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What Impact did the TCJA Tax Cuts Have on the Manufacturing Sector?

by

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An Honors Thesis in partial fulfillment of the requirements for the degree Bachelor of Science in Business Administration in Finance and Accounting.

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May 11, 2024

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Abstract

Throughout this paper I will examine positive effects the Tax Cuts and Jobs Act of 2017 had on the manufacturing sector. To do this I begin by outlining the key provisions in the TCJA that directly benefit the manufacturing sector. This includes the corporate tax rate reduction from 35 percent to 21 percent, the changes to the repatriation tax for foreign funds, and the treatment for capital assets. I then analyze key metrics including pre-tax income, income tax provision, dividends, changes in retained earnings, and spending on property plant and equipment. I will show the interactions between the increase in these key metrics after the passing of TCJA. I will then analyze the industrial sector of the S&P 500 and show the positive effect the TCJA act had on index returns. Finally, I will discuss the critiques of the TCJA before concluding my paper.

Introduction

The Tax Cuts and Jobs Act of 2017 was the largest tax overhaul in over three decades. The TCJA's premise was simple, to lower taxes for both individuals and corporations to help stimulate the economy. One of President Trump's many campaign promises one was that he would bring manufacturing jobs back to America. Throughout this paper I will outline the effects this act had on the manufacturing sector of the economy, to hopefully answer the question of whether he was successful in this promise. To accomplish this, I will start by outlining the key provisions of the law that most impacted the manufacturing sector. Then I will provide an analysis over various items on publicly released financial statements, as well as other sources to illustrate the effectiveness. Finally, I will finish the paper by discussing the various critiques from opponents of the law.

Key Provisions in the Tax Cuts and Jobs Act

First it is imperative to outline the key provisions in the TCJA that would directly impact the manufacturing sector of the U.S. economy. For example, one of the provisions in the act was to raise the standard deduction as well as lower the income tax percentages (3). It could be reasoned that these provisions would increase the disposable income for households which would indirectly affect the manufacturing sector. It could also be reasoned that lowered tax rates would make it more attractive for foreign workers to move and work in the U.S. It is difficult to attribute the success of these provisions directly to the manufacturing sector. In contrast, provisions such as the lowering of the corporate tax rate in the US can more directly be related to the manufacturing sector. The three key provisions that seem to have the most correlation with the success of the manufacturing sector are the reduction in corporate tax rate, the repatriation of foreign funds, and the changes of tax treatment to various capital investments.

I. Corporate Tax Rate Reduction

The provision most important to the manufacturing industry was the reduction of the corporate income tax rate from 35 percent to 21 percent. The premise behind this provision was simple, as many corporations viewed manufacturing in the US as less profitable than foreign counterparts. This was because in overseas companies not only is labor substantially less expensive, but taxes are also substantially lower. This made it more cost efficient for companies to produce overseas and then ship the products to the US. The tax provision was created to help bridge the gap and make the U.S. more competitive in the global market.

The TCJA sought to do this by lowering the income tax rate for U.S. companies, and thus increasing their after-tax income. This was done to hopefully either increase benefits to shareholders, through dividends or share buy backs, or to encourage the companies to reinvest profits in their firms to further stimulate the US economy. Studies have since shown that the law had a tremendous impact on the U.S. economy. A study conducted by the National Bureau of Economic Research (1) was conducted based on a large sample of 12,000 corporate tax returns covering several years before the TCJA was enacted as well as 2 years after the law was put in place. The principal finding of the study was that firms increased domestic investment by around 20 percent in the subsequent two years after the TCJA as compared to the firms with no tax changes from the law. The study also indicated "About half of the boost in investment and the capital stock is from a reduction in marginal effective tax rates, mainly due to lowering the statutory corporate tax rate." This study shows that the provision for lowering the corporate income tax rate performed as intended to in making the U.S. more attractive for manufacturing investment, as well as substantially increasing the health of the U.S. manufacturing sector.

II. Provisions for Capital Investments

Working in tandem with the lowering of the corporate income tax rate for U.S. companies, the TCJA also had provisions for making capital investments more rewarding in the U.S. While these laws were mainly targeted towards smaller to mid-size manufacturing firms and didn't have much impact on the larger firms being analyzed it is still important to mention. Among these provisions were the changes to Section 179 depreciation, and bonus depreciation. This change increased the limit from $500,000 to $1 million and increased the phaseout threshold to $2.5 million. Section 179 allows business owners to immediately expense 100 percent of certain qualified assets to offset their taxable income in the current year, provided they meet a certain set of requirements (6). Bonus depreciation is an addition first-year depreciation allowance, which allows business owners to deduct additional depreciation beyond normal depreciation allowances.

This provision helps to encourage investment in the company because under normal circumstances it would take the firm anywhere from 5-39 years to recapture the full cost of the assets on the company's income tax returns. Bonus depreciation and Section 179 allow the company to claim the full amount in their current year income tax returns, which would lower their taxable income substantially and thus increase their after-tax net income in the current year. This provision of the TCJA was one of the key policy points for the TCJA as it made the tax treatment for capital investments substantially more favorable. This in tandem with the lowering of the corporate income tax rates made investment in U.S. companies more attractive.

III. Repatriation of Foreign Funds

Another provision of the TCJA was the provision for the repatriation of foreign funds. A repatriation tax is a tax on foreign earnings that is paid when the earnings are moved to the U.S. Prior to the TCJA the tax on repatriation was high as companies would have to pay the difference between the 35 percent statutory rate in the U.S. and the tax rate in the country in which the profits were earned in as a repatriation tax. This made it unfavorable for companies engaged in global business to transfer their earnings from foreign subsidiaries to their parent companies in the U.S. This led to the accumulation of large amounts of wealth in foreign subsidiaries, estimated to be $2.5 trillion in total (2), the U.S. sought to bring back to further stimulate the economy.

TABLE 1

Comparison of Pre-TCJA and TCJA Taxes on Active Foreign Source Income of US Multinational Corporations

Provision	Prior Law	TCJA, 2018-2025	TCJA, 2026 and Later
Tax on repatriated dividends from foreign affiliates.	35% tax with credit for foreign income taxes, up to U.S. tax rate.	No tax (100 percent dividend deduction); no foreign tax credit.	No tax (100 percent dividend deduction); no foreign tax credit.
Current tax on income in controlled foreign subsidiaries.	No tax until repatriated.	10.5% tax on intangible profits (GILTI); credit for 80 percent of foreign income taxes, up to U.S. tax rate.	13.125% tax on GILTI; credit for 80 percent of foreign income taxes up to U.S. tax rate.
Tax on past accrued profits in foreign affiliates.	No tax until repatriated; then taxable at 35% with credit for foreign income taxes.	Tax imposed at rates of 15.5% on cash assets and 8% on non-cash assets payable over 8 years; credit for foreign income taxes reduced in proportion to reduction from 35% corporate tax rate.	No tax.

The changes to the repatriation tax can be seen in the chart above (2). Notably the changes made it more cost efficient for U.S. based companies to repatriate their funds back to the U.S. where hopefully the money could be used to stimulate the U.S. economy. These changes especially affected the manufacturing industry where large portions of their operations take place overseas where labor prices are more favorable to businesses. While it is impossible to know how much the manufacturing industry was truly affected by the repatriation tax changes, as corporations do not publicly disclose this in their tax returns, it is fair to assume that they benefitted substantially from being able to transfer their money domestically at more favorable rates.

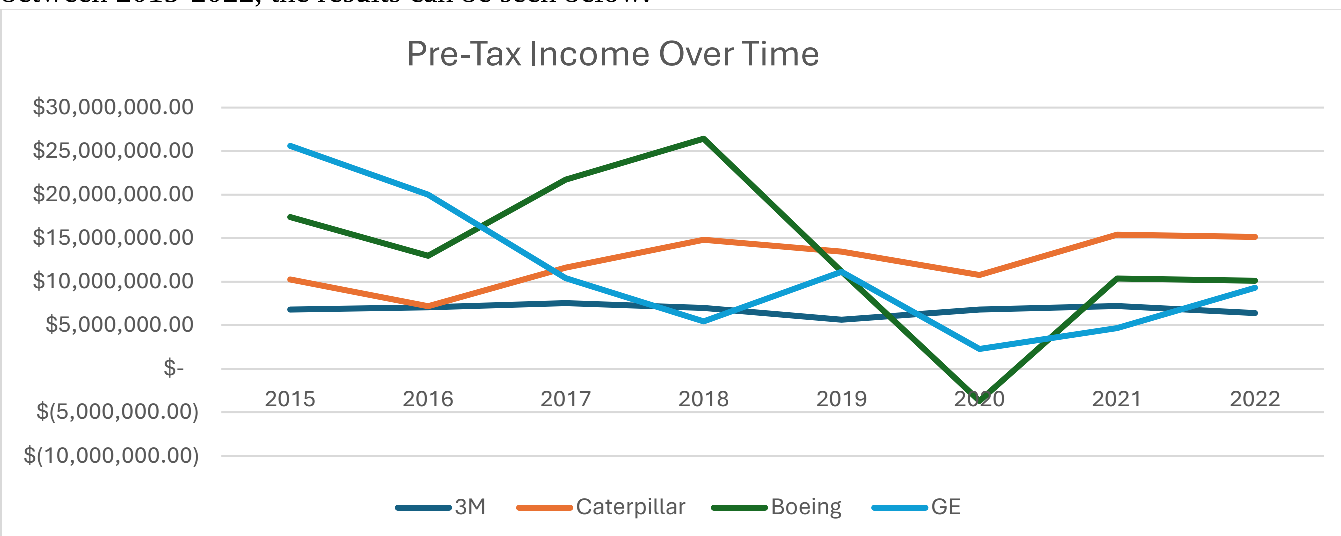
Key Metric Analysis

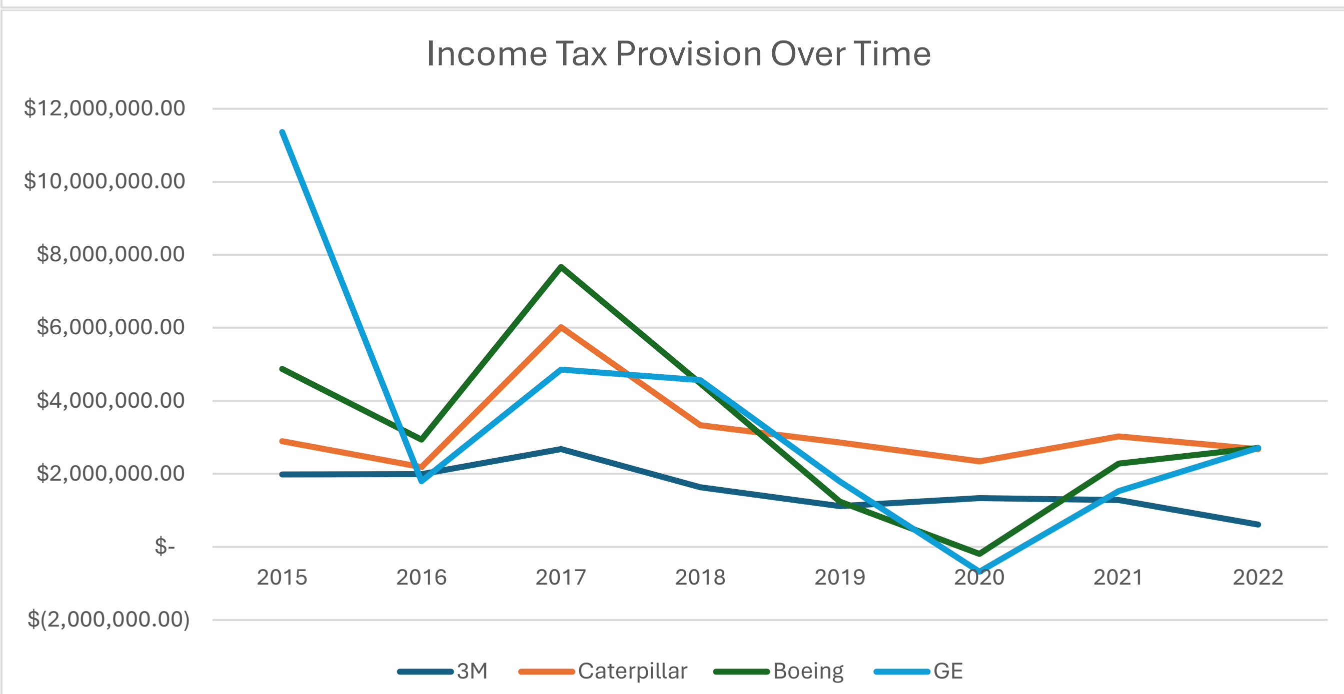
For my metric analysis I have identified four companies throughout the industrial segment of the S&P 500 as well as the industrial segment as a whole. The four companies I have chosen are General Electric ($GE), Caterpillar ($CAT), Boeing ($BA), and 3M ($MMM). For this analysis I limited the scope to the years 2015-2022

To determine the effects of the tax cuts on these select companies I have chosen a couple of key metrics that I believe are indicative of the success of these tax cuts on these companies. For the first analysis I looked at their income tax provision and after-tax net income. I choose this as it is a good indicator of the company’s general profitability, and a substantial increase will show that the tax cuts had a prominent effect. The only limitation, however, is that these numbers are not a true indicator of actual after-tax net income as companies only estimate their income tax provision on their financial statements but do not disclose their actual tax returns. For my next analysis I looked at the dividends and changes in retained earnings for each company. This is a great indicator of the effectiveness of the TCJA act. If the tax cuts worked as intended, we would expect the shareholders of the corporation to experience increased profitability. Then, I examined the changes in property plant and equipment. This would be another large indicator as the plan for the tax cuts was to increase investment activities from these U.S. based companies. Finally, I analyzed the index returns by dollar value of the industrial sector of the S&P 500. This would likely be the largest indicator of the success of the tax cuts. This is due to the theory of the efficient markets hypothesis which states that the markets are efficiently priced, and therefore will effectively price the stocks based off their future profitability.

I. Net Income and Income Tax Provision

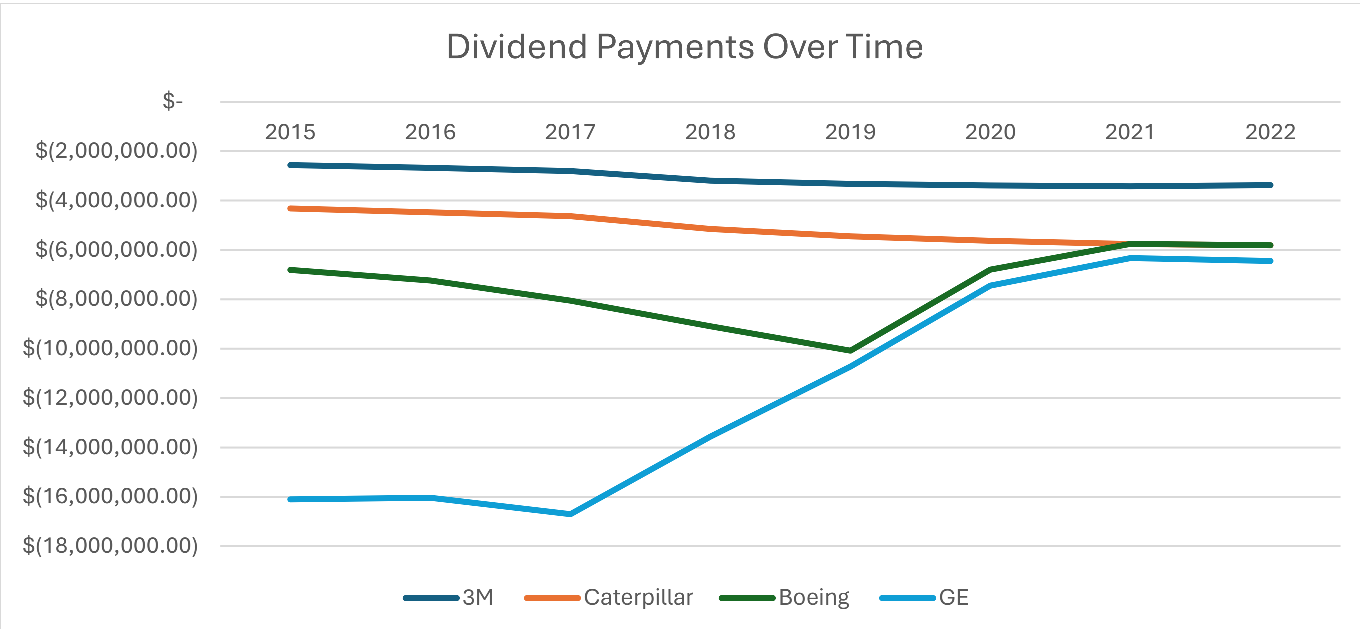
For my first analysis I started by comparing the changes in the Pre-Tax income over time as well as the changes in the Income Tax provision over time. This analysis was done to see if profitability among these firms increased due to the tax cuts. The nature of this analysis, however, is inherently flawed as the income tax provision number is often considered just a placeholder estimate of what the company will pay in income taxes. The actual number is not publicly available; however, the provision should serve as a good estimate of what these companies paid. The corresponding numbers were pulled from Yahoo finance for the periods between 2015-2022, the results can be seen below.



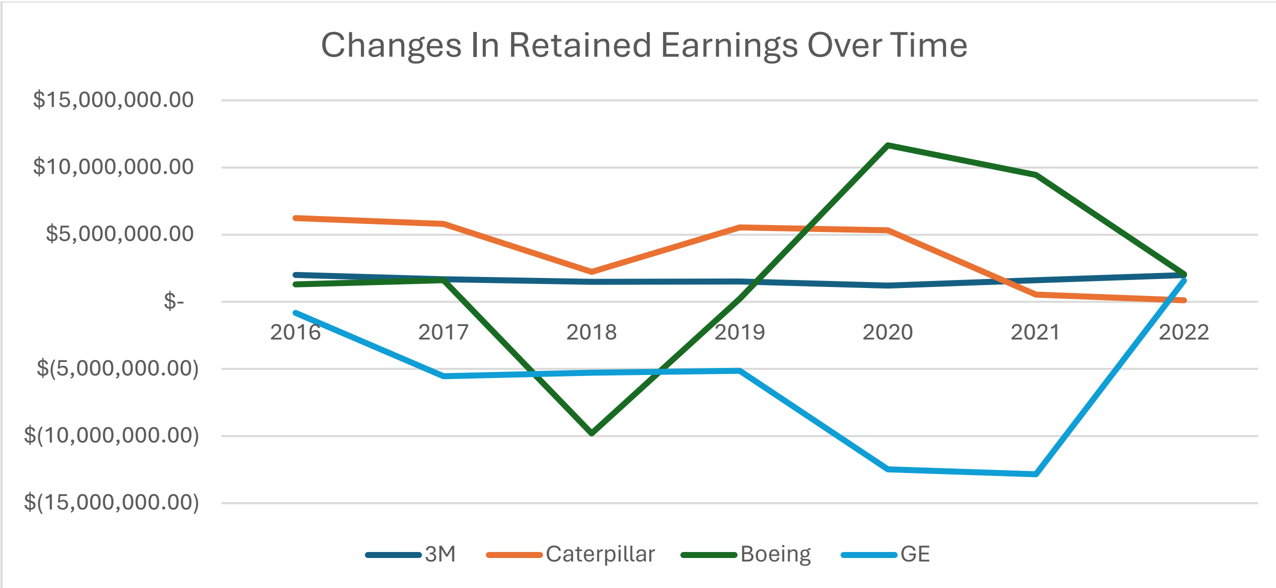


The results from the analysis above indicate that the TCJA was successful in helping to lower the income tax provision for the companies listed above. This can be seen in the drop in the income tax provision after 2017 when the law was signed into place. This would indicate the success of the program in helping to lower the manufacturing sectors tax provision. However, the results are a little less clear when looking at the pre-tax income for the manufacturing sector companies. This can likely be attributed partly to the onset of the COVID-19 pandemic which disproportionately impacted many manufacturing firms such as Boeing due to supply chain issues as well as increased travel regulations. However, directly after the TCJA in the very small period of the year 2018-2019 many of the companies either reported substantial increases in profits or remained relatively stagnant except for Boeing, which is traditionally a more volatile company then the others.

II. Dividend Payment and Changes in Ownership Interest



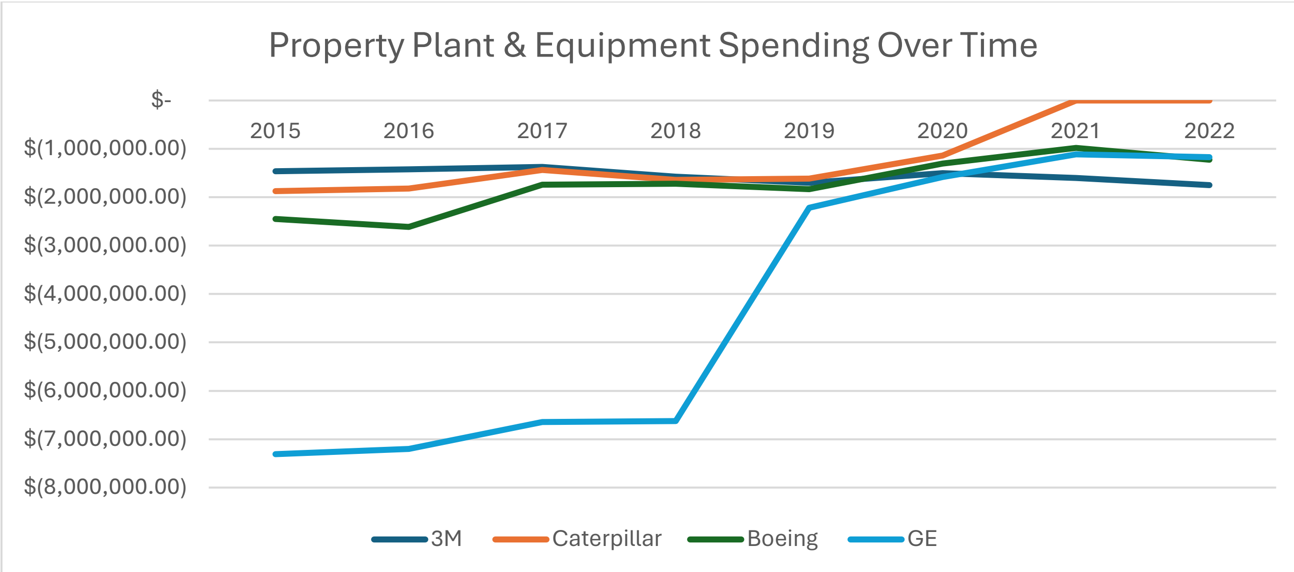
Dividend payments can be seen as a key indicator of the financial success of a company. This is because they represent cash distributions to the investors of a firm. This metric, however, is also flawed since companies rarely change their dividend payout ratio. This is because when they declare dividends going into the future, they are very reluctant to rescind these payments as it will negatively impact the share price. This can be seen in the relatively constant and steady increase in dividend payments in companies like 3M and Caterpillar. However, this logic breaks down when looking at Boeing and GE. Notably with GE reporting a substantial decrease in dividend payouts which has only since rebounded. Boeing, who initially increased Dividend payouts in the period following the tax cuts has since lowered such payouts likely due to the onset of the COVID-19 pandemic and the effects it had on the profitability of the company. Overall, I think this graph indicates that the TCJA act helped increase the dividend payouts of the manufacturing sector.



Another key indicator of the success of the TCJA tax cuts is the changes in the ownership interests in the companies (Retained Earnings). Retained earnings are a great measure for the overall profitability of the company in tandem with dividends. This is because it represents the ownership interest (assets minus liabilities) for the shareholders of the organization yet to be distributed. As seen in the graph above post 2017 when the TCJA went into effect the companies immediately realized the benefits allowing each of them to increase their retained earnings position. This trend continued up until the onset of the COVID-19 pandemic which altered these companies plans due to the irregular nature of the pandemic. While many have struggled to return to the pre pandemic baseline such as Caterpillar and Boeing, it is important to note that the general trend excluding 2020 is upwards indicating the success of the tax cuts.

III. Purchase of Property Plant and Equipment

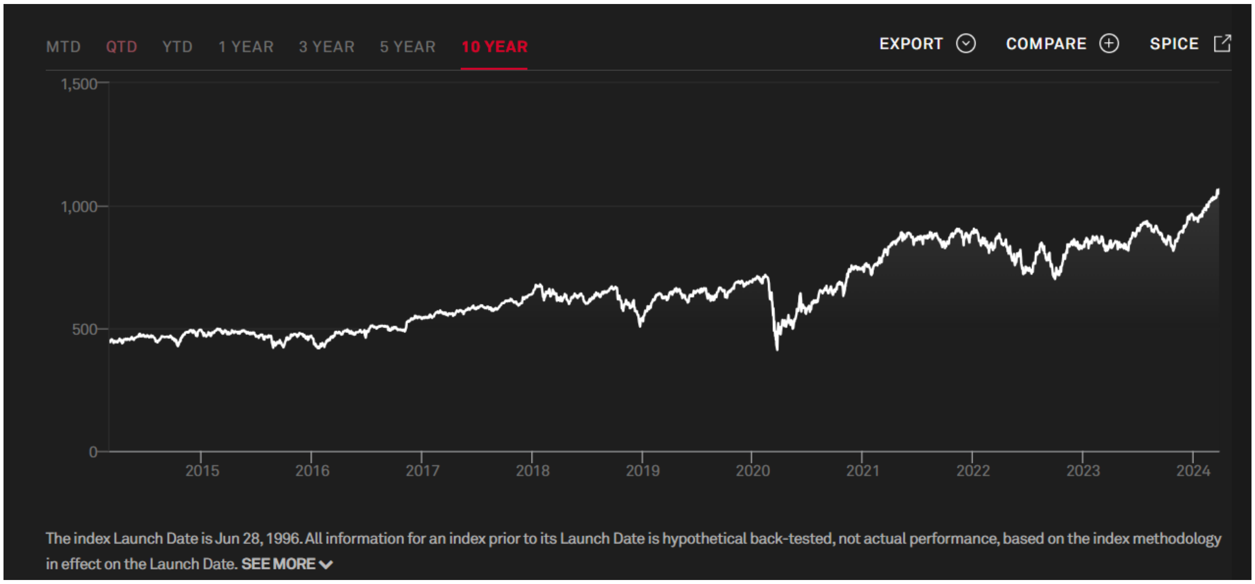
One of the key provisions of the TCJA tax cuts was the provision that encourages capital spending. To see if the tax cuts had any actual effect on manufacturing corporations, I analyzed the purchase of Property Plant and Equipment (PP&E) over time to see if companies were taking advantage of the favorable tax treatment. The results for capital spending of the four firms can be seen below.



As seen above, immediately following the two years after the TCJA was enacted all three firms apart from GE increased their investment in Property Plant and Equipment. This progress was halted with the onset of COVID-19. While unforeseen circumstances emerged, we can see the immediate impact that the tax cuts had on increasing the investing in property plant and equipment for manufacturing firms. This increase in PP&E spending illustrates the success that the favorable tax treatment has had on these firms, with investing activities. Furthermore, many of the firms are beginning to rebound from the pandemic and resume engaging in investing in PP&E.

IV. Industry Return Analysis

When analyzing the stock prices for the manufacturing sector I found that it was most helpful to look at an index to analyze the success of the sector. For this I selected the S&P 500's industrial sector as I felt it was the best indicator of the overall health of the manufacturing sector in the U.S. The industrial sector is composed of 78 U.S. based companies on the S&P that are categorized in the industrial sector, with an average market capitalization of $51,610.89 (14). Some of the top 10 weighted stocks in this average were analyzed above while also providing insight into others that were not included in the small sample. To analyze I looked at a graph of the price return, which only takes into account the appreciation of the price of the index, for 10 years from the current date, the results are posted below.



Notably the index began a steady increase in price return after 2017 when the TCJA tax cuts were signed into place. With a notable jump of around 40 basis points at the announcement of the tax cuts. Furthermore, this steady trend of increasing in value, as seen with the analyses above, continues until 2020 when the sector experienced a sharp drop off due to the pandemic. The sector however has continued to steadily increase even reaching an all time high currently. This shows the effectiveness of the tax cuts. Since the bill was enacted into law the sector has begun to slowly increase in value reflecting the favorable tax treatment.

Conclusion and Critiques

Throughout this paper I have highlighted the benefits that the TCJA had on the manufacturing sector. However, it is important to note the critiques brought against the act. One such critique is that it substantially increased the U.S.'s deficit for debt which in the long run will offset any increases in gross domestic product made by the tax cuts. Furthermore, many opponents of the repatriation provision cite that the repatriation of funds to the U.S. does not actually benefit the economy for most average Americans. Citing that in 2004 when a repatriation holiday was introduced by President Bush it led to increased share buybacks and not reinvestment into the U.S. While there are many criticisms of the act, I think the contents of this paper outline the positive impact it had on the manufacturing sector. This can be seen throughout the various provisions that not only helped the after-tax profitability of the U.S. manufacturing sector. Such as the corporate tax rate reduction, the changes to repatriation, and the changes to the tax treatment of certain assets, but also indirectly, in the growth of key metrics that the act sought to improve such as investment in PP&E, income tax provision. Finally, the TCJA was also positively reflected in the index pricing of the S&P 500 manufacturing sector, which has only grown since the enactment of this law. In conclusion, I believe the TCJA improved the profitability of the manufacturing sector, making it increasingly more competitive in a growing global economy.

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