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2017 TAX CUTS AND JOBS ACT: EFFECTS ON CORPORATE SHARE REPURCHASES AND SHARE VALUE

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ABSTRACT

The Tax Cuts and Jobs Act of 2017 was designed to provide a fiscal stimulus to United States' citizens, corporations, and the economy at large. A notable aspect of this Act was its permanent elimination of the repatriation tax on multinational corporation's foreign earnings. Using a standard event study methodology, we find that there were negative but statistically insignificant abnormal returns for companies that announced share repurchases and planned to or actually repatriated funds. However, we do find statistically significant positive abnormal returns surrounding share repurchase announcements for our control groups. These findings suggest that the market may not view share repurchase announcements of companies repatriating funds under the Act as positive signals of the companies' competitive positions.

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Chapter 1

Introduction

The American Jobs Creation Act (AJCA) of 2004 was a tax act designed to annul an export tax incentive that had been deemed to be illegal by the World Trade Organization. While repealing the tax incentive was a significant component, the AJCA included other tax provisions that could benefit corporations. Specifically, the Act provided for an income tax deduction for domestic production endeavors and a tax holiday for repatriated dividends (Clausing, 2004). However, corporations had a one-time status to use the repatriation tax holiday.

On November 2, 2017, Kevin Brady, a representative from Texas, introduced a bill, later known as the Tax Cuts and Jobs Act (TCJA), to the House of Representatives. This bill was eventually signed into law by U.S. President Donald Trump on December 22, 2017. Some of the provisions designed to support corporations include reducing the top corporate income tax rate from 35% to 21% and ending the graduated corporate rate schedule (Tax Policy Center, n.d.).

The 2017 TCJA amplified the tax holiday granted by the AJCA through permanently eliminating the corporate repatriation tax. Consequently, this evolution in tax regulation has afforded researchers the ability to reexamine previously held beliefs on this topic as well as spawn new inquiries (e.g., Dong, Cao, Zhao, & Deshmukh, 2019). While there has been extensive research on the fiscal effects of the AJCA, this research may not be readily applied to that of the TCJA. Therefore, previous studies have focused on differences in repatriation behavior between the TCJA and AJCA (Dong, Cao, Zhao, & Deshmukh, 2019), how such behavior is affected by a corporation's preference for a steady flow of or early accessibility of repatriated funds (Dong, Cao, Zhao, & Deshmukh, 2019), and whether non-tax considerations have become more prominent for

repatriation decisions now that repatriation taxes are not a limitation (Dong, Cao, Zhao, & Deshmukh, 2019). This occurrence will now enable researchers to better discern the influence of non-tax considerations on corporate repatriation.

Aside from reexamining previous findings on the fiscal impact of tax legislation, the TCJA has also induced new avenues of inquiry. Specifically, there has been interest in whether the change in repatriation taxes has impacted the financing decisions of corporations (Dong, Cao, Zhao, & Deshmukh, 2019). This question stems from the belief that the elimination of the repatriation tax has the potential to stabilize cash inflows to these corporations and ultimately impact the dynamic of their capital structures. Further, there is also consideration placed on whether the decision to repatriate funds will affect firm valuation. This potential phenomenon can be viewed through the market's reaction to the repatriation tax modifications.

This research explores whether there is a positive market reaction for an event sample of companies that announced share repurchases and planned to or actually repatriated funds. We compare this event sample with two groups of control samples for announcement effects of share repurchases using a standard event study methodology. Overall, for the event sample, we do not find a positive statistically significant market reaction to share repurchase announcements, while our two control samples show statistically significant positive returns. These results indicate that the market may react differently to share repurchases for the event group. Specifically, if the corporations in the event sample were holding cash overseas primarily for tax purposes and engaged in share repurchases to reduce an overinvestment problem, because of the elimination of the repatriation tax, the market may not see the repurchase announcements as positive signals.

The organization of the rest of the paper is as follows: Chapter 2 reviews the literature and institutional background of the AJCA and the TCJA, and literature on event study methodology.

Chapter 3 presents our hypothesis, methodology, and data sample. Chapter 4 details our empirical results and Chapter 5 discusses our conclusions.

Chapter 2

Literature Review

Chapter 2.1 American Jobs Creation Act of 2004

The American Jobs Creation Act (AJCA) of 2004 is arguably a predecessor of the 2017 Tax Cuts and Jobs Act (TCJA). While elements of the AJCA were temporary, it espoused similar stipulations pertaining to repatriation taxes as those listed within the TCJA. Therefore, to gain a historical perspective of United States' tax reform in 2017 it is critical to analyze the AJCA.

Introduced to the House of Representatives on June 4, 2004 by Representative Bill Thomas, the foundation for the AJCA stemmed from an amendment to the Internal Revenue Code of 1986. This amendment, now known as the American Jobs Creation Act of 2004, was eventually passed through Congress and signed into law by President George W. Bush on October 22, 2004.

An underlying reason for this tax act was to entice United States' multinational corporations to repatriate foreign earnings held overseas (Dong, Cao, Zhao, & Deshmukh, 2019). Further, a cornerstone of the act was to permit a temporary 85% deduction on repatriated dividends from foreign subsidiaries owned by multinational corporations in the United States throughout one of the applicable years of 2004, 2005, or 2006. From a financial perspective, a lower repatriation tax increases the likelihood that the multinational corporations will bring their foreign based earnings to the United States. Thus, these firms will have greater capital wherewithal to invest in the domestic market.

Prior to the implementation of the AJCA, United States' based multinational corporations would be subject to a repatriation tax of up to 35% if they repatriate foreign earnings from locations

with lower income tax rates. However, the AJCA modified this rule by decreasing the top repatriation tax rate to 5.25% after the dividends received deduction.

Furthermore, the AJCA included several necessary provisions that had to be met in order to qualify for the tax break. These provisions include that the repatriated dividends be considered "extraordinary" (only the surplus over the average dividend in the preceding period), repatriated dividends be obtained in cash, and the repatriated funds be invested in the United States as part of an established domestic investment strategy approved by the firm's board of directors and senior management.

Specifically, some of the approved uses for the repatriated funds include research and development, hiring and training workers, infrastructure, and capital investments (Dyreng & Hills, 2018) . Conversely, the funds could not be used for share repurchases, dividend payments, and executive compensation (Dong, Cao, Zhao, & Deshmukh, 2019).

While the AJCA was designed to provide a tax holiday for multinational corporations and spur domestic investment, the question remains on whether it lived up to these standards. In a report from the Internal Revenue Service, 843 of the 9,700 firms that possessed controlled foreign corporations (CFCs) in 2004 used the dividend deduction and repatriated about $362 billion (Redmiles, 2008). This study also indicates that most of the companies analyzed planned to finish their domestic reinvestments within the tax year they claimed the dividend deduction or by the completion of 2007 (Redmiles). However, other studies indicate that the Act spurred corporate share repurchases rather than domestic investment. Clemons and Kinney (2008) analyze 364 companies that had repatriated about $283 billion and find that only the share repurchases of their expenditures significantly increased. The findings that companies took advantage of the tax savings but participated in share repurchases, which was prohibited by the AJCA, rather than

domestic investment, indicates that perhaps the Act was not necessarily successful in fulfilling its intended goals. Blouin and Krull (2009) find that companies that repatriated earnings enhanced share repurchase activity throughout 2005 by about $60 billion more than non-repatriating companies. Additionally, Dharmapala, Foley, and Forbes (2011) find that a $1 increase in repatriation was linked to a $0.60-$0.92 increase in payments to shareholders rather than an increase in domestic investments.

These studies indicate a strong preference of repatriated funds on corporate expenditures such as share repurchases rather than domestic investment. However, this proclivity does not entirely negate the AJCA from at least improving the United States' economy. According to Wilford (2018), share repurchases enhance the value of corporate stock and thus can improve personal retirement account values. Also, earnings derived from share repurchases can be used by investors to provide funding for other growing businesses.

The free cash flow hypothesis is one possible explanation for the actions of firms under the AJCA. This theory suggests that firms with free cash flow will allocate the funds to endeavors with negative net present values instead of distributing them to shareholders (Lang, Walkling, & Stulz, 1991).

However, studies have provided compelling evidence that corporate investment activity succeeding the implementation of the AJCA may not entirely support the free cash flow hypothesis. As mentioned previously, Clemons and Kinney (2008) find that share repurchases are the only substantial increase in expenditures for the 364 repatriating firms included in the study. This finding buttresses the sentiment that repatriating firms increased their share repurchase activity during this time period (Blouin & Krull, 2009).

While the AJCA was designed to spur domestic investment, many instances exist in which this wasn't entirely the case. Studies show that firms engaged in share repurchases subsequent to the tax holiday, which were disallowed by the AJCA (e.g., Clemons & Kinney, 2008, and (Dyreng & Hills, 2018). Therefore, this occurrence warrants the question of why these firms pursued these actions.

Clemons & Kinney (2008) argue that multinational corporations with limited domestic growth opportunities could comply with the domestic investment stipulations of the AJCA while not actually enhancing domestic investment. These predictions are supported by Marr & Highsmith (2011) who mention a study from the Urban Institute-Brookings Institution Tax Policy Center brief, which suggests that adjustments to the financing of new endeavors can allow firms to fulfill requirements of the Act without modification to underlying investment decisions.

Chapter 2.2 2017 Tax Cuts and Jobs Act

The Tax Cuts and Jobs Act (TCJA) is arguably the most expansive modification to the United States tax apparatus in over thirty years. Signed into law on December 22, 2017, this tax reform was spawned from the Trump administration and Republican legislative members. Its overarching objectives were to lower taxes for middle-income taxpayers, spur economic growth, simplify taxes, and encourage repatriation of income held overseas (White House, 2018). Two of the primary goals, enhancing economic growth and encouraging repatriation, apply particularly well to corporate entities. Within the context of corporate taxes, some of the more significant changes in the TCJA include decreasing the top tax rate on corporate income from 35% to 21% (Tax Policy Center, n.d.) and taxing previously untaxed income from foreign holdings (Tax Policy

Center, n.d.). Since its passage into law, there have been numerous studies on its actual effects on corporate capital expenditures. These studies include analyses on its effects on corporate repatriation endeavors, share repurchases, dividend payouts, and merger and acquisition activity.

The stipulations within new tax legislation can have a significant impact on corporate expenditures. Notably, taxes on repatriation, a crucial element of the TCJA, have been shown to have implications on corporate finance beyond that of the taxation on income earned internationally.

Nessa (2017) suggests that a decrease in dividend payments by United States' multinational corporations exists when taking into account repatriation tax expenses. Further, no evidence was discovered that U.S. multinational corporations' share repurchase activity decreases, on average, due to repatriation taxes. These conclusions are derived from behavior exhibited by a data sample of U.S. multinational firms from 1987-2004. However, there appears to be evidence that qualifies these overarching conclusions. The study shows that the extent of the relation between repatriation taxes and share repurchases can be affected by factors such as access to external borrowing. Further, between 2009 and 2014, no discernible effect exists on dividend payments and share repurchases due to repatriation tax expenses.

Boschert, Harper, and Richardson (2019) analyze the effects on dividend taxes under the 2017 Act. The study finds that dividends originating from foreign-sourced income yield a lower tax liability for shareholders. Conversely, the study qualifies the conclusiveness of its evidence pertaining to dividend payments originating from United States-sourced income. This assessment stems from the fact that shareholders now have to pay a 21% flat tax, which increases the liability for those previously in lower tax brackets, and the decrease in the dividends-received deduction percentage. It was surmised; however, that based on the stipulations in the Act, the category of

stockholders that wouldn't have an increased tax liability are those in the top tax bracket that possessed less than 20% of the company and companies that have exclusive ownership of their United States holdings.

While tax implications for dividend payouts and repatriation are focal points for the debate on the TCJA, it is also critical to examine other forms of corporate fiscal activity. Crabb (2018) meditates on a possible increase of corporate merger and acquisition (M&A) activities. Some believe that the diminution of the corporate tax rate and the implementation of taxes on the repatriation of funds held overseas will propagate enhanced liquidity and ripen the opportunity for acquisitions.

Aside from share repurchases and dividends, many companies chose to reinvest in their workers and new business ventures. Hanlon, Hoopes, & Slemrod (2019) analyze the effects of the TCJA on four separate areas: the announcement of dividends, employee benefits (bonuses and other endeavors), share repurchases, and announcement of new investments. Based on these parameters, approximately 4% of public firms studied announced in the first quarter of 2018 that they would give back some of their tax savings to employees. Also, the study discovers that 22% of the S&P 500 index sample firms mentioned they would enhance investment due to the TCJA. Further, an overall increase in share repurchase activity exists after the implementation of the TCJA; however, it is concentrated among a small segment of companies.

Chapter 2.3 Share Repurchase Event Study

The event study method has been prominently used within the finance field. Specifically, this method is employed to discern whether a particular occurrence (event) triggers a significant reaction in stock prices surrounding the time of the announcement (MacKinlay, 1997). The

reasoning for this method stems from the fact that capital markets incorporate the outcomes of the event immediately into stock prices. This phenomenon parlays into the idea that the effects of the event can be analyzed within a relatively short time period. Further, this also adds credence to the idea that shorter event windows are more reliable than longer event windows.

To determine the effects on share prices following the event, this method analyzes and estimates abnormal returns. Abnormal returns are calculated using the difference between actual returns and expected returns, which were derived from the "market model" (MacKinlay, 1997). Further, to determine whether the abnormal returns differ from zero with statistical validity, cumulative abnormal returns, or the total of daily abnormal returns over the event window, is tested using a t- or z-stat test.

The phenomena of share repurchase activity and the subsequent movement in stock valuation has often been attributed to the signaling theory. Under this theory, corporate investment events, such as share repurchases and dividends, can send a signal to investors that a company is optimistic about its financial performance and opportunities (Asquith & Mullins, 1986).

Asquith & Mullins (1986) conclusion came from an analysis of Vermaelen (1981), whose study surveyed 243 share-repurchase announcements between 1970 and April 1978. Further, the study employs a cumulative abnormal returns (CARs) model to interpret the data and has an event study window of 60 days prior to and subsequent to the announcement. Based on the sample, the study finds that in the three months before the repurchase announcement, there was a decrease in CARs by 7%. This trend changed around the announcement date, when the stocks yielded an uptick in returns of approximately 3.37% overall. However, this increase was slightly negated by an overall decrease of l.31% in the succeeding months.

Asquith and Mullins (1986) interpret these results as a positive signal that a share repurchase program benefits shareholders. Specifically, if a firm believes its stock is undervalued, a share repurchase strongly buttresses this assessment. Therefore, the study suggests that share repurchase programs are able to persuade investors that the firm's optimism is valid, which can result in a gain for stockholders.

Share Repurchases in International Markets

While share repurchase programs can tremendously impact the U.S. markets, so too can they effect international markets. Kumar, Kumar & Firoz (2019) examine the stock return performance of Indian- based corporations prior to and after the announcement of a share repurchase. This study is a continuation of the accumulating research that examines whether a relationship exists between the announcement of share repurchases and the stock value of the corporation.

The belief that there is a positive relationship is buttressed by the results of a study of share repurchases in Korean markets. Smit (2016) employs a sample of 77 share repurchase announcements of companies included on the KOSPI between 2003 and 2014. The final results yield the inference that in the short term, a significant positive correlation exists between share repurchase announcements and cumulate average abnormal returns.

Another study, based on an analysis of stocks listed on China's A-share market, produces similar results. These findings are derived from a sample of 417 corporate share repurchase announcements between 2000 and 2012. The study concludes that companies with larger sales growth rates are more likely to send positive signals to the market through share repurchases (Gan, Bian, Wu, & Cohen, 2017).

Further, Rees (1996) analyzes the effects of corporate share repurchase announcements on stock prices in the United Kingdom. The study finds a positive relationship between share value and the share repurchase surrounding the announcement date.

Punwasi & Brijal (2016) review the impact on share price of share repurchase announcements of firms included on the Johannesburg Stock Exchange between 2003 and 2012. Using event study methodology 20 days prior to and 20 days subsequent to the share repurchase announcement, their study finds a positive relation between abnormal returns and the announcement.

Despite these findings, a separate study suggests a neutral or negative relation between share repurchase announcements and the stock value of the company. Within the context of the Indian market, there was no discernible increase in cumulative abnormal returns of the sample stock after the repurchase announcement (Chatterjee & Mukherjee, 2015). The study also deduces that both prior to and after the announcements, the average abnormal returns weren't statistically different from zero in most of the sample cases. These results are based on 63 corporate share-repurchase announcements listed on the Bombay Stock Exchange (BSE) throughout the period of July 2008 to July 2012.

Kumar, Kumar & Firoz (2019) find that share repurchases do not drastically impact the price of shares. Further, the findings indicate that the news announcement of the share repurchases have already been reflected by the share prices during the day of announcement. The study analyzes 42 share-repurchase events of Indian based companies during the year of 2017 using an event study methodology. To create a data sample, the market returns were calculated using the Nifty 50 index with an estimated time frame of 252-days. The event window examined was 31

days, consisting of 15 days before the announcement, the announcement date, and 15 days after the announcement.

Aftermath of Share Repurchase Program on Stock Value

While evidence appears to exist that share repurchases in the short term can produce abnormal positive returns, is this sentiment still applicable in the long term? Overall, a variety of viewpoints have been expressed on this question. Fu and Huang (2016) find that abnormal returns, after a share repurchase announcement, dissipate in the long term due to a variety of changing market forces. Conversely, Peyer and Vermaelen (2009) find significant abnormal returns in the long-term (48-months) following the share repurchase announcement based on a sample of share repurchases between 1991 and 2001.

According to Dutta (2015), long-run abnormal returns exist within the context of companies listed on the Bombay Stock Exchange of India. He surveyed 63 share repurchases from firms listed on the Bombay Stock Exchange (BSE). Further, these repurchases are derived from a sample period of July 2008 to June 2012. The study also collected data on the sample firms' book to market value, market value, and monthly share prices. The buy-and-hold abnormal return (BHAR) method was one of the methods employed to run the data analysis (Dutta, 2015). This method involves measuring the abnormal return of a firm's stock by reducing the buy-and-hold return for that stock by the buy-and-hold return for the control company. To test the null hypothesis, in this case the mean buy-and-hold return is equivalent to zero, the study employs a t-statistic. Based on these parameters, the study finds that the abnormal buy-and-hold returns are positive within the first year succeeding the share repurchase. However, within the two- and three-year time frames, the abnormal returns become negative. These results further underscore the

belief that abnormal returns following share repurchases can be present to some extent in the long-term.

Chapter 3

Hypothesis, Data Sample, and Methodology

Chapter 3.1 Hypothesis

Based on the literature review, research shows that share repurchases generally yield positive abnormal returns surrounding the announcement date. However, a multinational company that has a free cash flow problem may want to repatriate its earnings held overseas under the TCJA and likely distribute these funds to shareholders rather than invest in domestic growth opportunities. For these companies, a share repurchase decision is more likely to be used to take advantage of the stipulations under the Act and please shareholders. As a result, the market may not react positively to the share repurchase announcements of these companies.

Therefore, our hypothesis is companies that have a free cash flow problem and take advantage of the TCJA by repatriating will experience no significant abnormal returns surrounding their share repurchase announcement. Our alternative hypothesis is that the share repurchase announcements for these companies will yield positive abnormal returns.

Chapter 3.2 Data Sample

The study was conducted using the Library ABI/Inform (ProQuest) database for the experimental group with key words searches for “repatriate fund,” “repatriated fund,” “foreign,” “tax cut,” “share repurchase,” “dividend,” “reinvestment,” and “research and development.” The sample period was 2017-2018. The search results were narrowed down by using only “Wire Feeds” and “Newspapers” source types. Lastly, other search variables include a “United States” source location and “English” as the language in which the source was written. This search criteria

yielded 220 results. The information that was collected on these results include the company name, ticker symbol, announcement date, total amount repatriated, whether the repatriation was due to the TCJA, whether the company repurchased shares, how much it repurchased or planned to repurchase, whether it issued a dividend, and whether it reinvested funds.

To collect data on share-repurchase announcements for the control groups, the Library ABI/Inform (ProQuest) database was used with key words searches for "share repurchase announcement" or "share repurchase." For one control group the announcement publication date range was limited to 2017-2018 and the other control group had a publication date range of 2014-2018. To narrow down the search results, the source type was limited to "Wire Feeds" and "Newspapers" and the publication title was limited to "Dow Jones Institutional News," "PR Newswire," "Business Wire," and "Wall Street Journal (online)." Further, the results were limited to "News" document type, a "United States" source location, and "English" for the sources' language. The number of search results for the 2017-2018 and 2014-2018 control samples were 825 and 2,169, respectively. The information that was collected from these search results include the company name, ticker symbol, announcement date of the share repurchase, whether it was connected to the TCJA, the reason for repurchasing the shares, and the total amount repurchased.

This study is comprised of three samples: the experimental sample (i.e., share repurchase announcements between 2017-2018 that also mentioned plans to repatriate or had already repatriated foreign earnings), and two control samples (i.e., 2017-2018 control sample (share repurchase announcements between 2017-2018 that were not explicitly connected to the TCJA), and 2014-2018 control sample (share repurchase announcements between 2014-2018 that were not explicitly connected to the TCJA).

To be included in the study, the company must meet the following criteria:

1. The sample companies must have return records on the CRSP Daily Combined Return File after the announcement date until the next press release date of the survey.
2. The company must have complete data on Standard and Poor's Research Insight.

The final sample size for the event sample is 21 announcements. Of the two control samples, there are 438 announcements for the 2017-2018 control sample, and 1,378 announcements for the 2014-2018 control sample.

Chapter 3.3 Methodology

The event study analyzed the sample stocks' abnormal returns in the five-days prior to and following the share repurchase announcement. A market model is employed to review the abnormal returns of the stock under the capital asset pricing model (CAPM) (Wharton Research Data Services, n.d.). The capital asset pricing model is used to determine the particular stock's expected return (R_s) using the risk-free rate (R_f), the stock's beta (β_s), and the expected return of the market (R_m) (Mullins, 1982). The formula is shown in Equation 1:

$$R_s = R_f + \beta_s(R_m - R_f) \quad (1)$$

This value is then used to calculate the abnormal return by subtracting it from the actual stock return for the given day in the event window. The formula appears as Equation 2:

$$\text{Abnormal Return} = \text{Actual Return} - \text{Expected Return} \quad (2)$$

The abnormal return (ARs) for each day in the 11-day event window was calculated and then summed to determine the CARs.

For the estimation parameters, a 100-day estimation window was used. Further, the query variables used are mean cumulative abnormal return (CAR_M), mean abnormal return (ABRET_M), cross-sectional t-statistic for abnormal return (ABRET_T), probability cross-sectional t-statistic for abnormal return (ABRET_PROBT), cross-sectional t-statistic for cumulative abnormal return (at the end of event window) (CAR_TE), probability cross-sectional t-statistic for cumulative abnormal return (at the end of event window) (CAR_TE_PROBT), cross-sectional t-statistic for cumulative abnormal return (CAR_T), and probability cross-sectional t-statistic, CAR (CAR_PROBT).

Chapter 4

Empirical Results

Table 1 reports the summary statistics of the event sample and the two control samples. The summary statistics consists of the mean, standard deviation, minimum, 25th percentile, median, 75th percentile, and maximum values for each sample. It appears that the firms in the event sample had a higher mean market value of equity, return on assets, return on equity, and total asset values than the two control samples. However, the event sample had a lower mean book value to market value of equity ratio. Overall, compared with the control sample, our test sample has a larger firm size and profitability and a lower book to market value of equity ratio.

Table 2 uses the Standard Industrial Classification (SIC) Codes to determine the industry distribution of companies within the three samples. Using the McKimmon Center for Extension & Continuing Education 2-Digit SIC Codes list, the companies in the samples were distributed among the following industries: agriculture, forestry & fishing; mining; construction; manufacturing; transportation & public utilities; wholesale trade; retail trade; finance, insurance & real estate, services; public administration; and nonclassifiable establishments. Based on this classification system, it appears that the companies in the three samples were more heavily represented in the manufacturing; services; and finance, insurance & real estate industries. Specifically, within the event sample, 65% of the companies were in the manufacturing industry, 10% were in the finance, insurance & real estate industry, and 15% were in the services industry. For the control sample with share repurchases from 2017-2018, 30.30% of the companies were in the manufacturing industry, 23.05% were in the finance, insurance & real estate industry, and

16.54% were in the services industry. Lastly, for the control sample with share repurchases from 2014-2018, 33.81% were in the manufacturing, 20.9% were in the finance, insurance & real estate industry, and 16.33% were in the services industry. Overall, compared with our control samples, our experimental sample is more heavily distributed in the manufacturing industry.

Table 3 analyzes the geographical distribution of the experimental net annual sales. We retrieve the data for geographic locations from the Compustat. The individual geographical regions where the sales originated from were sorted into 17 categories: Africa, Asia, Asia Pacific, Australia & New Zealand, Corporate, Emerging Markets, Europe, Europe Middle East & Africa, Foreign, Latin America, Latin America & Asia Pacific, NA/SA (North America/South America), NA/SA (North America/South America) excluding United States, North America, North America (Excluding United States), Other, and United States. A pivot table was then constructed from these observations. For each company in the sample, the pivot table displayed the distribution of total net sales among the geographical categories. To determine the percent distribution of sales among the geographical categories, the total net sales for each category was divided by the total net annual sales for the company. The percent distribution of sales for each geographic region was then subjected to a descriptive statistics data analysis to calculate their mean, standard deviation, minimum, median, and maximum values.

Table 3 shows that the four geographical regions with the highest average percentage of net sales were domestic (U.S.) market, Europe, Asia Pacific, and Foreign (undefined). The average percentage of net sales for those originating from the domestic (U.S.) region was 49.30%. For the European region, the average percentage of net sales was 11.39%, for the Asia Pacific region it was 8.83%, and for the Foreign (undefined) region it was 6.77%.

Table 4 reports the event study results of our event and two control samples. In Panel A of Table 4 we calculate the abnormal returns around the event date from five days prior to and five days after for the possibility of news leakage or a delayed market acknowledgment of the news announcements. No significant results existed on each trading day surrounding the event date for our event sample. For our two control samples, however, there are significant positive abnormal returns surrounding day 0 and day 1.

In Panel A, we compare the ARs for the whole event window (-5, +5). For the event sample, there is a positive but statistically insignificant abnormal return (0.02%) on the day of the announcement (day 0) and a negative but statistically insignificant abnormal return (-0.26%) on the following day of the announcement (day 1). For the two control samples, both show statistically significant positive returns on the day of announcement (day 0) and the following day of the announcement (day 1). Specifically, the 2017-2018 control sample show a 0.79% abnormal return on the day of the announcement and a 0.86% return on the day following the announcement (statistically significant at the 1% level).

In Panel B, we compare the CARs for the whole event window (-5, +5). For the event sample, there is a negative but statistically insignificant cumulative abnormal return (-0.21%). For the two control samples, however, both showed statistically significant positive abnormal returns for the 11 days surrounding the event day. For example, our 2017-2018 control sample saw a 0.99% cumulative abnormal return (statistically significant at the 5% level) over the (-5, +5) event window.

Overall, we do not find a statistically significant positive relation between share repurchase announcements and cumulative abnormal returns for the event sample. Conversely, for the control samples there was a positive significant relationship between share repurchase announcements and

cumulative abnormal returns. This result suggests that the market reacts differently to the share repurchase announcements on whether the share repurchase is related to repatriation of the funds under the TCJA. If multinational corporations are holding cash overseas mainly for tax reasons, they are more likely to engage in share repurchases and reduce the overinvestment problem in response to the removal of the repatriation tax. Therefore, the market may not regard the share repurchase announcement as a positive signal to the company's competitive position.

Chapter 5

Conclusion

This study analyzes 21 share-repurchase announcements after the implementation of the TCJA from companies that planned to or actually repatriated foreign earnings. To determine whether there were abnormal returns due to the announcement in the short term, a standard event-study methodology with an 11-day window was employed. Over this window, there was a negative but statistically insignificant cumulative abnormal return of -0.21%. However, the two control samples showed statistically significant positive abnormal returns surrounding the same event window. Specifically, the 2017-2018 sample had a 0.99% cumulative abnormal return (statistically significant at the 5% level) and the 2014-2018 sample had a 0.81% cumulative abnormal return (statistically significant at the 1% level) for the (-5, +5) event window.

These results suggest that while corporate share repurchases usually yield abnormal returns surrounding announcement dates, there appears to be no significant positive market reaction for multinational corporations that may repatriate their funds under the Act. A potential reason for these results may stem from a lack of more sustainable prospects to grow the company. Knott (2019) explains that the occurrence of buybacks following the TCJA may indicate that the companies lacked other lucrative investment opportunities (Knott, 2019). Therefore, while there is evidence that there is a positive relationship between share repurchases and cumulative abnormal returns (e.g., Rees, 1996; Punwasi & Brijal, 2016; and Gan, Bian, Wu, & Cohen, 2017), in the case of the experimental sample, investors may have felt that share repurchases are indicative of

limited growth opportunities. This sheds light on the long-term policy impact of the 2017 TCJA that while it does provide a compelling reason for US multinational corporations to repatriate funds from their foreign subsidiaries, how these funds are subsequently invested may play a significant role in whether investors will benefit. Therefore, if companies and investors want to see long-term gains in share value, it may be worth applying repatriated funds to other forms of domestic investment such as research and development.

Table 1. Summary Statistics

Table 1 shows the summary statistics of the market value of equity, total assets, book value to market value of equity ratio, return on assets, and return on equity of companies included in the event and control samples.

	Number of Observations	Mean	Standard deviation	Percentile				
				Min	25	50	75	Max
Event sample	40							
Market Value of Equity		34057.66	63683.13	624.02	3458.94	6908.83	24697.91	249547.05
Total Assets ($ millions)		64503.59	209258.92	902.72	2014.32	3218.25	13807.14	958489
BE/ME ratio		0.33	0.31	0.06	0.1	0.22	0.43	1.34
ROA		7.04%	5.69%	-2.62%	2.76%	6.75%	10.69%	19.50%
ROE		18.79%	17.06%	-10.03%	7.52%	15.41%	29.94%	78.76%
Control sample: 2017 - 2018	538							
Market Value of Equity		18747.85	51390.05	13.07	95.15	3964.83	81543.26	502567.43
Total Assets ($ millions)		50531.09	205869.91	22.18	125.93	4988.54	227339	2354507
BE/ME		0.59	0.47	0.00	0.09	0.49	1.40	3.62
ROA		4.78%	9.44%	-69.92%	-6.25%	4.95%	17.08%	49.10%
ROE		8.23%	363.53%	-7255.07%	-15.47%	12.66%	55.15%	3085.55%
Whole control sample: 2014 - 2018	2866							
Market Value of Equity		14371.35	39917.66	4.73	21.07	2836.72	219475.74	502567.43
Total Assets ($ millions)		31346.61	142288.05	5.71	40.66	3176.09	750271	2354507
BE/ME		0.62	0.7	0	0.02	0.45	3.7	11.94
ROA		4.29%	10.76%	-103.26%	-29.41%	4.03%	29.83%	255.10%
ROE		13.27%	167.40%	-7255.07%	-109.52%	10.84%	210.41%	3085.55%

Table 2. Industry Identification Chart

Table 2 shows the distribution among industries of the companies included in the event and control samples.

Industry	SIC Code	Event Sample	Control Sample 2017-2018	Whole Control Sample 2014-2018
Agriculture, Forestry, & Fishing	01-09	0	0	6
Mining	10-14	0	34	129
Construction	15-17	2	4	30
Manufacturing	20-39	26	163	969
Transportation & Public Utilities	40-49	0	44	292
Wholesale Trade	50-51	2	30	107
Retail Trade	52-59	0	46	256
Finance, Insurance, & Real Estate	60-67	4	124	599
Services	70-89	6	89	468
Public Administration	91-98	0	0	0
Nonclassifiable Establishments	99	0	4	10

Table 3. Sales by Geographic Region Chart

Table 3 shows the geographic distribution of annual net sales for the four locations with the largest mean percentage of annual net sales for the companies included in the event sample.

	Number of Observations	Mean	Standard deviation	Percentile Min	Percentile 50	Percentile Max
Event sample	178					
Domestic Sales		49.30%	23.91%	0.00%	54.41%	89.73%
Europe		11.39%	12.46%	0.00%	12.19%	37.32%
Asia Pacific		8.83%	13.89%	0.00%	1.29%	51.42%
Foreign		6.77%	18.07%	-2.67%	0.00%	61.24%

Table 4. Event Study Results

Table 4 shows the abnormal returns and cumulative abnormal returns of an 11-day event window surrounding the share repurchase announcements in the event and control samples.

	Event Sample		Control Sample: 2017-2018		Whole Control Sample: 2014 - 2018	
Panel A. Abnormal returns (%) around event date						
Day	AR	t-stat	AR	t-stat	AR	t-stat
-5	0.29%	1.15	-0.03%	-0.25	-0.05%	-0.84
-4	0.24%	1.03	0.03%	0.29	-0.12%	-1.89*
-3	0.50%	1.49	-0.20%	-1.83*	-0.19%	-2.83***
-2	-0.45%	-1.29	-0.08%	-0.72	-0.09%	-1.28
-1	0.02%	0.06	-0.28%	-1.70*	-0.17%	-2.18**
0	0.02%	0.04	0.79%	3.79***	0.88%	6.996***
1	-0.26%	-0.35	0.86%	5.11***	0.58%	5.75***
2	-0.34%	-1.01	-0.07%	-0.70	0.03%	0.53
3	0.54%	1.27	0.03%	0.30	-0.03%	-0.55
4	-0.30%	-0.86	-0.10%	-0.95	-0.02%	-0.43
5	-0.46%	-1.43	0.02%	0.21	-0.01%	-0.16
Panel B. Cumulative abnormal returns (%) around event date						
Interval	CAR	t-stat	CAR	t-stat	CAR	t-stat
(-5, +5)	-0.21%	-0.15	0.99%	2.36**	0.81%	3.24***

*=0.10 significance level, **=0.05 significance level, ***=0.01 significance level

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Academic Vita
GIANNA LAEZZO

EDUCATION

Pennsylvania State University May 2020
Bachelor of Science in Finance
Certificate in Financial Planning
Schreyer Honors College - Thesis in Tax Legislation and Corporate Capital Expenditures

WORK EXPERIENCE

Pennsylvania State University Erie, Pennsylvania
Finance and Economics Department Research Assistant July - August 2019

- Collaborated on research pertaining to the Tax Cuts and Jobs Act of 2017 and corporate capital expenditures
- Organized data on over 1000 financial reports to determine the relationship between stock repurchases and tax reform
- Analyzed tax reform's effect on corporate monetary repatriation and dividend yields

State of Connecticut Superior Court Milford, Connecticut
Assistant to Deputy Chief Clerk June – August 2019

- Audited 10-15 police arrest reports per week
- Compiled and ensured that all documents were present for appellate court proceedings

Municipal Probate Court Milford, Connecticut
Intern to Probate Court Judge June 2016

- Cataloged estate distribution documents

VOLUNTEER EXPERIENCE

Penn State Human Trafficking Awareness Initiative April – December 2019

- Managed a committee of seven students to assemble speakers, coordinate with campus administrators, and promote a human trafficking awareness event

Penn State Military Student Panel April – December 2019

- Successfully drafted and presented a proposal for a panel to facilitate communication between students who are active military members and university faculty to improve the student learning experience
- Managed a committee of six students to work with the campus military advisor and active military students

Caring Closet Charity 2015 – 2017

- Founded and administered a charity that entailed selling donated clothing for a community-wide tag sale. All proceeds went to The Toy Closet organization at Bridgeport Hospital in Connecticut. The remaining articles of clothing were later donated to a local church that provides clothing for those in need.

PROFESSIONAL MEMBERSHIP/AWARDS

- The Evan Pugh Scholar Award – awarded to upper 0.5% of respective class
- The Honor Society of Phi Kappa Phi
- Financial Management Association National Honor Society
- Pennsylvania State University Student Advisory Board – Board Relations and Outreach Committee - Chairman

INTERESTS

- Studying Mandarin Chinese
- Black Belt in Taekwondo