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KODAK – A Turbulent Giant

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Abstract

The potential for a pivot drew investors and the public´s attention to this centenary giant. The present case study aims to tackle the topics connected to Financial Distress, Bankruptcy, and Restructuring by focusing on: Financial Ratio Analysis, Intrinsic and Relative Valuation, and Altman Z-Score Model. Failing to innovate led Kodak to fall into turbulent times, filing for Chapter 11 at beginning of the decade, announcing a shift in its operations towards the pharmaceutical industry eight years later, and an ongoing investigation for wrongdoing are some of the main aspects analyzed throughout the case and how they impacted Kodak.

Keywords

Finance, Financial Distress, Corporate Finance Bankruptcy, Restructuring, Corporate Valuation, Altman Z- Score Model, Eastman Kodak.

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Introduction

Kodak was once the leader of a highly R&D-intensive industry that has boomed over the last 30 years and failed to keep up. A myopic view towards their invention, the first digital camera, led Kodak into a spiral of financial distress which ended up in filing for Chapter 11 bankruptcy protection in 2012. Despite being in a better financial position nowadays, Kodak never fully reemerged as a healthy company. This case stemmed from the news regarding Kodak on its' pivot to pharma. As a chemical business, it is possible to produce generic medicines and change the course of business. The pandemic crisis affected every industry making the pivot to pharma the opportunity that the fallen giant so desperately needed.

The report is structured in two different parts: Student copy with the case, data, and questions; Followed by the teaching note that includes the proposed answers for these questions jointly with an excel model to sustain the arguments presented. We aim to tackle introductory knowledge of financial distress and understand its implications via financial ratio analysis, Altman Z-Score model, and scenario analysis, jointly with discounted cash flows and the Comparables method, to better grasp the financial position of the company and if it fully recovered from a distress zone. While DCF analysis allowed the exploration of possible scenarios the company might face, the Comparables method evaluated Kodak's market value in light of its peers'.

Changing the industry in which a company operates it's a challenging task to achieve hence, the prospects for Kodak displayed are merely hypothetical reasoning of what could happen if certain decisions are taken.

Kodak: from Market Leader to Obsolete to Bankrupt

In 1969, when Kodak was responsible for manufacturing film used on the Apollo 11 Moon landing, it was impossible to predict they would fall behind all their competitors and have no other alternative than to change business entirely, selling more than 1100 patents in 2012. According to Forbes article titled "How Kodak Failed", the company's decline over the decades was in fact due to staggering missed opportunities that led the company in filing for Chapter 11 bankruptcy protection, in January 2012, in the United States Bankruptcy Court for the Southern District of New York, a wildly know area for debtor-friendly courts.

Judge Gropper was all over the newspapers in the U.S. after closing Kodak's trial with a statement that called the company's bankruptcy a "tragedy of American economic life". Kodak's workforce was shrinking, from 64,000 to no more than 17,000 employees, while its $13.3bn revenue saw itself reduced by half. In 2011, the company had had to shut down more than 13 factories and 130 photo labs, causing a wildly negative impact on the country's employment.

Kodak was the fourth top brand in the U.S, generating above $15 billion in gross revenue in 1996 (AFZ 2015). The company's strongest asset relied on their patents of innovative technology, which is why it's not easy to endure that their downfall was strict because the market transitioned to a more digital-based paradigm, letting go firstly of analogic cameras and later of photographic cameras entirely. Looking at Kodak's operating model, we understand that by the 1990s they had achieved such a high level of mass production and internationalization, that any changes to their business could not have been made lightly. Alongside innovation, Kodak was able to keep a sustainable competitive advantage for a long time through vertical integration. Their supply and production chain was integrated almost

completely, allowing Kodak to produce with more efficiency and to use that as a barrier to entry, to protect themselves from new players entering the market.

Although, as the main player in an R&D-intensive industry, innovation was important, it was a poorly managed sector, with a "laissez-faire" inspired culture that allowed scientists and investigators to spend several years and enormous amounts of funds in research that often did not pay off. Management was not objective in what were the objectives that should be met by researchers, resulting in inefficient use of funds and irregular frequency of results. Scientists were not explicitly encouraged to invent in the area of photography alone. Their efforts were not customer-oriented, which led to a wide range of brilliant technological accomplishments being sold in the sequence of Chapter 11 negotiations. Nevertheless, Kodak's investment in research and development let them own a portfolio of 19,576 patents registered in the U.S by the end of the 20th century, with more than 1000 belonging exclusively to digital image processing.

Furthermore, the high levels of bureaucracy and the lack of harmony between Kodak's business model and operations management led to innovative progress being ignored or misused. Only such lack of coordination could justify that the people who were behind the invention of the digital camera would be the last ones to commercialize it, leading to the company being perceived as obsolete and to the general public opinion that the reason why there's no more Kodak is because there's no more interest in analogic cameras.

A Sign of The Times

Technology advancements have dictated progress throughout history, and the last 30 years have seen a shift in how businesses perceive and approach digital transformation. Companies that

have excelled in the past can no longer assume that their future is secure. In retrospect, the solution appears to be straightforward: innovate, adapt, or become obsolete.

The year 1988 was a landmark for the digital transformation of this industry. There's a clear trend for digitalization swiping across the industry's main competitors. For example: In 1988, Fujifilm was parading its Fujix DS-1P around the Photokina trade show in Köln, Germany. This camera could store up to 10 photographs on its external memory card. In the same year, Sony launched the Mavica, a camera with similar features as Fujifilm's, with the ground-breaking novelty of a TV-like display screen, allowing users to preview and review their photographs. Moreover, Canon came up with its first truly electronic model, the EOS 650, surprising everyone with its then-revolutionary auto-focus feature, which we now take for granted.

Still, in the year 1988, Kodak was this industry's market leader. Only 10 years prior, in 1976, more than 90 percent of photographic film and more than 85 percent of cameras sold in the US were made by Kodak. Contrary to the public's expectation and unlike their main competitors, Kodak was not launching a brand-new digital camera in 1988. Instead, they were buying Sterling Drug for $5.1B, deciding that it was a chemical business, with a part of that business being a photography company. Kodak soon learned that chemically treated photo paper isn't the same as cardiovascular drugs. They ended up selling Sterling Drug, in pieces, for about half of the original purchase price.

There were many reasons behind Kodak's not releasing a digital camera in 1988. It certainly wasn't because they didn't have the necessary technology. The first-ever digital camera was invented by Kodak, more than 10 years in advance in 1975. Steve Sasson, a Kodak engineer employed back then, talked about his prototype in an interview for the New York Times, in

2008: “My prototype was big as a toaster, but the technical people loved it, but it was filmless photography, so management’s reaction was: “that’s cute—but don’t tell anyone about it”.

Managing A Sinking Ship

Vince Barabba was Kodak’s head of marketing intelligence, until 1986. According to him, the extensive market research done by his department in 1981 concluded that the adoption of digital photography would be minimal and non-threatening in the long term. They considered the costs associated with digital photography equipment, the expected quality of both digital images and prints, compared to film and even the interchangeability of camera components. All evidence pointed to film as the obvious superior medium for photography and a long-term winner. Along with the Sterling Drug disaster, Kodak saw its market position drop significantly, while its competitors kept rising and improving their position in the photographic industry. So, with this study in mind, Kodak decided to take advantage of new technology to improve film cameras, instead of replacing them.

In 1989, there was a change in CEO. The choice was between Phil Samper and Kay R. Whitmore, the first being a digital enthusiast the latter promising to make sure Kodak stayed closer to its core businesses in film and photographic chemicals. Whitmore came out a winner but didn’t last more than three years in his position. After him, came a list of new CEOs, whose stay in the company was equally short. There was a problem regarding the digital transformation of the company, where new management would fail to implement changes and step aside for the next team to fail just as miserably.

In 1996, Kodak launched the Advantix Preview film and camera system: a digital system that allowed users to preview their shots and indicate how many prints they wanted, before shooting.

This investment cost them around $500M to develop and launch. It wasn't a successful venture because, by the time, fully digital cameras were already of common use, and it didn't make seem reasonable to have to pay for prints and film when the camera was digital.

It's not as if Kodak's management were truly oblivious towards the technological innovation and the shift in consumer needs that followed. It seems they just had a persistent issue with timing. In the same way, they could've been the pioneers of digital photography, they could've also been the ones who came up with a social media network somewhat like Instagram, in 2001, when Kodak made the smart acquisition of a photo-sharing site, called Ofoto. As it turned out, the website was instead being used to encourage customers to print their digital pictures and it ended up plummeting and being sold in 2012, as part of their bankruptcy plan.

1. Based on Kodak's historical financial data, before filing for chapter 11, what are the main indicators of financial distress? Through a Financial Ratio analysis, present both quantitative and qualitative data to hold your arguments. What about the post-bankruptcy financials?

The Closing of a Chapter

On January 19th, 2012, Eastman Kodak filed for bankruptcy protection under Chapter 11 in the Southern District of New York after several years of rumors and a significant decrease in its cash reserves ($1.6B in January 2001 compared with $957M in June 2011). On the same day of its public filing, City Group was appointed to provide the fallen company with DIP financing ($950M 18-month credit). Generally, companies are given 120 days to produce and present a restructuring plan, but Kodak was given a deadline of over a year until the 15th of February 2013, which corresponds to the largest period allowed by legislation. Kodak's bankruptcy plan

entailed the company's commitment to moving away from their core business: Cameras, film sales, and development in the field of commercial photography. Instead, Kodak would work on developing printing technology for corporate clients. The company's creditors' vote on the matter was unequivocally positive and Kodak saw a reduction of about $4.1B in its debt. During the process, Kodak's digital image patent portfolio was auctioned for $527M, and its personalized imagining and document imaging unit was sold to the UK Kodak Pension Plan Kodak for approximately $650M. In exchange, the Pension Plan agreed to drop its $2.8B claims against Kodak. In addition, their 1100 patents were sold for $525M, a price four times inferior to their estimated value ($2.6B).

Reinventing Kodak

In the making of Kodak's 2012 Reorganization Plan, its debtors designed a strategy that was labeled in the comprehensive Plan as "*The Path to Profitability"* (UNITED STATES BANKRUPTCY COURT - SOUTHERN DISTRICT OF NEW YORK 2013). This was a four-step characterization of what the new and improved version of Kodak should look like, for its reemerging from bankruptcy to be successful.

The first step of this value-generating plan was to review Kodak's customer and product profitability. Besides concluding that the Business-to-Business (B2B) segment of the market was the most profitable, for it was where laid the need for Kodak's transformative printing technology, the debtors came up with a set of principles that should be taken into account: The consistent and systematic surpassing of Kodak's corporate clients' expectations, regarding the quality of products and services provided; A solid, effective form of communicating the business solutions that integrated Kodak's portfolio of products and services, which would be

base on a comprehensive and precisely targeted marketing strategy; The reassurance that Kodak would improve the profitability of any branches of activity it chose to maintain, as well the promise to drop them in case they prove to be a lost cause to avoid wasting the restructuring efforts projects that were unpromising in the short run.

Then, it would be crucial to secure sources of supply and preserve Kodak's liquidity, which is a hard task to accomplish when a company's emerging bankruptcy. The supply chains have been disrupted by Kodak defaulting on its payable accounts and relationships have been lost, adding to the fact that not all suppliers will be looking forward to work with a recently restructured company, for fear that the first restructuring years' unpredictability will affect them negatively in the end.

According to the Reorganization plan, the debtors successfully established contracts review steering committee, which aimed to go over around twenty-four thousand contracts while using something the Chapter 11 protocol defines as the "contract assumption and rejection process". This allowed Debtors to negotiate with suppliers more easily, dodging the costs that come with rejection and renegotiation of supplying contracts and better profit margins. This process was important for both the diversification of suppliers and the reduced payable accounts that came with being able to save money on materials and push for price reductions attractive to customers. Kodak's improved liquidity was assured within the Debtors' bargaining power and their capacity to put on hold suppliers' demands regarding early payments, short-term payments agreements, credit notes, and similar measures that would protect suppliers from the risk of Kodak defaulting in the short run. Fortunately, and with Kodak's first restructuring years going (more than) according to plan, relationships with suppliers were improved, trust wise, and the opportunity for setting down the terms for aligning terms to pre-filing levels led rewarded the company with an improved level of working capital.

The third segment of this transformation focused on the alignment of Kodak's expenses. Once again, the strategy included comparing Kodak to the industry standards. Reducing costs is easily recognizable as a positive thing, but without the notion of what Kodak's comparable companies are doing, it's not possible to be a good judge of what's a successful cutback. The main field which suffered alteration was the SG&A since the R&D was Kodak's more relevant asset and not so easy to reduce without affecting the firm's competitive advantage. So, selling, general and administrative were cut back on to the point where they mirrored the mean of the main players in the industry. In 2012, the Debtors could reduce SG&A costs by around 20%, resulting in the increased profitability of Kodak's operations. Unitary costs of sales and marketing costs were the next cluster to address, including not only direct costs of goods sold but also customer support and advertising costs behind each unit of sales, as well as product management, commercialization, and design. sales and marketing as well as sales support, product management, advertising, customer order service, and credit and collections. Keeping in mind the benchmarks for Kodak's industry, the Debtors were responsible for cutting back or roughly 28% of these areas in 2012, while projecting an additional 50% decrease in 2013.

The Sales Incentive Compensation Program ("SICP") suffered a transformation that consisted mostly of the uniformization of procedures and elimination of idle time and inconsistencies in pricing and commercialization worldwide. As a multinational company, Kodak had a program composed of more than a thousand professional sales experts, whose responsibility was promoting, pricing, and selling Kodak's products across the world. The procedures were standardized to fit: the industry's best practices, the corporate strategy, and values the company communicates the best profitability-oriented actions.

Kodak's operations costs were reduced with a particular emphasis on idle time of production and excess manufacturing personnel. Following Kodak's previous years of workforce

reductions, they produced to fire more than 600 workers from production facilities and manufacturing, as well as supply chain and functions requiring experienced and specialized labor. Because of this, the Debtors had to find a way of retaining expertise in the form of what was announced as the “Continuity Plan”. Globally, warehouses were reduced by 2% and information systems cost 8% due to the enclose of 2 major manufacturing centers.

Seeking Financing

After filing for bankruptcy through Chapter 11 companies seek financing from lenders like City Group. This is a financing type restrained only for fallen companies that seek protection under Chapter 11, usually at the start of the process.

This type of financing is granted to debtor-in-possession (DIP) to ensure that they can have access to funds to keep their operations going whilst under a reorganization process. Lenders that provide this type of financing are somewhat protected since this debt type has priority over other claims. Courts must approve the reorganization plan before the company is granted access to the funds since it must be a viable plan to bring back the company to a healthy position.

In the situation where a plan is not accepted, Chapter 11 might turn into a Chapter 7 of total Liquidation. However, companies that have their plans approved, enter the reorganization process with enough liquidity to maintain their operations. The funds must also be accepted by the court and, once they are granted, the distressed firms are signaling the market that there is a likelihood that they will emerge. So, all entities connected to the firm such as vendors, clients, and suppliers know that the fallen has capacities to pay its short-term obligations during the overall process.

Kodak filed for Chapter 11 on the 20th of January 2012. The fallen was later granted a DIP financing of $950M from City Group that served as administrative agent and co-collateral agent with Wells Fargo Capital Finance on February 16th of the same year. Originally, this $950M credit agreement consisted of a $250M asset-based revolving credit facility and a $700M term loan.

It is also mentioned that On February 1, 2013, the Debtors applied approximately $418.7 million of the net cash proceeds of the monetization of Kodak's Digital Imaging Patent Portfolio to repay amounts outstanding under the DIP Term Loan

The Operational Restructuring Of A Giant

Kodak's restructuring was not only financial, but it was also a matter of changing everything about its operations. The company's s main operational shift lies in the fact that it changed from a Business-to-Customer to a Business-to-Business strategy for promoting its products. In 2010, according to the company's former representative in China, Mr. Xu Silin, their business relied on two distinct centers of operations: The Consumer Digital Imaging Group (CDG) and the Graphic Communications Group (GCG) (Nie 2010).

Their main products and services changed considerably while conserving Kodak's know-how and extensive R&D that once made them a market leader and focusing solely on the B2B side of their business.

As of 2010, their corporate clients were their main source of hope, with Mr. Xu Silin stating publicly that Kodak's best strategy was to invest in the B2B field. Kodak had by then made use of their ever-inventive technology to develop Computer-to-plate (CTP) and a ground-breaking function of laser digital printing. The ink-jet digital printer made Kodak the leader in the market

share of variable data printing. In essence, Kodak's ink-jet printer, which was based on technology patented and owned exclusively by them, therefore constituting a sustainable competitive advantage, was widely used for printing invoices, lottery tickets, and bank bills.

Holding on to this B2B success, Kodak's operations were reduced to three main branches: Digital Printing and Enterprise; Graphics, Entertainment, and Commercial Films; Personalized Imaging and Document Imaging (ROCHESTER 2021).

Kodak started its operational restructuring with the transformation of its senior management team. The company's "Commercial, Packaging, Functional Printing Solutions and Enterprise Services" branch is divided into the new "Digital Printing and Enterprise (DP&E)" and "Graphics, Entertainment, and Commercial Films (GECF)" units. For these two areas, respectively, Kodak hired Presidents Douglas J. Edwards and Brad W. Kruchten, who were to report directly to the Chief Executive Officer, Antonio M. Perez, so that Kodak's former Chief of Operations (COO), Philip J. Faraci, left the company. Additionally, Kodak's Chief of Finance (CFO), Antoinette P. McCorvey was replaced by Rebecca A. Roof, who was once the managing director of AlixPartners, the company that stood as Kodak's restructuring advisor in 2012. The change in CFO was particularly relevant, as the new Chief had tenure specifically with managing firms that had recently emerged from a Chapter 11 lawsuit and were capable of guiding Kodak's first years of restructuring. Through the scaling down of overhead costs, the implementation of cost-driven programs, and the proper measures for recovering Kodak's liquidity, the new CFO was a crucial price in the achievement of Kodak's surprising financial performance in the first five years of its restructuring, which surpassed its 2012 reorganization plan's expectations.

The third department making up the total of Kodak's new operations scheme, Personalized Imaging, and Document Imaging, was led by Laura G. Quatela (PI) and Dolores Kruchten (DI) and its objectives consisted of making use of Kodak's experience in both Film Production and the conversion of material documents into digital assets that better fit the paperless trend that was starting to be part of Kodak's main clients' strategy and mode of operations, saving them costs and making their information more actualized and easily available.

On top of rethinking logistics, production, and product development centers, Kodak had the added challenge of conducting its business on a consistently decreasing number of employees. According to the figures of its balance sheet, which were retrieved from Bloomberg for the years 2005 to 2020. In the years leading to Kodak's bankruptcy, the company severely decreased its workforce, from 51.100 (in 2005) employees to 13.000 (in 2012). This tendency was said to be a temporary measure to manage cost reductions needed for the company to survive through its period of financial distress but relieved itself to be an ongoing strategy that would continue to consistently reduce Kodak's workforce to the year 2020 when the company's balance sheet registered only 4.500 employees. ***See Exhibit 1.***

This strategy might have stripped Kodak of necessary human resources that pushed them further down the drain since it was not a temporary but systematic approach that does not seem to have been key to preventing the firm's financial distress. The fact that Kodak's first five years of restructuring were successful should have been accompanied by hiring new a workforce that met their expertise and signaling to investors that they were expanding. Instead, we observe that in terms of personnel, the company has for the fast fifteen years been shrinking as a sign of financial distress.

2. Using the Comparables method and Kodak's financial figures from 2014, provide an estimation of Kodak's Enterprise value, Market Capitalization, and Share Price should, on the 31st of March of 2015.

3. Making use of both financial and market data available in 2015, assess whether Kodak is undervalued or overvalued, in comparison to its peers. Your opinion should be based on the results of the model, as well as according to the models' assumptions. The target estimated Share Price is the one on the 31st of March of 2015.

4. Compare the magnitude of the intervals you obtained for your estimated values of Kodak's market value in questions 5) and 6). If there's a difference, provide insight as to where it may stem from.

5. What are some of the Comparables valuation method's main strong suits and pitfalls? Justify whether it's a useful method, having in mind not only its practicality but its accuracy and underlying assumptions. Did your results match your expectations? Explain.

Another Sign of The Times

The next big disruption came with social media and with the way cameras merged with phones. In 2013, we witnessed how Instagram, a social media platform that was barely three years old, had already been bought out by its main competitor, Facebook, and reached 150 million users. The speed at which information started spreading, with the exponential advances in

communication technology and easily accessible internet, came to disrupt multiple industries. The time it takes now for market conditions and consumer needs to change is unprecedented.

Now that they had finally put out their digital cameras into the world and resigned to the revenue shortfall from selling film, people suddenly didn't seem to want digital cameras anymore, or any type of camera for that matter. In the early years of smartphones, one could argue that a phone's incorporated, the camera was not the same as a DSLR camera, which was more expensive than a said smartphone, and whose entire purpose was to take quality photographs.

However, the ubiquity of social media evolved along with smartphones and their incorporated cameras are now more than enough for the regular user. Cameras are every time more something that only professional photographers and photography enthusiasts have now. Back in the 1990s, though, a camera was a common tool, not a collectors' item.

And A Beginning of a New Chapter

During the first trimester of 2020, the coronavirus novel swept the world into unprecedented changes in people's lifestyles. The Pharmaceutical industry's race into finding a vaccine that was effective and approved by regulators was historically fast leading the world into a possible return to normality in a short-to-medium term future. The reality is that most likely it will become endemic and treatment for this disease will be required for many years to come. Furthermore, vaccine producers like Pfizer, Moderna, and Jhonson&Jhonson had their vaccines sold out months before their release, generating massive revenues, and proving that there was a massive gap in generic ingredients for medicine production to help combat the virus in America.

6. Calculate Kodak's Altman Z-Score and present a graphical representation of its evolution between 2005 and 2020. When looking at Kodak's financial figures do you think that the company should have filed for a chapter 11 in 2012? Can it be moving towards another full bankruptcy process soon?

On July 28, 2020, Kodak announced the launch of Kodak pharmaceuticals, a division that promised the manufacture of generic ingredients for drugs, leading the United States to a lesser need of foreign manufacturers. And, just like that, Kodak's new restructuring was framed as a matter of national security. As it has been mentioned before Kodak, historically, had already been in the pharmaceutical industry, but this time it could symbolize the shift that the company so desperately needed. Kodak saw its shares skyrocket at 3000% at the market opening and closing at 879,8% making Kodak a commented topic for the first time in years, after lying low since its announced Chapter 11 at the beginning of the decade. This pivot to pharma became possible since the Trump administration had a plan to lend $765m to fund the project.

According to Financial Times in the article titled "The curious story of Kodak's pivot to pharma", the former president Donald Trump claimed "a historic agreement with a great American company" following his ideal of placing the USA in a position that every time the United States of America had to depend less on foreign economies. Nevertheless, the deal was placed on hold due to suspects of "wrongdoing" in August 2020. Allegations that insider trading laws might have been broken came out on the following days after the announcement, placing Kodak under investigation by the SEC (Securities and Exchanges Commission) and the deal on hold until the suspects were cleared.

According to a CNBC article titled “Kodak shares tank as much as 42% as government loan is put on pause while allegations investigated”, the day before the announcement of Kodak’s pivot to pharmaceutical, the company shares rose 25%. Kodak’s shares that had been trading at around 2$ per share saw their value rise to 60$ in just two days after the announcement. This could have had the extremely positive effect that it was expected to have on the company, but several red flags arose through the process that made the SEC and the DFC place the company under investigation. On June 23, Kodak’s CEO James Continenza purchased 46 700 shares, and Philip Katz, a Kodak board member, purchased another 5000 shares. Furthermore, on the day before the deal announcement, 1,75 million stock options were granted to the CEO with over a quarter being exercisable almost immediately. The timing of this highly profitable trade was suspicious, especially if we mention that the CEO spent more money on Kodak shares than the amount that he had received from the company itself, making these trades look like a gift to management.

“Now, as the coronavirus sweeps across the world, Kodak has another opportunity to revive its business in the form of a $765 million government loan to produce generic pharmaceutical ingredients. But the loan, which is still just a letter of interest, has been put on hold while the SEC investigates the circumstances around Kodak’s disclosures.” – CNBC

7. In a Discounted cash flow scenario analysis, please show different possible outcomes for the future of the company, starting in 2017 and ending in 2026. (Hint: Create 3 scenarios; One displaying if the company receives the loan and restructures, another having the only difference as not receiving a loan and covering themselves the restructure process costs, and a third one following the current trend without restructuring).

A Complicated Case

Kodak's future was placed on hold during one of the most challenging times of actuality. During a protectionist American political era, this deal was framed as a country necessity and as an incentive to make Kodak once again a well-established company in the markets. Covid-19 struck the world into unprecedented changes and countries had to adapt as fast as it was possible. Companies were no different, but the United States of America deeply relied on foreign economies such as India and China for the supply of generic medicines and Kodak could fill the gap that the US market needed. "The agreement was the offspring of a frenzied push by the Trump administration for more domestically-produced pharmaceuticals, a dash that even had Kodak officials thinking the deal could fall apart at the last minute." (CRAIG s.d.)

Insider trading is based on the premise that business insiders' fiduciary obligation prevents them from profiting from confidential or pre-public information, in case of being proved, the impacted subjects may be sentenced to prison. The purchase of the stock options matched the timing of the announcement, that even though it wasn´t clear if it would materialize when it became public, some red flags appeared, making the SEC shut down the project. After having the deal placed on hold, and their actions under scrutiny by New York's attorney for wrongdoing, insider trading, and privileged information, Jim Continenza announced that despite the outcome of this investigation, Kodak will move towards the shift in business. The fact that the Management could have been related to these occurrences is still up for debate. The New York General Attorney is going against the corporation at full power by invoking The Martin Act; "Widely considered the most severe blue-sky law in the country, the Martin Act arms the New York Attorney General with extraordinarily broad powers to investigate and combat securities fraud." (Reuters. 2015).

However, Kodak granted the CEO the purchase of shares before the deal materialized, this means that, effectively there was no deal, and that the Attorney General might fall back in demonstrating that it was in fact, a wrongdoing case. Furthermore, the CEO didn´t sell any of its positions after the prices skyrocketed after his purchase cementing a picture that it wasn´t a self-centered act.

As previously mentioned, following up the announcement, the shares soared to values that the company hadn't seen in years raising interest from investors and the overall public. It is Kodak's interest to grant the loan but, it was still just a letter of interest when it became public information. After being under investigation, the company's shares entered a downward spiral since investors became reluctant towards the outcome of the company, leading to stock underperformance in the public market.

Following these events, in June 2021, the New York Attorney General asked the court to force Kodak's CEO to publicly testify over these allegations.

> "As millions of New Yorkers and Americans across this nation lost their jobs and were waiting for unemployment checks, Kodak's CEO was using insider information to illegally trade company stock," Attorney General Letitia James said in a statement. (Stevens 2021)

According to a CNBC article named "NY attorney general James demands Kodak CEO testify on alleged insider trading", several accusations have been made against the CEO however, Kodak publicly replied that this stock option purchase occurred before Jim Continenza was holding material non-public information as the purchase was part of a pre-approved and trading agreement and that it followed compliance guidelines. An argument was later confirmed after an independent investigation took place.

During the summer of 2020, the case was brought back after the Attorney General announced that the CEO and Roger Byrd will be put to testify publicly regarding the inside trading investigation. The case appeared to be cooling down, but the attorney claims that Continenza and Byrd made "subsequent false statements to investors last month about that trading, just before its annual meeting of shareholders." (CRAIG s.d.). Disregarding the fact that the share purchase happened before it was certain that the loan would occur, the attorney is moving forward with the case combined with shareholders that also filed lawsuits claiming that they were harmed with the stock purchase and that resulted in the White House holding back the deal. Furthermore, after internal investigations, it was also concluded that there were “judgmental Lapses” in the share purchases.

8. Making use of Discounted Cash Flows, Scenario Analysis, and Z-Score, discuss the current company's financial position and prospects.

Teaching Note

Proposed Answer to Question 1:

Pre-Bankruptcy:

Kodak filed for Chapter 11 during 2012, making it only suitable to perform a deeper quantitative analysis on the company's financial health over the years to better understand how the company performed and what signals of distress arose over the years. To provide a broad, yet quantitative overview of Kodak's financial health, ratio analysis was conducted to snapshot the company's pre-bankruptcy financial situation.

Nowadays it is known that the firm financial position wasn´t good hence, it was somehow expected that the values up until bankruptcy displayed a negative trend. As a starting point, Liquidity Ratios were computed to better understand if Kodak could meet its debt obligations. The Quick Ratio, commonly referred to as the acid test, was calculated since it measures if a company can pay its liabilities without needing to sell its inventory or obtain financing. In 2005 this computed value for the former was 0,85 which decreased up until the bankruptcy year to 0.66, showing that every year Kodak lost some ability to pay its liabilities. This shortage in cash becomes even more evident when observing the current ratio that whilst in 2005 was 1.11 in 2012 was 0.78. These alarming results are strong indicators that the company is losing its Liquidity at a fast pace.

Furthermore, when looking at the profitability ratios such as the Return on Assets (RoA), in 2005 the result was -8,28% whereas the 2012 result was -31,91% and the Profit Margin decreased from -9% to -51% over the same period. The company was becoming both illiquid and unprofitable exponentially fast. When taking a closer look at the balance sheet it is also observable that their Total Assets decreased from $15 236M to $4 321M and their Total

Liabilities decreased from $12 954M to $7 998M, giving a strong signal of distress. ***Check Table 1***

Post-Bankruptcy

There is no doubt that past events such as the 2008 financial crisis, the bankruptcy process during 2012, and the spread of the coronavirus, that resulted in a worldwide economic setback, had a massive impact on the company's performance. Nevertheless, and as it has been referred throughout the case, the company struggled after reemerging in 2013 since in 2014 some results came out also negative, and only presented some signals of improvement during the interval between 2016 to 2019.

When companies file for Chapter 11, it is expected that they reemerge stronger and healthier than before. Kodak was no exception but, the firm continues to demonstrate massive fluctuations over the years and an overall negative trend towards the present times. This might show that Kodak never fully emerged as a healthy company, maybe the package deal in 2020 to pivot the company to the pharmaceutical industry could have changed the present overview but, as the deal has been placed on hold, doubts regarding the company's prospects started to rise. Not only the market's response to the worldwide spread of the virus make almost every industry contract, but also the uncertainty regarding Kodak's future impacted severely the Return on Equity,41% in 2019 to -202% in 2020, and the Profit Margin,9% in 2019 to -53% in 2020. As it has been discussed throughout the analysis, it is not the first time that Kodak is giving signals of distress, when looking at these values, arguably, they are quite similar to the place where the company was standing before bankruptcy. On the other hand, it is also arguable that Kodak is positively correlated to the market trends since it is also clear that during the

financial crisis in 2008 most of the observable ratios plunge symmetrically with the pandemic effects in 2020.

The pandemic year (2020) was an abnormal time for every industry; hence it seems suitable in its generality to take as reference results from 2019. On the overall picture, from 2018 to 2019, all profitability ratios increased as well as the liquidity ratios. This could mean that Kodak was finally on a good track to become once again successful. Unfortunately, and despite not being good for comparison, 2020 numbers did impact the company severely by pushing down most of the ratios for that year i.e.: RoA in 2019 was 8.2% whilst in 2020 -43,35%. It is not known when the effects of the pandemic will alleviate the market, nor if this was, as referred before, just a market reflex, and next year Kodak will return to the values presented before. As far as it is possible to analyze, Kodak is not in a good financial position and if the recovery isn´t in the near term, Kodak might be once again in a complicated financial situation due to its shortage in cash (Cash & Cash Equivalents in 2020 amounted to $196M).

In a nutshell, the pandemic certainly impacted the business, and the possible pivot to pharma without a doubt raised investors' interest. Nevertheless, the SEC investigation jointly with the market effects of the Coronavirus led the company to some of the worst values to date. Kodak was on a good route to becoming stable and financially healthy, however, the pandemic might have been a burden too heavy to carry at this point where they are still re-emerging from bankruptcy. ***Check Table 1***

Proposed Answer to Question 7:

The Z-Score analysis is a simple linear yet accurate multivariate measure that helps in determining the likelihood of a firms' bankruptcy. Following the ratio

analysis outputs and the possible distress signals that Kodak can be sending, the Z-Score might help in determining if Kodak is a stronger company when compared to its bankruptcy in 2012.

The Altman Z-Score model was presented in 1968 and aims in predicting the probability that a company will go bankrupt in a two-year interval by using multiple discriminant analysis as the statistical technique. After computing the model for the same interval used for the ratio analysis the company was in fact in decay since 2005. When the model was presented, it was determined that companies that received values higher than 2,99 would be considered as safe, between that value and 1,81 locates firms in the grey zone and for values inferior to the latter in distress. If the values presented in 1968 are still assumed to be correct for the nowadays economy, it is arguable that Kodak was heading for bankruptcy since the beginning of the period analyzed due to its downward trend.

“Altman’s pioneer study is based on a sample of 66 publicly traded, manufacturing firms. Thirty-three of the firms had filed for bankruptcy and all had assets over $1 million. His model correctly predicts financial failure for 95% of the firms, one year prior to their demise. Accuracy decreases to 72% two years out and 52% three years prior to insolvency” (Anjum 2012)

Kodak presented acceptable results in 2005 totaling a Z-Score of 2,54 and filed for bankruptcy Chapter 11 in 2012 with a calculated Z-Score of 1,87. As it was mentioned previously, the estimated values for bankruptcy presented in 1968 were 1,81 and, Kodak filed for bankruptcy with, a higher value than the model predicts. However, to file for Chapter 11 and the process be accepted, there must be a chance that the company will survive and be feasible to be financially healthy and stable after its restructuring. So, if the company was, as shown, in a downward trend and heading for values that the model predicts as

bankruptcy, filing for Chapter 11 might have been a wise choice in attempting to revive the company before it was eventually too late.

After filing for Chapter 11 in the southern district of New York, and restructuring within the period defined, Kodaks overall results plunged after the restructuring process. The model attributed a Z-Score for 2015 of 1,89 placing the company in the grey area, but in 2016 the score decreased to 1,23 showing strong signals of financial distress from that point onward.

When taking a closer look at the economic indicators inserted as the base in the model, the variables that analyze Profitability, X2 (Retained Earnings/Total Assets) and X3 (Asset Profitability) stand out as the ones that suffered the strongest impact over the years. The former variable, X2, raises the major concerns within this analysis since it displays both a negative trend and value, implying that the company might be losing its cash reserves.

Despite not being strong positive values, Kodak doesn´t seem to be severely underperforming as the 2020 Z-Score might imply (0,73) when looking at the other variables. The Profitability indicator results in a negative computation that, without a doubt, impacts the wellbeing of the company. Nevertheless, if Kodak finds a way to navigate into achieving a ratio in line with the one presented in a pre-bankruptcy scenario, the corporation wouldn't be in Financial Distress.

These two variables impact severally the company's performance, making the Z-Score model result in an alarming result of 0,73.

On the other hand, when observing other variables closely, it is also noticeable that the variable X1 (Asset Liquidity) increased by 6,4x over the period analyzed and, despite small decreases, most variables remained somewhat stable.

Concluding, if the model prevision materializes, Kodak can face another bankruptcy filing for another chapter 11 or even chapter 7 of total liquidation. Nevertheless, 2020 was a historically

different year that impacted all industries. If the company finds itself able to retain more earnings it is possible to leave the financial distress zone if the other variables maintain its trend. ***Check Table 2 and Graph 1***

Proposed Answer to Question 8:

According to Altman Z-Score, Kodak is on the edge of bankruptcy joining with an open investigation against the CEO and uncertainty regarding what will happen to the business, investors sold their positions making the stock plunge once again to low values.

Kodak's name has been around for a while and carries a historical nostalgia that brings people to comment on how remarkable the company was. Changing the course of business of any company is by its nature a rather complicated task to succeed at, but if accomplished, it can be the salvation of the fallen giant. The CEO claims that Kodak will without a doubt move to the pharmaceutical industry and attempt in reviving its business. At its core, Kodak has always been a chemical business, the only difference now is that the vision changed in a sense what the outputs of the production are.

When recalling the current Z-Score values mentioned previously, Kodak isn´t in a good position to make the wrong calls, and filling for another chapter 11 now, still during the pandemic, might turn into a Chapter 7 where there is no coming back. After the raised suspects of privileged information pre-public announcement of its pivot to pharma, and consequent future lawsuit against the company and the CEO, Kodak is reaching a critical point in which the decisions made now will set in stone the company's future. To better understand the current situation, a DCF analysis was performed between 2017-2026, in which there are three possible scenarios considered (*Loan Scenario; No Loan Scenario; Current Trend Scenario*). Although we are

currently in 2020 and the intention is to analyze and value the company considering future cash flows, it was decided that a period from 2017 onwards would be a better fit. The rationale behind this decision is connected to the fact that Kodak was demonstrating an upward trend in its financials, but the 2020 results were abnormal values for every industry. In light of these current events, it was then decided to include in the valuation pre-conceived knowledge from the company's past and forecast it onwards (2021-2026). In the Discounted Cash Flow analysis, it is forecasted that the net revenue in the last forecasted years reach $2,237B for both the *Loan* and *No Loan* scenario and $0.775B for the *Current Trend* scenario. This valuation considers that the former business cash flows remain in line with the current trend and the growth comes from the incremental value of the new business.

As announced, Kodak will enter the pharmaceutical business, an industry that had in the United States of America a combined sales value of $514B in 2020. The generic drugs market was valued at US$ 390.57 billion in 2020 and is projected to surpass around US$ 574.63 billion by 2030, growing at a CAGR of 5.59% from 2021 to 2030. (Precedence Research 2021)

It is known that the pharmaceutical industry is one of the highest profitable industries, but it is also one of the most competitive ones. As a new entrant, Kodak will face several challenges in an industry that is already dominated by well-established opponents with a "know-how" factor that Kodak can´t compete with. Furthermore, much has changed since the pivot announcement. As it was mentioned at the beginning of the case, the loan had its origin during the Trump era, where there was an economic stimulus turned to protectionism and lesser need of foreign suppliers. Nowadays, with the newly elected American President Joe Biden, the scope of politics can be entirely different placing Kodak on thinner ice.

The first scenario (*Loan*) assumes the company moves toward its pivot, the government grants the loan, or the company finds a way of financing the restructuring through a bank loan. Furthermore, it is assumed that suspects of insider trading are lifted granting the company a clean image when entering a new business. In this scenario, Kodak will face exponential growth in sales due to the new market that it is entering. In line with these assumptions, the pivot is successful, and the company reemerges from distress entering the new business as a strong player. To accomplish this, the net sales are estimated to increase exponentially (25% YoY in 2024 and 2025, starting to stabilize at 15% in the last period), and its operating costs are minimized to an optimal perspective. These values are held due to the assumption that Kodak is a successful entrant in the industry by filling the gap in the American generic medicine production. If we assume that the company's sales will grow by 25% YoY, for two years, by entering this new business, and with an industry compound annual growth of over 5%, it is no surprise that Kodak can become a very successful business when still a new entrant and a small player in the pharma field.

After the Government loan was placed on hold, Kodak announced that independently of the outcome, it will still restructure into a pharmaceutical business, so the second scenario (*No Loan)* was also built under this assumption. This scenario considers the same revenue growth as the Loan scenario, but it also considers that Kodak will face high costs of restructuring since they will have to finance the restructure from their cash in hands. Being the valuation of a company independent from its capital structure, we assumed this difference in the available cash as the core factor in determining the success of this challenge. However, the firm does not have the liquidity to fund this kind of operation. When looking at the balance sheet, Kodak was holding $373M between *Cash & Cash Equivalents* and *Accounts Receivable* in 2020, almost 50% of the loan value. As seen in the excel model, by taking $765M, the same amount of the

government loan, from its earnings, the EBITDA in 2023 will lead to -$703M. This can highly impact the business, but if the company funds the pivot with its cash in hand, and by issuing new debt or selling assets, it is possible that financing this operation becomes feasible. Nevertheless, if Kodak finds itself able to increase its reserves before the restructuring (considered in 2023), the self-financing task can also be an option instead of making it a leveraged operation.

This second scenario differs from the first mainly from this assumption, where the costs of the restructure are held to amount to the same value of the loan provided by the government ($765M). On the *Loan* scenario, they were added to the forecasted revenue of 2023 and taken from the *Restructuring Charges of the same* year whilst in the *No Loan scenario* they were fully discounted from their operations in *Restructuring Charges*.

The third scenario (*Current Trend*) predicts that the company will not move towards the restructuring due to the lawsuit and considers the struggle to stay afloat after the Coronavirus novel. This scenario is forecasted to demonstrate what can happen to Kodak if the current trend is maintained over the next few years.

With these three scenarios, we attempt to display some of the possible outcomes that the company can face in a short to medium-term period. The enterprise value (EV) for the *Loan scenario* is $2,043B, $1,062B for the *No Loan* scenario, and $-0,440B for the *Current Trend scenario*. The model also estimates the Equity Value for the *Loan scenario* of $0,900M, $-0,08B for the *No Loan,* and $-1,583B for the *Current Trend*.

The model considers that Kodak sales grow exponentially right after the restructuring process disregarding the fact that the company has very little “know-how” of the market, and that it is a new entrant. The intention is as its core, to demonstrate that the loan is essential to

make the company cross the line to the positive side of the cash flows soon (2024). As mentioned before, the CEO claimed that independently of the outcome of the loan, the company will move forward. This means that in case of not being granted a loan, the funds will have to come from inside the company, or they will have to finance themselves somewhere else (*Loan* scenario). In case of having to find a third party to finance them, Kodak also must be prepared for different conditions than what Government loans usually ask for, such as higher interest rates.

Some of the most impacting assumptions made on the model regard Costs of Goods Sold, and according to the article on the Boston Consulting Group page "Getting a Grip on COGS," it is mentioned that the pharmaceutical industry has on average lower costs than the ones displayed by Kodak on the industry in which it still operates. The pharmaceutical industry is wildly known for its profitability and Kodak needs to improve its margins, if a shift to this industry means that the margins will increase, Kodak can be set on a good track to invert the current values. Taking that into account, the COGS on the *Loan* and *No Loan* scenarios were gradually reduced to 50% instead of 87%. Furthermore, both the Net Working Capital and CAPEX maintained their percentage on sales for the years forecasted also on both scenarios (*Loan & No Loan)*. It was also considered a Tax Rate of 21% for the three scenarios since the United States of America has a flat corporate tax rate from 2017 onwards. Furthermore, a Weighted Average Cost of Capital of 10% was also assumed throughout the three scenarios as the company struggled throughout these past years, and the current events, induce the need for higher returns due to the risk taken. For the third scenario, it was assumed a decrease in sales was in line with what the company has been experiencing. This helps in understanding where the company is headed if they fail to innovate. Despite their restructures having been well thought and planned, it is not feasible to pursue this trend indefinitely. As the last assumption, it was decided that

after entering the market, successfully, it is expected that the exponential growth doesn´t remain still indefinitely. After securing its market position, it was assumed a terminal growth in perpetuity of 3,5% for both the *Loan* and *No Loan* scenario and -1% for the current trend scenario.

Basing the model on the assumptions mentioned previously, it is shown that it is possible to become financially stable and profitable soon. If Kodak finds a way to navigate and enter the pharmaceutical business without any restraints or setbacks, it can be a brand-new beginning for the company's name. In case of not being granted the government loan, Kodak could find its funding somewhere else, which increases the likeability of being successful since it is shown that the project can hardly be accomplished without external funding. ***Check Table 3, 4, 5 & 6***

Proposed Answer to Question 9:

Kodak has been facing some turbulent times. After the first restructuring process, the company never became fully successful again. Despite reducing its liabilities as it is shown in its financial statements, Kodak is giving signals of financial distress since 2017. Recalling in the previous question, the Z-Score for 2020 was an extremely low value and the company may file for another bankruptcy process if the current trend is maintained. However, 2020 was an abnormal year for every industry and severely negatively impacted many companies by making even some declare bankruptcy.

When looking at the discounted cash flows it is observable that there are different possible outcomes. If the company finds itself in a valuation like the Best scenario, it will not make sense to file for another bankruptcy program. On the other hand, the base scenario and the worst could symbolize a different outcome for the company. In situations where it is believed that the

company can restructure and be successful afterward, chapter 11 might be the right path to take whether not being able to fulfill any of its obligations and not showing signs of any profitability might lead companies to file for chapter 7.

Kodak was able to reduce its liabilities over the years and aim for a positive balance between assets and liabilities. Nevertheless, if the company issues or contracts debt and finds itself not being able to repay it due to low cash reserves, they may find themselves, once again in a complicated situation. Kodak needs to increase its sales and, if possible, reduce its high operating costs. If this latter argument does come true, their margins would increase hence their financial position would also be different.

Over the past few years, Kodak has been in constant change by adapting its operations to what nowadays consumers ask for, having the opportunity to reshape its business can also be a signal that outsiders still have hope that this centenary giant remains active. However, the current situation had without a doubt impact the company's business. The opportunity to pivot was given due to current events, which could have been an immediate success but, having the package deal placed on hold due to suspects of wrongdoing transmitted the wrong image to investors, the government, and shareholders that were expectant towards the outcome of the situation. Having their public image shaded and the CEO under fire might signal that not only the financials aren´t great but also it could be time to change the top management. Companies need to strive, and to aim for the long-run prospects, a "clean image" is essential to maintain investors' interest and keep the overall public support. When taking a closer look at Kodak's financials, the overall downward trend in its statements is evident. Despite being tricky, downsizings can be useful if done properly. After their restructuring process, Kodak presented a third of the Total Revenues when compared to the pre-bankruptcy period ($2719M in 2012 vs $1242M in 2019) but was still able to improve its overall financial health. When looking at

the ratios this past notion becomes clearer, the Return on Assets, Current Ratio, Debt to Equity Ratio, Gross Margin, and Operating margin improved from 2012 to 2019 which implies a healthier firm than what was once. It is also important to salient that despite showing signs of improvement, most values plunged in 2020 due to the current world situation.

In conclusion, as the ratio analysis, Z-Score and DCF showed, Kodak needs to start paving the future without mistakes to ensure a possible turnover from the current situation. However, this cannot be possible if the legal actions that are being taken against the fallen drag indefinitely, making the company hold its uncertain position and losing precious time to enter the pharma business that is in major need of medical supplies due to the pandemic.

Kodak has been facing some turbulent times, the downfall that the company has been facing throughout the years has been the reflection of a myopic view towards innovation and placing their investments in a different direction that the market has been moving. Looking back, it is somewhat easy to point where Kodak made mistakes however, this company is an excellent example of how decisions regarding which path to take are not clear when they are taken and that there is always a risk that they are not successful. We live in a world that faces constant innovation, and as mentioned at the beginning of the case, companies that fail to do this take the risk of becoming obsolete.

Conclusion

For the last two decades, Kodak has been facing several issues in their operations, hence we believe that a deeper quantitative analysis of what happened and what is still happening with the company is essential to understand its current situation and to where they are proposing to go to.

As a starting point, we calculated the financial ratios that we believed would better capture the broader picture and how the company has been behaving in a Pre- and Post- Bankruptcy in recent years. This provided some insights that Kodak was still struggling after the restructuring process and that despite its remarkable improvement, it never fully recovered its stability.

Considering recent events, the pivot to pharmaceutical came to revive the company's hopes of being successful once again. Hence, it was decided that a valuation of the business including its possible estimated cash-flows would be an advantageous add-in for this analysis. In the process of building this case, we stumbled upon unexpected obstacles, especially during the Discounted Cash Flow Analysis and Comparables Approach. The relative valuation's main issue had to do with the selection of the comparable companies, whilst the DCF faced several issues in how to approach assumptions that englobed the current pivot. Our initial plan was to form a sample of 30 to 40 companies which would allow us to set up the Comparables method as linear regression. This would have the advantages of a robust sample, along with the possibility of testing for each of the multiples statistical relevance before adding them to the model. A limitation here is that Kodak's inserted in an oligopolistic industry, which forced us to take a less complex approach. The Comparables approach allowed us to uncover two main issues with corporate valuation of companies in financial distress. First, we faced accuracies in our model's results in 2011, stemming from the fact that in Kodak's industry there were no

Comparables companies in financial distress to properly evaluate them against. This method is a better fit for healthy companies with a large pool of comparable competitors in the same financial situation. Then, our hope for an accurate prediction of Kodak's market value figures was crushed when we observed that, even though the company was doing better than expected in 2015, its history of financial distress was keeping investors' expectations low.

The main goals of this case study were to tackle Kodak's state through the years leading to its bankruptcy and distress, to evaluate its current financial situation and the viability of the new pharmaceutical venture. Moreover, we were able to see how Kodak's performance compares to its peers, within its industry, and to conclude whether their 2012 reorganization plan had been successful and if the company's turbulent history has deemed it relatively undervalued.

Several questions were raised throughout the case that leave a door open for future research. The main limitations of this analysis lie in the lack of insight regarding change management and operations management that is crucial in such a transformation. This case looks at past management and board changes but is oblivious to what lies ahead in terms of leadership and governance. Furthermore, the conducted research was more focused on the Photography and Multimedia industry, which reinvented itself to survive, and not so much on the new pharmaceutical field of play that Kodak aims to tap into. Future research and revisiting of this case's method and assumptions can provide more accurate insight when it comes to the terms and conditions, as well and the probability of the U.S state funding Kodak's pivot to pharma. Additionally, a more thorough exploration of the pharmaceutical market would allow for a revision of the new drivers of value within the industry, which could be used to tweak the Comparables method's multiples.

As it has been displayed throughout the analysis, the pharma business might be the salvation for the fallen giant if the right steps are made and the lawsuit clears allowing them to enter this new segment and revive its image. It is not common to see a shift in a company's operation like what Kodak is proposing to do, so if they do follow through with this project, it will be a historical change worthy of paying attention to.

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Case Appendix

The Data

In this assignment, you will analyze data over two periods.

- There is an in-sample period of fifteen years, from 2005 to 2020 containing:
    - Kodak's Balance-Sheet.
    - Kodak's P&L.
    - Kodak's Cash flow Statement for that period, plus an overview of the free cash flows from 2021's first semester.
- There is also a holdout (out-of-sample) sample period of forty-five years, from 1975 to 2020, composed of Kodak's historical Share Price values.

Additionally, there is a collection of some of Kodak's competitors' financial figures, which are useful for relative corporate valuation. In the same sheet, you'll find a comparison between what was expected of Kodak's financial figures for the years 2014 and 2015 and what their true performance turned out to be.

Chronologic Summary

1969: The film used on the Apollo 11 Moon landing is manufactured by Kodak.

1975: Kodak's prototype of a fully digital camera is rejected

1976: More than 90 percent of photographic film and more than 85 percent of cameras sold in the US were made by Kodak.

1981: Marketing intelligence study concludes that digital is not a viable replacement for film photography

1986: Vince Barabba, head of Kodak's marketing intelligence, leaves the company.

1988: Fujifilm launches Fujix DS-1P; Sony launches Mavica; Canon launches EOS 650; Kodak purchases Sterling Drug.

1989: Kay R. Whitmore is chosen as the new CEO of Kodak.

1996: Kodak launched the Advantix Preview film and camera system.

2001: Kodak made the smart acquisition of a photo-sharing site, called Ofoto.

2004: As the popularity of digital cameras grows, Kodak finally abandons the film camera.

2005: Kodak is the largest digital camera retailer in the US, raking in up to $5.7bn in sales.

2007: Kodak falls to the fourth biggest digital camera retailer. By 2010, it is the seventh biggest.

2009: After 74 years of production, Kodak stops selling 35mm color film.

2010: Instagram is invented and passed the threshold of a million users in a few months.

2011: The first Worldwide Instameet was a success; Kodak shut down 13 factories and 130 photo labs.

2012: Facebook acquires Instagram; The app reaches 80 million users; Kodak filed for bankruptcy, evoking chapter 11 in the United States Bankruptcy Court for the Southern District of New York, a wildly known area for debtor-friendly courts.

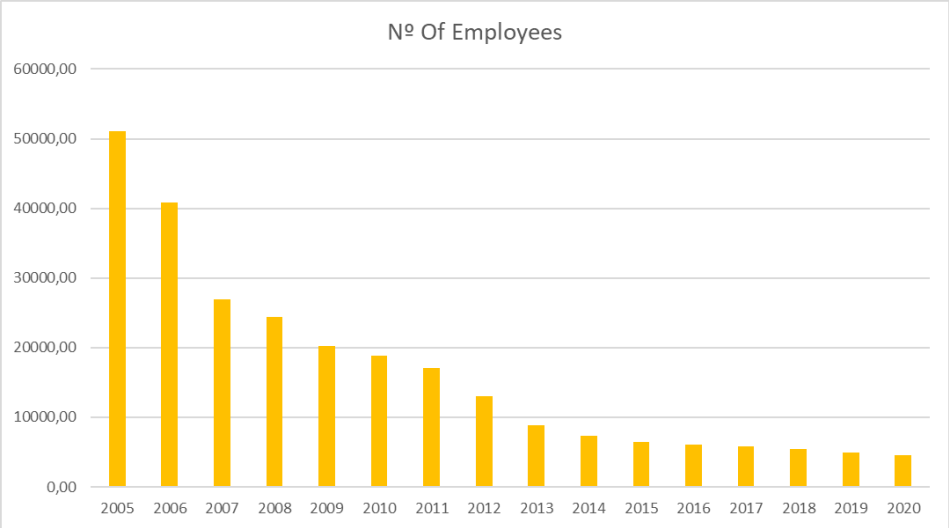
2013: Instagram gained over 150 million users. By this time, the messaging system and several other features of the app made it an all-in-one platform for video and photography, as well as a chat and video call channel which allowed users to communicate in multiple ways. In September, Kodak emerged from bankruptcy, bringing an end to a painful and costly insolvency process that lasted 19 months.

2014: Kodak announces its first phone

2018: Kodak to launch a photographer oriented blockchain cryptocurrency

2020: Kodak announced a shift to pharma and put it on hold shortly after.

Exhibit 1: Number of Employees



Teaching Note Appendix

Table 1: Ratio Analysis between 2005- 2020

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Valuation																
Price/Earnings	-7,43	-11,20	10,98	-13,93	-8,44	-1,65	-1,89	-0,13	0,02	-11,66	-11,41	44,25	8,95	-3,63	1,13	-0,46
Profitability Ratios																
RoA	-8,28%	-4,20%	4,95%	-4,82%	-2,73%	-11,03%	-16,33%	-31,91%	62,03%	-4,81%	-3,74%	0,84%	5,51%	-1,06%	8,20%	-43,35%
RoE	-55%	-43%	22%	-45%	636%	64%	33%	38%	306%	-41%	-78%	18%	43%	-9%	41%	-202%
Profit Margin	-9%	-6%	7%	-5%	-3%	-11%	-21%	-51%	84%	-6%	-4%	1%	7%	-1%	9%	-53%
EBITDA Margin	8%	10%	-2%	4%	2%	-6%	-11%	22%	10%	10%	12%	-8%	-3%	-2%	-1%	-1%
Liquidity Ratios																
Current Ratio	1,11	1,22	1,36	1,46	1,49	1,34	1,27	0,78	2,23	2,59	2,78	2,49	2,29	1,17	1,92	2,12
Quick Ratio	0,85	1,00	1,15	1,18	1,25	1,08	0,99	0,66	1,82	2,01	2,10	1,84	1,70	0,87	1,33	1,42
Cash Ratio	0,30	0,32	0,66	0,62	0,70	0,58	0,40	0,31	0,95	1,19	1,19	1,04	0,82	0,30	0,63	0,66
Inventory Turnover	8,67	8,39	8,20	8,91	8,19	7,74	10,00	9,06	5,26	4,78	4,55	4,49	4,93	5,13	5,04	8,68
Asset Turnover	0,94	0,74	0,75	1,03	0,99	0,96	0,77	0,63	0,74	0,80	0,84	0,93	0,81	0,87	0,88	0,82
Solvency Ratios																
Debt-to-Equity	5,68	9,32	3,51	8,29	-234,06	-6,79	-2,99	-2,18	3,94	7,55	19,76	20,40	6,72	7,88	4,04	3,66
Interest Coverage	-3,79	-2,23	-2,27	-8,09	-0,98	-2,87	-5,49	-11,58	17,83	-0,79	-0,56	0,85	-3,25	-1,44	-3,75	-31,33
Shareholder Equity	0,150	0,097	0,222	0,108	-0,004	-0,173	-0,502	-0,851	0,203	0,117	0,048	0,047	0,129	0,113	0,199	0,215
Margins																
Gross Margin	25%	23%	25%	23%	23%	13%	-43%	-30%	21%	22%	26%	29%	15%	13%	15%	13%
EBITDA Margin	8%	10%	-2%	4%	2%	-6%	-11%	22%	10%	10%	12%	-8%	-3%	-2%	-1%	-1%
Operating Margin	0%	-5%	-2%	-9%	0%	-3%	-17%	-24%	17%	2%	3%	7%	-15%	-9%	-8%	-7%
Market Value of Equity	9348,36	6722,82	7430,4	5865,534	1767,388	1134,758	1441,304	176,9238	7,4643	1441,779	915,180042	525,336	670,95	130,54	108,432	348,944

Table 2: Z-Score Computation

Computation	Economic Indicators (Xs)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Working Capital/Total Assets	X1 (Asset Liquidity)	0,04	0,07	0,12	0,17	0,18	0,16	0,12	-0,19	0,34	0,37	0,38	0,35	0,32	0,09	0,24	0,27
Retained Earnings/Total Assets	X2 (Profitability)	0,44	0,42	0,47	0,64	0,74	0,80	0,87	0,60	-0,03	-0,08	-0,13	-0,15	-0,10	-0,13	-0,06	-0,50
EBIT/Total Assets	X3 (Asset Profitability)	0,15	0,13	0,02	0,09	0,07	-0,01	-0,03	0,18	0,14	0,13	0,15	-0,03	0,02	0,02	0,01	0,02
Market Value of Equity/Total Liabilities	X4 (Liabilities exceed M.V. assets)	0,72	0,52	0,70	0,72	0,23	0,16	0,21	0,02	0,00	0,64	0,45	0,31	0,45	0,10	0,10	0,36
Sales/Total Assets	X5 (Sales-generating ability)	0,94	0,74	0,75	1,03	0,99	0,96	0,77	0,63	0,74	0,80	0,84	0,93	0,81	0,87	0,88	0,82

Manufacturing: Betas	Model Beta Values	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
B1 on X1 (Asset Liquidity using W.C.)	1,2	0,05	0,08	0,14	0,20	0,22	0,19	0,15	-0,22	0,41	0,45	0,46	0,42	0,38	0,10	0,29	0,32
B2 on X2 (Profitability)	1,4	0,62	0,58	0,66	0,90	1,03	1,12	1,22	0,84	-0,04	-0,11	-0,19	-0,21	-0,14	-0,19	-0,08	-0,70
B3 on X3 (Asset Profitability)	3,3	0,50	0,43	0,08	0,30	0,24	-0,04	-0,11	0,61	0,46	0,44	0,50	-0,09	0,05	0,07	0,05	0,07
B4 on X4 (Liabilities exceed M.V. assets)	0,6	0,43	0,31	0,42	0,43	0,14	0,09	0,12	0,01	0,00	0,38	0,27	0,19	0,27	0,06	0,06	0,21
B5 on X5 (Sales-generating ability)	1	0,94	0,74	0,75	1,03	0,99	0,96	0,77	0,63	0,74	0,80	0,84	0,93	0,81	0,87	0,88	0,82
Z-Score		2,54	2,15	2,06	2,86	2,62	2,32	2,15	1,87	1,57	1,96	1,89	1,23	1,37	0,92	1,19	0,73

Graph 1: Z-Score Evolution

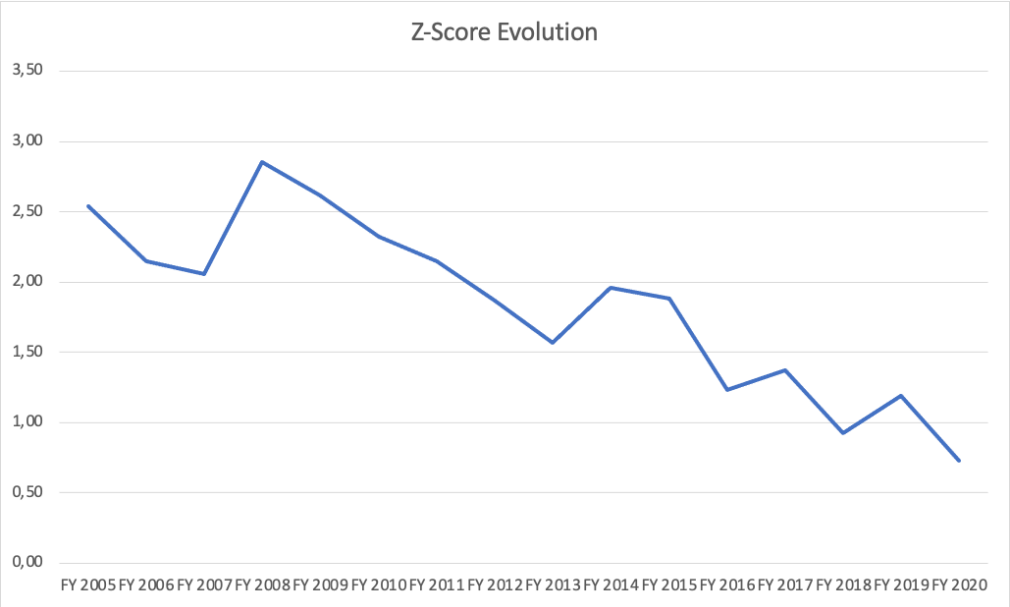


Table 3: Sales Forecast

	Historical			Sales Forecast			Forecast				Loan
				COVID-19 Impact		Recovery					COVID-19 Impact
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2021
Best	1 386	1 320	1 242	1 029	988	1 185	2 010	1 556	1 945	2 237	765
% Growth		*-4,76%*	*-5,91%*	*-17,15%*	*-4,00%*	*20,00%*	*5,00%*	*25,00%*	*25,00%*	*15,00%*	
Base	1 386	1 320	1 242	1 029	988	1 185	1 245	1 556	1 945	2 237	0
% Growth		*-4,76%*	*-5,91%*	*-17,15%*	*-4,00%*	*20,00%*	*5,00%*	*25,00%*	*25,00%*	*15,00%*	
Worst	1 386	1 320	1 242	1 029	988	1 047	995	945	898	853	0
% Growth		*-4,76%*	*-5,91%*	*-17,15%*	*-4,00%*	*6,00%*	*-5,00%*	*-5,00%*	*-5,00%*	*-5,00%*	

Table 4: Loan Scenario DCF

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Revenues	1 386	1 320	1 242	1 029	988	1 185	2 010	1 556	1 945	2 237
Operating Costs										
Cost of Goods Sold	1 176	1 144	1 060	894	840	948	1 507	934	1 070	1 118
% of Revenues	*0,85*	*0,87*	*0,85*	*0,87*	*0,85*	*0,8*	*0,75*	*0,6*	*0,55*	*0,5*
R & D Expenditures	64	48	42	34	35	41	70	54	68	78
% of Revenues	*4,62%*	*3,64%*	*3,38%*	*3,30%*	*3,50%*	*3,50%*	*3,50%*	*3,50%*	*3,50%*	*3,50%*
Selling General and Administrative Expenses	239	224	211	172	148	178	301	233	292	335
% of Revenues	*17,24%*	*16,97%*	*16,99%*	*16,72%*	*15,00%*	*15,00%*	*15,00%*	*15,00%*	*15,00%*	*15,00%*
Restructuring Charges	31	17	16	17	10	12	765	16	19	22
% of Revenues	*2,24%*	*1,29%*	*1,29%*	*1,65%*	*1,00%*	*1,00%*	*38,07%*	*1,00%*	*1,00%*	*1,00%*
Total Operating Costs	1 510	1 433	1 329	1 117	1 032	1 179	2 644	1 237	1 449	1 554
(%of growth)		*-5,10%*	*-7,26%*	*-15,95%*	*-7,58%*	*14,26%*	*124,17%*	*-53,22%*	*17,14%*	*7,28%*
(%of sales)	*128,40%*	*125,26%*	*125,38%*	*124,94%*	*104,50%*	*99,50%*	*131,57%*	*79,50%*	*74,50%*	*69,50%*
EBITDA	-124	-113	-87	-88	-44	6	-634	319	496	682
(%of sales)	*-8,95%*	*-8,56%*	*-7,00%*	*-8,55%*	*-4,50%*	*0,50%*	*-31,57%*	*20,50%*	*25,50%*	*30,50%*
EBITDA Margin	*-3,25%*	*-1,67%*	*-1,29%*	*-0,68%*						

Net Working Capital

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Networkig Capital	539	132	338	331	323	396	677	527	673	783
(% of Revenues)	*39%*	*10%*	*27%*	*32%*	*33%*	*33%*	*34%*	*34%*	*35%*	*35%*
(Δ Networking Working Capital as % of Sales)		*0,00*	*0,00*	*0,00*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*
Δ Networking Working Capital		-407	206	-7	-8	73	281	-150	145	110

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2 017	2018	2 019	2020	2 021	2022	2 023	2024	2 025	2026
Depreciation, Amortisation and Impairments	80	73	55	37	30	36	40	31	39	45
(% of Revenues)	*6%*	*6%*	*4%*	*4%*	*3%*	*3%*	*2%*	*2%*	*2%*	*2%*
Property, Plant & Equipment	294	216	230	200	188	190	362	280	331	380
(% of Revenues)	*21%*	*16%*	*19%*	*19%*	*19%*	*16%*	*18%*	*18%*	*17%*	*17%*
Capex		-5	69	7	17	38	212	-51	89	94

Eastman Kodak Discounted Cash Flow Model										
(in EUR M)	Estimation Period									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	1,00	0,91	0,83	0,75	0,68	0,62	0,56	0,51	0,47	0,42
Sales	$ 1 386,00	$ 1 320,00	$ 1 242,00	$ 1 029,00	$ 987,84	$ 1 185,41	$ 2 009,68	$ 1 555,85	$ 1 944,81	$ 2 236,53
(% of Sales Growth)		$ -0,05	$ -0,06	$ -0,17	$ -0,04	$ 0,20	$ 0,70	$ -0,23	$ 0,25	$ 0,15
EBITDA	$ -124,00	$ -113,00	$ -87,00	$ -88,00	$ -44,45	$ 5,93	$ -634,37	$ 318,95	$ 495,93	$ 682,14
(% of Sales)	$ -0,09	$ -0,09	$ -0,07	$ -0,09	$ -0,05	$ 0,01	$ -0,32	$ 0,21	$ 0,26	$ 0,31
Depreciation, amortisation and impairment / (write-backs)	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 35,56	$ 40,19	$ 31,12	$ 38,90	$ 44,73
EBIT	$ -204,00	$ -186,00	$ -142,00	$ -125,00	$ -74,09	$ -29,64	$ -674,56	$ 287,83	$ 457,03	$ 637,41
(% of Sales)	$ -0,15	$ -0,14	$ -0,11	$ -0,12	$ -0,08	$ -0,03	$ -0,34	$ 0,19	$ 0,24	$ 0,29
Tax	$ -42,84	$ -39,06	$ -29,82	$ -26,25	$ -15,56	$ -6,22	$ -141,66	$ 60,44	$ 95,98	$ 133,86
(Effective Corporate Tax Rate)	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21
NOPAT	$ -161,16	$ -146,94	$ -112,18	$ -98,75	$ -58,53	$ -23,41	$ -532,91	$ 227,39	$ 361,05	$ 503,56
(% of Sales)	$ -0,12	$ -0,11	$ -0,09	$ -0,10	$ -0,06	$ -0,02	$ -0,27	$ 0,15	$ 0,19	$ 0,23
Net Working Capital	$ 539,00	$ 132,00	$ 338,00	$ 331,00	$ 323,02	$ 395,93	$ 677,26	$ 527,43	$ 672,90	$ 782,79
Δ Networking Working Capital		$ -407,00	$ 206,00	$ -7,00	$ -7,98	$ 72,90	$ 281,34	$ -149,83	$ 145,47	$ 109,88
Depreciation & Amortization	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 35,56	$ 40,19	$ 31,12	$ 38,90	$ 44,73
Capital Expenditures	$ -	$ -5,00	$ 69,00	$ 7,00	$ 17,32	$ 37,54	$ 212,27	$ -50,57	$ 89,46	$ 94,32
Free Cash Flow (FCF)	$ -81,16	$ 338,06	$ -332,18	$ -61,75	$ -38,24	$ -98,29	$ -986,32	$ 458,91	$ 165,02	$ 344,08
Terminal Value										$ 5 478,82
Present Value of FCF	$ -81,16	$ 307,33	$ -274,53	$ -46,39	$ -26,12	$ -61,03	$ -556,75	$ 235,49	$ 76,98	$ 145,92
Present Value of TV										$ 2 323,56
Enterprise Value (EV)	**$ 2 043,30**									
Cash and Cash Equivalents	$ 343,00									
Current Liabilities	$ 419,00									
Non-Current Liabilities	$ 1 067,00									
Equity Value	**$ 900,30**									

Table 5: No Loan Scenario DCF

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Revenues	1 386	1 320	1 242	1 029	988	1 185	1 245	1 556	1 945	2 237
Operating Costs										
Cost of Goods Sold	1 176	1 144	1 060	894	840	948	934	934	1070	1118
% of Revenues	*84,85%*	*86,67%*	*85,35%*	*86,88%*	*85,00%*	*80,00%*	*75,00%*	*60,00%*	*55,00%*	*50,00%*
R & D Expenditures	64	48	42	34	30	36	37	47	58	67
% of Revenues	*4,62%*	*3,64%*	*3,38%*	*3,30%*	*3,00%*	*3,00%*	*3,00%*	*3,00%*	*3,00%*	*3,00%*
Selling General and Administrative Expenses	239	224	211	172	168	202	212	264	331	380
% of Revenues	*17,24%*	*16,97%*	*16,99%*	*16,72%*	*17,00%*	*17,00%*	*17,00%*	*17,00%*	*17,00%*	*17,00%*
Restructuring Charges	31	17	16	17	20	24	765	31	39	45
% of Revenues	*2,24%*	*1,29%*	*1,29%*	*1,65%*	*2,00%*	*2,00%*	*61,46%*	*2,00%*	*2,00%*	*2,00%*
Total Operating Costs	1 510	1 433	1 329	1 117	1 057	1 209	1 947	1 276	1 498	1 610
(%of growth)		*-5,10%*	*-7,26%*	*-15,95%*	*-5%*	*14%*	*61%*	*-34%*	*17%*	*8%*
(%of sales)	*128,40%*	*125,26%*	*125,38%*	*124,94%*	*107%*	*102%*	*156%*	*82%*	*77%*	*72%*
EBITDA	-124	-113	-87	-88	-69	-24	-703	280	447	626
(%of sales)	*-9,16%*	*-3,41%*	*-1,77%*	*-1,55%*	*-7,00%*	*-2,00%*	*-56,46%*	*18,00%*	*23,00%*	*28,00%*
EBITDA Margin	*-3,25%*	*-1,67%*	*-1,29%*	*-0,68%*						

Net Working Capital

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Networkig Capital	539	132	338	331	323	396	419	527	673	783
(% of Revenues)	*38,89%*	*10,00%*	*27,21%*	*32,17%*	*33%*	*33%*	*34%*	*34%*	*35%*	*35%*
(Δ Networking Working Capital as % of Sales)		*-0,02%*	*0,01%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*
Δ Networking Working Capital		-407	206	-7	-8	73	24	108	145	110

	Historical				Forecast					
				COVID-19 Impact	Recovery					
	2 017	2018	2 019	2020	2 021	2022	2 023	2024	2 025	2026
Depreciation, Amortisation and Impairments	80	73	55	37	30	36	25	31	39	45
	5,77%	*5,53%*	*4,43%*	*3,60%*	*3,00%*	*3,00%*	*2,00%*	*2,00%*	*2,00%*	*2,00%*
Property, Plant & Equipment	294	216	230	200	188	190	224	280	331	380
	21,21%	*16,36%*	*18,52%*	*19,44%*	*19,00%*	*16,00%*	*18,00%*	*18,00%*	*17,00%*	*17,00%*
Capex		-5	69	7	17	38	59	87	89	94

Eastman Kodak Discounted Cash Flow Model										
(in EURk)	Estimation Period									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	1,00	0,91	0,83	0,75	0,68	0,62	0,56	0,51	0,47	0,42
Sales	$ 1 386,00	$ 1 320,00	$ 1 242,00	$ 1 029,00	$ 987,84	$ 1 185,41	$ 1 244,68	$ 1 555,85	$ 1 944,81	$ 2 236,53
(% of Sales Growth)		$ -0,05	$ -0,06	$ -0,17	$ -0,04	$ 0,20	$ 0,05	$ 0,25	$ 0,25	$ 0,15
EBITDA	$ -124,00	$ -113,00	$ -87,00	$ -88,00	$ -69,15	$ -23,71	$ -702,77	$ 280,05	$ 447,31	$ 626,23
(% of Sales)	$ -0,09	$ -0,09	$ -0,07	$ -0,09	$ -0,07	$ -0,02	$ -0,56	$ 0,18	$ 0,23	$ 0,28
Depreciation, amortisation and impairment / (write-backs)	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 35,56	$ 24,89	$ 31,12	$ 38,90	$ 44,73
EBIT	$ -204,00	$ -186,00	$ -142,00	$ -125,00	$ -98,78	$ -59,27	$ -727,66	$ 248,94	$ 408,41	$ 581,50
(% of Sales)	$ -0,15	$ -0,14	$ -0,11	$ -0,12	$ -0,10	$ -0,05	$ -0,58	$ 0,16	$ 0,21	$ 0,26
Tax	$ -42,84	$ -39,06	$ -29,82	$ -26,25	$ -20,74	$ -12,45	$ -152,81	$ 52,28	$ 85,77	$ 122,11
(Effective Corporate Tax Rate)	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21
NOPAT	$ -161,16	$ -146,94	$ -112,18	$ -98,75	$ -78,04	$ -46,82	$ -574,85	$ 196,66	$ 322,64	$ 459,38
(% of Sales)	$ -0,12	$ -0,11	$ -0,09	$ -0,10	$ -0,08	$ -0,04	$ -0,46	$ 0,13	$ 0,17	$ 0,21
Net Working Capital	$ 539,00	$ 132,00	$ 338,00	$ 331,00	$ 323,02	$ 395,93	$ 419,46	$ 527,43	$ 672,90	$ 782,79
Δ Networking Working Capital		$ -407,00	$ 206,00	$ -7,00	$ -7,98	$ 72,90	$ 23,53	$ 107,98	$ 145,47	$ 109,88
Depreciation & Amortization	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 35,56	$ 24,89	$ 31,12	$ 38,90	$ 44,73
Capital Expenditures	$ -	$ -5,00	$ 69,00	$ 7,00	$ 17,32	$ 37,54	$ 59,27	$ 87,13	$ 89,46	$ 94,32
Free Cash Flow (FCF)	$ -81,16	$ 338,06	$ -332,18	$ -61,75	$ -57,75	$ -121,70	$ -632,76	$ 32,67	$ 126,61	$ 299,91
Terminal Value										$ 3 104,02
Present Value of FCF	$ -81,16	$ 307,33	$ -274,53	$ -46,39	$ -39,45	$ -75,57	$ -357,18	$ 16,77	$ 59,06	$ 127,19
Present Value of TV										$ 1 316,41
Enterprise Value (EV)	**$ 952,49**									
Cash and Cash Equivalents	$ 343,00									
Current Liabilities	$ 419,00									
Non-Current Liabilities	$ 1 067,00									
Equity Value	**$ -190,51**									

Table 6: Current Trend Scenario

	Historical				Forecast					
				COVID-19 Impact		Recovery				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Revenues	1 386	1 320	1 242	1 029	988	1 047	995	945	898	853
Operating Costs										
Cost of Goods Sold	1 176	1 144	1 060	894	840	890	846	803	763	725
% of Revenues	*84,85%*	*86,67%*	*85,35%*	*86,88%*	*85,00%*	*85,00%*	*85,00%*	*85,00%*	*85,00%*	*85,00%*
R & D Expenditures	64	48	42	34	40	47	45	43	45	34
% of Revenues	*4,62%*	*3,64%*	*3,38%*	*3,30%*	*4,00%*	*4,50%*	*4,50%*	*4,50%*	*5,00%*	*4,00%*
Selling General and Administrative Expenses	239	224	211	172	178	188	179	170	162	154
% of Revenues	*17,24%*	*16,97%*	*16,99%*	*16,72%*	*18,00%*	*18,00%*	*18,00%*	*18,00%*	*18,00%*	*18,00%*
Restructuring Charges	31	17	16	17	13	14	13	12	12	11
% of Revenues	*2,24%*	*1,29%*	*1,29%*	*1,65%*	*1,30%*	*1,30%*	*1,30%*	*1,30%*	*1,30%*	*1,30%*
Total Operating Costs	1 510	1 433	1 329	1 117	1070	1139	1082	1028	981	924
(%of growth)		*-5,10%*	*-7,26%*	*-15,95%*	*-4,22%*	*6,49%*	*-5,00%*	*-5,00%*	*-4,56%*	*-5,87%*
(%of sales)	*128,40%*	*125,26%*	*125,38%*	*124,94%*	*108%*	*109%*	*109%*	*109%*	*109%*	*108%*
EBITDA	-124	-113	-87	-88	-82	-92	-88	-83	-83	-71
(%of sales)	*-9,16%*	*-3,41%*	*-1,77%*	*-1,55%*	*-8%*	*-9%*	*-9%*	*-9%*	*-9%*	*-8%*
EBITDA Margin	*-3,25%*	*-1,67%*	*-1,29%*	*-0,68%*						

Net Working Capital

	Historical				Forecast					
				COVID-19 Impact		Recovery				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Networkig Capital	539	132	338	331	296	283	249	217	198	171
(% of Revenues)	*38,89%*	*10,00%*	*27,21%*	*32,17%*	*30,00%*	*27,00%*	*25,00%*	*23,00%*	*22,00%*	*20,00%*
Δ Networking Working Capital as % of Sales)		*-0,02%*	*0,01%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*	*0,00%*
Δ Networking Working Capital		-407	206	-7	-35	-14	-34	-31	-20	-27

	Historical				Forecast					
				COVID-19 Impact		Recovery				
	2 017	2018	2 019	2020	2 021	2022	2 023	2024	2 025	2026
Depreciation, Amortisation and Impairments	80	73	55	37	30	31	30	28	27	26
	6%	6%	4%	4%	3%	3%	3%	3%	3%	3%
Property, Plant & Equipment	294	216	230	200	168	178	169	161	153	145
	21%	16%	19%	19%	17%	17%	17%	17%	17%	17%
Capex		-5	69	7	-2	41	21	20	19	18

Eastman Kodak Discounted Cash Flow Model

(in EURk)	Estimation Period									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	1,00	0,91	0,83	0,75	0,68	0,62	0,56	0,51	0,47	0,42
Sales	$ 1 386,00	$ 1 320,00	$ 1 242,00	$ 1 029,00	$ 987,84	$ 1 047,11	$ 994,75	$ 945,02	$ 897,77	$ 852,88
(% of Sales Growth)										
EBITDA	$ -124,00	$ -113,00	$ -87,00	$ -88,00	$ -81,99	$ -92,15	$ -87,54	$ -83,16	$ -83,49	$ -70,79
(% of Sales)	$ -0,09	$ -0,09	$ -0,07	$ -0,09	$ -0,08	$ -0,09	$ -0,09	$ -0,09	$ -0,09	$ -0,08
Depreciation, amortisation and impairment / (write-backs)	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 31,41	$ 29,84	$ 28,35	$ 26,93	$ 25,59
EBIT	$ -204,00	$ -186,00	$ -142,00	$ -125,00	$ -111,63	$ -123,56	$ -117,38	$ -111,51	$ -110,43	$ -96,38
(% of Sales)	$ -0,15	$ -0,14	$ -0,11	$ -0,12	$ -0,11	$ -0,12	$ -0,12	$ -0,12	$ -0,12	$ -0,11
Tax	$ -42,84	$ -39,06	$ -29,82	$ -26,25	$ -23,44	$ -25,95	$ -24,65	$ -23,42	$ -23,19	$ -20,24
(Effective Corporate Tax Rate)	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21	$ 0,21
NOPAT	$ -161,16	$ -146,94	$ -112,18	$ -98,75	$ -88,18	$ -97,61	$ -92,73	$ -88,09	$ -87,24	$ -76,14
(% of Sales)	$ -0,12	$ -0,11	$ -0,09	$ -0,10	$ -0,09	$ -0,09	$ -0,09	$ -0,09	$ -0,10	$ -0,09
Net Working Capital	$ 539,00	$ 132,00	$ 338,00	$ 331,00	$ 296,35	$ 282,72	$ 248,69	$ 217,35	$ 197,51	$ 170,58
Δ Networking Working Capital		$ -407,00	$ 206,00	$ -7,00	$ -34,65	$ -13,63	$ -34,03	$ -31,33	$ -19,85	$ -26,93
Depreciation & Amortization	$ 80,00	$ 73,00	$ 55,00	$ 37,00	$ 29,64	$ 31,41	$ 29,84	$ 28,35	$ 26,93	$ 25,59
Capital Expenditures	$ -	$ -5,00	$ 69,00	$ 7,00	$ -2,43	$ 41,49	$ 20,94	$ 19,90	$ 18,90	$ 17,96
Free Cash Flow (FCF)	$ -81,16	$ 338,06	$ -332,18	$ -61,75	$ -21,47	$ -94,06	$ -49,80	$ -48,30	$ -59,36	$ -41,57
Terminal Value										$ -419,89
Present Value of FCF	$ -81,16	$ 307,33	$ -274,53	$ -46,39	$ -14,66	$ -58,40	$ -28,11	$ -24,79	$ -27,69	$ -17,63
Present Value of TV										$ -178,07
Enterprise Value (EV)	**$ -444,12**									
Cash and Cash Equivalents	$ 343,00									
Current Liabilities	$ 419,00									
Non-Current Liabilities	$ 1 067,00									
Equity Value	**$ -1 587,12**									

Table 3.1: First Exercise, Comparables Approach. (Question 5)

3.1.1: Market Data.

2011	Market Data			
	Market Cap. (calculated)	#Shares Outstanding	Share Price	EV
Fujifilm	15062850,00	495000,00	30,43	13575946,00
Canon	54712510,00	1237000,00	44,23	44949484,00
Nikon	7784400,00	390000,00	19,96	6608593,00
Panasonic	26289000,00	2070000,00	12,70	25349868,00
Olympus	7433460,00	1098000,00	6,77	7758326,00
average	22256444,00	1058000,00	22,82	19648443,40
median	15062850,00	1098000,00	19,96	13 575 946,00 €
high	54712510	2070000	44,23	44949484
low	7433460	390000	6,77	6608593
Kodak	174850	269000	0,65	828850

3.1.2: Financial Data.

2011	Financial data						
	Net Income	EBIT	EBITDA	Sales' Revenue	Cash	Total Debt	EPS
Fujifilm	769301,00	1410904,00	3303603,00	26711855,00	3771928,00	2285024,00	1,5541
Canon	3187564,00	4801590,00	7496193,00	45608115,00	9913167,00	150141,00	2,5769
Nikon	328474,00	650066,00	1059369,00	10673638,00	2177523,00	1001716,00	0,8422
Panasonic	52108,00	81542,00	117518,00	3246386,00	970133,00	31001,00	0,0252
Olympus	3866,00	19938,00	4362972,00	847105,00	213561,00	538427,00	0,0035
average	868262,60	1392808,00	3267931,00	17417419,80	3409262,40	801261,80	1,00
median	328 474,00 €	650 066,00 €	3 303 603,00 €	10 673 638,00 €	2 177 523,00 €	538 427,00 €	0,84 €
high	3187564	4801590	7496193	45608115	9913167	2285024	2,576850445
low	3866	19938	117518	847105	213561	31001	0,003520947
Kodak	-764	-757	-619	6022	861000	1515000	-0,002840149

3.1.3: Ratios; Multiples highlighted in blue.

2011	Ratios (Market/Financial)				
	EV/NI	EV/Sales' Rev	EV/EBITDA	P/E	P/S
Fujifilm	17,65	0,51	4,11	19,58	0,56 €
Canon	14,10	0,99	6,00	17,16	1,20 €
Nikon	20,12	0,62	6,24	23,70	0,73 €
Panasonic	486,49	7,81	215,71	504,51	8,10 €
Olympus	2006,81	9,16	1,78	1922,78	8,78 €
average	509,03	3,82	46,77	497,55	3,87
median	**20,12 €**	**0,99 €**	**6,00 €**	**23,70 €**	**1,20 €**
high	2006,80962	9,15863559	215,710512	1922,778	8,775134
low	14,1015158	0,50823674	1,77822044	17,16436	0,563901
Kodak	**-1084,8822**	**137,636998**	**-1339,01454**	**-228,8613**	**29,0352**

Table 3.2: Second Scenario, Comparables Approach (Question 6)

3.2.1: Market Data.

2015	Market Data			
	Market Capitalization	Shares Outstanding	Share Price	EV
Fujifilm	$ 17 235 240,00	484000,00	$ 35,61	$ 14 091 916,00
Canon	$ 38 624 040,00	1092000,00	$ 35,37	$ 33 400 535,88
Nikon	$ 5 319 800,00	397000,00	$ 13,40	$ 3 987 193,00
Panasonic	$ 30 343 430,00	2311000,00	$ 13,13	$ 27 780 874,94
Olympus	$ 12 718 010,00	1369000,00	$ 9,29	$ 13 322 419,00
average	$ 20 848 104,00	1130600,00	$ 21,36	$ 18 516 587,76
median	$ 17 235 240,00	1092000,00	$ 13,40	$ 14 091 916,00
high	$ 38 624 040,00	2311000,00	$ 35,61	$ 33 400 535,88
low	$ 5 319 800,00	397000,00	$ 9,29	$ 3 987 193,00
2015				
KODAK (true)	$ 797 580,00	42000,00	$ 18,99	$ 930 580,00

3.2.2: Financial Data.

2015	Financial data						
	Net Income	EBIT	EBITDA	Sales Revenue	Cash	Total Debt	EPS
Fujifilm	$ 987 942,00	$ 1 642 516,00	$ 2 185 324,00	$ 20 771 708,00	$ 6 057 400,00	$ 2 914 076,00	$ 2,04120
Canon	$ 1 819 909,00	$ 2 871 388,00	$ 5 130 288,83	$ 31 407 198,00	$ 5 236 471,07	$ 12 966,95	$ 1,66658
Nikon	$ 152 819,00	$ 292 529,00	$ 612 562,00	$ 7 138 072,00	$ 2 160 482,00	$ 827 875,00	$ 0,38
Panasonic	$ 1 495 779,38	$ 1 520 538,89	$ 3 908 385,65	$ 64 295 029,01	$ 10 670 573,52	$ 8 108 018,46	$ 0,64724
Olympus	$ -72 808,00	$ 74 450,00	$ 270 684,00	$ 6 372 258,00	$ 1 748 958,00	$ 2 353 367,00	$ -0,05
average	$ 876 728,28	$ 1 280 284,38	$ 2 421 448,90	$ 25 996 853,00	$ 5 174 776,92	$ 2 843 260,68	$ 0,94
median	$ 987 942,00	$ 1 520 538,89	$ 2 185 324,00	$ 20 771 708,00	$ 5 236 471,07	$ 2 353 367,00	$ 0,65
high	$ 1 819 909,00	$ 2 871 388,00	$ 5 130 288,83	$ 64 295 029,01	$ 10 670 573,52	$ 8 108 018,46	$ 2,04
low	$ -72 808,00	$ 74 450,00	$ 270 684,00	$ 6 372 258,00	$ 1 748 958,00	$ 12 966,95	$ -0,05
2015							
KODAK (true)	$ 54 000,00	$ -35 000,00	$ 110 000,00	$ 1 447 000,00	$ 547 000,00	$ 680 000,00	1,285714286

3.2.3: Ratios; Multiples highlighted in blue.

2015	Ratios (Market/Financial)				
	EV/NI	EV/Sales' Rev	EV/EBITDA	P/E	P/S
Fujifilm	14,264	0,6784	6,448	17,446	0,8297459
Canon	18,353	1,0635	6,510	21,223	1,2297831
Nikon	26,091	0,5586	6,509	34,811	0,7452713
Panasonic	18,573	0,4321	7,108	20,286	0,4719405
Olympus	-182,980	2,0907	49,218	-174,679	1,9958404
average	-21,140	0,9646	15,159	-16,183	1,0545162
median	**18,353**	**0,6784**	**6,510**	**20,286**	**0,8297459**
high	26,091	2,0907	49,218	34,811	1,9958404
low	-182,980	0,4321	6,448	-174,679	0,4719405
2015					
KODAK (true)	17,233	0,6431	8,460	14,770	0,0000135

Table 4.1: Comparables Approach, Results

4.1.1: First Exercise

Kodak's Values for 2011		Multiples		Results	
Expected Net income	-764	EV/NI	20,11907487		-15370,9732
Expected EBIT	-757	EV/Sales' Rev	0,985558908	EV	5935,035742
Expected EBITDA	-619	EV/EBITDA	5,996308259		-3711,714813
Expected Sales Revenue	6022	P/E	23,69867935	SP	-0,067307773
Expected Cash	861000	P/S	1,19962226		0,026855484
Expected Total Debt	1515000				
Expected EPS	-0,002840149				
Expected EV	828850				

EV for kodak in 2011 should be between 0 and 5935,04 thousands of U.S dollars. False.
Share price should be between $0 and $0,03. False.

4.1.2: Second Exercise

Kodak's true fiancial values for 2015			Multiples		Results		
Net income	$	54 000,00	EV/NI	18,35		$	991 054,46
EBIT	$	-35 000,00	EV/Sales' Rev	0,68	EV	$	981 671,92
EBITDA	$	110 000,00	EV/EBITDA	6,51		$	716 150,51
Sales Revenue	$	1 447 000,00	P/E	20,29	SP	$	26,08
Cash	$	547 000,00	P/S	0,83		$	28,59
Total Debt	$	680 000,00					
EPS	$	1,29					
EV	$	930 580,00					

EV for kodak 2015 should be between $ 716 150, 51 and $ 991 054,46. True.
Share price should be between $ 26,08 and $ 28,59. False.