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Pfizer & Wyeth:

Acquiring to survive, rather than to grow

Case Study and Teaching Note

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Abstract: This case focus on the strategy that motivated Pfizer to go, by 2009, through the acquisition of Wyeth. Beyond the strategic reasons, this case will discuss the financial implications of the deal jointly analysing the impact on financial key ratios for Pfizer's investors. As the historical Pfizer's portfolio of acquisitions is considerably extended, its investors are left with questions about the realization of the synergies announced as well as the ability to integrate Wyeth's business in such a tough period.

Key words: Mergers & Acquisitions, Deal Financing, Corporate Finance.

Case Study:

"The combination of Pfizer and Wyeth provides a powerful opportunity to transform our industry ... this is a very positive sign for the American economy and American business, and shows that the banks are doing what they are supposed to be doing." [Jeffrey Kindler in an interview for Financial Times]

The official announcement on January 26th, 2009 with the filing of the S-4 to the SEC came up after a long and tough period of discussions that had been in place for seven months. A previous disclosure on January 23rd, followed by the firms' declarations had put an end to the conversations of the largest pharma deal in almost a decade¹.

The conversations had started in June 2008² when Pfizer's board authorized Jeffrey Kindler, Pfizer's CEO, to establish contact with Bernard Pousot, his correspondent at Wyeth, for a possible agreement between the two pharmaceuticals. The deal, valued at \$68bn, was considered an *"old-fashioned M&A deal"*³ by many of the bankers involved. The cash and stock transaction valued Wyeth at **\$50.19** per share, \$33 being paid in cash and the remainder in Pfizer shares at a conversion ratio of 0.985.

Until the beginning of 2009, Wyeth had been in conversations for a possible acquisition of Crucell, a Dutch biotech firm who apparently had received an offer of \$1.35bn⁴ by Wyeth's representatives. With the announcement of the Pfizer-Wyeth marriage and the consequently withdrawal of the conversations by Wyeth, Crucell shares went down by 13.9% and Pfizer is likely to not proceed with the talks to also integrate the Dutch firm.

The merger between the two pharmaceuticals will form the largest pharma company in the world, with more than \$70bn in expected revenues and with a reformulated pipeline. Pfizer, that was considered by Pousot the *"perfect fit"* for Wyeth's business, will have a more

¹ Alyssa Abkowitz. "Will merger be Pfizer's miracle drug?". Fortune, January 27, 2009.

² SEC, Form S-4. January 26, 2009.

³ Andrew Jack, Lina Saigol and Julie MacIntosh. "Pfizer seals \$68bn Wyeth purchase". Financial Times, January 27, 2009.

⁴ Washington Editor. "Pfizer \$68B bid for Wyeth leaves Crucell at the altar". www.bioworld.com, January 27, 2009.

diversified portfolio of products and an improved R&D process that will emerge from the agreement.

Wyeth through the frontline

Back in 1860, John Wyeth asked for his resignation from a leading pharmacy in Philadelphia. The purpose of such move was already established: the creation of his own company, together with his brother Frank Wyeth, which would be done in that same year. After its launch, this firm achieved immediate success, thanks to its portfolio of sweetened tinctures⁵, elixirs and tonics. Later in 1929, Stuart Wyeth, John's single son, had left his controlling interest to Harvard University, which later on would sell the firm to American Home Products (AHM).

Thereinafter, AHM would become a significantly big player within the pharmaceutical industry, obtaining licenses to develop several antibiotics and arthritis vaccines. Later in 1995, AHM would acquire an Animal Health Division – Fort Dodge Animal Health, which would give the firm higher exposure in international markets such as Europe and Asia, consequently increasing the company's need to broaden its portfolio of vaccines. After having lost a friendly take-over bid for Warner-Lambert in 2000, AHM would be renamed as Wyeth by 2002, giving space to other strategic teams to step in and focus the firm essentially in pharmaceuticals.

By 2008, Wyeth was operating in three main segments: the Pharmaceuticals, Fort Dodge Animal and Wyeth Consumer Healthcare. With more than \$22bn in revenues⁶ during the FY2007, Wyeth had essentially two attractive things that Pfizer was desperately needing: a strong range of blockbusters without expiration in the next years, and an overall diverse portfolio in terms of revenues and marketed products, not being deeply dependent on a single drug. From those, among the top three⁷ were the anti-depressants **Effexor**, **Pprevnar** and **Enbrel**, with revenues around \$3.9bn, \$2.7bn and \$2.6bn, respectively. (**Exhibit 1**)

In addition to the strong presence in biologics, Wyeth had a robust pipeline in development, with around 10 drugs for CNS/Alzheimer⁸. Also, the merger would allow Pfizer to enter the vaccines market with *Pprevnar*, which was already marketed. Moreover, Wyeth would enable Pfizer to explore the consumer healthcare segment, which was not done since the company sold the division to Johnson&Johnson for \$16.6bn, back in 2006.

⁵ "The history of Wyeth Pharmaceuticals". herbmuseum.ca, Vancouver – Canada.

⁶ Wyeth, Financial Report 2008.

⁷ Rose Le Moullac, Msc in International Finance 2013 – HEC. "Value Creation through M&A: A clinical study on blockbuster deal evidence in the pharmaceutical industry". December 2013.

⁸ Pharmaceutical Executive Editors. "Two become one: Pfizer acquires Wyeth". January 28, 2009.

Pfizer's dominance

Operating essentially in the Pharmaceutical and Animal Health business segments, Pfizer is in 2008 the largest pharmaceutical company by revenue, with more than \$48bn in revenues during this fiscal year. This position is sustained by its worldwide best seller, Lipitor, which solely collects more than \$12bn⁹ in revenue (**Exhibit 2** which includes the world's top 10 pharmaceutical products by sales in 2008). As the patent cliff for this medicine was expected to happen in 2011, the firm was to suffer a heavy drop in annual revenues by that time. Kindler, who was assuming the highest executive position in the firm since 2006, had serious concerns with this matter, since *Lipitor* generated a quarter of total revenues. After this drug, the most important medicine was *Lyrica*, a drug to prevent central nervous system diseases. Yet, the fact that the latter generates only nearly \$2.6bn in revenues reinforces Pfizer's dependence on its best seller (**Exhibit 3** – Pfizer's revenues by product). Besides *Lipitor* and *Lyrica*, the producer of *Celebrex*, *Norvasc*, *Viagra*, *Xalatan* and *Detrol* is also facing serious troubles in its pipeline, due to the low productivity in R&D, which has limited the firm to find suitable solutions for its top seller.

Headquartered in New-York, Pfizer was created from a partnership between Charles Pfizer and Charles Erhart, a chemist and a confectioner, respectively, who founded Charles Pfizer & Company in 1849. With a strong focus in organic growth supported by highly creative R&D processes, Pfizer soon started growing in value and size, producing a very wide range of products, and opening another office in New Jersey by 1900, in addition to the New-York and Chicago ones. By 1946, with the purchase of the shipyard from the WWII "Groton Victory yard", Pfizer marked the entry in the pharmaceutical's manufacturing with the mass production of *Penicillin*, an antibiotic used against many bacterial infections that was discovered in 1928, and which would reveal itself to be extremely effective during the WWII. Thereinafter, Pfizer always had a reference product that would be crucial to guarantee the firm a profitable season. For instance, the case of *Terramycin*¹⁰ in 1950, which had a promotion campaign lasting for two years, and which costed \$7.5M; or even the case of *Vibramycin*¹¹, developed during the 60s and which by 1981 was generating \$250M¹² in sales.

⁹ Pfizer, Financial Report 2008.

¹⁰ *Terramycin* (Oxytetracycline) is an antibiotic that reduces the activity of several bacteria by limiting the proteins the bacteria need to keep being effective. *Terramycin* is still used to treat specific infections.

¹¹ *Vibramycin* is an antibacterial developed essentially to combat drug resistant bacteria and rapidly became Pfizer's best seller after its launch.

¹² www.referenceforbusiness.com – Pfizer Inc. Company profile, Information, Business Description.

Later in 1992, due to the approval of *Norvasc* and, afterwards, *Zithromax* by the Food and Drug Administration¹³ (FDA), Pfizer reached \$7.2bn in net sales¹⁴ and an R&D investment of \$863M, counteracting the wave of mergers and acquisitions during the early 1990s and showing an abnormal organic growth rate comparing to its peers.

Bigger problems in the largest pharmaceutical

An inventive firm or a marketing machine?

During the 1990's decade, under William Steere management, Pfizer was part of the impressively outperforming pharmaceutical industry when compared to the S&P 500. Specially from 1992 to 1997, the industry's earnings grew, on average, 11% per year. However, in the beginning of the decade, almost every peer was reducing its salesforce, disregarding the marketing component of the business due to their focus on healthcare. By contrast, William Steere, in 1997, had already a global team of 17 000 representatives, with 5 400 only in the US¹⁵. Their role was solely to promote Pfizer's products, working closely with doctors, distributors, and physicians.

By 1997, Pfizer was spending 39.6% of its revenues in SG&A and 15.4% in R&D. In 2007, 32.3% of the revenues were spent in SG&A while only 16.7% in R&D¹⁶. Even though there was a slight increase in the percentage invested in R&D, the costs with selling and administrative staff were still representing a significantly larger portion of the total revenues.

An example of the marketing power of Pfizer is its own best seller, *Lipitor*, that was originally created by Warner-Lambert, but which had to be promoted by a joint venture between the two pharmaceuticals. By being so effective in marketing its products, Pfizer started to lack in invention. An evidence is the fact that, between 1996 and 2001, **Merck & Co. Inc** has developed 1,933 new patents at \$6M each, whereas Pfizer introduced 1,217 new patents at a cost of \$17.5M per product¹⁷. However, in the following years the industry saw a switch in Merck's strategy, once it initially was focused in producing new drugs and later had to adapt itself to a marketing oriented business, essentially due to difficulties in R&D that the industry had been experiencing.

¹³ **Food and Drug Administration** - the responsible entity of the United States Department of Health and Human Services for the promotion of public health. The functions include the regulation and protection of the general consumer during a patent development process and is the responsible organ for the approval of new drugs launched to the market, either being a new product or a generic version of an already marketed one.

¹⁴ www.referenceforbusiness.com – Pfizer Inc. Company profile, Information, Business Description.

¹⁵ Malcolm Cambell. "Pfantastic Pfizer". www.sellingpower.com, 1998.

¹⁶ Pfizer, Financial Report 2008.

¹⁷ Rugman, Alan M., 2005. *The Regional Multinationals*, published by Cambridge University press.

According to one marketing manager, Merck research labs “gave us the drug, it was best in class, and we sold it. Marketing was ‘allowed’ in much later in the process. It was a good strategy, it worked at the time.”¹⁸

Inefficient R&D

Since Kindler took office, the stock price went down by 40%¹⁹ (**Exhibit 4**), showing that the market noticed the absence of significant changes. Adding to this was the big failure of 2006, when *Torcetrapib* had to be discontinued from the phase III of trials with already \$800m invested. Such decision was taken by an independent safety board, after having noticed during a 15,000-people trial that 30 more people died while receiving the new drug, when compared to the patients only taking Lipitor²⁰. Notwithstanding the initial investment already made, the drug that should “replace Lipitor by itself” would no longer be developed, leaving Pfizer’s CEO highly pressured by the investors to find a solid and rapid solution after two days of his public announcement, when he reinforced that “*Torcetrapib will be one of the most important compounds of our generation.*”²¹

Nonetheless, Kindler soon realized that Pfizer’s internal investments were not generating what they should generate, essentially due to inefficiencies in R&D that had occur during the years 2000-2008. During this period, Pfizer invested \$60bn on research, which resulted in only nine drugs approved by the FDA, each one with an average cost of \$6.7bn²².

Patent cliffs/expiration of key patents

While not introducing new drugs to the market, Pfizer faced an additional problem: the existing patents kept on approaching their expiration date, and were likely to create a large negative impact on its revenues. In early 2006, *Zoloft* was representing around \$3bn in revenue; Nonetheless, Pfizer lost its exclusivity in August of that year, which resulted in a decline of 35% in the drug’s revenues during FY2006, and an additional 75% during the FY2007²³. *Norvasc*, Pfizer’s number two medicine with \$4.8bn in sales by 2006, saw its patent going off in March 2007, reducing the drug’s revenue by 38% comparing with 2006, and further 25% between 2007 and 2008. Nonetheless, the biggest patent cliff during FY2008 occurred with the

¹⁸ Tommy Ahati. “Marketing analysis: Merck & Co. Inc & Pfizer Inc.”. Team 6, section B5, February 22, 2008.

¹⁹ Mina Kimes. “The case for Pfizer”. Fortune Magazine, December 1, 2008.

²⁰ Matthew Herper. “Behind Pfizer’s Failure”. Forbes, December 4, 2006.

²¹ Peter Elkind and Jennifer Reingold. “Inside Pfizer’s palace coup”. www.fortune.com, July 28, 2011.

²² Peter Elkind and Jennifer Reingold. “Inside Pfizer’s palace coup”. www.fortune.com, July 28, 2011.

²³ Pfizer, Financial Reports of 2007 and 2008.

expiration of the allergies drug *Zyrtec/Zyrtec D* in January 2008, diminishing its revenues about 92% during the year.

Legal Issues

As a result of increasing ambition, Pfizer is involved in several litigations regarding illegal marketing practices that, most often, focus on cultivating professional relations with several doctors, who will allegedly prescribe Pfizer's drugs. Such persuasion starts with physicians giving speeches to other physicians and doctors in hotels and resorts, as well as a check of \$500²⁴ for each doctor attending the session, in addition to some weeks of vacation paid by the own pharmaceutical.

Besides doctor's persuasion and physicians' modelled opinion, Pfizer has been constantly ignoring FDA's warning letters which, in 2005, warned Pfizer to stop some of its public promotions and DTC adds regarding the antibiotic *Zyvox*. In 2008, some of these issues resulted in \$2.3bn charge due to illegal marketing practices, which, by Chris Loder – Pfizer spokesman, were taken during the fourth quarter of 2008, ensuing a drop of 90% in the quarterly income²⁵.

Downturn in a complex industry

Value (non)creation machine

The pharmaceuticals have been historically seen as top financial performers and engines of value creation for their shareholders, what does not match with the \$850bn shareholder value destruction by top pharmaceutical companies between 2000 and the beginning of 2008²⁶. Much of this value was lost due to price pressures and struggling R&D processes, which have been showing inefficiencies and low productivity. By consequence, the introduction of new patents has been delayed, and revenues have become increasingly uncertain. The industry that in 2008 globally generated more than \$700bn in revenues, seems to have hard challenges to deal with in the next years. Despite the constant increase in sales since 2000 (**Exhibit 5**), the growth speed will likely go down within a few years, with the increase in generic competition, the biggest threat to conservative pharmaceutical businesses.

R&D impact

From a \$2bn in 1980 to \$43bn in 2006 of R&D spending by the industry²⁷ (**Exhibit 6**), the increased investment did not prove to be extremely effective, given the approximately same

²⁴ Robert Weissman. "Pharmaceutical Payola – Drug Marketing to Doctors". Huffpost, May 16, 2008.

²⁵ Linda A. Johnson. "Drugmaker Pfizer closes \$68B acquisition of Wyeth". Associated Press (APW), October 15, 2009.

²⁶ Jean-Pierre Garnier. "Rebuilding the R&D Engine in Big Pharma". Harvard Business Review, May 2008.

²⁷ Jean-Pierre Garnier. "Rebuilding the R&D Engine in Big Pharma". Harvard Business Review, May 2008.

number of new drugs approved by the FDA in the US. The R&D crucially impacts the development of a pharmaceutical's pipeline, which is divided in three main stages: preclinical, clinical trials, and post-approval. From the enormous initial investment, only after phase III of the clinical trial stage the drug is approved or sent to the next phase. On average, from the initial steps up to the patent approval, it takes roughly 12 years and an associated cost of \$1bn.²⁸

The low productivity of R&D has left the pharmaceuticals with empty pipelines and very few products in later stages. Such fact can be on the base of a turning point in the industry, given that pharmaceuticals are facing more problems inventing new drugs and which can lead to a solution as the one Jean-Pierre Garnier (Chief Executive of GSK) suggested: *“the way to solve the productivity problem is not to break up the pharmaceutical giants into smaller companies. It is to return power to the scientists by reorganizing R&D into small, highly focused groups headed by people who are leaders in their scientific fields”*.²⁹

Drug's life cycle

Since the patent is approved and filed by the FDA, the producer enjoys a period of 20 years with no generic competition, in order to recover the investment made to produce the new drug. During that time, the inventor has also right to an exclusivity³⁰ period that is defined by the FDA and which can be modified depending on the type of drug and exclusivity at stake. Even before the patent expiration, the FDA can issue a 180-Day exclusivity to the first company that challenges the brand name drug with a cheaper alternative – the generic drug. This exclusivity period is granted to the first applicant that took the risk of being accused of patent violation.³¹ Usually, in the industry, a pharmaceutical company undergoes a painful process when a blockbuster goes off patent, since the drug loses around 80% of its revenues, on average.

Health care cost and Increased scrutiny in US

The scrutiny over the research processes by the FDA has been an increasing reality since the beginning of the new century. This is constantly attributed to higher safety standards being applied by the US authorities, which are translated in a considerably lower number of New Chemical Entities (NCE). Globally, in 1999 there were 45 NCE approved, contrasting with 27

²⁸ Jean-Pierre Garnier. “Rebuilding the R&D Engine in Big Pharma”. Harvard Business Review, May 2008.

²⁹ Jean-Pierre Garnier. “Rebuilding the R&D Engine in Big Pharma”. Harvard Business Review, May 2008.

³⁰ **Patent** and **Exclusivity** are distinct from one another, even though they can run at the same time. Patent refers to a property right whilst there is a development of a drug. Exclusivity refers to a period while the regulator cannot approve any competitor drug to enter the market, namely the generic competition.

³¹ FDA/CDER SBIA CHRONICLES. “Patents and Exclusivity”. Division of Drug Information, May 19, 2015.

NCE to be approved during 2009, as expected by the IMS Health.³² (**Exhibit 7** – New chemical entities being developed over the years)

Additionally, as a consequence of the decrease in income available of the families, who were impacted by the crisis of 2008, cheaper alternatives to original drugs, such as generics, are being preferred. CCRx community is one of the entities incentivizing the use of generics, intending to control the drug expenditure through rewards to pharmacies with high performance in managing the drug costs for beneficiaries of the program³³. Following the trend, IMS health predicted a growth of 14-15% for 2008 in the generics' market, reaching a total value of \$70bn in sales³⁴.

The incentives' programs that aim to promote the use of generics as substitutes to the original drugs are growing at a fast pace, very often supported by public institutions. In the US, between 1970 and 2008 the portion of the GDP dedicated to national health spending increased from 7.2% to 16.6%, corresponding to an estimated \$2.4 trillion³⁵. The growth in health spending is seen as a possible threat to public health, given that it is growing faster than the available income, making it harder to make health public programs effective, sustainable and capable of covering all the uninsured US citizens. Nevertheless, it is also important to note that this increase in health spending, in some part, is related with the larger number of treatments and health care solutions.

Consolidation wave in the industry

Regarding the high dependence of the pharmaceutical industry on R&D investments and their consequent performance, the integration of the first pharmaceutical firm by revenues with the 13th can prompt a new consolidation trend in the industry. The increasing generic competition allied with poorer pipelines can contribute to a rush by top pharmaceuticals to look for new targets to acquire, and consequently leverage their positions in the market. In the US, Johnson&Johnson, Merck & Co. and Bristol-Myers Squibb Co. are the ones at the frontline to take such step, given their combined \$29bn in cash and short-term investments³⁶.

At the other side of the Atlantic, GlaxoSmithKline Plc and Bayer AG are not looking for a big move, wanting instead to focus on targeted acquisitions of smaller dimension. At the time that

³² Donald A. Baines – University of Pennsylvania. "Problems Facing the Pharmaceutical Industry and Approaches to Ensure Long Term Viability". May 4, 2010.

³³ Community CCRx. "2008 Generic Incentive Program". December 2007.

³⁴ Pharmaceutical Technology Editors. "Global Pharmaceutical Industry Growth to slow in 2008". www.pharmatech.com, November 21, 2007.

³⁵ "Health Care Costs and Election 2008". www.kff.org, October 14, 2008.

³⁶ "Pfizer bid may spur consolidation as Glaxo, Bayer go solo". Bloomberg news, January 24, 2009.

the rumours about a Pfizer's offer for Wyeth started, Andrew Witty, – Glaxo CEO, said in a statement that “*The industry has historically, habitually demonstrated its inability to sit on its hands when someone moves. The question is whether somebody big is going to finally pull the trigger*”³⁷.

Changing Pfizer's growth strategy

Warner-Lambert

Even though Pfizer was essentially focused in organic growth until 2000, after the beginning of the new millennium the firm marked a new era for the sector. Besides start advertising some drugs directly to consumers as the case of *Viagra*, the year 2000 was the time Pfizer launched a hostile takeover bid for Warner-Lambert right after the news about a possible merger between Warner-Lambert and American Home Products Corporation went public. The merger would be a big problem for William Steere (Pfizer's CEO at the time) once it could mean that Pfizer would lose its agreement to commercialize *Lipitor*.

After several lawsuits filed both either by Pfizer and Warner-Lambert regarding many clauses in the *Lipitor*'s agreement, Warner-Lambert's shareholders had to give up and take Pfizer's offer, in a deal that was considered one of the most dramatic ones in the history. The acquisition, motivated essentially by *Lipitor*'s performance during the previous years, was valued at \$90.27bn, sending up the stock value of both firms at the day after the announcement, to \$97.31/share of Warner-Lambert's and \$37 per Pfizer's share³⁸. This all stock transaction, which at the amendment date had an associated premium of more than 30%, would become one of the biggest within the industry, with a deal value of \$116bn at completion date, due to market fluctuations of both stock prices. **(Exhibit 8)**

Pharmacia

Still recovering from Warner-Lambert's acquisition, in 2002 Pfizer was announcing its plans to buy Pharmacia for as much as \$60bn. In addition to the expected \$2.5bn in cost savings by 2005³⁹, Pfizer would have access to the previously co-promoted drugs *Celebrex* and *Bextra*, expanding its arthritis' drugs portfolio.

The offer, valued at \$60bn had an associated premium of 34% over Pharmacia's last trading day before the announcement, which would increase to 38% at completion date. **(Exhibit 9)**

³⁷ “Pfizer bid may spur consolidation as Glaxo, Bayer go solo”. Bloomberg news, January 24, 2009.

³⁸ Melody Petersen. “Pfizer gest its deal to buy Warner-Lambert for \$90.2 billion”. The New York Times, February 8, 2000.

³⁹ “Pfizer confirms \$60 billion acquisition of Pharmacia”. The Irish Times, July 15, 2002.

Such acquisition came after Pharmacia's spin off from Monsanto⁴⁰, due to different business positions and growth conditions. When in talks to proceed with the separation of businesses, Pharmacia's chief executive at the time, Fred Hassan, affirmed that it was about two different businesses serving different clients. Completing the proposed divorce would allow Pharmacia to concentrate in the Pharmaceutical sector, which was growing faster than the agricultural business of Monsanto⁴¹.

The need for a stronger dosage

Feeling the pressure of the loss of Lipitor's patent in the following years and by the failure of its replacement drug in 2006, Pfizer's board of directors authorized Jeffrey Kindler to establish contact with Poussot, in June 2008. The purpose was to discuss a possible agreement with Wyeth, what was likely to be the next big move of Pfizer. Such step was already being expected by some analysts, who were awaiting a bold move from Pfizer to surpass the increasing challenges it was facing and those to be imposed. While negotiating with Wyeth, Kindler would be pressured by the high premiums paid in past acquisitions by previous Pfizer's CEOs, which limited his actions when agreeing the terms of any deal and evaluating the reasonability of any possible synergies to be announced.

After a first meeting, initial DD and a board reunion where Goldman Sachs's representatives were present, Poussot was approached by Kindler on September 9, 2008 with a non-binding offer of \$53/share. This known September 9 proposal represented a 28% premium over Wyeth's closing price of the previous day, which would be further increased by a CVR⁴² of \$3/share, depending on some achieved criteria by the Alzheimer product *Bapineuzumab* in Wyeth's pipeline. Nonetheless, during a board meeting with Wyeth's financial advisors from Morgan Stanley on September 25, Poussot informed all the present investors about the September 9 proposal which, by consensus, was considered "deficient" because it was reflecting the market conditions rather than Wyeth's future potential⁴³.

Since the September 9 proposal, Wyeth's common stock went down to \$29.89/share, on October 10. At the time, the non-binding offer from Pfizer was already representing a 77% premium over Wyeth's stock price. Working closely with its financial advisors already including Goldman Sachs, JP Morgan, and Merrill Lynch, in a call to Poussot, Kindler

⁴⁰ "Pfizer confirms \$60 billion acquisition of Pharmacia". The Irish Times, July 15, 2002.

⁴¹ Kenneth N. Gilpin. "Pharmacia planning Spinoff of its 85% stake in Monsanto". Nytimes, November 29, 2001.

⁴² **Contingent Value Right** - aiming to further reward the shareholders in case some specific and pre-determined event occurs.

⁴³ SEC, Form S-4. January 26, 2009.

announced that it was not in Pfizer's best interest to keep with the negotiations at current terms, giving space to a renegotiation. Although there was interest from both parties, the bankruptcy of Lehman Brothers has left the market with the highest volatility ever recorded in the previous years, which was threatening Pfizer's plans to finance the deal.

After Pfizer's board revised a proposal for Wyeth, Kindler and Poussot met again on November 5, where the revised non-binding offer of \$46 per share was presented with a similar premium (31%) of the one in September 9's proposal. Nevertheless, Wyeth's directors concluded that the \$46 per share "significantly undervalued Wyeth", adding also that there were significant issues regarding the dividend policy and financing still left to clarify⁴⁴.

Closing the deal – Beyond the price

Pfizer's CEO, board representatives, and its advisors held several meetings to revise all the proposals. On December 13, they finally elaborated a revised non-binding offer, consisting in \$47.5 a share, which was to be paid in cash and stock.

As this seemed the best solution to Jeffrey Kindler, on January 26, 2009 Pfizer was filing the S-4 to the SEC in order to inform the regulator about the firm's intent to acquire every common share outstanding of Wyeth for approximately **\$50.19** per share (**Exhibit 10**). This cash & stock transaction represents a premium of 29% when compared to the \$38.83, last Wyeth's stock price before any disclosure (Jan22). This amount per share encompasses the \$33 being paid in cash plus 0.985 of a Pfizer share. Such announcement has immediately caused a decline in Pfizer's stock price of around 10.3%, from \$17.45 to \$15.65, the biggest drop in more than two years. (**Exhibit 11**)

In case Pfizer changes its intentions, it will be a costly decision, meaning a payment of \$4.5bn directly to Wyeth. The termination fee defined during the negotiations intends to be an amount that compensates Wyeth in case the buyer does not want to proceed with the deal after the announcement date. In case Wyeth's board changes its opinion, the value of the breakup fee is slightly lower, from \$1.5bn to \$2bn, with the highest fee applying 30 days after since the announcement on January 26.

Financing

During the crisis of 2008, new lending, including syndicated loans, were dropping dramatically. Only the commercial and industrial loans increased in value during 2008; yet, these were only driven by the higher number of drawdowns by corporate borrowers, rather than new lending.

⁴⁴ SEC, Form S-4. January 26, 2009.

In the fourth quarter of 2008, the lending volume fell by 47% compared to the previous quarter and 79% relatively to the credit boom period (2nd quarter of 2007)⁴⁵. Right after the shadow banking crisis has triggered a significantly high illiquidity in the markets, Pfizer started conversations with several banks to help the financing of the deal and make sure there would be a successful syndication – the biggest concern of Pfizer’s CFO, Frank D’Amelio.

“People who owned it for the dividend got slapped in the head with a two-by-four today.”⁴⁶

The deal, valued at \$68bn, implies that Pfizer takes several steps to conclude the financing. In addition to the cut of the quarterly dividend⁴⁷ by half, from \$0.32 to \$0.16, the firm asked for a Bridge Loan Facility to finance the cash part of the deal. About \$4.5bn were requested to five different banks, totalling \$22.5bn, with terms that put the firm under tight scrutiny by the rating agencies. Despite the strong rating profile of the firm (**Exhibit 12**) at the announcement of the terms, S&P stated that it was considering to downgrade Pfizer’s rating to AA, followed by Moody’s, which was also considering doing a reappreciation to A1⁴⁸, essentially due to the high leverage assumed with the transaction.

Over the 364-day loan, Pfizer is expected to pay rising rates during its maturity. In addition to the 3 pp above the LIBOR rate, the firm will pay more 0.5% each quarter until the debt is totally paid back. A replacement by bonds is expected at the maturity of the 364-day loan.⁴⁹ being expected a replacement by bonds at the maturity of the 364-day loan.⁵⁰ (**Exhibit 13** – Corporate bonds’ issuance from 2005 to 2009)

Where does the value come from?

Beyond the expected cut in the workforce of 15%⁵¹ (approximately 20,000 jobs), both firms combined are likely to create value through cost savings, especially in R&D where Pfizer has been failing for a long time. However, in Kindler’s mind, the attenuation of the \$13bn slash in revenues due to Pfizer’s patent expiration, expected for 2011, seems to be an even higher priority. In addition, Pfizer will also have access to several biologic arthritis blockbusters that are expected to boost the revenues of the combined firm by 50%. Furthermore, beyond the access to a wide range of blockbusters, the presence in biologics will allow Pfizer to expand its

⁴⁵ Victoria Ivashina and David Scharfstein. “Bank lending during the financial crisis”. *Journal of Financial Economics*, December 24, 2009.

⁴⁶ Mike Krensavage, principal at Krensavage Asset Management. Interviewed by Reuters, January 26, 2009.

⁴⁷ Jessica Hall and Lewis krauskopf. “Pfizer to buy Wyeth for \$68 billion”. Reuters, January 26, 2009.

⁴⁸ “Pfizer loan to finance Wyeth purchase to be replaced by bonds”. Bloomberg news, January 26, 2009.

⁴⁹ “Pfizer to pay rising rates on 364-day loan for Wyeth (update 1)”. Bloomberg news, January 30, 2009.

⁵⁰ “Pfizer to pay rising rates on 364-day loan for Wyeth (update 1)”. Bloomberg news, January 30, 2009.

⁵¹ “Pfizer CEO: Wyeth merger will bring what’s needed”. Associated Press (APW), February 6, 2009.

business, while it diversifies its presence among the different therapies already offered by Wyeth.

Pfizer had already planned to make internal changes that would save \$2bn between 2009 and 2011. With the integration of Wyeth, Frank D'Amelio expects cost savings around \$4bn during the three years after the consolidation, with 50% in the first 12 months, and 75% of the planned deal savings realized by the second year after the transaction. To reach the annual \$4bn in cost savings, Pfizer is looking to close down several facilities that will exist in duplicate capacity, as well as reducing the annual SG&A costs by nearly \$2bn.

Litigation

When Pfizer started the conversations, Wyeth had already a remarkable history of settlements. At that time, it was facing several claims from more than 10,000 women only in the US, due to its *Prempro* and *Premarin* medicines, which allegedly cause breast cancer. Also, Wyeth had to keep back \$21bn to be prepared for numerous lawsuits due to its *fen-phen* drug, additionally to the \$7 million that the firm might have to pay to a woman who, after having used one of Wyeth's vaccines, lost one of her arms.⁵²

Sheldon Drogin, a Wyeth activist shareholder, did not seem to be happy with the transaction. Living in Seattle, Drogin claims that Wyeth directors "*failed to get the best price in the transaction*"⁵³, writing this sentence when asked a US judge in a lawsuit to consider such deal "Unlawful and Unenforceable". Sharing the same opinion is Anna Meisher, other activist shareholder who also claims that the price of the transaction clearly undervalues Wyeth's full potential and asks, in the claim filed in the Delaware Chancery Court, for this transaction to be considered "Unlawful and Unenforceable".⁵⁴

The gold mine for Investment Banks in hard times?

This single deal, which is estimated to be worth as much as \$150M in fees for the investment banks involved in the transaction, happens in an unusual time when the market is down, and the transactions' flow is clearly below the levels of the previous years. Apart from the fees implied, the deal financing also looks to be appealing enough for the group of banks involved, such as Goldman Sachs, JP Morgan, Merrill Lynch, Barclays, Citigroup, Morgan Stanley and Evercore.

⁵² "Pfizer's Kindler resorts to a megadeal as research falls flat". Bloomberg news, January 27, 2009.

⁵³ "Wyeth Shareholder Wants Pfizer Acquisition Declared Unlawful". Bloomberg news, January 30, 2009.

⁵⁴ "Wyeth Shareholder wants Judge to invalidate Pfizer Acquisition". Bloomberg news, February 2, 2009.

As the crisis hit the markets, the volume and profitability of deals suddenly declined to substantially lower amounts. From \$4.06 trillion in 2007, the value of M&A fees among all the industries decreased to \$2.5 trillion during the year of 2008. Therefore, as the market was passing through a huge turmoil, the banks seemed to have found one industry where they still could make money during hard times. Most of the health-care companies, which usually have their pharmaceutical segment, were sitting in piles of cash or many short-term investments. Thus, who else to do business with (and finance those deals) but an A-rated company?

Sharing different thoughts on this is the advocacy group “**The Greenlight Institute**”, who filed an action in the antitrust division of the Justice Department. The group is asking for explanations about the money some of the banks have just received from the US Government’s Troubled Asset Relief Program (TARP) and which could be better used to finance smaller businesses, rather than participating in the financing of a deal with prospects of so many job cuts.⁵⁵

Corporate Governance

Although Pfizer’s CEO had followed a career path outside the pharmaceutical sector, his strong abilities of dealing with complex situations and his long working hours were noticed since the first day he joined Pfizer, in 2002. Right after this, he started his progression towards the CEO position in 2006, replacing William Steere, with the aim of dealing with the disappearance of the most profitable blockbusters of the firm. However, Kindler’s lack of trust in the people around him led him to trust the wrong people. Even though many people knew Ms. McLeod and her dark track record, she became the Pfizer’s HR chief in 2007, rapidly building up her relation and affinity with the CEO. From that relation, she would be able to extract the most in her favour, namely the personal use of the firm’s helicopter with daily frequency and the more than \$200k that she used to cover a loss of a sale of one of her houses in Long Island.

Under Pfizer internal policy, top executives are allowed to use the corporate jets for personal use during 20h per year. Nonetheless, McLeod seemed to have a comparative advantage, given Kindler’s authorisation for her to use the jets on a weekend basis during a period of three months, for her trips between Delaware and Manhattan, until she finally decides to move. As already expected by some of the executives, this period would have been extended and the personal use of the corporate jets and helicopters continued until she left the firm. The expenses were so noticeable that they had put McLeod among the five most compensated executives at

⁵⁵ Gordon Platt. “Corporate Finance: Pfizer-Wyeth Merger may set off a wave of consolidation”. Global Finance Magazine, March 1, 2009.

the company, which by statute, had to be discriminated in the annual report. Apart from the \$1M in payments to McLeod, including expenses to her various houses and helicopter's use, her salary of \$900k was also noticed by Peggy Foran, Pfizer's governance chief.⁵⁶

Although Pfizer is likely to keep its management after the merger with Wyeth is complete, namely Kindler as CEO and Frank D'Amelio as the CFO, there will be another person at the firm who will gain with the deal. Poussot, who will leave the firm after the transaction is completed, will take as much as \$53M with him, since his golden-parachute of \$24.3M until the cash out of \$18.6M from his Wyeth's shares and stock options.⁵⁷

Media's commentaries and industry experts suggest that, considering Pfizer's historical acquisitions, it will be very difficult for the buyer to profit from this transaction. On the other hand, Kindler seems convinced that he will deliver what he promised to the investors. Yet, the doubt remains among specialists: is Kindler paying the right price for Wyeth, or is this just the beginning of a failed promise with an overpaid acquisition?

Teaching Note

Synopsis: Pfizer is a \$119bn pharma company which has been leading the pharmaceutical industry for years with several drugs gaining the status of world best sellers. However, during the years prior to the merger, the pharma industry was living harsh times with difficulties in the R&D departments. Thus, as companies, specially Pfizer, were not producing brand new drugs, it was necessary to think of a solution to face expected patent cliffs as acquiring smaller players with innovative ideas in the pipeline. Wyeth was showing promising new drugs in their pipeline, which motivated a \$68bn cash and stock offer from Pfizer implying a premium of 29%. Furthermore, this case will clearly show the importance of M&A in situations of management survival and financial engineering behind the deal financing.

Pedagogical Opportunities

This case should be taught over a regular class of one hour and a half. Due to the specifications of this case, it is designed for Applied Corporate Finance and M&A courses. When going through the analysis, this case gives students the opportunity to:

1. Discuss the reasons behind merger waves in the pharma industry.
2. Understand where do synergies typically arise in a pharma deal.
3. Discuss the nature of the different impacts on key ratios as EPS and P/E.

⁵⁶ Peter Elkind and Jennifer Reingold. "Inside Pfizer's palace coup". www.fortune.com, July 28, 2011.

⁵⁷ Linda A. Johnson. "Drugmaker Pfizer closes \$68B Acquisition of Wyeth". Associated Press (APW), October 15, 2009.

4. Use the market Data to understand the use of specific financing instruments and the deal implications on investor's sentiment.

Such learning opportunities will be made possible through the following *suggested questions*:

1. What motivated Wyeth acquisition by Pfizer's board? Are the R&D difficulties of 2006-2008 an isolated problem or is it an historical difficulty for Pfizer?
2. What are the typical sources of synergies in a Pharma deal?
3. The solely replacement of a patent cliff is a valid reason for such deal with the purpose of adding value to shareholders?
4. What are the main advantages of using a Bridge Loan Facility in the context of M&A specially during the period 2008-2009?
5. What is the effect that the dividend's cut may have among the investors? Is it the only explanation for the drop in the stock price right after the announcement?
6. How can the breakup fee of \$4.5bn be justified?
7. Assuming company data from the FY2008, is this acquisition EPS accretive? Show the cases when considering an all-stock transaction and the actual terms of this deal (with and without Synergies), explaining if the EPS accretion can be by itself a reason to go through an acquisition.
8. Does the announced value reflect a fair valuation of the business? How Wyeth's shareholders might have reacted to the offer?

Case Analysis

Motivation behind the offer

To understand the motivation behind the deal, students should look at the expected expiration dates of the most important drugs for Pfizer in terms of revenues. As such, one must notice that *Lipitor*'s patent, Pfizer and world's best seller, will have generic competition by 2011 and will provoke a huge fall in the \$12bn revenue solely collected by this cardiovascular preventive drug. In addition to this problem are the difficulties in developing their own brand-new drugs, which has been a problem for the industry as a whole. As a demonstration of Pfizer's weak R&D productivity, students should raise questions about the product that should have replaced *Lipitor*, *Torcetrapib*, the called "big failure of 2006".

As Pfizer was unable to replace his best seller with their own R&D resources, the management team rapidly realized that the survivorship receipt was the acquisition of a robust pipeline that would allow Pfizer to maintain itself within the elite of the pharma industry. Nonetheless, it is

not the first time that Pfizer has to go through an acquisition to keep itself alive among the pharma sharks, as its acquisition of Warner-Lambert in 2000 to guarantee the continuity of the rights about *Lipitor*. Reinforcing the fact that Pfizer was not living a punctual difficulty in the R&D division is the larger average cost of producing new drugs when compared to other peers. For instance, the instructor may highlight the patents developed by Merck & Co. Inc from 1996 and 2001 at an average cost of \$6M each whereas it costed Pfizer an average of \$17.5M to develop a lower number of patents (1,933 vs 1,217, respectively). Therefore, such acquisition may also be seen as way of buying potential blockbusters instead of producing them in-house, once that buying them to a competitor that is present in biologics can mean a cheaper access to a robust pipeline rather than build up their own.

Pharma synergies

Depending on the students' perception of pharma M&A, the instructor can start by asking the typical synergies that exist in a deal, independently of the sector. By this starting point, answers as revenue growth enhancement and personnel cost savings should be expected. Notwithstanding, it is necessary to distinguish operational and financial synergies, as both may create value.

From the revenue side, beyond joining sales force effectiveness to promote their products, the drugs in the pipeline can be a crucial element for an acquisition as the case of Pfizer, where it was lacking innovative drugs to launch to the market. Moreover, the industry visibility, access to new markets, increased market share and negotiating power are other synergies that may be referred in a pharma deal. However, the most typical synergies in a pharma transaction are related with operational cost savings. Starting with the personnel expenses and eliminating duplicate capacity, such acquisitions can generate from 10 to 15% of cost savings in the short-term.⁵⁸ Additionally, the R&D cost savings are the most notorious ones, where pharmaceuticals spend time and money restructuring their R&D departments and reorganizing their human capital. Thus, from one perspective it makes possible the reduction of R&D expenses by duplication of resources at the same time it makes available a new pipeline with access to new drugs on development and new methods of research that will positively impact the acquiring company. On the other hand, financial synergies are more related with larger capacity of absorbing debt, tax advantages through possible loss carry forwards of the target company and even the reduction of the cost of capital due to the creation of a more solid entity.

⁵⁸ Knowledge @ Wharton. “‘Trying to Recapture the Magic’: The Strategy Behind the Pharma M&A Rush”. Wharton University of Pennsylvania, May 28, 2014.

Justifying the Merger with a patent cliff

As the patent cliff from *Lipitor*'s revenues is approaching, Pfizer needs to buy itself some time to find a suitable solution. Nonetheless, given the information about the development costs of new patents and regulation's constraints, students should try to find additional justifications for such deal which the purpose is to add value to shareholders.

As an example, referred by Jen Wieczner⁵⁹, it is often cheaper for a pharmaceutical to acquire the next blockbuster than develop it in-house, showing another vision on the difficulties of R&D departments in leading pharmaceuticals. As the development costs have been on the rise for the past years, very often it is worthwhile to buy a developed drug. Moreover, in Pfizer's acquisition, as Wyeth is also present in biologics, brings another advantage on the research methods and expansion of therapies (**TN Exhibit 1**), beyond the increased global presence Wyeth will convey. Thus, the access to an enriched pipeline brings another reason to justify such acquisition. Anyhow, one can also mention the fact that both firms are globally present, and, with tougher regulatory constraints, it increases the visibility of the consolidated firm in order to speed up the globalization of clinical trials⁶⁰ and getting faster regulatory approvals in multiple markets.

Additionally, the management team would not be able to convince the board to approve Wyeth's acquisition if the solely purpose of the deal was to face a patent cliff. Therefore, additional advantages had to be referred, as the ones aforementioned, and thus bring some time of breath to management in order to enhance the earnings during the years after the patent cliff, being able to show the returns' growth that investors are expecting.

Finally, "If pharmaceutical companies don't have new products in their pipeline, they buy them"⁶¹, only with the purpose to assure that management will be keeping on delivering to its investors. As Stephan refers, "Companies are looking at biotech, at smaller companies, and seeking to buy them or to enter into venture capital-style agreements to secure the rights to products so they can get them into their pipelines" which seems what Pfizer is doing with Wyeth. Thus, students should note that pharma deals can have several justifications behind, and a patent cliff cannot be, by itself, a reason for an acquisition. Adding on that, when acquiring any other firm, the selling part will only agree on the deal terms if the price covers all the future cash-flows the company might generate. Then, the purpose of adding value when acquiring

⁵⁹ Jen Wieczner. "The real reasons for the pharma merger". Fortune, July 28, 2015.

⁶⁰ Charles Farkas and Time Van Biesen. "The Real Reason Big Pharma Merges Are Wise". Forbes, June 26, 2009.

⁶¹ Senior Vice-Chair of the IBA Healthcare and Life Sciences Law Committee. "The Global Pharmaceutical Industry is no stranger to major M&A deals". International Bar Association, April 12, 2016.

other firm cannot be justified with a patent cliff but with creation of value through the different types of synergies.

Debt Financing of a M&A Deal

Using a Bridge Loan Facility is a recurrent instrument when financing an acquisition. When used, such instrument usually secures financing during a short period and is typically replaced by other source of financing at maturity.⁶² In this case, the Bridge Loan was secured by a syndicate of five banks, which assured Pfizer the necessary financing for this deal. Despite the short-term feature of Bridge Loans, in the context of M&A, it is extremely useful because of its rapidity of arrangement and consequent faster acquisition process once the financing is secured. Additionally, Bridge Loan Facilities show a reduced uncertainty regarding the yield to be paid, when compared to debt issuing on capital markets, guaranteed confidentiality (which would not happen in case of public debt issue) and certainty on the amount of debt that can be borrowed. In addition to these conditions, students should look at **Exhibit 13** (corporate bond issuances during 2008-2009) and notice that during the time of Wyeth's acquisition, the bond market was living a period of extremely low liquidity. Thus, such fact would complicate even more a bond issue to the capital markets and probably not guarantee the necessary amount of debt that Pfizer was seeking to proceed with the deal.

Drop in Pfizer's stock price

The announced slash in Pfizer's dividend from \$0.32 to \$0.16 in order to help the deal financing, generated usual contestation among investors. Despite the company's disclosure about the reason of the dividend cut, when a firm cuts its dividend it is perceived as either because the cash-flows are going down and the company is not generating much cash to sustain the dividend or it is because there are other good investment opportunities⁶³. However, investors look at the latter justification and realize that finance an investment opportunity becomes cheaper with debt than with a dividend cut (equity), and thus leading to the interpretation that the firm may be in a tough cash-management situation. In addition to these justifications, students should also mention the clientele effects⁶⁴ that come into place. As reducing its quarterly dividend, Pfizer is eliminating from their portfolio of investors the ones that were holding the stock for the high dividend, who may not be interested any more in holding the

⁶² Usually Bridge Loan Facilities are replaced by long-term debt which can or cannot be financed by the same lenders of the Bridge Loan, given the banks willing to spread the risk of financing.

⁶³ Franklin Allen and Roni Michaely. "Handbook of the Economics of Finance, Edited by G M Constantinides, M Harris and R Stulz" – Payout Policy, 2003.

⁶⁴ Effects on different types of investors regarding changes in Dividends, Taxes or other policy.

stock. Therefore, given the interpretation of the dividend cut and effect on particular investors, this all together could have contributed to the decrease in Pfizer's stock price.

When looking at **Exhibits 10 & 11**, students should notice that from January 23 to January 26, there is a decrease in Pfizer's stock price by 10% (\$17.45 to \$15.65) and an increase in Wyeth's share price of 12.6% (\$38.83 to \$43.74). Nevertheless, this drop in Pfizer's stock price may not be solely justified by the dividend cut but also by the signalling given by the methods of payment. At this point, the instructor can ask the different signs that can be sent to the market given the different payment methods used in M&A deals. Thus, one should point that in cash transactions the risk is on the acquirer's side⁶⁵ to realize the synergies announced while in stock transactions the risk is shared among investors, giving the sense of uncertainty about the realization of the announced synergies. Moreover, as Pfizer is paying a portion of the deal with equity, it may be signalling the market that its stock is overvalued, given that acquirers prefer to use their stock to pay for transacted assets⁶⁶ when the value of the underlying shares are above its realizable value. Thus, given the signals sent by Pfizer to its investor's base, those could have led to a generalized sell of its stock and result in a drop of more than 10% of the stock price. Interpreting the different directions of the price movements of both stocks, the market perceived that Pfizer may be overpaying for this transaction, given the drop in Pfizer's share value and the opposite movement in Wyeth's stock price. This corroborates the academical evidence which shows that stock mergers suffer more negative abnormal returns than all cash transactions.

Rewarding Wyeth in case of inexistence of deal conditions

In case Pfizer does not proceed with the deal regarding any constraint, the firm should reward Wyeth in about \$4.5bn, one of the largest break-up fees on history. However, the instructor may start to introduce the topic by the fact that Break-up fees are usually applicable to the sellers, preventing it to sell the firm by a higher offer from a competitor of the bidder⁶⁷. The purpose of the termination agreement is based on protecting the buyer during the exclusivity period and thus increase the price of possible bids for the seller. Nonetheless, in this case there is a termination fee applicable to the seller (\$1.5bn to \$2bn) but which is less than half the one applicable to Pfizer. Therefore, one of the reasons for the \$4.5bn termination fee applicable to

⁶⁵ Alfred Rappaport and Mark L. Sirower. "Stock or Cash? Trade-offs for buyers and sellers in M&A". Harvard Business Review, December 1999.

⁶⁶ Marie E. Sushka and Ulrich Hege. "Equity or Cash? Signal sent by the way you pay". Harvard Business Review, May 2009.

⁶⁷ Robert F. Bruner. "Applied Mergers & Acquisitions", University Edition. Published by John Wiley & Sons. Inc., Hoboken, New Jersey, 2004.

Pfizer is due to the probability of conclusion the deal, being riskier for Pfizer's side because the risk of financing is abnormally high given the tough debt market conditions and Pfizer's prospective debt rating change. Another reason is supported by Lemmon and Bates,⁶⁸ who defend that these termination conditions are commonly present in larger and stock deals from which the target clearly has growth opportunities. As "premiums are negatively correlated with the presence of bidder termination fees", this suggests that targets make control on the price in return for the risk reduction with a bidder termination fee.

Additionally, a last reason that can be pointed out by the students is regarding previous talks, namely with the Dutch biotech firm, Crucell, that Wyeth was attempting to acquire. Accordingly, such break-up fee may also be seen as a possible future reward for the resources spent with Pfizer's agreement and for the resources and opportunity costs related with the withdrawal of conversations with Crucell.

EPS accretion

Considering all the three scenarios mentioned, students must realize that this deal is EPS accretive in all of the three. When considering an all-stock transaction without any synergy involved nor any premium paid, this deal is considered accretive once the EPS of the combined firm is slightly higher than the EPS of the acquirer. Such fact is solely explained by the higher P/E ratio of Pfizer when compared to the one of Wyeth. **(TN Exhibit 2)**

Additionally, if analysing the acquisition with the actual terms of the deal with zero synergies, it continues to be EPS accretive. However, as there is a 29% premium paid over Wyeth's stock price, the P/E ratio of the acquirer is lower than the one that will be hypothetically bought (Wyeth's P/E with 29% premium), which cannot be the explanation for such increase. Thus, the increase in EPS may be explained by the integration of Wyeth's earnings combined with the stock exchange ratio of 0.985, which results in a greater positive contribution to the EPS than the negative impacts from the earnings "dilution" effect and debt financing (-0.25\$ and -0.13\$ respectively), see **TN Exhibit 3**. The dilution effect is calculated based on the difference between Pfizer's initial EPS and its earnings divided by the new number of shares. Furthermore, the debt financing contributes negatively to the EPS once it implies the payment of debt services as interests. Nonetheless, the debt financing also contributes positively to the share price through tax shields.

⁶⁸ Robert F. Bruner. "Applied Mergers & Acquisitions", University Edition. Published by John Wiley & Sons. Inc., Hoboken, New Jersey, 2004.

When evaluating the last scenario, the first thing students should notice is that the only difference from the second scenario is the synergies of the deal. Thus, as Pfizer expects to gradually realize the \$4bn within three years after the deal, it is necessary to discount those synergies from the years they are expected to be realized to its present value (PV). Though, the value of synergies expected for the next three years are subject to taxation, which implies that the amount we need to discount to PV is only the after-tax synergies of each year. Additionally, students should be questioned if the synergies will only bring gains during those three years, what should be answered with the implied perpetuity of the business. As naturally as it appears to be, those synergies must be valued for the entire life of Pfizer, which indicates that students have to calculate a perpetual value for the synergies.

As it can be seen in **TN Exhibit 4**, the perpetuity was calculated based on the after-tax synergy of the last of the three years, 2011, and the median of the P/E ratio of the industry was used to calculate the PV of the perpetual synergies as of 2011. Nevertheless, to discount the values from 2011 to 2008, it is more appropriate to use the WACC (Weighted Average Cost of Capital). From the **Exhibit 15**, it is possible to obtain the median of the levered beta of the industry, which will be used to calculate Pfizer's cost of equity (R_e) by the CAPM formula. Using a risk-free rate of 2.52% and a MRP (Market-Risk Premium) of 6.4%, the $R_e = 7.13\%$. In order to have the appropriate D/E of Pfizer, the value of Debt shall already include the acquiring debt of \$22.5bn plus the assumed debt of Wyeth, which amounts to \$11.7bn, totalizing a Debt value of as much as \$51.5bn. Consequently, as using the D/E ratio to calculate the WACC is a circular process⁶⁹, the best approximation for the market value of Equity is the one from the 2nd scenario, having reached a D/E of 0.39 and a WACC for the combined firm of 6.4%. (**See TN Exhibit 5**) With this firm's discount rate, the present value of the synergies amounts to \$37.8bn, which have to be added to the value of Equity.

After having performed the previous calculations, students must realize that the earnings of the year after the acquisition will already include the synergies of the first year, sending up the EPS of the combined firm to 1.88. Nevertheless, the previous calculations are also useful to show that, EPS accretion cannot be by itself a reason to go through an acquisition. Proving that fact is, for example, the share-price of the 2nd scenario analysed, once the accretion in EPS was about \$0.21 but the share-price went down by \$1.3, resulting in a loss for Pfizer's shareholders

⁶⁹ This process is circular once the WACC is used to find the correct value of Equity, which is also being used to find the correct WACC.

of \$8.8bn. Notwithstanding, in the last scenario, Pfizer's shareholders see the share price going up by 3.4\$ but it is due, in a large portion, to the synergies included. (See **TN Exhibit 6**)

Valuing Wyeth's business

Given the high subjectivity of the DCF inputs and low information level of the several patents in development, students should be able to realize that the most practical way to evaluate Wyeth's business is using industry multiples and then compare the value using the company's own multiple in the market.

From the **Exhibit 14**, there are two critical multiples that can be taken, P/E ratio and EV/EBITDA, with the first deriving directly to the market value of equity while the second derives the market value of the entire company. For the following computations, we will use both ratios in order to make a critical comparison between the different results. As shown in **TN Exhibit 7**, the P/E ratio ranges from 8.89x to 18.72x, averaging a multiple of 13.68x but with Wyeth's traded multiple of 10.63x. Applying those multiples on Wyeth's earnings, the market value of equity lies within an interval between \$41,786.42 M and \$87,991.19 M. Nonetheless, the traded multiple of the firm gives a market cap of \$49,946.75 M. While using the median⁷⁰ of the industry multiples', the equity value is around \$65,288.34 M.

However, using the P/E ratio, according to some experts in valuation, brings some problems. The P/E ratio is widely affected by one-off events such as restructuring charges or write-offs, once it relies on the earnings of the company/peers. Moreover, P/E ratios rise with leverage, which means that a firm with an artificially high P/E ratio and with only equity in its structure, can increase it even more swapping equity for debt⁷¹.

Following the reasons aforementioned, students should realize that a reasonable solution for such problems is to use an enterprise multiple, namely EV/EBITDA, also deductible from the **Exhibit 14**. In this case, the industry multiples vary from 4.46x to 10.07x, with a traded multiple of 5.93x, not so far from the minimum multiple of the peers analysed. When applying such multiple, the instructor should ask what is the value per share that this multiple valuation gives. From that question, students should realize that for such computation there are some adjustments to be made. Firstly, to find the implicit value of equity, it is required to deduct the non-operating items from the EV as the **TN exhibit 8** clearly shows. Then, as the EV of Wyeth lies within a large range (from \$35,446.53 M to \$80,134.34 M), it is important to see how the

⁷⁰ Median of industry multiples is widely used in order to access a fair multiple within the industry peers once the median eliminates the effect of the outliers that hardly affects the average of the multiples.

⁷¹ Marc Goedhart, Timothy Koller and David Wessels. "The right role for multiples in valuation". McKinsey & Company – Strategy & Corporate Finance, March 2005.

traded EV/EBITDA multiple of Wyeth has been changing overtime. Thus, from the **Exhibit 15**, it is possible to notice that during the years of 2006, 2007 and 2008, this multiple has been constantly decreasing from 11.19x to 7.92x and 5.93x, respectively. Such changes in the company's multiple should be noticed by students and realize that probably the median EV/EBITDA from the industry may be an exaggerated number given the market penalisation of the firm. As one must notice, when using the peers' median EV/EBITDA, the equity value of Wyeth is about \$66,765.64 M, which is very close the value that Pfizer is paying, with 29% premium.

One possible justification for such decrease in Wyeth's traded multiples (P/E and EV/EBITDA) is that the market may have penalized the firm for the recent lawsuits it has suffered from some clients, given the secondary effects its drugs have been causing to some patients. Concerning both multiples and valuations, the doubt may still among the analysts that have been continuously assisting to a decrease of the traded multiples of the firm, showing the belief of overvaluation. (**TN Exhibit 9**)

Furthermore, when considering the values offered to Wyeth's shareholders, it is very likely that they will accept the offer from Pfizer. For example, let us consider the second and third scenarios from the last question, including and not including any synergy. As one can see in the **TN Exhibit 11**, one Wyeth's shareholder who owned 1,000 shares, they were worth \$37,510 (by 31.12.2008). After the completion of the merger, the same shareholder would earn \$33 per share, \$33,000, plus $0.985 * 1,000 * \text{Pfizer-final-stock-price}$. Therefore, if the second case occurs, which is the worst scenario for the acquiring shareholders – meaning they paid 29% premium but do not realize any synergy – that same Wyeth's shareholder would still make a gain of 31.1%. By the same logic, if Pfizer realizes all the synergies announced, as in the 3rd scenario, Wyeth's shareholder would make a gain of 43.4%, once in both cases he earns the \$33 paid in cash plus the 985 shares that he can sell at market price.