Health Care Sector Overview

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The healthcare sector includes many industries, sub-industries, and a wide variety of companies. Any company involved in products and services related to health and medical care are represented in the healthcare sector and further categorized under six main industries. These industries include pharmaceuticals, biotechnology, equipment, distribution, facilities, and managed health care. In this report, we will discuss each industry in further detail, highlighting the various aspects of the supply chain as well as discuss the healthcare sector and its relation to the overall market.

Pharmaceuticals

The pharmaceutical sub-industry has been interesting to follow lately because of these affects that the Affordable Care Act have had on it. When the Affordable Care Act first was signed into law the sub-industry struggled at first because of the new costs that stemmed from the bill. Those costs did not end up holding these firms back because once 2014 started a lot of firms, including Regeneron Pharmaceuticals, reported high revenues in their earnings reports. This is most likely because of all the new patients that the Affordable Care Act has given coverage to and thus allowing them to enter the market.

Biotechnology

The biotechnology industry's constituents derive their value from their ability to develop, manufacture and market novel, patented medicines that generate multibillion dollar revenues (Wang). Compared to pharmaceutical companies, biotechnology firms are regarded as younger, faster growing and more innovative (Wang). Biotech companies also differ from pharmaceutical companies because they seek to develop new drug therapies strictly using biological processes rather than the chemical processes. Biological processes use living factories such as microbes or cell lines that are genetically modified to produce treatments (Biotechnology by Amgen). Examples of treatments are as common as insulin injections and as complex as using gene therapy to replace defective genes in patients. Over the last year the biotech industry has seen considerable growth compared to the S&P 500. Comparing the performance of the NASDAQ Biotechnology Index (NBI) and the S&P 500 ETF Trust (SPY), the biotech industry has outperformed the S&P 500 by 60.20% (Yahoo Finance).

Equipment

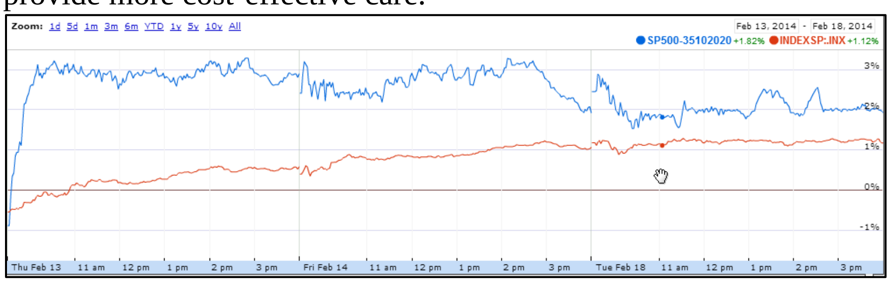
Like drug companies, equipment is another important product of healthcare. The equipment industry consists of manufacturers of health care equipment and medical devices, creating products such as medical instruments, drug delivery systems, cardiovascular & orthopedic devices and diagnostic equipment (Investing). These products are distributed to hospitals and doctors and are used in the medical treatment of patients. Medtronic is an example of an equipment company that specializes in producing devices that are implanted into patients during surgical procedures. As for its valuation ratios, they are all significantly lower than the sector average. Although this can indicate a somewhat cheap stock, all the ratios are very much in line with the equipment industry average (Medtronic). With so many drug and equipment companies continuously creating products, there is need for a distribution industry.

Distribution

Distribution in an essential part of the healthcare sector supply chain. It represents all distributors and wholesalers of health care products. This can include companies anywhere from pharmacies to wholesalers of equipment. With more and more drugs and equipment being produced, the distribution industry is quickly growing. For example AmerisourceBergen, one of America’s largest distribution companies, has had a 485% increase in stock price over the last five years (AmerisourceBergen Corp). With a successful distribution industry, drug and equipment companies are able to effectively get their products to hospitals and other health care facilities.

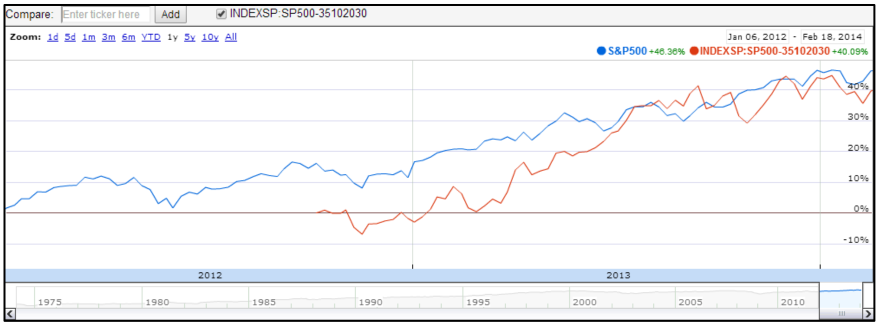
Facilities

Healthcare facilities are the health care providers in the healthcare sector. It it where medicines are delivered to needing patients and where doctors practice medicine. In this sub-industry, companies provide a wide range of health care and social services through hospitals, doctors' offices, nursing homes, outpatient surgery centers, and other facilities. In the last two years, the industry growth is lower than the average healthcare sector growth. The healthcare facilities industry is under great pressure of revenue growth. The hospital industry has a combined revenue of $ 700 billion per year, but the top 50 organizations generate less than 30 percent of revenue (first research inc.). Cost is relatively high in this industry because hospitals need expensive equipment such CT and MRI machines in order to operate. Another cost factor is the labor cost, sometimes making up as high as 40% of total revenue. The current trend for the industry is merging with competing facilities or even health insurance companies in order to provide more cost-effective care.



Managed Health Care

The managed health care sub-industry is described as a variety of techniques intended to reduce the cost of providing health benefits and improve the quality of care, in other words it is the health insurance industry. Compared with other sub-industries within the healthcare sector, managed health care has a higher rate of growth. As the health care act reform requires that everyone be insured, it is a great opportunity for insurance companies.



Sector Sensitivity

The healthcare industry has both secular and defensive aspects in respect to the global economy. Every product in this industry including drugs, treatments and medical facilities are a necessity to the health of patients. In addition, the industry experiences secular growth as innovative products treat a wider array of diseases and ailments experienced by patients. These aspects drive the sector which has enabled it to outperform the S&P 500 by 14% over the last year (Yahoo Finance). However, the healthcare sector’s attractive growth prospects are coupled with increased volatility due to the sensitivity of their business cycles. While all of the health care industries’ business cycles are highly susceptible to changes in Government policy resulting from the Affordable Care Act, the biotech and pharmaceutical industries operate in a harsher regulatory environment with a very competitive landscape.

Biotechnology and pharmaceutical companies face a variety of potential threats that increase their sensitivity. As these industries send their products to health care facilities, they depend on coverage and reimbursement from insurance providers to generate sales (Amgen 10-K). Having to wait to receive payment until after health insurance providers are billed for their products significantly increases the amount of time between producing a product and receiving payment for it. In addition to the reliance on third-party payers to generate sales, biotech and pharmaceutical companies experience increased sensitivity due to harsh regulatory oversight by the U.S. Food and Drug Administration and Government resulting from the Affordable Care Act that is described in more detail in the “Macro Driver” section below.

Sector Expenses

The healthcare sector is characterized by their substantial research and development spending. On average, it costs $5 billion for a company to take a product through the development life cycle over a 10 to 15 year period (Herper). While some products that undergo phase trials will be approved create substantial revenues for their parent companies, many will fail. Product that are rejected by regulatory bodies or abandoned because of concerns with safety of efficacy are merely sunk costs. The considerable costs incurred to develop products highlights the importance for companies to carefully allocate research and development expenditures to treatments with a high success probability that can secure long periods of patent exclusivity. If pharmaceutical and biotech industry constituents fail to do so, their product portfolio will lack earnings growth that can take many years to recover due to the long regulatory review period.

The risk of large legal expenses is significant enough to warrant mention but is not experienced on a regular basis. Legal expenses are regularly a result of product failure. When a treatment poses adverse side effects to patients they pursue the collection of remedies by suing the parent companies. In one of the most publicized cases, pharmaceutical company Merck & Co. allocated over $6.0 billion towards legal fees stemming from lawsuits surrounding the adverse effects of their product Vioxx (Berenson).

Key Macro Drivers

The healthcare sector has various key macro drivers associated with it. One of the main factors affecting health care is government regulation. This most significantly affects the pharmaceutical and biotechnology companies. Many trials and numerous tests are required for any drug to be considered for approval by the FDA and on average takes about 12 years to develop (Fact Sheet). Along with a significant time frame, it is also extremely expensive to create a new drug, with a $5 billion average cost (Herper). In addition to government regulation, unemployment has had an impact on the healthcare sector. Over half of Americans get their health insurance from their employer and when there is high unemployment, many people go without insurance and do not spend as much money on health services or products (Health Coverage).

Macro Environment

Looking toward 2014, there are a couple important macro environmental factors to consider. The first is the tapering of quantitative easing. Although the Fed has not begun this tapering, it is possible they will begin this year. For the past few years, the Fed has been buying back securities, attempting to stimulate the economy and lower interest rates. The idea of tapering will ease off the buying of securities and will eventually start to raise interest rates. Although many people are uncertain what the effect of this will have on the economy, the healthcare sector has traditionally outperformed the market in a rising interest rate environment (Kutscher).

The most significant factor that will impact the healthcare sector in 2014 will be the Affordable Care Act. This act will affect nearly every industry of health care and is good for some while bad for others. For example, the equipment industry will now be required to pay a 2.3% tax on all sales of equipment and is something many believe will hurt the industry (Graham). On the other hand, everyone will now be required to have health insurance, which will benefit the insurance companies as there will be a much higher demand. One of the most debated topics of the Affordable Care Act is the requirement of all business with over 50 employees to offer healthcare coverage. Many people believe these small companies cannot afford to do so and will be significantly hurt by this requirement (Small Business). This particular portion of the Act has been postponed so while we may not see an immediate effect, it will be interesting see the impact on not only the healthcare sector, but the entire economy in the coming years.

Life Cycle

Every industry has a life cycle with four phases; there is an early phase, innovation phase, maturity phase and decline phase. The healthcare sector is in the maturity phase. In the maturity phase, companies settle on their key product and economies of scale are achieved. Additionally in this phase, smaller companies are forced out of the market or are acquired and the barriers to enter the market become very high. The companies that are left in this market no longer focus on the company growth; instead they focus on market share and cash flow in this phase.

Competitive Landscape

Demand for health care services is driven by demographics, advances in medical care and technology. However, the healthcare industry is very special because the relationship between supply and demand is inelastic. One reason for this inelastic demand is that consumers usually do not directly pay for health care service. Over 80% of health care is paid by insurance carriers and taxpayer funded programs (Baker. 2013). As long as people do not pay for health care out of their own pocket, most people do not care and pick the product like they were buying other commercial goods. The other important reason is that healthcare is nothing like other products that are on the market; people only go to hospitals when they have to, not because they want to. The healthcare industry has very little competition because of the unique inelastic demand, especially in managed health care and health care facilities.

ETF

Obviously something that has been discussed frequently is the Affordable care act, and the effect that it has been having on the Healthcare index. The graph below is the price chart for three months and you can see that there is a noticeable difference right around the time that 2014 starts between the healthcare index and the S&P 500. We believe that this is because the Affordable Care Act had officially begun at that moment. So far 3 million people have signed up for private insurance through the exchanges offered, while another 9 million more have gained insurance through Medicaid or through their parent's insurance plans. Thousands more have signed up through the insurers themselves.

The graph below shows the price chart for six months in which the healthcare ETF and the S&P 500 have very similar movements up until the beginning of 2014 because of what was mentioned previously. You can see that there was a late spike in October. This is likely because of the original problems the government had with the site healthcare.gov, which was originally supposed to go online by October 1st, 2013. Once the bugs were all figured out the index increased due to the increase in new customers that could now get their healthcare off of the new website. Also some firms were still feeling some of the costs of the new bill and were unable to put as much as they're used to into R&D.

Also below is the price chart for one year where the healthcare ETF and the S&P 500 start in very similar areas, but end up finishing with a sizeable gap between the two, again with the healthcare ETF finishing on top. This is because at the beginning of 2013, the affordable care act started to improve preventative care by providing new funding to state Medicaid programs that choose to cover preventive services for patients at little or no cost and also expand the authority to bundle payments. Also this is when a lot of the industry began to overcome the original expense and start to make revenues. This is important because this industry relies a lot on being able to spend a lot on research and development. Both of these factors should again open the healthcare sector to more and more new customers.

The five year chart is the only one where the healthcare ETF doesn't surpass the S&P 500. In 2009 many people were also still being hit by or recovering from the recession in 2008. The industry was calling for payment reform to increasing the number of potential customers, which is what the Affordable Care Act would do. Five years ago Barack Obama was just starting his first term as president, meaning the debate was only just starting with what would be the new health care system. The bill was officially signed into law March 23, 2010 and around that date you can tell that the Healthcare sector does start to make up some of that gap between it and the S&P 500. After 2013, the Healthcare index starts to grow more and more in regards to the S&P 500.

3 Month

6 Month

1 Year

5 Year

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