

Competitive Analysis of U.S. Pharmaceutical Industry

**Revenue & Growth Trends, SWOT Analysis,
Ratio Analysis & M&A Assessment, 2011**

Published: June 2011

SECTOR FOCUS
Life Sciences

Table of Contents

1. Introduction.....	5
1.1. Key Takeaways	5
1.2. Research Methodology.....	6
1.3. Industry Definition.....	6
2. U.S. Pharmaceutical Industry.....	8
2.1. Overview	8
2.2. Current Industry Size.....	9
2.3. Forecast and Outlook	14
3. Comparative Analysis of Key Players	16
3.1. Competition Overview	16
3.2. Ratio Analysis.....	17
3.2.1. Profit Margins	17
3.2.2. Financial Condition and Efficiency	18
3.2.3. Investment Returns.....	19
3.3. Comparative Stock Performance	21
4. Pfizer Inc.....	22
4.1. Business Description	22
4.2. SWOT Analysis	22
4.3. Financial Analysis.....	25
4.4. Ratio Analysis.....	30
5. Merck & Co., Inc.....	31
5.1. Business Description	31
5.2. SWOT Analysis	32
5.3. Financial Analysis.....	35
5.4. Ratio Analysis.....	39
6. AstraZeneca Plc.....	40
6.1. Business Description	40
6.2. SWOT Analysis	40
6.3. Financial Analysis.....	43
6.4. Ratio Analysis.....	46

7. Novartis AG	47
7.1. Business Description	47
7.2. SWOT Analysis	48
7.3. Financial Analysis	50
7.4. Ratio Analysis	53
8. Eli Lilly & Co.	54
8.1. Business Description	54
8.2. SWOT Analysis	55
8.3. Financial Analysis	58
8.4. Ratio Analysis	61
9. Mergers & Acquisitions Assessment	62

List of Figures

Figure 1: Global Pharmaceutical Industry Size in USD Billion, 2000-2010	8
Figure 2: Market Share of Leading Pharmaceutical Markets, 2009	10
Figure 3: U.S. Pharmaceutical Industry Size in USD Billion, 2001-2010	11
Figure 4: U.S. Sales Volume of Oral Standard Units and Injectable Standard Units, 2006-2010	12
Figure 5: U.S. Prescriptions Pharmaceutical Volume Sales in Billion, 2001-2010	13
Figure 6: Forecast for U.S. Pharmaceutical Industry in USD Billion, 2006-2015	15
Figure 7: Market Share of Top Players in U.S. Pharmaceutical Industry, 2010	16
Figure 8: Comparative Profit Margins of Top U.S. Pharma Companies, 2010	18
Figure 9: Comparative Financial Condition and Efficiency of Top U.S. Pharma Companies, 2010 ..	19
Figure 10: Comparative Investment Returns of Top U.S. Pharma Companies, 2010	20
Figure 11: Comparative Share Price Growth of Key Players, 2010-2011	21
Figure 12: Pfizer SWOT Analysis Snapshot	22
Figure 13: Pfizer's Revenues and Net Income in USD Billion, 2006-2010	26
Figure 14: Share Price Performance of Pfizer, 2010-2011	29
Figure 15: Ratio Analysis of Pfizer Compared with Industry	30
Figure 16: Merck SWOT Analysis Snapshot	32
Figure 17: Merck's Revenues and Net Income in USD Billion, 2006-2010	35
Figure 18: Share Price Performance of Merck, 2010-2011	38
Figure 19: Ratios Analysis of Merck Compared with Industry	39
Figure 20: AstraZeneca SWOT Analysis Snapshot	40
Figure 21: AstraZeneca's Revenues and Net Income in USD Billion, 2006-2010	43
Figure 22: Share Price Performance of AstraZeneca, 2010-2011	45

Figure 23: Ratios Analysis of AstraZeneca Compared with Industry	46
Figure 24: Novartis SWOT Analysis Snapshot	48
Figure 25: Novartis' Revenues and Net Income in USD Billion, 2006-2010.....	50
Figure 26: Share Price Performance of Novartis, 2010-2011	52
Figure 27: Ratios Analysis of Novartis Compared with Industry	53
Figure 28: Eli Lilly SWOT Analysis Snapshot.....	55
Figure 29: Eli Lilly's Revenues and Net Income in USD Billion, 2006-2010.....	58
Figure 30: Share Price Performance of Eli Lilly, 2010-2011	60
Figure 31: Ratio Analysis of Eli Lilly Compared with Industry	61

List of Tables

Table 1: Top 15 Therapeutic Classes by Prescriptions Dispensed Volume in Million, 2006-2010 ...	13
Table 2: Top 20 Drugs by U.S. Sales in USD Billion, 2006-2010.....	14
Table 3: U.S. Pharmaceutical Companies by Sales in USD Billion, 2006-2010.....	17
Table 4: Pfizer's Revenues by Business Segments and Geographic Areas, 2008-2010	26
Table 5: Pfizer's Revenue for Biopharmaceutical Segment, 2008-2010	27
Table 6: Pfizer's Revenues of Major Drugs, 2008-2010	28
Table 7: Merck's Pharmaceutical Revenues by Therapeutic Areas and Products, 2008-2010	36
Table 8: AstraZeneca's Revenue by Therapeutic Area and Products, 2008-2010.....	44
Table 9: Novartis' Revenues by Therapeutic Areas and Products, 2009-2010	51
Table 10: Eli Lilly's Revenue by Products, 2009-2010.....	59
Table 11: Eli Lilly's Revenue by Therapeutic Areas, 2008-2010.....	59
Table 12: Summary of M&A Activity in Global Pharmaceutical Industry, 2010	62
Table 13: Major M&A Deals in U.S. Pharmaceutical Industry, 2009-2010	63
Table 14: Forecast of Top 5 Oncology Products Worldwide, 2016	64

1. Introduction

“Competitive Analysis of U.S. Pharmaceutical Industry, 2011” report is a detailed analysis of leading pharmaceutical companies in the U.S. pharmaceutical industry. Players analyzed in the report are – Pfizer, Merck, AstraZeneca, Novartis and Eli Lilly. Comparative analysis of companies is done on the basis of their sales and profits and other financial information. Detailed Ratio Analysis compares these companies on the basis of their revenue growth, profitability, efficiency, financial strength and investment returns. Report also presents a brief profile and SWOT Analysis of these companies along with their financial analysis and ratio analysis vis-à-vis industry. Lastly, report analyses the M&A activity in the U.S. Pharmaceutical Industry in recent years.

1.1. Key Takeaways

- U.S. healthcare spending in 2010 was US\$2.3 trillion or 16% of GDP, more than any other country in the world. United States is the largest pharmaceutical market globally, with 2010 sales of US\$307 billion or 40% of global sales.
- In 2010, U.S. pharmaceutical sales grew at 2.3%; and since 2001 market has grown at a CAGR of 6.6%. Pharmaceutical sales in the United States are expected to reach US\$328 billion in 2011 and up to US\$420 billion by 2015; growing at a CAGR of 6.4% between 2010 and 2015.
- Highly competitive industry with top 5 companies accounting for leading the pack is Pfizer with a market share of 8.52% followed by Merck (6.11%), AstraZeneca (5.95%), Novartis (5.1%) and Eli Lilly (4.65%).
- Merck, AstraZeneca and Eli Lilly had the best profit margins among the peer group while Pfizer and Eli Lilly had better financial condition and efficiency ratio. In terms of investment ratios, AstraZeneca and Eli Lilly are better placed than their peers.
- In last 2 years, apart from Merck, all other companies ended the period with a positive growth in their share prices with Novartis leading the peer group with 17% increase in its share prices.
- With most of the Big Pharma companies already facing or likely to face patent challenges for their blockbuster products, the companies have been looking towards M&As and in-licensing

activities to make up for the loss of revenues that will arise with key products losing patent exclusivity.

1.2. Research Methodology

Indagatio Research's industry and company reports are based on the primary as well as secondary research conducted by its in-house team of researchers and analysts. Exhaustive desk research is conducted to source qualitative and quantitative data from a variety of secondary resources like:

- industry associations and trade journals
- national government websites
- broker and analyst reports
- company websites
- annual reports and SEC filings, and
- news articles and press releases

Indagatio Research then conducts primary research using surveys and interviews to fill in the gaps and incorporate the information that is not otherwise available.

All the collected data is then send to our team analysts, who perform data analysis and forecasting using various statistical tools, including MS Excel and SPSS.

Final data is then validated by our team of industry specialists and experts and if required, data is adjusted as per their directions.

From time to time we update our reports in order to give our clients most up to date information.

1.3. Industry Definition

This industry comprises companies that manufacture biological, medicinal and pharmaceutical products in various forms including ampoules, tablets, capsules, vials, ointments, powders, solutions and suspensions. The pharmaceutical companies develop, produce, and market drugs licensed for use as medications. Pharmaceutical companies can deal in generic and/or brand medications. They are subject to a variety of laws and regulations regarding the patenting, testing and marketing of

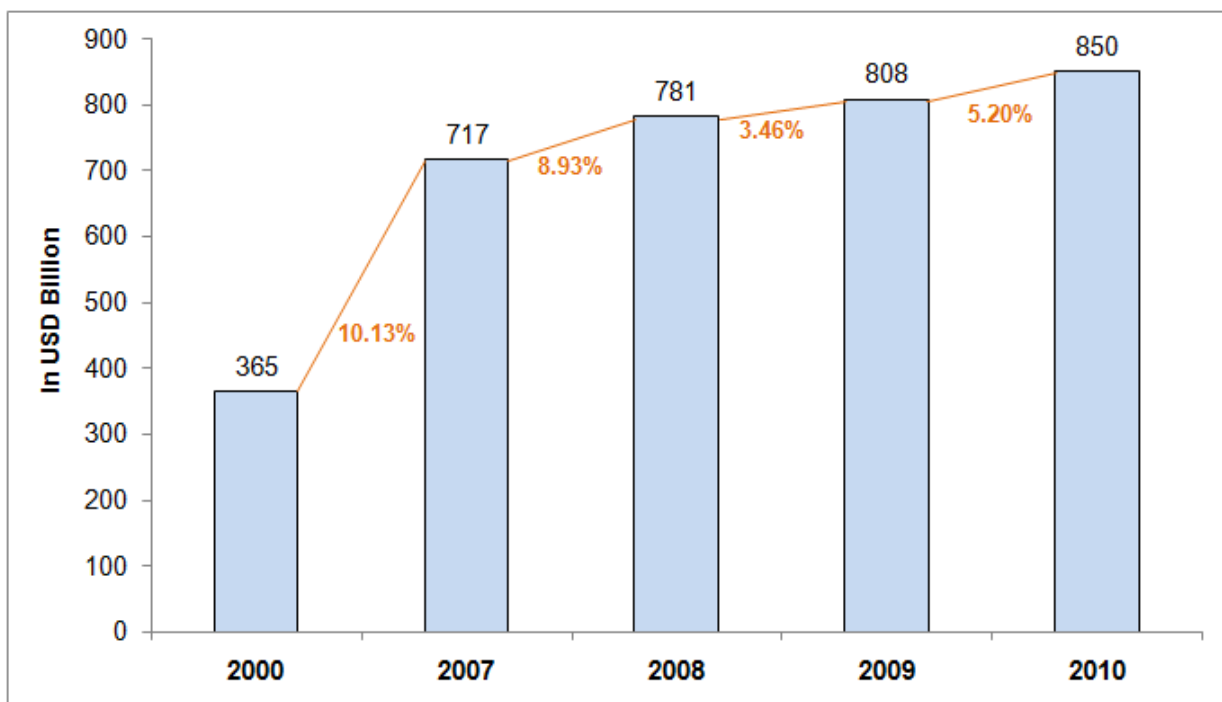
drugs. The products are predominantly distributed via wholesalers and are then sold through a variety of channels including pharmacies and hospitals.

2. U.S. Pharmaceutical Industry

2.1. Overview

In recent years, global pharmaceutical industry has undergone dramatic changes, spurred on by pricing pressures, the emergence of new channels and new markets, considerable generic growth and the development of specialist driven, low volume products as opposed to high value, high volume primary care blockbuster products. Global financial crunch further dented any growth opportunities that pharma giants could have explored. Despite these constraints, global pharmaceutical industry grew at an annual growth rate of 3.5% in 2009 and 5.2% in 2010. In 2010, global pharmaceutical industry generated revenues of more than US\$850 billion, compared to US\$808 billion in 2009 and US\$781 billion in 2008. Over the last decade, industry has grown at a compound annual growth rate (CAGR) of 8.8% from US\$365 billion in 2000.

Figure 1: Global Pharmaceutical Industry Size in USD Billion, 2000-2010



Source: IMS Health

The next five years are expected to reflect a significant imbalance between new product introductions and patent losses. According to IMS Health, this is the main reason global pharmaceutical market growth will be restricted to the mid-single digits (5-8%) through 2015. Over the next five years, products that currently generate more than US\$142 billion in sales are expected to face generic competition. In fact, 2011 itself will see products worth more than US\$30 billion losing patent protection. This includes products like Lipitor, Plavix, Zyprexa and Levaquin. These

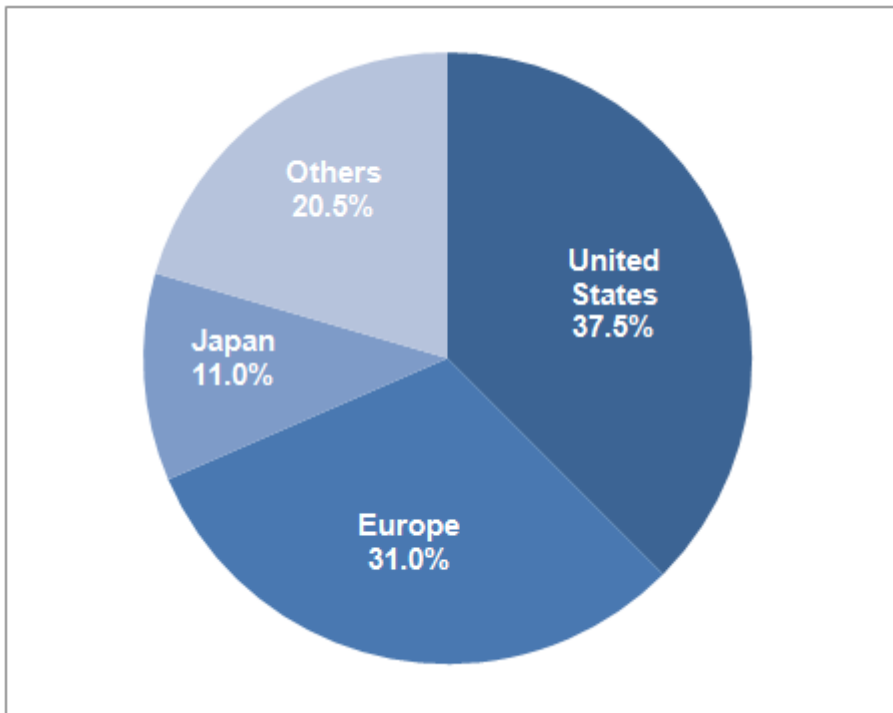
products generated more than US\$15 billion in sales in 2010. The effect of the genericization of these products will be felt mostly in 2012, which will be a challenging year for several companies. At the same time, new products are not expected to generate the same level of sales as products losing patent protection. With revenue growth stalling or slowing down, companies have been resorting to cost-cutting and share buybacks to drive bottom-line growth.

2.2. Current Industry Size

The United States is the single largest pharmaceutical market globally, accounting for more than 40% of the world's pharmaceutical sales. It is also home to some of the world's largest pharmaceutical manufacturers such as Pfizer, Merck & Co, and Bristol-Myers Squibb. The U.S. pharmaceutical industry has thrived because of the success of U.S. drugmakers in creating novel blockbuster drugs and their ability to penetrate the global market. Over the past two years, however, the U.S. pharmaceutical industry has faced a number of macroeconomic challenges and industry specific issues such as inflation, government healthcare policy, declining levels of innovation, patent losses, among others.

The United States has a relatively free market in pharmaceuticals compared with most other industrialized countries. In fact, by law the federal government is not allowed to negotiate with drug suppliers in order to get better prices. Health plans seek to contain pharmaceutical costs through a variety of methods, including reference pricing, which discourages the use of unusually expensive brands of prescription drugs, formularies (lists of medicines approved for insurance cover) and co-payments. Co-payments may be tiered, for example, requiring patients to contribute more for brand-name drugs than for generics. Medicaid (a joint federal-state program for low-income earners) provides prescription drug cover for its beneficiaries. Advertising for prescription drugs to consumers is relatively unrestricted (protected by constitutional rights to free speech), and this is an important marketing channel in the United States.

Figure 2: Market Share of Leading Pharmaceutical Markets, 2009

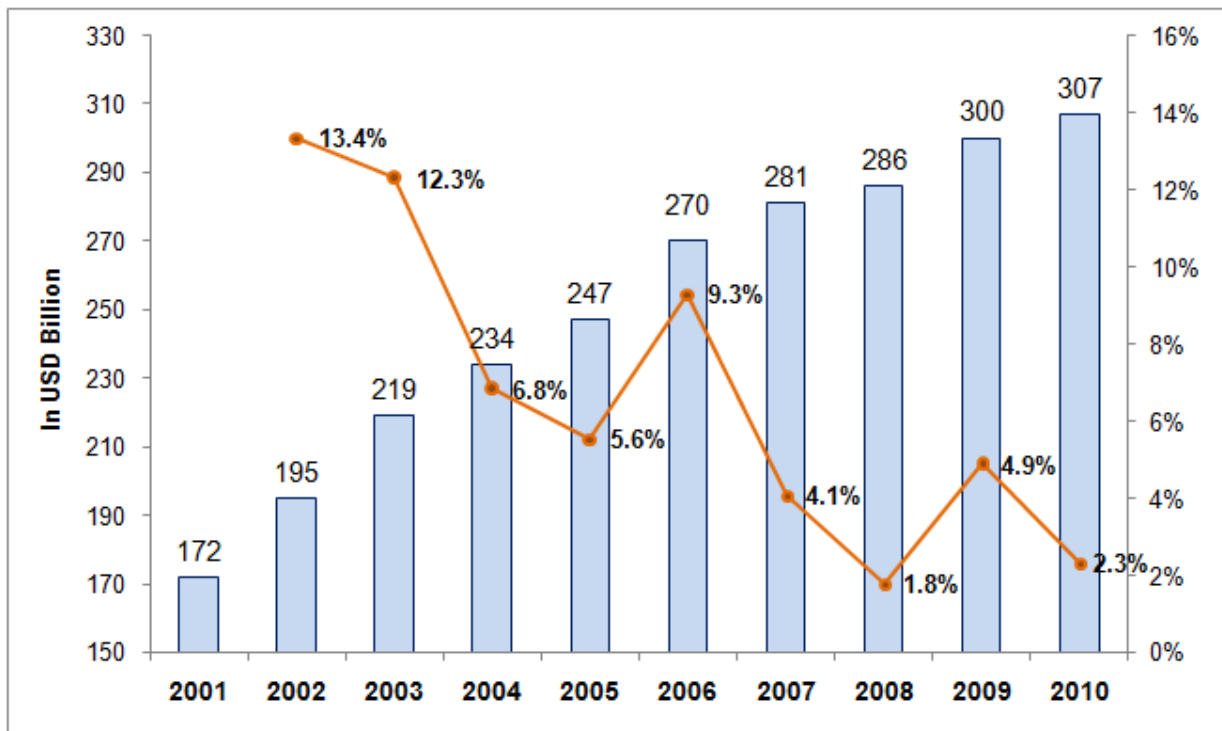


Source: IMS Health

U.S. pharmaceutical industry is the global leader in medical innovation, with more than 300 new medicines approved by the Food and Drug Administration (FDA) in the last decade. In 2009, United States was the largest market for pharmaceutical sales, with a market share of 37.5%; followed by Europe (31%) and Japan (11%). Only about one-third of the drugs approved annually in the United States are new compounds; the rest represent modified forms of existing drugs. A record US\$67.4 billion was spent in 2010 on biopharmaceutical R&D, an increase of 6.5% from 2009.

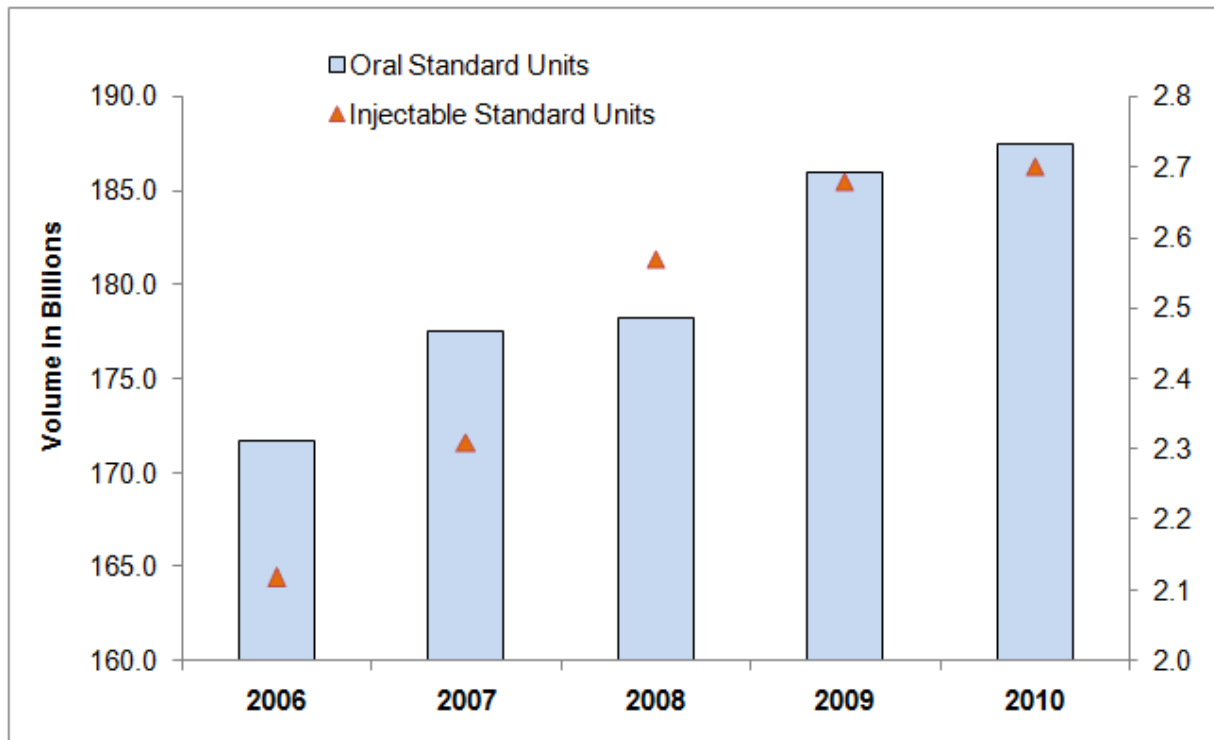
Pharmaceutical majors in the United States saw their sales growth fall back in the first half of 2010, with sales growth ranging from above the global market average of 6-7% to negative growth. One reason was that the majors faced the realities of diminished research pipelines, as well as competition from generics and also emerging markets. However, in the second half of the year, most of the U.S. based pharma giants recovered and rebounded primarily due to the global recovery and the U.S. healthcare reforms, which began to show their affect the industry's financial results.

Figure 3: U.S. Pharmaceutical Industry Size in USD Billion, 2001-2010



Source: IMS Health, Indagatio Research Analysis

Figure 4: U.S. Sales Volume of Oral Standard Units and Injectable Standard Units, 2006-2010



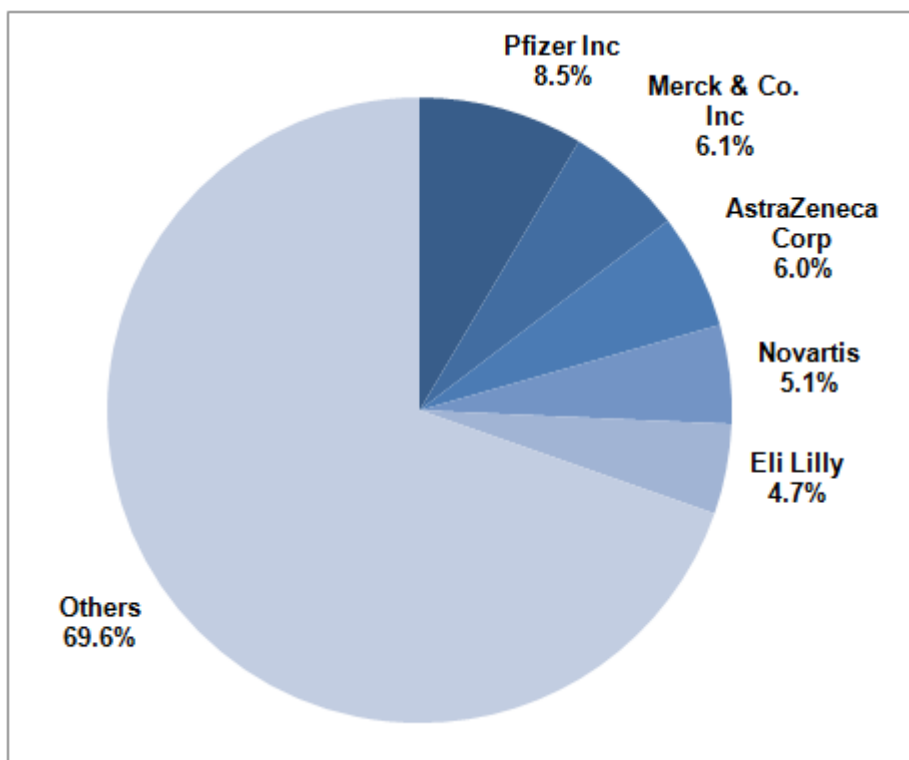
Source: IMS Health

3. Comparative Analysis of Key Players

3.1. Competition Overview

The U.S. pharmaceutical industry is highly competitive with four out of the top ten pharmaceutical corporations worldwide in 2010 were U.S.-based. In recent years though, market has become even more competitive, both within the branded as well as the generic product segments. The “Big Pharma” companies compete among themselves and almost all of them are active in R&D and production of drugs in the segments with the highest potential – such as treatment of infectious, cardiovascular, psychiatric or oncology diseases. In 2010, Pfizer was the market leader with 8.52% market share followed by Merck (6.11%), AstraZeneca (5.95%), Novartis (5.1%) and Eli Lilly (4.65%).

Figure 7: Market Share of Top Players in U.S. Pharmaceutical Industry, 2010



Source: IMS Health

For the branded and patented products, competition is mainly based on product innovation and R&D. Product innovation in turn tends to be expensive, and involves a high degree of risk as well as long lead times; only one in 5,000 new chemicals discovered actually becomes a medicine. In addition, just three out of 10 approved products recover their R&D costs, while it generally takes around 10 to 15 years and over a US\$1 billion to develop a new product. As a result, most companies concentrate their research and development within selected therapeutic classes and

competition is focused on producing either a breakthrough product or a product to compete with a breakthrough product.

Table 3: U.S. Pharmaceutical Companies by Sales in USD Billion, 2006-2010

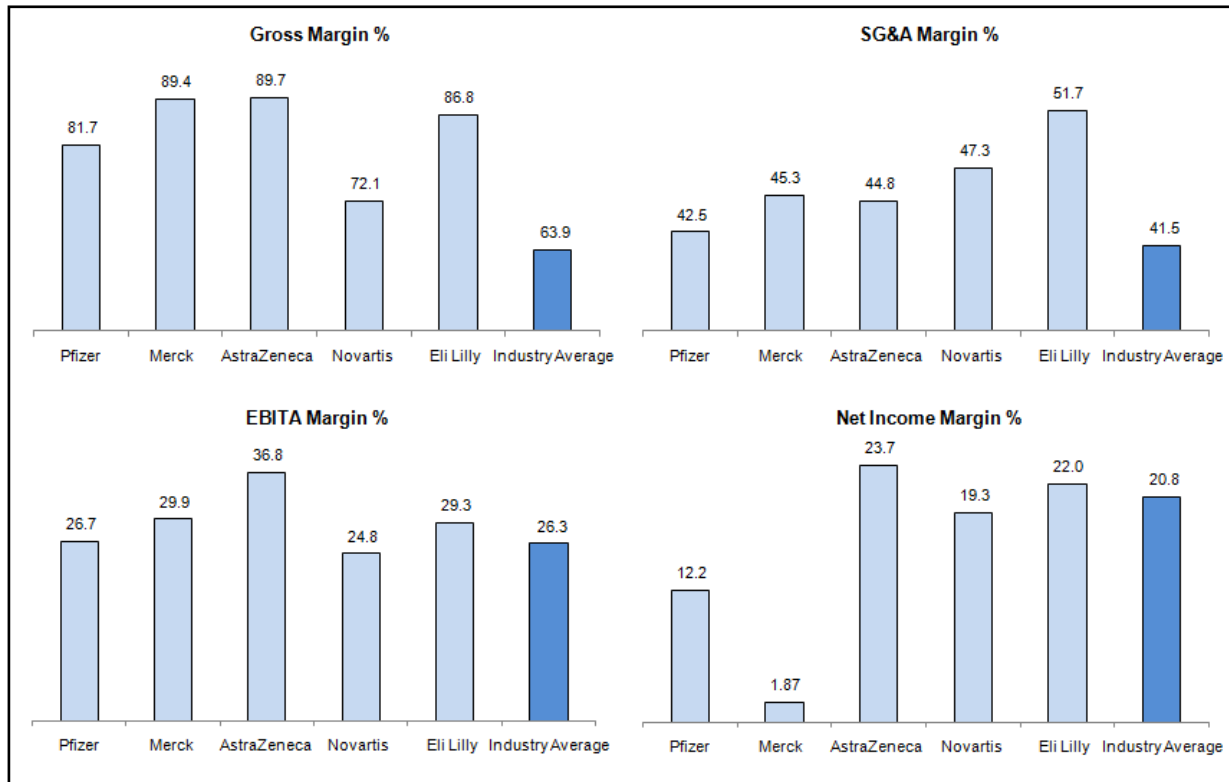
3.2. Ratio Analysis

3.2.1. Profit Margins

In 2010, Merck (89.4%) and AstraZeneca (89.7%) had the best gross profit margins among the companies that are analyzed in this report and were way better than the industry average of 63.9%. In terms of SG&A margins, all the companies were around the industry average of 41.5% with the exception of Eli Lilly that had SG&A margins of 51.7%. Industry average for EBITA margin was 26.3%; at 36.8%, AstraZeneca had the best EBITA margins among the peer group. Net Income margins for pharmaceutical industry in 2010 were 20.8%; while all the major players hover around this number, Pfizer (12.2%) and Merck (1.87%) had very low net income margins vis-à-vis industry

average and peer group. Pfizer's low margins are attributed to the expenses associated with the acquisition on Wyeth while for Merck it was the growing operating expenses and company's high cost business model.

Figure 8: Comparative Profit Margins of Top U.S. Pharma Companies, 2010



Source: Standard & Poor's

3.2.2. Financial Condition and Efficiency

About Indagatio Research

Formed in 2010, New Delhi (India) based Indagatio Research is a leading market research and information analysis company, focused on delivering quality research services. Our focus is on delivering quality services to business professionals, corporates, asset management firms, advisory and consulting companies across various industries including Financial Services, Technology & Telecommunication, Energy, Automobiles, Aerospace and Defense, Consumer Discretionary and Healthcare. Our products and services bring information and analysis through primary and secondary data research and provide forecasting on market trends to help clients identify prospective growth areas and gain competitive edge.

Contact Us

If you have any queries about this report or would like further information, please contact info@indagatioresearch.com.

DISCLAIMER

All Rights Reserved.

All information contained in this publication has been researched and compiled from sources believed to be accurate and reliable at the time of publishing. However, Indagatio Research accepts no liability whatsoever for any loss or damage resulting from errors, inaccuracies or omissions affecting any part of the publication.

The publication is sold on the basis that the purchaser agrees not to copy the material contained within it for other than the purchaser's own purposes. In the event that the purchaser uses or quotes from the material in this publication - in papers, reports, or opinions prepared for any other person - it is agreed that it will be sourced to Indagatio Research.