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The Effect of Pensions on Fortune 500 Companies and the Market

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Abstract

This paper is an attempt at identifying the effects of pension changes and negative news associated with pensions on the stock market. This identification is carried out through an extensive review and analysis of the literature on the causes and reasons for different pension techniques and the economics behind pensions. In addition, four major corporations were analyzed after announcing they would either be altering or discontinuing their pension plans due to the coronavirus pandemic. After conducting further analysis, it was found that pensions do cause major shifts in the stock market due to negative news surrounding them.

Introduction

The growth of pension funds has been exponential, and this has increased their influence on the world's financial markets and nations' wealth. They are a part of a three-legged stool of retirement – these include employer-provided pension, Social Security, and personal retirement savings. The personal retirement savings include a 401(k) plan and tradition pension plans. A pension plan will be defined as a retirement plan that requires an employer to make contributions to a pool of funds set aside for a worker's benefit.

This study will focus on pensions and their effect on the financial markets and Fortune 500 Company's share prices. The motivation for the study begins with the authors fascination of the integration of accounting, finance and economics and the effects each area has on the other. By taking a core accounting concept, the author is able to evaluate the effects on the financial markets. The changes may include either news or core changes in how the pension will be recorded on the financial statements. By focusing on Fortune 500 Companies, the author can compare the share price of the corporation before and after the announcement of a major pension change. The S&P 500 and other indexes may also serve as an indicator for changes in accounting methods as a whole. The author initially chose to focus on pensions because of the theory that they may cause the next financial crisis. This was then coupled with an interest in financial markets and the stock market. By the end of the study, the data will show if pension news and announcements significantly affect a company's share price.

The pension was born in 1875, by The American Express Company. Previous to this, businesses were relatively small and family run. This initial plan applied to workers that had been with the company for over 20 years and had reached the age of 60. They had to be recommended for retirement by a manager and be approved by a board of directors. The idea was that workers who received a pension would receive half of their annual salary in retirement with a maximum of $500 a year. Quickly following, banking and railroad companies adopted and were among the first to offer pensions to their employees. By the turn of the 20th century, it was much more common for large corporations to start adopting these pensions because of their growth and establishments. A few examples of these industries included Standard Oil, U.S. Steel, AT&T, Eastman Kodak, Goodyear and General Electric which all adopted pensions before 1930. Pensions are now an expectation from major companies and have continued to grow to astronomical heights.

The study will focus on how the market has reacted to both news from an individual company on pension and an industry wide accounting regulation change. The data will be taken from the last twenty-five years to accommodate for the current pension that we are familiar with. The pension has shifted and evolved from their inception from the American Express Company and the study will focus on how that change has come to affect the stock market.

Theory

The pension was formed to provide people with an income once they enter retirement when they are no longer earning a steady income from employment. The plans were created to help those that are older in society to continue to be able to support themselves. The funds require both the employer and employee to contribute money to a fund during their employment in order to receive the benefits once they retire. The pension funds are structured as tax deferred savings vehicles that allow companies to offer tax-free accumulation of a fund for later use as retirement income. The 401(k) is the iconic and commonly known self-funded retirement plan that the majority of Americans rely on for their post-employment income. The 401(k) is not the only pension plan offered. It has evolved as companies have grown larger and stronger.

There are two modern significant plans, a defined-benefit plan and a defined-contribution plan. A defined benefit-plan is outlined as the employer guaranteeing the employee receives a definite amount of benefit upon retirement, regardless of the performance of the underlying investment pool. The employer is liable for a specific flow of pension payments to the retiree. A defined-contribution plan is more popular for companies. The employer makes a specific plan contribution for the worker, usually matching the contributions made by employees. The benefit received is dependent on the plan's investment performance and contributions made by the employee. Defined contribution plans are now commonly referred to as a 401(k) or 403(b).

The first signs of pensions were introduced by Augustus Caesar with his military treasury. This was an attempt to quiet a rebellion within the Roman Empire which was facing militaristic turmoil. Although it was a short-term positive response, it is argued as one of the main reasons for the fall of the empire because it lacked the financial support it needed to be successful. The early signs of pensions forming were also present in Germany, Ireland, and the United Kingdom until it eventually appeared in United States history.

As part of Otto von Bismarck's legislation, Germany established the Old Age Pension program in the late 1800's. It was financed by the tax on workers and was designed to provide a pension annuity for workers above the age of 70 years old. The pension program was not used extensively in Germany because of the age limitation. The average life span was approximately 45 years due to high infant mortality rates and high maternal death rates from childbirth and the life expectancy was usually 70 years old. Most civilians did not reach the age limit or use it for long after entering the program. Ireland has a history of pensions that traced back to Brehon Law which imposed a legal responsibility of the younger generation to take care of the elder members of society who were aged, blind, deaf, sick or mentally unstable. Pensions were seen in the United Kingdom in the Old Age Pensions Act of 1908 which provided a set amount of income per weak if their income was below a certain threshold. It coincided with a previous law to relieve the poor of the UK. The reforms were developing and after the second world war, the National Insurance Act 1946 completed the universal coverage of social security. The early 1990's established the existing framework that was put into place and the Pensions Commission was established to review pensions in the United Kingdom. These countries were establishing their pensions in a similar way as the United States.

In the United States, public pensions began with various promises which were both informal and legislated and were made to veterans of the Revolutionary War and were further adopted in the Civil War. The concept was expanded greatly and began to be offered by governments during the late nineteenth century. Federal civilian pensions were offered under the Civil Service Retirement System which was formed in 1920. This provided retirement, disability and survivor benefits for most civilian employees in the US Federal Government until the Federal Employees Retirements System was created in 1987.

Pension plans became popular in the United States during World War II, when wage freezes prohibited outright increases in worker's pay. The defined benefit plan had been the most popular and common type of retirement plan in the United States throughout the 1980's, but since then the defined contribution plan became the most common plan, as referred to above. The defined benefit plan became increasingly more expensive to utilize.

In April 2012, the Northern Mariana Islands Retirement Fund filed for Chapter 11 bankruptcy protection. The fund was a defined benefit plan and was only partially funded by the government. The fund had $268.4 million in assets and $911 million in liabilities. The plan experience low returns from their investments and the benefits promised were increasing, but the amount of funds available were unable to cover those promises. It was the first United States public pension plan to declare bankruptcy. This was when the contribution plan emerged and began becoming increasingly more utilized than the defined benefit plan.

Defined contribution pensions are funded as the guarantee made to employees that is specified by guidelines throughout one's working life. Advocates of defines contribution plans point out that each employee has the ability to tailor the investment portfolio to his or her individual needs and financial situation. This includes the choice of how much to contribute if they would like to at all. Others believe that these apparent advantages could also hinder some workers who might not have the financial education to choose the correct investment strategy or vehicles. They may also not have the discipline to voluntarily contribute money to their retirement accounts.

Although the modern pension has gone through several generations and decades of development, there are still challenges and new problems that appear with each change. The United States in the time of the Civil War is extremely different from America now in both good and bad ways. These evolvements have affected how pensions are conducted. For example, a growing challenge for the United States and several other nations is the rapidly increasing population that is aging and reaching retirement. Birth rates are decreasing, and life expectancy is increasing. This translates to less current employed workers that are carrying the financial burden of those now retired receiving their benefits. In more developed countries that means the government and public sector pensions could be negatively affecting the economy unless pension systems are emended or the amount of taxes collected are raised. One of the methods to reform the pension system is to increase the age of retirement. The two exceptions are Australia and Canada where the pension systems are strong and seem to be poised to withstand the future years. These two nations have the advantage because their relative openness to immigration, but their populations are not increasing nearly as fast as in the United States.

Pensions are a large portion of the balance sheets for major companies. The Fortune 500 Companies all have incredibly large liabilities on their financial statements and how they are accounted for plays a major role in how large their liabilities are reported as. The cash contribution and pension expense calculations are often both referred to the cost of the pension plan. Corporations will have a pension obligation on their balance sheets which is a liability. Pension plan formulas are generally designed to tie the participants' benefits at retirement to their compensation and service with the employer. Each employer chooses how to reflect compensation and service based on their individual business needs. Pensions are a form of deferred compensation and the participants of the program trade compensation today for future pensions at a later date. The pension funding and pension accounting rules require that the cost of that deferred compensation be recognized as it is earned.

The way other benefits are calculated such as pension plans, health benefits and stock option benefits are very specific. The requirements centered around pension accounting are specific since historically companies have tried to decrease the expenses associated with them. These accounting treatments are difficult because when employees earn the rights to the benefits but receive them in the future. The pension has three major players involved. It includes the employee, the employer and the pension trust. The pension trust is a legal entity that holds the pension investment and disburses the funds when they are necessary later. The trusts are managed by trustees who hold no stakes in the company and are independent. As described above, there are two types of pensions, the defined contribution plan and the defined benefits plan.

Under the defined benefits plan, the employee is guaranteed a certain amount in the future. Pension payments are usually made far into the future, so there is a clear difference in time between when employees earn their pension benefits and when they receive them. The difference causes companies to use accrual basis accounting instead of cash-based accounting. The main difference is cash-based accounting tends to follow cash changing hands, but accrual accounting focuses on when things are earned instead. The accounting treatment that is required for a defined benefits plan requires the accountant to determine the fair value of assets and liabilities of the pension plan at year end, the amount of the pension expense for the year to be reported on the financial statements, and the value of net asset or liability of the pension plan based on the fair value assumptions. Pension expense is an expected value and if it defers from the actual value the remaining change is recorded as part of other comprehensive income (OCI).

Literature Review

"The Economics of Pensions" written by Nicholas Barr and Peter Diamond describes the economic analytics of pensions. After an introduction to what pensions are, the article explores the effects of different pensions arrangements on the labor market, on national savings and growth. Barr and Diamond then take a deeper dive into the distribution of the burdens and benefits between corporations and the employees that are receiving the pension benefits. The article discusses the controversial and political risks that are involved with pension plans throughout the article which was extremely educational. While the article was open to expressing the views of Barr and Diamond, the main purpose of the paper was to set out the analytical process to how those opinions were formed, while still allowing readers to come to their own opinions about these benefit plans. This article was important to consider when establishing the relationship between pensions and the stock market because it took into consideration much more than just the two variables. Economists tend to use several external ideas when forming their studies such as looking at the consequences of their decisions on several fronts. Barr and Diamond were able to take into consideration the labor market, the savings rate and the reaction of corporations and the employees which bode to be incredibly important when analyzing the stock market and its effect of pensions.

The second paper that was an influential read when focusing on the topic of pensions was "*Reforming Pensions: Myths, Truths and Policy Changes"* written by Nicholas Barr. Barr discusses the building blocks of pension reform using economic theory and their applications to different types of economic models. The beginning of the paper highlights the simple economics of pensions, but the further explores a series of myths that have proved to be remarkably persistent in the minds of the common individual in society. Continuing off his analysis, Barr builds the latter half of his paper to explore the foundations of effective pension policies. The paper discusses the prerequisites of any successful pension reform and the things that policy advisors should assert authoritatively in order to make it a successful plan. Finally, Nicholas Barr explores the different choices that policy makers are faced with when making these decisions and how they differ in different countries. The main conclusions that are drawn from the paper are extremely important when exploring pension plans. They include having an effective government that takes into consideration the best plan of action for each type of economic plan, the difference of pension plans including the benefits and cons of having a "pay-as-you-go" plan or a funding plan, and an understanding that pension plans are complex and do not have a one size fits all mindset. These points have given a new perspective when discussing both governments and corporations and their plans of providing a way to secure their employees or citizens throughout the pension planning process. It is an extremely complex instrument that has provided several benefits for employees, but also shows a major risk depending on how the plan is designed.

The paper, "*Pensions, The Option Value of Work, and Retirement"* written by James H. Stock and David A. Wise explores and develops a model of retirement based on the option value of continuing to work. By continuing to go to work there is an option to retire on more advantageous terms later in time. The model is used to estimate the effects on retirement of firm pension plan provisions. The typical defined benefit pension plans in the United States, that were described previously, provide very substantial incentives to stay at a firm for a number of years or until the employee reaches a certain age, but then a strong presence to leave the firm shortly after that point has been reached. This also may play a part in the reason for a rapidly declining labor force participation rate for older workers in the United States. The model that was established and fits firm retirement data very well. It closely captures the sharp discontinuous jumps in retirement rates at specific and certain ages. The model was used to simulate the effect on retirement of potential changes in pension plan provisions. By increasing the age of early retirement from 55 to 60, it would reduce firm departure rated between the ages of 50 and 59 by almost forty percent. This article was focused on the economics of aging. Throughout the model it highlights that pensions have a major ability to change the percentages of individuals going into retirement and has the capacity to influence employees to behave a certain way, whether that is motivating them to stay at a certain company for a predetermined amount of time or to leave after a certain age. Pensions are strong influencers for a majority of working individuals. By changing the provisions in the plans, major changes in behavior are possible from the working class. Pensions do have the ability to change behaviors in individuals in countless different ways.

The paper, "*Pension Funds: Retirement-Income Security and Capital Markets: An International Perspective,"* was written by E. Philip Davis. He explores the economic effects the aging population and the challenges that both the world and markets face because of it. Coping with an ageing population without major economic disruption is undoubtedly one of the major challenges that the global economy and world financial markets face now and in the coming decades. The article assesses the major economic issues raised by occupational pension funds that have risen in twelve OECD countries. These countries include the United States, the United Kingdom, Germany, Japan, France, Italy, Canada, Australia, Denmark, Sweden, Switzerland and the Netherlands. There is a particular emphasis on the performance of the funds in the financial markets, the influence on the funds of fiscal and regulatory conditions and the consequences of funds' development for capital markets, corporate finance and international investment. The paper explores the relationship with social security and the comparative advantages of a defined benefit and defined contribution funds. Davis also explores the role of funds in developing countries and their effects of implementing them. This paper touches on countless important aspects of pensions. It takes into consideration a plethora of countries to see how they all act within their own economies. Pensions are not a one size fits all instrument to looking into how they are all structured is incredibly useful. It also moves into how a developing nation may choose to adopt a pension system into their economy and the effects of it. The major amount of ageing population and the expectation of repayment through these programs may cause a major economic crisis if not handled correctly, which is another aspect that Davis explores throughout his studies. It is interesting to see how the pensions are intertwined with other financial markets as well. An accounting principle is very intertwined in economies and in the markets, so if there was ever a time to truly foster an idea's growth to establish how it may affect other nations, pension plans are a great example.

Another study that effectively explores the benefits of pension reforms and provides an immense amount of detail for the current study is Assar Lindbeck and Mats Persson's, "*The Gains from Pension Reform.*" The economists study and classified security pension systems in three dimensions. These included actuarial versus nonactuarial, funded versus unfunded and defined benefit versus defined contribution systems. Recent pension reforms are discussed in terms of those three dimensions. The study highlights shifting to a more actuarial system reduces labor-market distortions but limits the scope for redistribution. By shifting to a funded system, this may increase saving and redistribute income to future generation and distort contemporary labor supply. A partial shift to a funded system helps individuals diversify their pension assets and a shift from a defined benefit to a contribution benefit means that their income risk will be shifted from the employees to the pensioners. The study takes into considerations several different scenarios that may play out in the grand scheme of society. By testing these different scenarios, economists are able to effectively aid in making decisions that are in the best interest of the employees, the companies that provide the benefits and the funds themselves. This study was important to show the benefits and cons of transferring between different types of pensions cases. It truly exemplified the gains that are possible from pension reforms and may lead to better outcomes in the future for the generations that will benefit from the plans that have been put into place.

The article, "*Executive Pensions"* written by Lucian A. Bebchuk and Robert J. Jackson, Jr. takes a different approach to the study of pensions. This article is focused on executive compensation and their retirement plans. Public firms are not required to disclose the monetary value of pension plans in their executive pay disclosures, so financial economists have analyzed executive pay using figures that do not include a pension plan. The article explores the evidence that omitting the value of pension benefits from financials statements or executive pay disclosures significantly undermines the accuracy of existing estimates of executive pay, its variability and its sensitivity to performance companies. By studying the pension arrangements of chief executive officers of companies that are benchmarked in the Standard and Poor's 500 index, it was found that the pension plans of CEO's had a median actuarial value of over $15 million. The ratio of the executive's pension value to their total compensation throughout their tenure as the executive officer had an approximate median of 34%. This study proved to have a similar goal to see how the effect of compensation of a Chief Executive Officer translated into a company's performance. It was also centered around the stock market and used similar companies when analyzing their performance. Pension plans have a large stake in companies from their top line management to each and every individual that continues through the company. The liabilities that are not reported through the executive pay disclosure allows for a major gap in knowledge. Pensions have a large presence in the lives of each person in a company and they may be represented differently by omitting the value of pension benefits throughout the reporting's.

Taking a bit of a different approach to looking at the study, a lot of trading is based on the publishing of news and investors reactions to the news. By analyzing the article, "*Sidelined Investors, Trading-Generated News, and Security Returns,"* written by H. Henry Cao, Joshua D. Coval, and David Hirshleifer it is easier to understand the effects on asymmetric information releases and news. The article studies information blockages and asymmetric release of information in a security market with fixed setup costs of trading. In these settings, "sidelined" investors may delay trading until the price movements validate their private signals. Trading thereby internally generates the arrival of further news to the market. This leads to a number of negative results. These include a negative skewness following price run-ups and positive skewness following price rundowns, a lack of correspondence between large price changes and the arrival of external information and finally, increases the volatility following large price changes. This paper explores the effects of asymmetric news releases on a company's share price, which although is different to the main focus of this study, is important to factor in when exploring these methods. Experienced traders will try to anticipate the release of news in order to get ahead of the effects that it may have on a company's share price, but the common individual that invests in the stock market usually trades based on the news, which shows when the share price changes juristically after the news is released.

The paper, "*Earnings Manipulation, Pension Assumptions, and Managerial Investment Decisions,"* written by Daniel Bergstresser, Mihir Desai, and Joshua Rauh also relates to the importance of pensions on the financial statements. Managers appear to manipulate firm earnings through their characterization of pension assets to capital markets and try to alter investment decisions to justify and capitalize on these manipulations. Managers are much more aggressive with assumed long-term rates of returns when their assumptions have a greater impact on reported earnings. The firms use higher assumed rates of returns when they prepare to acquire other firms as well. The article also explores the ability to manipulate pension expenses on the financial statements to look as though the pension liabilities are lower and the company looks to be significantly more stable. Pensions are able to be used in favor of management until recent years when the accounting procedures for pensions were changed and created to be more accurate with reporting for investors and stakeholders.

Methodology

To visualize the effects that pensions have on a share price is relatively difficult. It is challenging to single out the sole reason for a change in stock price because there are many things that influence changes. In the case of this study, a few companies were chosen to analyze their share price after negative news was reported regarding their pension plans. These news reports could range from a discontinuation of their pensions to alterations of the matching plan. Since the pandemic has thrown a wrench in several Fortune 500 Company's plans, this study has focused on recent news regarding the coronavirus pandemic. The study hopes to find a relationship or correlation between the share price and the negative news being released.

There were a number of companies that had released that they are struggling amidst the pandemic that has resulted in a global shut down and a number of problems including both supply and demand chain issues. There have been a few companies that have filed for chapter 11 bankruptcy including Neiman Marcus and J. Crew. These brands have suffered immensely through these shut down and the decrease in consumer spending and raised unemployment rates. These reasons have also required for companies to change their ability to compensate their employees. Although the following companies have not filed for chapter 11 bankruptcy protection, they have been struggling enough to have to change the way their employees can save for retirement. These companies are in a variety of sectors. These companies include La-Z-Boy (LZB), Sabre Corporation (SABR), Marriott International (MAR), and Macy’s (M).

La-Z-Boy is an American furniture manufacturer based in Monroe, Michigan that makes home furniture. Their lines include recliners, sofas and stationary chairs, lift chairs and sleeper sofas. The company is international and serves many different consumer needs throughout the globe. Secondly, Sabre Corporation has faced financial troubles in the midst of the pandemic. Trading under the ticker symbol, SABR, is a travel technology company based in Texas. It is the largest global distribution system provider for air bookings in North America. American Airlines originally founded the company and it was then spun off in 2000 to be its own entity. This firm has altered its compensation system for pensions in light of the decrease in travel over the first half of the year. This has also impacted another company, Marriott International, that is also in the travel and leisure subsector. Marriott International is a hotel chain that trades under the ticker symbol MAR. The company manages and franchises a broad portfolio of hotels and lodging facilities. It has been negatively affected by the lack of travel as well. It is mostly known for its business travel lodging which has been at a steep decline because of the work from home orders. Marriott has furloughed a large portion of their work force due to the conditions in the market. Finally, Macy’s has also announced a change in their pensions plans due to a decrease in consumer spending and a shutdown of their stores. Macy’s is an American department store chain founded in 1858. It became known as a major department store brand and has a flagship store located in

Herold Square in Manhattan. The store has been struggling and has had to make major changes to their work force and pension systems. These four corporations will be the focus of this study to show the effect of changes in pensions on a company's share price.

In order to analyze the data in an effective way, the study required a few data points to see what the effect of the news was. In order to get this data, the date that the news was announced was pulled. Then the dates of three days before the announcement and three days post the announcement were pulled from Bloomberg. These dates were taken to see at which point the announcement was posted and how the market immediately reacted after. The announcements were all made on the same day after market closed. The dates that were used were March 27th, 2020 to April 3rd, 2020. These dates were chosen because the recent reporting's of a company's pension plan either being suspended or discontinued were done on April 1st post market close. The points that were taken were then compared to different indices to take into account the differences that may have occurred throughout the market as a whole.

These data points allow to offset changes that happened throughout the market to isolate the changes that occurred from the pension news. First, the share price of those companies were taken for each date, starting from March 27th and continuing to April 3rd. For each of the company's share prices, the percent change was taken for each day to see how much the stock's value had shifted. Prior to April 1st, which is when the announcements went public, the company's stock price had reacted relatively stable if not increasing. After the announcement was released, the shares of each company went down by a significant percentage. These changes occurred solely due to these negative pension changes. After the percentage change was taken, a similar procedure was done to the Standard and Poor's 500 index as well as the Wilshire 5000 that tests more data points to see the general move of the market for that date and time. These changes were then subtracted from the changes made by the indices and finally find the change that occurred due to the change in pension forms.

This study allowed the researcher to explore different ways to attack a research question. Although it ended up not being the most effective method to finding the answer to the question. The researcher also challenged themselves by attempting to see the effects of a difference in difference model as well. A difference in differences model is a statistical technique that is used to study and find the effects of observational study data. It shows the differences in a treatment and control group. It was attempted to use the indices as the control group and find the percent change of the companies as the treatment group, but overall the study was proved more effective by using excel and breaking it down by subtracting and finding the differences of the changes.

There were other data points that were also able to be studied, but because of the recent outbreak of coronavirus, the researcher wanted to study those effects based on what was going on in the current market conditions.

Data

The data that was used was pulled from Bloomberg LLC. This allowed the researcher to get a plethora of data points that were accurate and adjusted for the market changes after close. These data points were reflected by taking the difference of both the indices and the companies and then taking an average change of both of them. The data points La-Z-Boy (LZB), Sabre Corporation (SABR), Marriot International (MAR), and Macy’s (M) were used because of their similar financial situations and clear news that was reported. These points made it simple to weed out what the major shift in data was. The data was pulled from Bloomberg by using different functions on the terminal. The data points came from going to the company’s profile on the terminal and then going to the price graph function. After this the graph timeline was decreased to March 27th to April 3rd. The other data source that was used was Yahoo Finance. This made it easier to find the end price for each date accurately.

The news points were released after market close on March 31st, so the reflection in the market was accurately portrayed at April 1st. These data points were taken at the end of each trading day to find the differences of how they were trading before and after the news was released. The four companies that were chosen were because of their recent news. The main data points that were needed were the share prices to find the differences.

Results

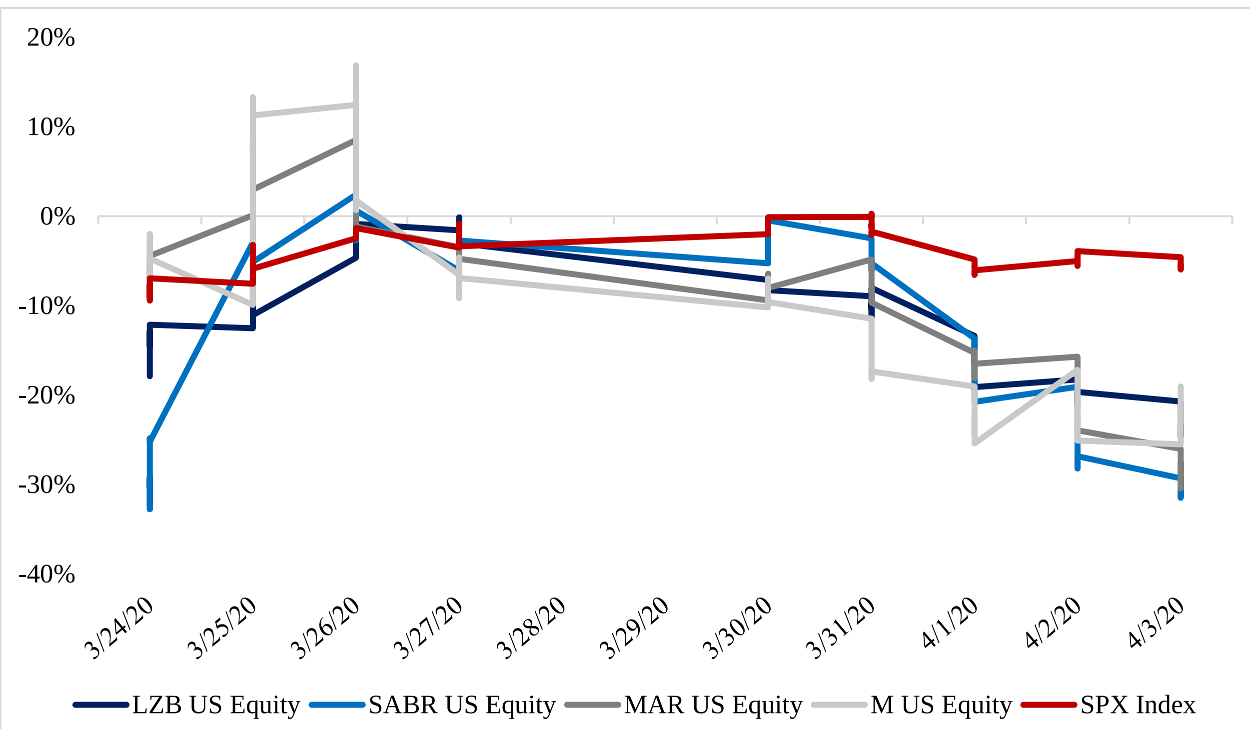
Individuals tend to trade their shares on the stock market based on news, although it is not a great stock-picking strategy for investors, beginners tend to follow those. Professional traders usually attempt to anticipate the news or event instead of reacting after the news is posted. Negative news normally leads to individuals selling their shares. The news may vary from a bad earnings report to a change in corporate governance or span to economic trends or shifts. No matter what the base of the negative news, usually it causes investors to flee the stock and find companies that allow their capital to grow over time. Positive news will in turn usually cause individuals to buy a share and the news may also span a variety of things like a good earnings report, an acquisition or positive economic indicators.

The results that the researcher found was a significant change in the share price after the announcement of a pension plan change. In order to verify that there was no other negative news or economic data report which was dragging the company’s share price down, the news for each of the four companies was explored and found that there was no significant news was announced in addition in any of those data points, which is why they were used. The Wilshire 5000 and the

Standard and Poor's 500 did not shift significantly or react to any economic data releases either proving the price changes were noticeably solely due to the news reporting's that were found.

After conducting the study and following through with the methodology and data, the research showed that the negative pension news did negatively affect the share price of each company after they had announced their changes. The study showed that on average the company performed approximately twelve percent worse performance in the days following an announcement compare to trading in line, if not better than the indices prior to that announcement. As you can see on the Figure 1 below, the SPX index was trading at a relatively stable projection throughout the days that were selected as data points.

Figure 1: Line Chart Representing Changes after Pension News Compared to SPX



The results are shown effectively in Figure 1 above and 2 below. These finding show that the Standard and Poor's index is able to perform steadily while the four companies had struggles immensely after the news had been published. This does make logical sense when conducting these experiments. Pensions are a major part of a company's benefit plans for employees and the funds end up reaching very large sums of money. By adjusting their pension plans, the companies are essentially admitting that they are unable to match or give back the money that was promised in the first place. These signs may show that a company is short on cash and has to prioritize their finances elsewhere to debt and stakeholders. These news reporting's prove that a company is either shifting their focuses or preparing themselves for difficult times.

Figure 2: Results of Stock Price Change Compared to Wilshire 5000 Index

	-3	-2	-1	0	1	2	3
LZB	21.67	20.49	20.55	18.07	17.95	17.2	19.8
Return		-5.45%	0.29%	-12.07%	-0.66%	-4.18%	15.12%
SABR	6.09	6.23	5.93	4.96	4.58	4.29	5.53
Return		2.30%	-4.82%	-16.36%	-7.66%	-6.33%	28.90%
MAR	82.81	76.61	74.81	69.15	63.00	59.08	70.59
Return		-7.49%	-2.35%	-7.57%	-8.89%	-6.22%	19.48%
M	6.61	5.94	5.53	4.91	4.43	4.45	4.81
Return		-10.14%	-6.90%	-11.21%	-9.78%	0.45%	8.09%
W5000	25,500.57	26,275.34	25,899.93	24,711.15	25,199.64	24,736.26	26,532.08
Return		3.04%	-1.43%	-4.59%	1.98%	-1.84%	7.26%

There are several issues that may come with the results of these findings. Although a company did not report any other news in the period surrounding the pension alterations, there is no way to guarantee that the shares were sold because of the negative news tied to the pensions. It is nearly impossible to find each individual that held the company's stock and then ask what their thought process and reasonings are behind selling their position in the company. In today's world of finance and trading, there are also a number of new trading methods including high frequency traders and financial algorithms to trade based off predetermined metrics that are set. These algorithms are able to trade without taking into consideration human impulses or decision making in a high stress situation. These algorithms also fail to take into consideration news or external sources which may off put the share price. There are also challenges in finding the most accurate point of when the market had shifted. The news was released after hours of the stock exchange, so the share price moved after the market closed and had to take into account the changes right as market opens and traders shift. The market is a complex and ever-changing entity that continues to boggle the mind of economists, finance experts and accountants across the globe. There are points in time when the market shifts in the opposite way that economists expect and continue to move. This has created more research opportunities for individuals interested in how the market moves and why it changes the way that it does. Although the researcher would love to accredit the changes in share price due solely to the changes in the negative pension news, there is no way to be completely sure that it is the reason for the shifts.

Conclusion

The major take-away for the study is centered around the major changes that both news and pensions do have on the stock market and companies. Throughout the researcher's experience of taking a variety of economics, finance and accounting classes; most finance and economics professors fail to prove the importance of accounting in the way the stock market and economy moves. It is a major point and the language of business. Accountants are able to verify and stabilize industries that change constantly and quickly. For example, scandals like Enron are much less common because of the Sarbanes-Oxley Act established in 2002. The accountants are able to accurately show how a company is doing and it is directly shown in the stock market. Professional traders try to anticipate different news, but they are largely driven through earnings reports and how much the company has continued to grow.

The researcher began this study to attempt to see how important accounting was in the integration of three different disciplines. The results proved that the backbone of a lot of major entities that are prominent in our day to day lives are stabilized because of accountants. They also prove to hold significant weight in the chase to increase share prices. Negative pension news was enough to decrease a share price by over 20% by the end of the third day after the news. This change is extremely significant in light of the news and changes that occurred in the market on those days.

The coronavirus has had negative effects on each and every entity and individual throughout these trying times. Family members were taken away too soon, families lost significant income streams and corporations began to fall. These events show how much society and these large organizations depend on their employees and on the consumer. It was an honor to be able to dive into the current events as they were occurring and allowed to get more accurate data based on pension news.

Pensions do cause major changes in a company's share prices and their performance. The research process has proved to be very rewarding in several ways and proving that accounting concepts are prevalent in major company's stock price performance. It was incredible combining a passion for finance with accounting and economics concepts that are learned in the classroom.

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