Henry Fund Research

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Healthcare (Medical Products & Supplies)

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DJ US Medical Equipment Index[1]

Key Index Statistics

Price	**$381.72**
Daily % Price Change	**.52%**
52-Week Range	**$308.55 - $587.21**
Market Capitalization (B)	**1574.4**
P/E Ratio	**11.12**
1-Yr % Change	**-27.02%**

Major Players by Market Cap (B)[2]

Baxter International	**37.3**
Medtronic	**37.3**
Covidien Ltd	**20.1**
Becton, Dickinson & Company	**17.9**
Stryker Corporation	**17.4**
Thermo Fisher Scientific Inc	**16.8**
Boston Scientific	**14.1**
St. Jude Medical Inc	**12.8**
Zimmer Holdings Inc	**11.6**
C.R. Bard Inc	**9.0**
Smith & Nephew Plc	**6.8**

INVESTMENT THESIS

- Despite the looming economic recession, the U.S. medical device industry is showing few signs of slowing due to an ever aging population, continued innovation, and globalization.
- Today, approximately 80% of older adults (over age 80) have at least one chronic condition, and 50% have at least two, resulting in an increased demand for medical supplies and appliances.
- U.S. healthcare spending has been rising faster than economic growth for many years, representing a challenge not only for Medicare and Medicaid, but also for the private sector.
- The orthopaedics segment continues to evolve and becomes more favorable among the active baby boomers. The spinal segment has particularly shown huge technological advances and show great potential for future growth due to its cross-over into the orthobiologic arena.
- The vascular diseases and conditions segment has the greatest room for innovation as Cardiovascular disease continues to be the leading cause of death among both men and women in the U.S.
- Despite the overall CPI being in a deflationary period, the healthcare CPI is experiencing growth. This is consistent with the belief that only elective procedures will suffer as a result of a struggling economy.
- U.S. medical device manufacturers closely monitor fluctuations in the value of the dollar relative to foreign currencies as approximately half its total sales are from overseas. Changes in exchange rates can have a significant impact on overall sales and earnings.
- In a market dominated by healthcare saving pressures, a key determinant of success is the ability to develop new devices that are both therapeutic breakthroughs and cost effective.

EXECUTIVE SUMMARY

The outlook for the Medical Products and Supplies industry looks positive for 2009 and beyond. Due to the highly diversified nature of the industry, opportunity for growth is primarily dependent upon the aging population, technological innovation, and globalization. High-technology devices that use cutting-edge science and technology to address highly specific therapeutic and diagnostic applications will be most successful. Examples include cardiovascular stents and artificial spinal disk implants. It is predicted that devices within the orthopaedics and vascular diseases and conditions segments have the greatest growth capabilities. The spinal segment has especially shown huge technological advances and has great potential for future growth due to its cross-over into the orthobiologics arena.

The current dismal economic situation is expected to have only a moderate effect on industry revenue due to the catalysts for demand. A decline in disposable income may result in a demand reduction for certain elective surgical procedures, but we do not anticipate a sharp overall industry decline. Globalization to China, Germany, Japan, and the United Kingdom will help to reduce manufacturing costs, increase distribution and capitalize on currency exchange benefits when the U.S. dollar is weak.

We recommend buying firms that specialize in orthopaedics devices, particularly spinal implants, such as Johnson & Johnson, Stryker Corporation. Additionally, we recommend companies with devices for the cardiovascular segment such as Medtronic.

INDUSTRY DESCRIPTION

In 2008, approximately $2.4 trillion dollars was spent on healthcare in the United States, representing 17% of the gross domestic product (GDP). By 2017, U.S. healthcare spending is expected to increase to $4.3 trillion dollars, or 20% of GDP.[3] It is estimated that healthcare spending will continue to grow into 2017 and outpace GDP growth by an average of 1.9% a year.[4]

The overall healthcare industry can be divided into a variety of segments and sub-segments as follows:

- medical products
  - conventional devices
  - high technology
- pharmaceuticals
- biotechnology[5]

Conventional Devices

Conventional devices have little technological differentiation and a variety of uses. These devices tend to have low margins, high sales volumes, and are sold based on price to professional buyers representing medical institutions. Conventional devices consist primarily of: intravenous products, anesthesia items, surgical apparel, traditional wound dressings, kits, trays, and a variety of other high volume products.[5] The conventional devices are represented as surgical appliances and supplies by market share in Exhibit 1.[6]

Exhibit 1: IBISWorld 2008 Medical Instrument and Supply Industry Segmentation

High-Technology

High-technology devices depend on cutting-edge science and technology to address highly specific therapeutic and diagnostic applications. These products are more technologically advanced resulting in premium pricing, high product margins. High-technology devices include: implantable cardiovascular and orthopaedic devices, advanced wound care management, some surgical instruments, and a few in vitro diagnostic tests. Baxter International, Medtronic, Stryker Corporation, Boston Scientific, and Zimmer have multiple product lines that sell these high technology devices.

Medical Supplies and Products Overall

One of the largest and most stable U.S. healthcare segments, the medical products and supplies sub-industry is divided into six major segments: cardiovascular, orthopaedics, wound care, in vitro diagnostics, diagnostic imaging, and surgical instruments. Due to positive demographic growth overpowering the weak economy, the medical supplies industry generated more than $75.6 billion in revenue in 2008. It is estimated this figure will grow at a compound annual growth rate (CAGR) of 9% from 2006-2013 (latest data available), driven by the increased aging population aged 65 and older.[7] Large global scale corporations including Medtronic Inc., Baxter International Inc., Johnson & Johnson, and Becton, Dickinson & Co. contributed to this revenue generation by participating in the sale and development of conventional and high-technology devices.[5]

INDUSTRY TRENDS & RECENT DEVELOPMENTS

The highly diverse nature of the medical products industry makes it difficult to generalize about its size, performance, and future prospects. While this industry often lacks definition, major trends have emerged shaping the future for 2009 and beyond.[1] The future of the medical devices and supply industry is primarily dependent upon the aging population, technological innovation, and globalization.[6]

Demographic: The Aging Population

By 2013, the baby-boomer demographic is set to become the medical device industry's largest market. During this same time period, the number of people over the age of 60 is predicted to grow at an average annualized rate of 2.8%, while the total U.S. population is forecast to grow at an average annualized rate of 0.9%. Overall, a significant proportion of the population will be over the age of 60 by 2013.[6] As a result, the medical device industry should experience and increase in demand from this population. Exhibit 2 depicts the anticipated growth in age over 60 for the next 5 years.[6]

Exhibit 2: IBISWorld 5-Year Population Growth[6]

Forecast key industry drivers: 2009 to 2013

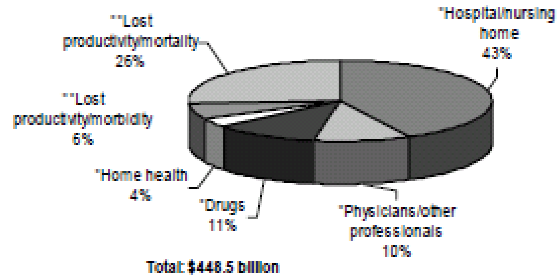
Year	Units Population over the age of 60	Percent Growth
2009	55331676	N/C
2010	56922441	2.9%
2011	58473603	2.7%
2012	60112948	2.8%
2013	61916336	3.0%

Today, approximately 80% of older adults (over age 80) have at least one chronic condition, and 50% have at least two. These conditions range from arthritis to heart disease and are treated by products within the medical device industry.[8]

Technological Innovation

Cardiology

Exhibit 3: Cost of Cardiovascular Disease 2008[5]



Heart disease is the leading cause of death in both men and women in the U.S.; roughly 871,500 people died in 2007 due to cardiovascular disease accounting for 36.3% of all U.S. deaths. Furthermore, an estimated 6,363,000 inpatient cardiovascular procedures and operations were performed that year.[5]

The cardiovascular segment is comprised of cardiac rhythm management (CRM), interventional cardiology and cardiac surgery services and products. Portions of the CRM, such as pacing devices, are exhibiting a slowdown to flat growth worldwide due to the mature nature of the segment. The CRT segment has been the fastest-growing due to the introduction of new device oriented treatments. Despite a growth slowdown in 2006 due to major product recalls, CRTs still appear to be the biggest growth opportunity. It is estimated that the cardiac heart failure device market will be worth nearly $8 billion by 2012 due to a CAGR of 19%.[5] We believe firms such as Medtronic and Boston Scientific will benefit the most due to their product offerings within this segment.

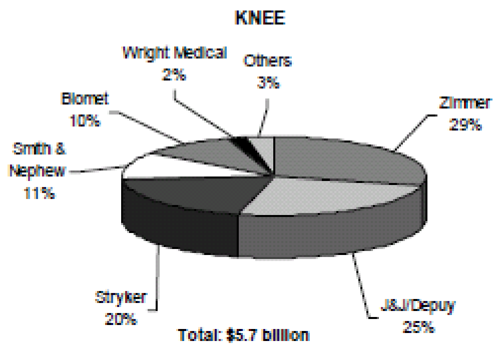
Interventional cardiology is the second largest subsector and represented $7.6 billion of sales in 2005. Drug eluding stents (DES) dominated this group of products and provided extraordinary growth until 2005 due to saturation of the market. However, safety concerns caused U.S. DES penetration to drastically decline in 2006 from 90% to 65%.[5]

Diagnostic Imaging

The diagnostic imaging market is driven by conventional x-ray equipment, ultrasound imaging, magnetic resonance imaging (MRI), radiation therapy, nuclear medicine, and computed tomography (CT). While MRI is superior to other imaging modalities, total sales have decreased due to market saturation, equipment costs, and health insurance reimbursement disputes. Companies such as Philips and Siemens may be impacted by this decrease in sales.

Orthopaedics

Exhibit 4: Orthopaedic Implant Market Share – E2007[5]



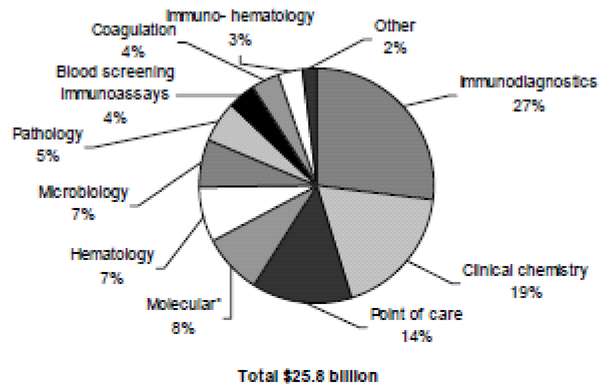
The $19 billion orthopaedic market is one of the strongest and fastest growing in the U.S. medical device industry. From 2007 through 2012, the industry is projected to experience a CAGR of 11% driven by new technologies and rising procedure rates. In 2007, the reconstructive products (hips, knees, shoulders, and others) segment of the orthopaedics market generated approximately $6.2 billion in U.S. sales. Knee products accounted for an estimated 58% of sales while hip and shoulder implants accounted for 38% and 3% of revenues respectively.[5]

Spinal procedures are also experiencing growth as sales were about $5.6 billion in 2007 and are expected to grow 5 times from 2008 to 2013. New technologies such as artificial disks, nucleus replacements, dynamic stabilization, and combined orthobiologic devices are driving demand. Due to the high growth and profitability, the field is attracting many startups which may lead to increased M&A activity in the future.[5] We anticipate sales to grow over 15% within the spinal implant segments. Companies such as Stryker Corporation, Johnson & Johnson, Zimmer, and Medtronic stand to gain the most from this increase in sales.

The increased demand of baby boomers to remain active as they age in combination with new technologies is setting the stage for continued accelerated growth through 2009 and beyond.

In Vitro Diagnostics

Exhibit 5: In Vitro Diagnostics Market 2006[5]



In vitro diagnostics (IVD) had a worldwide market of $37 billion in 2007 and has shown consistent growth over the past few years. The IVD segment focused on the analysis of blood, urine, tissue, or other body fluids to detect diseases or abnormalities. While most basic laboratory segments are mature, particular tests are growing more rapidly. The greatest industry opportunities are within cardiac testing, HIV testing and monitoring and new molecular diagnostics, which did not exist 10 years ago and had global sales of $3 billion in 2007 with growth estimated to be 13% to 15% through this year.[5] We anticipate these growth rates to hold constant due to technological advances and the demand for less invasive testing by customers. Companies such as Boston Scientific, Covidien, and Becton Dickinson operate within this segment.

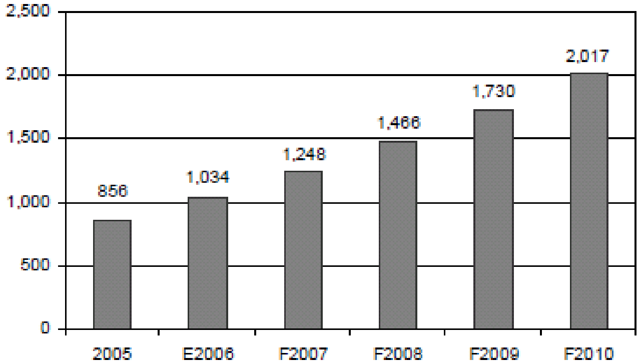
Whole blood glucose testing has shown great growth within the IVD sector and is expected to exhibit annual growth rates in the low teens over the next few years. This growth is also due to an increased aging population, and the introduction of new products.[5]

Vascular Diseases and Conditions

The vascular segment is a promising area for companies to extend their patient treatment capacity to both arterial and venous diseases and aneurysms. The segments that are proving to be most profitable include: peripheral vascular disease (PVD), abdominal aortic aneurysms (AAAs), and blood clots.[5]

PVD affects the arteries outside the heart and brain and is most commonly caused by hypertension and atherosclerosis, or the hardening and narrowing of the arteries.[9] Currently, PVD affects between 12% and 20% of Americans aged 65 and older. The primary products used within this industry include guidewires, catheters, balloons and stents to clear blocked arteries. Exhibit 6 shows the forecasted revenue growth for vascular stents.[5]

Exhibit 6: Peripheral Vascular Stent Revenue Forecast[5]



AAAs are caused by a weakened area in the aorta, the main blood vessel supplying blood from the heart to the rest of the body. The weakened wall bulges like a balloon which can eventually burst leading to hemoraging.[9] Ruptured aortic aneurysms result in death in 80% to 90% of cases and are the 17th leading cause of death in the U.S., accounting for over 15,000 death per year. It is often difficult to diagnose this condition as most patients exhibit not symptoms.[5] This lack of detection leaves great potential for innovation within the market.

Blood clots, specifically deep vein thrombosis (DVT) and pulmonary thromboembolism (PT) are two other conditions medical manufacturers are addressing. Approximately two million patients endure DVT and up to 20% of patients with DVT develop PT. If DVT becomes a recurring issue, patients must have a vena cava filter inserted.[5]

We anticipate a 15-20% growth in revenue within the cardiovascular segment due to innovative technological advancements in all areas (PVDs, AAA, blood clots). This growth in revenue is particularly promising for Medtronic.

Globalization

U.S. medical device manufacturers receive 40% to 50% of revenues from foreign markets through direct exports and sales made by foreign subsidiaries. The operating environment outside the U.S. is critical to the success of U.S. medical companies.[5]

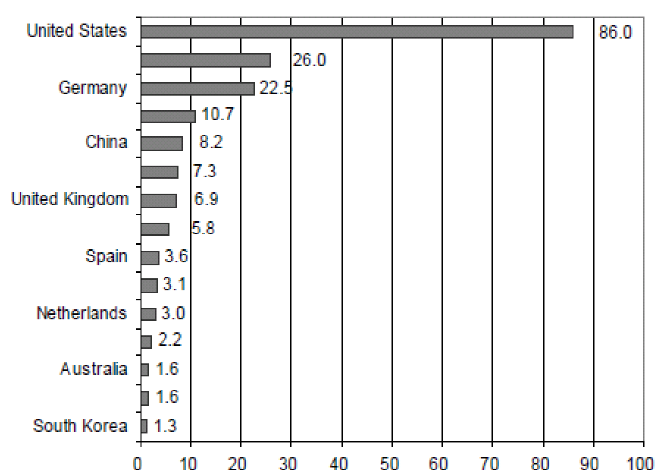
In order to capitalize on foreign local markets, U.S. companies continue to relocate production and R&D facilities overseas to aid in lowering production costs as well as provide timely production and distribution. As a result, U.S. companies have developed a heavy presence in Asia and Latin America as well as Ireland and Puerto Rico.[5]

While the medical device industry continues to rapidly grow in the U.S., emerging markets overseas provide a variety of growth opportunities as well. China is the second largest medical products market in Asia and growing at a rate of 12% to 15% per year, one of the fastest in the world. Foreign exports account for 60% of total medical product sales in China and the U.S. is currently the largest exporter to China; 30% of China's medical device imports.[5]

While China's demographics are attractive to foreign corporations, its market is problematic due to the creation of an urban middle class who is driving the government to improve healthcare standards. However, the remaining 80% of Chinese people lack any health insurance and receive no help for medical expenses which the central government began addressing in 2005.[5] We do not anticipate any immediate change in this policy.

Developed markets such as Germany, the United Kingdom, and Japan have also increased demand for medical devices due to favorable demographics and high standards of living. However, the medical industry has felt some constraints as governments reduce healthcare spending and reform the reimbursement system. Exhibit 7 compares the top medical device markets in 2006 (most recent data available).

Exhibit 7: Top Global Medical Device Markets 2006



Future Outlook

There are numerous opportunities within the medical supplies and products industry. Favorable demographic trends and new product innovation will continue to drive demand within the industry. These trends will strongly favor the orthopaedics and vascular segments.

The orthopaedics segment continues to evolve and becomes more favorable among the active baby boomers. Furthermore, the spinal segment has shown huge technological advances and show great potential for future growth due to its cross-over into the orthobiologic arena.

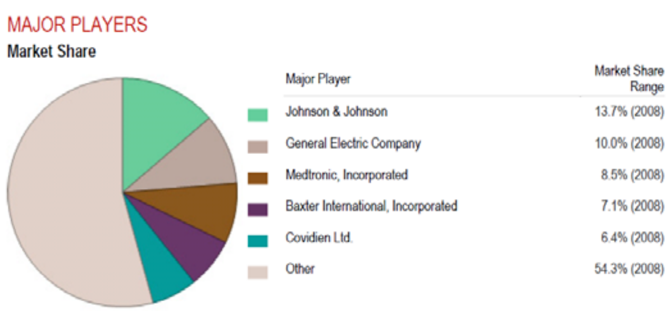
The vascular diseases and conditions segment has the greatest room for innovation. Cardiovascular disease continues to be the leading cause of death among both men and women in the U.S. Improvements in diagnostic equipment and prevention of the number one cause of death have great potential among an aging population.

MARKETS AND COMPETITION

Corporate Makeup

The medical products and supplies industry is a highly diversified industry comprised of several related industries. Within the industry, there are a few companies which account for a major portion of medical products and supplies. These firms are highlighted below.

Exhibit 8: Medical Products and Supplies Industry[4]



Baxter International

Baxter International develops, manufactures, and markets products and technologies related to the blood and circulatory systems. The Company also researches, develops, manufactures, and sells vaccines for the prevention of infectious diseases. Baxter conducts operations in North America, Asia, Europe, Japan, and Latin America.[11]

Medtronic, Inc.

Medtronic, Inc. provides device-based therapies that restore health, extend life, and alleviate pain. The Company's principal products include those for bradycardia pacing, tachyarrhythmia management, atrial fibrillation management, heart failure management, heart valve replacement, malignant and non-malignant pain, and movement disorders. Medtronic's products are sold worldwide.[11]

Covidien

Covidien Limited is a global healthcare products company. The Company manufactures and distributes a diverse range of medical devices and supplies, diagnostics imaging agents, pharmaceuticals and other healthcare products for use in clinical and home settings.[11]

Becton, Dickinson & Company

Becton, Dickinson and Company manufactures and sells a variety of medical supplies and devices and diagnostic systems. The Company's products are used by health care professionals, medical research institutions, and the general public. Becton's products are marketed worldwide.[11]

Stryker Corporation

Stryker Corporation develops, manufactures, and markets specialty surgical and medical products. The Company's products include orthopaedic implants, powered surgical instruments, endoscopic systems, patient care, and handling equipment for the global market.[11]

Boston Scientific Corporation

Boston Scientific Corporation develops, manufactures, and markets minimally invasive medical devices. The Company's products are used in cardiology, electrophysiology, gastroenterology, neuro-endovascular therapy, pulmonary medicine, radiology, urology, and vascular surgery. Boston Scientific's products are used to diagnose and treat a wide range of medical problems.[11]

Zimmer Holdings, Inc.

Zimmer Holdings, Inc., through its subsidiary, designs, develops, manufactures, and markets orthopedic reconstructive implants and fracture management products. The Company also manufactures and markets other products relating to orthopaedic and general surgery. Zimmer markets its products in the United States and other countries around the world.[11]

Metric Comparison[12]

	P/E	Sales (B)	ROE	ROA	EV/EBITDA
Baxter	18.71	12.35	30.64	10.52	11.901
Medtronic	16.8	14.54	18.32	13.54	7.936
Covidien	14.97	10.05	18.41	7.87	8.346
Becton D	15.35	7.18	N/A	N/A	8.339
Stryker	15.54	6.72	21.29	12.99	7.742
Boston Sci	N/A	8.05	-14.68	2.83	8.395
Zimmer	10.99	4.12	15.29	10.44	6.545

Industry Opportunities

There is great opportunity for firms within the orthopaedics arena. Medtronic, Stryker, Johnson & Johnson, and Zimmer have potential to see high growth due to orthopaedic implants, especially spinal implants and biological products. We anticipate sales to grow over 15% within the spinal implants segment.

Medtronic stands to capitalize on innovation within the vascular disease and conditions segment as this industry has low saturation. Boston Scientific is positioned to capitalize within this segment as well due to their extensive vascular product offering. However, a negative EPS may hurt its potential to capitalize on this segment as well as Medtronic.

ECONOMIC OUTLOOK

National Healthcare Expenditures

According to the Centers for Medicare & Medicaid Services (CMS), U.S. healthcare spending is expected to double by 2017 to $4.3 trillion.[13] Healthcare spending is forecast to rise by an average of 6.7% annually over the next decade , approximately 1.9% higher than the GDP. Overall, U.S. spending per capita is expected to rise to $13,101 by 2017, up from $7,206 in 2006.[5]

Exhibit 9: National Health Expenditures

NATIONAL HEALTH EXPENDITURES AND SELECTED ECONOMIC INDICATORS

ITEM	E2006	F2007	F2008	F2009	F2010	F2011	F2012	F2013
National health expenditures (bil.$)	2,106	2,246	2,394	2,555	2,726	2,905	3,098	3,305
Private health insurance expenditures, total (bil.$)	723	769	822	879	936	995	1,058	1,124
Gross Domestic Product (bil.$)	13,195	13,802	14,450	15,158	15,916	16,712	17,514	18,320
Health expenditures as % of GDP	16.0	16.3	16.6	16.9	17.1	17.4	17.7	18.0
Health expenditures per capita ($)	7,026	7,439	7,868	8,329	8,816	9,322	9,862	10,439
U.S. population (mil.)	300	302	304	307	309	312	314	317
Under 65	263	265	266	268	270	272	273	274
65 and older	37	37	38	39	39	40	41	43

E-Estimated. F-Forecast.
Source: Centers for Medicare & Medicaid Services.

As a subset of the healthcare industry, the medical products and supplies industry is directly impacted by overall healthcare spending. Medical device demand stems primarily from age and overall health of the population.[6] Currently, the economy is in a deep recession. However, the poor economic environment is expected to have only a moderate effect on industry revenue due to the catalysts for demand. A decline in disposable income may result in a demand reduction for certain elective surgical procedures, but a sharp overall industry decline is not anticipated.

Medicare and Medicaid

Spending by federal and state governments (Medicare and Medicaid) represented 46% of total healthcare expenditures in 2006 and is projected to reach 49% of total spending by 2017.[4] U.S. healthcare spending has been rising faster than economic growth for many years and is anticipated to continue growing faster than the economy for the next 75 years. Federal expenditure on Medicare and Medicaid rose from 4% off GDP in 2007 and is projected to reach 7% by 2025. The rise in healthcare spending can be attributed to changes in healthcare utilization, changing demographics, price inflation and advances in medical technology.[5]

Consumer Price Index

According to the Bureau of Labor and Statistics (BLS) the consumer price index (CPI) data suggested medical cost inflation in the 12 months ended December 2008 was 2.6% higher than last year after a .2% and .3% rise in November and December.[14] Despite the overall CPI being in a deflationary period, the healthcare CPI is experiencing growth. This is consistent with the belief that only elective procedures will suffer as a result of a struggling economy.

R&D

The livelihood of the medical industry is dependent upon new innovation and product development. As a result, changes within R&D spending can greatly impact medical device sales and earnings trends.

The average medical company will spend approximately 5% to 15% on R&D annually; although 10% is about double the percentage spent by the average industrial company.[5]

Exchange Rates

U.S. medical device manufacturers closely monitor fluctuations in the value of the dollar relative to foreign currencies as approximately half its total sales are from overseas. Changes in exchange rates can have a significant impact on overall sales and earnings. A strong U.S. dollar results in lower sales and earnings as foreign sales translate into fewer dollars. Also, it makes U.S. goods more expensive abroad while making foreign products in the U.S. more competitive. However, a weak U.S. dollar, like today, yields favorable exchange rates and improved competitiveness which ultimately enhance sales and earnings.[5] Firms that are active in foreign markets are benefitting from this current market. It is anticipated that the U.S. Dollar will continue to remain weak for the next 6 months.

Exhibit 10: Euro to $1 USD

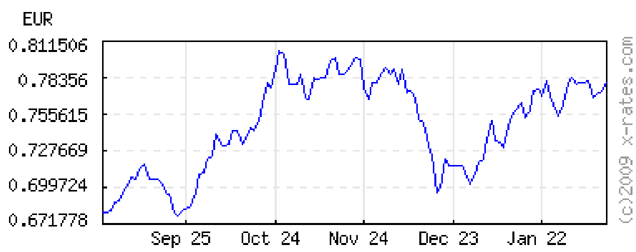


Exhibit 11: Japanese Yen to $1 USD

Government Pressure[15]

President Obama has pledged to implement multiple changes in the healthcare system including cost reduction, health information technology, personalized medicine, transparency and public health programs. A pledge of universal access is central to his proposals. While covering every single U.S. resident may not be possible, Obama's plan could get the nation closer to universal coverage than it has ever been and reverse a trend in the other direction. Universal healthcare could mean more government involvement in financing and regulating care which ultimately will affect medical device companies. Below is a brief summary of President Obama's proposal.

- Provide tax subsidies for the healthcare disenfranchised: the 15% of Americans who are uninsured and those small businesses that cannot afford to offerhealth coverage to their workers.
- Provide coverage for two-thirds of the nation's uninsured at a cost to the government of $75 billion a year.
- Of the 30 million Americans who would be newly insured under Obama's proposals, nearly 40% would obtain coverage through their employers, representing a reversal in the current decline of employer based coverage.
- Not all of those who will receive subsidized coverage under the new plan would have been previously uninsured, and some 4.5 million people could trade their current private coverage for insurance with higher government subsidies.
- The plan does not include a requirement that individuals purchase coverage.
- Over one-third of the cost of the plan could come from existing funding for the uninsured; much of that funding now goes to hospitals and the rest will have to be raised through repealing tax cuts, raising taxes, or limitations on other spending.
- The proposal is likely to lower margins for providers, pharmaceutical companies, and health plans that increasingly depend on government payment.

CATALYSTS FOR GROWTH

Emerging Technology

Most medical device companies spend between 5% and 15% of its sales dollars on R&D. New products and technologies that result from this investment ultimately provide the high margin revenue streams. However, it is the commodity-type products that are high volume, low margin which provide the necessary cash flows to support R&D.[5]

In a market dominated by healthcare saving pressures, a key determinant of success is the ability to develop new devices that are both therapeutic breakthroughs and cost effective. New products that provide identical results to current products are not as likely to achieve commercial success.[5]

Larger, well-funded firms, such as Medtronic and Johnson & Johnson, usually have an advantage in developing new technologies as they can sustain consistent revenue with commodity products while funding R&D efforts such as hiring top scientists, and conducting clinical trials for FDA approval. Over the past few years, only a few innovative medical devices were launched including: hip resurfacing implants, gender specific implants, artificial spinal discs, coronary stents, and left ventricular assist devices.[5]

Globalization

The U.S. remains a key market for both U.S. and foreign medical device manufacturers. Without representation in other key markets such as Germany, Japan and emerging nations, medical manufacturers risk relying on an increasingly price competitive U.S. market. However, firms that conduct international business run the risk of foreign exchange fluctuations which impact revenue and gross margins.[5] As a result, it is a constant balance of trying to minimize costs, increase distribution, and maximize profits on a global scale.

Demographics

The ever aging population and the trend toward consumer-oriented health care products and devices has driven the medical device industry to develop technologies and products that enable patients to take an active role in their own healthcare. The increasing presence of heart disease, cancer, and arthritis is only increasing within the aging population, resulting in increased demand for specialized instrumentation, devices, and consumables.[6]

INVESTMENT POSITIVES

- Due to positive demographic growth overpowering the weak economy, the medical supplies industry generated more than $75.6 billion in revenue in 2008. It is estimated this figure will grow at a compound annual growth rate (CAGR) of 9% from 2006-2013, driven by the increased aging population aged 65 and older.

- U.S. healthcare spending is expected to double by 2017 to $4.3 trillion. Healthcare spending is forecast to rise by an average of 6.7% annually over the next decade, approximately 1.9% higher than the GDP.

- Spinal procedures are experiencing growth as sales were about $5.6 billion in 2007. New technologies such as artificial disks, nucleus replacements, dynamic stabilization, and combined orthobiologic devices are driving demand.

- The $19 billion orthopaedic market is one of the strongest and fastest growing in the U.S. medical device industry. From 2007 through 2012, the industry is projected to experience a CAGR of 11% driven by new technologies and rising procedure rates.

INVESTMENT NEGATIVES

- Spending by federal and state governments (Medicare and Medicaid) represented 46% of total healthcare expenditures in 2006 and is projected to reach 49% of total spending by 2017. Payment by these government organizations results in lower reimbursement rates to healthcare companies and providers.

- While China's demographics are attractive to foreign corporations, its market is problematic as 80% of Chinese people lack any health insurance and receive no help for medical expenses. We do not foresee this changing in the next five years.

- Changes in exchange rates can have a significant impact on overall sales and earnings. A strong U.S. dollar results in lower sales and earnings as foreign sales translate into fewer dollars. Also, it makes U.S. goods more expensive abroad while making foreign products in the U.S. more competitive.

REFERENCES

1. BigCharts.com
2. MSN Money – Stock Screener
3. National Coalition on Healthcare – Health Insurance Cost
4. Mergent – North America Healthcare Sectors July 2008
5. Standard & Poor's – Healthcare Products and Supplies Sept. 2008
6. IBISWorld – Surgical and Medical Instrument and Appliance Manufacturing in the US
7. Mergent – North America Medical Equipment Sectors Sept. 2008
8. Centers for Disease Control and Prevention – Healthy Aging 2009
9. American Heart Association – Diseases and Conditions
10. MSN Money – Charts
11. Bloomberg.com – Company Profile
12. MSN Money – Key Statistics
13. Centers for Medicare & Medicaid Services – Statistics, Trends, & Reports
14. Bureau of Labor and Statistics
15. PricewaterhouseCoopers' Health Research Institute Washington National Tax Services – November 2008

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