

Tax Reform Made Me Do It!

Michelle Hanlon
MIT

Jeffrey L. Hoopes
University of North Carolina

Joel Slemrod
University of Michigan

Conference draft. Comments welcome.
September 6, 2018

Abstract. This paper examines corporations' actions, and statements about actions, following the tax law change known as the Tax Cuts and Jobs Act (TCJA). Specifically, we examine four different outcomes—bonuses (or other actions that benefit workers), announcements of new investments, share repurchases, and dividend announcements. We find that 4% of public firms in our sample announced in Q1 2018 they would pay some portion of their tax savings toward workers. In terms of investment, we find that 22% of the S&P 500 firms in our sample mentioned in earnings conference calls that they would increase investment because of the TCJA. We find a general increase in share repurchases following the passage of the TCJA, but the increase is extremely concentrated in a small number of firms. We find that only nine firms that announced a new share repurchase plan explicitly attributed the new plan to the TCJA. In regression analysis, we find that both political and economic variables explain TCJA-linked announcements. The analysis suggests that firms with greater expected tax savings from the TCJA are those most likely to announce payments to workers and plans to increase investment. Firms with a Political Action Committee that donates more to Republican candidates are also more likely to announce benefits to employees.

Prepared for presentation at the NBER Tax Policy and the Economy conference, September 27, 2018 in Washington, DC. We thank Todd Castagno and Morgan Stanley for providing the data on firms' forecasts of future tax rates, and for insights into how firms responded to tax reform, and John Kartch for an explanation of how Americans for Tax Reform collected its Tax Reform Good News list. We thank Robert Moffitt for comments on an earlier draft and Ben Yost for providing computer code to calculate shareholder composition measures. We are grateful to Paul Organ and Kendra Robbins for outstanding research assistance, and to participants at the University of Michigan public finance seminar for feedback.

1. Introduction

On December 20, 2017, Congress passed what is commonly known as the Tax Cuts and Jobs Act (henceforth TCJA); it was signed into law by President Trump on December 22. The TCJA is the most comprehensive change in the U.S. income tax law since the Tax Reform Act of 1986 (TRA86). The centerpieces of the TCJA were major changes in the taxation of business income, including a cut in the headline corporate income tax rate from 35% to 21% and large changes in the taxation of foreign profits.¹ The consequences of the TCJA will depend in large part on the impact of the business tax changes on the economy, which will in turn rest on how businesses respond to the tax changes. The business provisions of the TCJA arguably made investment more attractive by reducing the tax-adjusted cost of capital. In addition, the change to the international tax provisions will reduce some tax frictions in a previously locked-up internal capital market (although other incentives with respect to international activity may remain). Thus, the increased cash flow from lower tax rates and investment incentives (and higher cash flow to the U.S. from foreign operations) might lead to more investment as well as increased sharing of the “rents” from the corporate income tax cuts with workers, shareholders, or consumers.

Notably, in the immediate aftermath of its passage—and in some cases even before it had become law—hundreds of companies announced actions certain to be seen as evidence of the TCJA’s positive economic effects—raising wages, providing bonuses, expanding facilities, and

¹ We outline more specifics of the TCJA in Section 2.

hiring additional workers.² Strikingly, many of the companies themselves asserted that the actions were due to the passage of the TCJA.³

However, some have viewed these disclosures as partisan speech by corporations. While corporations were quick to publicize bonuses and salary increases as a result of tax reform, detractors pointed to the small size of these employee benefits. Larry Summers, former Treasury Secretary under President Clinton, labelled employee bonuses as a “gimmick” (Cox 2018). Goldman Sachs’ CEO, Lloyd Blankfein, said they were largely “symbolic” (Shiels et al. 2018). Likewise, House Minority Leader Nancy Pelosi called the worker bonuses “crumbs” stating, “In terms of the bonus that corporate America received versus the crumbs that they are giving workers to kind of put the schmooze on is so pathetic (O’Keefe 2018).” Specifically, some claimed such announcements were an attempt to curry favor with the Trump administration and the Republican Party. Further, some of the announcements could be seen by some as corporations trying to boost the public image of tax reform, increasing the likelihood that in the event Democrats regained control of the House or Senate, they would not try to dismantle key pieces of the tax legislation (as Republicans did with the Affordable Care Act).⁴

² During the post-TCJA period, some companies, as is always the case, announced layoffs, factory closings, offshoring of operations, and other corporate actions with negative impacts on workers, but we have found few such announcements tied to the TCJA. One is H&R Block announcing plans to close 400 offices due to tax return simplification, echoing President Trump’s statement on tax reform, “We’re going to simplify very greatly the tax code. It’s too complicated. H&R Block probably won’t be too happy. That’s one business that might not be happy with what we’re doing (Isidore 2017).”

³ It is not unprecedented for companies to make announcements of actions linked to specific legislation. For example, the advocacy group FreedomWorks compiled a list of companies that announced layoffs tied to the 2012 passage of the Affordable Care Act. See <http://www.freedomworks.org/content/mourning-america-heres-those-layoffs-we-voted-last-night>. Some companies noted that they were shifting dividends or paying special dividends because of dividend tax rate increases in prior years (Hanlon and Hoopes 2014).

⁴ One high-ranking employee at a firm that provided worker-related benefits that one author spoke to noted that the firm was well aware of its predominantly Republican customers, and that some actions the firm took were made with that knowledge in mind. However, we have seen no public evidence that companies responded to tax reform in ways designed to appeal to their partisan customers.

This paper examines corporations' actions, and especially statements about actions, following the passage of the TCJA, with an eye on whether the evidence supports the political or economic explanation for the announcements (or both, or neither). Using a variety of data sources,⁵ it provides initial descriptive evidence related to 1) which firms have announced TCJA-inspired decisions, and 2) the extent and nature of these TCJA-inspired decisions. Specifically, we examine four different outcomes—bonuses (or other actions that benefit workers), announcements of new investment, share repurchases, and dividend announcements. Although we primarily examine disclosures and announcements of firms' actions or plans for actions, we supplement the data on disclosures with evidence about actual actions where possible.

This study lies in the under-studied intersection between three distinct literatures: 1) the effects of taxes on business decisions, 2) corporate disclosure, and 3) business lobbying. While (1) is about reality, (2) is about what firms say about the reality, and (3) are attempts to change the reality. Although a vast literature in accounting examines corporate disclosure (e.g., see the review by Healy and Palepu (2001)), few papers have examined corporate disclosures as a political tool. Similarly, although researchers routinely study corporate lobbying and political speech, little research has examined corporate public disclosures as a form of lobbying.

The extent to which TCJA would generate benefits to workers was one of the crucial aspects of the debate leading up to its passage. Many supporters claimed that much of the benefit would redound to the benefit of workers, with a Council of Economic Advisors (CEA) report claiming that average wage and salary income could be \$4,000-\$9,000 higher as a result (Council of Economic Advisers 2017). This is of course a classic, and controversial, tax incidence question. We will not be able to answer this question because little time has elapsed; learning to what extent

⁵ Data sources for specific tests are enumerated along with the test descriptions below. In addition, a summary table of where our data come from appears in Appendix 1.

workers benefit will require a long-run analysis of, among other aspects of the TCJA, how returns to shareholders are subsequently invested. However, we do provide an initial analysis of the announcements corporate America has made with regard to what they are doing with any tax savings from the TCJA in Q1 2018.⁶

Using data gathered by Americans for Tax Reform, which we discuss more below, we document that hundreds of firms announced worker-related benefits because of the TCJA. These include increases in the minimum wage at the firm, increases in salary generally, one-time bonuses, and increases in 401(k) matching. As an example, TJX Companies, parent company of TJ Maxx, announced “a one-time, discretionary bonus to eligible, non-bonus-plan Associates, globally, an incremental contribution to the Company’s defined contribution retirement plans for eligible Associates in the U.S. and internationally, instituting paid parental leave for eligible Associates in the U.S., and enhancing vacation benefits for certain U.S. Associates.”

We also examine which firms made statements that they would increase investment because of tax reform. We examine all earnings conference calls from S&P 500 companies in the first quarter of 2018. We find that 95 firms in our sample state that they plan to increase investment as a result of the TCJA.⁷

We next look for evidence that, after tax reform, businesses altered their payout policy. Payout policy may change as a result of the tax savings from TCJA, or from the newly freed-up cash because of the changes to the international tax system (discussed more below). Some

⁶ Journalists have offered conclusions about how corporations’ tax savings have been shared among constituents. Writing for Bloomberg Gadfly, Stephen Gandel calculated, based on “a close look at the announcements companies made after the passage of the tax law,” that across 51 S&P 500 companies, 39% of the gains went to shareholders via buybacks and increased dividends, 23% went to business investment, 15% to employees bonuses, wages, and benefits, and 3% to philanthropy (Gandel 2018). How these calculations differentiate tax-reform-motivated buybacks from buybacks that would have occurred anyway, or how much business will save, long-term, from tax reform (something many business themselves still do not know) is unclear.

⁷ For our detailed analysis, 424 firms have sufficient data, of which 95 (22%) announce a TCJA-tied increase in investment of any kind.

companies have explicitly announced plans to increase returns to shareholders motivated by TCJA. For example, in addition to other actions, TJX Companies said that, as a result of the TCJA, it is “planning a significant increase in shareholder distributions in Fiscal 2019, through both the Company’s dividend and share buyback programs.”

Using data from Capital IQ, we find that there is an increase in the number of firms announcing new share repurchase plans. We also look at the value of shares actually repurchased using data from firms’ quarterly filings we obtain from Compustat. We do see an increase in Q1 2018, however, it appears to be the continuation of a trend. Moreover, the increase is incredibly concentrated; in fact, after eliminating the shares repurchased by Apple Inc., the value of share repurchases in Q1 2018 is no higher than the value of shares repurchased in Q1 2016.⁸ While there may have been some increase in share repurchases, we also find that of the 304 newly announced share repurchase plans on Capital IQ during Q1, 2018, only 9 firms tied the decision to tax reform in their share repurchase announcement.

We then turn our attention to dividend announcements. We find no evidence that the number of firms announcing either regular or special dividends in Q1 2018, or the total amount of regular or special dividends, increased significantly. Similarly, we do not observe an increase in the percentage of firms initiating new dividends. We do detect elevated levels in the percentage of firms increasing their dividends, however, very few firms attributed this activity to tax reform. We find that 2 of the 17 special dividends, 2 of the 18 dividend initiations, and 41 of the 344 dividend increases were publicly attributed to tax reform.

Having provided descriptive evidence on these outcomes, we then turn to investigate what characteristics of companies are associated with some of these announcements. First, we examine

⁸ We note that part of the reasoning for Apple’s repurchases is the ‘freeing-up’ of foreign cash for repatriation to the U.S. parent company. We discuss this issue more below.

the determinants of firms that announced worker benefits and increases in investment explicitly tied to tax reform. We examine three sets of determinants: 1) Political determinants (e.g., whether the headquarters state of the firm voted for Trump in 2016 or whether the Political Action Committee of the firm donated more to Republicans than Democrats), 2) Economic determinants (e.g., actual projected tax savings from tax reform), and 3) Controls (factors generally associated with corporate actions, such as size, ROA, etc.). While pundits on both sides claimed that (depending on the side) these announcements were purely political or purely economic, we find evidence that both factors may have been at play. For example, the companies that had the highest pre-TCJA tax rates, and that expected their tax rate to decrease by the most, were the most likely to announce worker-related benefits due to the TCJA. Similarly, firms with the highest pre-reform tax rates were more likely to assert they would invest more because of the TCJA. However, we also find that corporations with PACs that donated more to Republican candidates than Democratic candidates were more likely to announce TCJA-tied worker benefits (although we do not find this same result for increased TCJA-motivated investment). We also find some evidence that firms in highly unionized industries are less likely to announce actions related to the TCJA, as are multinational firms.

We conclude that firms' political motivations may have played a role in these announcements, but that the firms with the most to gain from tax reform were also the most likely to announce actions resulting from TCJA. We also test the same factors' relation to any increase in payout policy. We find that some factors seem to be related to post-TCJA changes in payout, but there is not a consistent, economically significant factor in these decisions in our sample as of the end of the first quarter of 2018.

2. Business Tax Changes in the TCJA

The Tax Cuts and Jobs Act of 2017 is the largest U.S. tax law change in three decades, with the changes to business taxation the centerpiece of the new law. First, the TCJA decreased the headline top corporate tax rate from 35% to 21%. The rate cut by itself means that corporations will pay less cash in taxes to the U.S. government. These reduced tax payments will result in firms having more cash available to reinvest in the business, raise worker compensation, reduce prices to consumers, or return value to shareholders. We note that not all, and possibly very little, of the tax savings had actually been realized at the time the corporate disclosures that we analyze were made in Q1 2018. The lower rate will, though, reduce the estimated tax payments immediately and will affect managers' expectations of future cash flows.

The second piece of the TCJA that may have a major impact on firms' decisions is the switch from a hybrid worldwide tax system to a modified territorial system. Prior to the TCJA, the U.S. had a worldwide tax system with deferral. This system operated such that foreign earnings were taxable in the U.S. and a foreign tax credit was allowed for foreign taxes paid, or deemed paid, on the foreign earnings.⁹ However, if the foreign earnings were active operating earnings of a foreign subsidiary, the foreign earnings were not taxable in the U.S. immediately, but rather the U.S. tax due was instead deferred until those earnings were repatriated (brought back to the U.S. as a dividend to the parent corporation).¹⁰ As a result, in order to avoid the relatively high (35%) U.S. tax upon repatriation, many companies retained foreign earnings in the foreign subsidiaries (in real capital or in cash or cash equivalents) (Foley et al. 2007; Hanlon, Lester, and Verdi 2015). Thus, under the prior system, companies could achieve a sort-of do-it-yourself territorial tax

⁹ The foreign tax credit is subject to limitations, the discussion of which is beyond the scope of this paper. See Scholes et al. (2014) for more detail.

¹⁰ This discussion necessarily skips myriad details; see Foley et al. (2007), Scholes et al. (2014), or Hanlon et al. (2015) for more details.

treatment (i.e., avoid U.S. tax on significant foreign earnings), but at the cost of immobility of capital back to the U.S. parent company (Hanlon 2012), leading to higher borrowing in the U.S. to fund U.S. operations and shareholder returns (Graham et al. 2010).

The TCJA moves the U.S. to a modified territorial tax system. At a high level, the TCJA makes dividends from foreign subsidiaries exempt from U.S. taxation upon repatriation. However, the TCJA also enacted anti-base erosion provisions to protect the tax base in the U.S. from outward income shifting.¹¹ The TCJA also imposed a one-time mandatory tax on unrepatriated, previously untaxed (in the U.S.), foreign earnings of foreign subsidiaries (controlled foreign corporations), assessed regardless of whether repatriation actually occurs. As a result, much of the “trapped” cash from the pre-TCJA foreign earnings is no longer trapped, and is now more readily available to pay down debt (see Graham et al. (2010)), be paid as bonuses to employees, be reinvested domestically, or be returned to shareholders via dividends or share repurchases.

There are other provisions of the TCJA that will possibly be important as well. For example, bonus depreciation was expanded such that the full cost of investments in qualified property through 2022 can be immediately expensed for tax purposes in the first year. Net operating losses (NOL) can now be carried forward indefinitely, but cannot be carried back in time, and can now be used to offset only 80% of taxable income. In addition, interest deductibility is currently limited based upon measures of income.

¹¹The U.S. adopted two such provisions—the Global Intangibles Low-Taxed Income (GILTI) provision and the Base Erosion Anti-Abuse Tax (BEAT). The details of these provisions are beyond the scope of this paper. Overall, these provisions have led some to claim that the U.S. now has a global-minimum tax of sorts (i.e., a lower-rate worldwide tax with no deferral) and/or a modified territorial system. Most countries’ tax systems are a hybrid of worldwide and territorial systems. These provisions may actually cause some firms to have a higher tax burden under the new tax system than under the old tax system.

3. Descriptive Evidence of Corporate Announcements and Disclosures

We examine several different short-run responses by corporations to tax reform. We investigate TCJA-linked announcements about worker benefits and investments, as well as (whether linked to the TCJA or not) share repurchases, newly announced share repurchase plans, regular dividends, and special dividends.

3.1 TCJA-Linked Announcements about Workers

Proponents of tax reform have strong incentives to make tax reform appear as favorable as possible. One of these groups, Americans for Tax Reform (ATR), a lobbying group headed by Grover Norquist that “opposes all tax increases as a matter of principle,” has compiled a continuously updated list of companies that have made TCJA-tied announcements of corporate actions.¹² We obtained the list in April, 2018, and focus our analysis on announcements made in the first quarter of 2018.¹³ We conducted checks to verify that the list is representative of all businesses that announced worker-related benefits, and found it to be representative, although not completely comprehensive.¹⁴ We start with this list to obtain our sample of firms to examine

¹² Obviously, ATR is not a neutral observer of the TCJA. However, all of the episodes on their list have been independently verified by us, and we read each corporate announcement on their list to verify the company did announce a tax-reform-related worker benefit.

¹³ See the constantly updated list here: <https://www.atr.org/list>. We examine announcements that happened in the first quarter of 2018. The list now contains many new examples that are not in our analysis, as it is constantly updated. Further, many of the firms on the list are private firm or non-corporate entities, and so are not in our sample.

¹⁴ To the extent that firms that took TCJA-induced actions but are not on the ATR list are systematically different from those on the list, this may bias our results. To the extent that the ATR does not cover a material percentage of announcements, even if the omissions are non-systematic, it would make the phenomena of TCJA-linked benefits appear less frequent than they actually are. To investigate these issues, we conduct two different checks. First, we read the comprehensive set of Q1 2018 earnings conference calls from S&P 500 firms and identified any announcements of employee-related TCJA benefits among these firms. In reconciling the S&P 500 announcers to the ATR list, we found five instances where, in the earnings conference call, the firm announced a specific employee-related action to be taken as a result of TCJA that was not covered in the ATR list that we judged the ATR should have included on its list (it was publicized, concrete, etc.). Second, we select a random 100 firms from our sample that are not on the ATR list and searched the internet for evidence that any of these 100 firms paid employee-related TCJA benefits; we failed to find any examples of news coverage or press releases from the firm of such benefits. We conclude that the ATR list, while not completely comprehensive, is representative. We note that the full ATR list at the time we constructed our sample was 473 firms, many of which were private, and some very small relative to the public firms we examine (e.g., The Flood Insurance Agency of Gainesville, Florida planned to give a \$1,000 bonus to all of its 17 full-time employees). Some announcements did not relate to employees (e.g., WeStar Energy in Topeka Kansas planned to pass

TCJA-linked worker-related benefits announced by firms. For our sample, we retain only public corporations so as to be consistent with the rest of our paper where we gather publicly available announcements and disclosures by public companies.

We verify that each firm we use in our sample did make a public announcement of a worker-related benefit that was tied to tax reform. We categorize the announcements, and summarize them in Table 1. Table 1 shows the breakdown of worker-related benefits announced by firms on the ATR list that end up in our final sample (i.e., that contain necessary control variables).¹⁵ We obtain a sample of 163 public firms that announce a TCJA-tied worker-related response. Of these firms, 118 (72%) announced a one-time worker bonus, 11 (7%) announced that they will do additional hiring, 63 (39%) stated that they will enact wage increases, and 50 (31%) state that they will otherwise enhance benefits.¹⁶

To put these announcements into a quantitative perspective, we can compare the dollar amounts involved to some estimate of total wages. We obtain data from firms' annual financial statements in 2016, and compare the value of staff expense for the overlap of firms (43 firms) for which we have the aggregate value of TCJA-tied worker bonus announcements, and the staff expense from the annual report. We find that the total value of TCJA-tied worker bonuses sums to \$441,458,000 for these 43 firms, and the total 2016 staff expense equals \$82,769,687,000, suggesting that for this (small) sample of firms, the worker benefits sum to approximately 0.5% of annual staff expense.

tax savings along to customers). Of the firms that were public, the 163 firms with TCJA-linked worker benefit announcements in our sample had sufficient data to calculate all the test and control variables.

¹⁵ In this table, we focus on announcements of non-shareholder related actions (we omit investment, dividends, repurchases, charitable contributions, and price reductions to customers).

¹⁶ We categorize these benefits according to broad categories that many firms mentioned. However, some of these announcements also contained firm-idiosyncratic benefits going to workers. For example, Hostess Brands, Inc., producer of the mouth-watering Twinkie, announced that, along with a cash bonus and a contribution to employees' 401(k) plans, they would provide their employees a year's worth of free food in the form of a weekly multipack of a Hostess product of their choice.

Figure 1 graphs the timing of these TCJA-tied worker benefit announcements by public firms that are in our sample. We can see from this graph that the majority of the announcements occurred soon after the passage of the TCJA. Table 2 shows the announcements by industry. Banks, retail establishments, and transportation firms were especially likely to announce employee-related benefits associated with tax reform.

3.2 TCJA-Linked Announcements about Investment

We now turn to examining announcements about investment. We analyze firms announcing tax-reform related investment by examining conference call transcripts for S&P 500 firms for the first quarter (Q1) of 2018.¹⁷ Frequently, managers explain on conference calls (often as a result of analysts asking) what the firm was intending to do with the proceeds from tax reform. Indeed, Morgan Stanley created a report entitled, “What Will Corporate America Do with Tax Savings,” in which they analyzed these earnings conference calls available up through the report date, and categorized firms according to what they said they would do with the proceeds from tax reform (Morgan Stanley 2018). We follow this method and analyze the call transcripts and categorize what was said about the savings from tax reform and whether it was used for investment. We break investment down into different categories. First, some firms mentioned they would invest generally. For example, Harley-Davidson noted that “The positive impact of tax reform on our cash flow will provide additional investment capital to drive our business.”¹⁸ Some firms more specifically mentioned deploying the savings from tax reform to invest in technology. For example, CarMax stated its “...strategy on the use of cash flows created by the reduction in our

¹⁷ More specifically, we examine any “CQ FD Disclosure” on Factiva from January 1 through March 31, 2018. In most cases, these disclosures were made during the annual earnings conference call. For some non-calendar year end firms, these were the quarterly conference call discussing quarterly earnings. For a small group of firms, this also included other firm-initiated disclosures such as executives making speeches at industry conferences.

¹⁸ Harley-Davidson later demonstrated that it was also willing to announce a “negative” decision, moving some of its production overseas, due to the tariffs imposed by the Trump administration.

effective tax rate” will be to “invest incrementally in our business, including our digital and technology capabilities.”

Table 3 provides details of our sample. Of the S&P 500 firms, 424 make it into our final sample. Of these 424 firms, 95 firms (22%) mentioned some form of investment associated with tax reform. Not all companies provided detailed disclosure but looking at the set within the 95 firms that did provide more specific disclosures, we find that 43 firms (10%) mentioned investment in new capital expenditure and 59 firms (14%) mentioned investments that would be associated with technology improvements at the firm (note that we count the firm separately in each category of specific disclosure if the firm disclosed they were doing both capital expenditures and technology).

In Table 4 we show the firms broken down by industry and find that corporate statements of intent to increase investment as a result of tax reform are concentrated in the banking, business supplies, insurance, and retail industries. Both banking and retail firms appear in both our investment and employee-related benefits announcements as industries that will benefit from tax reform, and that have announced that their employees and investment will benefit from the TCJA.

3.3 TCJA-Linked Announcements about Returns to Shareholders

Finally, we examine the variety of ways in which firms can return cash to shareholders. We use Capital IQ, a subscription service owned by S&P Global (prior to 2016, McGraw Hill Financial) used by investment professionals and researchers, to identify firms announcing new share repurchase plans. We also examine the actual number of shares repurchased using firms’ 10-Q disclosures, in which they are required to disclose the number of shares repurchased each quarter; we get these data from Compustat. Finally, we use CRSP data on regular and special dividends to investigate whether firms initiated new regular dividends, increased the value of their

regular dividends, were more likely to pay special dividends, or increased the size of special dividends, as a result of tax reform.

3.3.1 Share Repurchases

While some firms disclosed and discussed paying tax reform “bonuses” to their employees, the media was quick to pick up on what appeared to be a rash of share repurchases in early 2018. The *Wall Street Journal* ran an article entitled “Boom in Share Buybacks Renews Question of Who Wins from Tax Cuts” (Otani et al. 2018), while CNN reported “Tax Cut Scoreboard: Workers \$6 Billion; Shareholders \$171 Billion” (Egan 2018). These buybacks were held out by some as prima facie proof that the bulk of the benefits of tax reform were going to shareholders. For example, Senator Chuck Schumer (D-NY) said that the rash of share buybacks “prove that the bulk of the savings from this bill aren’t trickling down into higher wages, but into bigger gains for giant corporations and the wealthy” (Senate Democrats 2018). Partly in response to Schumer, John Cochrane of the Hoover Institution penned an op-ed in the *Wall Street Journal* headlined “Stock Buybacks Are Proof of Tax Reform’s Success,” explaining that buybacks do not automatically make shareholders wealthier (Cochrane 2018).

Firms can respond to tax reform with share repurchases in two ways. First, firms may announce new share repurchase plans. Firms announce a share repurchase plan which allows them to purchase of a number of shares over a given time period, and management then uses its discretion to determine when to purchase shares, and how many to purchase. A new repurchase plan is not a commitment to repurchase shares, but rather authorization to repurchase up to a certain number of shares; firms are under no obligation to actually purchase all of the shares they are authorized to purchase. Figure 2 graphs the number of firms announcing new share repurchase plans, using data from Capital IQ, ending in Q1 2018. While the Q1 2018 number firms

announcing new share repurchases do represent an all-time high, they also appear to be a continuation of a trend upward, and a reflection of generally good economic times.

We also examine the disclosure language used in discussing the new share repurchase plans. While each of the worker benefit announcements we examined above were publicly tied by the companies to tax reform, such might not be the case with share repurchases. To get a sense of whether firms tied these actions to the TCJA, we first carefully examine the companies' disclosures regarding new share repurchase plans in the Capital IQ database that occurred between December 22, 2017, and March 31, 2018. Of the 179 announcements on Capital IQ, we locate a firm disclosure discussing the share repurchase for 173 instances, and in only 9 cases (5%) the company explicitly tied the repurchase to the TCJA. These 9 firms, and their relevant disclosures, are listed in Appendix 2.

Firms may also respond to tax reform through share repurchases in a second way by actually repurchasing more shares through a new or existing plan. For example, a firm may have an outstanding plan that allows the purchase of 50 million shares over the period 2018-2020, and because of TCJA may decide to repurchase all 50 million shares in 2018, when in the absence of TCJA it would not have. Figure 3, Panel A, depicts the number of firms that actually bought back shares during each quarter from 2010 through Q1 2018, as reported on the quarterly financial filings (the 10-Q), using data from Compustat. The graph shows that the number in Q1 2018 is not high relative to the rest of the time period, although it is slightly higher in Q1 2018 relative to Q1 2017. Panel B of Figure 3 shows the value of the shares repurchased. Here we observe an increase after the TCJA. Thus it appears that the total value increased much more than the number of firms, indicating that the effect is likely concentrated in a few firms. Indeed, in Panel C of Figure 3 we examine the value of buybacks after eliminating the firms that made the largest buybacks in 2018.

First we eliminate Apple Inc. After eliminating Apple, the value of buybacks in Q1 2018 is not larger than the value of buybacks in Q4 2016. If we eliminate the five firms with the largest value of buybacks in 2018, then the value of Q1 2018 buybacks are roughly in line or smaller than several other quarters in the time period since 2009.¹⁹

3.3.2 Dividends

While some media outlets and other pundits cited the number of share repurchases as evidence that the benefits of tax reform were going to shareholders, they also cited the possibilities that companies would give the savings from tax reform to their owners through increasing their dividends (e.g., Borzykowski 2018). In this section, we examine the temporal trends in dividends up through Q1 2018 using data from the Center for Research in Security Prices (CRSP).

In Figure 4, Panel A, we graph the number of firms announcing dividends, graphed at the quarterly level (ending with Q1 2018), and detect no obvious increase following TCJA. In Panel B, we graph the total dollar value of dividends announced and we find a slight increase, but this appears to be a continuation of a trend. In Panel C, where we graph the percentage of all dividend-paying public firms in CRSP increasing their regular dividend, we do document an increased level in the percentage of dividend-paying firms increasing their dividends in Q1 2018. For example, in Q1 2017, a very positive economic quarter, about 23.6% of dividend-paying firms increased their dividends. In Q1 2018, that number rose to 29.8%. However, as with all of our graphical analyses, it is impossible to attribute this increase to tax reform.

Finally, while firms with existing dividends may increase their dividend, it is also possible firms that had not previously paid a dividend may initiate dividends as a result of tax reform. We examine this possibility in Panel D, and find no notable increase in the number of firms initiating

¹⁹ Alternatively, if we simply remove the largest buyback each quarter, the takeaway is similar—the number of repurchases in Q1 2018 is overshadowed by the number of repurchases in Q4 2016.

dividends (defined as having paid a regular dividend for the first time in at least three years) in Q1 2018, relative to previous quarters.

Previous work on tax rates and payout decisions has noted that dividend decisions are very sticky and firms may be hesitant to, for example, initiate a new dividend as a result of a tax policy that may not be permanent (Hanlon and Hoopes 2014). If firms resist making permanent changes to their payout policy, they may increase share repurchases (examined above), or use one-time special dividends. These less permanent responses seem especially likely if firms are merely responding to the change in the international tax system, which freed up trillions of dollars of cash previously held by foreign subsidiaries. In Figure 5, Panel A, we examine the value of special dividends. Notable is the large spike in 2004, which is entirely attributable to a large special dividend paid by Microsoft. Also notable are the surges in special dividends in Q4 of 2010 and Q4 2012, which Hanlon and Hoopes (2014) attribute to a threatened increase in the individual-level dividend tax rate. We observe somewhat of a spike in Q4 2017, but no spike in Q1 2018.²⁰ Finally, in Panel B, we similarly observe no increase in the number of special dividends announced in Q1, 2018, suggesting that there was no clear increase in special dividends along either the intensive or extensive margins.

4. Determinants of Announcements

We now turn to explaining which types of companies made announcements about TCJA-related employee benefits and investments, as well as which companies bought back shares or increased dividend payments. The explanatory variables we consider in our models are of three

²⁰ We examine the data constituting the spike in late 2017. We find that the spike is largely due to one company, CME Group Inc., issuing a large dividend as part of a annual variable dividend. Per the firm's announcement this dividend is \$3.50 per share and was paid as part of a plan where the level of the dividend can "increase or decrease from year to year based on operating results." This plan was adopted in 2012 and the announcement of this particular dividend was made on December 6. Thus, this large dividend in 2017 does not seem to be related to the TCJA.

types, which we term: (1) control, (2) political, and (3) economic. The control variables are included to control for characteristics of companies that might be associated with the decisions we consider for reasons outside of our purview, such as general economic trends, etc. The political variables aim to measure the political incentives such as currying favor with the administration or bolstering the argument for retaining the TCJA or even expanding its aims.²¹ Finally, the economic variables are designed to indicate the extent to which the TCJA affected corporate decisions, either by changing the tax-adjusted cost of capital or providing additional cash flow. To be clear, these categories are not mutually exclusive—for example, a high tax rate company may have motives to make tax reform look as positive as possible (to retain its now-lower tax rate), but also has more cash flow with which to invest or pay workers a bonus.

Before describing our analysis in detail, we briefly discuss what the research has to say about how corporations may use the political system to try to increase firm value, and then turn our attention to how tax changes affect the economic fundamentals of the firm.

4.1 Political Factors

Corporations may try to use their influence to change policy outcomes. Researchers have studied corporate Political Action Committee (PAC) contributions and lobbying expenditures, and the effects these contributions can have on policies. For example, de Figueiredo and Richter (2014, p. 168) note that, although lobbying expenditures are substantial (indicating firms are serious in their attempts to influence policy), the question of how effective lobbying is remains “extraordinarily challenging” due to problematic econometric identification and difficult-to-isolate causal mechanisms. While researchers are uncertain of the effects of lobbying on policy outcomes,

²¹ We recognize that we do not have the requisite data to be able to conclusively establish these explanations. For example, it may not be “currying favor” but rather that the particular action is what the firm decision makers of that political persuasion think is best to do.

firms appear convinced it has an impact, as they engage heavily in lobbying. Most lobbying expenditures come from corporations and trade associations, and larger corporations are more likely to lobby than small firms (Barrick and Alexander 2014; de Figueiredo and Richter 2014).

Beyond campaign contributions and lobbying expenditures, others have studied a broader set of actions under the umbrella of “corporate political activity” (CPA). Hadani and Schuler (2013, p. 338) describe CPA as “tak[ing] place through lobbying, making contributions to political campaigns, participating in trade associations, or engaging in grass-roots mobilization efforts.” Hadani and Schuler also include an additional action under the definition of CPA: “other interactions with policy makers.” In our paper, we focus on this branch of CPA, viewing firms’ public announcements as yet another way in which firms attempt to influence policy outcomes.

Researchers have also asked if CPA is effective at improving a firm’s financial performance. Several studies have found a positive relationship between firms’ political activities and financial performance,²² while other studies have found no significant relation, or even a negative relation (Hersch, Netter, and Pope 2008). All of these studies estimate the effects of some quantifiable political activity, such as PAC donations or lobbying expenditures, on firm performance. Thus, these studies do not address other political activities firms may engage in, such as public announcements, the focus of this paper.

In addition, the literature has studied when and why firms engage in CPA. This strand of the literature relates to our study of which firms make TCJA-tied announcements. Hillman, Keim, and Schuler (2004) describe “four important categories of antecedents of CPA: firm, industry, issue, and institutional factors”; within the firm category, they note several factors associated with CPA, including firm size, foreign ownership, and managerial influence (i.e., political orientation

²² For example, Cooper et al. (2010) finds a positive relationship between the number of candidates a firm donates to and that firm’s future abnormal returns.

of firms' top managers) (pp. 839-841). Thus, we include these firm-level variables in our regression analysis. Finally, we note that You (2017) examines a slightly overlapping issue, what he calls “ex-post lobbying,” trying to explain the fact that fully 40% of lobby effort, for all bills and not just tax bills, happens *after* the bill is passed. His explanation is that, for much legislation, the original bill only provides a broad outline of the legislative intent, with the details to be decided after passage. In our view this is not the reason corporations made announcements tying their actions to TCJA.

4.2 Economic Factors

4.2.1 TCJA-tied Worker Benefits

Under a set of assumptions, because payments to labor are tax deductible, the statutory tax rate does not affect the incentive to hire labor, just as it would not affect the incentive to buy capital in the presence of expensing. With competitive labor markets without frictions, wage rates would rise only when the productivity of labor increased, which would happen slowly to the extent that TCJA increased capital accumulation, and certainly not in the time frame we are studying. However, as Auerbach (forthcoming) argues, given the cost of training and other adjustment costs, some firms might raise wages in anticipation of stronger future labor productivity.

A recent literature has revisited the question of who benefits in the short run from changes in the corporate tax rate where wage setting institutions and labor market frictions matter. For example, in models with wage bargaining, “fair-wage” setting (Akerlof and Yellen 1990), efficiency wage considerations, or monopsony power (due to, for example, heterogeneous worker preferences over work environments²³), firm owners and workers share any rents generated by the firm and, if corporate tax cuts increase that rent, the models predict that some of that increase will

²³ Card et al. (2018) stress this last interpretation.

be shared with employees through higher compensation. Some recent empirical analyses with this kind of model in mind have found substantial short-run pass-through to workers, as much as one-half in the Arulampalam, Devereux, and Maffini (2012) study of federal corporate taxation in nine European countries and in the Fuest, Peichl, and Siegloch (2018) study of German municipal business taxes. These effects are certainly context-dependent. For example, Azémar and Hubbard (2015) conclude based on an analysis of 13 OECD countries that overall on average 60 percent of corporate tax taxes are passed to labor, find that the pass-through is more than ten times as high in countries with the highest union density compared to the average union density; the pass-through would presumably be even lower, and perhaps negligible, for the United States.

Of interest for our empirical analysis is the paper's emphasis on the role of collective bargaining arrangements in the pass-through of corporate tax cuts to wages. In their theoretical model, pass-through is more likely with collective wage bargaining at the firm level, but not necessarily at the sector level. These rent-sharing effects are certainly context-dependent, however, and their application to U.S. federal corporate taxation has not been demonstrated. Nor do these theories address what form an increase in labor compensation would take (e.g., increased salaries or one-time bonuses). Further, as unionization is concentrated in specific industries, other industry trends may make observing the effect of unionization in the data difficult (especially since unionization is measured at the industry level).

4.2.2 Investment

Holding constant the perceived rewards to publicly linking actions to the TCJA, how did the TCJA change the incentives to take the actions we study in this paper? First, we consider business investment. There are two principal potential avenues of impact: (1) how it affects the cost of capital, which affects the incentive to invest, and (2) how it affects cash flow.

First, according to the standard formula due originally to Hall and Jorgenson (1967), the tax-adjusted user cost of capital depends on, *inter alia*, the statutory tax rate, the present value of depreciation deductions per dollar of investment, the tax treatment of interest expenses (for debt-financed investment), and the tax treatment of net operating losses.²⁴

A few lessons emerge from this approach. One is that, as long as tax depreciation is not immediate, a cut in the statutory tax rate reduces the cost of capital and thus makes investment more attractive. However, when capital expenditures can be expensed for tax purposes (i.e., tax depreciation is immediate), the tax rate has no effect on the user cost of capital of equity-financed investments.²⁵ Because of this, the effect of the TCJA on the incentive to invest depends crucially on counterfactual perceptions of depreciation policy. TCJA enacted expensing of qualified tangible capital expenditures (until the end of 2022, sunsetting through tax year 2026 at a reduced rate of 20% per year) and the continued expensing of research and development through the end of 2021, after which time a 5-year amortization period for research and development will apply.²⁶ One attempt to quantify the total impact of the TCJA on the cost of capital, DeBacker and Kasher (2018), concluded that it would reduce the cost of capital for equity-financed corporate (and noncorporate) investment, increase it for debt-financed investment, and decrease it overall; the estimated decrease was negligible for intellectual property.

²⁴ This expression ignores inflation and holds only under a set of assumptions including but not limited to that the tax system parameters are assumed to be in place forever (an assumption which the phenomena we are studying, the TCJA, makes clear is false), that capital goods prices do not change (in this period new tariffs were being proposed which may have increased the cost of some capital goods), and that no tax changes or effects on future deficits affect the required rate of return. It also ignores the imperfect refundability of losses. Auerbach (forthcoming) discusses many of these issues.

²⁵ With a tax rate of τ , expensing of all costs and full loss offsets, the present value of equity-financed investments is $\Sigma((1-\tau)R_t - (1-\tau)C_t)/(1+r)^t = (1-\tau)\Sigma(R_t - C_t)/(1+r)^t$, where R is gross revenue, C is costs, and r is the discount factor. Those projects that have a positive present value, and thus are value-enhancing, still are positive present value regardless of the value of τ ; those that do not, still do not regardless of τ .

²⁶ In addition, for tangible personal property, under Section 179, up to \$500,000 of qualified assets could be expensed each year, limited by a dollar-for-dollar phase-out if such assets placed in service exceeded \$2 million. The TCJA increased this to \$1 million, with the phase-out limit set at \$2.5 million.

The TCJA could also affect investment because in the case of firms with large stockpiles of foreign trapped cash, a one-time cash flow increase may occur dramatically and nearly instantaneously as a result of the deemed repatriation tax required in the TCJA. This has been a controversial notion at least since Fazzari et al (1988) found empirical evidence suggesting that the investment of financially-constrained firms appears to be more sensitive to cash flow, which is consistent with the notion that more cash flow relaxes financing constraints on investment. But investment-cash flow sensitivity is not consistent with the Hall-Jorgenson models of investment, and has not been consistently replicated. For example, Chen and Chen (2012, p. 394) conclude that “investment-cash flow sensitivity has completely disappeared in recent years,” while other papers argue that cash flow is still a significant determinant of investment even when there is an exogenous shock to cash flow without a corresponding change in firm growth opportunities, as is arguably the case for the TCJA.

One aspect of a possible cash flow effect is how to consider the “unlocking” of the unrepatriated past earnings of foreign subsidiaries that by 2017 had grown to an estimated \$2.6 trillion. This unlocking will occur because the U.S. will now tax the unremitted post-1986 through pre-2018 foreign earnings whether repatriation occurs or not.²⁷ Some claimed that by eliminating a barrier to the repatriation of these funds this would stimulate investment in the United States funded by the parent companies’ newly “available” funds, and thus will have the same effect as increased cash flow. Others have questioned this reasoning on the grounds that unless the firms were financially constrained, they could have previously borrowed in the U.S. to fund U.S.

²⁷ The new tax law imposes a one-time tax on untaxed overseas profits, with a different rate applying to cash and non-cash assets. This one-time tax is payable, in installments, over a period of up to eight years.

investment, in which case the “unlocked” cash would now be used to pay down U.S. debt. Ultimately, it is an empirical question.²⁸

Motivated by prior literature on the factors that affect business investment, we include several factors in our model that may influence future investment choices such as expected tax saving, the importance of (expensed) intangible assets, size, and return on assets.

4.2.3 Buybacks and Dividends

Previous papers have examined the relation between dividend tax rate changes and regular dividends (Chetty and Saez 2005; Blouin et al. 2011; Edgerton 2012; Hanlon and Hoopes 2014), and share repurchases (Lie and Lie 1999; Rau and Vermaelen 2002). If shareholder-level tax rates decrease, firms interested in maximizing shareholder after-tax returns may be sensitive to the shareholder-level taxes their investors face and increase shareholder-level payout. Firms have traditionally done this through dividend payments, but increasingly are also returning cash to shareholders through share repurchases (Grullon and Ikenberry 2000). However, while several papers examine the relation between shareholder-level taxes and corporate payout, few papers examine the relationship between corporate tax rates and payout. As dividends or share repurchases are not tax deductible to the corporation, the corporate-level tax has no direct effect on the firm’s incentives to pay dividends or repurchase shares. However, the dividend literature does suggest that the financial capacity to pay a dividend (e.g., generating sustainable earnings) is a positive predictor of dividend payments. Indeed, in the very early literature on corporate payout,

²⁸ For empirical evidence, we can look back to the American Jobs Creation Act of 2004, which offered a temporary tax holiday for repatriations in 2004 and 2005, allowing funds to be brought back subject to a 5.25% tax rate. There is mixed evidence on how firms used the funds. For example, one study found that those companies that repatriated were ones with limited investment opportunities, and that much of the money went to share repurchases (Blouin and Krull 2009), while another study, which controls for the capacity to repatriate foreign earnings, finds capital-constrained firms used the repatriated funds for domestic investment (Faulkender and Petersen 2012). Hanlon, Lester, and Verdi (2015) also provide some evidence that, following the AJCA, the likelihood of a foreign acquisition by a U.S. company declined but the likelihood of a domestic acquisition increased.

Lintner (1956, pp. 97–98) noted that “the primary effect of taxes on the volume of net corporate savings results from their impact on the magnitude of net earnings which is a primary determinant of the volume of dividends.”

Firms can distribute cash to shareholders in many ways: regular dividends, special dividends, and share repurchases. All three forms of payout require that firms have cash available to return to shareholders. TCJA will increase cash flows to many U.S. firms as a result of the decreased corporate tax rate and through the one-time effect of making available previously “locked-out” foreign cash. Depending on which source of cash flow is motivating the change in payout, firms may make different payout decisions. If firms anticipate cash tax savings as a result of lower tax rates (or other features of TCJA), and anticipate those cash tax savings to be sustainable, they may increase their regular dividends.

However, as mentioned above, regular dividend decisions are very sticky, and there are on average large capital market punishments for cutting regular dividends (Healy and Palepu 1988). In addition, dividend increases are seen by some as signaling increases in *permanent* earnings (John and Williams 1985; Miller and Rock 1985). As a result, if firms perceive the gains from tax reform to be transitory and wish to distribute those gains from shareholders, they may do so using special dividends or share repurchases. Special dividends differ from regular dividends only in that they do not convey a future obligation to continue shareholder distributions. Share repurchases also do not convey a future obligation to distribute cash to shareholders, but also have the benefit of being more tax-efficient in that they only distribute cash to shareholders who opt to receive that cash (instead of forcing all shareholders to recognize the taxable income associated with a distribution (Skinner 2008)).

5. Research Design and Results

As the foundation for our empirical analysis, we assume that firms make real and disclosure decisions with the objective of maximizing the present value of after-tax cash flow. Some companies believe that certain actions will affect their discounted cash flows by affecting future tax policy or non-tax policy actions that affect them.²⁹ Thus, for example, they may be willing to provide and announce worker bonuses when in the absence of the “political” motive they would not pay these bonuses. How the TCJA affects both the real and announcement decisions depends on the absent-political-factors bottom line, what we call the economic factors, as well as the political factors. This is what guides our empirical modeling below.

Although both types of factors affect both the real and announcement decisions, the data we analyze in what follows are of two subtly distinct kinds. The worker benefits and investment data single out firms who announced (and presumably actually carried out) the real decisions and also publicly linked their actions to TCJA. In these cases we do not have information on cases where, for example, a firm paid a worker bonus but made no announcement about it. In the case of dividends and share buybacks, we know of all such real decisions, whether the decision was publicly tied by the corporation to TCJA or not.

5.1 TCJA-tied Worker Benefits

In order to examine which firms announced TCJA-tied worker benefits, we estimate the following linear probability model:

$$\begin{aligned} \text{TCJA-tied Worker Benefit} = & \alpha + \beta_1 \text{Red State} + \beta_2 \text{Politically Sensitive Industry} + \beta_3 \text{Percent} \\ & \text{Unionized} + \beta_4 \text{GOP PAC Donator} + \beta_5 \text{Cash} + \beta_6 \text{Percent Expensed} + \beta_7 \text{High Cash ETR} + \\ & \beta_8 \text{Tax Savings} + \beta_8 \text{Ln(Assets)} + \beta_9 \text{MNE} + \beta_{10} \text{Ln(Employees)} + \beta_{11} \text{R\&D} + \beta_{12} \text{Dividend} + \\ & \beta_{13} \text{CAPEX} + \beta_{14} \text{ROA} + \epsilon \end{aligned} \quad (1)$$

²⁹ We presume that the free-rider problem constraining political action has been solved by institutions such as the U.S. Chamber of Commerce and Americans for Tax Reform.

The sample is all firms from Compustat for the fiscal year (fyear) 2016 with required data. We only retain corporations (eliminating trusts and publicly traded partnerships), and only keep U.S.-headquartered firms (FIC=USA). The dependent variable takes a value of one if the firm announced a *TCJA-tied Worker Benefit* as described above and zero otherwise. We measure the independent variables in 2016 so that we employ measures that are not affected by tax reform. All independent variables are defined in the tables, but we reiterate the definitions of our main test variables here. First, we include a series of political factors. *Red State* is an indicator variable coded to equal one if the corporation's headquarters are located in state that voted for Donald Trump in 2016. *Politically Sensitive Industry* is an indicator variable coded to equal one if the firm's industry is politically sensitive, as defined by Julio and Yook (2012). *Percent Unionized* is the percentage of the industry that is unionized in 2016, following Hirsch and Macpherson (2003). Finally, *GOP PAC Donator* is an indicator variable coded to equal one for firms whose political action committees donated more to Republican candidates than to Democratic candidates during the 2015-2016 election cycle and zero otherwise (firms without a PAC are coded as a zero).³⁰

In terms of the economic factors (all measured in 2016): *Cash* is the percentage of a firm's total assets (Compustat mnemonic AT) that are cash or cash equivalents (CHE). *Percent Expensed* is the fraction of two commonly expensed investments (advertising (XAD) and research and development (XRD)) as a fraction of the sum of advertising (XAD), research and development (XRD), and capital expenditures (CAPX), after replacing missing values of advertising, capital

³⁰ In order to measure the political orientation of a firm, we use corporate PAC contributions. Specifically, we take the list of all PACs, restrict to PACs sponsored by corporations, and match these manually to Compustat using PAC name and location. All PAC data are available at <https://www.fec.gov/data/advanced/?tab=bulk-data>. For the set of PACs, see the Committee master file (filter for Org_TP = "C" to restrict to corporations); for the set of candidates (identifying party affiliations), see the Candidate master file; for contributions see the "Contributions to candidates" tab, and select 2015-2016. We then summarize contributions made during the 2015-2016 election cycle by each corporate PAC to candidates from each party (Democrat, Republican, or other). The result is, for each company with a matched PAC, the percent of donations made to each party.

expenditures, and R&D with zero values, and making the whole ratio zero if the denominator is zero. *High Cash ETR* is equal to one if the ratio of cash taxes paid (TXPD) divided by pretax income (PRE) is above the sample median, and set equal to zero if at or below the sample median or if *Cash ETR* is undefined. *Tax Savings* is *GAAP ETR* from 2016 minus the ongoing forecast of the *GAAP ETR* after tax reform, as collected from earnings conference calls by Morgan Stanley (Morgan Stanley 2018), where *GAAP ETR* is total tax expense (TXT) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income.³¹ Because *Tax Savings* requires a firm to have positive income and requires an estimate of future taxes as collected by Morgan Stanley, we present our results without this variable over the full sample and separately with this variable over the much smaller sample.

Table 5 presents descriptive statistics about our sample. About 4% of the sample had *TCJA-tied Worker Benefit Announcements*, whereas 22% of the sample of S&P 500 firms announced they would invest as a result of TCJA. On average, the *Percent Unionized* in our sample is 5%. Among the subset of firms for which we are able to measure *Tax Savings*, firms expected to experience an average decrease in GAAP ETR of 7 percentage points from 2016 to 2018. 41% of the sample are multinational enterprises (*MNE*).

Table 6 shows the results of estimating specification (1), which suggest that both political and economic factors played a role in which firms made an announcement of TCJA-tied worker

³¹ Prior literature on payout finds a strong relation between ownership by management and tax-related payout decisions (Chetty and Saez 2005; Blouin et al. 2011; Edgerton 2012; Hanlon and Hoopes 2014). We examine whether insider ownership (the percentage of the firm owned by the CEO, obtained from Thomson Financial dataset *tfn.table1* on WRDS), and find no relation between insider ownership and the decision to pay an employee benefit, increase investment, make a new buyback announcement, or increase a dividend. Similarly, prior literature has found that institutional ownership affects a number of corporate outcomes. We examine whether the percentage of the firm owned by institutional investors (measures using Thomson Financial dataset *tfn.s34* on WRDS), and find no relation between insider ownership and the decision to pay an employee benefit, increase investment, make a new buyback announcement, or increase a dividend.

benefits. In terms of political determinants, a firm was more likely to announce a TCJA-tied worker benefit if the firm's PAC donated more to Republican than Democratic candidates in 2015-2016. The coefficient on *GOP PAC Donator* suggests a sizable impact. The unconditional mean of *TCJA-tied Worker Benefit* is 4%. As we use a linear probability model, the coefficient on *GOP PAC Donator* of 0.091 can be interpreted as a tripling of the unconditional mean of *TCJA-tied Worker Benefit*. However, firms are less likely to announce a TCJA-tied worker benefit if the company is in a relatively highly unionized industry. The negative relation between unionization and payments to workers in our sample is inconsistent with the recent rent-sharing literature that suggests a stronger sharing of tax cuts with workers in the presence of strong unions. However, as we can measure unionization only at the industry level, other industry-level determinants may be at play.³² We also find that a corporation is marginally less likely to announce a TCJA-tied worker benefit if it is headquartered in a *Red State*.

Turning to the economic factors, in Column 2, the firm's estimated *Tax Savings* from the TCJA are highly positively related to the firm announcing a worker benefit from the TCJA. Similarly, when we estimate over the full sample (including loss firms and firms for which Morgan Stanley did not obtain an estimated ongoing ETR), we find that *High Cash ETR* is positively related to the announcement of a TCJA-tied worker benefit. Both results are consistent with the idea that firms that benefit from tax reform are more likely to increase employee compensation. Recall that skeptics viewed these employee-related announcements as entirely opportunistic. Our analysis suggests that, controlling for a number of other factors (including measures such as *GOP PAC Donator*, which may proxy for such opportunism), the firms that were helped by tax reform

³² In untabulated analysis, we control for industry fixed effects, using both Fama and French 48 industries, and separately, 1 digit SIC codes. In both cases, we find no result in any specification for *Percent Unionized*. Absent firm-level variation in unionization, we are unable to conclude whether the relationship we document between unionization and employee benefits are spurious (due to other industry trends) or valid.

were indeed the most likely to announce an increase in employee benefits. Looking at our controls, results that are consistent across the two columns are that larger firms are more likely to announce a worker-related benefit and multinational firms are less likely to do so than domestic-only firms. We conjecture that a potential explanation for the lack of announcements by multinational firms is that the complexity in the TCJA regarding U.S. taxation of foreign earnings is delaying decision-making at these firms.

5.2 Investment

Table 7 shows the results of a similar regression analysis for investment. In this linear probability model, the dependent variable is *Announced Tax Reform Related Increase in Investment*, which we describe above. The independent variables are the same as in model (1) above. The sample for this analysis consists of all S&P 500 firms in 2016 with the required data, again eliminating non-corporations and non-U.S. firms. We find that, as with worker benefits, corporations with above the median Cash ETRs before the TCJA are more likely to say they plan on increasing investment because of TCJA. We find some evidence that if the firm is headquartered in a *Red State* it was more likely to announce TCJA-related investment in our smaller sample where we include the variable *Tax Savings*, but the estimated coefficient is insignificant when we estimate the regression over the full sample. In addition, if the firm is in a relatively highly unionized industry, is it less likely to announce increased investment in response to the TCJA.

In terms of our control variables, *ROA* and (the log of) the number of employees are positively associated with the likelihood of the firm announcing that the TCJA will lead to more investment. However, being a multinational firm is negatively associated with announcing that the firm will increase investment. Again, it is possible that multinational firms have said less about their plans because of the complexity of the TCJA with respect to the taxation of foreign earnings.

We find no evidence that firms that are financially constrained (proxied in our test by not paying dividends) are more likely to announce an increase in investment, however given our sample size, this may be due to lack of statistical power. Further, financial constraint is notoriously difficult to measure (Hadlock and Pierce 2010), and our inability to measure this construct precisely in our small sample may contribute to our failure to find a relation. The notion that financially constrained firms will increase investment when they experience a cash shock is consistent with corporate finance theory (e.g., Faulkender and Petersen (2012)).

5.3 Share Buybacks and Dividends

In the previous sections, we examined what kind of firms announced TCJA-related worker benefits, and which firms said that they would increase investment, both outcomes that firms likely felt free (and perhaps motivated) to mention publicly. However, there was substantial criticism of firms announcing buybacks or increasing dividends because of tax reform—certain politicians and some media outlets pointed out that this behavior was evidence of tax reform only enriching shareholders (e.g., Senate Democrats 2018; Otani et al. 2018; Gibson 2018; Mui 2018; Cox 2018). As discussed above, graphically, we detect some evidence of post-tax reform increases in dividend increases, and new share repurchase announcements. In this section, we examine which firms increased dividends and announced new repurchase plans. Because of the nature of these outcomes, we examine these outcomes differently than the previous outcomes. Recall that all the firms in our worker-benefit sample announced they were making a TCJA-tied worker benefit. Actions with regard to worker benefits are not publicly available in machine-readable format and, thus, our data only contain firms that made an announcement with respect to employee

compensation and benefits.³³ However, firms regularly issue dividends and announce new share repurchase plans, and so we have a more complete set of data for these actions, available in a time series. In order to examine whether there was an abnormal number of these two outcomes after tax reform (which we recognize is not actual evidence that the increase is due to the tax reform) and which firms were associated with this abnormal behavior, we estimate the following regression:

$$\begin{aligned} \text{New Share Repurchase Plan or Dividend Increase} = & \alpha + \beta_1 \text{Post Tax Reform} + \beta_{2-15} \text{Determinants} \\ & + \text{Trend} + \text{Trend Squared} + \epsilon \end{aligned} \quad (2a)$$

$$\begin{aligned} \text{New Share Repurchase Plan or Dividend Increase} = & \alpha + \beta_1 \text{Post Tax Reform} + \beta_{2-15} \text{Determinants} \\ & + \beta_{16-29} \text{Tax Reform} \times \text{Determinants} + \text{Trend} + \text{Trend Squared} + \epsilon \end{aligned} \quad (2b)$$

We examine two separate dependent variables, *New Share Repurchase Plan* (an indicator coded as one if the firm announced a new share repurchase plan, using data from Capital IQ), and *Dividend Increase* (an indicator coded as one if the firm increased their regular dividend per share over the prior quarter, using data from CRSP). We estimate this model using data from 2011 to Q1, 2018, using observations at the firm-quarter level. We include a *Trend* variable and a *Trend*

³³ In our analysis, we do not formally examine whether firms paid bonuses but did not attribute them to tax reform, or how common bonus payments were in the past, primarily because no systematic data of which we are aware exists on employee bonuses. However, to try to gauge, at least to some extent, whether the hundreds of bonuses we observe are abnormal, we conduct two Factiva searches for evidence of bonuses in prior years, and find that one-time bonuses were exceedingly rare during the five years prior to TCJA, at least in the retail and banking industries, two of the industries most likely to have paid TCJA-tied bonuses. First, we search for the "Retail" industry in Factiva, using the three terms "one-time bonus", "special bonus," and "non-performance bonus." Between 1/1/2012 and 11/30/2017, we find one example of non-performance, company-wide bonuses (LL Bean in 2013). Second, we perform the same search in the "Banking/Credit" industry in Factiva, and find only one example of a one-time bonus between 1/1/2012 and 11/30/2017: Morgan Stanley's payment of bonuses for several thousand brokerage-support personnel "to compensate them for extra work on the tumultuous computer-system conversion." These same search terms return vastly more results during the period 12/1/2017 to 3/31/2018, capturing many of the TCJA-tied bonuses we analyze in this paper. While not systematic, this evidence is consistent the frequency of bonus payment we observe in Q1 2018 being abnormally high.

Squared variable in order to account for any linear and non-linear trend in the two dependent variables.³⁴

In regression 2a, we estimate whether these two outcomes actually did increase after tax reform, after controlling for a number of factors by including *Post Tax Reform*, an indicator coded to equal one for observations falling in Q1 2018, and 0 otherwise. In regression 2b, we interact the *Post Tax Reform* indicator with our vector of factors used previously in model 1. Specifically, we interact *Post Tax Reform* with *Red State*, *Politically Sensitive Industry*, *Percent Unionized*, *GOP PAC Donator*, *Cash*, *Percent Expensed*, *High Cash ETR*, *Tax Savings*, *Ln(Assets)*, *MNE*, *Ln(Employees)*, *R&D*, *Dividend*, *CAPEX* and *ROA*. The coefficient on the interaction terms represents the extent to which the determinants map into the outcome variables differently after tax reform than prior to tax reform. For example, if the coefficient on *Post Tax Reform X Red State* were positive and significant, that would suggest that firms headquartered in states that voted for Donald Trump in 2016 (*Red State*) were more likely to increase dividends after tax reform compared to before tax reform.³⁵

Panel A of Table 8 provides the descriptive statistics for the data used to perform this analysis. About 1 percent of firm/quarter observations announced new share repurchase plans (*Announced New Buyback*). About 8 percent of firm/quarters experience a *Dividend Increase*. The estimates of models 2a and 2b are in Table 8, Panel B. In Columns 1 and 2, we find that *Announced New Buyback* did not increase after tax reform but that *Dividend Increase* did increase after tax reform, even after controlling for our vector of determinants. In Columns 3 and 4 of Table 8, we

³⁴ In our main regression, we include a linear trend, and a trend squared, to control for the trend in the dependent variable. In untabulated regressions, we include only a trend. In that specification, the analog to Columns 1, 2, and 3 in Table 8, we estimate that the effect of tax reform (*Post Tax Reform*) is positive and statistically significant.

³⁵ Using a simple *Post Tax Reform* indicator to identify the effects of tax reform is obviously limited. Alternatives would be to compare U.S. to non-U.S. firms, U.S. corporations to U.S. partnerships, utilize the variability of the effect of tax reform on U.S. corporations, etc. However, these identification strategies all have their limitations, chief among them that data for all of the outcome variables are not available to us.

show the results of estimating regression 2b, including all the interaction terms. We find that few of the interaction terms are significant. However, there is some evidence that being in a *Politically Sensitive Industry* is associated with being less likely to increase dividends. The evidence also suggests that being in a highly unionized industry is associated with fewer announcements of new share repurchase plans. However, we do not find that firms from *Red States* or that were *GOP PAC Donators* were any more likely to increase their dividends or announce a new share repurchase announcement after tax reform. We also find no evidence that the firms that had the highest cash ETRs were more likely to increase dividends or announce new share repurchase plans after tax reform.

6. Conclusions

This paper examines corporations' actions, and especially statements about actions, following the tax law change known as the Tax Cuts and Jobs Act (TCJA). Our paper provides initial descriptive evidence related to 1) which firms have announced TCJA-inspired decisions, and 2) the extent and nature of these TCJA-inspired decisions. Specifically, we examine several different outcomes—bonuses (or other actions that benefit workers), announcements of new investment, share repurchases, and dividend announcements. Our evidence suggests that announcements about TCJA-tied worker benefits are related to both economic and political factors: firms with larger expected tax savings and firms that have PACs that donate more to Republicans than Democrats have a greater likelihood of announcing worker-related benefits.

In terms of investment, we find that firms with high cash effective tax rates are more likely to announce an increase in investment. We also find that firms in highly unionized industries appear less likely to announce either worker benefits or more planned investment. Finally, in terms of shareholder payout we find some evidence of announcements of new share repurchase plans

being motivated by the TCJA. We find that nine firms announce TCJA-related share repurchase plans. It is plausible that there are fewer incentives to publicize shareholder payouts relative to payments to employees. When we look at the actual data, there is no evidence of a broad change in actual shareholder payouts in the first quarter of 2018 that deviates from the trend.

Overall, we find that multinational firms are less likely to announce any action. We conjecture that this is potentially due to the complexity in the TCJA with respect to the taxation of foreign earnings and the fundamental changes in the U.S. tax regime included in the TCJA. Thus, multinational corporations may have been less likely to have determined what the best course of action is at this time. In addition, we recognize that it is likely too early to examine overall payout policy effects, and that our analysis should be viewed in this light—that we examine data only from the first quarter following the TCJA. We look forward to future research that expands on the evaluation of the effects of the TCJA.

References

- Akerlof, G. A., and J. L. Yellen. 1990. The Fair Wage-Effort Hypothesis and Unemployment. *The Quarterly Journal of Economics* 105 (2): 255–283.
- Arulampalam, W., M. P. Devereux, and G. Maffini. 2012. The direct incidence of corporate income tax on wages. *European Economic Review* 56 (6): 1038–1054.
- Auerbach, A. J. forthcoming. Measuring the Impact of Corporate Tax Cuts. *Journal of Economic Perspectives*.
- Azémar, C., and R. G. Hubbard. 2015. Country characteristics and the incidence of capital income taxation on wages: An empirical assessment. *Canadian Journal of Economics/Revue canadienne d'économique* 48 (5): 1762–1802.
- Barrick, J. A., and R. M. Alexander. 2014. Tax Lobbying and Corporate Political Activity: How Do Firms Seek Tax Relief? *Working Paper*.
- Blouin, J., and L. Krull. 2009. Bringing It Home: A Study of the Incentives Surrounding the Repatriation of Foreign Earnings Under the American Jobs Creation Act of 2004. *Journal of Accounting Research* 47 (4): 1027–1059.
- Blouin, J. L., J. S. Raedy, and D. A. Shackelford. 2011. Dividends, Share Repurchases, and Tax Clienteles: Evidence from the 2003 Reductions in Shareholder Taxes. *The Accounting Review* 86 (3): 887–914.
- Borzykowski, B. 2018. Tax reform fuels rise of company dividend payouts for investors. *CNBC*, June 5.
- Card, D., A. R. Cardoso, J. Heining, and P. Kline. 2018. Firms and Labor Market Inequality: Evidence and Some Theory. *Journal of Labor Economics* 36 (S1): S13–S70.
- Chen, H. (Jason), and S. (Jenny) Chen. 2012. Investment-cash flow sensitivity cannot be a good measure of financial constraints: Evidence from the time series. *Journal of Financial Economics* 103 (2): 393–410.
- Chetty, R., and E. Saez. 2005. Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut. *The Quarterly Journal of Economics* 120 (3): 791–833.
- Cochrane, J. H. 2018. Stock Buybacks Are Proof of Tax Reform's Success. *Wall Street Journal*, March 5, sec. Opinion.
- Cooper, M. J., H. Gulen, and A. V. Ovtchinnikov. 2010. Corporate Political Contributions and Stock Returns. *The Journal of Finance* 65 (2): 687–724.
- Council of Economic Advisers. 2017. *Corporate Tax Reform and Wages: Theory and Evidence*.
- Cox, J. 2018. Employee bonuses are a tax reform “gimmick,” Larry Summers says. *CNBC*, January 26.
- DeBacker, J., and R. Kasher. 2018. Effective Tax Rates on Business Investment Under the Tax Cuts and Jobs Act. *AEI Economic Perspectives*.
- Dharmapala, D., C. F. Foley, and K. J. Forbes. 2011. Watch What I Do, Not What I Say: The Unintended Consequences of the Homeland Investment Act. *The Journal of Finance* 66 (3): 753–787.
- Edgerton, J. 2012. Four facts about dividend payouts and the 2003 tax cut. *International Tax and Public Finance*: 1–16.
- Egan, M. 2018. Tax cut scoreboard: Workers \$6 billion; Shareholders: \$171 billion. *CNNMoney*. <https://money.cnn.com/2018/02/16/investing/stock-buybacks-tax-law-bonuses/index.html>.
- Faulkender, M., and M. Petersen. 2012. Investment and Capital Constraints: Repatriations Under the American Jobs Creation Act. *Review of Financial Studies* 25 (11): 3351–3388.

- Fazzari, S. M., R. G. Hubbard, B. C. Petersen, A. S. Blinder, and J. M. Poterba. 1988. Financing Constraints and Corporate Investment. *Brookings Papers on Economic Activity* 1988 (1): 141–206.
- de Figueiredo, J. M., and B. K. Richter. 2014. Advancing the Empirical Research on Lobbying. *Annual Review of Political Science* 17 (1): 163–185.
- Foley, F. C., J. C. Hartzell, S. Titman, and G. Twite. 2007. Why Do Firms Hold so Much Cash? A Tax-Based Explanation. *Journal of Financial Economics* 86 (3): 579–607.
- Fuest, C., A. Peichl, and S. Siegloch. 2018. Do Higher Corporate Taxes Reduce Wages? Micro Evidence from Germany. *American Economic Review* 108 (2): 393–418.
- Gandel, S. 2018. Share Buybacks Distort Profit Picture. *Bloomberg.com*, June 13.
- Gibson, K. 2018. Guess where the corporate tax cut money is flowing. *CBS News*, May 2.
- Graham, J. R., M. Hanlon, and T. Shevlin. 2010. Barriers to Mobility: The Lockout Effect of US Taxation of Worldwide Corporate Profits. *National Tax Journal* 63 (4 Part 2): 1111–1144.
- Grullon, G., and D. L. Ikenberry. 2000. What Do We Know About Stock Repurchases? *Journal of Applied Corporate Finance* 13 (1): 31–51.
- Hadani, M., and D. A. Schuler. 2013. In search of El Dorado: The elusive financial returns on corporate political investments. *Strategic Management Journal* 34 (2): 165–181.
- Hall, R. E., and D. W. Jorgenson. 1967. Tax Policy and Investment Behavior. *American Economic Review* 57 (3): 391–414.
- Hanlon, M., and J. L. Hoopes. 2014. What Do Firms Do When Dividend Tax Rates Change? An Examination of Alternative Payout Responses. *Journal of Financial Economics* 41(1): 105-124.
- Hanlon, M. L. 2012. Testimony of Michelle Hanlon before the United States House Committee on Ways and Means. *Committee on Ways and Means*.
- Hanlon, M., R. Lester, and R. Verdi. 2015. The Effect of Repatriation Tax Costs on U.S. Multinational Investment. *Journal of Financial Economics* 116 (1): 179–196.
- Hanlon, M., E. L. Maydew, and J. R. Thornock. 2015. Taking the Long Way Home: U.S. Tax Evasion and Offshore Investments in U.S. Equity and Debt Markets. *The Journal of Finance* 70 (1): 257–287.
- Healy, P. M., and K. G. Palepu. 1988. Earnings information conveyed by dividend initiations and omissions. *Journal of Financial Economics* 21 (2): 149–175.
- Healy, P. M., and K. G. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31 (1–3): 405–440.
- Hersch, P., J. M. Netter, and C. Pope. 2008. Do Campaign Contributions and Lobbying Expenditures by Firms Create “Political” Capital? *Atlantic Economic Journal* 36 (4): 395–405.
- Hillman, A. J., G. D. Keim, and D. Schuler. 2004. Corporate Political Activity: A Review and Research Agenda, Corporate Political Activity: A Review and Research Agenda. *Journal of Management* 30 (6): 837–857.
- Hirsch, B. T., and D. A. Macpherson. 2003. Union Membership and Coverage Database from the Current Population Survey: Note. *Industrial and Labor Relations Review* 56 (2): 349–354.
- Institute on Taxation and Economic Policy. 2017. *Fortune 500 Companies Hold a Record \$2.6 Trillion Offshore*.
- Isidore, C. 2017. Donald Trump says H&R Block will be unhappy with his tax plan. *CNN*, February 15.

- John, K., and J. Williams. 1985. Dividends, Dilution, and Taxes: A Signalling Equilibrium. *The Journal of Finance* 40 (4): 1053–1070.
- Julio, B., and Y. Yook. 2012. Political Uncertainty and Corporate Investment Cycles. *The Journal of Finance* 67 (1): 45–83.
- Lie, E., and H. J. Lie. 1999. The Role of Personal Taxes in Corporate Decisions: An Empirical Analysis of Share Repurchases and Dividends. *Journal of Financial and Quantitative Analysis* 34 (4): 533–552.
- Lintner, J. 1956. Distribution of Incomes of Corporations Among Dividends, Retained Earnings, and Taxes. *The American Economic Review* 46 (2): 97–113.
- Miller, M. H., and K. Rock. 1985. Dividend Policy under Asymmetric Information. *The Journal of Finance* 40 (4): 1031–1051.
- Morgan Stanley. 2018. *What Will Corporate America Do with Tax Savings?* US Public Policy.
- Mui, Y. 2018. Democrats: GOP tax cut spurs \$85 billion wave in corporate buybacks. *CNBC*, February 7.
- O’Keefe, E. 2018. Nearly half of Americans agree with Nancy Pelosi’s ‘crumbs’ comment, according to a poll by a pro-Trump group - The Washington Post. *Washington Post*, March 1.
- Otani, A., R. Rubin, and T. Francis. 2018. Boom in Share Buybacks Renews Question of Who Wins From Tax Cuts. *Wall Street Journal*, March 2, sec. Markets.
- Rau, P. R., and T. Vermaelen. 2002. Regulation, Taxes, and Share Repurchases in the United Kingdom. *The Journal of Business* 75 (2): 245–282.
- Scholes, M. S., M. A. Wolfson, M. M. Erickson, M. Hanlon, E. L. Maydew, and T. J. Shevlin. 2014. *Taxes & Business Strategy*. 5 edition. Boston: Prentice Hall.
- Senate Democrats. 2018. *SPECIAL REPORT: The #GOPTaxScam Is Setting All The Wrong Records: In Two Months, \$200 Billion In Corporate Share Buybacks Have Been Announced, Overwhelmingly Funneling Huge Amounts Of Money To Corporate Executives And Wealthy Shareholders While The Middle Class Gets Left Behind, Senate Democratic Leadership*.
- Shiels, M., K. Trfecante, and J. Malter. 2018. Blankfein: Tax bonuses are “symbolic” - but symbolism matters. *CNNMoney*, February 14.
- Skinner, D. J. 2008. The evolving relation between earnings, dividends, and stock repurchases. *Journal of Financial Economics* 87 (3): 582–609.
- You, H. Y. 2017. Ex Post Lobbying. *The Journal of Politics* 79 (4): 1162–1176.

Appendix 1. Data Sources

Data Item	Data Source
Worker Related Benefits	Americans for Tax Reform website, https://www.atr.org/list
Dividends	Center for Research in Security Prices (CRSP), obtained via WRDS, wrds.wharton.upenn.edu
New Share Repurchase Announcements	Capital IQ, capitaliq.com
Actual Shares Repurchased	Compustat, obtained via WRDS, wrds.wharton.upenn.edu
Investment	Hand collected from Q1 2018 Earnings Conference Calls via Factiva
Financial Statement Items	Compustat, obtained via WRDS, wrds.wharton.upenn.edu
PAC Contributions	Federal Election Commission website, https://www.fec.gov/data/advanced/?tab=bulk-data
Unionization	Union Membership and Coverage Database, Unionstats.com

Appendix 2. Firms Specifically Connecting Share Repurchases with Tax Reform

BankUnited Given the increase in capital generated by the income tax benefit discussed above, the Board of Directors of the Company has authorized a share repurchase program under which the Company may repurchase up to \$150 million in shares of its outstanding common stock.

Benchmark Electronics "Benchmark's management team and board of directors firmly believe in the long-term growth prospects of the company and remain committed to a balanced approach to capital allocation," said Paul Tufano, CEO and President. "Given our strong cash position and recent tax reform, we believe we have the financial strength and liquidity to invest in future organic and inorganic growth, while returning value to shareholders through a combination of share repurchases and the return of cash through quarterly dividends."

Big Lots The Company also expects to realize a cash benefit from a lower tax rate in fiscal 2018 and is planning to reinvest into the business approximately 70% of the expected benefit while returning approximately 30% of the expected benefit to shareholders... On March 7, 2018, our Board of Directors approved a share repurchase program ("2018 Share Repurchase Program") providing for the repurchase of up to \$100 million of our common shares.

Cortland Bancorp In addition to raising its quarterly dividend, the Board authorized the repurchase of up to 100,000 shares of the Company's common stock for the twelve-month period ending December 31, 2018. The share repurchase authorization replaces the share repurchase authorization which expired on December 31, 2017. Repurchases may be made at the discretion of the Company's senior management based on market conditions and other relevant factors. "Anticipated earnings increase, due to the passage of the Tax and Jobs Act, prompted an evaluation of our Capital Plan Policy and dividend payment practices," said James Gasior, President and Chief Executive Officer. "The increase in our cash dividend reflects our continued commitment to providing strong shareholder returns while supporting strategic growth initiatives. Our opportunistic share repurchase initiative also aids in supporting the share price and returns additional capital to shareholders." At the stock price of \$21.00 per share at the close of the market on January 25, 2018, the increased dividend equates to a yield of 2.1% on an annualized basis.

Five Below We are announcing our first ever share repurchase authorization for \$100 million dollars... We are excited to begin 2018 with momentum and are in a position of strength to execute against our key strategic priorities. With a portion of the recent tax reform benefits, we are accelerating important investments focused on our associates, systems and infrastructure, further solidifying the foundation to support our future growth. The majority of the benefit from tax reform will flow through to our shareholders.

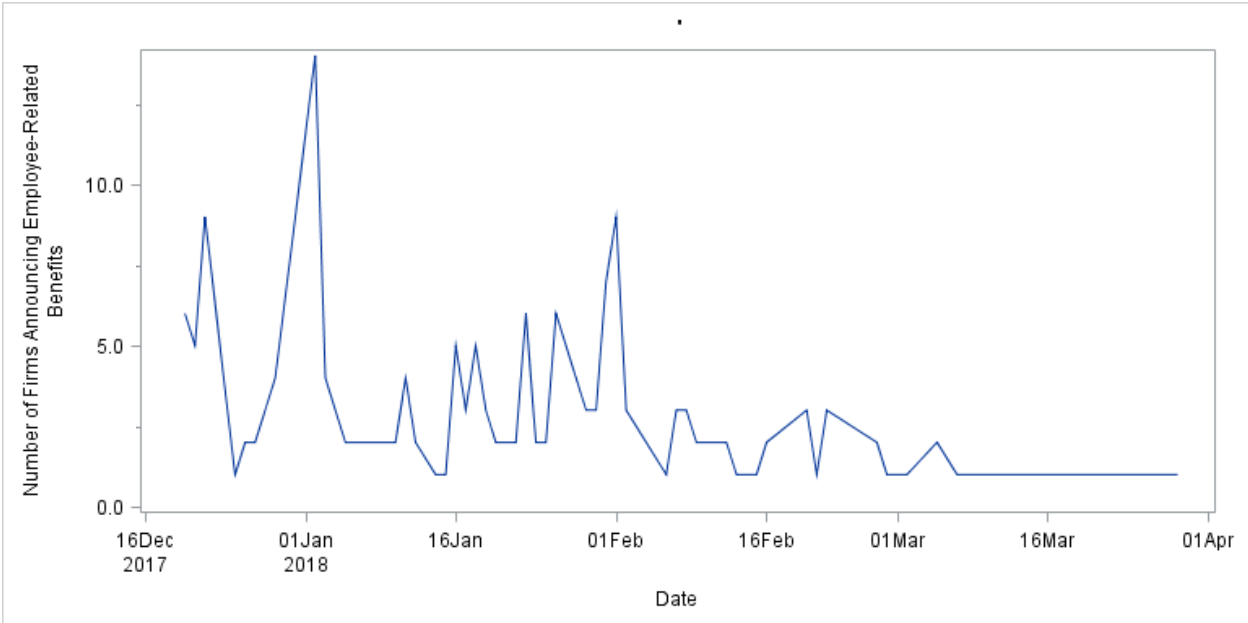
Plexus Corp. Plexus Corp. today announced that recent U.S. tax reform will enable it to tax-efficiently repatriate approximately \$500 million of offshore cash into the United States. As a result, Plexus has established a revised capital allocation plan that is intended to fund growth investments, reduce debt, reward our employees and enhance shareholder value. A summary of the capital allocation plan is summarized below...In June 2016, Plexus announced a three year, \$150 million share repurchase authorization (referred to as the "2016 Share Repurchase Plan"). Under this authorization, Plexus has purchased approximately \$44 million of shares through its fiscal first quarter 2018. Under Plexus' revised capital allocation plan, Plexus intends to accelerate the repurchases under the 2016 Share Repurchase Plan and complete the remaining \$106 million of authorized purchases in fiscal 2018 through open market purchases. Plexus' Board of Directors has approved a new share repurchase authorization, commencing upon completion of the 2016 Share Repurchase Plan, in the amount of \$200 million. Shares would be purchased through the open market, on a relatively consistent basis, with the intent to complete the repurchases in fiscal 2019. Todd Kelsey, President and CEO, commented, "We view the recent U.S. tax reform as immensely beneficial for Plexus. Through the reform, Plexus now has the ability to repatriate our current and future offshore cash in a significantly more tax-efficient manner. Access to this cash will enable us to support our growth prospects, improve our capital structure and reward our shareholders. Further, I am pleased to share this benefit with our employees. It is their commitment to Customer Service Excellence that has enabled Plexus to be an industry leader."

Teradyne On the capital allocation front, the combination of a strong business outlook and U.S. tax reform support our plan to raise our quarterly dividend by 29% to \$0.09 cents per share and initiate a \$1.5 billion share repurchase program with expected repurchases of \$750 million in 2018.

The TJX Companies The 2017 Tax Act benefited the Company in the fourth quarter and full year Fiscal 2018. The Company expects to continue to benefit from the 2017 Tax Act going forward, primarily due to the lower U.S. corporate income tax rate. As a result of the estimated cash benefit related to the 2017 Tax Act, the Company is taking the following actions...The Company also announced today its plan to repurchase approximately \$2.5 to \$3.0 billion of TJX stock during the fiscal year ending February 2, 2019. With \$1.1 billion remaining at Fiscal 2018 year end under the Company's stock repurchase programs, the Company's Board of Directors approved a new stock repurchase program that authorizes the repurchase of up to an additional \$3.0 billion of TJX common stock from time to time. The new authorization represents approximately 6% of the Company's outstanding shares at current prices. The new stock repurchase program marks the 19th program approved by the Board since 1997.

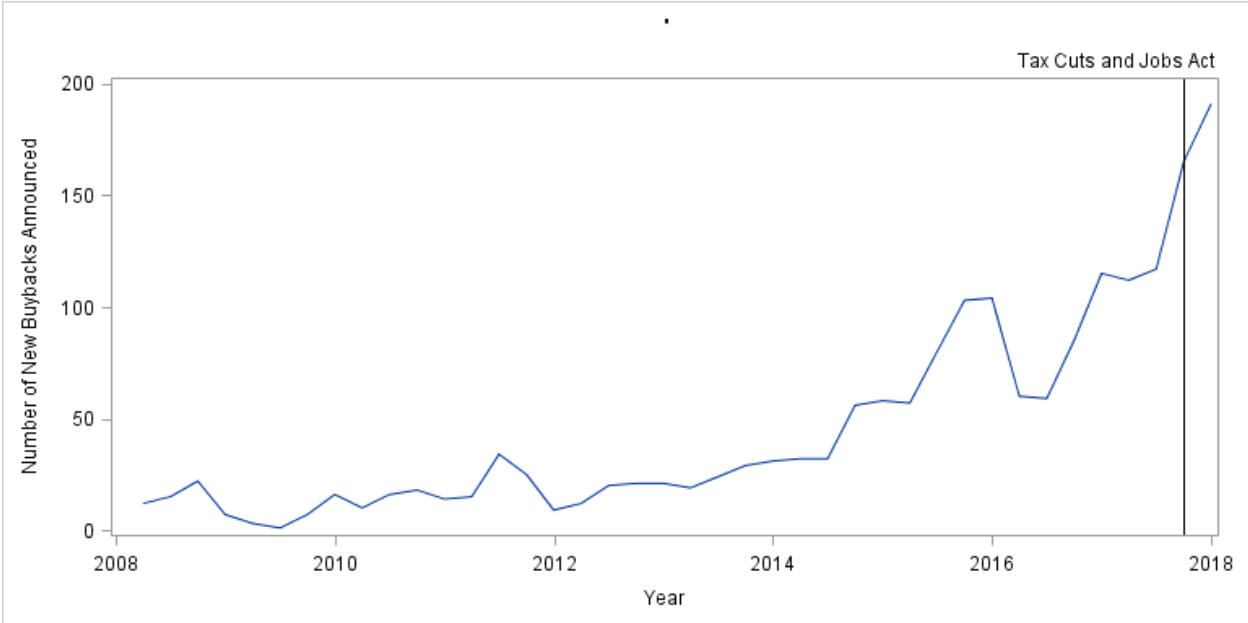
TransAct Technologies We will also benefit from a significant decline in our corporate tax rate beginning in 2018 as a result of the Tax Cuts and Jobs Act of 2017. Our strong financial position enables us to simultaneously invest in growth opportunities for our restaurant solutions business while returning capital to shareholders through both share repurchases and our quarterly dividend, which is reflected in the \$2.9 million in total capital we returned to shareholders during 2017. As such, we are pleased to announce our new share repurchase program, which demonstrates the Company's ongoing commitment to allocating capital towards shareholder value building initiatives. In fact, we have repurchased over \$30 million of our common stock since our first program was implemented in 2005. As we look to 2018, TransAct remains very favorably positioned to deliver growth and further value creation for our shareholders.

Figure 1. Tax Reform Employee-Related Benefits Announced



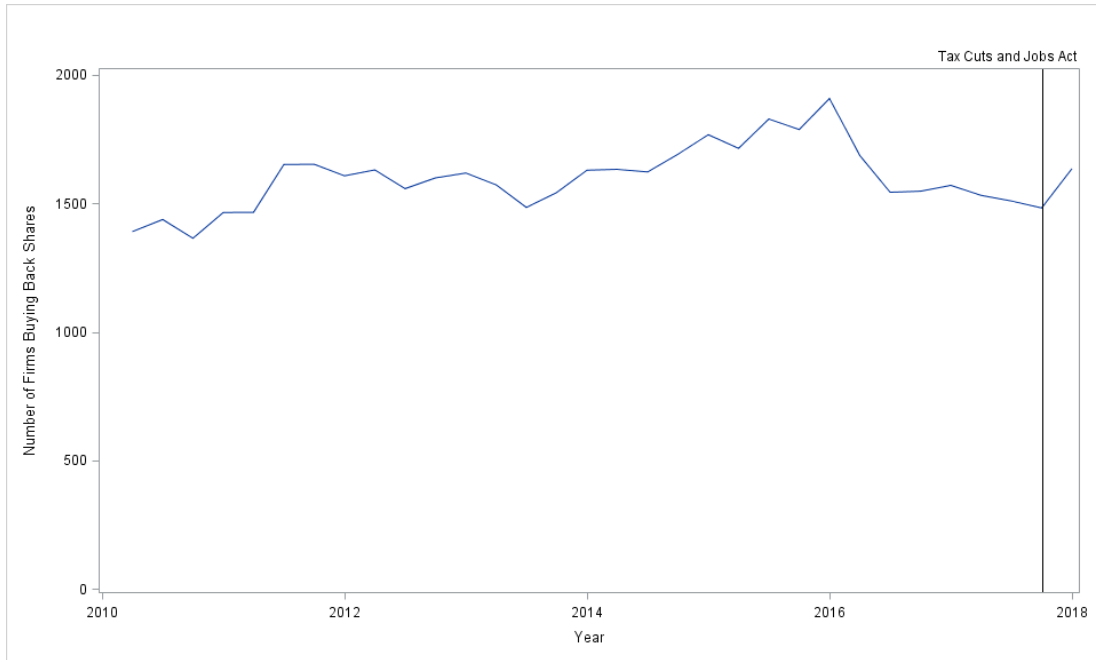
Notes. This graph depicts the timing of corporate announcements of employee related benefits attributed to tax reform. We obtain the data from the Americans for Tax Reform (ATR) website.

Figure 2. Tax Reform and New Share Repurchase Agreements



Notes. Figure 2 depicts the number of new share repurchase plans announced on a quarterly basis from 2008 to Q1, 2018. All data are from Capital IQ.

Figure 3. Actual Share Repurchases and Tax Reform
Panel A. Number of Firms Repurchasing Shares, 2010-2018



Panel B. Value of Share Repurchases, 2010-2018

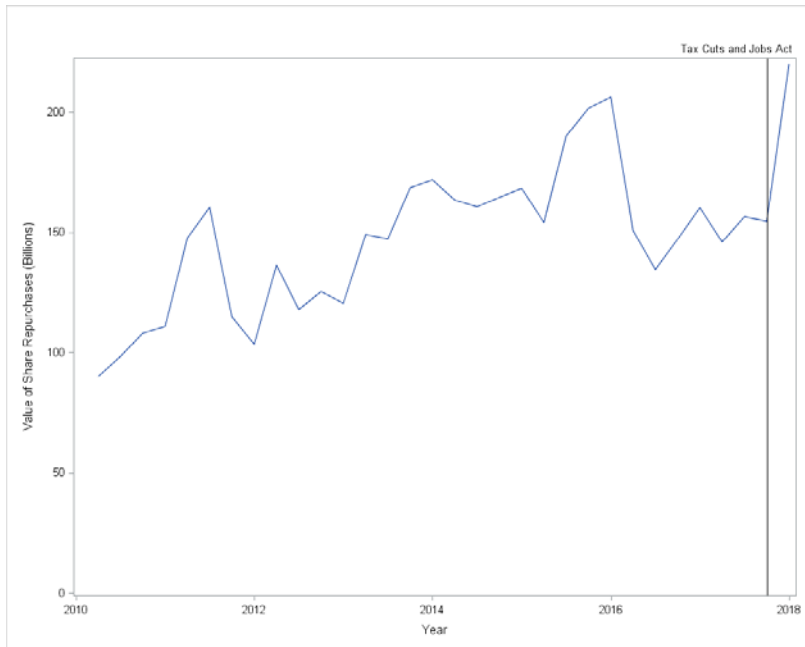
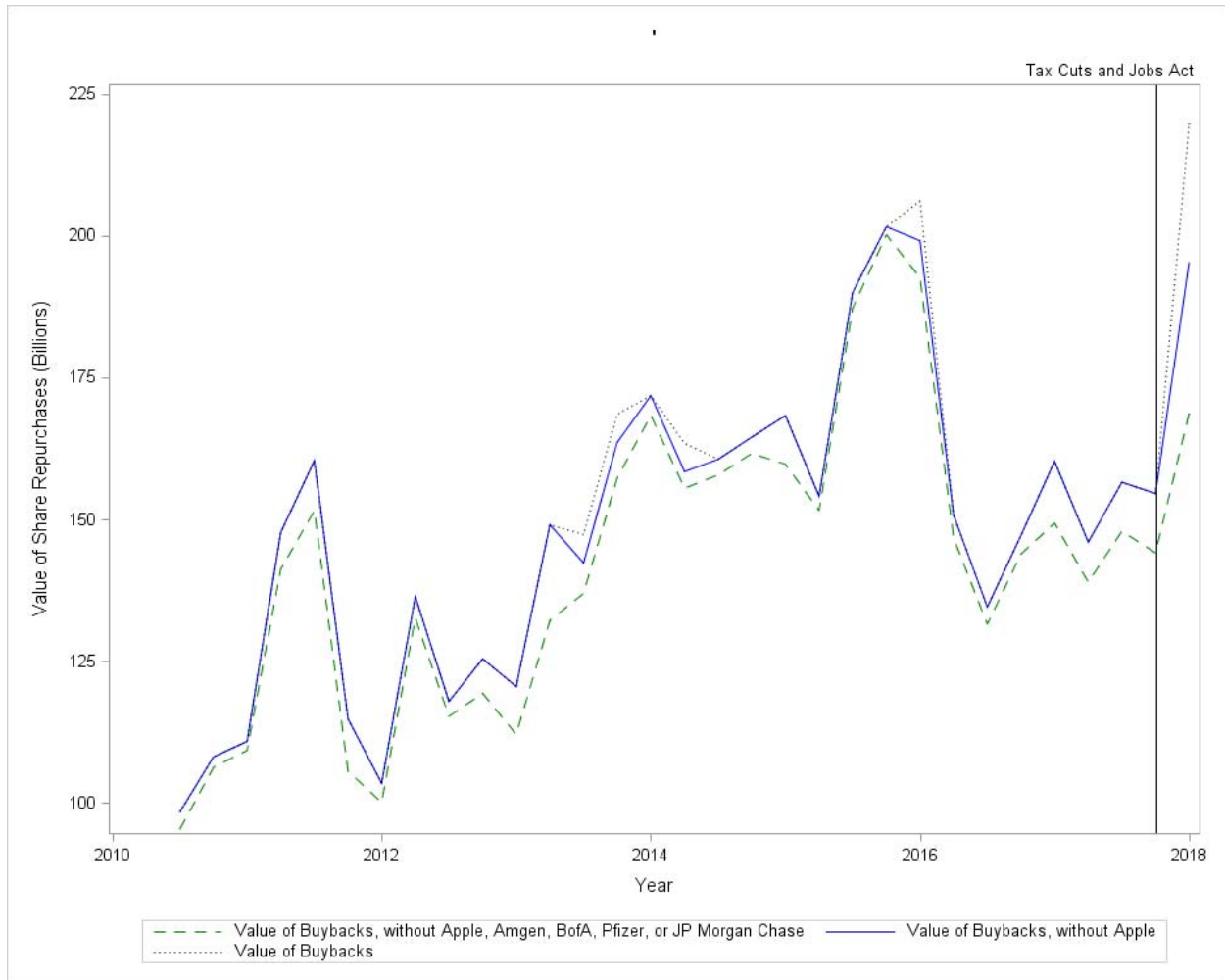
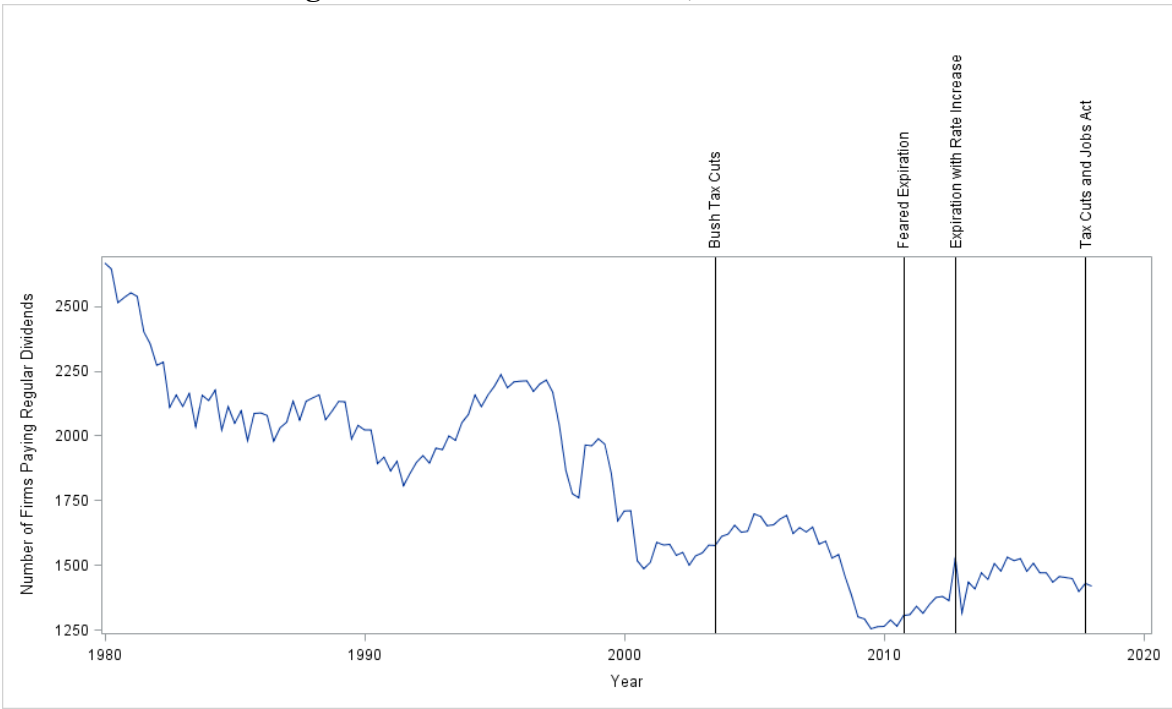


Figure 3 (continued). Actual Share Repurchases and Tax Reform
Panel C. Concentration of Buybacks, 2010-2018



Notes. Panel A depicts the number of firms disclosing share repurchases in their 10-Q filing, as obtained from Compustat. Panel B depicts the dollar magnitude of share repurchases disclosed in the 10-Q. Panel C replicates Panel B, taking out shares repurchased by the five firms that repurchased the largest dollar value of shares in Q1 2018. All data are shown on a quarterly frequency.

Figure 4. Regular Dividends and Tax Reform
Panel A. Number of Regular Dividends Announced, 1980-2018



Panel B. Value of Regular Dividends Announced, 1980-2018

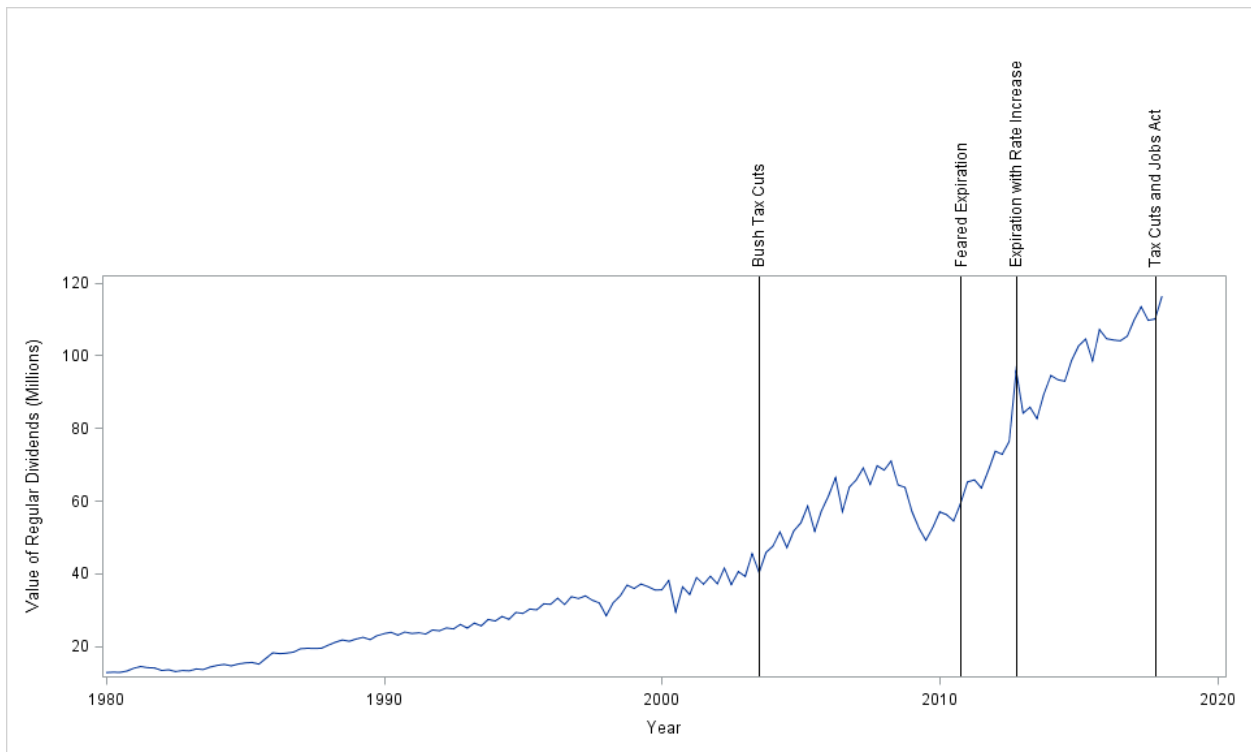
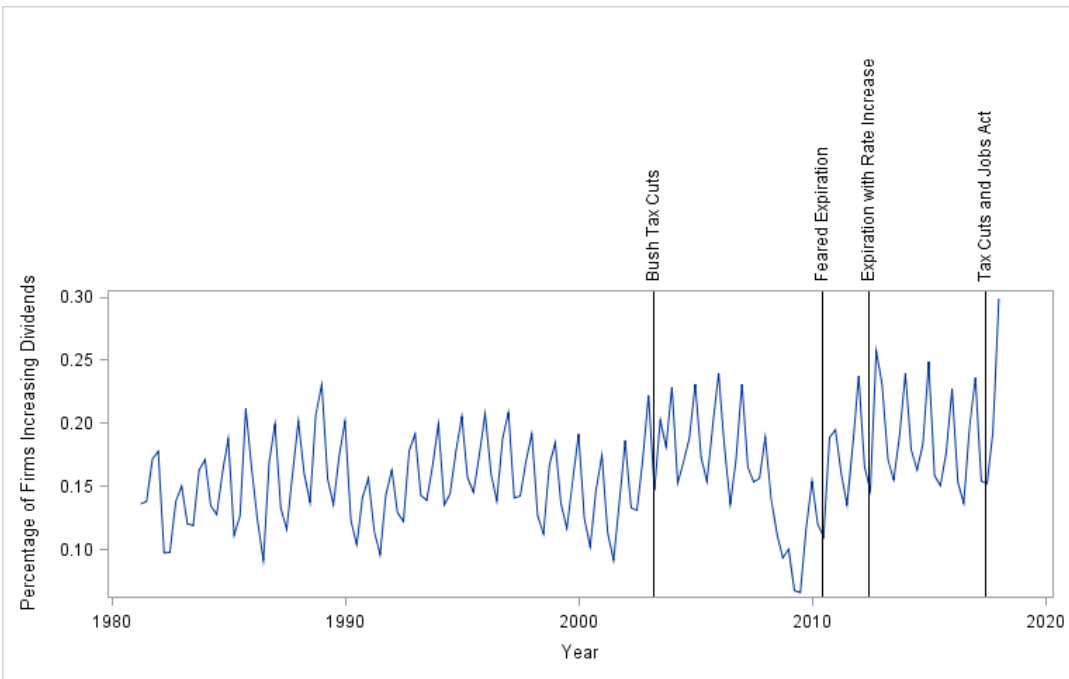
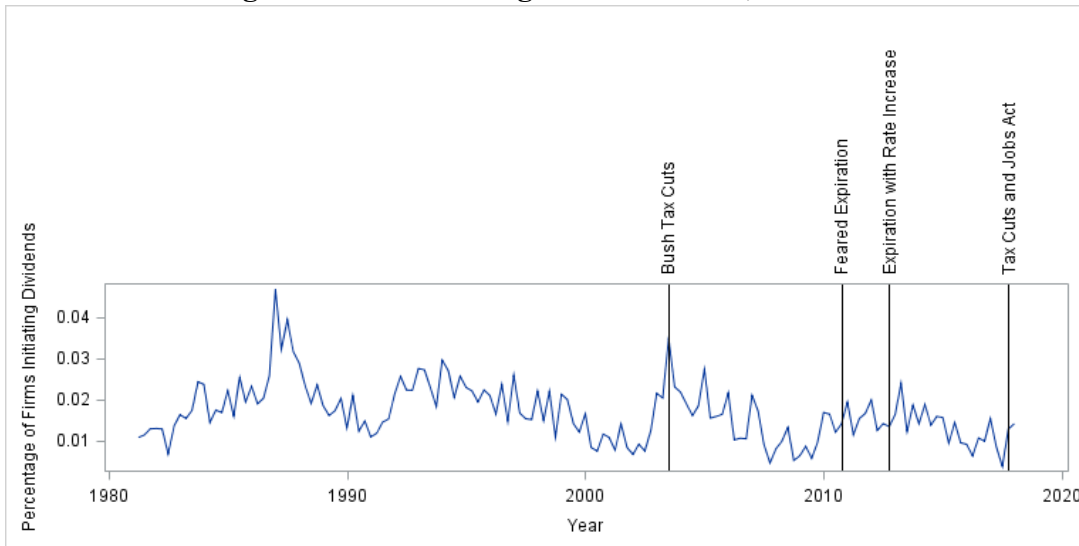


Figure 4 (continued). Regular Dividends and Tax Reform
Panel C. Percentage of Firms Increasing Dividends, 1980-2018



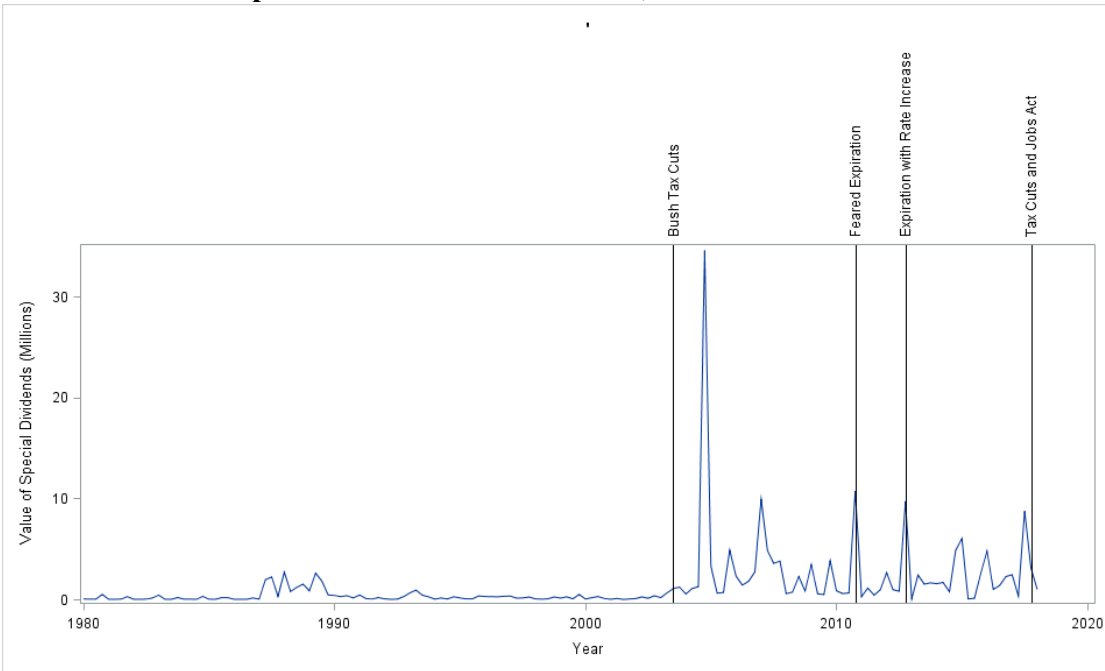
Panel D. Percentage of Firms Initiating New Dividends, 1980-2018



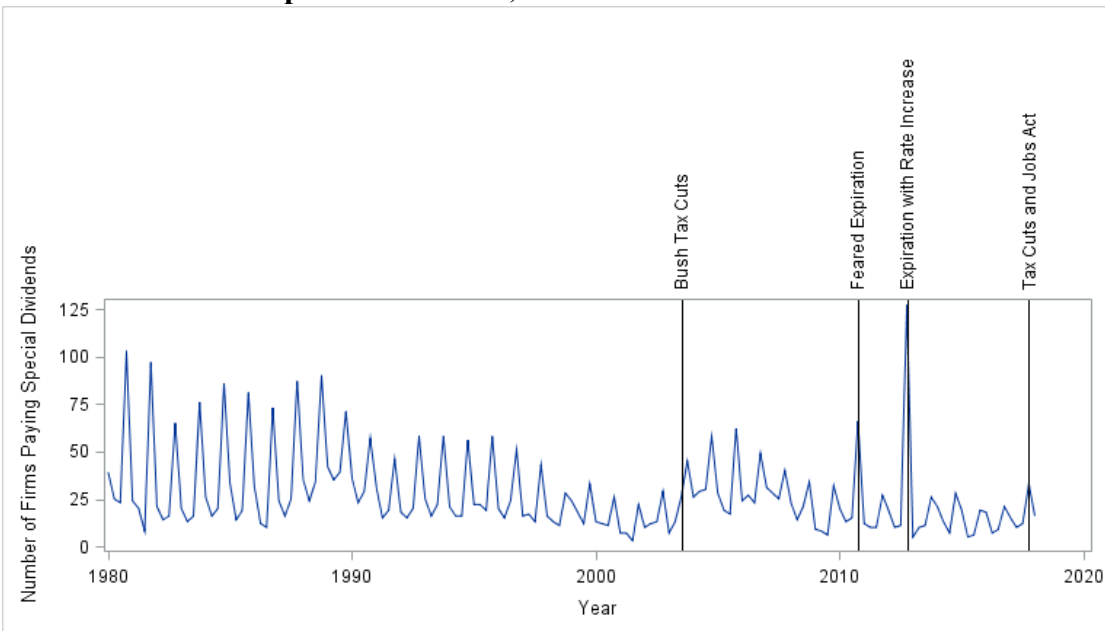
Notes. Panel A depicts the number of firms announcing regular dividends, from 1980-2018. Panel B depicts the dollar value of regular dividends announced from 1980-2018. Panel C depicts the percentage of firms increasing their dividend from the amount they paid in the previous quarter. Panel D depicts the percentage of firms initiating a normal dividend for the first time in at least three years. All data is obtained from CRSP. Regular dividends are dividends with distribution codes (CRSP mnemonic DISTCD) 1232, 1212, 1222, and 1242. Only share codes (CRSP mnemonic SHRCOD) 10 and 11 are used. Dates are determined from the date the dividend is announced (CRSP mnemonic DCLRDT).

Figure 5. Special Dividends

Panel A. Value of Special Dividends Announced, 1980-2018



Panel B. Number of Special Dividends, 1980-2018



Notes. Panel A depicts the dollar value of special dividends announced, from 1980-2018. Panel B depicts the number of firms that announced a special dividend from 1980-2018. All data is obtained from CRSP. Special dividends are dividends with distribution codes (CRSP mnemonic DISTCD) 1262 or 1272. Only share codes (CRSP mnemonic SHRCOD) 10 and 11 are used. Dates are determined from the date the dividend is announced (CRSP mnemonic DCLRDT).

Table 1. Worker-Related Announcement Attributed to Tax Reform

Firms announcing:

Public Firms from ATR List in Final Sample	163	
One-time bonuses	118	72%
Additional hiring	11	7%
Wage increases	63	39%
Enhanced benefits	51	31%

Notes. This table depicts the breakdown of types of worker-related benefits attributed to tax reform from firms captured by Americans for Tax Reform and announced in the first quarter of 2018 that enter into our final sample.

Table 2. Worker-Related Benefits by Industry

Industry Name	Composition of	Composition of Announcing	Total Sample	Percent of Total Sample That
	Announcing Sample by Industry	Sample by Industry as a Percentage	(Announcers and non-Announcers)	Announced By Industry
	(1)	(2) = (Column 1)/163	(3)	(4) = (Column 1)/(Column 3)
Agriculture	0	0.00%	10	0.00%
Aircraft	1	0.61%	20	5.00%
Alcoholic Beverages	1	0.61%	13	7.69%
Apparel	2	1.23%	34	5.88%
Automobiles and Trucks	1	0.61%	57	1.75%
Banking	76	46.63%	492	15.45%
Business Services	9	5.52%	499	1.80%
Business Supplies	1	0.61%	29	3.45%
Candy and Soda	0	0.00%	18	0.00%
Chemicals	0	0.00%	85	0.00%
Coal	0	0.00%	7	0.00%
Computers	2	1.23%	86	2.33%
Construction	0	0.00%	54	0.00%
Construction Materials	0	0.00%	66	0.00%
Consumer Goods	0	0.00%	44	0.00%
Defense	0	0.00%	8	0.00%
Electrical Equipment	0	0.00%	41	0.00%
Electronic Equipment	2	1.23%	182	1.10%
Entertainment	0	0.00%	47	0.00%
Fabricated Products	0	0.00%	8	0.00%
Food Products	5	3.07%	58	8.62%
Healthcare	3	1.84%	68	4.41%
Insurance	6	3.68%	98	6.12%
Machinery	1	0.61%	109	0.92%
Measuring and Control Equip	1	0.61%	67	1.49%
Medical Equipment	0	0.00%	158	0.00%
Miscellaneous	1	0.61%	56	1.79%
Nonmetallic Mines	0	0.00%	19	0.00%
Personal Services	0	0.00%	33	0.00%
Petroleum and Natural Gas	1	0.61%	162	0.62%
Pharmaceutical Products	7	4.29%	503	1.39%
Precious Metals	0	0.00%	20	0.00%
Printing and Publishing	0	0.00%	20	0.00%
Real Estate	0	0.00%	40	0.00%
Recreational Products	0	0.00%	21	0.00%
Restaurants, Hotel, Motel	3	1.84%	72	4.17%
Retail	16	9.82%	150	10.67%
Rubber and Plastic Products	0	0.00%	19	0.00%
Shipbuilding, Railroad Eq	1	0.61%	11	9.09%
Shipping Containers	0	0.00%	10	0.00%
Steel Works, Etc.	0	0.00%	31	0.00%
Telecommunications	8	4.91%	85	9.41%
Textiles	0	0.00%	8	0.00%
Tobacco Products	2	1.23%	4	50.00%
Trading	2	1.23%	122	1.64%
Transportation	8	4.91%	70	11.43%
Utilities	1	0.61%	104	0.96%
Wholesale	2	1.23%	116	1.72%
	163	100%	4,034	

Notes. This table depicts the breakdown by industry of worker-related benefits attributed to tax reform from firms captured by Americans for Tax Reform and announced in the first quarter of 2018 that enter into our final sample by industry.

Table 3. Firms' Investment Announcements Attributed to Tax Reform

Firms announcing:

S&P 500 firms in Final Sample	424	
Any form of Investment	95	22%
Capital Expenditure	43	10%
Investment in Technology	59	14%

Notes. This table depicts the number of firms mentioning the different types of investment they will undertake as a result of tax reform, collected from transcripts for earnings conference calls held in Q1 of 2018. Note that 95 is the total set of firms that mentioned any type of investment. Some firms did not provide specific disclosures about what the investment would be. For those that did provide specific disclosure, some said capital expenditure, some said technology, and some mentioned both types. We count the firm separately in each category of specific disclosure if the firm disclosed they were doing both capital expenditures and technology (in other words, the same firm could be included in both groupings of specific disclosures).

Table 4. Investment Announcements by Industry

Industry Name	Composition of	Composition of Announcing	Total Sample	Percent of Total Sample That
	Announcing Sample by Industry	Sample by Industry as a Percentage	(Announcers and non-Announcers)	Announced By Industry
	(1)	(2) = (Column 1)/95	(3)	(4) = (Column 1)/(Column 3)
Agriculture	0	0.00%	1	0.00%
Aircraft	1	1.05%	7	14.29%
Alcoholic Beverages	2	2.11%	5	40.00%
Apparel	1	1.05%	7	14.29%
Automobiles and Trucks	0	0.00%	6	0.00%
Banking	9	9.47%	25	36.00%
Business Services	4	4.21%	41	9.76%
Business Supplies	2	2.11%	4	50.00%
Candy and Soda	0	0.00%	3	0.00%
Chemicals	1	1.05%	11	9.09%
Computers	2	2.11%	9	22.22%
Construction	0	0.00%	6	0.00%
Construction Materials	0	0.00%	5	0.00%
Consumer Goods	2	2.11%	10	20.00%
Defense	1	1.05%	1	100.00%
Electrical Equipment	1	1.05%	3	33.33%
Electronic Equipment	1	1.05%	20	5.00%
Entertainment	0	0.00%	3	0.00%
Food Products	7	7.37%	13	53.85%
Healthcare	2	2.11%	5	40.00%
Insurance	9	9.47%	23	39.13%
Machinery	1	1.05%	11	9.09%
Measuring and Control Equip	1	1.05%	11	9.09%
Medical Equipment	3	3.16%	11	27.27%
Miscellaneous	0	0.00%	3	0.00%
Nonmetallic Mines	0	0.00%	3	0.00%
Personal Services	0	0.00%	1	0.00%
Petroleum and Natural Gas	1	1.05%	24	4.17%
Pharmaceutical Products	8	8.42%	18	44.44%
Precious Metals	0	0.00%	1	0.00%
Printing and Publishing	0	0.00%	1	0.00%
Real Estate	1	1.05%	1	100.00%
Recreational Products	0	0.00%	2	0.00%
Restaurants, Hotel, Motel	3	3.16%	7	42.86%
Retail	19	20.00%	28	67.86%
Shipbuilding, Railroad Eq	1	1.05%	1	100.00%
Shipping Containers	0	0.00%	3	0.00%
Steel Works, Etc.	0	0.00%	1	0.00%
Telecommunications	3	3.16%	11	27.27%
Textiles	0	0.00%	1	0.00%
Tobacco Products	2	2.11%	2	100.00%
Trading	1	1.05%	16	6.25%
Transportation	1	1.05%	15	6.67%
Utilities	3	3.16%	34	8.82%
Wholesale	2	2.11%	10	20.00%
	95	100%	424	

Notes. This table depicts the S&P 500 firms in our sample, by industry, and the percentage in each industry announcing tax-reform related investment.

Table 5. TCJA-tied Worker Benefits Announcements, Investment, and Tax Reform

Variable	Obs	Mean	S.D.	Min	0.25	Mdn	0.75	Max
TCJA-tied Worker Benefit Announcement	4034	0.04	0.2	0	0	0	0	1
S&P 500 Investment Announcements	424	0.22	0.42	0	0	0	0	1
Red State	4034	0.41	0.49	0	0	0	1	1
Politically Sensitive Industry	4034	0.22	0.42	0	0	0	0	1
Percent Unionized	4034	0.05	0.06	0	0.02	0.03	0.07	0.56
GOP PAC Donator	4034	0.13	0.33	0	0	0	0	1
Cash	4034	0.23	0.26	0	0.04	0.11	0.31	0.96
Percent Expensed	4034	0.4	0.4	0	0	0.28	0.84	1
High Cash ETR	4034	0.26	0.44	0	0	0	1	1
Tax Savings	904	0.07	0.08	-0.14	0.03	0.08	0.11	0.29
Ln(Assets)	4034	6	2.79	-1.26	4.21	6.38	7.92	11.21
MNE	4034	0.41	0.49	0	0	0	1	1
Ln(Employees)	4034	6.47	2.59	0.69	4.65	6.53	8.48	11.39
R&D	4034	0.46	0.5	0	0	0	1	1
Dividend	4034	0.41	0.49	0	0	0	1	1
CAPEX	4034	0.03	0.04	0	0	0.02	0.04	0.19
ROA	4034	-0.33	1.16	-6.86	-0.15	0.01	0.07	0.29

Notes. The sample for this table is U.S. incorporated corporations on Compustat in 2016, and the unit of analysis is the firm. *TCJA-Worker Tied Benefit* is an indicator variable coded to equal one if the firm was included on the Americans for Tax Reform website as having made a public announcement stating that as a result of tax reform, they were paying a worker benefit (salary increase, one-time bonus, increased 401(k) match, etc.). *Red State* is an indicator variable coded to equal one for states that voted for Donald Trump in 2016. *Politically Sensitive Industry* is an indicator variable coded to equal one if the firm's industry is politically sensitive, following Julio and Yook (2012). *Percent Unionized* is the percentage of the industry that is unionized in 2016, following Hirsch and Macpherson (2003). *GOP PAC Donator* is an indicator variable coded to equal one for firms whose political action committees donated more to Republican candidates than Democratic candidates in 2015-2016. *Cash* is the percentage of a firm's total assets (AT) that are cash (CHE). *Percent Expensed* is advertising expenses and R&D expenses divided by capital expenditures plus advertising expenses and R&D expenses. *Cash ETR* is the cash taxes paid (TXPD) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *GAAP ETR* is total tax expense (TXT) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *Tax Savings* is *GAAP ETR* from 2016 minus the ongoing forecast of the *GAAP ETR* after tax reform as collected from earnings conference calls by Morgan Stanley. *Ln(Assets)* is the natural log of total assets (AT). *MNE* is an indicator variable coded to equal one if the firm is a multinational enterprise, as determined by the firm having non-zero foreign pretax income (PIFO). *Ln(Employees)* is the natural log of the number of employees at the firm (EMP), after multiplying EMP by 1,000. *R&D* is an indicator variable coded to equal one if the firm discloses a non-zero amount of research and development (XRD). *CAPEX* is the percentage of a firm's total assets (AT) that are capital expenditures (CAPX). *ROA* is the return on assets, obtained from dividing the pretax income (PRE) by the total assets of the firm (AT). All variables are obtained for the firm fiscal year (fyear) 2016, and prior to being used in the regression analysis are winsorized at the 2% and 98% level.

Table 6. Regression Analysis of TCJA-Tied Worker Benefit Announcements

	(1)	(2)
VARIABLES	TCJA-tied Worker Benefit Announcement	
Political:		
Red State	-0.012* (0.01)	-0.031 (0.02)
Politically Sensitive Industry	0.013 (0.01)	0.054 (0.04)
Percent Unionized	-0.205*** (0.07)	-0.321* (0.18)
GOP PAC Donator	0.091*** (0.02)	0.102*** (0.03)
Economic:		
Cash	-0.010 (0.01)	0.030 (0.08)
Percent Expensed	-0.003 (0.01)	-0.011 (0.04)
High Cash ETR	0.029*** (0.01)	0.026 (0.02)
Tax Savings		0.362*** (0.12)
Other Controls:		
Ln(Assets)	0.012*** (0.00)	0.045*** (0.01)
MNE	-0.044*** (0.01)	-0.090*** (0.03)
Ln(Employees)	0.003 (0.00)	0.010 (0.01)
R&D	-0.010 (0.01)	-0.029 (0.03)
Dividend	0.015** (0.01)	0.030 (0.02)
CAPEX	-0.242*** (0.07)	-0.274 (0.32)
ROA	-0.012*** (0.00)	0.005 (0.17)
Constant	-0.037*** (0.01)	-0.324*** (0.07)
Observations	4,034	904
R-squared	0.10	0.18

Notes. The sample for this analysis is U.S. incorporated corporations on Compustat in 2016, and the unit of analysis is the firm. *TCJA-Worker Tied Benefit* is an indicator variable coded to equal one if the firm was included on the Americans for Tax Reform website as having made a public announcement stating that as a result of tax reform, they were paying a worker benefit (salary increase, one-time bonus, increased 401(k) match, etc.). *Red State* is an indicator variable coded to equal one for states that voted for Donald Trump in 2016. *Politically Sensitive Industry* is an indicator variable coded to equal one if the firm's industry is politically sensitive, following Julio and Yook (2012). *Percent Unionized* is the percentage of the industry that is unionized in 2016, following Hirsch and Macpherson (2003). *GOP PAC Donator* is an indicator variable coded to equal one for firms whose political action committees donated more to Republican candidates than Democratic candidates in 2015-2016. *Cash* is the percentage of a firm's total assets (AT) that are cash (CHE). *Percent Expensed* is advertising expenses and R&D expenses divided by capital expenditures plus advertising expenses and R&D expenses. *Cash ETR* is the cash taxes paid (TXPD) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *GAAP ETR* is total tax expense (TXT) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *Tax Savings* is *GAAP ETR* from 2016 minus the ongoing forecast of the GAAP ETR after tax reform as collected from earnings conference calls by Morgan Stanley. *Ln(Assets)* is the natural log of total assets (AT). *MNE* is an indicator variable coded to equal one if the firm is a multinational enterprise, as determined by the firm having non-zero foreign pretax income (PIFO). *Ln(Employees)* is the natural log of the number of employees at the firm (EMP), after multiplying EMP by 1,000. *R&D* is an indicator variable coded to equal one if the firm discloses a non-zero amount of research and development (XRD). *CAPEX* is the percentage of a firm's total assets (AT) that are capital expenditures (CAPX). *ROA* is the return on assets, obtained from dividing the pretax income (PRE) by the total assets of the firm (AT). All variables are obtained for the firm fiscal year (fyear) 2016, and prior to be used in the regression analysis are winsorized at the 2% and 98% level. Standard errors are in the parentheses.

Table 7. Regression Analysis of Announced Tax Reform Related Increase In Investment

VARIABLES	(1)	(2)
	Announced Tax Reform Related Increase In Investment	
Political:		
Red State	0.040 (0.04)	0.122** (0.06)
Politically Sensitive Industry	0.069 (0.06)	0.120 (0.10)
Percent Unionized	-1.011*** (0.21)	-1.130*** (0.35)
GOP PAC Donator	0.049 (0.04)	0.056 (0.06)
Economic:		
Cash	-0.252 (0.15)	-0.222 (0.21)
Percent Expensed	0.133 (0.08)	0.222* (0.13)
High Cash ETR	0.136*** (0.05)	0.152*** (0.06)
Tax Savings		0.447 (0.31)
Other Controls:		
Ln(Assets)	0.052* (0.03)	0.062* (0.04)
MNE	-0.211*** (0.05)	-0.200*** (0.08)
Ln(Employees)	0.060*** (0.02)	0.056* (0.03)
R&D	-0.029 (0.05)	-0.037 (0.08)
Dividend	-0.071 (0.05)	-0.055 (0.07)
CAPEX	0.506 (0.55)	1.725 (1.12)
ROA	1.010*** (0.25)	0.986* (0.50)
Constant	-0.805*** (0.24)	-1.002*** (0.33)
Observations	424	261
R-squared	0.21	0.22

Notes. The sample of firms for this test is the S&P 500 firms with available data on Compustat, and the unit of analysis is the firm. *Announced Tax Reform Related Increase In Investment* is an indicator variable coded to equal one if the firm stated in an earnings conference call following tax reform that, because of tax reform, it would increase investment. *Red State* is an indicator variable coded to equal one for states that voted for Donald Trump in 2016. *Politically Sensitive Industry* is an indicator variable coded to equal one if the firm's industry is politically sensitive, following Julio and Yook (2012). *Percent Unionized* is the percentage of the industry that is unionized in 2016, following Hirsch and Macpherson (2003). *GOP PAC Donator* is an indicator variable coded to equal one for firms whose political action committees donated more to Republican candidates than Democratic candidates in 2015-2016. *Cash* is the percentage of a firm's total assets (AT) that are cash (CHE). *Percent Expensed* is advertising expenses and R&D expenses divided by capital expenditures plus advertising expenses and R&D expenses. *Cash ETR* is the cash taxes paid (TXPD) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *GAAP ETR* is total tax expense (TXT) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *Tax Savings* is *GAAP ETR* from 2016 minus the ongoing forecast of the *GAAP ETR* after tax reform as collected from earnings conference calls by Morgan Stanley. *Ln(Assets)* is the natural log of total assets (AT). *MNE* is an indicator variable coded to equal one if the firm is a multinational enterprise, as determined by the firm having non-zero foreign pretax income (PIFO). *Ln(Employees)* is the natural log of the number of employees at the firm (EMP), after multiplying EMP by 1,000. *R&D* is an indicator variable coded to equal one if the firm discloses a non-zero amount of research and development (XRD). *CAPEX* is the percentage of a firm's total assets (AT) that are capital expenditures (CAPX). *ROA* is the return on assets, obtained from dividing the pretax income (PRE) by the total assets of the firm (AT). All variables are obtained for the firm fiscal year (fyear) 2016, and prior to being used in the regression analysis are winsorized at the 2% and 98% level. Standard errors are in the parentheses.

Table 8. Dividend Increases, New Share Repurchase Announcements, and Tax Reform**Panel A. Descriptive Statistics**

Variable	Obs	Mean	S.D.	Min	0.25	Mdn	0.75	Max
Announced New Buyback	123752	0.01	0.11	0	0	0	0	1
Dividend Increase	123752	0.08	0.27	0	0	0	0	1
Post Tax Reform	123752	0.03	0.17	0	0	0	0	1
Red State	123752	0.42	0.49	0	0	0	1	1
Politically Sensitive Industry	123752	0.21	0.4	0	0	0	0	1
Percent Unionized	123752	0.06	0.06	0	0.02	0.03	0.07	0.56
GOP PAC Donator	123752	0.12	0.33	0	0	0	0	1
Cash	123752	0.22	0.25	0	0.04	0.11	0.3	0.95
Percent Expensed	123752	0.4	0.38	0	0	0.34	0.79	1
High Cash ETR	123752	0.26	0.44	0	0	0	1	1
Ln(Assets)	123752	5.83	2.78	-1.47	4.11	6.19	7.76	11.02
MNE	123752	0.38	0.48	0	0	0	1	1
Ln(Employees)	123752	6.37	2.57	0.69	4.62	6.44	8.33	11.27
R&D	123752	0.43	0.49	0	0	0	1	1
Dividend	123752	0.4	0.49	0	0	0	1	1
CAPEX	123752	0.04	0.05	0	0	0.02	0.05	0.26
ROA	123752	-0.33	1.31	-7.98	-0.1	0.01	0.08	0.31

Table 8 (continued). Dividend Increases, New Share Repurchase Announcements, and Tax Reform

Panel B. Regression Results

VARIABLES	(1) Announced New Buyback	(2) Dividend Increase	(3) Announced New Buyback	(2) Dividend Increase
Post Tax Reform	0.0045 (0.00)	0.0272*** (0.00)	-0.0365*** (0.01)	0.0120 (0.02)
Red State	0.0005 (0.00)	0.0043 (0.00)	0.0005 (0.00)	0.0047 (0.00)
Politically Sensitive Industry	-0.0022*** (0.00)	-0.0248*** (0.00)	-0.0019*** (0.00)	-0.0240*** (0.00)
Percent Unionized	-0.0143*** (0.00)	0.1162*** (0.03)	-0.0102** (0.00)	0.1150*** (0.03)
GOP PAC Donator	0.0036*** (0.00)	0.0321*** (0.01)	0.0031*** (0.00)	0.0316*** (0.01)
Cash	-0.0000 (0.00)	-0.0096* (0.01)	-0.0003 (0.00)	-0.0092* (0.01)
Percent Expensed	0.0010 (0.00)	-0.0064 (0.01)	0.0009 (0.00)	-0.0060 (0.01)
High Cash ETR	0.0036*** (0.00)	0.0481*** (0.00)	0.0037*** (0.00)	0.0478*** (0.00)
Ln(Assets)	0.0006*** (0.00)	0.0188*** (0.00)	0.0005*** (0.00)	0.0184*** (0.00)
MNE	0.0028*** (0.00)	-0.0087** (0.00)	0.0027*** (0.00)	-0.0084** (0.00)
Ln(Employees)	0.0015*** (0.00)	-0.0007 (0.00)	0.0015*** (0.00)	-0.0004 (0.00)
R&D	-0.0014* (0.00)	-0.0044 (0.00)	-0.0010 (0.00)	-0.0040 (0.00)
Dividend	0.0016** (0.00)		0.0014** (0.00)	
CAPEX	-0.0037 (0.00)	-0.1273*** (0.03)	-0.0078* (0.00)	-0.1269*** (0.03)
ROA	-0.0003** (0.00)	-0.0088*** (0.00)	-0.0003* (0.00)	-0.0087*** (0.00)
Post Tax Reform X Red State			0.0037 (0.01)	-0.0142 (0.01)
Post Tax Reform X Politically Sensitive Industry			-0.0089 (0.01)	-0.0224** (0.01)
Post Tax Reform X Percent Unionized			-0.1374*** (0.05)	0.0424 (0.10)
Post Tax Reform X GOP PAC Donator			0.0150 (0.01)	0.0143 (0.02)
Post Tax Reform X Cash			0.0189 (0.01)	0.0038 (0.02)
Post Tax Reform X Percent Expensed			0.0048 (0.01)	-0.0177 (0.02)
Post Tax Reform X High Cash ETR			-0.0026 (0.01)	0.0083 (0.01)
Post Tax Reform X Ln(Assets)			0.0037 (0.00)	0.0159*** (0.00)
Post Tax Reform X MNE			0.0056 (0.01)	-0.0067 (0.01)
Post Tax Reform X Ln(Employees)			0.0020 (0.00)	-0.0099** (0.00)
Post Tax Reform X R&D			-0.0152 (0.01)	-0.0132 (0.01)
Post Tax Reform X Dividend			0.0059 (0.01)	
Post Tax Reform X CAPEX			0.1836** (0.09)	-0.0296 (0.10)
Post Tax Reform X ROA			-0.0019 (0.00)	-0.0055** (0.00)
Trend	-0.0013** (0.00)	-0.0108*** (0.00)	-0.0012** (0.00)	-0.0108*** (0.00)
Trend Squared	0.0008*** (0.00)	0.0011*** (0.00)	0.0008*** (0.00)	0.0011*** (0.00)
Constant	-0.0111*** (0.00)	-0.0190*** (0.01)	-0.0103*** (0.00)	-0.0190*** (0.01)
Observations	123,752	123,752	123,752	123,752
R-squared	0.01	0.06	0.01	0.06

Table 8 (continued). Dividend Increases, New Share Repurchase Announcements, and Tax Reform

Notes. The sample consists of U.S. incorporated corporations from 2010-2018 available on Compustat, and the unit of analysis is the firm-quarter. *Announced New Buyback* is an indicator coded to equal one for firm/quarter observations which Capital IQ records as having announced a new share repurchase plan. *Dividend Increase* is an indicator variable coded to equal one if the firm increased its dividend. *Red State* is an indicator variable coded to equal one for states that voted for Donald Trump in 2016. *Politically Sensitive Industry* is an indicator variable coded to equal one if the firm's industry is politically sensitive, following Julio and Yook (2012). *Percent Unionized* is the percentage of the industry that is unionized in 2016, following Hirsch and Macpherson (2003). *GOP PAC Donator* is an indicator variable coded to equal one for firms whose political action committees donated more to Republican candidates than Democratic candidates in 2015-2016. *Cash* is the percentage of a firm's total assets (AT) that are cash (CHE). *Percent Expensed* is advertising expenses and R&D expenses divided by capital expenditures plus advertising expenses and R&D expenses. *Cash ETR* is the cash taxes paid (TXPD) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *GAAP ETR* is total tax expense (TXT) divided by pretax income (PRE), truncated at 0 and 1, and only defined over positive values of pretax income. *Tax Savings* is *GAAP ETR* from 2016 minus the ongoing forecast of the GAAP ETR after tax reform as collected from earnings conference calls by Morgan Stanley. *Ln(Assets)* is the natural log of total assets (AT). *MNE* is an indicator variable coded to equal one if the firm is a multinational enterprise, as determined by the firm having non-zero foreign pretax income (PIFO). *Ln(Employees)* is the natural log of the number of employees at the firm (EMP), after multiplying EMP by 1,000. *R&D* is an indicator variable coded to equal one if the firm discloses a non-zero amount of research and development (XRD). *CAPEX* is the percentage of a firm's total assets (AT) that are capital expenditures (CAPX). *ROA* is the return on assets, obtained from dividing the pretax income (PRE) by the total assets of the firm (AT). The analysis is done at the firm-quarter level, and prior to being used in the regression analysis, all variables are winsorized at the 2% and 98% level. Standard errors are in the parentheses.