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**Executive Summary**

Dr. Wallace C. Abbott founded Abbott Laboratories in 1888 in northern Chicago. Over the last century, Abbott has developed into a diversified medical products company, developing, producing and marketing a range of products that are used in prevention, diagnosis, treatment and care. It has two major product groups, the Pharmaceutical Product Group and the Medical Device Product Group. The Company currently employs over 60,000 people worldwide, sells its products in 131 countries, and had revenues of over $22 billion in 2005. Worldwide Pharmaceutical sales accounted for 59% of revenues in 2004, worldwide Nutritional sales for 20%, worldwide Diagnostics for 17%, and worldwide Other/Non Segment for 4%.

Abbott Laboratories belongs to the brand pharmaceutical industry, a highly competitive industry in which the firms rely on R&D to create innovative drugs. By securing patents for these discoveries, brand pharmaceutical companies are able to protect their drugs against replicas. However, once these patents expire, generic pharmaceutical companies often immediately duplicate the drug and sell it at a substantial discount, eroding sale volume and revenue for the brand company. Abbott faces low but increasing buyer power as the government buys and increasing amount of drugs through Medicare, and as HMOs and PPOs seek to control spiraling costs. However, the relatively inelastic demand curve of consumers who purchase prescription drugs through pharmacies allow Abbott to extract high profit margins. Substitutes for Abbott’s drugs include drugs from other brand pharmaceutical companies with similar benefits and generic versions of Abbott’s drugs whose patents have expired.

Abbott has maintained solid revenue growth in the 13% range over the past three years, but this rate is expected to decline in the near future due to a neutral pipeline. However, unlike many of its competitors, Abbott does not have as much generic exposure. This results in an expected rate of growth for its pharmaceutical sales that is higher than its competitors’. But Abbott faces serious problems with its margins that it must address. The Company’s gross margins are roughly 20% below the average of its competitors, due to high costs of goods sold and lower pricing power. Abbott must rein in these production costs and release products that give them greater pricing power. Pandora Group also advises Abbott to address the substantial differential
between its R&D spending and that of its competitors. Before this, however, Abbott must increase its gross margin to avoid making its operating margins even worse.

Finally, Abbott has recently embarked on a strategy of diversification, particularly with respect to increasing its medical device offerings. This appears to be a sounds strategy in light of the expected decline of the pharmaceutical industry and the high potential for several of the new markets that Abbott has entered. Yet Pandora Group strongly recommends that Abbott not allow this shift to detract from the focus on pharmaceutical R&D, which could lead to even greater revenue growth problems.
Company Background

Dr. Wallace C. Abbott founded Abbott Laboratories in 1888 in northern Chicago. Two years later, the Abbott Alkaloidal Company was incorporated in Illinois, and in 1915 the company name changed to Abbott Laboratories. Abbott went public in 1929, and was originally listed on the Chicago Stock Exchange. Over the last century, Abbott has evolved into a diversified medical products company, developing, producing and marketing a range of products that are used for prevention, diagnosis, treatment and care. It currently employs over 60,000 people worldwide, sells its products in 131 countries, and had revenues of over $22 billion in 2005.

Important Contributions and Product Developments

Dr. Wallace C. Abbott discovered a new way of making medicine in 1898. Using alkaloid, he began producing pills that provided a precisely measured amount of drug in each dose. The demand for these pills, called “dosimetric granules”, quickly grew, and he began selling them to other doctors. But this was just the first of many important medical advances and products that Dr. Abbott’s Company would make over its storied history.

Prior to World War I, Germany was the lone producer of certain anesthetics. During the war these drugs were no longer available from German manufacturers, so Abbott began manufacturing these anesthetics, including procaine, a substitute for novocaine. Abbott also played a crucial role in drug production during World War II. In 1941, Abbott was one of only five U.S. companies that produced penicillin. However, Abbott quickly increased its output of penicillin to meet the demand for anti-infective agents, streamlining production processes and cutting costs to assist the U.S. war effort.¹

In 1983, Abbott received FDA approval for Depakote, designed to treat adults with central nervous system disorders, or epilepsy. Over time, Depakote has evolved to become a central part of Abbott’s product line, and has since been approved for treating migraines and mania associated with bipolar disorder. Abbott’s other significant contributions include the world’s first diagnostic test for AIDS, introduced to the market in 1985, and an HIV antigen assay, which detects the virus’s HIV-1 antigen, for use in blood-screening centers. In 1997, the FDA gave Abbott approval to use Norvir to treat HIV and AIDS in children, shortly after approving its use for adults in 1996.
Growth, Mergers/Acquisitions and a Spin Off

In 1931 Abbott expanded internationally, establishing an affiliate in Montreal, Canada. Throughout the rest of the 1930s, Abbott continued to establish itself in foreign countries, launching ventures in Argentina, Brazil, Cuba, Mexico and the UK.

In 1945 Abbott began work in the radiopharmaceutical field, and formed a joint venture with Dainippon Pharmaceutical Co., Ltd., of Japan in 1962 to manufacture radiopharmaceuticals. Today, this venture is known as Dainabot, Abbott’s largest current operation beyond U.S. soil. Abbott continued to grow by merging with M&R Dietetic Laboratories in 1964. An important, still active joint venture, TAP Pharmaceutical Products Inc., was founded in 1977 with Takeda Chemical Industries, Ltd. In the 1980s, Abbott, under new CEO Robert Shoellhorn, began selling Japanese developed pharmaceuticals to the U.S. market. Then, in 1980, Abbott purchased Sorenson Research of Salt Lake City, a producer of medical disposables. After a long period during which Abbott refrained from purchasing any companies, Abbott entered the glucose testing market in 1996 by acquiring MediSense, Inc. Abbott struggled with their initial foray into this sector, and their growth rate lagged behind the market’s rate for years. However, Abbott has since made additional acquisitions to bolster its presence in the blood glucose testing market.

Abbott purchased BASF AG’s Knoll Pharmaceuticals unit in 2001 for $6.9 billion. This deal was intended to improve Abbott’s drug research business and provide it access to several experimental medicines. At the time of the acquisition, Knoll had roughly $2.1 billion in sales and its experienced European sales force was seen as an important asset to Abbott. In addition, Abbott acquired Humira from Knoll, which, as we will see, has become a major player in Abbott’s product line.

In December 2002, the FDA approved the use of Humira for the treatment of rheumatoid arthritis. Humira was further developed through scientific collaboration between Abbott and Cambridge Antibody Technology. The agreement gave Abbott exclusive worldwide rights to Humira, and Abbott is responsible for the clinical development, marketing and sales of the product. Since its invention, Humira has been approved in 51 countries, and its application has expanded to other autoimmune diseases. In 2005, Abbott acquired additional rights to Humira for roughly $270 million. In the 4th quarter of 2005 alone, Humira sales reached $170 million,
and Abbott expects continued growth due to its perceived underutilization as a treatment for rheumatoid arthritis.

Miles D. White, elected as CEO in 1999, launched a new strategy designed to diversify Abbott’s product line and reduce its reliance on pharmaceutical drugs, which as of 2005 accounted for 60% of the company’s sales. Abbott acquired several spinal products companies in 2003 and 2004, hoping to challenge Johnson & Johnson’s monopoly on the market of motion-preserving spinal devices in the United States. During this period, Abbott further diversified its product offerings in the adult nutritionals market through acquisitions.

Abbott enlarged its Ross Products Division in 2003 with the acquisition of ZonePerfect Nutrition Company, and shortly after purchased EAS, a U.S. nutritional company in 2004. Abbott bought ZonePerfect for $160 million, which augmented Abbott’s position in the rapidly growing market of health conscious living and weight control products. Abbott purchased EAS for $320 million, adding the brands AdvantEdg, intended for weight management and balanced nutrition, along with Myoplex and Body for Life. Prior to these agreements, Abbott had already produced nutritional products that included Ensure®, delivering balanced nutrition; Glucerna®, nutritional products for diabetics; and ProSure®, a nutritional product for cancer patients.

Abbott has acquired numerous companies over the past few years, particularly within their Medical Products Group. In 2003, Abbott acquired Integrated Vascular Systems, Inc., a developer of a novel vessel closure technology, for $65 million in cash, and Spinal Concepts Inc., a marketer of spinal fixation products for roughly $166 million. Also in 2003, Abbott bought assets of JOMED N.V.’s coronary and peripheral interventional business for approximately $68 million in cash. In 2004, Abbott purchased TheraSense, Inc., a company that develops, manufactures and markets blood glucose self-monitoring systems. TheraSense was combined with MediSense, Abbott’s own monitoring system, to become the number three player in this market. Additional acquisitions included I-STAT Corporation, a manufacturer of point-of-care diagnostic products for blood analysis and Spine Next, a manufacturer of orthopedic spinal implant devices.

In January 2006, Abbott purchased Guidant Corp.’s vascular device business for $3.8 billion in cash as part of Boston Scientific’s acquisition of Guidant. Abbott also bought $1.4 billion of Boston Scientific stock as part of the deal, making it one of Boston Scientific’s largest outside
stockholders. Abbott’s participation was essential in order to quell anti-trust concerns, and the Company provided a key $900 million loan to Boston Scientific to help it win a bidding war with Johnson & Johnson. The deal is expected to be finalized in the first half of 2006, but Abbott’s acquisition of Guidant’s vascular device unit immediately makes it a serious competitor to Johnson & Johnson’s vascular device business. Furthermore, Abbott will obtain important technology on drug coated cardiac stents and an experienced sales force. The stent market is currently sized at $6 billion a year and rapidly growing, and Abbott should be selling two different drug eluting stents within the next year, *Xiencia-V* and *ZoMaxx*. Analysts suggest these will be transformational gains for Abbott, as they will contribute to its diversification strategy and potentially model the company after a mini Johnson & Johnson.

In 2004, Abbott created and then spun off Hospira, Inc., a pharmaceutical and medication delivery company. Abbott had felt increasing pressure from Wall Street to focus on blockbuster drugs and increasing its margins, and the low-margin hospital products division was dragging them down. Prior to the spin off, the core hospital products business unit accounted for roughly $2.5 billion of Abbott’s $18 billion in annual total sales. Hospira immediately benefited from decreased distribution costs and the renewed opportunity to focus solely on its hospital products line, as the new company no longer had to contribute cash flow to the parent company.

**Setbacks and Litigation Throughout the 20th Century**

Abbott faced multiple setbacks in the early 1970s. In 1970, the FDA banned the artificial sweetener Sucaryl, claiming that this product may have contained carcinogens. In 1971, millions of Abbott’s intravenous solutions were recalled in reaction to contamination deaths.

Abbott, in 1996, after facing years of litigation over price fixing allegations for baby formula, agreed to settle with 17 states for $32.5 million. Accusations, which began in 1992, claimed that Abbott had been fixing the price of baby formula since the early 70s. Although Abbott maintained its innocence, it had already settled with other litigation claims in 1993, paying $8 million to Florida, $79 million to wholesale formula purchasers, and $53 million to three supermarket chains. In 1998, the company was forced to pull blood-clot dissolver *Abbokinase* off the market because of manufacturing problems. In 2003, Abbott’s Ross segment settled for $614 million as part of an industry-wide investigation of the enteral nutritional business.
Competitive Analysis

Abbott Laboratories is defined in the NAICS as belonging to Analytical Laboratory Instrument Manufacturing, 334516. This is its primary classification; however, it is also listed under the secondary markets of Pharmaceutical Preparation Manufacturing; Dry, Condensed, and Evaporated Dairy Product Manufacturing; Medicinal and Botanical Manufacturing; and Surgical and Medical Instrument Manufacturing. In the Primary SICs, Abbott is listed under Dry, condensed, evaporated products, 2023. Its secondary SICs are: Diagnostic substances; Analytical instruments; Medicinals and botanicals; Surgical and medical instruments; and Pharmaceutical preparations.

Because Abbott Laboratories is a well-diversified company, involved in the discovery, development, manufacture and marketing of pharmaceuticals and medical goods that encompass a wide range of product areas, it is difficult to define one primary market for Abbott. The Company has four reportable revenue segments, including Pharmaceutical Products, Diagnostic Products, Ross Products and International. Due to the fact that the Pharmaceutical division comprises 60% sales, and that much of the International segment is pharmaceutical sales, the pharmaceuticals industry will be our main focus.

There are two major categories of firms in the pharmaceutical products industry, branded pharmaceuticals and generic pharmaceuticals. Abbott Laboratories is among the branded pharmaceutical companies, often referred to as the industry innovators. These companies invest heavily in research and development to come up with unique drugs or improved versions of already existing drugs, and then patent these findings. The ten largest pharmaceutical companies, in order of global sales in 2004, are as follows: Pfizer, GlaxoSmithKline, Sanofi-Aventis, Johnson & Johnson, Merck, Novartis, AstraZeneca, Roche, Bristol-Myers Squibb and Wyeth. For the US market, although the order of the firms changes, the only firm not in the top ten is Roche, which is replaced by Amgen. These firms research, develop, manufacture and sell pharmaceutical products. Generic drug firms are the other type of firm in this industry. While they only comprise of 6% of total industry sales, they are becoming increasingly threatening to the brand companies market share.
Internal Rivalry

Internal rivalry refers to the competition between firms for market share. Firms are in the same market if one firm’s decisions constrain the strategic decisions of another firm. In the pharmaceutical products industry, there are two relevant markets to look at: the macro market, comprised of all pharmaceutical drugs, and the sub-market for specific product lines.

Competition in the pharmaceutical industry is driven by research and development. Once a pharmaceutical company has developed a drug, it applies for a patent, either for the chemical make up of the drug or the manufacturing process. Although the patent is valid for 20 years, it takes the FDA an average of 8.5 years to approve a drug, leaving the patent valid only for a little over a decade.\textsuperscript{x}

Central to determining a company’s ability to acquire, maintain or increase market share is the effectiveness and usefulness of their drugs. The branded pharmaceuticals invest heavily in discovering innovative products. If a company develops a drug that is unique in its benefits, it can temporarily secure a monopoly in this micro market. However, it is rarely this simple, as drug manufacturers often have drugs that compete against each other, such as Viagra and Cialis, both of which are used for erectile dysfunction. Even when branded pharmaceutical companies have competing drugs, companies are often able to maintain high profit margins. Pharmaceutical companies are able to achieve these margins because of the protection afforded to them by the patents, and even drugs within the same sub-market are often differentiated by their effectiveness or therapeutic specificity. However, once the patent ends, the profitability of these drugs can plummet. Generic drug companies, who often can easily manufacture drugs with identical chemical composition to patented drugs, are quick to enter the market and undercut the branded pharmaceutical companies. These generic drug companies put little time and money into R&D, allowing them to sell the drugs at very low prices relative to the brand name prices. Sale volume and revenue for the original incumbent can drop quickly, and the branded pharmaceuticals lose significant market share.

The current market conditions for the pharmaceutical industry are solid, but there is concern about the future. In 2005, the pharmaceutical market grew at a pace of 6\%-7\%, similar to the 2004 growth rate. In 2005, total sales reached almost $600 billion, up from $551 the previous year. The $600 billion sales mark has come a mere 25 years after the total sales were at $70
billion in 1981. Yet recent figures reveal a decelerating growth rate, following low double-digit
growth rates between 1998 and 2003.\textsuperscript{xii}

The pharmaceutical industry is relatively diluted internationally, as the largest individual
companies have only single digit shares of worldwide market sales. In the US market, the top 10
firms account for roughly 60% of retail sales, making it moderately concentrated. Since 1990,
we have seen the top 10 global firms go from 28% market share in sales to roughly 50% in 2003.
Pharmaceutical firms generally compete with each other internationally.\textsuperscript{xiii}

There is significant variation geographically in sales and growth rates. The United States
currently makes up 50% of total industry sales, fueled by favorable pricing and a strong patent
system. In the two largest pharmaceutical markets, the United States and Western Europe,
growth rates have slowed to 4% and 2.8%, respectively, and there is considerable uncertainty
about future growth. Central and Eastern Europe and China’s markets contrast this sharply, as
they are experiencing rapid growth. China saw its market grow from $9.5 billion in 2004 to an
estimated $11 billion in 2005, a 28% increase. As these and other developing countries continue
to see GDP grow there will be substantial increases in spending on pharmaceutical products.
The problems in the U.S. and Western Europe are varied; they range from increased use of over
the counter medicines, increased safety concerns and regulatory issues, and downward pressure
on prices from greater use of generics. However, there’s an upside to the more developed
countries’ markets. The U.S.’s population is getting older and wealthier, particularly as the baby
boomer generation reaches senior citizen status. The elderly are disproportionately higher users
of prescription drugs, and the aging trend is even more pronounced in Europe. These factors will
continue to create a growing market for the pharmaceutical industry in the future, although
questions remain on whether the branded pharmaceutical companies will be able to capture this
growth.

Entry

The barriers to entry in the pharmaceutical industry, and specifically within the branded drug
market, are some of the highest among any industry. This is the consequence of several factors:
the high risk, high reward nature of the industry, the strong intellectual property and patent laws
(at least in developed countries), the need for extensive research, regulation and sales expertise,
and the capital intensive process required to develop and manufacture prescription drugs.
Perhaps the most significant barrier to entry are the enormous R&D costs. The development of a new drug can take 10 to 15 years and cost more than $800 million. Out of every 5,000 compounds discovered, only one on average reaches the market. Of the products that reach the market, only one-third have high enough sales to cover their R&D costs. To help put it in perspective, the US pharmaceutical industry spent $38.8 billion in 2004 on R&D, equal to 18.8% of domestic pharmaceutical sales, while the average US manufacturing firm spends less than 5% of its sales on R&D. Therefore, while the potential benefits from developing a blockbuster drug (a drug with sales of over $1 billion) can be enormous, the huge initial investment required combined with the minimal probability of success makes it an incredibly risky venture.

In order to ensure that companies that make this initial investment are rewarded for their innovation, the United States and developed countries have instituted strong patent protection laws to give drug companies sole rights to the manufacturing and distribution of their products. These patents last for 20 years although by the time the drugs are FDA approved and arrive in the market the patents are valid for roughly another 10 years. There are two types of patents, those for the chemical structures (composition patent), and those for the method of manufacture (process patent), which is the weaker of the two. The composition patent is significant because even if an outsider knows the chemical makeup of the product, this firm cannot produce the drug until the patent has expired. This prevents entry into the sub-market; although once the patent expires there are generic companies that quickly replicate the drug, dividing the sub-market up between multiple competitors. However, other firms can enter the sub-market through the development of “me-too” drugs, which are unique chemical entities that mimic the effect(s) of the incumbent drug.

Entry into this market also requires intensive knowledge of the regulatory system and legal obstacles facing FDA drug approval. Deficient of this knowledge, the incredibly complex process would be insurmountable. Finally, an experienced sales force is essential to maximize sales of the drugs that reach market; without this it would be difficult to recoup the costs required to develop the drug in the first place.

Substitutes and Complements
If a pharmaceutical company develops and sells a drug with unique benefits, this drug may have no direct substitutes, giving the company a monopoly in the sub-market. Often in this situation a competing company will introduce a compound that has similar benefits to a drug already in the
market. The introduction of these “me-too” drugs increases the competition in this particular sub-market and decreases the pricing power of the firm that produced the incumbent drug.

Another major form of competition comes from generic drugs. As explained earlier, when a patent expires it allows generic drug companies to make chemical replicas of the brand drug. While generic companies claim these to be perfect substitutes for the brand drug, branded pharmaceutical companies often claim that their drugs are more effective. This type of substitute is a considerable threat to the revenues of the branded pharmaceutical companies. Generic drug sales are forecasted to grow at a compounded annual rate of 22.4% in North America between 2004 and 2008, increasing to $37.8 billion by 2008. The introduction of generic drugs into the market can force the price of the innovative drug to drop by as much as 80% in just a few months. This is clearly a major obstacle to the continued growth of the pharmaceutical industry, yet no effective strategy has been found to combat this trend.\textsuperscript{xv}

Certain alternative medical procedures or products may be substitutes for prescription drugs. For example, angioplasty may be a substitute in certain situations for a drug that clears clogged arteries. In eastern medical practices, herbs or acupuncture often serve as substitutes for pharmaceutical drugs, and psychiatry can often replace the use of anti-depressants.

Complements include doctor and hospital visits, and medical procedures that may require pharmaceutical drugs to enhance their effectiveness. Psychiatry can also be a complement to certain drugs, if a psychiatrist instructs his or her patient to take drugs in addition the counseling.

**Buyer Power**

Traditionally, buyer power has been relatively limited in the pharmaceutical industry. There are three separate markets where pharmaceutical products are sold. The first market, which has usually been the largest, is the retail drug store. In this market, physicians prescribe a drug, and then consumers or their insurance companies pay for the drugs that the patients pick up from the store. Because these actions are separate, and payers have limited influence over what the doctor prescribes, this leads to relatively insensitive pricing. Retail prescription drug prices increased an average of 7.4% a year from 1993 to 2003. The second market is the managed care group or hospital. These institutions limit the drug options for doctors through the use of formularies, which are lists of acceptable drugs to prescribe. Because these groups are buyers for a large number of patients, they have some market power. This allows them to work out bulk
agreements where they receive some discounts. The third market is the government market, where state and federal governments purchase drugs for various programs and groups. The market power of the federal government is similar to the previous group, and government organizations often negotiate for the steepest discounts.

Buyer power has increased recently, threatening the high margins that the industry has historically enjoyed. Governments, managed care organizations (MCOs), and third party payers are all using their purchasing clout to secure discounts on bulk purchases from pharmaceutical companies. The Medicare Prescription Drug, Improvement and Modernization Act of 2004 (MMA) recently went into effect on January 1st of 2006. The MMA enables all 42 million Medicare eligible Americans to have their drug purchases paid for by the federal government. This makes the federal government the nation’s largest purchaser of prescription drugs. But the government itself isn’t negotiating contracts; instead, it given this responsibility to the Centers for Medicare and Medicaid Services (which include MCOs and private health insurers) to conduct competitive bidding from plans of managed care organizations and private health insurers. Therefore, the CMS will have increased incentives to acquire drugs at lower costs, and the possibility of huge volume sales through the government increases their potential purchasing power.

MCOs have recently placed increased emphasis on the reduction of drug spending costs. This is being done through tiered cost paying, prior authorization, step therapy and therapeutic substitution, all of which encourage consumers/patients to select generic drugs. Consumer-driven healthcare is another tool that MCOs are using to encourage consumers to seek generic drugs instead of the costlier brand name drugs. The popularity of these plans has grown rapidly; in December 2004 there were only 560,000 people enrolled in this program and by October of 2005 there were 4 million people enrolled. Pharmaceutical benefits managers and insurance companies are also looking to push generics over brand name drugs. When a drug is removed from an insurer’s formulary it means that the insurer will no longer help a patient pay for the drug. This is clearly a powerful tool for these large third party purchasers, and it gives them significant leverage in the negotiating process because consumers would refuse to sign up with insurance companies and governments with MCOs if they didn’t cover the medications demanded.
However, buyer power is not as substantial as one might initially think based on these trends. Patients still need to take certain medications, and if there are a limited number of substitutes that have the same therapeutic benefits, then the pharmaceutical company can maintain relatively high prices. Drug prices are relatively inelastic, as it can be difficult for a patient to switch regimens, particularly for a serious illness, reducing the impact of price increases.

Supplier Power
Inputs for the pharmaceutical companies consist primarily of laboratory/research equipment, production/manufacturing equipment, chemical materials, and packaging and labeling materials. The laboratory equipment and manufacturing equipment producers may have some power over pharmaceutical companies. Drug development and production may require very specific, advanced equipment that has few alternatives. In this case, because the pharmaceutical industry isn’t very concentrated, suppliers may have some power due to their ability to take bids from the various downstream firms. On the other hand, chemical inputs and packaging and labeling materials tend to be homogeneous products, so pharmaceutical companies can easily seek out a new firm if their supplier is charging too high of a price.

Some pharmaceutical companies outsource their R&D. Firms that perform this service may have significant leverage over the pharmaceutical companies that rely on them to discover new products. If a pharmaceutical company has made an agreement to outsource R&D, it may be very costly for it to switch research companies. An alternative in this situation is to conduct R&D in-house (where the majority of research is carried out), but the in-house capabilities may be limited or insufficient for particular therapeutic fields.

Financial Analysis
Abbott’s sales are composed of the following: worldwide Pharmaceuticals accounted for 59% of revenues in 2004, worldwide Nutritionals 20%, worldwide Diagnostics 17%, and worldwide Other/Non Segment 4%.

Abbott Laboratories’ financials appear to be relatively solid until one looks at its margins, which are substantially below its peers. Analysts are concerned by the inefficient overall cost structure, the declining gross margins, a neutral pharmaceutical product pipeline and a downward trend in Abbott’s U.S. pharmaceutical sales during each quarter of 2005. From 2003 to 2005, Abbott’s
growth rate for net sales remained in the 13% range, which is a relatively strong pace. Unfortunately, sales growth has been slowing. Analysts are doubtful that Abbott will be able to maintain growth in the 13% range, projecting a drop to the high single digits in 2006 and 2007. However, the slowdown in pharmaceutical sales is an industry wide trend, and the diminishing growth rate of Abbott’s sales in this segment is less severe than its competitors.

Graph 1: Abbott’s Sales Growth by Year

![Graph 1: Abbott’s Sales Growth by Year](image)

Note: Net sales for 2003 and prior years have been adjusted to reflect the presentation of Hospira, Inc. as a discontinued operation. 2006 and 2007 growth estimates from S&P 500 Abbott Stock Report.

What is forecasted to drive this diminishing growth rate? Abbott’s pipeline is seen as a potential weak spot for the company. Two drugs that the company held high expectations for, Xinlay and Simdax, both ran into problems in the approval process in 2005, dampening expectations of sales growth in 2006 and beyond. Xinlay was outright rejected and Simdax had disappointing study results. Biaxin and Synthroid are expected to take significant sales hits in the next few years. In other areas, Abbott’s Nutritionals business also fell short of expectations in 2005, and questions about its future performance could affect overall company growth. In order to turn this declining growth rate around, Abbott must either boost its internal R&D or make acquisitions in order to achieve continued growth. Additionally, Abbott has greatly expanded its medical device segment, and growth rates in this area are on the upward trend.
Segment-By-Segment Analysis

Abbott’s business structure can be somewhat complicated, which makes it difficult to cleanly break down each segment, particularly with the limited information that Abbott releases. Abbott has two primary groups: The Medical Products group and the Pharmaceutical Products group. The Medical Products group consists of Diagnostics, Molecular, Diabetes Care, Point-Of-Care, Ross Nutritionals, Vascular, Spine, and Animal Health. Within the Pharmaceutical Products group drugs are sold in eleven therapeutic areas, although Abbott focuses on five of these areas, including immunology, oncology, neuroscience, diabetes/metabolism, and viral diseases.

However, Abbott reports its net sales, operating earnings and total assets by four reportable business segments: the Pharmaceutical Products segment, the Diagnostic Products segment, the Ross Products segment and the International segment. Pharmaceutical consists of U.S sales of pharmaceuticals, and Diagnostic consists of worldwide sales of diagnostic systems and tests for blood banks, hospitals, consumers, commercial laboratories and alternate-care testing sites. Ross consists of primarily U.S sales of adult and pediatric nutritional products, pediatric pharmaceuticals and consumer products. Finally, International consists of Non-U.S. sales of Abbott’s pharmaceutical and nutritional products. However, Abbott only divides these segments up into two smaller groups for revenues, and does not provide details on within segment products or further revenue details. For a more in-depth revenue view it was necessary to rely on analyst reports, which divided Abbott into business groups and products beyond the major segments, and did so by worldwide revenue.

Through a basic segment analysis of sales growth, return on assets and operating margins for we will gain a better picture of which areas are strong and which need improvement. As we can see from the graph below, revenue in all four of Abbott’s reportable segments has grown since 2003, but the primary concern centers on maintaining high growth rates.
Graph 2: External Net Sales by Reportable Segment, in Millions

The Pharmaceutical Products Segment (U.S. sales) has exhibited solid but declining revenue growth rates of 19.5% in 2003, 15.8% in 2004, and 16.1% in 2005. These were driven by double digit volume growth in 2003 and 2005, and a combination of high single digit price and volume growth in 2004. Breaking down Pharmaceuticals into Primary Care and Specialty product group sales, we see that in 2003 and 2004 these segments saw increased sales of over 20% annually (Primary Care: 26% in 2003, 22% in 2004; Specialty: 23% in 2003, 28% in 2004), although this dropped to 18% for both segments in 2005. Primary Care Products were positively impacted by sales of Mobic, TriCor, Omnicef and Flomax, and increased sales of Humira favorably impacted Specialty Product Sales. The slowdown in pharmaceutical sales growth is more pronounced globally. Revenue grew by 38.4% worldwide in 2003, but this rate diminished to 13.4% in 2004, 9.9% in 2005 and is projected to fall to 5.8% in 2006, all excluding BI sales. Because the Pharmaceutical Products Segment is Abbott’s largest, with $11 billion in 2005 sales (Ex-BI), Abbott must be actively working to reverse this trend.

For worldwide Pharmaceutical Products Group revenue, Humira led the way in sales, jumping from $852 million in 2004 to $1.4 billion in 2005. Analysts expect Humira to be approved for four new indications over the next two years, and Humira is projected to grow 35.4% in 2006 and reach sales of $2.9 billion by 2008. Sales of Biaxin and Biaxin XL, a class of broad-spectrum antibiotics, dropped 9.9% in 2005 to $1.07 billion, and are expected to continue to fall by –13.7% in 2006. Depakote, a leading antiepileptic and bipolar disorder drug increased 6.7% to $1.1 billion in sales for 2005, and is expected to grow by 5.3% in 2006. Kaletra, an anti-HIV
medication ($1 billion, up 12.2%) and cholesterol treatment TriCor ($927 million, up 18.9%) round off the top products for this Group, and analysts expect both to deliver double digit growth rates in the upcoming year.

Patent concerns are relatively limited for Abbott, although Biaxin is already seeing the effects of patent expiration in 2005. Abbott successfully defended the Biaxin XL franchise against generic competition this past year, and according to analysts the generic version of this drug is not a perfectly substitutable drug. The U.S. composition of matter patent for Depakote expires in 2008, and the threat of generic competition is considerable given the drug’s status as a blockbuster drug. The following are the expiration dates of patents associated with various Abbott drugs: U.S. composition of matter patent covering Kaletra, 2016; principal U.S. non-composition of matter patents for TriCor, 2009, 2011, 2018, and 2020; U.S. matter patents covering Humira, 2016; and the U.S. composition of matter patent for Prevacid and Ogastro, licensed by TAP from Takeda, 2009. With the Big Pharmaceutical companies losing an estimated $23 billion in 2006 sales to generic drugs, the industry outlook is troubled. Comparatively, Abbott’s major pharmaceutical products are well protected, and with moderate pipeline production Abbott should be able to at least recoup the lost sales from expiring drug patents.

Abbott also owns a 50% share of TAP Pharmaceuticals Products Inc., a joint venture with Takeda Pharmaceuticals. Worldwide pharmaceutical product sales for TAP have been trending downward over the last 3 years, from $4 billion in 2003 to $3.4 billion in 2004 to $3.2 billion in 2005, with projected revenues of $3.1 billion in 2006. TAP Pharmaceuticals relies heavily on Prevacid, a proton pump inhibitor. Although the patent on Prevacid doesn’t expire until 2009, sales have been decreasing recently, contributing heavily to the overall decline in TAP total sales. Once the patent for Prevacid expires, sales of the drug are projected to plummet to $367 million in 2010E, down from $1.8 billion in 2009E. Sales of Lupron, TAP’s second largest revenue producer, have also been falling. However, TAP will be introducing several new products over the next few years. The success of these products is essential in determining whether Abbott will want to continue ownership in TAP. If these pipeline drugs encounter significant approval problems, TAP could experience serious financial hardship, and Abbott should avoid getting into a situation where their cash flow is dragged down by a struggling joint venture.
The Diagnostic Products segment\textsuperscript{xiv} (worldwide sales) has seen 11% growth over the past two years, a significant improvement from the 5% increase in 2003. This has been driven primarily by volume increases, as prices have declined slightly over the past two years. Exchange rates have also contributed to the increased growth, driven by a relatively weak dollar during this three-year period. The Immunochemistry group within Diagnostics has seen low growth rates of 3% in 2003 and 2% in 2004 and 2005, with Hematology group sales within the Diagnostics segment actually shrinking in 2005. According to an industry insider, Abbott’s new immunochemistry product is better than the competitors’, so Abbott should see an increase in future growth rates; however, this prediction is contradicted by analyst projections of only small increases in future sales. On the other hand, Diabetes Care sales have skyrocketed, increasing 10% in 2003, 46% in 2004 and 35% in 2005.\textsuperscript{xv} The market for diagnostic products related to diabetes is growing rapidly due to the increasing percentage of diabetics in the population. But Abbott’s market share is growing faster than the overall market, as the Company is taking market share from the other three industry leaders, Roche, Johnson & Johnson and Bayer. Also showing significant gains is the Molecular group, with growth rates of 11.3% in 2004 and 27.3% in 2006. Abbott has an opportunity to increase its presence in the molecular market, which has an estimated $2 billion in sales a year. Roche, the industry leader, is taking an extended time to release their new products. Therefore, Abbott should have the opportunity to increase market share and sales in the upcoming years as its next generation devices come out simultaneously with Roche’s.

The Ross Products segment (primarily U.S. sales) bounced back from a difficult 2003 year of only 2.3% sales growth to post 8.9% and 8.5% sales expansion over the past two years. This has been driven entirely by increases in the volume of sales, as prices have declined for three consecutive years. U.S. Pediatric and Adult Nutritionals have both seen inconsistent growth over the past 3 years. Pediatric Nutritionals experienced changes of 9% in 2003, 5% in 2004, and –4% in 2005, a worrying downward trend. Abbott’s 10K for 2005 blames this on an overall decline in the infant nutritionals non-WIC category. Abbott suffered from a slowdown in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), a federally funded preventive nutrition program, and experienced competitive share loss to Mead and Carnation. Adult Nutritionals, on the other hand, went from –3% growth in 2003 to 15% growth in 2004 and 2005. This is because Abbott acquired ZonePerfect in the third quarter of 2003 and EAS in the fourth quarter of 2004, greatly expanding the Company’s Healthy Living product offerings.\textsuperscript{xvi}
The International segment (non U.S. sales of pharmaceuticals and nutritional products) has seen sales increases of 13.5% in 2003, 15.9% in 2004, and 13% in 2005. These have been driven by increases in sale volume and exchange rate changes, while prices have decreased slightly over the last two years.xxvii

The final Abbott business group, Non-Segment, is currently only a minor part of Abbott’s total sales. However, the products within this group have high growth potential, and they are an important aspect of Abbott’s diversification strategy. Non-Segment is divided into Vascular Closure, Coronary Drug Eluting Stents, Spinal Concepts and Other (which includes the carotid stent). The Vascular group will receive a substantial boost from its recent acquisition of Guidant’s vascular business, with revenues from Guidant’s segment expected to top $1 billion within the next two years. While Abbott is a recent entrant into many of these markets, many of the products within these groups are projected to have tremendous sales growth, with overall Non-Segment revenue increasing by 55.5% in 2006E, 52.5% in 2007E, and 39.6% in 2008E.

**ROA Analysis by Segment**

Graph 3: Operating Return on Assets by Segment (ROA)

<table>
<thead>
<tr>
<th>Segment</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical</td>
<td>86.95%</td>
<td>84.47%</td>
<td>73.82%</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>7.96%</td>
<td>10.24%</td>
<td>13.23%</td>
</tr>
<tr>
<td>Ross</td>
<td>75.08%</td>
<td>69.95%</td>
<td>54.19%</td>
</tr>
</tbody>
</table>

As we can see in Graph 3, the Pharmaceutical and Ross Segment’s ROAs have decreased over the past three years. The downward trend of ROA, a measurement of managerial performance, suggests that Abbott must increase either the operating margin or asset turnover for these
segments. Further analysis reveals that both asset turnover and operating margins have been trending downward for these Segments. This is contrasted by the performance of the Diagnostics Segment, which has seen increasing ROA, operating margins and asset turnover. The decreasing profit margins will be discussed further in the next section to explain why these trends are occurring.

**Margin Analysis**

Graph 4: Comparison of Abbott’s 2005 Gross Margin, Operating Margin and Operating Cost/Revenue to its competitors’

![Graph 4](image)

Note: For full data table of Abbott and competitors’ Operating Cost/Revenue for 2002-2005, please see the Appendix.

Table 1: Gross and Operating Margin, Competitor Comparison

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott</td>
<td>52.4%</td>
<td>54.9%</td>
<td>55.0%</td>
<td>55.4%</td>
<td>19.5%</td>
<td>19.8%</td>
<td>17.2%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>72.4%</td>
<td>71.7%</td>
<td>70.9%</td>
<td>71.2%</td>
<td>27.0%</td>
<td>27.1%</td>
<td>24.6%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Bristol Myers Squibb</td>
<td>69.1%</td>
<td>69.1%</td>
<td>71.0%</td>
<td>63.9%</td>
<td>23.5%</td>
<td>22.8%</td>
<td>25.1%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>76.6%</td>
<td>78.4%</td>
<td>80.3%</td>
<td>81.3%</td>
<td>33.5%</td>
<td>34.8%</td>
<td>40.3%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Pfizer Inc.</td>
<td>83.4%</td>
<td>85.6%</td>
<td>78.6%</td>
<td>87.6%</td>
<td>22.5%</td>
<td>26.7%</td>
<td>7.3%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Average</td>
<td>70.8%</td>
<td>71.9%</td>
<td>71.2%</td>
<td>71.9%</td>
<td>25.2%</td>
<td>26.2%</td>
<td>22.9%</td>
<td>28.6%</td>
</tr>
</tbody>
</table>
The downward trend of Abbott’s gross margin, seen in Table 1, is of concern because it may reflect a reduction in Abbott’s possibly weak pricing power. The company attributes the drop in 2005 to an unfavorable product mix caused by an increase in sales from Boehringer Ingelheim (BI) products, which have lower gross margins than other Pharmaceutical segment products. This may explain the substantial drop in the operating margin from 2004 to 2005 for the Pharmaceutical Products Segment. The agreement to distribute and co-promote two BI drugs expired in 2005, and the agreement for the third ends in 2006. Therefore, the operating margins for the Pharmaceutical Segment should return to their prior level. Since 2003, the Ross Products Segment’s operating margins have declined. As we saw in our Segment Analysis, competitive pricing pressures have forced Abbott to cut prices for products in this group. In particular, Abbott has lost market share in competition in pediatric nutritionals with Mead Johnson and Carnation, in turn pushing Ross segment’s gross margins down. While the operating margins for Pharmaceutical should bounce back, it’s not clear the same will occur for the Ross segment. The Diagnostic segment, on the other hand, has seen a continuously rising operating margin over the past few years. This is an important trend that should significantly improve Abbott’s overall operating margin, assuming the other segments’ margins don’t continue to slip. xxviii Roche, the industry leader in the diagnostic products field, has an operating margin of roughly 20% for its diagnostic division. While Abbott is currently only at 13.1%, it is moving in the right direction.

Returning to the industry comparison for gross margins, it is clear that Abbott is significantly behind its rivals. In fact, a 2005 PharmExec.com study of the top sixteen pharmaceutical companies ranked Abbott last in terms of its gross margins, and it was a full 8% behind its closest competitor. One explanation is that Abbott is more diversified than its peer group, which consists primarily of companies that receive a majority of their revenue from pharmaceutical products. Pharmaceutical products have much higher gross margins than diagnostic products; however, Johnson & Johnson, which had a 20% points higher gross margin in 2005 than Abbott is also diversified, and receives a large percent of its revenues from diagnostic and medical device products. Despite the possible explanation of lower margins from diagnostic products, there is a substantial gap between Abbott and its peer group. What makes this even more surprising is that Abbott spun off its hospital products segment in 2004 because the product margins within this group were so low. Yet the gross margin actually decreased the following year. Why are gross margins so low? There are two possible explanations, and without further information we are unable to determine which is the greater problem. Low pricing of Abbott products is the first potential area of concern, which could stem from the following: Abbott may
have limited pricing power, meaning they don’t have the market share that enables them to increase the prices (and therefore profit margins) on their products, or Abbot doesn’t have highly desired products or aren’t marketing them effectively. Alternatively, Abbott may be pricing its products low in order to gain market share. The other possibility is that Abbott’s cost of revenue may be much higher than competitors. In 2005, Abbott initiated restructuring changes to improve gross margins, suggesting that they are aware of this problem and attempting to correct through a cost reduction by decreasing manufacturing complexity, globalizing its supply chain, and shifting resources to areas of future growth. The realignment of global manufacturing operations will involve reductions in staffing, and movement of production facilities from the U.S. to Puerto Rico. These actions are expected to yield annual savings of over $200 million.

The gap between Abbott and its competitors’ margins shrink when comparing operating margins, seen in Table 1, but Abbott still trails in this category by a substantial amount. What reduces the difference between Abbott’s gross margin and its competitors and Abbott’s operating margin and its competitors? The answer lies in the operating cost/revenue ratio shown in Graph 4.

Abbott’s operating costs are significantly lower than their competitors’ as a percent of revenue. Abbott appears to be incredibly efficient, or effective, with their expenses in this category. One aspect of the operating expenses is research and development. Abbott has increased its R&D spending over the past several years, reaching $1.8 billion dollars a year in 2005. The majority of this amount is spent on pharmaceutical R&D; in 2003 $1.1 billion of the nearly $1.7 R&D budget was allocated towards this purpose. However, when compared to the industry, Abbott’s research spending as a percentage of total sales is quite low. The top 10 pharmaceutical companies in terms of total sales spend an average of almost 18% of their revenue on R&D, while Abbott spends only 8.1% of their sales on R&D.\textsuperscript{xxix} This puts Abbott at a significant competitive disadvantage in their effort to develop new drugs, but allows them to keep operating expenses low. Abbott also spends much less on selling/general/administrative expenses. The four peers compared to Abbott in Graph 4 (this measurement is not shown in graph) spend an average of 32% of their revenue on these expenses. Abbott, on the other hand, spends only 24.6% on these same areas. Abbott has sizably reduced its operating expenses in both the R&D category and the selling/general/administrative expense category, reducing the differential with its competitors on operating margin.
Additional factors that impacted gross margins from 2003-2005 include productivity improvements, higher project expenses for new products, higher manufacturing capacity costs for anticipated unit growth, and the effects of inflation.

**DuPont Analysis**

Table 2: DuPont Competitor Comparison

<table>
<thead>
<tr>
<th></th>
<th>Profit Margin</th>
<th>Turnover</th>
<th>Solvency</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott</td>
<td>15.10%</td>
<td>0.77</td>
<td>2.01</td>
<td>23.47%</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>20.61%</td>
<td>0.99</td>
<td>1.73</td>
<td>35.48%</td>
</tr>
<tr>
<td>Bristol Myers Squibb</td>
<td>15.62%</td>
<td>0.71</td>
<td>2.39</td>
<td>26.70%</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>21.04%</td>
<td>0.50</td>
<td>2.48</td>
<td>25.95%</td>
</tr>
<tr>
<td>Pfizer Inc.</td>
<td>15.76%</td>
<td>0.45</td>
<td>1.72</td>
<td>12.21%</td>
</tr>
<tr>
<td>Median</td>
<td>17.63%</td>
<td>0.69</td>
<td>2.07</td>
<td>23.47%</td>
</tr>
</tbody>
</table>

Comparing Abbott’s ROE to four of its competitors’, we see that it is slightly below the median ROE, and trailing three of the four firms. For financial leverage, a proxy for how much of a company is financed by debt, Abbott’s ratio of 2.01 is again below the median but ranks in the middle of its peer group. This ratio should rise once the deal to acquire Guidant’s vascular business is finalized, because Abbott will use an estimated $2.7 billion in debt to finance the deal. This should reverse the downward trend of the financial leverage ratio since 2002, leading to an increased ROE. Abbott’s Asset Turnover ratio looks strong comparatively; it’s higher than the median and beats all but one of its competitors’ ratios. However, Abbott’s profitability is lower than any of its competitors. The 15.10% margin is the Company’s lowest since 2001, and has been trending downward from its high of 18.28% in 2002. Again, this is a source of concern and the primary driving force of the low ROE relative to Abbott’s peers.
Stock Analysis

Graph 5: Comparison of ABT to S&P 500 Index

Abbott’s stock outperformed the market from the beginning of 2001 through the start of 2004, but appears to be underperforming the market since then. During the middle of 2005, Abbott’s stock began to significantly underperform the market. This could be attributable to high hopes for Abbott products that failed to materialize, including several setbacks in the company’s
pipeline and drug approval process. A lost legal case to Baxter over *Ultane/sevoflurane* and the rejection of *Xinlay* (for refractory prostate cancer), combined with disappointing results from the *TriCor* FIELD study, the *Simdax* REVIVE-2 study and the *Simdax* SURVIVE study contributed to the stock price decline (*Simdax* is used for acute decompensated heart failure). However, some of the drop in stock performance is likely attributable to the industry wide trend, as we can see that Abbott’s peers suffered as well in 2005 in comparison to the S&P 500 Index.

Abbott’s difficulties with its share price have actually have been somewhat perplexing. Over the last three years, Abbott shares have gained only 16%, or one-third as much as the S&P 500. However, Abbott has paid dividends without interruption since 1924. This February, the company announced its 329\textsuperscript{th} consecutive quarterly dividend, and the stock presently yields 2.7%. Long-term earnings growth is projected at 10% annually, ahead of the drug industry’s growth projections. Yet like the AMEX Pharmaceutical Index shown in graph 6, after two years Abbott’s shares have grown by the same amount — about 0%.

Table 3: Stock Multiples Comparison

<table>
<thead>
<tr>
<th>Multiples</th>
<th>P/E</th>
<th>EV/EBITDA</th>
<th>EV/Sales</th>
<th>Price/Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott</td>
<td>19.9x</td>
<td>10.725x</td>
<td>3.09x</td>
<td>4.53x</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>17.1x</td>
<td>10.527x</td>
<td>3.22x</td>
<td>4.65x</td>
</tr>
<tr>
<td>Bristol Myers Squibb</td>
<td>16.33x</td>
<td>9.554x</td>
<td>2.66x</td>
<td>4.3x</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>16.82x</td>
<td>7.037x</td>
<td>3.16x</td>
<td>4.29x</td>
</tr>
<tr>
<td>Pfizer Inc.</td>
<td>23.05x</td>
<td>8.569x</td>
<td>3.49x</td>
<td>2.8x</td>
</tr>
</tbody>
</table>

We see a similar trend in the movement of Abbott stock and its peer group. For the first half of the past year Abbott’s stock outperformed all of its competitors for the majority of the period. However, Abbott’s downward trajectory, similar to the path of its competitors’ stocks, took a turn for the worse after the disappointing study results. The higher P/E multiple for Abbott implies that investors believe Abbott has greater growth potential than its competitors, excluding Pfizer. The enterprise value/EBITDA multiple, used to determine the value of the company, suggests that Abbott is worth more than its competitors. Abbott appears better positioned in comparison to several of its peers, particularly those focused solely on the pharmaceutical market, due to the manageable generic threat that its prescription drugs face over the next few years, and the diversification of the company. While Abbott still relies on the Pharmaceutical Products segment for almost 60% of its revenues, the expected growth of its Medical Products Group should provide solid increasing sales for the company.
Strategic Issues and Recommendations

Central to Abbott’s current business strategy is diversification. The Company believes that through expanding its wide range of product offerings it can gain advantages over its competitors. These advantages include scientific insights, enhanced knowledge of the many facets of providing health care, and learning to work more effectively with healthcare professionals. It appears that this strategy is working. In addition, Abbott is protecting itself from the cyclical nature of the pharmaceutical industry through diversification. Abbott’s acquisition of Guidant’s vascular business is a signal that the company is placing increasing emphasis on non pharmaceutical products, and perhaps even shifting their main focus to medical devices in order reduce their reliance on the riskier pharmaceutical drug R&D process.

Abbott is seeing sales growth in all three of its major segments, and positive net income. However, two of the segments, Pharmaceuticals and Diagnostics, are in industries where the growth rates are lower than they were ten years ago. Therefore, this shift towards medical devices is well timed. Earnings for the medical device industry grew 18% to 19% in 2005, with revenues in 2006 expected to increase by 13% to 14%. This is significantly above the increases expected for the pharmaceutical industry, which are expected to drop to 6% to 7%. Pandora Group recommends that Abbott continue to build up its medical device practice, but not allow it to drain R&D expenditures away from the Pharmaceutical segment.

The nutritional industry has seen flat sales in all areas except the consumer products sector. This is where Abbott’s Healthy Living products are located, consisting primarily of EAS and ZonePerfect. These are more like consumer products than medical products, which explains why Abbott recently put the former head of Wrigley in charge of Ross Products. Pandora Group encourages Abbott to give increased priority to the importance of the Healthy Living division within Ross Nutritional and expand these products offerings. This trend must continue, because the Ross’s pediatric nutritionals do not appear to have a bright future. Additionally, Abbott will be able to differentiate Healthy Living products much more easily than pediatric nutritionals. EAS and ZonePerfect are important brand names in this sector, and Abbot must grow these segments and their loyal consumer base.
Pandora Group recommends that Abbott maintain its strategy of focusing on innovative, high growth and high margin types of business. Although certain segments within their Medical Products Group are seeing low growth rates, particularly immunochemistry and hematology, diagnostics is a unique business that makes it undesirable to cut back either of these areas. Furthermore, it appears that the new generation of immunochemistry instruments will have longer life cycles in, meaning that R&D costs will drop for this segment.

Pandora Group notes that Abbott forms teams between the pharmaceutical and medical products units in order to encourage the development of products in both areas. Examples of this include drug-eluting stent programs, biomarkers, and diabetes management. However, according to a former VP of Strategic Programs for one of Abbott’s diagnostic businesses, Abbot does not leverage synergies between groups as well as they should. While this VP notes that no one in the diversified pharmaceutical industry does a very good job of leveraging synergies, and that Abbott is no worse than its competitors, it still appears that Abbott could focus on improving cooperation between its segments. Abbott should look at the incentive issues working against such cooperation. Pharmaceutical groups often don’t want to work with diagnostic groups because the diagnostic products may reduce the potential market for the pharmaceutical drugs. Abbott needs to move beyond this, recognizing that through testing the pharmaceutical group may be able to design drugs that are more effective, based on the specific information of individual patients gathered as part of test results.

Abbott’s margins are a substantial concern to Pandora Group. Through the financial analysis, it was clear that the company has inefficient cost structures that are leading to declining gross margins. Abbott is aware of this problem and is currently addressing the issue with substantial restructuring. The effects of this undertaking cannot be fully assessed until roughly 2007, although the Company claims it will lead to $200 million a year savings, and most of these savings will go towards improving gross margins. Another cause of Abbott’s low gross margins is lack of pricing power. However, Abbott lags far behind its competitors’ gross margins and must continue to cut the cost of goods sold and increase pricing power through careful product development choices (i.e. prescription drugs have much higher margins than over-the-counter drugs). Abbott must also be wary of declining operating margins for the Ross and Pharmaceutical segments, and should be vigilant about maintaining the rising operating margins for the Diagnostic Products segment.
Abbott has been able to remain competitive despite its low R&D rate relative to sales. The problems that will stem from inadequately funding R&D have been masked somewhat by the successful purchase of the *Humira* drug which was part of Abbott’s acquisition of Knoll Pharmaceuticals. This suggests that the company may wish to continue to expand through acquisitions rather than increase their spending on the R&D for their pharmaceutical products. Abbott appears to have the financial capabilities to purchase other companies; it has a consistent enough cash flow and it could afford to increase its debt. However, relying solely on acquisitions of therapeutic startups may be risky. If both parties to a merger are fully informed, buying other companies will not provide Abbott with higher than normal rates of return. Raising R&D spending has the most potential to increase Abbott’s pricing power in the long run. Nevertheless, before Abbott substantially increases their R&D spending they must improve its high cost of goods sold. If Abbott raises R&D spending before lowering its cost of goods sold and before R&D can provide new products with high markups, the Company’s gross margin situation could get significantly worse.

As Abbott thinks about R&D opportunities, Pandora Group recommends that the Company look towards the biotech industry for continued growth. While U.S. prescription drug sales grew by 5.4% in 2005, sales of biotech and generic drugs drove this increase, respectively gaining 17.2% and 20.6% of the growth. The brand pharmaceutical industry faces increasing pressure from generic drugs. While Abbott is in decent shape, planning ahead to ensure continued flow of new patentable products is essential in this industry. Today, biotech drugs are less susceptible to generic pressure because the industry is relatively new, so generic companies may not catch up to the new technologies in time. More importantly, however, is the fact that biotech products are generated through the use of microorganisms and DNA, and are much more difficult to copy than the comparatively simple molecular compounds that the big pharmaceutical companies use for their drugs. *Humira*, according to one analyst, is a protein-based drug, making it extremely difficult to make a generic version of it. Abbott needs to create more drugs that will allow it to maintain market share after the patent expires, and Pandora Group believes Abbott will be able to do this through Biotech acquisitions that will provide the scientific know-how to undertake successful R&D.
Appendix

Appendix Table 1: Operating Cost/Revenue, Competitor Comparison

<table>
<thead>
<tr>
<th></th>
<th>Operating Costs/Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott</td>
<td>32.83%</td>
</tr>
<tr>
<td>Johnson &amp; Johnson</td>
<td>45.34%</td>
</tr>
<tr>
<td>Bristol Myers Squibb</td>
<td>45.62%</td>
</tr>
<tr>
<td>Merck &amp; Co.</td>
<td>43.15%</td>
</tr>
<tr>
<td>Pfizer Inc.</td>
<td>60.90%</td>
</tr>
<tr>
<td>Average</td>
<td>45.57%</td>
</tr>
</tbody>
</table>

Appendix Graph 1: Operating Margin by Segment, 2003-2005

Note: The combined operating margin of these three segments does not equal the operating margin of Abbott, even when weighted. There is over $1 billion in operating costs that Abbott doesn’t attribute to a specific segment in their 10-K breakdown by segment.
**Endnotes**


x Standard and Poor’s Industry Survey: Pharmaceutical Industry

xi Ibid

xii Ibid

xiii Ibid

xiv Ibid

xv Ibid

xvi Ibid

xvii The Pharmaceutical Products Segment, through an agreement with Boehringer Ingelheim, distributed and co-promoted Flomax, Micardis and Mobic. The co-promotion segment of the agreement expired in 2005 for Flomax and Mobic, but Abbott will continue to co-promote Micardis until the end of March 2006 and will receive residual commissions from the sales of all three of this products. Abbott will discontinue distributing these products on January 1, 2006. Net sales of BI products in 2005 were roughly $2.3 billion. Therefore, if possible, BI products are excluded from prior growth rates in order to give a better comparison with future expected growth rates for years when Abbott is no longer selling these products.

xxiv Abbott used to be the largest diagnostic manufacturer in the U.S. However, in 1999 the FDA tightened manufacturing guidelines and restricted the production and sales of certain Abbott diagnostic products, causing...
Abbott to lose roughly $150 million in sales. Abbott also lost significant ground to Roche, who replaced Abbott as the U.S. leader in diagnostic manufacturing.

xxx These four firms were chosen to give a range in the types of competitors that Abbott Laboratories faces. Johnson & Johnson is highly diversified; Pfizer develops and manufactures medications for humans and animals, as well as consumer healthcare products; Merck is primarily a pharmaceutical company; and Bristol Myers Squibb develops and produces pharmaceuticals as well as nutritional products.