	213.6	48.7	84.0			
STE	STERIS PLC	# MAR	0.0	2.0	2.1	2.4	2.3	2.5	NA	31.0	29.8	25.2	27.1	29.0	NA	307.9	260.4	159.7	201.0	222.6			
SYK	STRYKER CORPORATION	DEC	1.6	2.2	1.9	2.5	2.0	2.3	41.6	45.6	50.3	44.4	42.0	39.8	298.5	228.1	283.5	153.7	172.3	146.2			
SRDX	SURMODICS, INC.	SEP	1.8	2.4	4.6	4.0	2.3	6.2	9.2	7.1	0.0	0.0	0.0	0.0	39.2	24.7	0.0	0.0	0.0	0.0			
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	1.9	3.3	4.6	5.1	5.3	5.3	27.4	28.8	0.0	0.0	0.0	0.0	82.8	65.5	0.0	0.0	0.0	0.0			
TFX	TELEFLEX INCORPORATED	DEC	2.4	2.1	2.6	2.3	2.1	2.3	28.8	31.7	42.0	38.4	45.0	47.1	195.8	232.3	273.3	250.1	318.2	335.4			
VREX	VAREX IMAGING CORPORATION	SEP	3.5	3.3	3.3	2.5	3.0	3.3	43.0	46.5	49.3	44.3	45.4	54.3	94.4	111.4	125.3	138.6	119.2	135.1			
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	1.9	1.4	2.0	1.4	1.8	1.5	30.9	30.2	38.6	35.2	42.7	43.2	259.6	386.5	303.0	524.1	419.5	596.4			

Note: Data as originally reported. CAGR-Compound annual growth rate. []Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following Source: S&P Capital IQ.

Ticker	Company	Yr. End	Current Ratio (Cont.)						Debt/Capital Ratio(%) (Cont.)						Debt as a % of Net Working Capital (Cont.)					
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017
Healthcare Supplies																				
ALGN	⌋ ALIGN TECHNOLOGY, INC.	DEC	1.3	1.3	1.4	1.7	1.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVNS	§ AVANOS MEDICAL, INC.	DEC	2.7	3.1	2.8	2.5	2.7	3.0	14.9	9.3	12.5	16.4	16.0	30.8	72.1	45.1	59.8	76.1	55.1	70.2
XRAY	⌋ DENTSPLY SIRONA INC.	DEC	1.6	1.5	1.3	2.0	1.9	2.1	34.7	30.4	28.6	22.1	24.6	19.8	272.1	355.7	464.8	143.8	188.3	155.8
HAE	† HAEMONETICS CORPORATION	#	APR	0.0	1.7	2.7	2.2	2.4	NA	42.7	48.7	34.9	32.6	7.3	NA	178.3	157.9	95.8	94.7	43.5
ICUI	† ICU MEDICAL, INC.	DEC	2.5	5.1	4.7	3.6	3.7	4.1	43.7	0.1	0.0	0.0	0.0	0.0	219.2	0.2	0.0	0.0	0.0	0.0
LNTH	§ LANTHEUS HOLDINGS, INC.	DEC	2.7	2.6	2.3	2.6	3.7	3.2	55.5	26.0	27.7	61.6	78.8	91.9	129.7	112.1	190.4	172.0	184.9	262.5
VIVO	§																			
MMSI	§ MERIT MEDICAL SYSTEMS, INC.	DEC	2.4	2.0	2.3	2.5	2.5	2.7	14.0	18.5	26.6	31.3	28.6	27.7	60.5	95.9	141.9	158.4	146.6	129.2
NEOG	† NEOGEN CORPORATION	#	MAY	0.0	8.1	11.0	11.1	11.8	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0
OSUR	§ ORASURE TECHNOLOGIES, INC.	DEC	4.6	4.4	6.2	6.9	7.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COO	⌋ THE COOPER COMPANIES, INC.	OCT	1.2	2.0	1.3	1.0	2.0	2.4	25.3	17.7	27.9	27.1	38.2	27.1	949.0	201.7	541.1	2511.9	364.9	210.5
WST	⌋ WEST PHARMACEUTICAL SERVICES, INC	DEC	3.7	2.9	2.7	3.1	3.2	2.7	7.1	8.2	12.2	14.0	12.3	13.3	14.8	18.2	29.7	35.8	32.1	42.5

Note: Data as originally reported. CAGR-Compound annual growth rate. ⌈Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Price/Earnings Ratio (High-Low)							Dividend Payout Ratio(%)							Dividend Yield(High-Low, %)						
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017			
Healthcare Equipment																							
ABT	ABBOTT LABORATORIES	DEC	36 - 24	36 - 27	45 - 25	43 - 32	55 - 42	214 - 142	48	45	57	62	83	388	2.1 - 1.7	2.0 - 1.3	1.7 - 1.3	2.3 - 1.3	2.0 - 1.4	2.0 - 1.5			
ANGO	ANGIODYNAMICS, INC.	MAY	NM - NM	NM - NM	NM - NM	15 - 12	47 - 34	130 - 88	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
BAX	BAXTER INTERNATIONAL INC.	DEC	NM - NM	34 - 29	43 - 33	46 - 33	27 - 21	60 - 40	NM	41	43	42	24	52	3.1 - 2.2	2.3 - 1.3	1.5 - 1.1	1.3 - 0.9	1.2 - 0.9	1.2 - 0.9			
BDX	BECTON, DICKINSON AND COMPANY	SEP	47 - 39	38 - 33	104 - 73	66 - 52	426 - 315	44 - 35	61	50	117	80	298	62	1.7 - 1.3	1.5 - 1.3	1.5 - 1.3	1.6 - 1.1	1.5 - 1.1	1.5 - 1.1			
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	105 - 79	66 - 50	NM - NM	13 - 10	32 - 20	393 - 285	8	5	NM	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
CMD	PROSHARES TRUST II - PROSHARES ULTF#	JAN							0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	NM - NM	NM - NM	NM - NM	NM - NM	649 - 412	NM - NM	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
CNMD	CONMED CORPORATION	DEC	NM - NM	73 - 52	339 - 120	115 - 60	56 - 35	27 - 20	NM	37	240	79	55	40	0.9 - 0.7	1.1 - 0.5	0.8 - 0.5	2.0 - 0.7	1.4 - 0.7	1.6 - 1.0			
CUTR	CUTERA, INC.	DEC	NM - NM	469 - 191	NM - NM	NM - NM	NM - NM	22 - 8	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
DHR	DANAHER CORPORATION	DEC	34 - 24	38 - 24	49 - 24	37 - 24	29 - 24	26 - 22	11	12	17	18	16	15	0.5 - 0.4	0.4 - 0.3	0.4 - 0.3	0.6 - 0.3	0.7 - 0.5	0.7 - 0.5			
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	53 - 28	54 - 33	67 - 40	49 - 29	50 - 32	43 - 32	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
GKOS	GLAUKOS CORPORATION	DEC	NM - NM	NM - NM	NM - NM	203 - 123	NM - NM	NM - NM	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
GMED	GLOBUS MEDICAL, INC.	DEC	43 - 28	57 - 41	63 - 34	38 - 24	36 - 26	37 - 22	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
HKSA	HESKA CORPORATION	DEC	NM - NM	NM - NM	NM - NM	NM - NM	140 - 72	78 - 51	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
HOLX	HOLOGIC, INC.	SEP	15 - 12	11 - 8	17 - 7	NM - NM	NM - NM	17 - 13	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
IDXX	IDEXX LABORATORIES, INC.	DEC	81 - 40	81 - 53	73 - 27	58 - 36	59 - 36	57 - 39	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
INGN	INOGEN, INC.	DEC	NM - NM	NM - NM	NM - NM	159 - 44	116 - 46	127 - 62	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
ITGR	INTEGER HOLDINGS CORPORATION	DEC	44 - 26	34 - 25	42 - 20	31 - 23	17 - 8	26 - 14	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	32 - 19	38 - 31	42 - 23	110 - 73	92 - 58	66 - 49	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
ISRG	INTUITIVE SURGICAL, INC.	DEC	98 - 49	76 - 48	90 - 41	50 - 38	58 - 37	67 - 35	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
IVC																							
LMAT	LEMAITRE VASCULAR, INC.	DEC	60 - 42	50 - 31	39 - 20	40 - 25	35 - 19	43 - 24	53	35	36	38	24	24	1.2 - 1.0	1.3 - 0.8	1.1 - 0.7	1.8 - 0.9	1.4 - 0.9	1.1 - 0.6			
LIVN	LIVANOVA PLC	DEC	NM - NM	NM - NM	NM - NM	NM - NM	NM - NM	NM - NM	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
MASI	MASIMO CORPORATION	DEC	111 - 41	73 - 50	62 - 34	44 - 28	34 - 22	43 - 28	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
MDT	MEDTRONIC PLC	APR	36 - 27	49 - 33	34 - 20	29 - 23	39 - 33	30 - 24	0	67	87	60	58	80	3.6 - 2.2	2.5 - 1.8	2.6 - 1.9	3.0 - 1.8	2.4 - 2.0	2.4 - 1.9			
MLAB	MESA LABORATORIES, INC.	MAR	926 - 655	451 - 313	638 - 438	123 - 70	NM - NM	45 - 31	0	178	97	153	33	NM	0.5 - 0.2	0.3 - 0.2	0.3 - 0.2	0.3 - 0.2	0.5 - 0.3	0.5 - 0.4			
NUVA	NUVASIVE, INC.	DEC	77 - 46	NM - NM	NM - NM	62 - 35	294 - 190	51 - 32	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
OFIX	ORTHOFIX MEDICAL INC.	DEC	NM - NM	NM - NM	NM - NM	364 - 174	NM - NM	84 - 65	161 - 100	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
PEN	PENUMBRA, INC.	DEC	NM - NM	2162 - 1218	NM - NM	132 - 83	858 - 438	820 - 449	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
RMD	RESMED INC.	JUN	56 - 36	75 - 51	43 - 27	44 - 32	49 - 33	33 - 24	31	48	36	52	63	54	0.9 - 0.7	0.9 - 0.6	1.0 - 0.7	1.4 - 0.9	1.6 - 1.3	1.9 - 1.4			
STE	STERIS PLC	MAR	98 - 75	43 - 28	35 - 22	35 - 25	28 - 20	57 - 49	0	67	34	30	37	35	1.2 - 0.7	0.9 - 0.7	1.4 - 0.8	1.1 - 0.9	1.4 - 1.1	1.6 - 1.3			
SYK	STRYKER CORPORATION	DEC	45 - 30	53 - 42	56 - 30	40 - 27	19 - 15	59 - 43	45	48	54	37	20	62	1.3 - 1.0	1.5 - 1.0	1.1 - 0.9	1.8 - 1.0	1.4 - 0.9	1.3 - 1.0			
SRDX	SURMODICS, INC.	SEP	NM - NM	196 - 114	588 - 271	132 - 67	NM - NM	104 - 75	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	NM - NM	NM - NM	NM - NM	132 - 71	196 - 77	109 - 44	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
TFX	TELEFLEX INCORPORATED	DEC	46 - 24	43 - 28	57 - 31	37 - 25	65 - 52	80 - 47	18	13	19	14	31	40	0.6 - 0.5	0.7 - 0.4	0.5 - 0.3	0.6 - 0.3	0.6 - 0.4	0.6 - 0.5			
VREX	VAREX IMAGING CORPORATION	SEP	43 - 25	67 - 28	NM - NM	85 - 54	60 - 39	26 - 20	0	0	0	0	0	440	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0			
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	121 - 92	93 - 62	NM - NM	27 - 18	NM - NM	15 - 11	87	50	NM	17	NM	11	0.8 - 0.7	0.9 - 0.7	0.8 - 0.5	1.2 - 0.6	1.0 - 0.7	0.9 - 0.7			
Note: Data as originally reported. CAGR-Compound annual growth rate. [Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.																							
Source: S&P Capital IQ.																							

Note: Data as originally reported. CAGR-Compound annual growth rate. [J]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Price/Earnings Ratio (High-Low) (Cont.)							Dividend Payout Ratio(%) (Cont.)							Dividend Yield(High-Low, %) (Cont.)						
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017			
Healthcare Supplies																							
ALGN	ALIGN TECHNOLOGY, INC.	DEC	143 - 38	75 - 51	24 - 6	59 - 31	79 - 39	91 - 31	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
AVNS	AVANOS MEDICAL, INC.	DEC	33 - 18	408 - 223	NM - NM	NM - NM	60 - 34	29 - 21	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
XRAY	DENTSPLY SIRONA INC.	DEC	NM - NM	37 - 26	NM - NM	51 - 32	NM - NM	NM - NM	NM	22	NM	32	NM	NM	NM	1.7 - 1.3	1.9 - 0.7	0.9 - 0.6	1.3 - 0.7	1.0 - 0.6	1.0 - 0.5		
HAE	HAEMONETICS CORPORATION	# APR	88 - 52	89 - 43	92 - 49	109 - 72	91 - 45	NM - NM	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
ICUI	ICU MEDICAL, INC.	DEC	NM - NM	53 - 38	56 - 39	53 - 31	219 - 151	63 - 38	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
LNTH	LANTHEUS HOLDINGS, INC.	DEC	211 - 59	NM - NM	NM - NM	36 - 18	23 - 12	7 - 2	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
VIVO																							
MMSI	MERIT MEDICAL SYSTEMS, INC.	DEC	57 - 39	85 - 61	NM - NM	633 - 209	82 - 52	81 - 44	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
NEOG	NEOGEN CORPORATION	# MAY	104 - 56	85 - 59	70 - 48	83 - 45	61 - 38	59 - 43	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
OSUR	ORASURE TECHNOLOGIES, INC.	DEC	NM - NM	NM - NM	NM - NM	48 - 24	66 - 32	44 - 16	0	0	0	0	0	0	0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
COO	THE COOPER COMPANIES, INC.	OCT	55 - 32	8 - 5	74 - 50	36 - 25	98 - 76	33 - 21	1	0	1	1	2	1		0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0	0.0 - 0.0		
WST	WEST PHARMACEUTICAL SERVICES, INC	DEC	60 - 27	53 - 29	64 - 28	46 - 29	44 - 30	50 - 39	9	8	14	19	20	26		0.3 - 0.2	0.4 - 0.2	0.3 - 0.1	0.5 - 0.2	0.6 - 0.4	0.7 - 0.5		

Note: Data as originally reported. CAGR-Compound annual growth rate. [J]Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Earnings per Share(\$)						Tangible Book Value per Share(\$)						Share Price (High-Low, \$)											
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017						
Healthcare Equipment																										
ABT	ABBOTT LABORATORIES	DEC	3.91	3.94	2.50	2.06	1.33	0.27	1.98	(0.10)	(3.24)	(5.18)	(6.65)	(8.37)	139.83	- 93.25	142.60	- 105.36	115.14	- 61.61	89.24	- 65.50	74.92	- 55.58	57.77	- 38.34
ANGO	ANGIODYNAMICS, INC.	MAY	0.00	(0.68)	(0.82)	(4.39)	1.63	0.44	0.00	1.81	1.79	1.50	3.24	3.87	30.00	- 11.71	32.00	- 14.96	17.24	- 7.48	25.48	- 13.72	24.49	- 15.16	18.85	- 14.80
BAX	BAXTER INTERNATIONAL INC.	DEC	(4.83)	2.53	2.13	1.93	2.83	1.09	(15.47)	(17.05)	7.53	6.68	6.69	8.59	89.70	- 49.00	88.32	- 73.12	95.19	- 69.10	89.93	- 64.13	78.38	- 61.05	66.18	- 44.06
BDX	BECTON, DICKINSON AND COMPANY	SEP	5.88	6.85	2.72	3.94	0.60	4.60	(41.12)	(45.64)	(47.14)	(63.88)	(71.02)	(2.24)	280.62	- 215.90	267.37	- 235.13	286.72	- 197.75	275.48	- 210.72	265.87	- 208.62	229.69	- 161.50
BSX	BOSTON SCIENTIFIC CORPORATION	DEC	0.45	0.69	(0.08)	3.33	1.19	0.08	(0.92)	(1.12)	(0.54)	(3.24)	(4.01)	(4.24)	47.95	- 34.98	46.29	- 34.58	46.13	- 24.10	46.62	- 32.73	39.44	- 24.84	29.93	- 21.66
CMD	PROSHARES TRUST II - PROSHARES ULTF#	JAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	- 0.00	0.00	- 0.00	0.00	- 0.00	0.00	- 0.00	0.00	- 0.00	0.00	- 0.00
CSII	CARDIOVASCULAR SYSTEMS, INC.	JUN	(0.94)	(0.35)	(0.79)	(0.01)	0.05	(0.06)	5.71	6.36	6.36	4.09	3.87	3.45	23.47	- 12.26	48.28	- 18.28	55.22	- 26.00	52.54	- 25.83	40.00	- 20.58	33.11	- 23.00
CNMD	CONMED CORPORATION	DEC	(2.68)	1.94	0.32	0.97	1.41	1.97	(24.66)	(10.32)	(14.22)	(15.49)	(5.38)	(6.63)	155.51	- 71.09	159.11	- 106.15	114.96	- 37.66	116.81	- 60.13	83.49	- 50.02	54.77	- 39.74
CUTR	CUTERA, INC.	DEC	(4.39)	0.11	(1.43)	(0.88)	(2.23)	2.04	(0.84)	3.07	3.14	3.12	3.22	4.72	74.38	- 31.62	60.36	- 22.46	38.61	- 9.07	39.15	- 12.32	56.05	- 13.64	48.95	- 17.20
DHR	DANAHER CORPORATION	DEC	9.66	8.61	4.89	4.06	3.74	3.53	(15.98)	(30.95)	(28.42)	(5.45)	(6.63)	(15.00)	328.57	- 233.71	333.96	- 211.22	248.32	- 119.60	154.00	- 96.44	110.86	- 91.84	95.16	- 78.22
EW	EDWARDS LIFESCIENCES CORPORATION	DEC	2.44	2.38	1.30	1.64	1.13	0.90	7.16	6.96	4.92	4.22	2.70	2.16	131.10	- 67.13	131.73	- 78.44	92.08	- 51.51	82.55	- 46.95	58.33	- 36.89	40.48	- 28.85
GKOS	GLAUKOS CORPORATION	DEC	(2.09)	(1.07)	(2.70)	0.37	(0.37)	(0.00)	3.27	4.01	5.38	5.16	4.82	3.90	64.49	- 33.33	99.00	- 39.35	76.20	- 23.31	84.65	- 50.60	70.91	- 25.25	52.49	- 23.08
GMED	GLOBUS MEDICAL, INC.	DEC	1.85	1.44	1.01	1.52	1.54	1.10	15.82	14.70	12.66	11.97	9.89	7.92	81.78	- 52.60	84.23	- 59.37	66.65	- 33.41	60.15	- 38.01	57.83	- 41.19	42.00	- 24.58
HKSA	HESKA CORPORATION	DEC	(1.92)	(0.11)	(1.66)	(0.20)	0.74	1.30	20.67	24.30	15.07	13.54	11.20	9.83	184.07	- 58.00	275.94	- 143.02	151.33	- 50.00	102.09	- 62.47	114.50	- 56.59	115.00	- 70.84
HOLX	HOLOGIC, INC.	SEP	5.13	7.21	4.21	(0.76)	(0.40)	2.64	1.45	(2.85)	(4.89)	(7.13)	(9.27)	(11.47)	80.49	- 59.78	85.00	- 60.10	77.49	- 26.49	53.74	- 37.68	45.17	- 35.10	46.80	- 35.76
IDXX	IDEXX LABORATORIES, INC.	DEC	8.03	8.60	6.71	4.89	4.26	2.94	1.80	2.74	3.93	(1.41)	(3.09)	(3.42)	656.31	- 317.06	706.95	- 455.23	503.83	- 168.65	294.57	- 176.11	256.22	- 157.53	173.01	- 113.92
INGN	INOGEN, INC.	DEC	(3.67)	(0.28)	(0.27)	0.94	2.30	0.96	11.52	12.19	11.19	10.63	13.98	10.49	36.30	- 19.08	82.35	- 29.28	68.68	- 26.57	155.75	- 41.19	287.79	- 110.51	130.05	- 62.69
ITGR	INTEGER HOLDINGS CORPORATION	DEC	1.99	2.91	2.33	2.91	5.15	2.08	(11.60)	(11.43)	(10.50)	(14.16)	(17.99)	(25.39)	88.58	- 50.05	101.61	- 73.32	99.95	- 46.01	92.62	- 67.72	90.03	- 42.50	55.20	- 29.00
IART	INTEGRA LIFESCIENCES HOLDINGS CORP	DEC	2.16	1.98	1.57	0.58	0.72	0.82	(4.32)	(5.60)	(4.83)	(6.63)	(7.40)	(14.48)	69.90	- 40.67	77.40	- 61.85	67.29	- 34.21	65.09	- 42.14	67.50	- 42.33	56.42	- 40.51
ISRG	INTUITIVE SURGICAL, INC.	DEC	3.65	4.66	2.94	3.85	3.16	1.92	30.41	32.11	26.39	22.54	18.55	13.51	362.00	- 180.07	369.69	- 227.47	275.60	- 120.17	200.53	- 148.82	193.71	- 121.70	135.02	- 69.41
IVC																										
LMAT	LEMAITRE VASCULAR, INC.	DEC	0.93	1.25	1.04	0.88	1.13	0.86	7.05	6.18	2.33	4.13	4.42	4.03	56.38	- 38.32	64.50	- 39.38	41.86	- 18.76	37.35	- 22.23	41.28	- 21.79	39.88	- 19.82
LIVN	LIVANOVA PLC	DEC	(1.61)	(2.68)	(7.18)	(3.26)	(3.91)	(0.52)	1.31	(0.09)	(5.15)	(2.88)	(4.64)	10.27	88.00	- 41.82	93.89	- 61.73	80.75	- 33.40	102.43	- 64.80	131.54	- 79.35	88.56	- 44.72
MASI	MASIMO CORPORATION	DEC	2.60	3.98	4.14	3.44	3.45	2.23	3.26	24.89	22.27	20.83	17.29	13.10	291.15	- 108.89	305.21	- 205.10	273.33	- 143.90	160.25	- 101.87	126.89	- 80.69	104.71	- 66.79
MDT	MEDTRONIC PLC	APR	0.00	3.73	2.66	3.54	3.41	2.27	0.00	(2.66)	(6.15)	(6.09)	(8.25)	(8.25)	114.31	- 75.77	135.89	- 98.38	122.15	- 72.13	115.94	- 81.66	100.15	- 76.41	89.72	- 69.35
MLAB	MESA LABORATORIES, INC.	MAR	0.00	0.35	0.64	0.41	1.86	(0.79)	0.00	(28.01)	26.00	(9.44)	3.01	(2.38)	332.95	- 114.21	333.42	- 232.88	292.19	- 181.90	268.47	- 181.21	224.95	- 122.35	169.81	- 113.57
NTUS																										
NUVA	NUVASIVE, INC.	DEC	0.76	(1.24)	(0.72)	1.23	0.24	1.48	0.86	(1.56)	4.03	2.94	0.41	(0.43)	60.47	- 35.17	72.61	- 45.45	81.91	- 28.55	77.99	- 43.51	72.41	- 44.62	81.68	- 49.25
OFIX	ORTHOFIX MEDICAL INC.	DEC	(0.98)	(1.95)	0.13	(1.51)	0.72	0.33	10.82	10.74	10.93	10.64	11.36	12.72	36.13	- 13.76	48.50	- 28.65	47.91	- 22.11	74.44	- 39.75	63.57	- 48.00	56.53	- 33.51
PEN	PENUMBRA, INC.	DEC	(0.05)	0.14	(0.44)	1.34	0.18	0.13	19.45	18.46	16.96	12.84	11.16	10.94	287.53	- 114.87	320.00	- 171.56	277.00	- 121.80	185.70	- 115.55	167.35	- 82.55	116.35	- 63.05
RMD	RESMED INC.	JUN	5.30	3.24	4.27	2.80	2.19	2.40	7.37	3.88	1.09	(2.13)	5.43	4.46	262.38	- 189.40	301.34	- 179.37	224.24	- 108.85	157.86	- 90.64	116.64	- 84.93	87.81	- 61.22
STE	STERIS PLC	MAR	0.00	2.48	4.63	4.76	3.55	3.39	0.00	(12.00)	(0.51)	5.70	2.96	0.53	255.93	- 159.21	245.82	- 170.36	196.80	- 105.69	156.66	- 100.91	121.67	- 82.88	93.39	- 65.27
SYK	STRYKER CORPORATION	DEC	6.17	5.21	4.20	5.48	9.34	2.68	(8.32)	(7.63)	(13.95)	(1.31)	(2.66)	(1.81)	280.43	- 188.84	281.16	- 220.90	245.34	- 124.54	223.45	- 151.63	179.84	- 144.75	160.62	- 116.50
SRDX	SURMODICS, INC.	SEP	(1.96)	0.30	0.08	0.55	(0.34)	0.29	2.82	4.13	6.63	6.08	4.77	4.87	50.86	- 28.28	62.27	- 41.59	49.00	- 22.06	61.08	- 38.06	82.35	- 25.00	34.15	- 21.90
TCMD	TACTILE SYSTEMS TECHNOLOGY, INC.	DEC	(0.89)	(0.60)	(0.03)	0.56	0.34	0.31	1.97	2.17	6.31	5.60	4.50	3.95	21.62	- 6.28	64.53	- 18.49	70.19	- 29.47	76.63	- 40.62	73.24	- 27.04	37.88	- 14.37
TFX	TELEFLEX INCORPORATED	DEC	7.67	10.24	7.09	9.80	4.29	3.27	(17.49)	(22.16)	(37.90)	(30.68)	(44.15)	(48.46)	356.72	- 182.65	449.38	- 289.00	412.99	- 221.27	376.54	- 244.77	288.78	- 226.02	271.23	- 157.80
VREX	VAREX IMAGING CORPORATION	SEP	0.73	0.43	(1.49)	0.40	0.72	1.36	5.37	3.56	2.33	1.77	2.86	1.22	32.41	- 18.90	32.65	- 16.60	31.90	- 10.37	35.00	- 22.73	43.76	- 21.57	41.99	- 25.00
ZBH	ZIMMER BIOMET HOLDINGS, INC.	DEC	1.10	1.91	(0.67)	5.47	(1.86)	8.90	(7.77)	(8.58)	(19.86)	(21.70)	(29.45)	(35.96)	135.05	- 100.39	180.36	- 116.60	165.15	- 74.37	151.67	- 98.60	134.55	- 96.99	133.49	- 102.59

Note: Data as originally reported. CAGR-Compound annual growth rate. [Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

Ticker	Company	Yr. End	Earnings per Share\$() (Cont.)						Tangible Book Value per Share\$() (Cont.)						Share Price (High-Low, \$) (Cont.)																	
			2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017	2022	2021	2020	2019	2018	2017												
Healthcare Supplies																																
ALGN	ALIGN TECHNOLOGY, INC.	DEC	4.61	9.69	22.41	5.53	4.92	2.83	40.10	39.31	33.72	16.20	14.68	13.31	658.50	-	172.05	737.45	-	494.45	543.65	-	127.88	334.64	-	169.84	398.88	-	188.57	266.41	-	88.56
AVNS	§ AVANOS MEDICAL, INC.	DEC	1.07	0.13	(0.61)	(0.96)	1.22	1.69	4.97	6.88	6.21	5.89	7.30	6.45	36.22	-	19.32	53.61	-	28.95	50.00	-	19.46	53.45	-	31.29	72.96	-	40.63	50.99	-	35.24
XRAY	DENTSPLY SIRONA INC.	DEC	(4.41)	1.87	(0.33)	1.14	(4.51)	(6.76)	(3.62)	(5.98)	(7.12)	(2.17)	(3.28)	(3.19)	58.70	-	26.48	69.54	-	48.13	60.87	-	31.58	60.15	-	36.63	68.47	-	33.93	68.98	-	52.54
HAE	† HAEMONETICS CORPORATION	# APR	0.00	0.84	1.55	1.48	1.04	0.85	0.00	(0.55)	(1.97)	4.84	6.46	7.34	86.58	-	43.50	142.11	-	49.26	126.74	-	63.41	140.36	-	80.24	117.56	-	60.51	58.99	-	36.44
ICUI	† ICU MEDICAL, INC.	DEC	(3.11)	4.74	4.02	4.69	1.33	3.29	(14.26)	65.05	60.41	54.70	54.61	51.57	251.73	-	128.90	282.00	-	183.39	236.51	-	158.01	259.72	-	148.89	321.70	-	210.94	225.38	-	127.00
LNTH	§ LANTHEUS HOLDINGS, INC.	DEC	0.40	(1.06)	(0.25)	0.79	1.03	3.17	1.05	0.81	1.19	2.33	1.20	(0.11)	87.47	-	23.51	31.60	-	13.30	20.67	-	8.67	29.80	-	14.57	24.45	-	12.59	24.10	-	7.95
VVO	§																															
MMSI	§ MERIT MEDICAL SYSTEMS, INC.	DEC	1.29	0.84	(0.18)	0.10	0.78	0.55	8.88	6.34	4.08	2.74	2.45	4.20	76.14	-	50.46	73.85	-	52.43	58.70	-	25.18	63.64	-	19.50	66.34	-	41.55	45.90	-	24.23
NEOG	† NEOGEN CORPORATION	# MAY	0.00	0.45	0.57	0.56	0.57	0.61	0.00	5.91	5.74	5.18	4.47	3.78	45.60	-	10.49	48.85	-	38.62	41.35	-	24.46	39.92	-	25.30	48.69	-	26.05	32.21	-	22.32
OSUR	§ ORASURE TECHNOLOGIES, INC.	DEC	(0.25)	(0.32)	(0.22)	0.27	0.33	0.51	4.36	4.52	4.74	4.15	4.24	3.79	9.42	-	2.62	15.94	-	8.25	19.75	-	5.23	13.25	-	6.35	22.22	-	10.27	23.01	-	8.39
COO	THE COOPER COMPANIES, INC.	OCT	7.76	59.16	4.81	9.33	2.81	7.52	34.07	62.81	1.80	(4.19)	(12.31)	6.48	430.67	-	244.22	463.59	-	353.02	371.59	-	236.68	344.32	-	241.72	283.18	-	216.47	256.39	-	174.05
WST	WEST PHARMACEUTICAL SERVICES, INC	DEC	7.73	8.67	4.57	3.21	2.74	1.99	34.54	29.68	23.14	19.37	17.14	15.57	468.05	-	206.19	475.35	-	253.86	305.00	-	124.53	152.12	-	93.08	125.09	-	82.74	103.36	-	77.97

Note: Data as originally reported. CAGR-Compound annual growth rate. ||Company included in the S&P 500. †Company included in the S&P MidCap 400. §Company included in the S&P Small Cap 600. #Of the following calendar year.
Source: S&P Capital IQ.

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