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Amgen and Incyte – the biotechnology acquisition

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Abstract

The main goal of this dissertation is to study the hypothesis of an acquisition in the biotechnology industry, between Amgen (acquirer) and Incyte (target). Amgen is a U.S.-based biotechnology company currently facing a decrease in sales, mainly due to an increase in the market share of generic drugs and the rise of biosimilar products. To offset the poor performance, it is looking for an acquisition in its industry, for which Incyte could be a suitable target. Incyte belongs to the U.S.-biotechnology industry, and although it has a shy presence in the market with only two released drugs, its revenues are expected to increase significantly in the near future. The combination of these companies would allow knowledge transfer about research and development process of new drugs, a stronger position in Europe, and a higher investment power to apply in R&D. The combined company would be able to decrease the number of employees due to duplication of jobs and decrease the cost of sales, as the power over suppliers increases. The potential synergies are valued at $28,522.8 million, of which $16,739.2 million are more likely to be realized. The combined firm, after the introduction of synergies, is expected to generate the same or even higher returns than the sum of the stand-alone businesses and higher growth rates, fulfilling Amgen's need of growth.

Abstrato

O objetivo desta dissertação é estudar a hipótese de uma aquisição na indústria biotecnológica, entre a Amgen (comprador) e a Incyte (empresa-alvo). A Amgen é uma empresa biotecnológica sedeada nos Estados Unidos da América que se depara com um decréscimo na venda dos seus produtos, principalmente devido ao aumento da venda de medicamentos genéricos e do crescimento de produtos biossimilares. De forma a compensar o seu fraco desempenho, a empresa procura uma aquisição na sua indústria, sendo a empresa Incyte uma possível escolha. A Incyte pertence à indústria biotecnológica americana, e, apesar de ter uma presença tímida no mercado com apenas dois produtos comercializados, espera-se que num futuro breve, as suas receitas aumentem significativamente. A combinação destas duas empresas permitiria uma transferência de conhecimento relativamente à pesquisa e processo de desenvolvimento de novos medicamentos, uma presença mais forte na Europa e ainda um maior poder de investimento para aplicar em Inovação & Desenvolvimento. A nova empresa teria a possibilidade de diminuir o número de trabalhadores devido à duplicação de postos de trabalho e diminuir os custos das vendas, por exercer um maior poder sobre os fornecedores. As sinergias foram avaliadas em $28,522.8 milhões, sendo que $16,739.2 milhões são as mais prováveis de serem realizadas. É expectável que a empresa combinada, após a introdução das sinergias, gere os mesmos ou maiores retornos, se comparada com a soma dos retornos das duas empresas separadamente, e maiores taxas de crescimento, preenchendo, assim, as necessidades de crescimento da Amgen.

Keywords: Acquisition, Biotechnology, Drugs, Valuation, Synergies, Premium
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List of Abbreviations

APV	Adjusted Present Value
COGS	Cost of Goods Sold
CV	Continuing Value
DCF	Discounted Cash-Flow
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
FCF	Free Cash-Flow
FDA	Food and Drug Administration
M&A	Mergers and Acquisitions
NOPLAT	Net Operating Profit Less Adjusted Taxes
NPPE	Net Property, Plant, and Equipment
PMI	Post-Merger Integration
R&D	Research and Development
ROE	Return on Equity
ROIC	Return on Invested Capital
RONIC	Return on New Invested Capital
SG&A	Selling, General and Administrative
U.S.	United States
WACC	Weighted Average Cost of Capital

1. Introduction

On February 2018, the American biotechnology giant Amgen announced a new strategy: acquire a company of the same industry, to overcome the weak results of 2017 and to apply its excess cash in a more profitable way.

This thesis presents the hypothesis of Amgen acquiring Incyte, another biotechnology company, and analyses both companies involved and the synergies that could arise from the combination of the two firms.

In the second chapter, the existing literature on Mergers and Acquisitions (M&A) is reviewed, where important topics such as drivers of M&A, valuation techniques, and synergies are discussed.

Then, the industry, its characteristics and the prospects for the future are analysed. The companies are also analyzed in chapter 4, where important information about the history of the companies and historical performance is discussed.

In chapter 6, the companies are valued under different methods, and in chapter 7, it is discussed the potential synergies arising from the acquisition and their valuation.

In chapter 8, details about the transaction are debated, such as the price to pay and the method of payment and in chapter 9, the post-merger integration is planned and discussed.

Finally, in chapter 10, final conclusions and arguments are presented.

2. Literature Review

2.1. Mergers and Acquisitions

2.1.1. Drivers of M&A

To merge with or to acquire another company is one of the drivers of revenue growth in a business and it represents the inorganic growth a company can achieve by buying and selling revenue growth. M&A affect the economic activity as they can influence industry concentration, competitiveness, productivity growth, or technology transfer. They often come in waves, following the economic cycle and as a response to it. Therefore, their success is very dependent on the context of the deal.

Several factors are suggested as inducers of the M&A activity such as synergies, diversification, use of excess cash, or market power, but not all of them have be proven to create value for both companies involved.

Synergies are the main reason companies do M&A. They can be operational (revenue enhancements and cost savings) or financial, and they are perceived differently by investors, as cost savings are usually more achievable. As several studies report, the expected synergies are a very important driver of M&A, and the deal will be successful if synergies are credible and realistic (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Focusing on acquiring companies in a related field gives more room to exploit synergies, such as cost savings or asset reductions. Research on this factor has shown that focus on related businesses works better than diversifying (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Most of the research shows that using excess cash to perform acquisitions is associated with value destruction. On the other hand, other study reveals that pairing “slack-poor” and “slack-rich” companies tend to increase value. This suggests that using excess cash can destroy value unless when it is used in a profitable way (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Increasing market share by performing horizontal mergers or acquisitions has been proven to provide positive returns. However, a larger market share does not improve wealth due to stronger market power, but rather by the synergies created by the combination of two companies that are very similar and use the same resources (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Research provides empirical evidence on which rationale is more profitable for the companies when doing M&A. When choosing a target, companies should be aware that different motivations have different reactions in the market and they can influence the success of the deal.

2.1.2. Is M&A worth it?

Several factors can drive M&A between firms. But, as years of deals have already shown, not all of them have been proven to be worth the money. In this section, a summary of studies that analyse whether a deal is worth it or not is presented.

Target's shareholders earn returns that proved to be both significantly and materially positive, which means the effect is large enough for shareholders or society to notice. For buyer's shareholders, returns are harder to understand. Some studies found their returns to be significant and materially negative, but others present results where most of the deals seemed to either preserve or create value. But considering all studies in aggregation, it can be concluded that buyers break even, meaning they tend to receive the required rate of return (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Other studies look at the financial performance of acquirers before and after the merger to understand the transaction's impact on the performance. A study based on the largest 50 mergers in the US between 1979 and 1984 concluded that the asset productivity of the buying firms improved after the deals, which was reflected on the higher operating cash flow returns when compared with their non-acquirer peers (Healy, Palepu, & Ruback, 1992).

To summarize, target's shareholders would agree that M&A pays off, since they tend to have positive returns, however, buyer's shareholders do not receive, most of the time, more than the required rate of return. In addition, companies involved in M&A seem to improve their performance after the deals.

2.1.3. Synergies

Synergies are defined as the additional value generated by the combination of two firms, which would not exist if the two firms were operating independently. As referred in the first section, it is the most used rationale for M&A.

They can arise in two forms, operational or financial synergies. Operational synergies affect the operations of the combined firm and are related with economies of scale, increases in pricing power, combining functional strengths and higher growth potential. Financial synergies arise from tax benefits, higher debt capacity and lower interest expense, and more opportunities to use excess cash (Damodaran, The Value of Synergy, 2005).

When an acquirer intends to buy another company, it usually offers more than the market value of the target. This difference, also called the premium, represents the value of synergies expected to arise from the combination of the two firms (Eccles, Lanes, & Wilson, 1999). However, synergies are forecasted, and the buyer can only be certain they will be realized once both firms are effectively combined. Nevertheless, the premium must be paid upfront.

In addition, not all types of synergies have the same likelihood of being realized. Research suggests that synergies related with the elimination of duplicated functions and activities are the easiest to achieve, followed by the reduction in operating costs and facilities rationalization. The harder synergies to achieve are related to revenues enhancements (Cullinan, Le Roux, & Weddigen, 2004).

Synergies are a very sensitive topic in M&A, as they are the main driver of deals. It is very important that acquirers value them correctly to avoid overpayments and take advantage of them once they are realized.

2.1.4. M&A Approach

Primarily, it is important to discuss whether the deal is a merger or an acquisition. A merger implies that two firms are combined, and a new firm is created. An acquisition involves a buyer, who purchases a stake higher than 50% in another firm, which is the target. A research performed an analysis of several studies on acquisitions and concluded that in successful mergers, bidders' returns are zero, but in successful takeovers, bidders have positive returns (Jensen & Ruback, 1983).

Then, it is necessary to decide how to approach the target. Research finds evidence that avoiding the target's management and directly make an offer to shareholders creates more value than friendly approach the firm. Because this strategy involves convincing target's shareholders to sell their share, the premium paid is usually high, benefiting those investors (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

Finally, the method of payment should be analysed. Deals paid in stock seem to provide buyer's shareholders negative returns, whereas cash-based deals have a neutral or slightly positive impact on returns but provide target's shareholders considerably higher returns (Bruner, Where M&A Pays and Where It Strays: A Survey of the Research, 2004).

2.2.M&A in the Healthcare Industry

Research suggests that there are three main drivers of M&A in the pharmaceutical industry which are the escalating R&D investment costs, patent expirations, and increasing marketing costs. To strengthen the market position and respond to the intense competitive pressure in the industry, companies merge or acquire through two main strategies. They either acquire small pharmaceutical or biotech companies to strengthen the in-house Research & Development (R&D) or they merge with direct competitors and take advantage of economies of scale and scope in their R&D programs (Demirbag, Ng, & Tatoglu, 2007).

The same study compares pharmaceutical companies involved in M&A and its peers that were not involved in M&A. It founds that M&A does not decrease performance when using Return on Invested Capital (ROIC) as a performance measure, but when using Profit Margin, companies involved in M&A performed better than non-M&A companies in the post-M&A period. This suggests that engaging in M&A allowed companies to take advantage of economies of scale and scope, and also indicates a better management of supply and distribution channels.

Comparing the benefits of mergers and acquisitions in this industry, research finds that mergers provide no abnormal returns to shareholders and there is no improvement of Return on Equity (ROE). On the other hand, takeovers provide positive abnormal returns, in short, and long-term. Although acquisitions seem to perform better, they only account for 36% of all the transactions (Hassan, Patro, & Wang, 2007).

2.3.Valuation Techniques

Behind every decision of M&A, companies, and experts in the field use several techniques that allow the estimation of the true fair value of the unit to be acquired or merged. In the past 25 years, a trend towards more formal and institutionalized models has become more explicit (Luehrman, What's It Worth? A General Manager's Guide to Valuation, 1997).

In the following sections, the models that proved to be more accurate in the recent past (Kaplan & Ruback, 1996) are presented, as well as their advantages and limitations.

2.3.1. Cash-Flow Based Valuation

The Discounted Cash Flow (DCF) model discounts to the present the future Free Cash-Flows (FCF), which is the cash-flow available to both equity and debt holders, and any other nonequity investor, at the appropriate discount rate, that should reflect the risk of the expected cash-flows. The enterprise DCF model gives the Enterprise Value, which is then subtracted from the market value of debt and other nonequity claims, to obtain the Equity Value.

Weighted Average Cost of Capital

The most commonly-used DCF model discounts the future cash-flows using the Weighted Average Cost of Capital (WACC), which assumes the capital structure remains constant throughout the period. This is the simplest version of the model since cash-flows are discounted always at the same rate.

The WACC represents the returns that all investors in a company expect to earn from their investments in a business instead of investing the same funds in others with similar risk. Therefore, the WACC takes into consideration the cost of equity and the after-tax cost of debt, weighted by the company's capital structure.

Although it is easily applied, using a constant WACC in a DCF model has drawbacks that can make its use less convincing. It assumes that the company to be valued does not expect its capital structure to change. To be correctly applied, one should compute for each year a specific WACC, which is both difficult and time-consuming (Kaplan & Ruback, 1996). In its basic structure, it only addresses tax effects, and when a company has a complex capital structure, it struggles to give accurate results (Luehrman, Using APV: A Better Tool for Valuing Operations, 1997).

2.3.2. Comparable Valuation

A Comparable Valuation, also known as Multiples, has also proven to be accurate in valuing companies (Kaplan & Ruback, 1996). The idea behind this type of valuation is that similar assets should be sold at similar prices. Therefore, similar companies should be traded at similar prices, as well.

The price of an asset can be obtained through two different multiples: industry or transactions multiples. Industry multiples allow the comparison between companies or assets in the same industry, with similar performance. Transaction multiples are based on recent and similar transactions of the same type asset.

A Comparable Valuation is simple and easy to perform. Also, some multiples incorporate data from the capital markets, which reflect the expectations from investors. However, some multiples are easy to manipulate, because some items can be changed to get good multiples (depreciation or provisions). Besides, a good peer group is necessary to be able to compare companies accurately.

Both DCF model and Comparable Valuation already proved their utility to perform company valuation. As they provide different insights of valuation, the two techniques should be combined, to get more robust and accurate results (Kaplan & Ruback, 1996).

2.4. Post-Merger Integration

The Post-Merger Integration (PMI) is one of the main topics of discussion nowadays when it comes to M&A deals. It refers to the process that happens after a deal is finished and where the two businesses are merged, and the assets of the combined firm suffer changes to achieve the expected synergies (Bodner & Capron, 2018).

Research shows that managers are starting to pay attention to this issue, as it seems to have a huge impact on the success of the deal (EY, 2014). It shows that, for managers, it is important to focus on the core of the acquisition, allocate resources to the integration and make sure that all the measures needed to achieve synergies are effectively implemented, and if necessary, proceed to a second wave of integration. Although companies are starting to invest more in this phase, the research shows that managers, in retrospective, would have invested more in integration.

3. Industry Analysis

The Industry

The healthcare industry is one of the most important industries in the world. Not only because of its main purpose of positively impacting the global health, by saving lives, increasing lifespan, or reducing pain, but also because of its impact on the economy. The United States (U.S.) has the largest healthcare market in the world, accounting for $444 billion in sales in 2016, more than twice the sales in Europe or Emerging Markets (Figure 1 - Global Pharmaceutical Sales in 2015 and 2016, by region (Statista, 2017)). The U.S. market has grown an average of 6% in the past years, only behind China and Brazil (Statista, 2017).

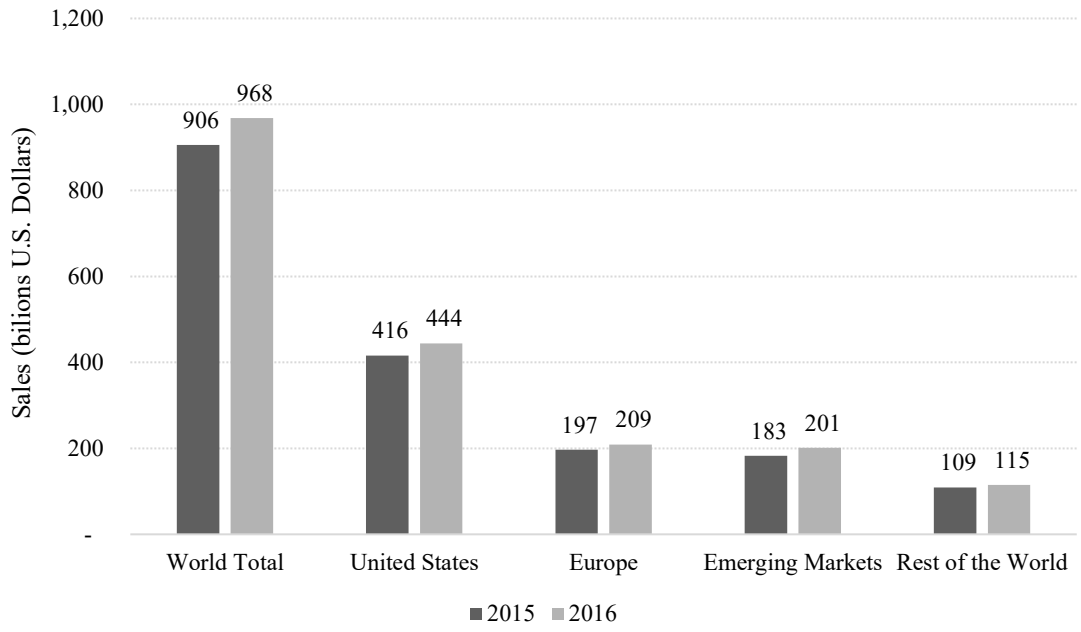

Figure 1 - Global Pharmaceutical Sales in 2015 and 2016, by region (Statista, 2017)

The healthcare industry is divided into 4 different segments and includes companies that manufacture drugs (Pharmaceuticals), produce medical equipment (Healthcare Equipment & Supplies), provide medical services (Healthcare Providers & Services), or focus mainly on research and development of new products (Biotechnology and Medical Research) (Thomson Reuters Eikon, 2018).

Although belonging to the same industry, the two companies involved in the acquisition discussed in this thesis belong to different segments. Amgen, the acquirer, belongs to the

pharmaceuticals segment and Incyte, the target, belongs to the biotechnology and medical research segment.

The main difference between pharmaceutical and biotechnology companies relies on the components used to develop drugs. Pharmaceuticals base their drugs on chemicals and artificial materials, whereas biotechnology companies use live organisms to produce their medicines. Furthermore, pharmaceuticals usually manufacture their own products, while the biotechnology companies contract with 3rd parties for the manufacturing, focusing mainly on the research of new treatments (Investopedia, 2018).

Despite belonging to the pharmaceuticals segment, Amgen is a biotechnology company, since it uses biological products as a basis for its drugs. However, it manufactures most of its products.

Competitive Analysis

As a result, the analysis of the industry relies solely on the biotechnological sector, as Amgen is exposed to similar risks as Incyte. The analysis is based on Porter's 5 Competitive Forces, which allows the study of the main risks a company faces within an industry: entry barriers, rivalry within the industry, pressure from substitutes, and power of customers and suppliers (Porter, 1998).

In the biotechnology segment, the barriers imposed to new entrants are high mainly due to the high level of investment in R&D needed to develop new pharmaceuticals and the government policy this sector is subject to, as it takes years of analysis and tests until new drugs become marketable (Amgen Inc., 2017) (Incyte Corporation, 2017). However, in the U.S. there is a supportive environment on this topic, as the intellectual property system rewards innovation through patent and data protection, encouraging R&D investments (International Trade Administration, 2016).

Biotechnological companies face intense rivalry within the segment and within the industry (International Trade Administration, 2016) (Amgen Inc., 2017). All companies want to guarantee that their investments in R&D are worth it, by assuring they have as many products in the market as possible. Also, several companies produce products that treat the same conditions, increasing the competition between them.

Companies in the industry face a moderate pressure from substitutes as products that are not protected by patents face the risk of being replaced by similar drugs, inducing an intense competition (Investopedia, 2017). However, for products protected by patents, there is no competition, as other companies cannot replicate them.

Suppliers do not have a lot of power over these firms, as there are several companies that can supply the generality of the materials (Incyte Corporation, 2017). However, there are some medical devices and raw materials that are supplied by specific 3rd parties, making the companies highly dependent on them (Amgen Inc., 2017).

Finally, although government health systems and private healthcare institutions tend to pressure firms in terms of pricing, the U.S. has the world's largest free-pricing market for drugs, making this pressure from buyers relatively low (International Trade Administration, 2016).

Outlook

For the next years, two trends are being traced regarding the future of the healthcare industry. First, the rising of biosimilar products, which are biological versions of products already approved, which now account for over a third of the products in clinical trials or awaiting approval from the Food and Drug Administration (FDA). Second, the growing use of generics, as its consumption already represents a quarter of total drugs sold, mainly due to the expiration of several patents and the reforms in the industry that favour the use of these products, since they are more affordable for patients (International Trade Administration, 2016). Although some companies may struggle to fight these products, the sector is expected to experience continuing growth, not only through the level of new drugs launched but also by an increasing level of M&A activity in the industry, as an alternative for R&D investments (Euler Hermes Economic Research, 2018).

4. Companies Analysis

4.1. Amgen Inc.

Amgen's mission is to serve patients through exploring the potential of biology to treat serious illnesses, by delivering innovative human therapeutics. It focuses on areas of highly unmet medical needs and makes major investments in expertise to find solutions that improve health but also improve people's quality of life. It has experienced an increasing growth, becoming one of the world's leading biotechnology companies.

Amgen was created in 1980 in Thousand Oaks, California by a group of venture capitalists. Three years later, the company decides to become public, raising around $40 million. In the following years, two of the most important drugs developed by Amgen are approved by the FDA. EPOGEN® and NEUPOGEN®, to treat anemia and infections, respectively, are named Product of the Year by Fortune magazine once they are launched.

In 1994, Amgen becomes the first biotechnology company to receive the National Medal of Technology, and in the following years, Enbrel® for rheumatoid arthritis, Aranesp® for anemia, Neulasta® for cancer patients, Sensipar® for kidney diseases, XGEVA® for bone conditions, Vectibix® for colorectal cancer, Nplate® for blood problems, and Prolia® for osteoporosis are approved by the FDA. Currently, it is preparing the launch of a new product, AMJEVITA®/AMGEVITA®, for inflammatory diseases, in both Europe and the U.S., which will be released in five years.

From the 2000s onwards, Amgen settled several partnerships with other companies in the industry to develop and commercialize specific products. One example is the collaboration with Actavis to develop and commercialize several oncology antibodies. The more recent partnership is with Bayer HealthCare Pharmaceuticals Inc., to jointly develop and commercialize Nexavar® for oncology patients.

Amgen has also acquired several other companies such as Immunex (2002), deCODE Genetics (2012), and Onyx – Pharmaceuticals (2013).

Amgen has strong marketing channels in the U.S. and has a strong monitoring system which controls its customers and suppliers to limit its credit exposure. On the other hand, Amgen highly depends on three large wholesalers in the U.S. and on specific 3rd parties who supply certain raw materials and medical devices. Furthermore, the company is facing increasing competition from biosimilar products and generic drugs and its sales are highly dependent on

government healthcare systems and private health insurance, that want to reduce its costs with pharmaceuticals.

It has 16 marketed products and has 35 patents registered in the U.S. and in Europe that not only protect chemical substances but also formulations and methods of treatment, which 7 of those expiring until 2020.

At the same time, Amgen is researching and developing new drugs and treatments, which builds a solid and extended pipeline of products. It has 17 products in Phase I, mainly treating bone diseases and asthma, 5 in Phase II for atopic dermatitis and lymphoma conditions and 11 in Phase III, in development to treat leukemia, inflammation, and heart failure. It is also developing biosimilar products, which have a different process of testing.

Currently, Amgen has a market capitalization of $123 billion (as of 01.02.2018), being the 5th largest company in the pharmaceutical segment and the 6th in the overall healthcare industry.

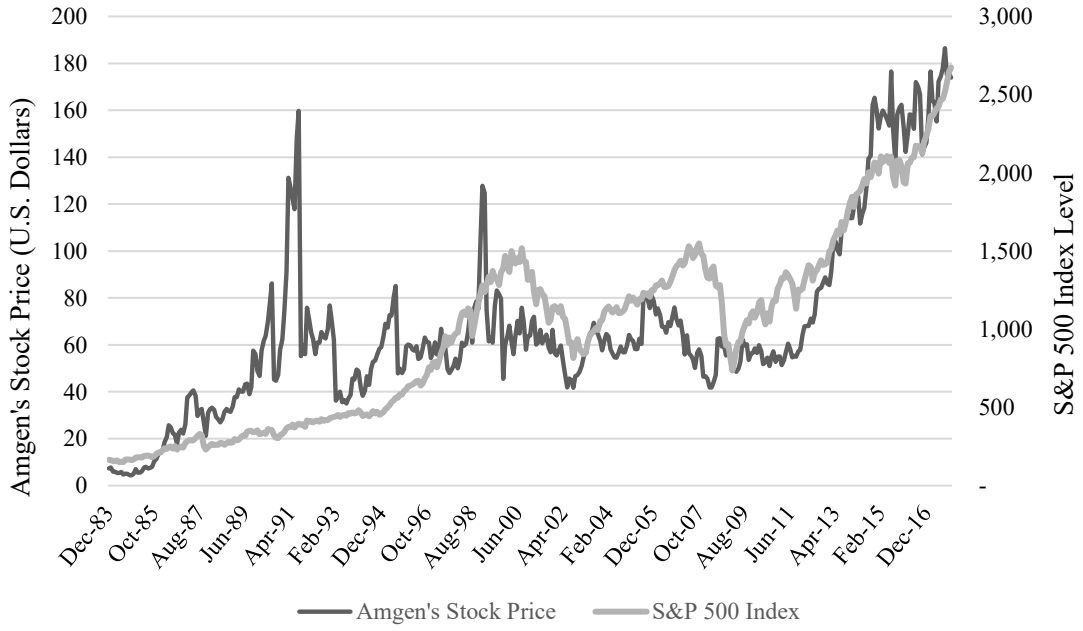

Figure 2 - Amgen's Stock Price Evolution and S&P 500 (Wharton University of Pennsylvania, 2018)

After becoming public, Amgen's stock price traced a trend of growth, with several picks along the way. The first big increase in the stock price occurred between 1989 and 1991, right after the launch of the first drugs developed by Amgen. The second pick, around 1998, was caused by the launch of the 3rd product launched, Enbrel®. After surviving the financial crisis with low impact on the market value, Amgen's stock price increased substantially, following the trend

of the S&P 500. As of 01.02.2018, Amgen's stock price was at $185.56 and trying to recover from a decrease caused by the release of the results of 2017 (Figure 2 - Amgen's Stock Price Evolution).

In 2017, it was the 7th company in the industry with the largest revenues (Figure 3 - Revenues of Top10 biotech and pharmaceutical companies in 2017).

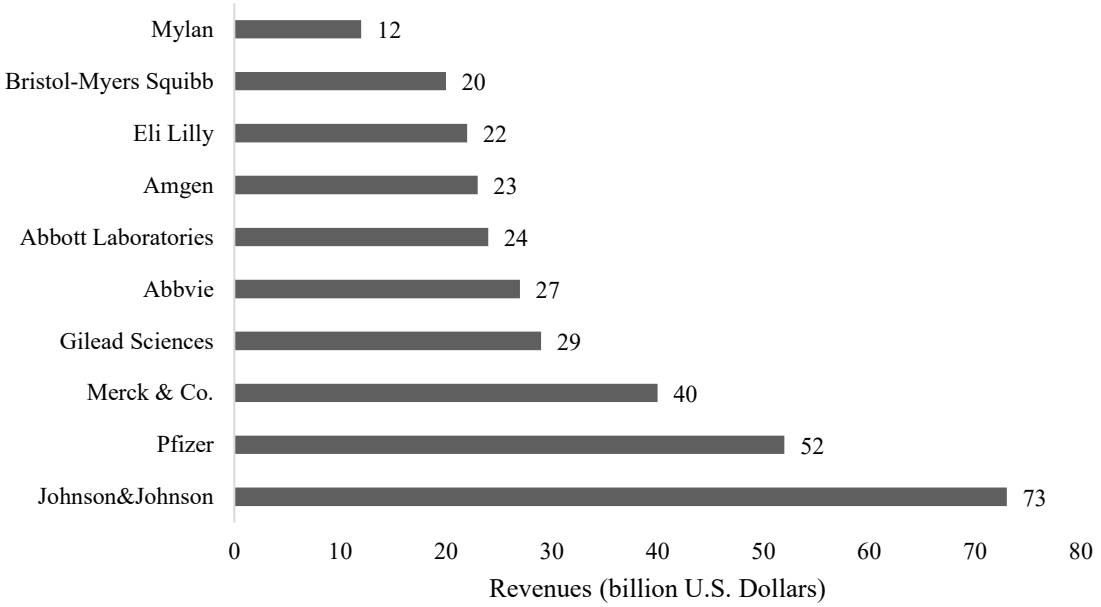

Figure 3 - Revenues of Top10 biotech and pharmaceutical companies in 2017 (Statista, 2017)

In the last 10 years, revenues grew at an average rate of 4.4%, despite the decrease in sales in the past year. This decrease was mainly due to lower unit demand for several products and smaller royalties and revenues derived from corporate partnerships. The most important drug in terms of sales is Enbrel®, which accounted for around 24% of total sales in 2017 (Exhibit 11.1 Amgen's Historical Revenues).

In the last fiscal year, Amgen spent approximately 16% of 2016's Revenues in R&D expenditures, below the average of 20% of the historical period. Nevertheless, this value is in accordance with the pharmaceutical industry, which spent on average 19.8% of total revenues in 2015 (Statista, 2017).

Amgen has increased its operating margins to levels above the industry. It has an average EBITDA margin (EBITDA/Revenues) of 42% in the last 12 years, where the highest value was registered in 2017 (52.2%) (Exhibit 11.2 Amgen's Historical NOPLAT), whereas the industry

registers values around 32% (Damodaran, Margins by Sector (US), 2018). From the NOPLAT it was derived the Net Income, which had a tendency to grow until 2017 when it registered the lowest value of the period due to a Non-Recurring Tax Change Expense (Exhibit 11.3 Amgen's Historical Net Income). If this expense was excluded, Amgen's Net Income would have been $8,079 million.

Regarding the capital structure of the company, the percentage of debt has increased from 2008 until 2012, when it almost represented 60% of total capital, but has decreased since then to 49.3%. The average debt-to-capital ratio of the historical period was 46%, which is below the average ratio for the biotechnology industry (48.4%), but higher when compared with the average of the pharmaceutical industry (40.7%) (Damodaran, Debt Fundamentals by Sector (US), 2018) (Exhibit 11.4 Amgen's Historical Invested Capital and Exhibit 11.5. - Amgen's Historical Equity and Debt).

The FCF Statement has been quite irregular, registering values between -$12,254.0 million and $10,411.3 million, since both components, Gross Cash-Flow and Gross Investment tend to vary significantly throughout the historical period (Exhibit 11.6. Amgen's Historical Free Cash-Flow Statement).

Amgen has managed to increase its Return on Invested Capital (without Goodwill) (ROIC) until 2012, where it was able to deliver a return of 45.8%. However, since then, this value has been decreasing and has been quite unstable, but on average, the return was 34%. This instability is also verified in the Return on New Invested Capital (RONIC) (without Goodwill), which has been very volatile, reaching both negative and positive, high and low values. In 2017, Amgen provided a return on newly invested capital of 146.6% (Exhibit 11.7. Amgen's Historical Financial Ratios).

4.2. Incyte Corporation

Incyte's objective is to become one of the leading biotechnology companies in the world and believes that investment in good science and rigorous research and development of new drugs ultimately translates into medicines that can affect positively people's lives.

Incyte was found in Palo Alto, California on April 1991 but currently is based in Wilmington, Delaware and its focus is the discovery, development, and commercialization of therapeutics. Two years after the foundation, Incyte decides to go public, raising around $17 million.

From the beginning of its activity until 2003, Incyte was focused mainly on gene analysis, creating the world's most extensive and comprehensive "genetic encyclopedia". After a decline in this sector of biotechnology, Incyte decided to change its core business and started to focus only on drug discovery, mainly treating oncological problems.

The first marketed product was JAKAFI®, approved by the FDA in 2011 and developed to treat patients who suffer from myelofibrosis and patients with polycythemia vera, which is the first product, and still is, to treat two types of blood cancer. Incyte also developed IncyteCARES, which ensures that all patients in need for JAKAFI® get the medicine.

Incyte has other products on the market that were developed in business partnerships with other companies in the sector. One example is the collaboration with Novartis International Pharmaceutical, Ltd., which started in 2009, and gave both companies the right to develop and commercialize the JAK inhibitor ruxolitinib in and outside the U.S. In 2016, it acquired ARIAD Pharmaceuticals, Inc., allowing Incyte the commercialization of Iclusig®, used to treat leukemia, in the European Union and 22 other countries.

Incyte is highly dependent on the success of JAKAFI® and Iclusig® and is also very dependent on 3rd parties to manufacture all of its products. It has limited resources to perform the expensive clinical trials, but without those, it cannot get approval from the FDA.

In addition, Incyte has 7 patents in the U.S. and 8 in Europe, all of them valid for a minimum period of 8 years.

Regarding the pipeline of products in development, Incyte has 9 products in Phase I focused in treating solid tumors and some types of cancer, 16 in Phase II to treat lymphomas and advanced malignancies, and 15 in Phase III, developed for patients with cancer, psoriatic or atopic dermatitis.

Incyte has a market capitalization of almost $19 billion (as of 01.02.2018) and its stock price evolution has had a turbulent path. Until 2003, the year Incyte changed its core business, the stock price had a pick and reached values close to $140, in the *dot.com bubble* crisis. After changing the core business, Incyte's stock price has had a modest tendency to grow and since 2010, the stock price has been rising more expressively, although having some declines throughout the period. However, in the last year it has been registering a tendency contrary to the benchmark (Figure 4 - Incyte's Stock Price Evolution).

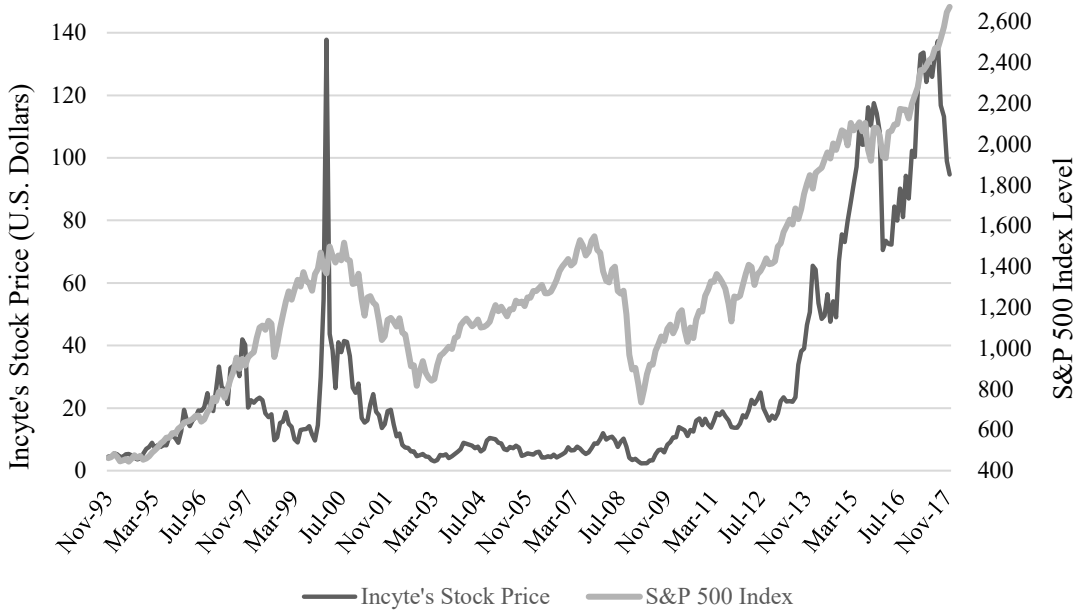

Figure 4 - Incyte's Stock Price Evolution and S&P 500 (Wharton University of Pennsylvania, 2018)

In 2017, it registered revenues of $1,536 million, representing an increase of 39% relative to 2016, but a negative net income of $313.1 million, contrary to the last 2 years. The revenues have had an average growth of 197% in the historical period and until 2011, the company only had revenues from royalties paid by corporate partners. In 2011, Incyte released the first drug and started to have revenues derived from the sale of its products (Exhibit 11.8. Incyte's Historical Revenues).

Incyte has not been able to provide positive results because it is still making high investments in R&D that are much bigger than those of the industry. Incyte spent, on average, 535% of Revenues in R&D in the historical period. Regarding the EBITDA margin, Incyte had for several years negative EBITDA, making this ratio negative for most of that period. In the last 5 years with positive EBITDA, the average EBITDA margin was 7.8%, positioning Incyte far away from the average of the biotechnology industry (31.3%) (Damodaran, Margins by Sector (US), 2018) (Exhibit 11.9. Incyte's Historical NOPLAT). Incyte has had negative Net Income for almost all the historical period, with only 2015 and 2016 standing out with positive results (Exhibit 11.10. Incyte's Historical Net Income).

In the historical period, Incyte has increased the level of debt, except for 2017, where the value decreased drastically. Nonetheless, on average, debt represented 129% of total capital. This ratio is superior to the one registered for the industry, which accounts for only 48%

(Damodaran, Debt Fundamentals by Sector (US), 2018) (Exhibit 11.11. Incyte's Historical Invested Capital and Exhibit 11.12. Incyte's Historical Equity and Debt).

Incyte was able to generate only one positive cash flow during the historical period. Until 2015 the Free Cash-Flow seemed to create a tendency to become positive, however, the values of 2016 and 2017 were revealed to be the most negative ones of the period (Exhibit 11.13. Incyte's Historical Free Cash-Flow Statement).

Nonetheless, Incyte has been able to provide positive results on invested capital. On average, the ROIC without Goodwill was 97.5%, and although it was very volatile, it did not register high negative values. On the other hand, the RONIC was very unstable and registered an average of -10% (Exhibit 11.14. Incyte's Historical Financial Ratios).

5. Deal Rationale

On February 11th, 2018, Amgen's Chief Financial Officer, David Meline, informed that Amgen was looking for a target company to buy and invest in (Crow, 2018). Mr. Meline claimed that Amgen had the financial flexibility to acquire a new business, and the only reason a deal was not announced yet, was the huge premiums companies in pharmaceuticals are paying for acquisitions. The main objective is to invest in a life sciences/healthcare company and still provide a good return to shareholders. Considering the decrease in sales in the last fiscal year and the expiration date of some important patents coming closer, Amgen has decided to take a new growth strategy through M&A.

As suggested by the literature in the pharmaceutical industry, companies follow one of two strategies: acquire a smaller pharmaceutical or biotechnology companies or merge with large competitors to increase market share. For this thesis, it was assumed that Amgen would pursue the first strategy because acquisitions seemed to provide higher positive returns when compared with mergers.

As a result, and after an analysis of potential targets, Incyte came out to be a good option for this acquisition. Incyte is a company that only had positive earnings in 2015 and 2016 and is still making high investments in R&D to increase future revenues. However, it has a great potential and a very positive outlook for future revenues (Thomson Reuters Eikon, 2018), which can offset the low results Amgen is facing.

On the other hand, Amgen has already several marketed products and strong marketing channels that can also improve Incyte's performance in delivering new drugs. It has a strong presence in Europe, which can help Incyte in its new European operations. Also, Amgen has a strong drug development process, which is a weakness for Incyte. In addition, both companies have similar drugs in development, allowing knowledge transfer and improvement of treatments' results, as well as increase the number of future patents and guarantee future profits. For example, both companies are developing drugs to treat atopic dermatitis, and they are both in Phase II of development. Therefore, the new combined company can use knowledge and resources from the two companies to achieve a better result more efficiently. Another example is the fact that Amgen has a product in the market to treat rheumatoid arthritis and Incyte is developing a new drug to treat the same condition. As a new product would not affect negatively the overall revenues, Amgen can help Incyte with expertise in the development of the new drug.

6. Valuation

To provide a clear valuation of both companies, it is necessary to forecast how the company will behave in the future. Therefore, assumptions are needed for the different items of the Net Operating Profit Less Adjusted Taxes (NOPLAT) and the Total Funds Invested Statements, as well for all the components of the FCF Statement.

6.1. Amgen Inc.

6.1.1. Financial Projections

For each item of the NOPLAT Statement, it is necessary to forecast the value for the next 10 years. As it can be less accurate to predict the firm's behaviour 20 or 30 years from now with detail, the remaining years will be calculated as a perpetuity, considering the historical performance of the company.

Revenues are the main driver for most of the components of the statements, meaning their prediction is extremely important. The acquirer's projected revenues from 2018 until 2022 were based on the estimates from analysts (Thomson Reuters Eikon, 2018), which are specialists in the industry and follow the company for some years (Exhibit 11.15. Amgen's NOPLAT Forecast). These estimates assume an average growth rate of 1.2% throughout the 5 years. This average growth rate was then applied to the remaining years of the forecast period, which assumes the company will continue the same behaviour as before.

Regarding the Operating Expenses, they were all forecasted based on the value of Revenues (Exhibit 11.16. Amgen's NOPLAT Forecast Drivers). For the item Cost of Sales (also referred as Cost of Goods Sold (COGS)), it was used the percentage of Revenues of 2016 (18.1%), once the value of 2017 included some non-recurring expenses. Regarding the R&D Expenses, it was forecasted to be the average of the last 3 years (17.8%), as it is in line with the expenses of the industry. For the future costs with Selling, General and Administrative (SG&A), it was assumed the percentage of Revenues of 2017 (21.3%), since in this year the payment of royalties of the sale of Enbrel® ended, making the value of 2017 a good indicator to the future behaviour of this item. For Other Operating Expenses item, it was assumed that the future percentage of Revenues would be the average percentage of Revenues of the last 6 years, as this item is very volatile and using only a few years could bias the estimation. The use of 6 years is related to

the fact that in 2011 there was a legal settlement, which is a non-recurring expense, and should not be considered as an indicator for future performance.

Depreciation and Amortization forecasts were based on previous year's Net Property, Equipment and Plant (NPPE) and Net Intangible Assets, respectively. However, both Depreciation and Amortization were split into two different segments: one for assets registered in 2017 and the other for new assets derived from new investments. In 2017, Net PPE had a value of $4,989 million, and that value was depreciated over 10 years. For Depreciation of new investments, it was assumed that it would be the average depreciation in NPPE of the last 3 years, which was 13.2%. For Amortization of "older" Intangibles, it was followed the Amortization schedule planned in Amgen's 10-K until 2022, which amortizes $5,200 million from the value registered in 2017. After 2023, it was amortized the value still left to amortize from 2017, which was $3,409 million. For Amortization of new investments, it was assumed a forecast ratio of 12.8% of Net Intangible Assets, as this was the relation between the variables in the past.

Operating Taxes were assumed to be 32.6% of EBITDA, which was based on previous years' Operating Taxes.

Interest Expense and Interest Income were assumed to be 3.8% of previous year's Total Debt and 2.3% of previous year's Excess Cash and Marketable Securities, respectively, which were based on previous relations of these variables (Exhibit 11.17. Amgen's Net Income Forecast).

Regarding the components of Operating Working Capital, Inventories and Payables were forecasted using the average percentage of COGS of the last 3 years, which were 64.4% and 26%, respectively. Operating Cash was assumed to be 2% of Revenues[1], Receivables (13.9%) and Other Operating Current Liabilities (24%) forecasts were based on the average percentage of Revenues of the last 3 years, and Other Operating Current Assets were assumed to be 9.9% of Revenues, which is the average percentage of the last 7 years, since this is a very volatile item (Exhibit 11.18. Amgen's Invested Capital Forecast).

Investments in NPPE and in Net Intangible Assets were also assumed to be related with Revenues. As these investments vary significantly, the average percentage of Revenues of the last 7 years was assumed for the forecast period. Therefore, investments in NPPE were assumed to be 3.1% of Revenues and investments in Net Intangible Assets 6.7% of Revenues. The values

[1] Research found out that companies with small cash balances hold cash around 2% of Revenues, making this a reasonable proxy for Operating Cash (Koller, Goedhart, & Wessels, 1990)

of NPPE (Net Intangible Assets) were then the sum of the previous year's value and the current year's investment, less the Depreciation (Amortization).

For reasons of simplicity, it was assumed that Goodwill would remain constant, which implies that the company is not going to be involved in M&A in the future.

The forecasted components of Equity and Debt are presented in Exhibit 11.19 Amgen's Equity and Debt Forecast.

6.1.2. Discounted Cash-Flow Model

One of the models used to value the company was the DCF model, which values the company by discounting the FCF of the explicit period at the WACC, which is the return required by all investors of the firm.

This model was chosen over the Adjusted Present Value (APV) since the capital structure does not vary significantly throughout the period. Therefore, the WACC does not suffer significant changes, not requiring the use of the APV model.

6.1.2.1. Free Cash-Flow Estimation

To discount the FCF it was necessary to estimate its value for all the years in the explicit period. For the remaining years, the Continuing Value (CV) was computed.

Exhibit 11.20. Free Cash-Flow Statement Forecast shows the FCF estimation, based on some of the items previously forecasted. The first component of the FCF is the Gross Cash Flow and includes NOPLAT, Depreciation, and Amortization, as they represent the cash-flow that stays in the firm. The second component is the Gross Investment and includes all the items that reflect investments made by the firm. After subtracting the Gross Investment to the Gross Cash Flow, the FCF is obtained.

The CV was computed with the formula

$$Continuing\ Value = \frac{NOPLAT_{t+1}(1 - \frac{g}{RONIC})}{(WACC - g)}$$

As it replicates the process of discounting the future cash-flows to the present.

$NOPLAT_{t+1}$was computed using the 2027's NOPLAT and its last growth rate (1.3%), g is the growth rate of the Free Cash-Flow in the last year (1.1%) and RONIC is the one of the last year of the explicit period (8.2%). This value reflects how much the company is worth considering the years after 2027. Applying the formula, it was given a value of $84,222.3 million for the CV.

The FCF are discounted using the formula

$$Present\ Value\ (FCF) = \sum_{t=1}^{n} \frac{FCF_t}{(1 + WACC)^t}$$

By summing all the discounted FCF and the CV, the Enterprise Value obtained is $120,020.8 million.

6.1.2.2. Weighted-Average Cost of Capital

As explained before, the WACC is necessary to compute the present value of the FCF but also to compute the CV of the company. The WACC is computed using the formula

$$WACC = \frac{Debt}{Capital} * k_d * (1 - T_m) + \frac{Equity}{Capital} * k_e$$

The cost of debt (k_d) was computed using the bonds issued by the company and the loans outstanding. For the bonds, it was computed the geometric average of the yields of the bonds with longer maturity (ending after 2040), which was determined to be 4.68%, which was averaged with the yield derived from the loans (4.27%), weighted by their respective values. The yield from the loans was based on Amgen's rating (A-) (Thomson Reuters Eikon, 2018), from which was taken the spread over the 10-year Treasury Bond. The marginal tax rate (T_m) was the one used for 2017, which was 35.3%. From this information, the cost of debt calculated was 4.47%.

The cost of equity (k_e) was calculated using the CAPM model

$$CAPM = r_f + \beta * MRP$$

Where r_f is the yield of the 10-year Treasury Bonds (STRIPS), β is the sensitivity of the company to the market and the MRP is the Market Risk Premium. The value of the risk-free used was 2.98% (Thomson Reuters Eikon, 2018). The beta was based on Amgen's peer group,

which was created using a cluster analysis. For this analysis, it was chosen a sample of 18 companies, all from pharmaceuticals and biotechnology industries, as well as several indicators that characterized the companies (growth rate, capital structure, profitability, and multiples). The cluster analysis allows the creation of a peer group only based on this information, using only logical reasoning. This way, it is ensured that the peer group is formed rationally, not including any personal judgement. It analyses all the information and creates groups of companies, called clusters, where companies are allocated based on their characteristics. Companies in the same cluster have similar characteristics. Testing for several numbers of clusters, Amgen ended up always with the same companies in its cluster: AbbVie and Gilead Sciences. The levered betas of the companies (1.54 and 1.08, respectively) were transformed into unlevered, taking into consideration each firm's capital structure, and their average was assumed to be the unlevered beta of Amgen, which was 0.53. The levered beta of the acquirer was then calculated, using the formula

$$\beta_e = \beta_u + \frac{D}{E}(\beta_u - \beta_d)$$

The final value was 1.7, considering a Debt-to-Equity ratio of 140.02% and a beta of debt (β_d) of 0.3[2]. For the Market Risk Premium, it was used the market returns[3] and the risk-free returns[4] from 1941 to 2017. The final value of the market risk premium, 6.03%, was the value between the arithmetic (6.5%) and geometric average (5.6%), as none of the values is accurate enough. Having all the necessary information, the cost of equity was calculated, and the value was 13.25%.

For the remaining computation of WACC it was used the Debt-to-Capital (49.3%) and Equity-to-Capital (50.7%) ratios, using Amgen's data from 2017. It was used the Gross Value of Debt, since in the derivation of Equity Value, it will be added the Excess Cash and Marketable Securities to the Enterprise Value. If Net Debt was used, the addition of Excess Cash and Marketable Securities would not be needed, since it would imply a double-count of the same value (Damodaran, Investment Valuation, 2012). The value determined for WACC was 8.1%.

[2] Assumption is based on the implied beta based on the spread between investment-grade corporate debt and government debt (Koller, Goedhart, & Wessels, 1990)
[3] For the market returns it was used the CRSP returns.
[4] For the risk-free returns it was used the returns on the 10 years US treasury bonds.

6.1.2.3. Equity Value

By discounting the FCF and summing the CV, it is obtained the Enterprise Value. However, it is also necessary to derive the Equity Value.

As referred previously, to obtain the Equity Value, the Excess Cash ($3,364.1 million) and the Excess Marketable Securities ($37,878.0 million) should be added to the Enterprise Value. Then, the Market Value of Debt (39,296.8 million), which was obtained through the value of the bonds outstanding and the current loans, should be subtracted. After these calculations, the Equity Value for Amgen determined was $121,966.1 million, which translates into a value of $184,3 per share.

6.1.2.4. Sensitivity Analysis

To understand how much the valuation would change if key assumptions were modified, it is necessary to perform a sensitivity analysis. The results are presented in the Exhibit 11.21. Amgen's Sensitivity Analysis.

If the cost of capital was estimated at a higher value, the discounted cash flows would be lower, as this would imply an increase in the risk of the company.

If the growth rate in perpetuity was assumed to be almost half of the one assumed, the valuation would decrease, but it would not suffer a big impact. The same happens if the growth rate was assumed to be 1 pp. higher.

If the Revenues growth rate for the last 5 years of the explicit period was the last growth rate of 2022 (3.4%), Revenues would grow at a much higher pace, inducing a higher NOPLAT, and, consequently, it would increase the valuation in almost $46,000 million. On the other hand, assuming the growth rate observed at the beginning of the explicit period, that would result in a decrease of the enterprise value to $95,580.7 million.

Assuming that the forecasted R&D Expenses would be equal to the average percentage of Revenues of the last 7 years (20.4%), it would decrease the valuation in almost $9,000 million, as this would reduce the NOPLAT used in the estimation of the cash flows.

6.1.3. Multiples

The second valuation method used to compute the value of Amgen was the multiples approach, using the peer group from the cluster analysis and the multiples EV/EBITDA, EV/EBIT and EV/Revenues for each company. Based on these values and applying to the acquirer's data, the results obtained are presented in the Exhibit 11.22. Amgen's Multiples.

The multiples EV/EBIT and EV/Revenues give the lowest values of the valuation, but very close to each other. The multiple EV/EBITDA increases the value of Amgen in more than $10,000 million, compared to the previous multiples.

6.1.4. Valuation Summary

Considering both models, Amgen's valuation can be put into a range of values:

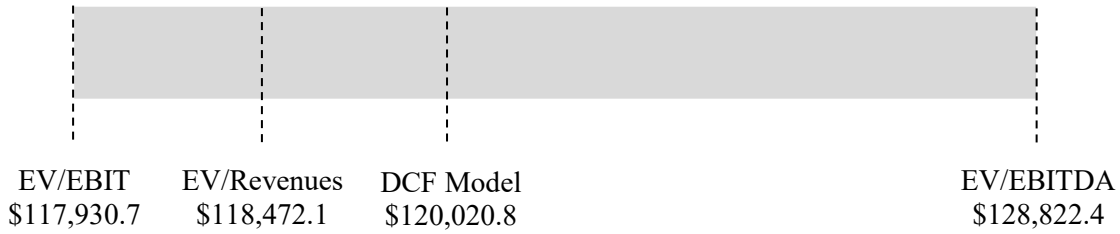

Figure 5 - Valuation Range of Amgen's Enterprise Value

Regarding the Enterprise Value, the multiples EV/EBIT and EV/Revenues give the closer value to the one given by the DCF Model, whereas the multiple EV/EBITDA gives the highest value, being far away from the values of the other models.

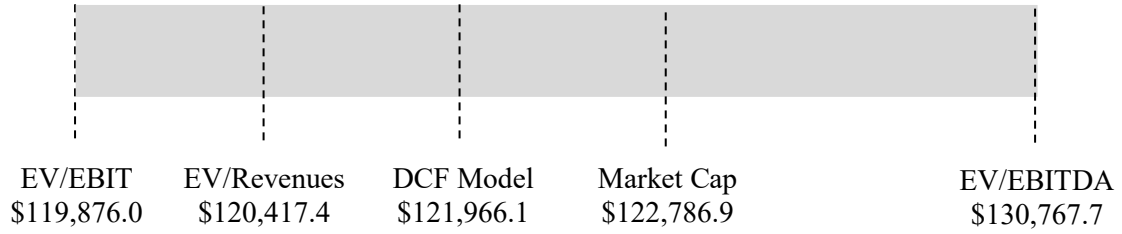

Figure 6 - Valuation range of Amgen's Equity Value

When it comes to Equity Value, EV/EBIT, EV/Revenues and DCF model give the closest values to the market value of the company. The Market Capitalization of Amgen as of 01.02.2018 was $122,786.9 million, falling between the values provided by EV/EBITDA and

DCF model. DCF Model gives a value that differs only 0.7% of the Market Cap, whereas the multiple EV/EBITDA differs in 6.5%.

6.2. Incyte Corporation

6.2.1. Financial Projections

The valuation of the target company, Incyte, was performed in the same framework as the acquirer. Therefore, the projections of Revenues were also based on analysts' estimates and most of the NOPLAT and the Total Funds Invested Statements items depend on forecasted Revenues. The explicit period for Incyte's forecasts is bigger once it is in a growing phase, and it was necessary to guarantee that the company reaches the steady state to obtain an accurate valuation.

The first 5 years of Revenues of the explicit period were based on the estimates of analysts (Thomson Reuters Eikon, 2018). For the following 5 years, it was applied the average growth rate that was registered in the previous 5 years – 14.5%. For the final 5 years of the explicit period, it was applied the growth rate expected for the biotechnology industry (7.4%) (Grand View Research, 2017) (Exhibit 11.23. Incyte's NOPLAT Forecast).

The items Cost of Sales and Other Operating Expenses were forecasted based on the average percentage of Revenues of the previous 3 years, as this item has been quite stable in the last years. For R&D Expenditures it was applied two different percentages of Revenues. The percentage of Revenues of 2017 (93.8%) could not be used to forecast the following years, as this value includes an upfront and milestone expenses with clinical research, which is a non-recurring payment. Therefore, the value of 2018 was computed with the values of 2017, excluding this payment. The values until 2022 were based on the percentage of Revenues of the value of 2018, which was 45.4%. And as the company has a higher percentage of Revenues than the one of the industry, it was assumed that after 5 years of the explicit period, the percentage would decrease to 40.4%, to get closer to the average of the industry. For SG&A, it was assumed the average percentage of Revenues of 2017 (42.7%), as it has been decreasing lately, and it was assumed it would continue to follow this trend (Exhibit 11.24. Incyte's NOPLAT Forecast Drivers).

From 2028 to 2032, only Revenues and NOPLAT were forecasted, since it is difficult to predict in such detail how the company will behave 10 to 15 years from now. Therefore, Revenues

were forecasted as explained above, and it was assumed that the NOPLAT would behave in the same way as before – it would represent 16.4% of Revenues.

Similarly to Amgen, Depreciation, and Amortization was split into two different segments. The first was related to the NPPE and Net Intangibles as of 2017. For Depreciation, the value of 2017 ($259.8 million) was depreciated over the 15 years of the explicit period, giving a Depreciation of 17.3. For Amortization, it was followed the schedule already planned in Incyte's 10-K of 2017. Depreciation of new investments in PPE was assumed to be 15% of Net PPE and Amortization of new investments in Intangible Assets was forecasted to be 8.5% of Net Intangibles, all based in the last 3 years of the historical financials.

Operating Taxes were assumed to be 1.7% of EBITDA, which is the average of the years with positive EBITDA.

Interest Expense was assumed to be 4.7% of previous year's Total Debt and Interest Income was forecasted to be 1.4% of previous year's Excess Cash and Marketable Securities, all based in the relation between these variables in the last 3 years (Exhibit 11.25. Incyte's Net Income Forecast).

In Operating Working Capital, the items Inventories and Payables were assumed to be the percentage of COGS of 2017, which were 11.2% and 116.7%, respectively. Operating Cash was assumed to be 2% of Revenues, and Other Operating Current Assets was forecasted with the percentage of Revenues of 2017, 4.1%, as the values were stable during the historical period. For Receivables and Other Operating Current Liabilities, it was used the average percentage of Revenues of the last 3 years (17.4%), as the items were volatile (Exhibit 11.26. Incyte's Invested Capital Forecast).

Investment in NPPE and investment in Net Intangibles were assumed to be the average percentage of Revenues of the last 3 years, which is 7.6% and 8.3%, respectively. For simplicity, Goodwill was assumed to remain constant.

The forecasted components of Equity and Debt are presented in Exhibit 11.27 Incyte's Equity and Debt Forecast.

6.2.2. Discounted Cash-Flow Model

6.2.2.1.Free Cash-Flow Estimation

As explained before, the FCF is the difference between Gross Cash-Flow and Gross Investment, and for Incyte the results of the FCF statement are presented in Exhibit 11.28. Incyte's Free Cash-Flow Statement Forecast.

For the CV was used an average growth rate in perpetuity of 6.2%, which corresponds to the last growth rate of the Free Cash-Flow and a RONIC of 8%, based on the value of RONIC in the last year of the explicit period. Applying the formula referred earlier, the calculations give a Continuing Value of $17,299.8 million.

When summing all the discounted cash flows with the Continuing Value, the firm becomes valued at $17,854.5 million.

6.2.2.2. Weighted-Average Cost of Capital

As referred above, the WACC includes several components and the ways to compute Incyte's components was the same as for Amgen's.

The target's cost of debt, based only on the loans since the bonds outstanding had a very short maturity, provided a rating of A (Thomson Reuters Eikon, 2018), inducing a spread of 1.04% over the 10-year Treasury bonds, which has a yield of 2.98%. Therefore, the cost of debt was assumed to be 4.02%.

To derive the cost of equity, it was necessary to form a peer group, and the method used was the same as before: the cluster analysis. By collecting a sample of 16 companies and after testing for several clusters, it was found that Incyte always ended up with three other companies in its cluster: Vertex Pharmaceuticals, Alexion Pharmaceuticals, and Repligen Corporation. The levered betas of these companies were 1.2, 1.42, and 1.35, respectively, and they were used to compute their unlevered betas, by considering each firm's capital structure. The average unlevered beta from the group was assumed to be Incyte's unlevered beta, which was 0.86. Applying to the company's Debt-to-Equity ratio of 1.47% and the beta of debt of 0.3, the value for the levered beta was 0.87. Using the same value of risk-free and market risk premium as used for Amgen, the cost of equity was determined to be 8.2%.

By applying the ratios of (Gross) Debt-to-Capital (1.5%) and Equity-to-Capital (98.5%), based on 2017's values and using the same marginal tax rate as for Amgen (35.3%) the WACC was determined to be 8.2%.

6.2.2.3. Equity Value

After obtaining the Enterprise Value, it is necessary to include all the excess assets and subtract the values of debt. As a result, to get the target's Equity Value, it was added $868.8 million of Excess Cash, $270.1 million of Excess Marketable Securities and was subtracted the Market Value of Debt ($53.6 million). The total value of Equity was then $18,939.8 million, which means each share is valued at $89.4.

6.2.2.4. Sensitivity Analysis

To understand how the valuation would be impacted if some of the inputs were changed, it was performed a sensitivity analysis (Exhibit 11.29. Incyte's Sensitivity Analysis).

If the WACC computed was underestimated and the return required by the capital providers was supposedly higher, the valuation would have been overestimated by around $6,000 million.

If the company was supposed to grow the nominal growth rate for advanced economies in perpetuity (3.8%), that would have increased the valuation, but only for $722.6 million. However, if it was assumed that the company would have continued to grow at 7.4%, the valuation would have decreased to $15,753.0 million.

If R&D Expenses were assumed to remain at the level of 2017 (93.8%), that would have a huge impact on the valuation, as it would decrease the enterprise value by $565,271.7 million. On the other hand, if it was assumed that these expenses would be at the industry level, the value of the company would increase by $233,664.6 million.

6.2.3. Multiples

With the peer group derived from the cluster analysis were computed three multiples and calculated the Enterprise and Equity values for Incyte (Exhibit 11.30. Incyte's Multiples). Each

multiple is the average of the multiples for the three companies, and they were applied to Incyte's data for 2016, as the values for EBITDA and EBIT of 2017 were negative.

EV/EBITDA and EV/EBIT give close values, whereas the multiple EV/Revenues gives the highest value, with almost $6,000 million of difference to EV/EBIT. The main reason behind this difference may be related to the fact that Incyte's EBITDA and EBIT are very small when compared to its revenues, as it registers high operating expenses.

6.2.4. Valuation Summary

After getting all the possible values for Incyte, it is possible to conclude that EV/EBITDA and EV/EBIT give closer but low values and DCF model and EV/Revenues provide the highest values, with a small difference between them.

Figure 7 - Valuation range of Incyte's Enterprise Value

However, when the Market Capitalization as of 01.02.2018 is introduced in the range of the possible Equity values, it is higher than any other value provided by the different approaches. The DFC model and the multiples EV/Revenues are the ones that give the closest value to the Market Cap. of $18,992.1 million, as of 01.02.2018.

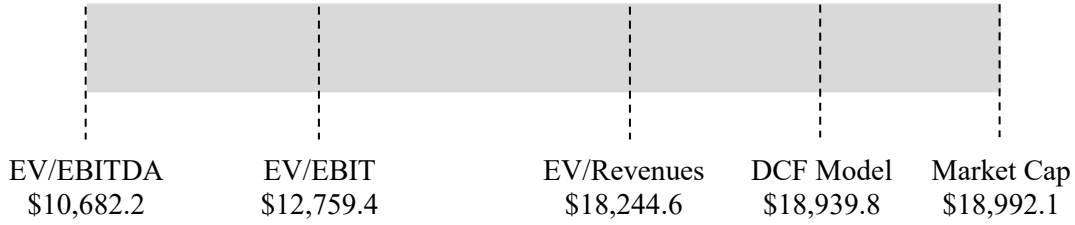

Figure 8 - Valuation rage of Incyte's Equity Value

7. Synergies

The main reason behind M&A are the synergies, the added value that a merger or an acquisition brings to the newly combined firm. The synergies can be operational if they are related to the business itself, or financial if they are related to financial benefits arising from the combination of the two firms.

7.1. Combined firm without synergies

The first step in analysing synergies is to determine the value of the combined firm as if the transaction did not bring any benefits. The determination of this value would be the sum of the two companies to form a one combined firm, as a stand-alone business.

For each of the statements (NOPLAT, Total Funds Invested and Free Cash Flow), the items of both firms were added to create a new value for the combined firm. The relevant statements for the combined firm are presented in the Exhibits 11.31. Combined Firm's NOPLAT, 11.32. Combined Firm's Net Income, 11.33. Combined Firm's Invested Capital, 11.34. Combined Firm's Equity and Debt, and 11.35. Combined Firm's Free Cash-Flow Statement.

Assuming the transaction is closed by the value of Incyte as of 01.02.2018 ($18,992.1 million), the newly combined firm would have an Enterprise Value of $137,875.4 million, which is just the sum of the value of the firms obtained through the DCF model. Adding the values of Excess Cash ($868.8 million) and Excess Marketable Securities ($22,520.1 million), already considering the value of the acquisition, and subtracting the Market Value of Debt ($39,350.4 million), it is obtained the Equity Value of the combined firm, which is $121,913.9 million. This assumes that the transaction is fully paid in cash.

7.2. Combined firm with synergies

After getting the value of the combined firm, it is time to analyse the potential synergies derived from the acquisition of Incyte (Exhibit 11.36. Combined Firm's Potential Synergies).

Operational Synergies - Revenues Enhancements

Incyte has presence in Europe since it acquired ARIAD Pharmaceuticals in 2016, so it has low experience in European operations, whereas Amgen already launched several products in Europe and has properties to develop, sell and manage its European operations. This knowledge, properties, and channels in the European market could be useful for Incyte and could enhance its future Revenues in Europe. For that reason, it was assumed that the combined firm would increase its sales by 0.5%, below than the average growth rate for advanced economies[5].

The combination of the two firms makes the new company stronger in terms of investing power. And as one of the objectives of the acquisition is to gain strong market power and face the rising competition, the new firm should increase the investment in research and development, to discover new drugs and increase future revenues. As a result, it was assumed that the company would increase the R&D Expenditures up to 35% of previous year's Revenues, up from 19.5% of Revenues in 2018 This increase would occur in the first 5 years of the acquisition, and after that, R&D Expenditures would decrease to 25% of previous year's Revenues.

Nevertheless, the combined firm is also expected to increase efficiency in transforming these investments into improvements in sales. Therefore, Revenues are assumed to be related with the R&D Expenditures, such that Revenues will represent 142.3% of the increase in R&D, but only two years after these investments start to be realized. This percentage is based on Incyte's historical data and the relation between these two variables. It implies that the investment in R&D will increase Revenues in more than what was invested previously.

Operational Synergies – Costs Savings

One of the main cost savings in M&A is the decrease in the number of employees after the transaction. The reason behind this strategy is that, when to companies are combined, some jobs will be duplicated, and does not make sense to continue to have the previous number of employees to do the same type of job. As a result, the employees were divided into executives, researchers and medical affairs, and administrative, sales and marketing. The data of the number of executives was taken from Reuters Eikon, and the number of researchers and administrative was based on the data about Incyte's employees. As Amgen did not have any information

[5] The advanced economies are expected to grow 3.8% (IMF, 2018)

regarding this categorization, the data from Incyte was applied to the acquirer. Incyte has 1,208 employees, of which 16 are executives, 762 are researchers and 430 are administrative or belong to the sales and marketing division. This means that 63.1% of the employees are researchers and 35.6% are administrative. Applying this ratio to Amgen, it was derived that 13,373 employees were researchers and 7,404 were administrative, being the remaining 23 executives. For the acquisition, no research or medical affairs employees were assumed to be fired, as they are essential for the process of discovering and developing new drugs. Therefore, the only category to suffer changes would be the administrative, sales and marketing. The reduction in the number of employees assumed was of 50%, which implies a reduction of $798.9 million in salaries and benefits in each year of the explicit period.

However, when employees are fired, usually they must be paid an indemnity for being out of the company for the remaining years of their career. Therefore, if the present value of all future payments that needed to be done if the employees remained in the company is considered, there is an amount of $31,127.6 million to be recognized in 2019, since this is the year where employees will be dismissed from the company.

The combination of two companies that use the same type of raw materials and products to develop drugs increases the power they have over suppliers. Therefore, it is expected that the costs of sales decrease by 3.5% once the two firms are combined. The decrease was based on a research that found out that the decrease in cost of sales due to increased power over suppliers represents, on average, 5 to 10% of the total cost savings in the combined firm (Tompkins, 2012). The 3.5% decrease represents 8.9% of the costs saved due to the acquisition.

Another typical synergy of transactions is the close and sale of facilities or properties that become unnecessary after the deal is closed. In this case, there is one facility that could be closed after the deal takes place. Incyte had a property in Geneva, Switzerland that can be closed after the transaction, since it has another property in the country (in Lausanne, where the European headquarters are) and Amgen has another two. Therefore, the item NPPE should be reduced by the value of the facility minus accumulated depreciation, which results in a decrease of $11.6 million.

Incyte depends on 3rd parties to manufacture its products, but Amgen has facilities to manufacture its own products. By combining the two firms, Incyte could reduce its dependence on other firms by producing some products at Amgen's facilities. This reduction should be smooth throughout the explicit period, as these are contracts that cannot be ended from one day

to the other. Therefore, if Incyte reduces the weight of these contracts from 59.5% to 29.5% of the SG&A costs, this would reduce these costs by $2,908.1 million until 2027, starting in 2019. It was not assumed a full reduction in these costs since Incyte intends to maintain some of these relationships in the future (Incyte Corporation, 2017).

However, the closing of facilities and the increase in the use of others urges a higher investment in NPPE. It was assumed that after 2025, the investment in NPPE should be 3.4% of the increase in Revenues, as this was the ratio already verified between Capex and Revenues.

Although there are some potential costs savings and revenues improvements, there is an expense that the combined firm will need to incur to make sure the acquisition is successful. After the transaction takes place, it is estimated that around $5,222.8 million will be spent in merging the companies, harmonizing methods of work and create a unique culture, which was included in the item Other Operating Expenses of the combined firm, in the years 2019 and 2020, assuming the acquisition will be completed in 2018. A more detailed explanation about this expense is presented in chapter 9.

In addition, there are other sources of synergies that are harder to quantify but may impact the business of the combined firm, such as the strong mechanism of Amgen to monitor customers and suppliers that could be applied to the whole business and decrease payments delayed and ensure the quality of the supplied material. Also, Amgen has strong marketing channels to sell its products, which could be used by Incyte and at the same time increase revenues and decrease costs.

All other relevant items of the NOPLAT (Exhibit 11.37. Combined Firm's NOPLAT after Synergies), Net Income (Exhibit 11.38. Combined Firm's Net Income after Synergies), Invested Capital (Exhibit 11.39. Combined Firm's Invested Capital after Synergies), and Equity and Debt (Exhibit 11.40. Combined Firm's Equity and Debt after Synergies) are presented in chapter 10 – Appendices. Dividends were assumed to be zero in the first 5 years after the acquisition. After 2024, the previous year's excess cash would be distributed to shareholders.

Value of Synergies

After introducing all the synergies and adjusting all the items of the statements, it was constructed the Free Cash-Flow Statement, from where it was obtained all the Free Cash-Flows of the combined firm after synergies and the Continuing Value (Exhibit 11.41. Combined

Firm's Free Cash-Flow Statement after Synergies). The Continuing Value ($156,427.4 million) was computed with the formula presented previously, with a growth rate in perpetuity equal to the weighted average of the growth perpetuities of both companies (1.8%), RONIC of 10.8%, which is the average RONIC of the last 4 years and a WACC of 7.4%, computed using the values of the combined company.

The value of the combined firm was determined to be $166,398.1 million, from which is possible to obtain the value of synergies, by subtracting the Enterprise Values of Amgen ($120,020.8 million) and Incyte ($17,854.5 million). Synergies were valued at $28,522.8 million.

However, this value should be analysed carefully. It includes all the synergies arising from the combination, which implies that synergies that are harder or less likely to be achieved are also being considered. But for a matter of determination of the price of the acquisition, it should be considered the value of synergies that have a higher probability of being realized.

Effects of the acquisition

Exhibit 11.42. Operating and Financial Rations before and after Synergies compares the combined firm with and without synergies. It is possible to conclude that the acquisition would increase the average growth rate of Revenues and of the Free Cash-Flow and would increase the investment in R&D. Although Operating Expenses are assumed to increase with the acquisition, which decreases the average EBITDA Margin to 30.8%, the Net Income Margin would suffer only a very slight decrease, from 22.8% to 21.3%, when the first years of the acquisition are excluded. Excluding 2019 and 2020, EBITDA/Interest Expense ratio improves slightly, and Debt/EBITDA ratio decreases, even though the increase in Debt/Total Funds Invested. This means that the combined firm would be capable of generating enough EBITDA to compensate the increase in Debt and, consequently, in Interest Expense. Regarding ROE, considering the whole period, the return would decrease drastically. However, if only the last 8 years are considered, shareholders seem to be better off with the acquisition. When it comes to ROIC and RONIC, if the whole period is considered, the returns decrease with the introduction of synergies. However, when the ratios are computed with data from 2020 onwards, the ROIC remains almost the same but RONIC after synergies would be improved by almost 10%.

7.3. Sensitivity Analysis

It is also helpful to understand what would happen if certain assumptions were changed regarding the effect of synergies (Exhibit 11.43. Synergies' Sensitivity Analysis).

If the increase in Revenues regarding the stronger position in Europe was assumed to be equal to the nominal growth rate of advanced economies (3.8%) that would have increased the value of the synergies in $21,266.6 million.

If the increase in Revenues derived from the increase in investment in R&D would just equal the investment made, that would decrease the value by $4,106.3 million.

If the decrease in administrative employees was higher, that would increase the value of synergies to $27,089.9 million, which is not a huge difference from the current value of synergies. A higher decrease in employees would decrease the value to pay to employees in salaries, but it would increase the indemnity to pay to dismissed employees.

8. The Transaction

Value of the Acquisition

For the transaction, it is assumed that Amgen would buy all the shares outstanding of Incyte, to own 100% of the company., which translates into 211.8 million shares.

Although valuations were performed to understand what the correct value of the firm would be, Amgen will have to pay at least the current market value of Incyte ($18,992.1 million, or $89.7 per share). But since synergies arising from the combination were calculated, Amgen can pay more than the current market value, because, for the acquirer, the acquisition of Incyte seems to bring several benefits. This premium over the current market value may also ensure that current shareholders accept to sell their shares to Amgen.

Considering previous acquisitions, Amgen paid, on average, a premium of 37.5%. Assuming the company wants to maintain the same premium in this acquisition, it would pay $26,114.15 million for the full control of the target and Incyte's shareholders would then receive $123.3 per share sold. This value will be considered as the deal value this point onwards.

In addition, it is necessary to define beforehand a walk-away price, which is defined by the maximum value the company is willing to pay for the acquisition. It is assumed that the maximum premium of the acquisition would be $35,731.3 million, corresponding to a value of synergies of $16,739.2 million, that includes the present value of all the costs savings ($10,026.6 million), which they are the easiest to achieve, and of the revenues enhancements that are more likely to be achieved ($6,712.6 million). The revenues that are more likely to be achieved were assumed to arise from the increased investing power of the combined firm and its effect on revenues. It was assumed that it would be more likely the company to be able to increase revenues in the same amount as the investment made.

Every acquisition is expected to generate expenses before the transaction is made. These expenses are mainly related to due diligence activity, which is a strategy that acquirers perform to obtain the largest amount of information on the target before the acquisition takes place. On the previous acquisition of Amgen (Onyx Pharmaceuticals in 2013), it spent 3.7% of the deal value on transaction-related expenses. Based on this, it is expected that Amgen spends $966.22 million on expenses related to the transaction.

Transaction Approach

As shown by research, hostile transactions result in higher returns for the target's shareholders, however, and as explained in chapter 9, both firms will work together to create a new culture and methods of work that can be applied to both companies. Therefore, if Amgen approaches directly Incyte's shareholders, avoiding discussing this acquisition with the management, the integration of the firms will be harder if the deal is closed. As a result, and although the returns could be lower, it will be assumed that Amgen will approach Incyte in a friendly way.

Method of Payment

At the end of the fiscal year of 2017, Amgen had $41,242.1 million in Excess Cash and Excess Marketable Securities. This large amount of assets is one of the reasons Amgen wants to acquire a new company, as this provides a large financial flexibility. For this reason, the Incyte acquisition can be financed by a large amount of excess cash and securities, with no need to issue new debt.

The amount of the acquisition was determined to be $26,114.15 million, which allows Amgen to spend 63.3% of the amount and remain with $15,128.0 million on its balance sheet.

The method of payment is in accordance with the previously discussed literature, that argues that all-cash deals tend to provide positive returns to all shareholders involved. In addition, all previous acquisitions made by the acquirer have been paid only in cash, meaning the company has a clear preference for the method of payment of its acquisitions.

9. Post-Merger Integration

It is necessary to define beforehand the plan to apply after the deal takes place (Bruner, Applied Mergers & Acquisitions, 2004). This plan can be designed once the due diligence gives enough information about the target company. However, not all information can be acquired in the due diligence process, which means that after the acquisition, Amgen can be faced with new information.

In addition, it is necessary to understand the type of relationship that the acquisition will create between the two companies, as this defines the newly combined firm. In this specific case, the companies will have a mix of autonomy and interdependence, since they remain with the power over the decision-making process, and both brands and products will remain the same. However, and to promote a cohesive environment after the acquisition, the cultures of the companies should be merged to form one unique culture that fit both work environments.

If changes are needed to be made, they will represent an expense for the newly combined firm. Research shows that, on average, companies spend 14% of the deal value on the integration phase (EY, 2014). However, managers argue they should have made a higher investment, as this is an extremely important phase of the whole process. As a result, it will be assumed that these expenses will represent 20% of the value of the deal ($5,222.8million), to ensure that all necessary changes are implemented. Also, it should be put the hypothesis of a second wave of integration if after 5 years some changes are still required.

10. Conclusion

Amgen is currently looking for a target in its industry to pursue an acquisition. It has the financial flexibility to do so, and it needs a solution for the weak results of 2017 and the not very optimistic forecasts for its revenues. Incyte is a biotechnology company, whose earnings have not been positive, but the high investments it has been making in R&D promise future high growth rates fulfilling the needs of growth of Amgen.

This acquisition is assumed to create an interdependent relationship, where Incyte can adopt the strengths of Amgen in the drug development process and become more efficient in transforming investment into revenues. On the other hand, Amgen can offset the poor performance by buying someone else's growth and take advantage of economies of scale to decrease costs with supplied material and employees. The combined firm would put together knowledge, expertise, and resources, which could guarantee an increase in investing power in R&D and a consequent increase in revenues.

Assuming a premium of 37.5%, Amgen would offer $26,114.15 million for the full control of the company, which values each share at $123.3. Incyte's shareholders would then have a gain of $33.6 for each share sold if this price is accepted. This price also ensures the creation of value for all the future shareholders of the combined firm.

The acquisition is also expected to increase Revenues and FCF growth rates that are capable to offset the decrease of EBITDA and Net Income margins, caused by the increase in operating expenses. Returns for shareholders seem to be improved, which is a positive aspect for Amgen, who was concerned about the returns of its shareholders.

PMI could become less difficult through a high investment in the due-diligence process, to get to know better what is expected from Incyte after the deal is closed. This investment would allow the phase of integration to occur smoothly, when putting together employees, methods of work, facilities, and culture, to make sure the acquisition is successful.

11. APPENDICES

11.1. Amgen's Historical Revenues

REVENUES - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	**14,268.0**	**14,771.0**	**15,003.0**	**14,642.0**	**15,053.0**	**15,582.0**	**17,265.0**	**18,676.0**	**20,063.0**	**21,662.0**	**22,991.0**	**22,849.0**
Product Sales	**13,858.0**	**14,311.0**	**14,687.0**	**14,351.0**	**14,660.0**	**15,295.0**	**16,639.0**	**18,192.0**	**19,327.0**	**20,944.0**	**21,892.0**	**21,795.0**
ENBREL	2,879.0	3,230.0	3,598.0	3,493.0	3,534.0	3,701.0	4,236.0	4,551.0	4,688.0	5,364.0	5,965.0	5,433.0
% of Revenues	*20.2%*	*21.9%*	*24.0%*	*23.9%*	*23.5%*	*23.8%*	*24.5%*	*24.4%*	*23.4%*	*24.8%*	*25.9%*	*23.8%*
Neulasta	2,710.0	3,000.0	3,318.0	3,355.0	3,558.0	3,952.0	4,092.0	4,392.0	4,596.0	4,715.0	4,648.0	4,534.0
% of Revenues	*0.2*	*0.2*	*0.2*	*22.9%*	*23.6%*	*25.4%*	*23.7%*	*23.5%*	*22.9%*	*21.8%*	*20.2%*	*19.8%*
Aranesp	4,121.0	3,614.0	3,137.0	2,652.0	2,486.0	2,303.0	2,040.0	1,911.0	1,930.0	1,951.0	2,093.0	2,053.0
% of Revenues	*28.9%*	*24.5%*	*20.9%*	*18.1%*	*16.5%*	*14.8%*	*11.8%*	*10.2%*	*9.6%*	*9.0%*	*9.1%*	*9.0%*
Prolia					33.0	203.0	472.0	744.0	1,030.0	1,312.0	1,635.0	1,968.0
% of Revenues					*0.2%*	*1.3%*	*2.7%*	*4.0%*	*5.1%*	*6.1%*	*7.1%*	*8.6%*
Sensipar/Mimpara	321.0	463.0	597.0	651.0	714.0	808.0	950.0	1,089.0	1,158.0	1,415.0	1,582.0	1,718.0
% of Revenues	*2.2%*	*3.1%*	*4.0%*	*4.4%*	*4.7%*	*5.2%*	*5.5%*	*5.8%*	*5.8%*	*6.5%*	*6.9%*	*7.5%*
XGEVA					8.0	351.0	748.0	1,019.0	1,221.0	1,405.0	1,529.0	1,575.0
% of Revenues					*0.1%*	*2.3%*	*4.3%*	*5.5%*	*6.1%*	*6.5%*	*6.7%*	*6.9%*
EPOGEN	2,511.0	2,489.0	2,456.0	2,569.0	2,524.0	2,040.0	1,941.0	1,953.0	2,031.0	1,856.0	1,282.0	1,096.0
% of Revenues	*17.6%*	*16.9%*	*16.4%*	*17.5%*	*16.8%*	*13.1%*	*11.2%*	*10.5%*	*10.1%*	*8.6%*	*5.6%*	*4.8%*
NEUPOGEN	1,213.0	1,277.0	1,341.0	1,288.0	1,286.0	1,260.0	1,260.0	1,398.0	1,159.0	1,049.0	765.0	549.0
% of Revenues	*8.5%*	*9.0%*	*9.4%*	*9.0%*	*9.0%*	*8.8%*	*8.8%*	*9.8%*	*8.1%*	*7.4%*	*5.4%*	*3.8%*
Other Products	103.0	238.0	240.0	343.0	517.0	677.0	900.0	1,135.0	1,514.0	1,877.0	2,393.0	2,869.0
% of Revenues	*0.7%*	*1.6%*	*1.6%*	*2.3%*	*3.4%*	*4.3%*	*5.2%*	*6.1%*	*7.5%*	*8.7%*	*10.4%*	*12.6%*
Other Revenues	**410.0**	**460.0**	**316.0**	**291.0**	**393.0**	**287.0**	**626.0**	**484.0**	**736.0**	**718.0**	**1,099.0**	**1,054.0**
% of Revenues	*2.9%*	*3.1%*	*2.1%*	*2.0%*	*2.6%*	*1.8%*	*3.6%*	*2.6%*	*3.7%*	*3.3%*	*4.8%*	*4.6%*

11.2. Amgen's Historical NOPLAT

NOPLAT - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	**14,268.0**	**14,771.0**	**15,003.0**	**14,642.0**	**15,053.0**	**15,582.0**	**17,265.0**	**18,676.0**	**20,063.0**	**21,662.0**	**22,991.0**	**22,849.0**
Operating expenses	**9,511.0**	**9,589.0**	**8,716.0**	**8,087.0**	**8,491.0**	**10,211.0**	**10,602.0**	**11,523.0**	**11,780.0**	**11,065.0**	**11,078.0**	**10,921.0**
% of Revenues	*66.7%*	*64.9%*	*58.1%*	*55.2%*	*56.4%*	*65.5%*	*61.4%*	*61.7%*	*58.7%*	*51.1%*	*48.2%*	*47.8%*
Cost of Sales	*2,095.0*	*2,548.0*	*2,296.0*	*2,091.0*	*2,220.0*	*2,708.0*	*3,199.0*	*3,346.0*	*4,422.0*	*4,227.0*	*4,162.0*	*4,069.0*
(-) Depreciation and Amortization	*- 917.0*	*- 1,202.0*	*- 1,073.0*	*- 1,049.0*	*- 1,017.0*	*- 1,059.0*	*- 1,086.0*	*- 1,286.0*	*- 2,092.0*	*- 2,127.0*	*- 2,119.0*	*- 1,955.0*
Research and Development (R&D)	*3,366.0*	*3,266.0*	*3,030.0*	*2,864.0*	*2,894.0*	*3,167.0*	*3,380.0*	*4,083.0*	*4,297.0*	*4,070.0*	*3,840.0*	*3,562.0*
Selling, general and administrative	*3,366.0*	*3,361.0*	*3,789.0*	*3,820.0*	*3,983.0*	*4,499.0*	*4,814.0*	*5,184.0*	*4,699.0*	*4,846.0*	*5,062.0*	*4,870.0*
Other operating expenses	*1,601.0*	*1,616.0*	*674.0*	*361.0*	*411.0*	*896.0*	*295.0*	*196.0*	*454.0*	*49.0*	*133.0*	*375.0*
EBITDA	**4,757.0**	**5,182.0**	**6,287.0**	**6,555.0**	**6,562.0**	**5,371.0**	**6,663.0**	**7,153.0**	**8,283.0**	**10,597.0**	**11,913.0**	**11,928.0**
% of Revenues	*33.3%*	*35.1%*	*41.9%*	*44.8%*	*43.6%*	*34.5%*	*38.6%*	*38.3%*	*41.3%*	*48.9%*	*51.8%*	*52.2%*
Depreciation	547.0	786.0	648.0	624.0	594.0	679.0	689.0	644.0	716.0	727.0	619.0	655.0
Amortization	370.0	416.0	425.0	425.0	423.0	380.0	397.0	642.0	1,376.0	1,400.0	1,500.0	1,300.0
EBIT	**3,840.0**	**3,980.0**	**5,214.0**	**5,506.0**	**5,545.0**	**4,312.0**	**5,577.0**	**5,867.0**	**6,191.0**	**8,470.0**	**9,794.0**	**9,973.0**
% of Revenues	*26.9%*	*26.9%*	*34.8%*	*37.6%*	*36.8%*	*27.7%*	*32.3%*	*31.4%*	*30.9%*	*39.1%*	*42.6%*	*43.6%*
Operating cash taxes	965.2	1,283.4	915.8	1,304.7	1,338.3	780.3	1,220.0	4,531.9	1,339.5	742.4	5,102.3	7,835.5
NOPLAT	**2,874.8**	**2,696.6**	**4,298.2**	**4,201.3**	**4,206.7**	**3,531.7**	**4,357.0**	**1,335.1**	**4,851.5**	**7,727.6**	**4,691.7**	**2,137.5**

11.3. Amgen's Historical Net Income

NET INCOME - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NOPLAT	**2,874.8**	**2,696.6**	**4,298.2**	**4,201.3**	**4,206.7**	**3,531.7**	**4,357.0**	**1,335.1**	**4,851.5**	**7,727.6**	**4,691.7**	**2,137.5**
Decrease (increase) in operating deferred taxes	-	113.0	- 480.0	-	-	-	-	3,498.0	- 37.0	- 1,222.0	2,616.0	5,410.0
Interest expense, net	-129.0	-496.0	-551.0	-578.0	-604.0	-610.0	-1,053.0	-1,022.0	-1,061.0	-1,079.0	-1,260.0	-1,304.0
Interest and other income, net	309.0	309.0	352.0	221.0	328.0	449.0	466.0	405.0	465.0	603.0	685.0	904.0
Foreign currency contracts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-56.0	24.0
Foreign currency gain	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ineffective gain/loss Hedging Derivative	0.0	0.0	0.0	0.0	0.0	-1.0	19.0	15.0	-10.0	-16.0	0.0	0.0
Gain on sale of Investment	0.0	0.0	0.0	28.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-Recurring Tax Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6,100.0
Nonoperating taxes	-104.8	455.4	432.8	705.7	648.3	313.3	556.0	849.9	949.5	925.4	1,045.3	907.5
Net Income	**2,950.0**	**3,078.0**	**4,052.0**	**4,605.0**	**4,627.0**	**3,683.0**	**4,345.0**	**5,081.0**	**5,158.0**	**6,939.0**	**7,722.0**	**1,979.0**

11.4. Amgen's Historical Invested Capital

INVESTED CAPITAL - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating Current Assets	5,712.2	6,176.2	5,962.7	5,777.0	6,000.2	7,257.9	7,479.8	8,329.8	8,069.5	7,551.9	8,362.8	8,233.9
(-) Operating Current Liabilities	5,144.0	4,179.0	3,886.0	3,873.0	4,082.0	5,670.0	5,340.0	4,979.0	5,903.0	6,416.0	5,952.0	7,052.0
Total Operating Working Capital	**568.2**	**1,997.2**	**2,076.7**	**1,904.0**	**1,918.2**	**1,587.9**	**2,139.8**	**3,350.8**	**2,166.5**	**1,135.9**	**2,410.8**	**1,181.9**
(+) Net Property, Plant and Equipment	5,921.0	5,941.0	5,879.0	5,738.0	5,522.0	5,420.0	5,326.0	5,349.0	5,223.0	4,907.0	4,961.0	4,989.0
(+) Other Operating Assets, net of Other Liabilities	564.0	-141.0	-1,660.0	-1,737.0	-1,204.0	-1,620.0	-1,926.0	-1,171.0	-1,351.0	-1,635.0	-619.0	510.0
(+) Net Intangible Assets	3,747.0	3,332.0	2,988.0	2,567.0	2,230.0	2,584.0	3,968.0	13,262.0	12,693.0	11,641.0	10,279.0	8,609.0
Invested Capital (Excluding Goodwill)	**10,800.2**	**11,129.2**	**9,283.7**	**8,472.0**	**8,466.2**	**7,971.9**	**9,507.8**	**20,790.8**	**18,731.5**	**16,048.9**	**17,031.8**	**15,289.9**
(+) Goodwill	11,302.0	11,240.0	11,339.0	11,335.0	11,334.0	11,750.0	12,662.0	14,968.0	14,788.0	14,787.0	14,751.0	14,761.0
Invested Capital (Including Goodwill)	**22,102.2**	**22,369.2**	**20,622.7**	**19,807.0**	**19,800.2**	**19,721.9**	**22,169.8**	**35,758.8**	**33,519.5**	**30,835.9**	**31,782.8**	**30,050.9**
(+) Excess Cash	1,005.8	1,737.8	1,480.3	2,597.0	2,993.8	6,640.1	2,924.2	3,441.2	3,344.5	3,725.1	2,803.2	3,364.1
(+) Excess Marketable Securities	4,994.0	5,127.0	7,778.0	10,558.0	14,135.0	13,695.0	20,804.0	15,596.0	23,295.0	27,238.0	34,844.0	37,878.0
(+) Other Non Operating Assets, net of Other Non Operating Liabilities	241.0	292.0	356.0	306.0	377.0	400.0	46.0	3,386.0	396.0	- 48.0	745.0	371.0
Total Funds Invested	**28,343.0**	**29,526.0**	**30,237.0**	**33,268.0**	**37,306.0**	**40,457.0**	**45,944.0**	**58,182.0**	**60,555.0**	**61,751.0**	**70,175.0**	**71,664.0**

11.5. Amgen's Historical Equity and Debt

EQUITY AND DEBT - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Equity												
Common stock and additional paid-in capital	*24,155.0*	*24,976.0*	*26,441.0*	*26,944.0*	*27,299.0*	*27,777.0*	*29,337.0*	*29,891.0*	*30,410.0*	*30,649.0*	*30,784.0*	*30,992.0*
Accumulated deficit	*- 5,203.0*	*- 7,160.0*	*- 5,673.0*	*- 4,322.0*	*- 3,508.0*	*- 8,919.0*	*- 10,423.0*	*- 7,634.0*	*- 4,624.0*	*- 2,086.0*	*- 438.0*	*- 5,072.0*
Other	-	-	-	-	-	-	*- 14.0*	*- 17.0*	*- 15.0*	*- 6.0*	*- 5.0*	-
Accumulated other comprehensive income	*12.0*	*53.0*	*117.0*	*- 8.0*	*- 7.0*	*- 13.0*	-	-	-	-	-	-
Foreign Currency Translation Reserve	-	-	-	*40.0*	*22.0*	*21.0*	*12.0*	*- 68.0*	*- 264.0*	*- 511.0*	*- 610.0*	*- 529.0*
Cash Flow Hedges	-	-	-	*- 82.0*	*3.0*	*43.0*	*- 35.0*	*- 33.0*	*290.0*	*297.0*	*282.0*	*- 6.0*
Available for Sale Securities	-	-	-	*95.0*	*135.0*	*120.0*	*183.0*	*- 43.0*	*- 19.0*	*- 260.0*	*- 138.0*	*- 144.0*
Deferred tax liabilities, net of deferred tax assets	367	480	0	0	0	0	0	3,498	3,461	2,239	4,855	10,265
Dividends payable	-	-	-	-	-	-	355.0	460.0	601.0	-	849.0	816.0
Adjusted Equity	**19,331.0**	**18,349.0**	**20,885.0**	**22,667.0**	**23,944.0**	**19,029.0**	**19,415.0**	**26,054.0**	**29,840.0**	**30,322.0**	**35,579.0**	**36,322.0**
Debt												
Short-term Debt	1,798.0	2,000.0	1,000.0	0.0	2,488.0	84.0	2,495.0	2,505.0	500.0	2,247.0	4,403.0	1,152.0
Curr. Port. Conv. Note	*1,698.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Short-term borrowings and current portion	*100.0*	*2,000.0*	*1,000.0*	*0.0*	*2,488.0*	*84.0*	*2,495.0*	*2,505.0*	*500.0*	*2,247.0*	*4,403.0*	*1,152.0*
Long-term Debt	7,214.0	9,177.0	8,352.0	10,601.0	10,874.0	21,344.0	24,034.0	29,623.0	30,215.0	29,182.0	30,193.0	34,190.0
Convertible notes	*5,080.0*	*5,080.0*	*4,257.0*	*4,512.0*	*2,296.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Long-term debt	*2,134.0*	*4,097.0*	*4,095.0*	*6,089.0*	*8,578.0*	*21,344.0*	*24,034.0*	*29,623.0*	*30,215.0*	*29,182.0*	*30,193.0*	*34,190.0*
Total Debt	**9,012.0**	**11,177.0**	**9,352.0**	**10,601.0**	**13,362.0**	**21,428.0**	**26,529.0**	**32,128.0**	**30,715.0**	**31,429.0**	**34,596.0**	**35,342.0**
Total Funds Invested	**28,343.0**	**29,526.0**	**30,237.0**	**33,268.0**	**37,306.0**	**40,457.0**	**45,944.0**	**58,182.0**	**60,555.0**	**61,751.0**	**70,175.0**	**71,664.0**

11.6. Amgen's Historical Free Cash-Flow Statement

FREE CASH-FLOW STATEMENT - $M

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NOPLAT	2,696.6	4,298.2	4,201.3	4,206.7	3,531.7	4,357.0	1,335.1	4,851.5	7,727.6	4,691.7	2,137.5
(+) Depreciation	786.0	648.0	624.0	594.0	679.0	689.0	644.0	716.0	727.0	619.0	655.0
(+) Amortization	416.0	425.0	425.0	423.0	380.0	397.0	642.0	1,376.0	1,400.0	1,500.0	1,300.0
Gross Cash-Flow	**3,898.6**	**5,371.2**	**5,250.3**	**5,223.7**	**4,590.7**	**5,443.0**	**2,621.1**	**6,943.5**	**9,854.6**	**6,810.7**	**4,092.5**
Investment in Operating Working Capital	1,429.1	79.5	- 172.7	14.2	- 330.3	551.9	1,211.1	- 1,184.3	- 1,030.7	1,275.0	- 1,228.9
Capital Expenditures	806.0	586.0	483.0	378.0	577.0	595.0	667.0	590.0	411.0	673.0	683.0
Investment in Other Operating Assets, net of Other Liabilities	- 705.0	- 1,519.0	- 77.0	533.0	- 416.0	- 306.0	755.0	- 180.0	- 284.0	1,016.0	1,129.0
Investment in Intangible Assets	1.0	81.0	4.0	86.0	734.0	1,781.0	9,936.0	807.0	348.0	138.0	- 370.0
Investment in Goodwill	- 62.0	99.0	- 4.0	- 1.0	416.0	912.0	2,306.0	- 180.0	- 1.0	- 36.0	10.0
Gross Investment	**1,469.1**	**- 673.5**	**233.3**	**1,010.2**	**980.7**	**3,533.9**	**14,875.1**	**- 147.3**	**- 556.7**	**3,066.0**	**223.1**
Free Cash-Flow	**2,429.6**	**6,044.7**	**5,017.0**	**4,213.5**	**3,610.0**	**1,909.2**	**-12,254.0**	**7,090.8**	**10,411.3**	**3,744.7**	**3,869.4**

11.7. Amgen's Historical Financial Ratios

FINANCIAL RATIOS (%)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EBITDA /Interest Expenses (x)	36.9	10.4	11.4	11.3	10.9	8.8	6.3	7.0	7.8	9.8	9.5	9.1
Debt/EBITDA (x)	1.9	2.2	1.5	1.6	2.0	4.0	4.0	4.5	3.7	3.0	2.9	3.0
Debt/Total Funds Invested	31.8%	37.9%	30.9%	31.9%	35.8%	53.0%	57.7%	55.2%	50.7%	50.9%	49.3%	49.3%
Equity/Total Funds Invested	68.2%	62.1%	69.1%	68.1%	64.2%	47.0%	42.3%	44.8%	49.3%	49.1%	50.7%	50.7%
ROE	15.6%	17.2%	19.4%	20.3%	19.3%	19.4%	22.8%	23.0%	20.0%	24.7%	25.8%	7.8%
ROIC without Goodwill	26.6%	24.2%	46.3%	49.6%	49.7%	44.3%	45.8%	6.4%	25.9%	48.2%	27.5%	14.0%
ROIC with Goodwill	13.0%	12.1%	20.8%	21.2%	21.2%	17.9%	19.7%	3.7%	14.5%	25.1%	14.8%	7.1%
RONIC without Goodwill		-54.1%	-86.8%	11.9%	-93.6%	136.6%	53.7%	-26.8%	-170.8%	-107.2%	-308.9%	146.6%

11.8. Incyte's Historical Revenues

REVENUES - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	**27.6**	**34.4**	**3.9**	**9.3**	**169.9**	**94.5**	**297.1**	**354.9**	**511.5**	**753.8**	**1,105.7**	**1,536.2**
Product Revenues	**-**	**-**	**-**	**-**	**-**	**2.0**	**136.0**	**235.4**	**357.6**	**601.0**	**882.4**	**1,200.3**
% of Revenues	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*2.1%*	*45.8%*	*66.3%*	*69.9%*	*79.7%*	*79.8%*	*78.1%*
JAKAFI	-	-	-	-	-	2.0	136.0	235.4	357.6	601.0	852.8	1,133.4
% of Revenues						*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*96.6%*	*94.4%*
ICLUSIG	-	-	-	-	-	-	-	-	-	-	29.6	66.9
% of Revenues											*3.4%*	*5.6%*
Product royalty revenues	**-**	**-**	**-**	**-**	**-**	**-**	**3.7**	**28.3**	**49.0**	**74.8**	**110.7**	**160.8**
% of Revenues	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*1.2%*	*8.0%*	*9.6%*	*9.9%*	*10.0%*	*10.5%*
Other revenues	**3.4**	**4.6**	**3.3**	**3.5**	**0.9**	**0.5**	**0.5**	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**
% of Revenues	*12.3%*	*13.4%*	*84.6%*	*37.6%*	*0.5%*	*0.5%*	*0.2%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Milestone and contract revenues	**24.2**	**29.9**	**0.7**	**5.8**	**168.9**	**91.9**	**156.9**	**91.0**	**104.9**	**77.9**	**112.5**	**175.0**
% of Revenues	*87.7%*	*86.9%*	*17.9%*	*62.4%*	*99.4%*	*97.2%*	*52.8%*	*25.6%*	*20.5%*	*10.3%*	*10.2%*	*11.4%*

11.9. Incyte's Historical NOPLAT

NOPLAT - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues	**27.6**	**34.4**	**3.9**	**9.3**	**169.9**	**94.5**	**297.1**	**354.9**	**511.5**	**753.8**	**1,105.7**	**1,536.2**
Operating expenses	**98.9**	**114.7**	**159.8**	**185.0**	**156.6**	**233.2**	**296.0**	**389.0**	**474.9**	**691.8**	**934.0**	**1,733.9**
% of Revenues	*358.3%*	*333.4%*	*4097.4%*	*1989.2%*	*92.2%*	*246.8%*	*99.6%*	*109.6%*	*92.8%*	*91.8%*	*84.5%*	*112.9%*
Cost of Sales	-	-	-	-	-	-	*0.2*	*0.6*	*3.0*	*27.0*	*45.6*	*58.0*
(-) Depreciation and Amortization	*- 5.6*	*- 5.0*	*- 3.5*	*- 4.0*	*- 3.2*	*- 4.4*	*-*	*- 29.2*	*- 41.4*	*- 11.3*	*- 26.8*	*- 46.1*
Research and Development (R&D)	*87.6*	*104.9*	*146.4*	*119.4*	*123.9*	*178.7*	*210.4*	*260.4*	*221.1*	*330.4*	*384.2*	*1,037.6*
Selling, general and administrative	*14.0*	*15.2*	*17.1*	*27.6*	*32.3*	*58.2*	*85.4*	*109.9*	*292.2*	*345.7*	*501.0*	*655.2*
Other operating expenses	*2.9*	*- 0.4*	*- 0.2*	*42.0*	*3.6*	*0.7*	*-*	*47.3*	*-*	*-*	*30.0*	*29.2*
EBITDA	**- 71.3**	**- 80.3**	**- 155.9**	**- 175.7**	**13.3**	**- 138.7**	**1.1**	**- 34.1**	**36.6**	**62.0**	**171.7**	**- 197.7**
% of Revenues	*-258.3%*	*-233.4%*	*-3997.4%*	*-1889.2%*	*7.8%*	*-146.8%*	*0.4%*	*-9.6%*	*7.2%*	*8.2%*	*15.5%*	*-12.9%*
Depreciation	3.3	3.1	1.8	1.4	1.1	2.2	-	29.2	41.4	11.3	14.2	24.6
Amortization	2.3	1.9	1.7	2.6	2.1	2.2	-	-	-	-	12.6	21.5
EBIT	**- 76.90**	**- 85.30**	**- 159.40**	**- 179.70**	**10.10**	**- 143.10**	**1.10**	**- 63.30**	**- 4.80**	**50.70**	**144.90**	**- 243.80**
% of Revenues	*-278.6%*	*-248.0%*	*-4087.2%*	*-1932.3%*	*5.9%*	*-151.4%*	*0.4%*	*-17.8%*	*-0.9%*	*6.7%*	*13.1%*	*-15.9%*
Operating cash taxes	-	-	-	-	-	-	0.2	0.3	- 0.1	1.0	3.2	0.9
NOPLAT	**- 76.9**	**- 85.3**	**- 159.4**	**- 179.7**	**10.1**	**- 143.1**	**0.9**	**- 63.6**	**- 4.7**	**49.7**	**141.7**	**- 244.7**

11.10. Incyte's Historical Net Income

NET INCOME - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NOPLAT	**5,753.6**	**5,704.0**	**5,879.0**	**6,073.2**	**6,336.4**	**6,426.9**	**6,510.2**	**6,594.5**	**6,679.8**	**6,766.2**
Interest expense, net	-1,332.1	-1,262.6	-1,259.1	-1,282.4	-1,307.6	-1,352.0	-1,368.6	-1,385.3	-1,402.3	-1,419.4
Interest and other income, net	990.3	772.1	855.1	916.7	922.1	938.1	942.9	955.4	971.0	983.4
Non-operating income	-16.0	-16.0	-16.3	-16.6	-17.2	-17.4	-17.6	-17.8	-18.0	-18.3
Nonoperating taxes	-120.7	-173.2	-142.6	-129.1	-136.1	-146.1	-150.3	-56.8	-56.8	-56.8
Net Income	**5,275.1**	**5,024.2**	**5,316.1**	**5,561.8**	**5,797.8**	**5,849.5**	**5,916.6**	**6,089.9**	**6,173.7**	**6,255.1**
Net Income Margin	*23.3%*	*22.2%*	*23.1%*	*23.7%*	*23.9%*	*23.8%*	*23.8%*	*24.2%*	*24.2%*	*24.3%*

11.11. Incyte's Historical Invested Capital

INVESTED CAPITAL - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating Current Assets	9.8	8.7	7.6	166.8	15.7	15.8	87.1	52.5	89.0	149.2	207.8	365.9
(-) Operating Current Liabilities	39.7	26.3	40.0	118.8	108.2	130.9	131.4	106.2	134.1	167.2	253.2	341.2
Total operating working capital	**-29.9**	**-17.6**	**-32.4**	**48.0**	**-92.5**	**-115.1**	**-44.3**	**-53.7**	**-45.1**	**-18.0**	**-45.4**	**24.7**
(+) Net Property, Plant and Eequipment	5.9	4.0	2.8	1.8	4.9	6.5	6.3	26.8	81.7	86.0	167.6	259.8
(+) Other Operating Assets, net of Other Liabilities	-18.0	-12.1	-6.6	-238.8	-171.2	-100.8	-29.7	-17.4	-46.0	16.7	37.1	124.8
(+) Net Intangible Assets	-5.2	-7.1	-8.7	-11.4	-4.6	-4.7	-6.8	-2.3	0.0	0.0	270.4	236.9
Invested Capital (Excluding Goodwill)	**-47.2**	**-32.8**	**-44.9**	**-200.4**	**-263.4**	**-214.1**	**-74.5**	**-46.6**	**-9.4**	**84.7**	**429.7**	**646.2**
(+) Goodwill	-	-	-	-	-	-	-	-	-	-	155.6	155.6
Invested Capital (Including Goodwill)	**-47.2**	**-32.8**	**-44.9**	**-200.4**	**-263.4**	**-214.1**	**-74.5**	**-46.6**	**-9.4**	**84.7**	**585.3**	**801.8**
(+) Excess Cash	18.3	108.2	178.7	449.6	414.5	271.3	218.2	464.3	442.1	506.3	630.2	868.8
(+) Excess Marketable Securities	310.9	148.5	39.1	24.1	6.3	4.4	4.4	37.6	148.0	186.3	156.2	270.1
(+) Other Non Operating Assets, net of Other Non Operating Liabilities	8.9	8.6	8.0	74.5	52.2	32.2	12.9	34.8	14.5	14.5	- 300.1	- 286.1
Total Funds Invested	**290.9**	**232.5**	**180.9**	**347.8**	**209.6**	**93.8**	**161.0**	**490.1**	**595.2**	**791.8**	**1,071.6**	**1,654.6**

11.12. Incyte's Historical Equity and Debt

EQUITY AND DEBT - $M

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Equity												
Common stock	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Additional paid-in capital	*828.9*	*841.3*	*961.2*	*1,288.0*	*1,332.3*	*1,380.7*	*1,476.9*	*1,541.8*	*1,701.9*	*1,950.8*	*2,096.9*	*3,627.4*
Accumulated deficit	*- 913.5*	*- 1,000.4*	*- 1,179.3*	*- 1,391.2*	*- 1,423.0*	*- 1,609.6*	*- 1,653.9*	*- 1,737.0*	*- 1,785.5*	*- 1,779.0*	*- 1,674.8*	*- 1,990.0*
Accumulated other comprehensive loss	*- 0.4*	*- 0.5*	*- 2.7*	*0.7*	*2.0*	*1.6*	*1.9*	*2.0*	*1.8*	*- 0.8*	*- 2.9*	*- 7.0*
Adjusted Equity	**- 84.9**	**- 159.5**	**- 220.7**	**- 102.4**	**- 88.6**	**- 227.2**	**- 175.0**	**- 193.0**	**- 81.6**	**171.2**	**419.4**	**1,630.6**
Debt												
Short-term Debt	4.7	5.3	5.3	7.1	4.8	4.8	4.8	1.9	87.0	0.8	0.8	7.4
Convertible senior notes	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*85.2*	*0.0*	*0.0*	*7.4*
Interest Payable	*4.7*	*5.3*	*5.3*	*7.1*	*4.8*	*4.8*	*4.8*	*1.9*	*1.8*	*0.8*	*0.8*	*0.0*
Long-term Debt	371.1	386.6	396.2	443.2	293.4	316.2	331.0	681.5	590.0	619.9	651.5	16.6
Convertible subordinated notes	*257.1*	*264.4*	*265.2*	*135.1*	*17.0*	*18.0*	*9.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Convertible senior notes	*114.0*	*122.2*	*131.0*	*308.1*	*276.4*	*298.2*	*322.0*	*661.6*	*590.0*	*619.9*	*651.5*	*16.6*
Total Debt	**375.8**	**391.9**	**401.5**	**450.3**	**298.2**	**321.0**	**335.8**	**683.4**	**677.0**	**620.7**	**652.3**	**24.0**
Total Funds Invested	**290.9**	**232.4**	**180.8**	**347.9**	**209.6**	**93.8**	**160.8**	**490.4**	**595.4**	**791.9**	**1,071.7**	**1,654.6**

11.13. Incyte's Historical Free Cash-Flow Statement

FREE CASH-FLOW STATEMENT -$M

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NOPLAT	-85.3	-159.4	-179.7	10.1	-143.1	0.9	-63.6	-4.7	49.7	141.7	-244.7
(+) Depreciation	3.1	1.8	1.4	1.1	2.2	-	29.2	41.4	11.3	14.2	24.6
(+) Amortization	1.9	1.7	2.6	2.1	2.2	-	-	-	-	12.6	21.5
Gross Cash-Flow	**-80.3**	**-155.9**	**-175.7**	**13.3**	**-138.7**	**0.9**	**-34.4**	**36.7**	**61.0**	**168.5**	**-198.6**
Investment in Operating Working Capital	12.3	- 14.8	80.4	- 140.5	- 22.6	70.9	- 9.4	8.6	27.0	- 27.4	70.1
Capital Expenditures	4.3	2.4	1.8	5.3	6.0	- 0.2	78.9	137.7	26.9	110.0	141.4
Investment in Other Operating Assets, net of Other Liabilities	5.9	5.5	- 232.2	67.6	70.4	71.1	12.3	- 28.6	62.7	20.4	87.7
Investment in Intangible Assets	-	0.1	- 0.1	8.9	2.1	- 2.1	4.5	2.3	-	283.0	- 12.0
Investment in Goodwill	-	-	-	-	-	-	-	-	-	155.6	-
Gross Investment	**22.5**	**- 6.8**	**- 150.1**	**- 58.7**	**55.9**	**139.7**	**86.3**	**120.0**	**116.6**	**541.6**	**287.2**
Free Cash-Flow	**-102.8**	**-149.1**	**-25.6**	**72.0**	**-194.6**	**-138.8**	**-120.7**	**-83.3**	**-55.6**	**-373.1**	**-485.8**

11.14. Incyte's Historical Financial Ratios

FINANCIAL RATIOS (%)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EBITDA /Interest Expenses (x)	-4.0	-3.3	-6.3	-5.5	0.3	-3.2	0.0	-0.9	0.8	1.4	4.4	-28.7
Debt/EBITDA (x)	-5.3	-4.9	-2.6	-2.6	22.4	-2.3	305.3	-20.0	18.5	10.0	3.8	-0.1
Debt/Total Funds Invested	129.2%	168.6%	222.1%	129.4%	142.3%	342.2%	208.8%	139.4%	113.7%	78.4%	60.9%	1.5%
Equity/Total Funds Invested	-29.2%	-68.6%	-122.1%	-29.4%	-42.3%	-242.2%	-108.8%	-39.4%	-13.7%	21.6%	39.1%	98.5%
ROE	87.4%	54.5%	81.1%	206.9%	35.9%	82.1%	25.3%	43.1%	59.4%	3.8%	24.8%	-19.2%
ROIC without Goodwill	162.8%	260.0%	354.8%	89.7%	-3.8%	66.8%	-1.2%	136.5%	50.2%	58.7%	33.0%	-37.9%
ROIC with Goodwill	162.8%	260.0%	354.8%	89.7%	-3.8%	66.8%	-1.2%	136.5%	50.2%	58.7%	24.2%	-30.5%
RONIC without Goodwill		-58.2%	611.9%	13.1%	-301.3%	-310.8%	103.1%	-231.5%	158.2%	57.8%	26.7%	-178.5%

11.15. Amgen's NOPLAT Forecast

NOPLAT - $M	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenues	**22,661.5**	**22,597.8**	**23,015.4**	**23,467.6**	**24,266.1**	**24,562.8**	**24,863.1**	**25,167.1**	**25,474.8**	**25,786.3**
Operating expenses	**11,547.5**	**11,344.7**	**11,503.9**	**11,957.0**	**12,356.6**	**12,827.8**	**12,999.0**	**13,172.4**	**13,347.9**	**13,525.5**
% of Revenues	*51.0%*	*50.2%*	*50.0%*	*51.0%*	*50.9%*	*52.2%*	*52.3%*	*52.3%*	*52.4%*	*52.5%*
Cost of Sales	*4,102.4*	*4,090.8*	*4,166.4*	*4,248.3*	*4,392.8*	*4,446.5*	*4,500.9*	*4,555.9*	*4,611.6*	*4,668.0*
% of Revenues	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*	*18.1%*
(-) Depreciation and Amortization	*- 1,742.1*	*- 1,885.6*	*- 1,884.8*	*- 1,690.0*	*- 1,695.8*	*- 1,487.7*	*- 1,491.4*	*- 1,495.2*	*- 1,499.1*	*- 1,503.0*
Research and Development (R&D)	*4,075.2*	*4,041.8*	*4,030.4*	*4,104.9*	*4,185.5*	*4,327.9*	*4,380.9*	*4,434.4*	*4,488.6*	*4,543.5*
% of Revenues	*0.2*	*17.8%*	*17.8%*	*17.8%*	*17.8%*	*17.8%*	*17.8%*	*17.8%*	*17.8%*	*17.8%*
Selling, general and administrative	*4,830.0*	*4,816.5*	*4,905.5*	*5,001.9*	*5,172.0*	*5,235.3*	*5,299.3*	*5,364.1*	*5,429.7*	*5,496.0*
% of Revenues	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*	*21.3%*
Other operating expenses	*282.0*	*281.2*	*286.4*	*292.1*	*302.0*	*305.7*	*309.4*	*313.2*	*317.0*	*320.9*
% of Revenues	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*	*1.2%*
EBITDA	**11,114.0**	**11,253.1**	**11,511.4**	**11,510.6**	**11,909.5**	**11,735.0**	**11,864.1**	**11,994.7**	**12,126.9**	**12,260.7**
% of Revenues	*49.0%*	*49.8%*	*50.0%*	*49.0%*	*49.1%*	*47.8%*	*47.7%*	*47.7%*	*47.6%*	*47.5%*
Depreciation	589.4	591.0	590.7	592.4	594.3	597.5	598.7	599.9	601.2	602.4
Amortization	1,152.8	1,294.6	1,294.0	1,097.6	1,101.5	890.2	892.7	895.3	897.9	900.5
EBIT	**9,371.9**	**9,367.5**	**9,626.7**	**9,820.6**	**10,213.7**	**10,247.3**	**10,372.6**	**10,499.5**	**10,627.8**	**10,757.8**
% of Revenues	*41.4%*	*41.5%*	*41.8%*	*41.8%*	*42.1%*	*41.7%*	*41.7%*	*41.7%*	*41.7%*	*41.7%*
Operating cash taxes	3,618.3	3,663.6	3,747.7	3,747.4	3,877.3	3,820.5	3,862.5	3,905.0	3,948.0	3,991.6
NOPLAT	**5,753.6**	**5,704.0**	**5,879.0**	**6,073.2**	**6,336.4**	**6,426.9**	**6,510.2**	**6,594.5**	**6,679.8**	**6,766.2**

11.16. Amgen's NOPLAT Forecast Drivers

NOPLAT - $M

	2015	2016	2017	Forecast Driver	2018	2019
Revenues	**21,662.0**	**22,991.0**	**22,849.0**		**22,661.5**	**22,597.8**
Operating Expenses	**11,065.4**	**11,078.6**	**10,921.5**		**11,616.2**	**11,413.5**
% of Revenues	*51.1%*	*48.2%*	*47.8%*		*51.3%*	*50.5%*
Cost of Sales	4,227.0	4,162.0	4,069.0		4,102.4	4,090.8
% of Revenues	*19.5%*	*18.1%*	*17.8%*	**18.1%**	*18.1%*	*18.1%*
Research and Development (R&D)	4,070.0	3,840.0	3,562.0		4,075.2	4,041.8
% of Revenues	*20.3%*	*17.7%*	*15.5%*	**17.8%**	*17.8%*	*17.8%*
Selling, General and Administrative	4,846.0	5,062.0	4,870.0		4,830.0	4,816.5
% of Revenues	*22.4%*	*22.0%*	*21.3%*	**21.3%**	*21.3%*	*21.3%*
Other Operating Expenses	49.0	133.0	375.0		282.0	281.2
% of Revenues	*0.2%*	*0.6%*	*1.6%*	**1.2%**	*1.2%*	*1.2%*

11.17. Amgen's Net Income Forecast

NET INCOME - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NOPLAT	**5,753.6**	**5,704.0**	**5,879.0**	**6,073.2**	**6,336.4**	**6,426.9**	**6,510.2**	**6,594.5**	**6,679.8**	**6,766.2**
Interest expense, net	-1,332.1	-1,262.6	-1,259.1	-1,282.4	-1,307.6	-1,352.0	-1,368.6	-1,385.3	-1,402.3	-1,419.4
Interest and other income, net	990.3	772.1	855.1	916.7	922.1	938.1	942.9	955.4	971.0	983.4
Non-operating income	-16.0	-16.0	-16.3	-16.6	-17.2	-17.4	-17.6	-17.8	-18.0	-18.3
Nonoperating taxes	-120.7	-173.2	-142.6	-129.1	-136.1	-146.1	-150.3	-56.8	-56.8	-56.8
Net Income	**5,275.1**	**5,024.2**	**5,316.1**	**5,561.8**	**5,797.8**	**5,849.5**	**5,916.6**	**6,089.9**	**6,173.7**	**6,255.1**
Net Income Margin	*23.3%*	*22.2%*	*23.1%*	*23.7%*	*23.9%*	*23.8%*	*23.8%*	*24.2%*	*24.2%*	*24.3%*

11.18. Amgen's Invested Capital Forecast

INVESTED CAPITAL - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Current Assets	8,504.5	8,480.6	8,637.3	8,807.0	9,106.6	9,218.0	9,330.7	9,444.8	9,560.3	9,677.2
(-) Operating Current Liabilities	6,507.4	6,489.1	6,609.0	6,738.8	6,968.1	7,053.3	7,139.6	7,226.8	7,315.2	7,404.7
Total Operating Working Capital	**1,997.1**	**1,991.5**	**2,028.3**	**2,068.2**	**2,138.5**	**2,164.7**	**2,191.1**	**2,217.9**	**2,245.1**	**2,272.5**
(+) Net Property, Plant and Equipment	5,094.9	5,197.1	5,312.5	5,440.0	5,590.2	5,746.3	5,910.3	6,082.5	6,262.9	6,451.5
(+) Other Operating Assets, net of Other Liabilities	498.6	497.2	506.3	516.3	533.9	540.4	547.0	553.7	560.4	567.3
(+) Net Intangible Assets	8,980.4	9,205.7	9,459.6	9,940.4	10,470.9	11,232.8	12,012.3	12,809.7	13,625.2	14,459.0
Invested Capital (Excluding Goodwill)	**16,570.9**	**16,891.5**	**17,306.8**	**17,964.9**	**18,733.6**	**19,684.2**	**20,660.8**	**21,663.8**	**22,693.6**	**23,750.3**
(+) Goodwill	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0	14,761.0
Invested Capital (Including Goodwill)	**31,331.9**	**31,652.5**	**32,067.8**	**32,725.9**	**33,494.6**	**34,445.2**	**35,421.8**	**36,424.8**	**37,454.6**	**38,511.3**
(+) Excess Cash	211.7	3,925.7	5,997.4	5,567.2	5,085.0	4,854.6	4,957.9	5,189.2	5,277.0	5,291.4
(+) Excess Marketable Securities	33,468.9	33,374.8	33,991.5	34,659.4	35,838.7	36,276.8	36,720.4	37,169.4	37,623.8	38,083.9
(+) Other Non Operating Assets, net of Other Non Operating Liabilities	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0
Total Funds Invested	**65,368.5**	**69,308.9**	**72,412.6**	**73,308.5**	**74,774.2**	**75,932.6**	**77,456.1**	**79,139.4**	**80,711.5**	**82,242.6**

11.19. Amgen's Equity and Debt Forecast

EQUITY AND DEBT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Equity										
Common stock and additional paid-in capital	*30,992.0*	*30,992.0*	*30,992.0*	30,992.0	30,992.0	30,992.0	30,992.0	30,992.0	30,992.0	30,992.0
Accumulated deficit	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*	*- 5,072.0*
Foreign Currency Translation Reserve	*- 458.8*	*- 397.8*	*- 345.0*	*- 299.2*	*- 259.5*	*- 225.0*	*- 195.1*	*- 169.2*	*- 146.8*	*- 127.3*
Cash Flow Hedges	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*
Available for Sale Securities	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*
Retained Earnings	*1,911.0*	*6,723.5*	*8,113.9*	*7,678.3*	*7,908.8*	*8,673.3*	*9,735.3*	*10,867.4*	*11,851.9*	*12,830.1*
Starting Retained Earnings (beg. of period)	*-*	*1,911.0*	*6,723.5*	*8,113.9*	*7,678.3*	*7,908.8*	*8,673.3*	*9,735.3*	*10,867.4*	*11,851.9*
Net income	*5,275.1*	*5,024.2*	*5,316.1*	*5,561.8*	*5,797.8*	*5,849.5*	*5,916.6*	*6,089.9*	*6,173.7*	*6,255.1*
Dividends	3,364.1	211.7	3,925.7	*5,997.4*	*5,567.2*	*5,085.0*	*4,854.6*	*4,957.9*	*5,189.2*	*5,277.0*
Ending Retained Earnings (end of period)	*1,911.0*	*6,723.5*	*8,113.9*	*7,678.3*	*7,908.8*	*8,673.3*	*9,735.3*	*10,867.4*	*11,851.9*	*12,830.1*
Deferred tax liabilities, net of deferred tax assets	*3,637.5*	*3,627.2*	*3,694.3*	3,767	3,895	3,943	3,991	4,040	4,089	4,139
Dividends payable	*884.2*	*55.7*	*1,031.8*	1,576.4	1,463.3	1,336.6	1,276.0	1,303.1	1,363.9	1,387.0
Adjusted Equity	**31,869.7**	**35,904.3**	**38,390.7**	**38,618.0**	**38,903.4**	**39,623.2**	**40,702.8**	**41,936.7**	**43,053.9**	**44,124.6**
Debt										
Short-term Debt	2,099.5	2,093.6	2,132.3	2,174.2	2,248.1	2,275.6	2,303.4	2,331.6	2,360.1	2,389.0
Long-term Debt	31,399.4	31,311.1	31,889.7	32,516.3	33,622.7	34,033.8	34,449.9	34,871.1	35,297.5	35,729.1
New Issue Debt	*0.0*	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Debt	**33,498.9**	**33,404.7**	**34,022.0**	**34,690.5**	**35,870.8**	**36,309.4**	**36,753.3**	**37,202.7**	**37,657.6**	**38,118.0**
Total Funds Invested	**65,368.5**	**69,308.9**	**72,412.6**	**73,308.5**	**74,774.2**	**75,932.6**	**77,456.1**	**79,139.4**	**80,711.5**	**82,242.6**

11.20. Amgen's Free Cash-Flow Statement Forecast

FREE CASH-FLOW STATEMENT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Continuing Value
NOPLAT	5,753.6	5,704.0	5,879.0	6,073.2	6,336.4	6,426.9	6,510.2	6,594.5	6,679.8	6,766.2	
(+) Depreciation	589.4	591.0	590.7	592.4	594.3	597.5	598.7	599.9	601.2	602.4	
(+) Amortization	1,152.8	1,294.6	1,294.0	1,097.6	1,101.5	890.2	892.7	895.3	897.9	900.5	
Gross Cash-Flow	**7,495.7**	**7,589.5**	**7,763.8**	**7,763.2**	**8,032.2**	**7,914.6**	**8,001.6**	**8,089.7**	**8,178.9**	**8,269.1**	
Investment in Operating Working Capital	815.2	- 5.6	36.8	39.9	70.4	26.1	26.5	26.8	27.1	27.5	
Capital Expenditures	695.2	693.3	706.1	720.0	744.5	753.6	762.8	772.1	781.5	791.1	
Investment in Other Operating Assets, net of Other Liabilities	- 11.4	- 1.4	9.2	9.9	17.6	6.5	6.6	6.7	6.8	6.9	
Investment in Intangible Assets	1,524.2	1,519.9	1,548.0	1,578.4	1,632.1	1,652.0	1,672.2	1,692.7	1,713.4	1,734.3	
Investment in Goodwill	-	-	-	-	-	-	-	-	-	-	
Gross Investment	**3,023.2**	**2,206.1**	**2,300.0**	**2,348.1**	**2,464.5**	**2,438.3**	**2,468.1**	**2,498.3**	**2,528.8**	**2,559.7**	
Free Cash-Flow	**4,472.6**	**5,383.4**	**5,463.7**	**5,415.1**	**5,567.7**	**5,476.3**	**5,533.5**	**5,591.4**	**5,650.1**	**5,709.4**	**84,222.3**

11.21. Amgen's Sensitivity Analysis

SENSITIVITY ANALYSIS - $M

	Valuation Scenario	Scenario 1	Scenario 2
WACC	**8.1%**	**7.1%**	**9.1%**
Valuation	120,020.8	136,942.4	108,165.3
Impact on Valuation	-	16,921.6	- 11,855.6
Growth rate in Perpetuity	**1.1%**	**0.5%**	**2.1%**
Valuation	120,020.8	119,994.3	120,084.91
Impact on Valuation	-	- 26.6	64.1
Average Revenues growth rate	**1.2%**	**3.4%**	**-0.8%**
Valuation	120,020.8	165,703.4	95,580.7
Impact on Valuation	-	45,682.6	- 24,440.1
Operating Expenses (% of Revenues)	**51.5%**	**41.5%**	**61.5%**
Valuation	120,020.8	159,642.6	88,242.2
Impact on Valuation	-	39,621.8	- 31,778.6
R&D Expenses (% of Revenues)	**17.8%**	**15.5%**	**20.4%**
Valuation	120,020.8	128,205.8	111,058.7
Impact on Valuation	-	8,185.0	- 8,962.2

11.22. Amgen's Multiples

MULTIPLES - $M

	EV/EBITDA	EV/EBIT	EV/Revenues
AbbVie (x)	14.8	16.5	6.3
Gilead Sciences (x)	6.8	7.2	4.1
Average	**10.8**	**11.8**	**5.2**
Amgen's EBITDA	*11,928.0*		
Amgen's EBIT		*9,973.0*	
Amgen's Revenues			*22,849.0*
Amgen's Enterprise Value	**128,822.4**	**117,930.7**	**118,472.1**
Amgen's Equity Value	**130,767.71**	**119,876.04**	**120,417.38**

11.23. Incyte's NOPLAT Forecast

NOPLAT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues	**1,783.0**	**2,030.9**	**2,340.3**	**2,630.0**	**3,018.2**	**3,454.9**	**3,954.8**	**4,527.1**	**5,182.1**	**5,931.9**	**6,370.8**	**6,842.3**	**7,348.6**	**7,892.4**	**8,476.4**
Operating Expenses	**1,493.7**	**1,712.1**	**1,968.5**	**2,242.3**	**2,554.7**	**2,791.0**	**3,199.2**	**3,666.5**	**4,201.4**	**4,813.6**					
% of Revenues	*83.8%*	*84.3%*	*84.1%*	*85.3%*	*84.6%*	*80.8%*	*80.9%*	*81.0%*	*81.1%*	*81.1%*					
Cost of Sales	*67.3*	*76.7*	*88.4*	*99.3*	*114.0*	*130.4*	*149.3*	*170.9*	*195.7*	*224.0*					
% of Revenues	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*	*3.8%*					
(-) Depreciation and Amortization	*- 59.1*	*- 71.7*	*- 76.3*	*- 82.0*	*- 87.3*	*- 85.8*	*- 93.9*	*- 103.1*	*- 113.6*	*- 125.7*					
Research and Development (R&D)	*697.6*	*809.7*	*922.3*	*1,062.8*	*1,194.3*	*1,219.7*	*1,396.2*	*1,598.2*	*1,829.4*	*2,094.1*					
% of Revenues	*45.4%*	*45.4%*	*45.4%*	*45.4%*	*45.4%*	*40.4%*	*40.4%*	*40.4%*	*40.4%*	*40.4%*					
Selling, general and administrative	*760.5*	*866.2*	*998.2*	*1,121.7*	*1,287.3*	*1,473.6*	*1,686.8*	*1,930.8*	*2,210.2*	*2,530.0*					
% of Revenues	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*	*42.7%*					
Other operating expenses	*27.4*	*31.2*	*36.0*	*40.4*	*46.4*	*53.1*	*60.8*	*69.6*	*79.7*	*91.2*					
% of Revenues	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*	*1.5%*					
EBITDA	**289.2**	**318.8**	**371.8**	**387.7**	**463.5**	**663.9**	**755.6**	**860.6**	**980.7**	**1,118.2**					
% of Revenues	*16.2%*	*15.7%*	*15.9%*	*14.7%*	*15.4%*	*19.2%*	*19.1%*	*19.0%*	*18.9%*	*18.9%*					
Depreciation	38.5	37.6	40.4	43.9	47.2	51.6	56.6	62.3	68.8	76.2					
Amortization	20.5	34.1	35.8	38.0	40.1	34.2	37.3	40.8	44.8	49.4					
EBIT	**230.2**	**247.1**	**295.5**	**305.8**	**376.2**	**578.1**	**661.8**	**757.5**	**867.1**	**992.6**					
% of Revenues	*12.9%*	*12.2%*	*12.6%*	*11.6%*	*12.5%*	*16.7%*	*16.7%*	*16.7%*	*16.7%*	*16.7%*					
Operating cash taxes	5.0	5.5	6.5	6.7	8.1	11.5	13.1	15.0	17.0	19.4					
NOPLAT	**225.2**	**241.6**	**289.1**	**299.1**	**368.2**	**566.6**	**648.6**	**742.6**	**850.1**	**973.1**	**1,045.1**	**1,122.5**	**1,205.6**	**1,294.8**	**1,390.6**
% of Revenues	*12.6%*	*11.9%*	*12.4%*	*11.4%*	*12.2%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*	*16.4%*

11.24. Incyte's NOPLAT Forecast Drivers

NOPLAT - $M	2015	2016	2017	Forecast Driver	2018	2019
Revenues	**753.8**	**1,105.7**	**1,536.2**		**1,783.0**	**2,030.9**
Operating expenses	**691.8**	**934.0**	**1,733.9**		**1,500.2**	**1,719.5**
% of Revenues	*91.8%*	*84.5%*	*112.9%*		*84.1%*	*84.7%*
Cost of Sales	27.0	45.6	58.0		67.3	76.7
% of Revenues	*3.6%*	*4.1%*	*3.8%*	**3.8%**	*3.8%*	*3.8%*
Research and Development (R&D)	330.4	384.2	1,037.6		697.6	809.7
% of Revenues	*64.6%*	*51.0%*	*93.8%*	**45.4%**	*45.4%*	*45.4%*
Selling, general and administrative	345.7	501.0	655.2		760.5	866.2
% of Revenues	*45.9%*	*45.3%*	*42.7%*	**42.7%**	*42.7%*	*42.7%*
Other operating expenses	-	30.0	29.2		33.9	38.6
% of Revenues	*0.0%*	*2.7%*	*1.9%*	**1.5%**	*1.9%*	*1.9%*

11.25. Incyte's Net Income Forecast

NET INCOME - $M	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
NOPLAT	**225.2**	**241.6**	**289.1**	**299.1**	**368.2**	**566.6**	**648.6**	**742.6**	**850.1**	**973.1**	**1,045.1**	**1,122.5**	**1,205.6**	**1,294.8**	**1,390.6**
Interest expense, net	-1.1	-1.3	-1.5	-1.7	-1.9	-2.2	-2.5	-2.9	-3.3	-3.8	-4.3	-4.7	-5.0	-5.4	-5.8
Interest and other income, net	15.4	13.7	13.6	13.6	13.1	12.8	14.2	15.7	17.4	19.2	21.3	22.8	25.3	28.1	31.0
Net Income	**239.5**	**254.0**	**301.2**	**310.9**	**379.4**	**577.2**	**660.3**	**755.4**	**864.1**	**988.6**	**1,062.1**	**1,140.6**	**1,225.9**	**1,317.5**	**1,415.8**
Net Income Margin	*12.3%*	*11.5%*	*11.8%*	*10.7%*	*11.2%*	*16.8%*	*16.9%*	*16.9%*	*16.9%*	*16.9%*	*16.9%*	*17.0%*	*17.0%*	*17.0%*	*17.0%*

11.26. Incyte's Invested Capital Forecast

INVESTED CAPITAL - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
OPERATING WORKING CAPITAL															
Operating Current Assets	388.9	443.0	510.5	573.7	658.4	753.6	862.6	987.5	1,130.3	1,293.9	1,389.6	1,492.5	1,602.9	1,721.5	1,848.9
(-) Operating Current Liabilities	387.9	441.9	509.2	572.2	656.7	751.7	860.5	985.0	1,127.5	1,290.7	1,386.2	1,488.8	1,598.9	1,717.2	1,844.3
Total Operating Working Capital	**1.0**	**1.1**	**1.3**	**1.4**	**1.6**	**1.9**	**2.1**	**2.5**	**2.8**	**3.2**	**3.5**	**3.7**	**4.0**	**4.3**	**4.6**
(+) Net Property, Plant and Equipment	356.3	472.5	609.4	764.7	946.0	1,156.1	1,399.0	1,679.6	2,003.3	2,376.4	2,774.2	3,202.7	3,664.2	4,161.1	4,696.0
(+) Other Operating Assets, net of Other Liabilities	81.4	92.7	106.8	120.1	137.8	157.7	180.5	206.7	236.6	270.8	290.8	312.3	335.5	360.3	386.9
(+) Net Intangible Assets	363.9	497.7	655.5	835.0	1,044.5	1,296.1	1,585.9	1,919.6	2,303.4	2,744.6	3,216.8	3,724.9	4,271.6	4,859.6	5,492.2
Invested Capital (Excluding Goodwill)	**802.5**	**1,064.1**	**1,372.9**	**1,721.1**	**2,130.0**	**2,611.8**	**3,167.7**	**3,808.3**	**4,546.1**	**5,395.0**	**6,285.2**	**7,243.6**	**8,275.2**	**9,385.3**	**10,579.8**
(+) Goodwill	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6	155.6
Invested Capital (Including Goodwill)	**958.1**	**1,219.7**	**1,528.5**	**1,876.7**	**2,285.6**	**2,767.4**	**3,323.3**	**3,963.9**	**4,701.7**	**5,550.6**	**6,440.8**	**7,399.2**	**8,430.8**	**9,540.9**	**10,735.4**
(+) Excess Cash	672.6	622.3	561.3	474.0	377.6	397.7	415.9	431.9	445.3	455.7	482.8	583.7	690.7	804.3	924.9
(+) Excess Marketable Securities	335.3	382.0	440.2	494.7	567.7	649.8	743.8	851.4	974.6	1,115.7	1,198.2	1,286.9	1,382.1	1,484.4	1,594.2
(+) Other Non Operating Assets, net of Other Non Operating Liabilities	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	- 68.2	0.9	0.9	0.9	0.9	0.9
Total Funds Invested	**1,897.9**	**2,155.7**	**2,461.8**	**2,777.2**	**3,162.7**	**3,746.7**	**4,414.8**	**5,179.1**	**6,053.5**	**7,053.8**	**8,122.7**	**9,270.7**	**10,504.5**	**11,830.5**	**13,255.4**

11.27. Incyte's Equity and Debt Forecast

EQUITY AND DEBT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Equity															
Common stock	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Additional paid-in capital	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*	*3,627.4*
Accumulated deficit	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*	*- 1,990.0*
Accumulated other comprehensive loss	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*
Retained Earnings	*239.5*	*493.4*	*794.6*	*1,105.5*	*1,484.9*	*2,062.1*	*2,722.4*	*3,477.8*	*4,341.9*	*5,330.5*	*6,392.6*	*7,533.2*	*8,759.1*	*10,076.6*	*11,492.4*
Starting Retained Earnings (beg. of period)	*-*	*239.5*	*493.4*	*794.6*	*1,105.5*	*1,484.9*	*2,062.1*	*2,722.4*	*3,477.8*	*4,341.9*	*5,330.5*	*6,392.6*	*7,533.2*	*8,759.1*	*10,076.6*
Net income	*239.5*	*254.0*	*301.2*	*310.9*	*379.4*	*577.2*	*660.3*	*755.4*	*864.1*	*988.6*	*1,062.1*	*1,140.6*	*1,225.9*	*1,317.5*	*1,415.8*
Ending Retained Earnings (end of period)	*239.5*	*493.4*	*794.6*	*1,105.5*	*1,484.9*	*2,062.1*	*2,722.4*	*3,477.8*	*4,341.9*	*5,330.5*	*6,392.6*	*7,533.2*	*8,759.1*	*10,076.6*	*11,492.4*
Adjusted Equity	**1,870.1**	**2,124.0**	**2,425.2**	**2,736.1**	**3,115.5**	**3,692.7**	**4,353.0**	**5,108.4**	**5,972.5**	**6,961.1**	**8,023.2**	**9,163.8**	**10,389.7**	**11,707.2**	**13,123.0**
Debt															
Short-term Debt	8.6	9.8	11.3	12.7	14.5	16.6	19.1	21.8	25.0	28.6	30.7	33.0	35.4	38.0	40.8
Long-term Debt	19.3	21.9	25.3	28.4	32.6	37.3	42.7	48.9	56.0	64.1	68.8	73.9	79.4	85.3	91.6
New Issued Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt	**27.9**	**31.7**	**36.6**	**41.1**	**47.2**	**54.0**	**61.8**	**70.7**	**81.0**	**92.7**	**99.5**	**106.9**	**114.8**	**123.3**	**132.4**
Total Funds Invested	**1,897.9**	**2,155.7**	**2,461.8**	**2,777.2**	**3,162.7**	**3,746.7**	**4,414.8**	**5,179.1**	**6,053.5**	**7,053.8**	**8,122.7**	**9,270.7**	**10,504.5**	**11,830.5**	**13,255.4**

11.28. Incyte's Free Cash Flow Forecast

FREE CASH-FLOW STATEMENT -$M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Continuing Value
NOPLAT	225.2	241.6	289.1	299.1	368.2	566.6	648.6	742.6	850.1	973.1	1,045.1	1,122.5	1,205.6	1,294.8	1,390.6	
(+) Depreciation	38.5	37.6	40.4	43.9	47.2	51.6	56.6	62.3	68.8	76.2	84.7	89.7	95.1	100.8	107.0	
(+) Amortization	20.5	34.1	35.8	38.0	40.1	34.2	37.3	40.8	44.8	49.4	54.7	57.8	61.1	64.7	68.5	
Gross Cash-Flow	**284.2**	**313.3**	**365.3**	**381.0**	**455.5**	**652.4**	**742.5**	**845.6**	**963.7**	**1,098.8**	**1,184.6**	**1,270.0**	**1,361.8**	**1,460.3**	**1,566.1**	
Investment in Operating Working Capital	- 23.8	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.2	0.3	0.3	0.3	0.3	
Capital Expenditures	135.0	153.8	177.3	199.2	228.6	261.7	299.5	342.9	392.5	449.3	482.5	518.2	556.6	597.8	642.0	
Investment in Other Operating Assets, net of Other Liabilities	- 43.4	11.3	14.1	13.2	17.7	19.9	22.8	26.1	29.9	34.2	20.0	21.5	23.1	24.8	26.7	
Investment in Intangible Assets	147.5	168.0	193.6	217.5	249.6	285.8	327.1	374.4	428.6	490.6	526.9	565.9	607.8	652.8	701.1	
Investment in Goodwill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gross Investment	**215.3**	**333.3**	**385.1**	**430.1**	**496.2**	**567.6**	**649.7**	**743.7**	**851.4**	**974.5**	**1,029.7**	**1,105.9**	**1,187.8**	**1,275.7**	**1,370.1**	
Free Cash-Flow	**68.9**	**-20.0**	**-19.8**	**-49.1**	**-40.7**	**84.8**	**92.8**	**101.9**	**112.3**	**124.3**	**154.9**	**164.1**	**174.0**	**184.7**	**196.1**	**17,299.8**

11.29. Incyte's Sensitivity Analysis

SENSITIVITY ANALYSIS - $M

	Valuation Scenario	Scenario 1	Scenario 2
WACC	**8.2%**	**7.2%**	**9.2%**
Valuation	17,854.5	34,338.9	11,832.7
Impact on Valuation	-	16,484.4	- 6,021.8
Growth rate in Perpetuity	**6.2%**	**3.8%**	**7.4%**
Valuation	17,854.5	18,577.1	15,753.0
Impact on Valuation	-	722.6	- 2,101.5
Average Revenues growth rate	**7.4%**	**14.5%**	**3.8%**
Valuation	17,854.5	- 7,299.1	7,203.0
Impact on Valuation	-	- 25,153.6	- 10,651.5
Operating Expenses (% of Revenues)	**82.7%**	**52.4%**	**97.2%**
Valuation	17,854.5	327,602.3	- 252,291.3
Impact on Valuation	-	309,747.7	- 270,145.9
R&D Expenses (% of Revenues)	**42.9%**	**19.8%**	**93.8%**
Valuation	17,854.5	251,519.2	- 547,417.1
Impact on Valuation	-	233,664.6	- 565,271.7

11.30. Incyte's Multiples

MULTIPLES - $M

	EV/EBITDA	EV/EBIT	EV/Revenues
Vertex Pharmaceuticals (x)	83.8	96.9	15.3
Alexion Pharmaceuticals (x)	20.2	33.3	7.2
Repligen Corporation (x)	63.7	111.5	11.1
Average	**55.9**	**80.6**	**11.2**
Incyte's EBITDA (2016)	*171.7*		
Incyte's EBIT (2016)		*144.9*	
Incyte's Revenues (2016)			*1,536.2*
Incyte's Enterprise Value	**9,596.9**	**11,674.1**	**17,159.4**
Incyte's Equity Value	**10,682.16**	**12,759.39**	**18,244.63**

11.31. Combined Firm's NOPLAT

NOPLAT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenues	**24,444.5**	**24,628.7**	**25,355.7**	**26,097.6**	**27,284.3**	**28,017.7**	**28,817.9**	**29,694.2**	**30,656.9**	**31,718.2**
Operating Expenses	**13,113.2**	**13,129.6**	**13,546.4**	**14,274.3**	**14,987.8**	**15,627.7**	**16,199.0**	**16,830.3**	**17,529.9**	**18,307.6**
% of Revenues	*53.6%*	*53.3%*	*53.4%*	*54.7%*	*54.9%*	*55.8%*	*56.2%*	*56.7%*	*57.2%*	*57.7%*
Cost of Sales	4,169.7	4,167.5	4,254.8	4,347.6	4,506.8	4,577.0	4,650.2	4,726.9	4,807.3	4,892.0
(-) Depreciation and Amortization	- 1,735.7	- 1,891.8	- 1,895.5	- 1,706.5	- 1,717.5	- 1,508.0	- 1,519.8	- 1,532.8	- 1,547.2	- 1,563.1
Research and Development (R&D)	4,772.8	4,851.4	4,952.6	5,167.6	5,379.8	5,547.6	5,777.0	6,032.6	6,318.1	6,637.6
Selling, general and administrative	5,590.5	5,682.7	5,903.6	6,123.6	6,459.3	6,639.7	6,907.0	7,204.4	7,536.2	7,907.4
Other operating expenses	315.9	319.8	330.9	342.0	359.4	371.4	384.6	399.3	415.5	433.7
EBITDA	**11,331.3**	**11,499.1**	**11,809.2**	**11,823.3**	**12,296.5**	**12,390.0**	**12,618.9**	**12,863.9**	**13,127.0**	**13,410.6**
% of Revenues	*46.4%*	*46.7%*	*46.6%*	*45.3%*	*45.1%*	*44.2%*	*43.8%*	*43.3%*	*42.8%*	*42.3%*
Depreciation	562.4	563.1	565.6	570.8	576.0	583.6	589.8	596.7	604.4	613.1
Amortization	1,173.3	1,328.7	1,329.9	1,135.6	1,141.6	924.4	930.0	936.1	942.7	950.0
EBIT	**9,595.6**	**9,607.3**	**9,913.7**	**10,116.8**	**10,579.0**	**10,882.0**	**11,099.2**	**11,331.1**	**11,579.8**	**11,847.5**
% of Revenues	*39.3%*	*39.0%*	*39.1%*	*38.8%*	*38.8%*	*38.8%*	*38.5%*	*38.2%*	*37.8%*	*37.4%*
Operating cash taxes	3,617.4	3,664.7	3,752.6	3,753.4	3,888.6	3,851.1	3,900.4	3,951.2	4,003.6	4,058.0
NOPLAT	**5,978.2**	**5,942.6**	**6,161.2**	**6,363.4**	**6,690.4**	**7,030.9**	**7,198.8**	**7,379.9**	**7,576.2**	**7,789.5**

11.32. Combined Firm's Net Income

NET INCOME - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NOPLAT	**5,978.2**	**5,942.6**	**6,161.2**	**6,363.4**	**6,690.4**	**7,030.9**	**7,198.8**	**7,379.9**	**7,576.2**	**7,789.5**
Interest expense, net	- 1,333.2	- 1,263.9	- 1,260.6	- 1,288.1	- 1,319.0	- 1,370.1	- 1,385.8	- 1,401.7	- 1,417.9	- 1,434.3
Interest and other income, net	1,007.8	788.5	871.2	933.0	938.6	954.6	959.3	971.8	987.4	999.9
Non-operating income	- 16.0	- 16.0	- 16.3	- 16.6	- 17.2	- 17.4	- 17.6	- 17.8	- 18.0	- 18.3
Nonoperating taxes	- 120.7	- 173.5	- 143.1	- 129.5	- 136.4	- 146.5	- 150.7	- 56.8	- 56.8	- 56.8
Net Income	**5,516.1**	**5,277.6**	**5,612.4**	**5,862.3**	**6,156.4**	**6,451.4**	**6,604.0**	**6,875.4**	**7,070.8**	**7,279.9**
Net Income Margin	*22.6%*	*21.4%*	*22.1%*	*22.5%*	*22.6%*	*23.0%*	*22.9%*	*23.2%*	*23.1%*	*23.0%*

11.33. Combined Firm's Invested Capital

INVESTED CAPITAL - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Current Assets	8,893.4	8,923.6	9,147.8	9,380.7	9,765.0	9,971.6	10,193.4	10,432.3	10,690.6	10,971.0
(-) Operating Current Liabilities	6,895.3	6,930.9	7,118.2	7,311.1	7,624.8	7,805.0	8,000.1	8,211.9	8,442.7	8,695.3
Total Operating Working Capital	**1,998.1**	**1,992.6**	**2,029.6**	**2,069.6**	**2,140.2**	**2,166.6**	**2,193.3**	**2,220.4**	**2,247.9**	**2,275.7**
(+) Net Property, Plant and Equipment	5,519.9	5,807.3	6,128.3	6,480.0	6,880.5	7,315.7	7,791.8	8,313.7	8,887.0	9,518.0
(+) Other Operating Assets, net of Other Liabilit	579.9	589.9	613.2	636.3	671.6	698.1	727.5	760.3	797.0	838.1
(+) Net Intangible Assets	9,344.2	9,703.4	10,115.1	10,775.3	11,515.5	12,528.9	13,598.3	14,729.3	15,928.6	17,203.6
Invested Capital (Excluding Goodwill)	**17,442.2**	**18,093.2**	**18,886.1**	**19,961.3**	**21,207.8**	**22,709.3**	**24,310.9**	**26,023.8**	**27,860.5**	**29,835.4**
(+) Goodwill	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6	14,916.6
Invested Capital (Including Goodwill)	**32,358.8**	**33,009.8**	**33,802.7**	**34,877.9**	**36,124.4**	**37,625.9**	**39,227.5**	**40,940.4**	**42,777.1**	**44,752.0**
(+) Excess Cash	838.0	4,487.9	6,506.8	5,995.4	5,416.2	5,204.1	5,325.2	5,573.2	5,674.7	5,699.4
(+) Excess Marketable Securities	33,804.2	33,756.7	34,431.6	35,154.1	36,406.3	36,926.7	37,464.2	38,020.8	38,598.5	39,199.5
(+) Other Non Operating Assets, net of Other Non Operating Liabilities	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8
Total Funds Invested	**67,288.8**	**71,542.2**	**75,029.0**	**76,315.1**	**78,234.8**	**80,044.4**	**82,304.7**	**84,822.2**	**87,338.1**	**89,938.7**

11.34. Combined Firm's Equity and Debt

EQUITY AND DEBT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Equity										
Common stock and paid-in capital	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Additional Paid-In Capital	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*
Accumulated deficit	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*
Accumulated other comprehensive income (loss)	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*
Foreign Currency Translation Reserve	*- 458.8*	*- 397.8*	*- 345.0*	*- 299.2*	*- 259.5*	*- 225.0*	*- 195.1*	*- 169.2*	*- 146.8*	*- 127.3*
Cash Flow Hedges	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*
Available for Sale Securities	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*
Retained Earnings	*2,172.9*	*7,306.7*	*9,078.8*	*9,026.8*	*9,703.7*	*11,112.8*	*12,904.3*	*14,861.7*	*16,779.6*	*18,815.4*
(+) Deferred tax liabilities, net of deferred tax assets	*3,637.5*	*3,627.2*	*3,694.3*	*3,766.9*	*3,895.0*	*3,942.6*	*3,990.8*	*4,039.6*	*4,089.0*	*4,139.0*
(+) Dividends payable	*884.2*	*43.5*	*1,016.1*	*1,562.7*	*1,451.2*	*1,324.4*	*1,263.3*	*1,290.4*	*1,351.3*	*1,374.5*
Adjusted Equity	**33,762.1**	**38,105.8**	**40,970.4**	**41,583.5**	**42,316.8**	**43,681.1**	**45,489.6**	**47,548.8**	**49,599.6**	**51,728.0**
Debt										
Short-term Debt	2,099.8	2,093.9	2,132.6	2,174.5	2,248.4	2,275.9	2,303.7	2,331.9	2,360.4	2,389.3
Long-term Debt	31,400.1	31,311.8	31,890.4	32,517.0	33,623.4	34,034.5	34,450.6	34,871.8	35,298.2	35,729.7
New Issue Debt	-	-	-	-	-	-	-	-	-	-
Total Debt	**33,499.9**	**33,405.7**	**34,023.0**	**34,691.5**	**35,871.8**	**36,310.4**	**36,754.3**	**37,203.7**	**37,658.6**	**38,119.0**
Total Funds Invested	**67,262.0**	**71,511.5**	**74,993.4**	**76,275.0**	**78,188.6**	**79,991.5**	**82,243.9**	**84,752.5**	**87,258.2**	**89,847.0**

11.35. Combined Firm's Free Cash-Flow Statement

FREE CASH-FLOW STATEMENT -$M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NOPLAT	5,978.2	5,942.6	6,161.2	6,363.4	6,690.4	7,030.9	7,198.8	7,379.9	7,576.2	7,789.5
(+) Depreciation	562.4	563.1	565.6	570.8	576.0	583.6	589.8	596.7	604.4	613.1
(+) Amortization	1,173.3	1,328.7	1,329.9	1,135.6	1,141.6	924.4	930.0	936.1	942.7	950.0
Gross Cash-Flow	**7,713.9**	**7,834.3**	**8,056.7**	**8,069.9**	**8,407.9**	**8,538.9**	**8,718.6**	**8,912.7**	**9,123.3**	**9,352.6**
Investment in Operating Working Capital	791.5	- 5.5	37.0	40.0	70.6	26.4	26.7	27.1	27.5	27.9
Capital Expenditures	830.3	847.1	883.3	919.2	973.1	1,015.2	1,062.3	1,115.0	1,174.0	1,240.4
Investment in Other Operating Assets, net of Other Liabilities	- 54.9	9.9	23.3	23.2	35.3	26.5	29.4	32.8	36.7	41.1
Investment in Intangible Assets	1,671.6	1,687.9	1,741.5	1,795.9	1,881.7	1,937.8	1,999.3	2,067.1	2,142.0	2,225.0
Investment in Goodwill	-	-	-	-	-	-	-	-	-	-
Gross Investment	**3,238.5**	**2,539.4**	**2,685.1**	**2,778.2**	**2,960.6**	**3,005.9**	**3,117.8**	**3,242.0**	**3,380.2**	**3,534.3**
Free Cash-Flow	**4,475.4**	**5,295.0**	**5,371.5**	**5,291.7**	**5,447.3**	**5,533.0**	**5,600.7**	**5,670.7**	**5,743.2**	**5,818.3**

11.36. Combined Firm's Potential Synergies

SYNERGIES	
Revenues Enhancements	
Stronger position in Europe	Revenues increase by 0.5%
Knowledge transfer	Revenues represent 142.3% of increase in R&D expenditures
Increase in investing power in R&D	Increase in R&D Expenditures for 35% of previous year's Revenues
Cost Savings	
Decrease in number of Administrative, Sales and Marketing employees	Decrease of employees by 50%
Stronger position over suppliers	Cost of Sales decrease by 3.5%
Close of facility in Switzerland	Decrease in Net PPE in 11.6
Manufacture of own products instead of contracting with 3rd parties	Decrease of Incyte's SG&A costs with 3rd parties by 30%

11.37. Combined Firm's NOPLAT after Synergies

NOPLAT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenues	**24,444.5**	**24,628.7**	**25,355.7**	**26,097.6**	**27,284.3**	**28,017.7**	**28,817.9**	**29,694.2**	**30,656.9**	**31,718.2**
Synergies effects	-	-	-	*130.5*	*136.4*	*5,414.8*	*5,551.3*	*5,910.9*	*3,826.1*	*3,800.9*
Operating Expenses	**13,041.2**	**45,990.9**	**15,264.0**	**16,890.4**	**17,625.9**	**18,574.0**	**17,457.8**	**17,964.8**	**18,502.0**	**18,565.6**
Cost of Sales	4,169.7	4,167.5	4,254.8	4,347.6	4,506.8	4,577.0	4,650.2	4,726.9	4,807.3	4,892.0
Synergies effects	-	-	-	- *152.2*	- *157.7*	- *160.2*	- *162.8*	- *165.4*	- *168.3*	- *171.2*
(-) Depreciation and Amortization	- *1,801.2*	- *1,888.4*	- *1,892.2*	- *1,701.6*	- *1,717.5*	- *1,507.9*	- *1,655.8*	- *1,672.2*	- *1,719.0*	- *1,693.7*
Research and Development (R&D)	4,772.8	4,851.4	4,952.6	5,167.6	5,379.8	5,547.6	5,777.0	6,032.6	6,318.1	6,637.6
Synergies effects	-	-	-	*3,706.9*	*3,800.0*	*4,049.6*	*2,581.1*	*2,559.7*	*2,583.2*	*1,983.1*
Selling, general and administrative	5,590.5	5,682.7	5,903.6	6,123.6	6,459.3	6,708.8	6,986.0	7,294.9	7,639.9	8,026.0
Synergies effects	- *873.7*	- *888.7*	- *933.5*	- *992.0*	- *1,064.1*	- *1,153.1*	- *1,262.3*	- *1,395.6*	- *1,557.9*	
Other operating expenses	309.4	312.5	322.4	332.0	347.1	423.2	435.1	450.7	436.5	449.6
Synergies effects	-	*33,739.0*	*2,611.4*	-	-	-	-	-	-	-
EBITDA	**11,403.3**	**- 21,362.2**	**10,091.7**	**9,337.7**	**9,794.8**	**14,858.4**	**16,911.4**	**17,640.2**	**15,980.9**	**16,953.5**
Depreciation	627.9	559.7	562.3	565.9	573.7	581.3	634.5	642.6	676.7	679.2
Amortization	1,173.3	1,328.7	1,329.9	1,135.6	1,143.8	926.6	1,021.2	1,029.6	1,042.3	1,014.5
EBIT	**9,602.1**	**- 23,250.6**	**8,199.5**	**7,636.1**	**8,077.4**	**13,350.5**	**15,255.6**	**15,968.0**	**14,261.9**	**15,259.8**
Operating cash taxes	3,623.3	- 6,787.7	3,206.6	2,967.0	3,112.2	4,721.2	5,373.5	5,605.1	5,077.8	5,386.9
NOPLAT	**5,978.8**	**- 16,462.9**	**4,992.9**	**4,669.1**	**4,965.1**	**8,629.3**	**9,882.1**	**10,362.9**	**9,184.1**	**9,872.9**

11.38. Combined Firm's Net Income after Synergies

NET INCOME - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
NOPLAT	**5,978.8**	**- 16,462.9**	**4,992.9**	**4,669.1**	**4,965.1**	**8,629.3**	**9,882.1**	**10,362.9**	**9,184.1**	**9,872.9**
Interest expense, net	- 1,333.2	- 1,262.9	- 1,531.2	- 1,433.1	- 1,355.0	- 1,333.5	- 1,328.1	- 1,306.7	- 1,286.8	- 1,259.7
Interest and other income, net	1,007.8	406.8	409.9	422.0	436.5	456.3	556.4	572.0	592.5	573.9
Non-operating income	- 16.0	- 16.0	- 16.3	- 16.6	- 17.2	- 17.4	- 17.6	- 17.8	- 18.0	- 18.3
Nonoperating taxes	- 120.7	- 305.6	- 400.3	- 361.0	- 327.9	- 313.2	- 275.5	- 262.3	- 247.9	- 244.9
Net Income	**5,516.6**	**- 17,640.7**	**3,455.0**	**3,280.4**	**3,701.5**	**7,421.6**	**8,817.3**	**9,348.0**	**8,223.9**	**8,923.9**
Net Income Margin	*22.6%*	*-71.6%*	*13.6%*	*12.5%*	*13.5%*	*22.2%*	*25.7%*	*26.3%*	*23.8%*	*25.1%*

11.39. Combined Firm's Invested Capital after Synergies

INVESTED CAPITAL - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Current Assets	8,893.4	8,923.6	9,147.8	9,380.7	9,765.0	9,971.6	10,193.4	10,432.3	10,690.6	10,971.0
Synergies effects	-	-	-	*107.3*	*111.3*	*218.6*	*223.0*	*232.1*	*192.3*	*193.9*
(-) Operating Current Liabilities	6,895.3	6,930.9	7,118.2	7,311.1	7,624.8	7,805.0	8,000.1	8,211.9	8,442.7	8,695.3
Synergies effects			- *711.8*	- *731.1*	- *762.5*	- *780.5*	- *800.0*	- *821.2*	- *844.3*	- *869.5*
Total operating working capital	**1,998.1**	**1,992.6**	**2,741.4**	**2,908.0**	**3,013.9**	**3,165.6**	**3,216.3**	**3,273.7**	**3,284.5**	**3,339.1**
Net Property, Plant and Equipment (NPPE)	5,519.9	5,807.3	6,116.7	6,478.8	6,887.5	7,689.6	8,494.9	9,545.5	10,574.7	11,525.1
(+) Other Operating Assets, net of Other Liabilities	579.9	584.3	601.6	622.3	650.6	793.2	815.4	844.7	818.1	842.7
(+) Net Intangible Assets	9,344.2	9,703.4	10,115.1	10,793.1	11,551.8	13,301.6	15,126.0	17,060.9	18,780.5	20,572.4
Invested Capital (Excluding Goodwill)	**17,442.2**	**18,087.6**	**19,574.8**	**20,802.2**	**22,103.7**	**24,950.0**	**27,652.6**	**30,724.8**	**33,457.8**	**36,279.3**
(+) Goodwill	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6	22,038.6
Invested Capital (Including Goodwill)	**39,480.9**	**40,126.3**	**41,613.4**	**42,840.8**	**44,142.4**	**46,988.7**	**49,691.2**	**52,763.4**	**55,496.4**	**58,318.0**
(+) Excess Cash	12,074.9	-	-	98.0	1,231.7	1,831.4	4,975.1	5,071.1	5,612.6	5,022.3
(+) Excess Marketable Securities	15,398.1	15,514.1	15,972.0	16,521.6	17,272.9	21,059.8	21,649.9	22,428.3	21,721.5	22,374.2
(+) Other non Operating Assets, net of Other non Operating Liabilities	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8
Total Funds Invested	**67,241.7**	**55,928.2**	**57,873.3**	**59,748.3**	**62,934.7**	**70,167.6**	**76,604.0**	**80,550.6**	**83,118.4**	**86,002.2**

11.40. Combined Firm's Equity and Debt after Synergies

EQUITY AND DEBT - $M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Equity										
Common stock and paid-in capital	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Additional Paid-In Capital	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*	*34,619.4*
Accumulated deficit	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*	*- 7,062.0*
Accumulated other comprehensive income (loss)	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*	*- 7.0*
Foreign Currency Translation Reserve	*- 458.8*	*- 397.8*	*- 345.0*	*- 299.2*	*- 259.5*	*- 225.0*	*- 195.1*	*- 169.2*	*- 146.8*	*- 127.3*
Cash Flow Hedges	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*	*119.7*
Available for Sale Securities	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*	*- 144.0*
Retained Earnings	*2,152.5*	*- 15,488.1*	*- 12,033.1*	*- 8,752.7*	*- 5,051.3*	*2,370.4*	*9,356.3*	*13,729.3*	*16,882.1*	*20,193.4*
Starting Retained Earnings	*-*	*2,152.5*	*- 15,488.1*	*- 12,033.1*	*- 8,752.7*	*- 5,051.3*	*2,370.4*	*9,356.3*	*13,729.3*	*16,882.1*
Net Income	*5,516.6*	*- 17,640.7*	*3,455.0*	*3,280.4*	*3,701.5*	*7,421.6*	*8,817.3*	*9,348.0*	*8,223.9*	*8,923.9*
Dividends	*3,364.1*	*-*	*-*	*-*	*-*	*-*	*1,831.4*	*4,975.1*	*5,071.1*	*5,612.6*
Ending Retained Earnings	*2,152.5*	*- 15,488.1*	*- 12,033.1*	*- 8,752.7*	*- 5,051.3*	*2,370.4*	*9,356.3*	*13,729.3*	*16,882.1*	*20,193.4*
(+) Deferred tax liabilities, net of deferred tax assets	*3,637.5*	*3,627.2*	*3,694.3*	*3,766.9*	*3,895.0*	*3,942.6*	*3,990.8*	*4,039.6*	*4,089.0*	*4,139.0*
(+) Dividends payable	*884.2*	*43.5*	*1,016.1*	*1,562.7*	*1,451.2*	*1,324.4*	*1,263.3*	*1,290.4*	*1,351.3*	*1,374.5*
Adjusted Equity	**33,741.8**	**15,311.1**	**19,858.5**	**23,804.0**	**27,561.8**	**34,938.7**	**41,941.7**	**46,416.4**	**49,702.0**	**53,106.0**
Debt										
Short-term Debt	2,099.8	2,115.6	2,178.1	2,253.0	2,355.4	2,871.8	2,952.3	3,058.5	2,962.1	3,051.1
Long-term Debt	31,400.1	31,636.7	32,570.6	33,691.3	33,017.5	32,357.1	31,710.0	31,075.8	30,454.3	29,845.2
New Issue Debt	-	6,864.8	3,266.1	-	-	-	-	-	-	-
Total Debt	**33,499.9**	**40,617.1**	**38,014.8**	**35,944.3**	**35,372.9**	**35,229.0**	**34,662.3**	**34,134.2**	**33,416.3**	**32,896.3**
Total Funds Invested	**67,241.7**	**55,928.2**	**57,873.3**	**59,748.3**	**62,934.7**	**70,167.6**	**76,604.0**	**80,550.6**	**83,118.4**	**86,002.2**

11.41. Combined Firm's Free Cash-Flow Statement after Synergies

FREE CASH-FLOW STATEMENT -$M

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Continuing Value
NOPLAT	5,978.8	- 16,462.9	4,992.9	4,669.1	4,965.1	8,629.3	9,882.1	10,362.9	9,184.1	9,872.9	
(+) Depreciation	627.9	559.7	562.3	565.9	573.7	581.3	634.5	642.6	676.7	679.2	
(+) Amortization	1,173.3	1,328.7	1,329.9	1,135.6	1,143.8	926.6	1,021.2	1,029.6	1,042.3	1,014.5	
Gross Cash-Flow	**7,779.9**	**-14,574.5**	**6,885.1**	**6,370.7**	**6,682.6**	**10,137.3**	**11,537.9**	**12,035.1**	**10,903.1**	**11,566.6**	
Investment in operating working capital	791.5	- 5.5	748.8	166.6	105.9	151.7	50.7	57.3	10.8	54.7	
Net Capital Expenditures	830.3	847.1	871.8	928.0	982.3	1,383.4	1,439.8	1,693.2	1,705.9	1,629.6	
Investment in other operating assets, net of other liabilities	- 54.9	4.4	17.2	20.7	28.3	142.6	22.2	29.3	- 26.6	24.6	
Investment in intangible assets	1,671.6	1,687.9	1,741.5	1,813.7	1,900.3	2,674.2	2,754.3	2,871.0	2,662.3	2,741.9	
Investment in goodwill	7,122.0	-	-	-	-	-	-	-	-	-	
Gross Investment	**10,360.6**	**2,533.8**	**3,379.3**	**2,929.0**	**3,016.8**	**4,351.9**	**4,267.1**	**4,650.9**	**4,352.4**	**4,450.8**	
Free Cash-Flow	**- 2,580.6**	**-17,108.3**	**3,505.8**	**3,441.7**	**3,665.8**	**5,785.3**	**7,270.8**	**7,384.3**	**6,550.6**	**7,115.9**	**156,427.4**

11.42. Operating and Financial Rations before and after Synergies

	Combined Firm without Synergies	Combined Firm with Synergies
Revenues Average Growth Rate	2.9%	4.4%
R&D Expenses (Average % of Revenues)	20.6%	27.2%
Average EBITDA Margin	44.8%	30.8%
Average EBITDA Margin (excl. 2019 and 2020)	43.9%	44.1%
Average Net Income Margin	22.6%	11.4%
Average Net Income Margin (excl. 2019 and 2020)	22.8%	21.3%
Free Cash-Flow Average Growth Rate	3.0%	58.8%
Average EBITDA/Interest Expense	9.1	7.5
Average EBITDA/Interest Expense (excl. 2019 and 2020)	9.3	11.0
Average Debt/EBITDA	2.9	2.3
Average Debt/EBITDA (excl. 2019 and 2020)	2.9	2.5
Average Debt/Total Funds Invested	45.3%	52.1%
Average Debt/Total Funds Invested (excl. 2019 and 2020)	44.4%	47.5%
Average ROE	16.4%	3.4%
Average ROE (excl. 2019 and 2020)	16.3%	20.8%
Average ROIC without Goodwill	30.5%	17.2%
Average ROIC without Goodwill (excl. 2019 and 2020)	29.3%	29.1%
Average RONIC without Goodwill	14.4%	-207.3%
Average RONIC without Goodwill (excl. 2019 and 2020)	15.2%	24.1%

11.43. Synergies' Sensitivity Analysis

SENSITIVITY ANALYSIS - $M

	Valuation Scenario	Scenario 1	Scenario 2
Stronger position in Europe	**0.5%**	**0.0%**	**3.8%**
Value of Synergies	28,522.8	25,072.8	49,789.4
Impact on Value of Synergies	-	- 3,450.0	21,266.6
Revenues regarding R&D expenditures	**142.3%**	**100.0%**	**166.3%**
Value of Synergies	28,522.8	24,416.5	31,074.9
Impact on Value of Synergies	-	- 4,106.3	2,552.1
Increased market power over suppliers	**-3.5%**	**-2.0%**	**-5.0%**
Value of Synergies	28,522.8	27,537.2	29,508.7
Impact on Value of Synergies	-	- 985.6	985.9
Decrease in administrative employees	**-50.0%**	**-40.0%**	**60.0%**
Value of Synergies	28,522.8	29,955.9	27,089.9
Impact on Value of Synergies	-	1,433.2	- 1,432.9
Decrease in SG&A Expenses	**30.0%**	**40.0%**	**20.0%**
Value of Synergies	28,522.8	34,676.8	21,967.9
Impact on Value of Synergies	-	6,154.0	- 6,554.8
Increased R&D Expenditure	**35.0%**	**40.0%**	**30.0%**
Value of Synergies	28,522.8	25,457.9	22,635.8
Impact on Value of Synergies	-	- 3,064.9	- 5,887.0

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