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ABSTRACT

Bank payout policy is strongly affected by regulation and politics, especially for the largest banks. Banks, but not industrial firms, have consistently lower payouts in times of high regulation uncertainty and under democratic presidents. After the Global Financial Crisis, bank regulators' influence on payout policies of the largest banks increases sharply and repurchases become more important than dividends for these banks. Repurchases respond more to regulatory climate changes than dividends. The stock-price reaction of the largest banks to the election of Donald Trump is larger than for small banks or industrial firms, and their repurchases increase sharply afterwards.

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1. Introduction

The huge literature in financial economics on payout policy mostly ignores banks because they are heavily regulated. As a result, we know much less about bank payout policy than we know about the payout policy of non-financial firms. Yet, bank payouts are economically large (for our sample from 1993 to 2022, they amount to $2.4 trillion in 2022 dollars) and have important implications for the soundness of the financial system. If banks retain more of their earnings, everything else equal, they are less levered and hence less fragile. Empirically, dividend payout rates tend to be sticky while repurchase payout rates are flexible. As a result, the ability of banks to respond to external shocks depends on the composition of their payouts, and regulators who are focused on the soundness of the financial system pay attention to individual banks' payout policies. Bank regulation is strongly influenced by politics (Calomiris and Haber, 2015). We would expect the regulatory constraints on bank payout policies to weaken when political support for regulation falls. Republican administrations typically have a deregulatory agenda. Such an agenda can increase bank flexibility and reduce capital requirements both through formal regulatory changes and through more lenient supervisory actions, which opens the door to higher payouts. In this paper, we investigate bank payout policies and how they were affected by politics and regulation over the last thirty years, with a particular emphasis on changes after the Global Financial Crisis (GFC) and the unexpected election of Donald Trump.

Banks differ in the attention they receive from regulators as well as the attention they receive from politicians. When politicians are unhappy with banks, they have congressional hearings with a lineup of CEOs from the largest banks, not community banks. These largest banks are the most regulated and the ones most affected by changes in political winds. We show that the payout rate of the most tightly regulated banks (defined as banks with more than $50 billion of assets, which we call large banks in the following) is higher compared to the payout rate of other banks under Republican administrations than under Democratic administrations. In contrast, the payout rate of large industrial firms is not higher under Republican administrations. Similarly, we find that in times of high regulation uncertainty, bank payouts are lower.

We next show that regulation affects large bank payouts, considered to be critically important for the financial system, in very different ways than the payouts of other banks. Specifically, pushed by regulators, the most tightly regulated banks sharply increased the fraction of their payouts made in the form of repurchases relative to dividends after the Global Financial Crisis (GFC). As a result, the dollar amount of repurchases exceeds the dollar amount of dividends most years after 2012 for the banking system as a whole. However, the average dividend payout rate is still much higher than the average repurchase payout rate because banks that are not viewed to be critical for the banking system (banks with assets of less than $50 billion dollars) have on average much higher dividend payout rates than repurchase payout rates. Generally, firms are highly reluctant to change dividends rapidly (Lintner, 1956), but they do not hesitate to do so with repurchases. Hence, repurchases are much more volatile than dividends and tend to be procyclical (Jagannathan, Stephens, and Weisbach, 2000). Indeed, we find that the evolution towards a larger role of repurchases in bank payouts has increased the volatility of payouts of large banks.

We conclude the analysis with a shock to the regulatory environment of financial institutions, the surprise win of Donald Trump in the presidential election of 2016. The greater importance of repurchases for the largest banks post-GFC enables them to increase payouts quickly and sharply when the regulatory climate changes following the election of Donald Trump. We also show that shareholders anticipated a more lenient regulatory approach under President Trump, as stock prices of large banks react more strongly to the election results than the stock prices of smaller banks or of industrial firms in general.

Bank payout policy is intrinsically tied to bank capital policy. Throughout the paper, we define large banks in the 2010s to be banks with assets greater than $50 billion and the largest banks to be banks with assets greater than $250 billion. For much of the 2010s, banks with assets greater than $50 billion were subject to enhanced supervision due to the Dodd-Frank Act and were therefore supervised more closely than other banks.[1] During and after the GFC, there was considerable debate about large banks having been

[1] In May 2018, President Trump signed into law the Economic Growth, Regulatory Relief, and Consumer Protection Act (the 2018 Act). This Act rolled back some provisions of the Dodd-Frank Act for banks with assets of less than $250 billion.

reluctant to cut dividends in 2008, which arguably made them financially weaker (see, for instance, Hirtle, 2016; Rosengren, 2010; Acharya, Gujral, Kulkarni, and Shin, 2022). As banks are forced to reduce payouts, they accumulate more capital. This means that, keeping the risk of assets constant, they are also safer in that they are less likely to fail and less likely to require help from the taxpayer. However, at the same time, constraints on payouts affect bank equity value adversely, which may make it harder for the banking sector to grow and increase lending (e.g., Matyunina and Ongena, 2022).

With the classic analysis of Miller and Modigliani (1961), payout policy is irrelevant given a firm's investment policy. DeAngelo and DeAngelo (2006) show that the analysis excludes cash retention and effectively compares financing investment with equity issuance or lower payouts. Regulatory and political restrictions on bank payouts force banks to keep funds internally, so that these restrictions affect investment policy directly. Because of the role of the state in bank policies, a dollar of cash flow retention by a bank may be worth less than a dollar in payouts for shareholders simply because payouts may be constrained in the future. Specifically, when the state can intervene in a firm's payout policy, there is an optimal payout policy that minimizes the impact of the state's intervention on shareholder wealth. If banks expect a change in the attitude of the state towards banks, from allowing bank payouts liberally to restricting payouts severely, shareholders benefit from an increase in payouts because funds left in the banks are not equivalent to funds in the hands of shareholders. The role of politics in bank payouts means that banks have incentives to have high payouts when such high payouts are allowed and have incentives to keep their capital below the level that would be optimal absent the role of politics.

Politics do not affect all banks equally. Large banks are more likely to be affected by changes in national politics. While Huang and Thakor (2024) find an effect of state politics on the smaller state chartered banks, we focus on the impact of politics on the large federally chartered banks. Huang and Thakor (2024) do not find an effect of state politics on large banks. Large banks do not have broad-based bipartisan support and have been blamed by many on the democratic side for the GFC. A survey in 2017 found that Clinton voters were 34 points more likely to believe that regulation like Dodd-Frank would avert another financial meltdown than Republican voters.[2] In the US, small banks have generally much local support and hence a political base that large banks do not have. Banks with assets of less than $10 billion are typically called community banks. As one observer puts it, "For both Democrats and Republicans, supporting community banks is an easy decision. Local banks exist in every congressional jurisdiction and have built trust with local communities. Being on the wrong side of community banks can have serious consequences for politicians."[3] This difference in the influence of politics allows us to use smaller banks as controls for our empirical analysis of the relation between payout rates and politics at the federal level for banks. Hence, our identification relies on the determinants of payout rates for large banks to be the same as for the other banks but for the impact of politics. We test whether payout rates of the large banks relative to the payout rates of smaller banks depend on the political party of the president. We use assets of $50 billion as our threshold to define large banks. An important reason for this choice is that the Dodd-Frank Act specifies that banks with assets in excess of $50 billion are subject to enhanced supervision.[4]

We find that payout rates, dividend payout rates, and repurchase payout rates are statistically and economically lower for the large banks during democratic administrations. The difference is much larger for repurchases than for dividends. There is no difference in payout rates between democratic and republican administrations for large industrial firms. These results hold when we exclude crisis years from the dataset, so that the results cannot be attributed to lower payout rates during crises. We also examine the relation between financial regulation uncertainty and payout rates, using the financial regulation uncertainty subindex of Baker, Bloom, and Davis (2016). We find a strong negative relation between financial regulation uncertainty and the payout rate for large banks. When we use the sample of industrial firms instead, we find

[2] Wall Street vs. the regulators: Public attitudes on banks, financial regulation, consumer finance, and the Federal Reserve, Cato Institute 2017 Financial Regulation Survey.
[3] "The power of community banks," by Mike Konczal, Politico, Aug 25, 2016.
[4] See, e.g., "FDIC Staff Summary of Certain Provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act" by Federal Deposit Insurance Corporation, Sep 14, 2010.

no relation between the payout rate and financial regulation uncertainty for the whole sample, but there is a significant negative relation for firms with assets of less than $10 billion.

Floyd, Li, and Skinner (2015) investigate payout policy for industrial firms and banks from 1980 to 2012. They conclude that dividends are more important for banks than industrial firms and argue that banks value dividends to signal financial strength. Though they find that repurchases increase for banks in the 2000s, aggregate bank dividends are higher than aggregate bank repurchases every year in their sample period. We find that, after 2012, aggregate net repurchases for our sample of banks exceed aggregate net dividends every year except in the COVID-19 year 2020 when regulators restricted repurchases of banks. Strikingly, in 2019, net repurchases are 68% of bank net payouts. Regulation plays a major role in this growth of repurchases for banks. As discussed by Hirtle (2016), the post-GFC regulations for large banks limited their ability to pay dividends more than they restricted their ability to repurchase stock. We find that the volatility of the repurchase payout rate is larger than the volatility of the dividend payout rate for large banks. Also, the volatility of the dividend payout rate decreased after the GFC for large banks. These results are intuitive as, for part of the post-GFC period, large banks faced restrictions if they wanted their dividend payout rate to exceed 30% of net income, but did not face such restrictions if they wanted to increase their payout rate beyond 30% of net income using repurchases. We show that the distribution of the dividend payout rate is quite different during the 2010s than before. A statistical test for bunching shows that there is an abnormal number of large banks with a dividend payout rate close to the threshold of 30% for the period 2011-2016. The 30% threshold seems to become less binding after 2016. For much of the post-GFC period, large banks were subject annually to the Comprehensive Capital Analysis and Review (CCAR) which included the Dodd-Frank stress tests and examined the banks' capital plans. These capital plans included payout plans. As additional evidence for the importance of the CCAR regulation in constraining payouts, we show that banks announce repurchase plans immediately after passing the stress tests.

To assess more directly the channel through which politics affects bank payouts, we examine the impact of the election of Donald Trump on large banks. We find that the stock-price reaction of large banks to the election is more positive than for small banks or industrial firms. Subsequent to his election, President

Trump appointed a vice-chair for supervision of the Federal Reserve Board, Randal Quarles, who was described as "the man loosening bank regulation".[5] This vice-chair effectively replaced Dan Tarullo who upon appointment "set out to tighten the way the Fed's 2,800 bank regulators and supervisors around the country oversee 5,800 financial institutions".[6] Many regulatory changes took place after 2016. Some affected the ability of the banks subject to the CCAR requirement to make payouts. We use a difference-in-differences design where banks subject to CCAR (CCAR banks) are treated banks and non-CCAR banks are non-treated banks. We find a large treatment effect for the repurchase payout rate.

Our paper contributes to the payout literature, to the banking literature in general and especially to the banking regulation literature, and to the literature on the role of politics in finance. There is a vast payout literature, but in that literature, almost no study investigates bank payouts. For instance, the most recent review paper on dividend policy (Leary and Nukala, 2024) does not discuss bank dividend policy at all and has no references on bank dividend policy. A few studies investigate bank payouts during the GFC (Acharya, Gujral, Kulkarni, and Shin, 2022; Cziraki, Laux, and Lóránth, 2024; Hirtle, 2016; Rosengren, 2010). A key fact emphasized by these studies is that dividends did not fall much in 2008. Acharya, Le, and Shin (2017) explain this phenomenon as a transfer of value from creditors to shareholders and point out that it weakens the banking system generally as creditors of banks are often other banks. However, repurchases fell sharply during the GFC (Hirtle, 2016). We show that payouts fell sharply for the largest banks already in 2008 relative to other banks because of the fall in their repurchases. Floyd, Li, and Skinner (2015) examine payout policy of banks and industrial firms from 1980 through the GFC and until 2012. They note that repurchases increase for banks, but dividends are still more important than repurchases for their sample period. They argue that "banks use dividends to signal financial strength while agency costs of free cash flow better explain industrial payouts." In contrast to our paper, they do not focus on how payout policies

[5] See, e.g., "Meet the Man Loosening Bank Regulation, One Detail at a Time," by Jeanna Smialek, New York Times, Nov 29, 2019.
[6] See "Daniel K. Tarullo, a star regulator at the Fed" by Sewell Chan, New York Times, Jun 3, 2010.

are affected by regulation and politics and do not distinguish between payout policies of large banks and other banks.

The traditional reason for banks to be excluded from corporate finance studies of payout policy is that the state often affects bank payout and capital policies directly but does not directly affect the payout and capital policies of industrial firms. The state cannot tell a producer of widgets that it cannot make payouts until its equity capital meets some minimum threshold. However, in the case of banks, bank supervisors can force a bank to reinvest profits in the bank to increase its equity capital rather than pay these profits out to shareholders. The state has many other powers that can be used to limit the discretion of banks. As a result, there is a large literature showing that banks benefit from impacting the actions of the state through lobbying or by proximity to politicians. For instance, Duchin and Sosyura (2012) show that banks with ties to congressmen on banking committees were more likely to receive TARP funds during the GFC; Yue, Zhang, and Zhong (2022) show that banks in the state of a senator on the Senate Banking Committee are less likely to be the subject of enforcement actions; and Lambert (2019) shows that banks that lobby are less likely to be the subject of enforcement actions. This literature focuses on individual banks' political connections while we focus on changes in the aggregate regulatory environment. The state can also push banks to make loans to favored constituencies. Such directed lending, which has been examined extensively, especially in the context of emerging countries (e.g., Dinç, 2005), can indirectly affect bank payout and capital policies. For instance, Huang and Thakor (2024) examine the impact on banks of changes in the party of the governor in US states. They argue that democratic governors are more likely to influence the lending of state chartered banks than republican governors. They find state chartered banks protect themselves from the state influencing their credit policies by changing their charter or by increasing payouts so that they have less capital and hence less degrees of freedom in making less profitable but socially favored loans.

Our study is also related to studies of payout restrictions put in place during the COVID-19 crisis. In 2020, regulators in a number of countries restricted payouts quickly after the start of the COVID-19 crisis. Kroen (2022) finds that the restrictions decreased bank equity value as well as bank CDS spreads and bond yields for US banks. In other words, shareholders incurred losses but banks' creditworthiness increased. Marsh (2022) finds that the decrease in value is positively related to bank size among banks subject to stress tests. A negative impact of restrictions on bank values has been found for European banks (e.g., Andreeva, Bochmann, and Schneider, 2023; Matyunina and Ongena, 2022).

Our analysis proceeds as follows. In Section 2, we describe the data and how we construct our sample. In Section 3, we show how payouts have evolved for banks since 1993, examine differences in payout rates between large and small banks, and compare payout rates of banks with those of industrial firms. In Section 4, we show that bank regulatory capital ratios are negatively related to payout rates and that dividend payout rates and repurchase payout rates respond differently to crises. In Section 5, we present high-level evidence of the impact of politics and regulation on payout policy over the last thirty years. In Section 6, we first analyze the effect of higher regulatory scrutiny after the GFC on payout policy, focusing on banks subject to the Federal Reserve's Comprehensive Capital Analysis and Review (CCAR). We then use the surprise election of President Trump as a shock to the regulatory environment. We examine the election's effect on the stock prices of banks subject to different regulatory scrutiny, and analyze the ensuing changes in payout policy. We conclude in Section 7.

2. Data Sources, Sample Selection, and Data Definitions

We describe in Section 2 how we construct the sample from different data sources and define our main payout policy variables.

2.1. Sample selection

We start with all banks in the CRSP-FRB link tables provided by the Federal Reserve Bank of New York with non-missing Tier 1 capital ratios. We restrict the sample to banks with a non-missing Tier 1 capital ratio to filter out entities not subject to depository bank regulations (e.g., insurance companies or pure investment banks). Our sample starts in 1993 because most entities in the CRSP-FRB link tables have missing Tier 1 capital ratios prior to 1993. Since 1993, 3.6% of entities in the CRSP-FRB link tables do not have a Tier 1 capital ratio.

We then merge the CRSP-FRB data with CRSP and S&P's Compustat. We exclude banks not incorporated in the U.S. (Compustat acronym FIC), banks with missing data for total assets (AT), common stock dividends (DVC), and market capitalization (CSHO and PRCC_F). We restrict the sample to banks with common stock traded on NYSE, AMEX, and Nasdaq. Our final sample that we use in all regressions consists of 1,148 unique banks and 11,770 bank-years between 1993 and 2022.

We compare in several tests and figures banks with industrial corporations. To create the sample of industrial corporations, we start with all firms in the merged CRSP-Compustat data and exclude financial firms and utilities. We then apply the same filters as above, resulting in a sample of 10,049 industrial firms (87,670 firm-years).

We obtain bank-specific data items from holding company data provided by the Federal Reserve Bank of Chicago, SNL Financial, and Compustat, in that order. The variables are the Tier 1 capital ratio, loan loss provisions, and the net interest margin. We obtain common financial and accounting variables from Compustat. We describe these variables in the Appendix Table A1.

We obtain additional data on dividend announcement dates from OptionMetrics and repurchase program announcement dates from SDC Platinum. We retrieve data on financial regulation uncertainty and economic policy uncertainty from the data library of Baker, Bloom, and Davis (2016).[7] Finally, in part of our analysis, we use publicly available data from the Federal Reserve's Comprehensive Capital Analysis and Review (CCAR) as well as the Dodd-Frank Act Stress Tests to back out planned capital actions, following Schneider, Strahan, and Yang (2023).

[7] https://www.policyuncertainty.com/

2.2. *Definition of payout variables*

We create the payout variables as follows. We measure dividends as cash dividends for common stock (DVC). We follow Fama and French (2001) and Floyd, Li, and Skinner (2015) to measure share repurchases as the increase in common treasury stock (TSTKC). If a firm employs the retirement method, which we infer from zero treasury stock in the current and prior year, we calculate repurchases as the purchase of common and preferred stock (PRSTKC) minus any reduction in the value of preferred stock. Depending on availability, we use redemption (PSTKRV), liquidating (PSTKL), or par value (PSTK) for the value of preferred stock. Net repurchases are equal to repurchases minus the issuance of stock (SSTK). If either calculation yields a negative value, we set net repurchases to zero. We observe negative values, i.e. stock issues that exceed repurchases, in 29% of all bank years. Total net payout is defined as the sum of dividends and net share repurchases. We use the 2022 Consumer Price Index to adjust dollar payouts for inflation. In the regression analyses, we scale payouts with lagged assets instead of corporate income because a ratio based on income has undesirable properties (e.g., due to negative income or close-to-zero income). We winsorize all continuous variables at the 1% and 99% levels, respectively, in the regression analyses.

3. Evolution of bank payouts

We now describe the evolution of payouts for our sample of banks. We start with aggregate dollar amounts for the entire banking sector and compare our results with the prior literature (e.g. Floyd, Li, and Skinner, 2015). We continue with a comparison of payout rates for larger and more heavily regulated banks with the rates of smaller banks. We conclude with an analysis of differences between banks and industrial firms.

3.1. *Aggregate payouts*

Figure 1 shows the evolution of total dollar payouts (solid black line), dividends (red dashed line), and share repurchases (blue dotted line) for sample banks between 1993 and 2022 (in 2022 dollars). Total aggregate payouts increased steadily during the sample period, with a small decrease during the recession of the early 2000, until the GFC. Using 2022 dollars, payouts were $20 billion in 1993 and reached a peak of $120 billion in 2007. With the GFC of 2008-2009, payouts reached a low in 2009, with approximately $21 billion, and increased steadily thereafter. Payouts did not reach their 2007 level again until 2017. Payouts reached a record high in 2019, with approximately $225 billion in aggregate payouts for the banking sector. The trends displayed in Figure 1 align well with those of Figure 3 of Floyd, Li, and Skinner (2015), who show similar statistics for banks (using a slightly different sample selection approach) between 1980 and 2012.[8]

Dividends increased steadily during the early parts of the sample until 2007 and were slow to decline in the early phase of the GFC (as documented by Acharya, Gujral, Kulkarni, and Shin, 2022; Cziraki, Laux, and Lóránth, 2024; Floyd, Li, and Skinner, 2015). Dividends resumed their growth after 2009 and reached a plateau in 2019. Dividend smoothing (e.g., Lintner, 1956) is evident from Figure 1, especially when compared to the much more jagged line for net repurchases.

Repurchases became more important early in the sample period, although there is more volatility in aggregate repurchases than in aggregate dividends.[9] The 2010s saw a dramatic increase in net repurchases. Aggregate share repurchases became larger than aggregate dividends for the first time in 2011 and stayed larger until banks were forced to cut them during COVID-19. The growing importance of repurchases is especially apparent after the end of the sample period of Floyd, Li, and Skinner (2015) in 2012. In Floyd, Li, and Skinner (2015), aggregate dividends exceed aggregate repurchases in every sample year. However, after the end of their sample period, repurchases exceed dividends every year until 2020. In 2018, the dollar amount of repurchases is roughly twice the amount of dividends. The figure shows that the record aggregate payout levels between 2017 and 2019 are mostly explained by a spike in repurchases between 2017 and 2019.

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[8] There are level differences due to a different definition of commercial banks. Floyd, Li, and Skinner (2015) defined banks as firms with SIC code equal to 6020 (commercial banks). Their sample omits a subset of commercial banks with different SIC codes. For example, Citigroup never had an SIC code of 6020. We post results with the same definition as Floyd, Li, and Skinner (2015) in the Online Appendix Figure OA1.

[9] Floyd, Li, and Skinner (2015) show in their table 2 that from 1980 to 1993, total dollar repurchases for banks were negligible, never attaining more than 10% of total dollar dividends.

3.2. Summary statistics for aggregate payouts and payout rates, by period

Table 1 shows yearly averages of sample summary statistics for aggregate payouts and payout rates, by period and size group. We differentiate between payouts in normal periods and payouts during crisis periods (the GFC (2008/2009) and COVID-19 (2020)). In Panel A, we show statistics for the aggregate banking industry. Each number in the table corresponds to the yearly average of the sum of the respective variable during the specified time period. For example, during the period 1993-2007, the commercial banks in our sample have a total of $66.8 billion in payouts per year. During the GFC, the average annual payouts of $42.9 billion are about 1/3 smaller than in the pre-crisis period. After the GFC, annual payouts of the commercial banking sector recovered quickly and increased to $73 billion per year on average during the 2010-2016 period. They reached record levels of $193.2 billion per year between 2017 and 2019, fell to $96.8 billion during COVID-19, and averaged $145.4 billion during 2021-2022.

Dividends fluctuated between 34.6 billion annually during 2010-2016 and $65.5 billion annually in 2021/2022, but the large increase in total payouts is driven by net repurchases. They amounted to $21 billion per year between 1993 and 2007, and saw massive increases between 2010 and 2019 as well as in 2021 and 2022, where they exceeded the total amount of dividends paid by the banking sector. During 2017 to 2019, net repurchases grew to more than $130 billion per year, and contributed more than twice as much as dividends ($62.5 billion) to the total payouts of the banking sector. Striking is how quickly total repurchases decreased during the two crisis periods relative to total dividends. Column 4 shows that the total net income generated by the banking sector increased from $116 billion per year in the early period to $262 billion during 2021 to 2022. Total net income decreased by 90% during the GFC, and by 23% during the COVID-19 pandemic. While the net income of the banking sector was on average high between 2017 and 2019, we note that the total increase in payouts between 2017 and 2019 relative to 2010 and 2016 is much higher than the increase in income. The total assets of the banking sector grew from $10.2 trillion per year between 1993 and 2007 to on average $23.6 trillion per year between 2021 and 2022. Market capitalization of the banking sector reached $2.7 trillion per year in 2021/2022. The GFC and the COVID-19 crisis had a large impact on the total market capitalization of the banking sector.

In Panel B of Table 1, we first calculate equally weighted averages by bank before we take a time-series average. The average bank's assets grew from $19.5 billion in the early period to $77.1 billion during 2021/2022, and its market capitalization grew from $3.2 billion to $8.9 billion over the same period. We observe that average dividends are stable from 1993 to 2016, including the GFC. In contrast, average net repurchases fall dramatically during the GFC before increasing enormously after 2016. Average net repurchases are small relative to dividends in the early time period and during the GFC, but they are higher than average dividends in the 2010s and from 2017 to 2019 they are more than twice average dividends.

Panel C shows payout rates computed as payouts divided by lagged assets. It is informative to compare the rates with the dollar amounts in Panels A and B. Banks pay out a relatively constant percentage of lagged assets after 1993 (between 0.37% per year during the GFC and 0.56% per year during 2021/2022). The average ratio of dividends over assets is always larger than the ratio of net repurchases over assets, which is very different from the average dollar payouts in Panel B. In addition, in Column 4 of Panel C, we show the average of net repurchases as a percentage of total net payouts. The ratio is always below 32%, and is only 22.18% in the record years of dollar repurchases (2017-2019). These statistics suggest that a small number of large banks making very large repurchases explain the record levels of repurchases of the commercial banking sector in 2017-2019 and that repurchases are much less important relatively to dividends for small banks than large banks. Finally, we demonstrate in Panel C, Column 5 that banks pay out on average about 54% of net income throughout our sample, but that these numbers are higher in crisis periods. It echoes the well-established fact that banks are reluctant to adjust dividends downwards in crisis periods, so that their dividend payout rate measured relatively to net income increases sharply as net income falls.

The last column of Panel C shows the ratio of net income to lagged assets of the average bank. Banks' net income over assets ratio is 1.1% per year during the period 1993-2007, stays lower for the next two decades, and recovers its starting level in 2021/2022. The last four rows in Panel C show summary statistics by size group for the full sample period (1993-2022). To determine the size thresholds, we proceed as follows. Since the Dodd-Frank Act was enacted in 2010, regulators have used asset values in nominal dollars to determine banks subject to the stress tests. Therefore, we employ nominal asset values in the post-2010 period. For the pre-2010 period, there were no nominal regulatory thresholds, so we take the post-2010 threshold levels, but adjust them for inflation using the 2010 Consumer Price Index. Large banks (assets ≥ $50 billion) have, on average, a net payout rate of 0.77%, whereas medium ($10 billion ≤ assets < $50 billion) and small banks (assets < $10 billion) have total net payout rates of 0.67% and 0.49%, respectively. It is also noteworthy that the average fraction of payouts consisting of repurchases is almost 50% higher for large banks compared to small and medium banks as shown in the Column titled Net Repurchase/Net Payouts.

3.3. Payout rates by bank size groups over time

We next turn to the differences between larger and more regulated banks and smaller banks and analyze equally weighted payout rates (payouts / lagged assets) in Figure 2. Panel A shows net payout rates, Panel B dividend payout rates, Panel C net repurchase rates, and Panel D net repurchases as a fraction of net payouts. In all four panels, we show three separate lines for banks with assets above $50 billion (solid red line), assets between $10 billion and $50 billion (orange dashed line), and below $10 billion (green dotted line).

Starting from 1996 and until the onset of the GFC, large banks with assets above $50 billion have dividend payout ratios of 0.58% on average, higher than the two other groups, which also makes their payout rates the largest. They reduce their payout rates the most during the GFC (Panel A), which is driven both by dividends and share repurchases. After the GFC, Panel A shows that payout rates start increasing again, until they reach pre-crisis levels in 2018 (approximately 1% of assets for the largest size groups, and 0.38% of the smallest size group).

Panel B clearly indicates a structural break in the data – dividend payout rates settle on a lower level of about 0.4% of lagged assets for all three size groups after the GFC. Panel C shows that the large increases in payout rates for the large banks we document in Panel A are mostly driven by a dramatic increase in the net repurchase rates, which reach record levels in 2018/2019. As a consequence, the fraction of net payouts that comes from net repurchases (Panel D) has increased to well above 40% for the large banks, reaching a record level of 61% in 2018.

To summarize, Figure 2 shows that payout rates recovered from the depressed levels after the GFC, but the composition of payouts changed. Share repurchases play a much larger role, especially for large banks, and dividend payout rates decreased after the GFC.

In Table 2, we show more formally that the volatility of the net repurchase rate is higher than the volatility of the dividend rate, and we do so, as in Figure 2, for three bank size groups.[10] We focus in Table 2 on the standard deviations of payout rates by group, and split the sample into pre- and post-GFC period. We remove the three crisis-years from the sample to focus on normal times. We first calculate the yearly standard deviation within each size group, then take an average of standard deviations over time. The standard errors are calculated when we take time-series averages. The size group is assigned using a bank's previous year total assets.

Panel A of Table 2 shows that the volatility of the total payout rate for banks with more than $50 billion in assets increased after the GFC, while it did not increase for small or medium banks. The volatility of the net payout rate of large banks is statistically and economically significantly higher than that of medium and small banks after the GFC.

When we separate net payouts into dividends and net repurchases in Panels B and C, we find that the evolution of payout rates shows very different patterns. As expected given the evidence in Figure 2, the volatility of the dividend payout rate is approximately 1/2 of the volatility of the total net payout rate. The volatility of the dividend payout rate of large banks significantly decreases from 0.24% before to 0.17% after the GFC. While there are no differences in the volatility of the dividend payout rate between the three groups before the GFC, they become economically large and statistically strongly significant after the GFC. Large banks have a much lower volatility of dividend payout rates than medium and smaller banks after the

[10] In the Online Appendix Table OA1, we carry out the same analysis for payouts standardized by net income, and find economically stronger results. As explained in Section 2, we focus on results with total assets in the denominator because net income can be negative and small, leading to undesirable distributional properties.

GFC. Panel C describes the changes in the volatility of the net repurchase rate. It is higher than the volatility of the dividend rate (0.36 vs. 0.25, from Column 1, Row 1 of Panels C and B). Row 2 of Panel C shows that there was no difference in the net repurchase rate volatility across different size groups before the GFC. Importantly, in Row 3 we demonstrate that large banks have significantly higher repurchase rate volatilities after the GFC when compared to medium and small banks.

Overall, the results in Table 2 formally show what Figure 2 hinted at. The volatility of the repurchase payout rate is much higher than the volatility of the dividend payout rate, and the difference became more significant for large banks after the GFC.

3.4. Comparison of payouts of industrials versus payouts of commercial banks

In Figure 3, we compare the relation between dividends, repurchases, and operating income in the banking sector and industrial sector to examine how payout policies differ between the banking sector and the industrial sector. In Panel A (Panel B), we first sum dividends (net repurchases) across all firms, and then divide the sum by the sum of operating income.[11] In Panel C (Panel D), we calculate the ratio of dividends (net repurchases) and operating income for each firm, and then take equally weighted averages. Solid red lines depict the values for the commercial banking sector, and blacked dashed lines those of the industrial sector.

In Panel A, we observe that the banking sector paid out between 10% and 18% of its operating income in dividends from 1993 until the onset of the GFC. Industrial firms similarly paid out between 10% and 15% of operating income, but with approximately 3% to 5% lower values than banks in the early 2000. The banking sector diverged during the GFC and paid out at the height of the crisis 40% of operating income, while the GFC is barely visible from the line of industrial firms. The spike arises because the banking sector’s aggregate operating income decreased by 43.7% in 2008 compared to 2007, whereas aggregate

[11] This analysis uses operating income as the denominator instead of net income to avoid negative denominators. Specifically, aggregate net income is negative in 2008 for banks and in 2001/2002 for industrial firms. In contrast, aggregate operating income has never been negative throughout the sample period for either group.

dividends decreased by 20.3%. After 2010, the aggregate dividend / operating income ratio increased monotonically for banks over time until the COVID-19 crisis.

Panel C shows the same data, but now we calculate ratios first, and then average across banks. Banks have an average dividend / operating income ratio that is more than twice the dividend / operating income ratio of industrial firms in almost all years before the GFC. Even after the GFC, the average ratio of banks is higher than the average ratio of industrial firms, but the gap is smaller. The line for banks in Panel C looks quite similar to the one in Panel A, with the exception of the crisis and its aftermath. The average ratio of dividends / operating income goes up to 23% in Panel C, while it climbs to almost 40% in Panel A. Conversely, after the crisis, the aggregate ratio drops to 5%, while the equally weighted ratio drops down to 10%. The comparison suggests that it was the largest banks in the economy that drove the spike and subsequent fall in dividends to operating income observed in Panel A.[12] For the average industrial firm, we observe a decline in the equally weighted ratio until the early 2000, and then a steady increase afterwards. The steady increase in dividends since 2003 is consistent with Kahle and Stulz (2021) who point out secular increases in dividends since 2000 of industrial companies and argue it is due to changes in firm characteristics and changes in dividend payout propensities.

Panels B and D show the corresponding numbers for repurchases. In both panels, we observe the increasing use of repurchases to distribute payouts to shareholders for the banking as well as industrial sector. Both the banking and industrial sectors decreased repurchases as a percentage of operating income dramatically during the GFC but increased the ratio quickly again afterwards. In 2017, 2018, and 2019, the banking sector paid out more of operating income as repurchases than the industrial sector, reaching a value of 30% in 2019. In Panel D, where we plot equally weighted averages, we observe similar patterns for industrial firms, although at lower levels than in the aggregate values in Panel B, suggesting that the largest industrial firms repurchase more as a percentage of income. The equally weighted repurchase ratio in Panel D shows interesting differences between banks and industrial firms during the GFC – the spike for banks

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[12] We underestimate the true effect because several banks had negative operating income during this period, and we exclude those banks from Figure 3.

is larger. During the period 2017 to 2019, the equally weighted average of net repurchases / operating income stays below the line for industrials and does not show the same stark increase as in Panel B. Hence, the large increase in repurchases as a percentage of operating income in 2017 to 2019 in the banking sector is driven by the largest banks.

Comparing Panels C and D, while financial firms have higher dividend payout ratios than industrial firms throughout the sample period, they have lower repurchase payout ratios throughout the sample period.

It is striking that both the aggregate dividend payout ratio and the equally weighted dividend payout ratio of banks spiked dramatically in 2008 relative to industrial firms. In contrast, the repurchase payout ratio of banks did not spike in 2008 at all. Specifically, the aggregate repurchase payout ratio fell from 11.5% in 2007 to 2.2% in 2008, while the equally weighted repurchase payout ratio fell from 17.4% in 2007 to 11.4% in 2008. Repurchases adjusted quickly to the crisis, while dividends did not. This evidence shows the flexibility of repurchases compared to the flexibility of dividends.

4. Bank payouts, capital, and payout rates during crises

In Section 4, we first investigate in Section 4.1. whether there is a negative relation between payouts and changes in bank capital. In section 4.2., we show that dividend payout rates and repurchase payout rates respond differently to crises.

4.1. Bank payouts and bank capital

In Table 3, we ask whether payouts are associated with a decrease in regulatory capital, and report regression results of changes in the Tier 1 capital ratio on concurrent dividend and net repurchase rates. Note that payouts do not have to be associated with decreases in Tier 1 capital. Suppose, for example, that a bank's policy is to pay out a fraction of net income if net income is positive and zero otherwise. In this case, book equity would increase when firms pay dividends or repurchase shares and fall when they do not. The first four columns of Table 3 show results for the period prior to the GFC, and the last four columns show results for the period after the GFC (omitting the COVID-19 crisis year). In Columns 1 and 5, where we examine all banks, we observe a strong negative association. The higher the dividend and repurchase payout rates, the lower is the change in the Tier 1 capital ratio. The economic magnitude of the effect is larger in the post-GFC period than in the pre-GFC period. It is noteworthy from Columns 2 and 6 that the negative association is particularly strong for small banks with assets < $10 billion. We observe the weakest results for the largest banks, both pre- and post-crisis (Columns 4 and 8). Specifically, the relation between dividend payouts and changes in the Tier 1 capital ratio is not significant for the large banks before and after the crisis. However, it is noteworthy that after, but not before, the GFC, the relation is economically large for large banks for dividend payouts but not for repurchases.

4.2. Payout rates and crises

We showed in Figures 2 and 3 the evolution of bank payouts through time and uncovered important differences in the behavior of dividends and payouts during crisis periods and by bank size group. In Table 4, we estimate regressions of the different payout rates on their determinants and three crisis year indicator variables (one each for 2008, 2009, and 2020) to verify that these results hold in multivariate regressions. We show separate results for the total payout rate, dividend payout rate, and repurchase payout rate, and an additional specification for each with an interaction with an indicator variable *Large* to examine whether the large banks (assets ≥ 50 bn) and other banks exhibit different payout behaviors.[13] We interact an indicator for large banks with the crisis year indicator variables to estimate how payouts of large banks differ from payouts of other banks during a crisis year.[14] For better readability of the tables, we express the dependent variables in basis points. The results in Column 1 show that larger banks, and banks with more net income, higher Tobin's q, more capital, more stable earnings, fewer loan loss provisions, and higher interest rate margins pay out more. These bank characteristics not only help to explain total payout rates,

[13] The results are quantitatively and qualitatively similar if we use the three size groups of assets < 10bn, 10bn ≤ assets < 50bn, and assets ≥ 50bn instead of the *Large* indicator variable, in that the important differences are driven by the largest banks. We chose to report the results using only a *Large* indicator variable to reduce the dimensionality of the table from 12 to 6 columns.

[14] In regressions in Online Appendix Table OA2, we re-estimate the regressions of Table 4 using indicator variables for non-large banks. The inferences are similar.

but also have strong explanatory power for dividend payout rates (Column 3) and for net repurchase payout rates (Column 5). The coefficients also go in the expected direction, in line with prior research on the determinants of payout rates in industrial firms (see, e.g., Floyd, Li, and Skinner, 2015; Kahle and Stulz, 2021).

Surprisingly, we find that the net payout rates in the total banking sector in Column 1 are not statistically significantly different during the three crisis years of 2008, 2009, and 2020. The crisis coefficients are also economically small. It is only in Column 2, where we use the indicator variable for the large banks, where we uncover important differences. The large banks tend to pay out more in normal times. The coefficient on the indicator variable *Large* of 14.5 indicates that large banks pay out on average 14.5 basis points more than other banks. The effect is economically meaningful, given that non-large banks pay out on average 52 basis points of their assets. However, during the crisis years, the large banks cut back significantly on their payouts, reducing them in 2008 by 10 basis points, in 2009 by 35 basis points, and in 2020 by 29 basis points. The two latter coefficients are economically important, given that the average payout rate of the large banks in our sample is 77 basis points (Panel C of Table 1). In Column 4, we observe that large banks do not have on average a higher dividend payout rate than other banks. Surprisingly, given that we measure the payout rate using lagged assets, dividend payout rates actually increased in 2008, and only the large banks, and only in 2009, reduced dividend payout rates (see also Cziraki, Laux, and Lóránth, 2024). The coefficient of -10 is about 1/4 of the average dividend payout rate of the largest banks. In Column 6, we report the results for the net repurchase rate and learn that the large banks are significantly different from the smaller banks. Even after controlling for known determinants of the repurchase payout rate, we see that large banks have a significantly larger repurchase rate (14.5 basis points). In 2008, both smaller banks and large banks decrease their repurchase rate, but the effect for large banks is economically very important, at 24 basis points, while it is much smaller for the other banks (2.2 basis points). During 2009, the large banks cut their repurchases by 25.3 basis points, which is 25.3/36 = 70% of the average repurchase rate. The effect is even larger in 2020, when the regulator encouraged banks to stop repurchases after the outbreak of

COVID-19 and they did so on March 15, amounting to a total reduction of 28.9/36 = 80% in the repurchase payout rate.[15]

Overall, we show in Table 4 compelling evidence that repurchases react very quickly to crises, but only for the large banks, while the dividend payout rates computed as a fraction of assets are surprisingly unaffected by crises. Using net income as a denominator, we find that dividend / net income ratios dramatically increase during crises, while repurchase / net income ratios do not. The economic interpretation is of course the same.

5. Politics, regulatory uncertainty, and bank payouts

Calomiris and Haber (2015) show how politics and bank regulation have interacted for centuries. We expect the regulatory constraints on payouts to weaken when political support for regulation falls. Republican administrations tend to have a deregulatory agenda, which could weaken capital requirements and allow for larger payouts both through formal regulatory changes and through more lenient supervisory actions. During our sample period 1993-2022, we observe twelve years of republican presidents and eighteen years of democratic presidents. We analyze whether the payout rate of the most tightly regulated banks is higher under republican administrations than under democratic administrations. We also examine whether the financial regulation uncertainty categorical subindex of Baker, Bloom, and Davis' (2016) Economic Policy Uncertainty index is correlated with bank payouts. We would expect that in times of higher regulation uncertainty, banks are more reluctant to make large payouts.[16] We further examine whether bank regulation is special by contrasting the results for banks with corresponding results for industrial firms.

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[15] Large banks voluntarily announced that they would stop buybacks on March 15th, encouraged by the Fed, and most banks stopped buybacks from this date on. The formal ban of repurchases from the Fed only came on June 25th.

[16] The financial regulation categorical subindex of Baker, Bloom, and Davis (2016) is derived using results from the Access World News database of over 2,000 US newspapers. It requires their general economic, uncertainty, and policy terms as well as a set of categorical policy terms. For the financial regulation subcategory those are: banking supervision, glass-steagall, tarp, bank supervision, thrift supervision, dodd-frank, financial reform, commodity futures trading commission, cftc, house financial services committee, basel, capital requirement, Volcker rule, bank stress test, securities and exchange commission, sec, deposit insurance, fdic, fslic, ots, occ, firrea, truth in lending.

We start with regressions of banks' net payout rate on lagged determinants, the party of the current president, and financial regulation uncertainty. The key variables of interest are the indicator variable *Democrat President* equal to one if in the year of the payout, the president belonged to the Democratic Party, and zero if he belonged to the Republican Party. The indicator variable *High Financial Regulation Uncertainty* is equal to one in all sample years that have a higher than median value for the Baker, Bloom, and Davis (2016) financial regulation uncertainty subindex, and zero otherwise.

Table 5 shows the results. Column 1 focuses on the presidential party, and our tested hypothesis is that under democratic presidents the most tightly regulated banks would face more scrutiny and have lower payouts. We find that this is the case. Note that the regression includes bank-fixed effects and time-fixed effects, so that we only include the interaction between the indicator variables for *Large* bank and *Democrat President*. We find that large banks tend to have larger payouts (in the bank-fixed effect regression, the coefficient on the large bank indicator variable is identified from those banks that switch from below to above 50 billion in assets). However, under a democratic president, those large banks have 21.0 basis points lower payout rates. Relative to the mean payout rate of large banks of 77 basis points, it is an economically significant decrease in payouts. The other control variables have signs and economic magnitudes that mirror those we reported in Table 4. In Column 2, we replace the democratic president indicator variable with the one on high financial regulation uncertainty. We find a strong correlation of regulation uncertainty with payouts for the largest banks. The economic significance is sizeable. Whenever the financial regulatory uncertainty is high, the large banks have a 22.8 basis points lower payout rate. One concern is that democratic administration and financial regulation uncertainty measure the same uncertainty for banks. The correlation between the *Democrat President* indicator variable and the *High Financial Regulation Uncertainty* indicator variable is only 0.23. We nevertheless include the two interaction variables together in Column 3 of Table 5. Both are significantly negative, implying that the effects of a democratic president and high financial regulation uncertainty are distinct.

In Columns 4 to 12, we report results for the three size groups (assets < 10 billion, 10 billion ≤ assets < 50 billion, and assets ≥ 50 billion) separately. Columns 4, 7, and 10 report results for the *Democrat*

President indicator variable, and Columns 5, 8, and 11 report results for the *High Financial Regulation Uncertainty* indicator variable. We find that payouts for all three bank size groups are lower under a democratic president, but that the magnitude of the effect is increasing with bank size. In regressions in the Online Appendix Tables OA3 and OA4, we estimate the effects separately for the dividend payout rate and repurchase payout rate. We show that the economic magnitude is much stronger for share repurchases than for dividends, although both show significantly negative coefficients. Turning to the financial regulation uncertainty, we find, somewhat surprisingly, a statistically and economically insignificant coefficient for small banks and a statistically significant positive small coefficient for medium sized banks, and a large statistically significant negative effect of high regulation uncertainty on the total payout rate. These results are consistent with the view that a strengthening of regulation may be more targeted towards large banks. Strengthening regulation for the large banks may however benefit other banks. Columns 6, 9, and 12 include both the *Democrat President* indicator variable and the *High Financial Regulation Uncertainty* indicator. The effects for large banks in Column 12 indicate that the effects of the two indicators are distinct and significant. The opposite effects of the two variables for medium banks become clear in Column 9, implying they measure different aspects of political influence. The results in Table 5 do not qualitatively change when we exclude the GFC and the COVID-19 crisis periods, as shown in the Online Appendix Table OA5.

Overall, the results of Table 5 indicate that the large banks that receive the most regulatory scrutiny have economically meaningful lower payout rates under democratic presidents and in times of higher financial regulation uncertainty.

In Table 6, we report results of similar regressions for industrial companies, to understand whether banks are special, or whether we capture merely a size effect. It could be that all large companies are under higher regulatory scrutiny under democratic presidents and are more affected by regulation uncertainty. Because industrial companies tend to have lower asset values, we change the size thresholds to assets < 10 billion and assets ≥ 10 billion. Note that with these thresholds, we classify the same fraction of firm-years as large for banks in Table 5 (725 / 11770 = 6.16%) and for industrial firms in Table 6 (5474 / 87670 = 6.24%). Also, it is unclear why industrial firms' payouts should be strongly associated with financial regulation uncertainty. We therefore use the broader Economic Policy Uncertainty Index of Baker, Bloom, and Davis (2016) for industrial firms as our main specification, but for transparency also report results with the financial regulation uncertainty index.

Table 6 reports results in the same way as Table 5. In stark contrast to the result for banks, Column 1 shows an economically small and statistically insignificant coefficient for the interaction term of large industrial firm and democratic president. The payout rate of the largest industrial firms is unaffected by the political party of the president (Column 1). The interaction between the large firm indicator and the indicator for high economic policy uncertainty is not significantly different from zero. Column 4 includes the first two interactions to address the compounding effects of politics variables, but none of them are significant. In Column 3, we observe a similar non-result for the interaction of the *High Financial Regulation Uncertainty* indicator variable and the large industrial firm indicator variable. Regarding the control variables, we observe that older and larger firms and firms with more cash pay out significantly more, while firms with high R&D expenditures, large capital expenditures, and those that make losses pay out less. Firms with a higher Tobin's q pay out more. These results are consistent with the large literature on payouts of industrial firms (e.g., Ma, 2019; Kahle and Stulz, 2021; Lee, Shin, and Stulz, 2021; Michaely and Moin, 2022). In Columns 5 and 8, we examine each size category separately and surprisingly find that industrial firms in all size categories have about 20 basis points *higher* payout rates under democratic presidents then under republican ones (although the effect is statistically significant only for smaller firms). These results are remarkably different from the bank results in Table 5. Columns 6 and 9 of Table 6 examine the relation between the economic policy uncertainty and payouts of industrial firms for the two size categories. Firms in both size categories have statistically and economically significantly lower payouts when economic policy uncertainty is high. Columns 7 and 10 show the results for the relation between financial regulation uncertainty and payouts for industrial firms by size group. They show that industrial firms with less than 10 billion in assets have lower payout rates when financial regulation uncertainty is high. This may however be because financial regulatory uncertainty is positively correlated with economic policy uncertainty (Pearson correlation coefficient = 41%).

6. Regulatory changes and bank payout policy – evidence from two shocks

In Section 6.1, we first present evidence of the impact of regulatory changes after the GFC on payout policy, focusing on banks subject to the Federal Reserve's Comprehensive Capital Analysis and Review (CCAR). In Section 6.2., we make use of the surprise win of Donald Trump over Hillary Clinton in the presidential election in November 2016 to carry out an event study of bank stock returns and a difference-in-difference analysis of payouts after a shock to the regulatory environment.[17]

6.1. Political regime, regulatory uncertainty, and bank payouts

The Global Financial Crisis initiated dramatic changes in regulation and supervision, first with the Supervisory Capital Assessment Program (SCAP) in 2009, followed by the implementation of the CCAR, an annual supervisory stress test for banks with assets above $50 billion, administered by the Federal Reserve. The CCAR seeks to ensure that banks have enough capital to absorb losses under an economic and financial downturn to continue lending (for details, see e.g., Schneider, Strahan and Yang, 2023). Under CCAR, each bank must propose a capital distribution plan incorporated into the stress test.

Hirtle (2016) emphasizes that the Federal Reserve's CCAR program has encouraged participating banks to make more of their capital distributions through share repurchases. Under the CCAR program, bank holding companies (BHCs) planning to make dividend payments exceeding 30 percent of after-tax net income receive particularly close scrutiny, but there is no additional scrutiny related to share repurchases (Board of Governors of the Federal Reserve System, 2013).[18]

Figure 4 shows histograms of the dividends / net income ratio (in percent) for sample banks with assets above $50 billion (adjusted with 2010 CPI) for different time periods. Panel A shows the histogram for the time period 1993 - 2007. It shows a wide distribution, with a median ratio of 37%. Panel B examines the

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[17] The second tight election of our sample, George W. Bush vs Albert Gore in 2000, does not lend itself easily to an event study because the outcome of the election was not known for a very long time.

[18] "The Federal Reserve expects that capital plans will reflect conservative common dividend payout ratios. In particular, requests that imply common dividend payout ratios above 30 percent of projected after-tax net income available to common shareholders in either the BHC baseline or supervisory baseline will receive particularly close scrutiny" (page 23, Board of Governors of the Federal Reserve System, 2013).

time period 2011 - 2016, during which banks with assets larger than $50 billion were subject to CCAR. We observe a marked shift to the left of the distribution, with the vast majority of sample banks not distributing more than 30% of net income through dividends.[19] Banks appear to have chosen to avoid the strict scrutiny that would have come to them had they broken the 30% threshold set by the Federal Reserve Board. Using a fuzzy bunching method proposed by Alvero and Xiao (2023), we show this formally in Panel C of Figure 4 . We compare the empirical cumulative distribution function (CDF) of the dividend / net income payout ratio and a counterfactual CDF estimated outside the payout rate window of [25%, 35%]. The empirical CDF lies above the counterfactual CDF around 30%, indicating that banks bunch their dividend payout ratio right below the 30% threshold. The fuzzy bunching estimator indicates that there would be 41.1 bank years between 25% and 30%, should the distribution not have bunching. It is fewer than the 52 actual observations, and the difference is statistically significant at the 1% level with bootstrapped standard errors.

Panel D shows the histogram for the period 2017-2022, after the election of Donald Trump and his appointment of Randal K. Quarles in October 2017 as the Federal Reserve's vice chairman for supervision and regulation, an open critic of several aspects of post-Dodd Frank banking regulation. The 30% threshold seem to have been much less binding during this time period.[20] In fact, as we show in the Online Appendix Figure OA2, there is no statistical evidence of bunching in 2017.

In Figure 5, we examine the timing of changes to payout policy at banks with more than $50 billion in assets, relative to the announcement of the stress test results. Panel A displays increases or decreases in dividends per share, and Panel B displays the announcement of new share repurchase programs. We can infer from both panels the importance of regulation for banks subject to CCAR. Banks submit capital plans (capital issuance, repurchases, and dividends) together with the numbers for the stress tests, and the Federal Reserve approves the capital plan at the announcement of the stress test results. Note that most banks increase their dividends per share in the quarter following the CCAR announcements (it takes some time

[19] Note that we use GAAP net income. This may not be the exact standard that supervisors applied.
[20] Figure OA3 in the Online Appendix shows the same Figure but omits 2020. Doing so removes the extreme values in the histogram due to the drop in net income due to the COVID-19 crisis.

until the board has approved dividend increases). Announcement of new open market share repurchase programs are made immediately after the CCAR results have been announced, and capital plans have been approved.

Finally, Figure 6 presents a time series plot of the actual payouts and planned payouts of CCAR banks. Schneider, Strahan, and Yang (2023) demonstrate how under some assumptions a bank's nine-quarter ahead capital plan can be backed out from a comparison of the CCAR stress test results and the results of a second stress test exercise, the Dodd-Frank Act Stress Test or DFAST.[21] Banks initially submit capital plans for nine quarters, but most of them submit revised plans in the following year's CCAR. Therefore, we compare in Figure 6 actual net payouts for four quarters and planned nine-quarter net payouts multiplied by 4/9. Figure 6 shows the results. We see a sharp increase in planned payouts starting in 2017, the year after the election of Donald Trump. Actual payouts are always a bit larger than planned payouts. However, planned payouts (black solid line) and actual payouts (red dashed line) are quite close to each other and evolve in lock step, although net income fluctuates. Hence, as also noted by Schneider, Strahan, and Yang (2023), planned payouts have strong predictive power for actual payouts, and show the impact of regulation on bank payouts. We also observe however, that in 2018 and 2019, the gap between actual payouts and planned payouts widens and banks pay out more than planned.

Overall, Figures 4-6 show the Fed's extraordinary influence on the payout policy of the largest U.S. banks post GFC, but also hint at the importance of politics in the enforcement of regulation.

[21] The Fed manages both stress tests, and uses the same proprietary model for the nine-quarter ahead path of regulatory capital ratios. Under CCAR, each bank must propose its own capital distribution plan incorporated into the stress test, whereas DFAST uses a standardized capital distribution plan that holds dividends at their current level and sets net repurchases to zero. The publicly disclosed results for the capital ratios built from these models allow researchers, under some assumptions, to back out the proposed capital plan. The individual bank-level results for both CCAR and DFAST are available from 2013 to 2019, so we restrict the sample period in Figure 6. For details, see Schneider, Strahan, and Yang (2023), Appendix 2.

6.2. Bank announcement returns to the Trump presidential election

As Schwert (1981) points out, the main difficulty with measuring the effects of regulatory change on security prices is identifying when the market first anticipates the effects of the change in regulation on firms. Regulatory change is often a lengthy process, and it is not obvious how to identify date zero.

The surprise election of Donald Trump as 45th president of the United States is a rare opportunity to do so. The win of Donald Trump was unexpected. Wagner, Zeckhauser, and Ziegler (2018), in their study of the stock price impact of Donald Trump's win, report that on the morning of the election day, Donald Trump's chances to win were 17% on Betfair (an online betting exchange) and 28% on FiveThirtyEight (a well-known website focused on opinion poll analysis). There were also widely recognizable ex ante differences in the approach to banking regulation between Donald Trump and his opponent.[22]

We first analyze announcement returns around the election date. We hypothesize that the largest and most regulated banks, i.e., those subject to CCAR, benefited most from an anticipated laxer regulation. Our empirical event study is based on a single event that potentially affects all stocks in the economy, and stock returns have patterns of cross-sectional correlation generated by economic factors driving those returns (see, e.g., Becker, Bergstresser, and Subramanian, 2013; Cohn, Gillan, and Hartzell, 2016; Eckbo, Nygaard, and Thorburn, 2022; Schwert, 1981). We estimate the covariance matrix by using daily returns in 2015 to account for the cross-sectional correlation as in Becker, Bergstresser, and Subramanian (2013). We then use bootstrapped standard errors with 1,000 iterations to test the significance between different groups.

Table 7 shows the results. We provide results for four different subsets of firms, using three methods to calculate excess returns. Column 1 shows announcement returns for banks subject to CCAR and with assets greater than $250 billion. Column 2 displays results for the other banks subject to CCAR, and Column 3 has results for all non-CCAR banks. In comparison, we show results for non-financial, non-utility industrial

[22] For example, in an interview with The Hill in October 2015, Donald Trump called the 2010 Dodd-Frank Wall Street reform law a "disaster" that has stifled economic growth, indicating that he may repeal it. "Under Dodd-Frank, the regulators are running the banks. The bankers are petrified of the regulators. And the problem is that the banks aren't loaning money to people who will create jobs." https://thehill.com/homenews/campaign/256851-trump-economic-bubble-about-to-burst/

firms in Column 4. The last three columns show whether the differences in announcement returns are statistically significantly different between different groups. In row 1, we show excess returns over the risk-free returns. In row 2, we show Fama and French (2015) benchmark-adjusted returns, and in row 3, we analyze q5-factor adjusted returns (Hou, Mo, Xue, and Zhang, 2021). The results are robust across these different return measures.

Column 1 of Table 7 shows that the largest CCAR banks had excess returns of 4.5%, followed by the other CCAR banks with excess returns of 3.7%. Non-CCAR banks had excess returns of 1.0%, while industrial firms had excess returns of 0.2% on November 9th. The excess returns of the CCAR banks are statistically and economically significantly larger than those of other banks and industrial firms. In row 2, we employ Fama-French 5 factor adjusted returns. CCAR banks continue to have significantly positive announcement returns (2.6% for the largest banks with assets ≥ 250bn, 2.2% for the other CCAR banks). These returns are significantly larger than those of other banks and industrial firms. Using the q5-factor adjusted returns shows the same results – the most regulated banks significantly outperformed both other banks and industrial companies, with economically important effects. [23]

Wagner, Zeckhauser, and Ziegler (2018) study the stock market reaction of the Russell 3000 firms on Nov 9, 2016, and find that high-tax firms, firms with large deferred tax liabilities (DTLs), and those with domestically focused operations gained relative to other firms. In the Online Appendix Table OA6, we show that the results we report in Table 7 are unaffected by an inclusion of those variables in a regression framework.

Our results suggest that the market reassessed the expected regulation or the enforcement of existing regulation of the banking sector and believed that large banks would significantly benefit under a Trump administration.

We next turn to a dynamic difference-in-differences analysis of the evolution of the three different payout rates for banks and industrial firms around the election year of Donald Trump. In Table 8, we include

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[23] Wagner, Zeckhauser, and Ziegler (2018) use a sample of Russell 3000 firms with stock price of at least $5. Like us, they find that Fama-French 5 factor -adjusted returns for industrial firms were indistinguishable from zero on Nov 9.

the four years prior to the election of Donald Trump and the four years post-election, and report how payouts evolve for large banks (industrials) relative to all other banks (industrials) across time. The base year is 2016, the last year of the presidency of Barack Obama.

Focusing on banks first (Columns 1-3), we observe that in the years before the election of Donald Trump, large and small banks did not differ much in their payout behavior, except for a baseline difference (the indicator variable *Large* has an economically meaningful but statistically insignificant coefficient of approximately 20 basis points for net payouts and repurchases). The interaction terms *Year n* x *Large* are economically small and statistically insignificant for the years 2013, 2014, and 2015. We observe a very different picture after the election of Donald Trump. The interaction terms of *Large* with the years 2017, 2018, and 2019 are economically and statistically important, and vary between 35 basis points in 2017, and 44 basis points in 2018. The economically large and statistically significant coefficient (35 basis points) on the interaction term *Year 2017* x *Large* is particularly important, because it shows that large banks' payout rates, driven in particular by banks' share repurchase rates, already increased before any confounding effect of increased payouts due to the repatriation of foreign earnings following the Tax Cuts and Jobs Act (TCJA) could have materialized. Albuquerque, Bennett, Lisowsky, and Wang (2024), Hanlon, Hoopes and Slemrod (2019), and Kahle and Stulz (2021) all show evidence for increases in share repurchases following the TCJA, from 2018 onwards. Indeed, we see the impact of the TCJA on the payout rate and share repurchase rate of industrial firms in Columns 4 to 6 of Table 8. Column 4 shows that the largest industrial firms, which are more likely to be multinationals and have international operations with foreign earnings subject to repatriation, experienced very high payout rates in 2018 (106 basis points) and 2019 (110 basis points), driven by large increases in the repurchase rate (Column 6, 95 basis points in 2018 and 77 basis points in 2019) and to a much lesser extent by the dividend rate (Column 5, 15 basis points in 2018 and 28 basis points in 2019). However, the payout rates of large industrial firms did not react in the year 2017. The coefficient on the repurchase payout rate is 9.6 basis points in 2017, compared to the 32 basis points for large banks.

To support the conjecture that the large increase in payouts of banks in the years 2018 and 2019 are not driven by the TCJA, we provide additional evidence. We examine the earnings call transcripts for the 10 banks with more than $250 billion in assets in January 2018, during which they report their Q4 2017 results. The Q4 2017 results incorporate the impact of the TCJA concerning non-recurrent taxes, which are taxes on repatriation and the impact on deferred tax assets and liabilities. Six banks (JPMorgan Chase, Citigroup, Bank of America, Goldman Sachs, Morgan Stanley, and Capital One) report a decrease in earnings because of the Act. Four banks (Wells Fargo, US Bancorp, PNC, and BNY Mellon) report an increase in earnings. None of the affected banks mentions that the Act has implications for its payout policy. The executives of the largest banks of our sample discuss cash repatriation and mention that there is not going to be a large inflow because the foreign entities have regulatory requirements for liquidity. Only Citigroup and Goldman Sachs incur a repatriation tax of around $3 billion, but their share repurchases stay at the same level or decrease in 2018, respectively. The bottom line from this is that the Act is a non-issue for bank payouts for these ten biggest banks.

Overall, the results in Table 8 and our additional evidence are therefore strongly suggestive of a changed repurchase behavior of the largest banks following the election of Donald Trump.

7. Conclusion

Bank payout policy is different from the payout policy of non-financial firms due to regulation and politics. While the payout policy of non-financial firms is the topic of an immense literature, bank payout policy has been studied little precisely because it is different. In this paper, we show that bank payout policy is strongly affected by regulation and politics, but the impact of regulation and politics is quite different across banks of different sizes. We show that the importance of repurchases increases much more for the banks subject to the tightest regulation after the GFC in part because of the efforts of regulators to limit the importance of dividends. We also show that repurchases are much more responsive to crises and to changes in the regulatory climate than dividends. In contrast to dividend payments, repurchases of large banks decrease sharply during crises. Bank payouts are sensitive to the regulatory climate as they are higher under republican presidents than under democratic presidents. They are also sensitive to financial regulation uncertainty as they decrease with financial regulation uncertainty. When the regulatory climate changes after the election of Donald Trump, abnormal stock returns of the largest banks are higher than those of other banks or of industrial firms and, subsequently, the repurchases of the largest banks increase dramatically.

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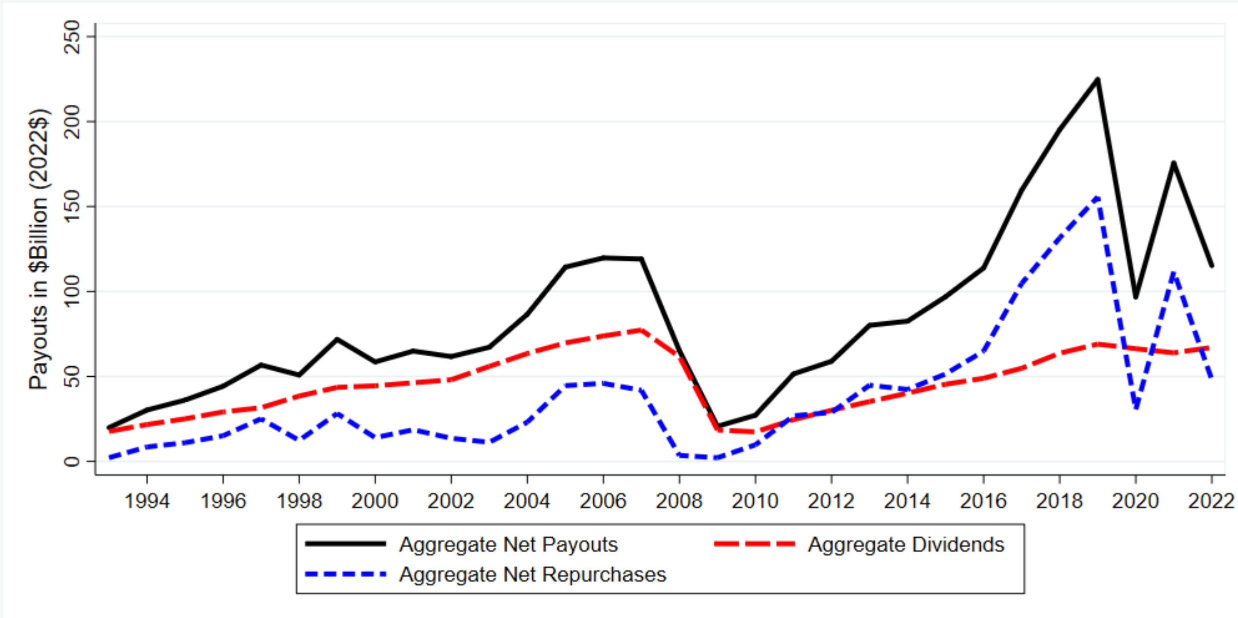
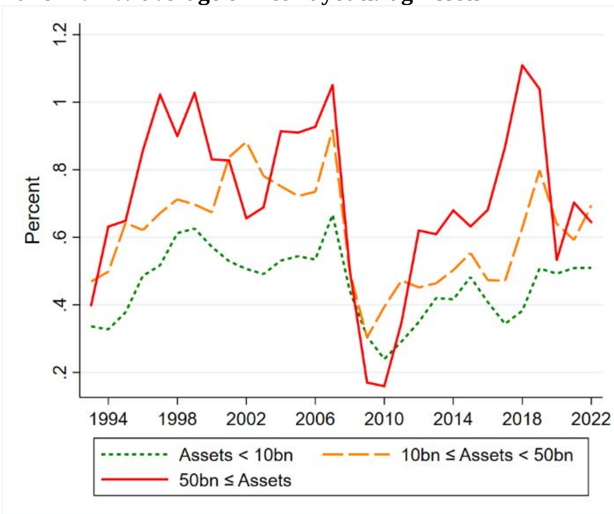


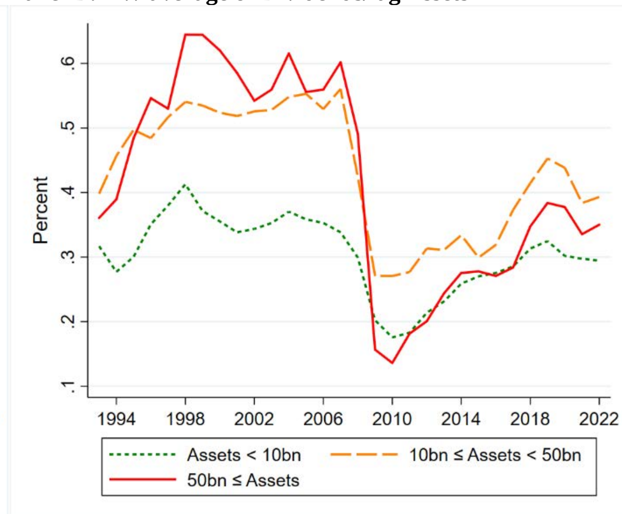
Figure 1. Aggregate real net payouts of banks

This figure depicts aggregate real net payouts (in 2022 dollars) from 1993 to 2022 for banks. The sample consists of all banks in the CRSP-FRB link tables provided by the Federal Reserve Bank of New York with non-missing Tier 1 capital ratios. Section 2.1 provides additional details on the construction of the sample, and Section 2.2 provides details on the definition of the payout variables.

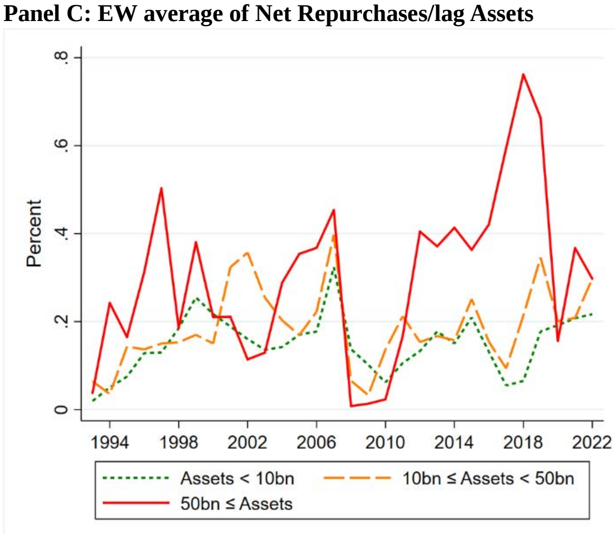
Panel A: EW average of Net Payouts/lag Assets



Panel B: EW average of Dividends/lag Assets



Panel C: EW average of Net Repurchases/lag Assets



Panel D: EW average of Net Repurchases/Net Payouts

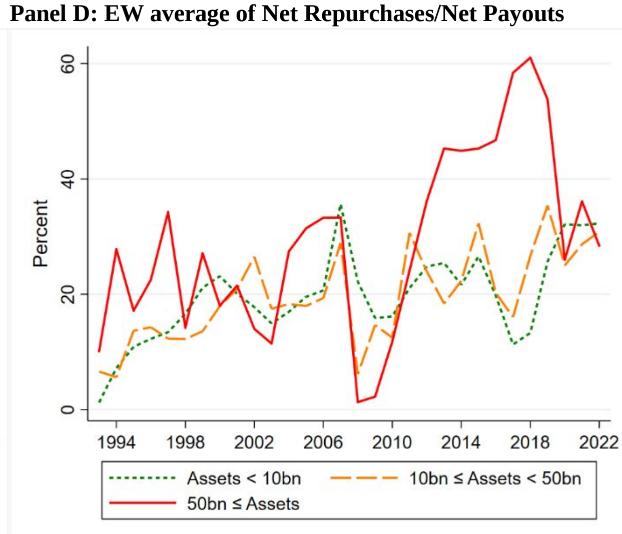


Figure 2. Equally weighted average payout ratios of banks in different asset size groups

The figure shows equally weighted average payout ratios from 1993 to 2022 for a sample of commercial banks. The sample consists of all banks in the CRSP-FRB link tables provided by the Federal Reserve Bank of New York with non-missing Tier 1 capital ratios. Section 2.1 provides additional details on the construction of the sample, and Section 2.2 provides details on the definition of the payout variables. Panel A shows total payout ratios, Panel B dividend payout ratios, Panel C net repurchase payout ratios, and Panel D the ratio of net repurchase over net payouts. We show ratios for three size groups, created based on lagged assets. The first group (green dotted line) consists of banks with assets smaller than $10 billion. The second group (orange dashed line) consists of banks with assets between $10 billion and $50 billion. The third group consists of banks with assets larger than $50 billion. These thresholds correspond to size thresholds used to determine the degree of regulatory scrutiny for banks after the GFC. We employ nominal assets to determine the size group for each bank in the post-2010 period. For the pre-2010 period, we adjust the threshold level using the 2010 Consumer Price Index. Prior to averaging, we winsorize numbers at the 1% and 99% level, respectively.

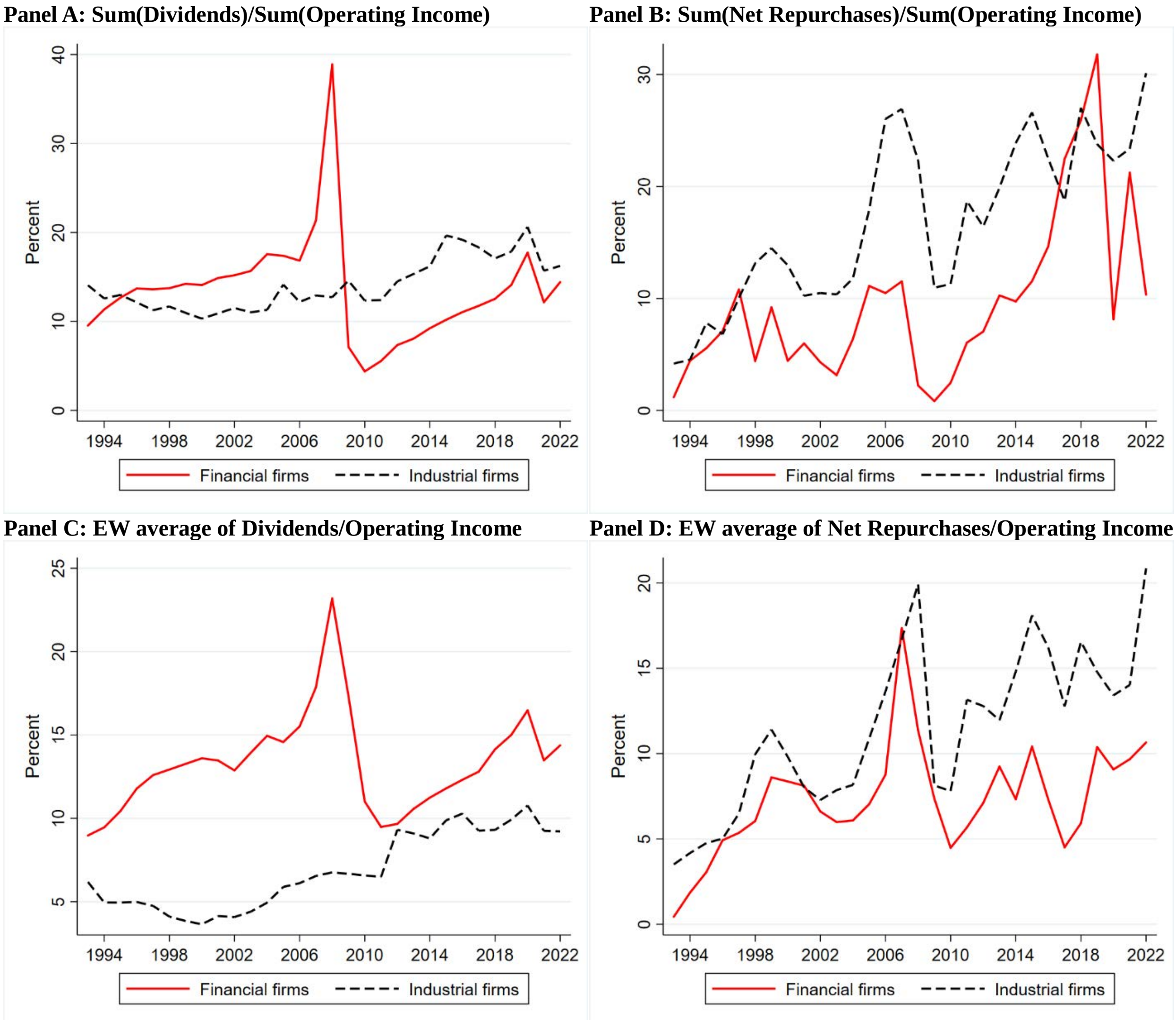
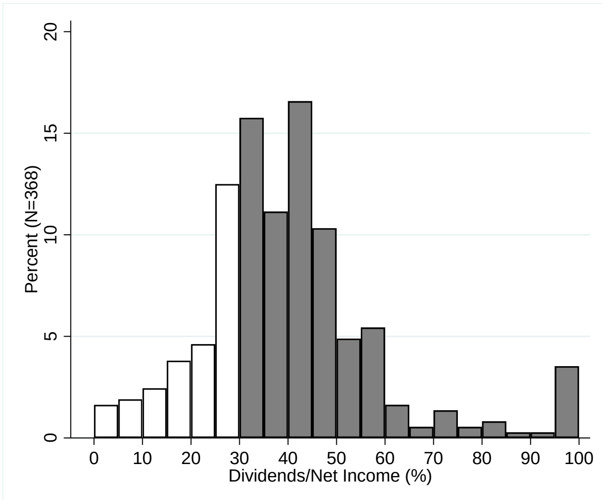


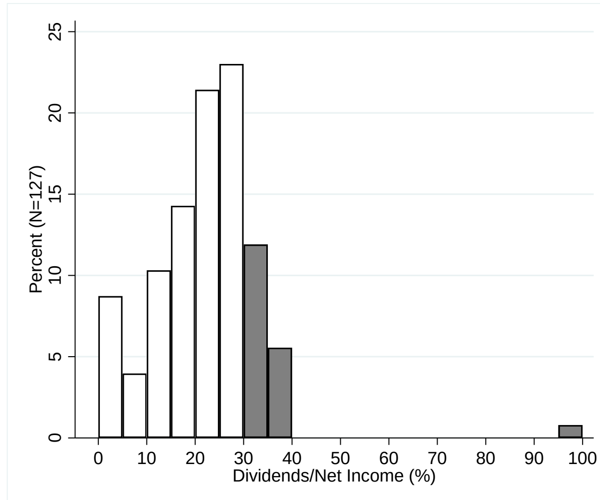
Figure 3. Relation between payouts and operating income: Banks vs. Industrial firms

The figure compares payouts over operating income for banks and industrial firms. The sample of banks consists of all banks in the CRSP-FRB link tables provided by the Federal Reserve Bank of New York with non-missing Tier 1 capital ratios. Section 2.1 provides additional details on the construction of the bank sample. We define industrial firms using Standard Industrial Classification (SIC) codes (SIC < 6000 or 7000 ≤ SIC). We exclude utilities (4900 ≤ SIC < 4950). For Panels A and B, we first sum payouts and operating income (OIBDP) and then form a ratio of the two sums. For Panels C and D, we take the equally weighted average of firm-year payouts over operating income. To reduce noise from negative or small denominators in Panels C and D, we first exclude firm-years with negative operating income and then winsorize each firm-specific ratio at the 1% and 99% level, respectively.

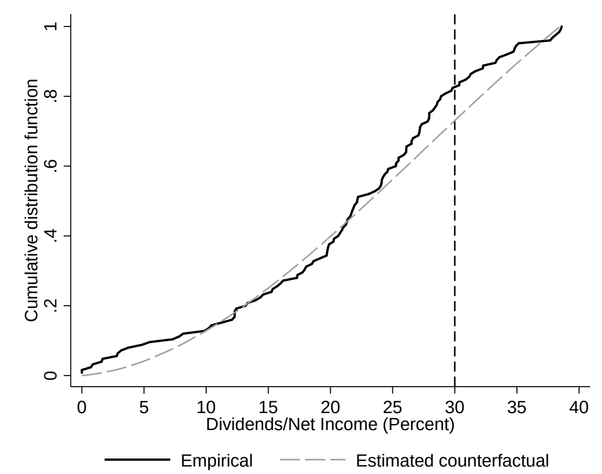
Panel A. Histogram of Dividends/Net Income of banks above 50 billion assets (adjusted with 2010 CPI) from 1993 to 2007



Panel B. Histogram of Dividends/Net Income of CCAR banks from 2011 to 2016



Panel C. Empirical and counterfactual CDF of dividends over net income of CCAR banks from 2011 to 2016



Panel D. Histogram of Dividends/Net Income of CCAR banks since 2017

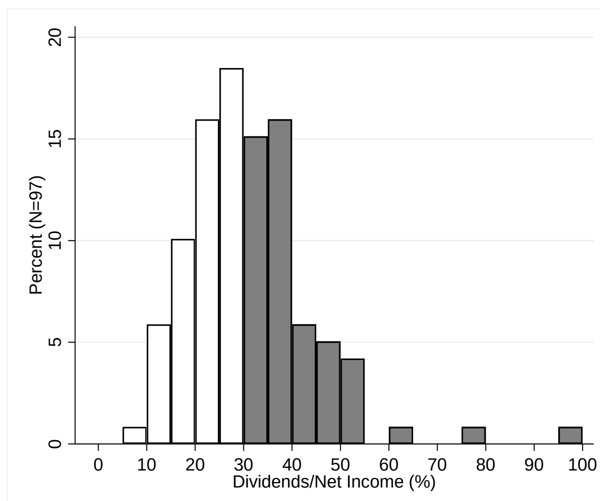
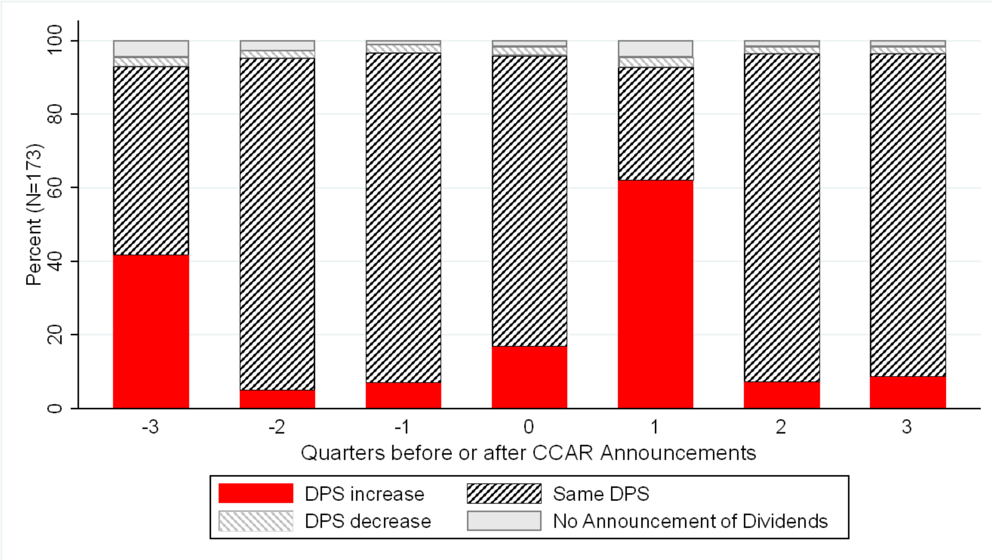


Figure 4. Histogram and cumulative distribution function of dividends as percentage of net income

This figure presents histograms and a cumulative distribution function of dividends over net income for large banks or CCAR banks. Panel A includes banks with assets of at least 50 billion dollars (adjusted with the 2010 CPI). Panels B, C, and D use banks subject to CCAR. A bank-year is categorized as belonging to the CCAR bank group if the bank is subject to examination by CCAR in March or June of the same year. Panels A, B, and D are histograms of dividends over net income. We drop observations with negative net income. For bank-years where Dividends/Net Income exceeded 100%, their values were rescaled to 100%. Highlighted bars represent bank-years with Dividends/Net Income greater than or equal to 30%. Panel C presents fuzzy bunching results following Alvero and Xiao (2023). The sample is CCAR banks from 2011 to 2016. Specifically, we compare the cumulative distribution function (CDF) of the empirically observed dividends over net income of CCAR banks and the counterfactual CDF estimated with third-order polynomials without the window [25%, 35%]. We drop observations with negative net income and one observation with a higher than 100% payout ratio (Morgan Stanley in 2012).

Panel A. Changes in Dividends Per Share (DPS) around announcements of passing CCAR



Panel B. Announcements of new repurchase programs around announcement of passing CCAR

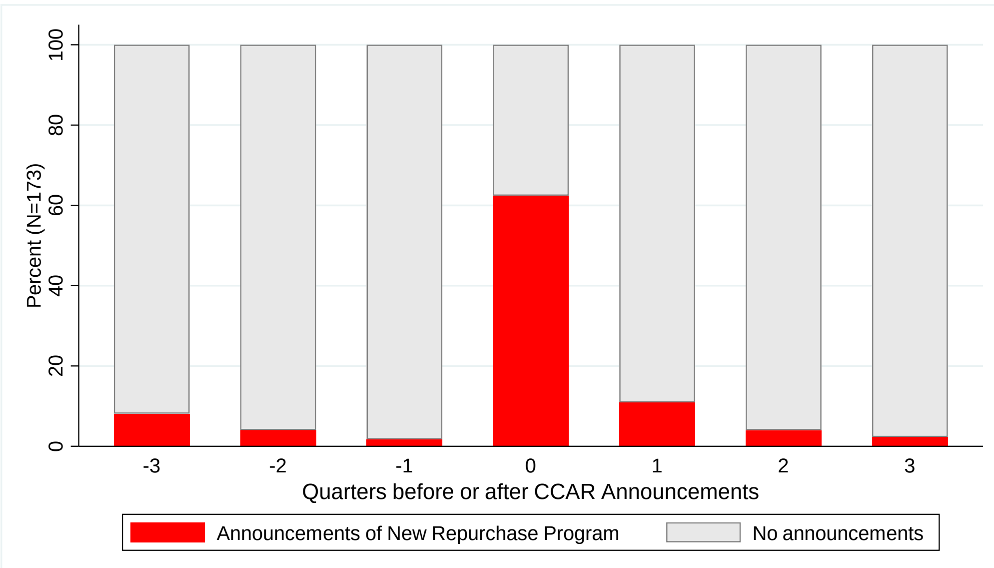


Figure 5. Changes in payouts by quarters before or after passing CCAR

This figure categorizes bank-quarters into groups based on their announcements of payout changes before or after passing CCAR, from 2010 to 2022. Bank-quarters are grouped according to the quarter when CCAR results were published. Results were announced at the end of March from 2011 to 2013 and at the end of June from 2014 to 2022. For example, JP Morgan Chase's June 2016 data are included in the "0" group because it passed the 2016 CCAR test, and the result was announced in June 2016. Panel A classifies bank-quarters into four groups based on how their announced dividends-per-share changes compared to previous announcements, utilizing the declaration date of dividends. Special dividends are excluded, and the first declaration is used if there were multiple declarations within a quarter. Panel B classifies bank-quarters into two groups depending on whether there were announcements of new repurchase programs in SDC Platinum.

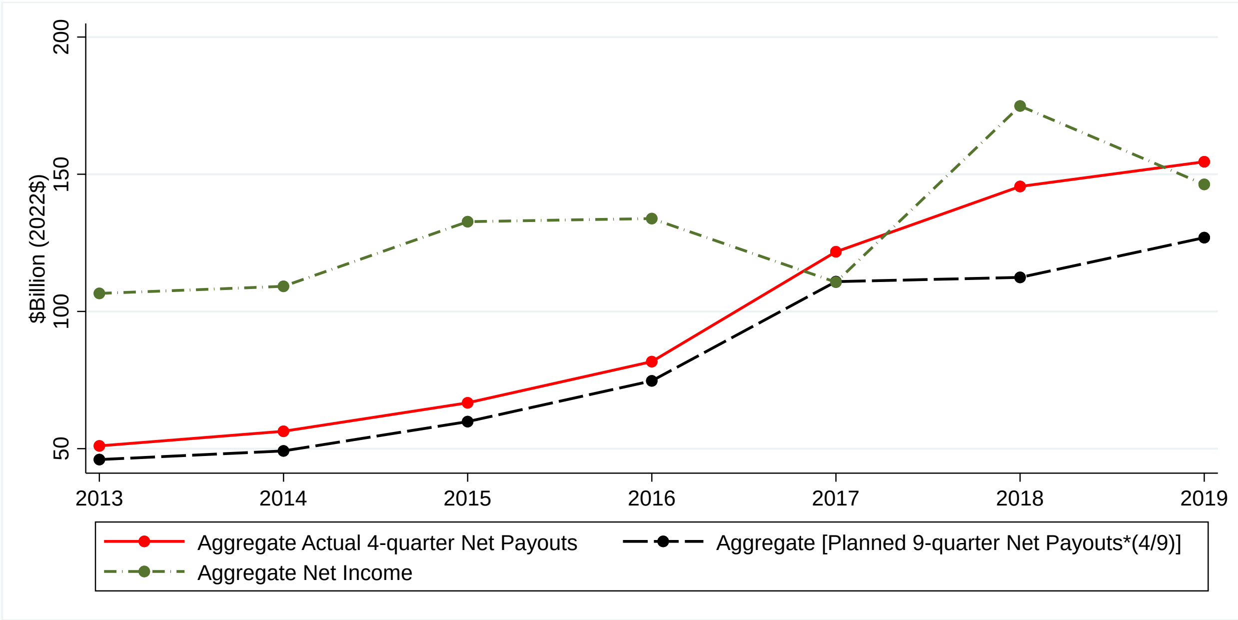


Figure 6. Actual payouts versus planned payouts

This figure presents a time series of actual payouts and planned payouts of CCAR banks. The sample period spans from 2013 to 2019 due to the availability of both DFAST and CCAR results for individual banks during this period. Planned payouts of CCAR banks are calculated by comparing DFAST and CCAR results (Schneider, Strahan, and Yang, 2023). Banks initially submit plans for nine quarters, but most of them submit revised plans in the following year's CCAR. Therefore, we compare actual net payouts for four quarters and planned nine-quarter net payouts multiplied by 4/9. Subsequently, we aggregate actual and planned payouts within a year.

Table 1. Sample summary statistics

The table provides summary statistics for aggregate and equally weighted average payout variables and key firm characteristics (Panels A and B) as well as selected payout ratios (Panel C). The sample of banks consists of all banks in the CRSP-FRB link tables provided by the Federal Reserve Bank of New York with non-missing Tier 1 capital ratios. Section 2.1 provides additional details on the construction of the bank sample. Panel A shows yearly averages of aggregate payouts, net income, assets, and market capitalizations in millions of 2022 dollars. Panel B presents average bank-year payouts and characteristics in millions of 2022 dollars. Panel C displays several bank-year payout ratios (in %). For the summary statistics reported in the last four rows of Panel C, we split the sample into three groups of large ($50 billion ≤ assets), medium ($10 billion ≤ assets < $50 billion) and small (assets < $10 billion) banks. We use nominal assets after 2010, and real assets before 2010. In Panel C, we exclude bank-years with negative denominators, and winsorize ratios at the 1% and 99% level, respectively. In Panels B and C, we first take an equally weighted average of the variables each year, and then calculate time-series averages for each subperiod. The yearly number of banks is 515, 503, 441, 380, 331, and 305 from the earliest to the most recent period.

Panel A: Aggregate characteristics by time period ($2022 million)

	Net Payouts	Dividends	Net Repurchases	Net Income	Assets	Market Capitalization
1993~2007	66,797	45,769	21,028	115,577	10,165,159	1,697,755
2008~2009	42,914	40,060	2,854	11,959	17,315,393	1,312,806
2010~2016	72,995	34,557	38,438	156,691	19,045,032	2,073,420
2017~2019	193,176	62,529	130,647	220,642	20,595,519	2,765,458
2020	96,811	66,334	30,477	169,140	23,866,808	2,495,074
2021~2022	145,368	65,501	79,867	261,844	23,560,389	2,717,789

Panel B: Equally weighted average characteristics by time period ($2022 million)

	Net Payouts	Dividends	Net Repurchases	Net Income	Assets	Market Capitalization
1993~2007	128	88	40	221	19,494	3,248
2008~2009	85	79	6	24	34,375	2,609
2010~2016	169	80	89	359	43,260	4,749
2017~2019	511	165	346	583	54,296	7,290
2020	292	200	92	511	72,105	7,538
2021~2022	474	215	259	855	77,109	8,873

Panel C: Equally weighted average payout ratios (in percent) by time period

	Net Payouts / Lag Assets	Dividends / Lag Assets	Net Repurchases / Lag Assets	Net Repurchases /Net Payouts	Net Payouts / Net Income	Net Income / Lag Assets
1993~2007	0.55	0.37	0.17	17.11	51.52	1.12
2008~2009	0.37	0.26	0.11	17.35	97.22	-0.24
2010~2016	0.39	0.24	0.15	23.32	53.21	0.68
2017~2019	0.50	0.33	0.17	22.18	47.74	1.09
2020	0.53	0.34	0.19	29.79	56.21	0.98
2021~2022	0.56	0.32	0.24	31.54	47.30	1.26
1993~2022	0.53	0.34	0.18	20.11	53.94	0.91
Large	0.77	0.41	0.36	29.72	60.80	1.22
Medium	0.67	0.44	0.23	20.60	55.47	1.12
Small	0.49	0.33	0.16	19.26	53.24	0.86

Table 2. Payout volatility

The table shows the volatility of bank-level payout rates. Panel A shows the volatility of the net payout rate, Panel B the volatility of the dividend payout rate, and Panel C the volatility of the net repurchase payout rate. To calculate volatility, we use the yearly standard deviations. Then, we calculate the time-series mean of standard deviations in each time-period and report it in the table. The standard errors are calculated off the time-series mean. We divide sample banks into subsamples depending on their asset size. Large banks are those with asset values above 50bn. Medium banks are those with asset values larger than 10bn and smaller than 50bn, and small banks are those with asset values below 10bn. We use nominal assets after 2010, and real assets before 2010. Each payout variable is winsorized at the 1% and the 99% level, respectively, before calculating standard deviations. We report differences between the volatility of large and medium and large and small banks in the two last columns, and differences between the post-GFC and pre-GFC period in the last row of each panel. We use a *t*-test to assess statistically significant differences. Statistically significant differences at the 1%, 5%, and 10% level are denoted by ***, **, and *, respectively.

Panel A: Std (Net Payouts / Lag Assets)

	All	Large (50bn≤ Assets)	Medium (10bn≤ Assets<50bn)	Small (Assets<10bn)	Large - Medium	Large - Small
1993-2022 without crises	0.463	0.507	0.463	0.441	0.044	0.065**
1993-2007	0.469	0.465	0.455	0.458	0.010	0.007
2010-2019 and 2021-2022	0.455	0.559	0.473	0.420	0.086*	0.139***
Post GFC - Pre GFC	-0.014	0.094**	0.018	-0.038	0.076	0.132**

Panel B: Std (Dividends / Lag Assets)

	All	Large	Medium	Small	Large - Medium	Large - Small
1993-2022 without crises	0.246	0.205	0.246	0.242	-0.041***	-0.038***
1993-2007	0.257	0.236	0.240	0.251	-0.004	-0.015
2010-2019 and 2021-2022	0.232	0.166	0.253	0.232	-0.088***	-0.067***
Post GFC - Pre GFC	-0.025***	-0.070***	0.014	-0.019**	-0.084***	-0.052***

Panel C: Std (Net Repurchases / Lag Assets)

	All	Large	Medium	Small	Large - Medium	Large - Small
1993-2022 without crises	0.364	0.422	0.376	0.341	0.046	0.082**
1993-2007	0.355	0.365	0.365	0.347	0.000	0.018
2010-2019 and 2021-2022	0.375	0.494	0.390	0.333	0.104**	0.162***
Post GFC - Pre GFC	0.019	0.129**	0.025	-0.014	0.104	0.144**

Table 3. Changes in Tier 1 capital ratio and concurrent payout rates

The table presents regression results for changes in capital ratios on concurrent payout rates from 1993 to 2022. The Tier 1 capital ratio is obtained from the Chicago Fed, SNL Financial, or Compustat, in that order. We divide sample banks into subsamples depending on their asset size. Large banks are those with asset values above 50bn. Medium banks are those with asset values larger than 10bn and smaller than 50bn, and small banks are those with asset values below 10bn. We use nominal assets after 2010, and real assets before 2010. In each column, we report results from a panel regression, where the dependent variable is the change in the Tier 1 capital ratio from year *t* - 1 to year *t*, and independent variables are year *t* dividend and net repurchase payout rates. All continuous variables are winsorized at the 1% and 99% levels, respectively. Numbers in parentheses represent *t*-statistics, where standard errors are clustered by firm. Significance levels are denoted by *, **, and ***, indicating significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1993 ≤ year ≤ 2007				2010 ≤ year ≤ 2019 or 2021≤ year ≤ 2022			
	All Banks	Assets < 10bn	10bn≤ Assets <50bn	50bn ≤ Assets	All Banks	Assets < 10bn	10bn≤ Assets <50bn	50bn ≤ Assets
Dividends	-0.322***	-0.425***	-0.392*	0.162	-0.468***	-0.547***	-0.312	-0.769
/ Lag Assets	(-3.77)	(-4.36)	(-1.90)	(0.61)	(-4.13)	(-4.32)	(-1.18)	(-1.41)
Net Repurchases	-0.571***	-0.672***	-0.156	-0.236*	-0.868***	-1.131***	-0.614***	-0.228
/ Lag Assets	(-7.80)	(-8.46)	(-0.71)	(-1.87)	(-8.47)	(-11.13)	(-3.12)	(-1.15)
Firm fixed	No	No	No	No	No	No	No	No
Time fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj-R-squared	0.04	0.05	0.04	0.16	0.10	0.12	0.02	-0.00
N of firm-years	5443	4581	551	311	4001	3120	580	301

Table 4. Payout rates during crises

The table presents regression results for three different payout rates on indicator variables for crisis periods and lagged determinants of payouts for banks from 1993 to 2022. "1(Year *n*)" equals one if the dependent variable is measured in year *n*. "1(Large)" equals one if the lagged assets of the bank are at least $50 billion, utilizing lagged nominal assets for the post-2010 period and lagged real assets adjusted with the 2010 CPI for the pre-2010 periods. Definitions of all control variables can be found in Appendix Table A1. All continuous variables are winsorized at the 1% and 99% levels. Numbers in parentheses represent *t*-statistics, with standard errors clustered by firm. Significance levels are denoted by *, **, and ***, indicating significance at the 10%, 5%, and 1% levels, respectively. To enhance readability, coefficients are multiplied by a hundred, except for Tobin's q.

	(1)	(2)	(3)	(4)	(5)	(6)
	Net Payouts / Lag Assets		Dividends / Lag Assets		Net Repurchases / Lag Assets	
1(Year 2008)	0.743	1.288	3.846***	3.417***	-3.236***	-2.238*
	(0.55)	(0.93)	(5.09)	(4.47)	(-2.74)	(-1.86)
1(Year 2009)	-2.266	-0.671	-0.243	0.221	-2.432	-1.313
	(-1.31)	(-0.38)	(-0.32)	(0.28)	(-1.60)	(-0.84)
1(Year 2020)	-2.310	0.412	0.189	0.319	-2.265	0.414
	(-1.34)	(0.25)	(0.30)	(0.47)	(-1.44)	(0.28)
1(Large)		14.532**		-0.180		14.523***
		(2.41)		(-0.08)		(2.74)
1(Year 2008)		-11.343***		9.847***		-21.739***
* 1(Large)		(-2.63)		(3.08)		(-5.94)
1(Year 2009)		-34.220***		-9.960***		-24.009***
* 1(Large)		(-6.31)		(-2.84)		(-5.31)
1(Year 2020)		-29.741***		-1.341		-29.337***
* 1(Large)		(-4.07)		(-0.80)		(-4.05)
Log(Assets)	5.728***	5.140***	2.365***	2.381***	3.507***	2.909**
	(4.01)	(3.63)	(2.95)	(2.90)	(2.70)	(2.29)
Net Income	5.298***	5.283***	4.414***	4.397***	0.805	0.810
/ Lag Assets	(5.11)	(5.12)	(8.35)	(8.34)	(1.01)	(1.03)
Tobin's q	1.556***	1.557***	1.123***	1.122***	0.355***	0.356***
	(11.64)	(11.67)	(15.93)	(15.89)	(3.46)	(3.48)
Tier 1 Capital Ratio	3.155***	3.159***	0.530***	0.540***	2.407***	2.401***
	(10.79)	(10.84)	(4.31)	(4.41)	(10.25)	(10.22)
Std(ROA)	-6.161***	-6.237***	-5.021***	-5.018***	-1.107	-1.190
	(-3.80)	(-3.85)	(-7.10)	(-7.08)	(-0.82)	(-0.88)
Loan Loss Provision	-5.407***	-5.225***	-1.626**	-1.607**	-4.036***	-3.870***
/ Lag Assets	(-3.99)	(-3.90)	(-2.49)	(-2.46)	(-3.64)	(-3.54)
Net Interest Margin	4.112***	4.157***	2.588***	2.591***	1.661**	1.697**
	(4.03)	(4.10)	(4.86)	(4.87)	(2.02)	(2.09)
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed	No	No	No	No	No	No
Adj. R-squared	0.44	0.44	0.72	0.72	0.24	0.24
N of firm-years	11770	11770	11770	11770	11770	11770

Table 5. Effects of politics on net payouts of banks

The table presents regression results for banks' net payout rate on lagged determinants of payouts, the party of the current year's president and a measure of financial regulation uncertainty. The sample period is from 1993 to 2022. "1(Democrat President)" takes the value of one if the president at year-end belongs to the Democratic party and zero if he belongs to the Republican party. "1(High Financial Uncertainty)" takes a value of one if the year-end financial regulation index is above the median during the sample period, thus occurring in 15 years during the sample periods. In Columns 1 to 3, we present the results with interactions between variables related to politics and the indicator for large banks. Then, we present the results for banks with assets less than $10 billion (Columns 4 and 6), those with assets from $10 billion to $50 billion (Columns 7 and 9), and those with at least $50 billion in assets (Columns 10 and 12). To divide samples and define large banks, we use nominal lagged assets for post-2010 periods and real lagged assets for pre-2010 periods (2010 CPI). Definitions of control variables can be found in Appendix Table A1. All continuous variables are winsorized at the 1% and 99% levels. Numbers in parentheses represent *t*-statistics, where standard errors are clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. To enhance readability, coefficients are multiplied by 100, except for Tobin's q.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	All Banks			Assets < 10bn			10bn ≤ Assets < 50bn			50bn ≤ Assets		
1(Democrat President) *1(Assets≥50bn)	-21.041***		-13.319***									
	(-4.66)		(-2.59)									
1(High Fin. Uncerta-inty)*1(Assets≥50bn)		-22.839***	-17.228***									
		(-6.56)	(-4.22)									
1(Democrat President)				-3.395***		-3.337***	-10.878***		-13.193***	-17.338***		-14.530**
				(-2.82)		(-2.65)	(-2.98)		(-3.55)	(-3.06)		(-2.36)
1(High Financial Reg. Uncertainty)					-1.008	-0.255		4.638**	8.026***		-12.744***	-8.215**
					(-1.06)	(-0.25)		(2.06)	(3.43)		(-4.35)	(-2.43)
1(Assets≥50bn)	18.900***	20.322***	24.497***									
	(2.93)	(3.38)	(3.84)									
Log(Assets)	10.043***	9.825***	9.988***	3.406**	3.795**	3.425**	6.642	10.644*	6.603	3.210	6.794	3.745
	(4.63)	(4.53)	(4.60)	(2.22)	(2.50)	(2.24)	(1.03)	(1.70)	(1.03)	(0.45)	(0.94)	(0.53)
Net Income / Lag Assets	2.814***	2.862***	2.798***	4.996***	5.026***	5.004***	5.646**	6.155***	5.060**	5.809	6.957	6.044
	(2.60)	(2.66)	(2.60)	(4.62)	(4.65)	(4.62)	(2.49)	(2.65)	(2.17)	(0.85)	(1.02)	(0.89)
Tobin's q	1.005***	1.017***	1.012***	1.332***	1.388***	1.321***	1.585***	1.976***	1.801***	2.028***	2.079***	1.884***
	(5.99)	(6.08)	(6.03)	(8.97)	(8.39)	(8.06)	(3.95)	(4.71)	(4.33)	(4.42)	(4.43)	(4.07)
Tier 1 Capital Ratio	3.722***	3.745***	3.748***	3.463***	3.389***	3.462***	4.591***	4.132***	4.602***	1.758	0.964	1.770
	(11.92)	(12.06)	(12.07)	(10.90)	(10.87)	(10.89)	(5.57)	(5.09)	(5.55)	(1.11)	(0.67)	(1.13)
Std(ROA)	-4.159**	-4.008**	-3.968**	-6.395***	-6.833***	-6.388***	3.455	1.666	2.272	-6.022	-6.471*	-4.657
	(-2.55)	(-2.48)	(-2.46)	(-3.33)	(-3.57)	(-3.33)	(0.73)	(0.35)	(0.48)	(-1.37)	(-1.73)	(-1.12)
Loan Loss Provision / Lag Assets	-6.239***	-6.046***	-6.243***	-3.309**	-3.682***	-3.294**	-10.498**	-12.293***	-11.557***	-16.294***	-15.098***	-15.735***
	(-4.12)	(-4.08)	(-4.15)	(-2.36)	(-2.65)	(-2.36)	(-2.44)	(-2.86)	(-2.66)	(-2.79)	(-2.66)	(-2.68)
Net Interest Margin	5.203***	5.051***	5.133***	3.555***	3.452***	3.552***	2.103	3.735	2.770	6.172*	4.577	5.581*
	(4.23)	(4.15)	(4.21)	(2.97)	(2.88)	(2.96)	(0.82)	(1.43)	(1.06)	(1.79)	(1.41)	(1.71)
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
Adj. R-squared	0.46	0.46	0.47	0.43	0.43	0.43	0.47	0.46	0.47	0.50	0.50	0.51
N of firm-years	11770	11770	11770	9706	9706	9706	1339	1339	1339	725	725	725

Table 6. Effects of politics on net payouts of industrial firms

The table presents regression results for industrial firms' net payout rate on lagged determinants of payouts, the party of the current year's president and a measure of financial regulation uncertainty. "1(Democrat President)" takes the value of one if the president at year-end belongs to the Democratic party and zero if he belongs to the Republican party. "1(High Financial Uncertainty)" ("1(Economy Financial Uncertainty)") takes a value of one if the year-end financial regulation uncertainty index (economy policy uncertainty index) is above the median during the sample period, thus occurring in 15 years during the sample periods. The sample period is from 1993 to 2022. In Columns 1 to 4, we present the results with interactions between variables related to politics and the indicator for large firms. Then, we present the results for industrial firms with assets less than $10 billion (Columns 5 to 7) and those with at least $10 billion in assets (Columns 8 to 10). To divide samples and define large firms, we use nominal lagged assets for post-2010 periods and real lagged assets for pre-2010 periods (2010 CPI). Definitions of control variables can be found in Appendix Table A1. All continuous variables are winsorized at the 1% and 99% levels. Numbers in parentheses represent t-statistics, where standard errors are clustered by firm. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. To enhance readability, coefficients are multiplied by a hundred, except for Tobin's q.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All Industrial Firms				Assets < 10bn			10bn ≤ Assets		
1(Democrat President) *1(Assets≥10bn)	-1.622			-2.799						
	(-0.13)			(-0.22)						
1(Econ Policy Uncertainty) *1(Assets≥10bn)		-18.495		-18.686						
		(-1.39)		(-1.40)						
1(High Fin Reg Uncertainty) *1(Assets≥10bn)			-4.559							
			(-0.45)							
1(Democrat President)					21.232***			17.504		
					(5.37)			(1.30)		
1(High Economic Policy Uncertainty)						-25.302***			-43.082***	
						(-7.04)			(-3.08)	
1(High Financial Regulation Uncertainty)							-10.170***			-8.537
							(-3.41)			(-0.81)
1(Assets≥10bn)	15.104	26.688	16.926	28.358						
	(0.78)	(1.35)	(0.89)	(1.31)						
Log(Assets)	28.261***	28.130***	28.242***	28.130***	22.168***	23.072***	21.606***	22.281	29.911	22.648
	(8.05)	(8.01)	(8.04)	(8.01)	(5.08)	(5.26)	(4.93)	(0.53)	(0.70)	(0.53)
Net Income / Lag Assets	0.902***	0.903***	0.902***	0.903***	1.231***	1.233***	1.244***	11.404***	11.474***	11.431***
	(8.78)	(8.79)	(8.78)	(8.79)	(9.77)	(9.77)	(9.86)	(5.28)	(5.29)	(5.30)
Tobin's q	0.223***	0.223***	0.223***	0.223***	0.336***	0.335***	0.333***	1.089***	1.102***	1.084***
	(10.84)	(10.84)	(10.84)	(10.84)	(12.84)	(12.81)	(12.73)	(4.82)	(4.91)	(4.83)
Asset Tangibility	-0.081	-0.083	-0.081	-0.083	-0.949***	-0.921***	-0.917***	-0.421	-0.559	-0.353
	(-0.36)	(-0.37)	(-0.36)	(-0.37)	(-3.30)	(-3.20)	(-3.19)	(-0.24)	(-0.32)	(-0.20)
R&D / Lag Assets	-1.217***	-1.219***	-1.218***	-1.219***	-1.843***	-1.794***	-1.815***	-6.009	-6.197	-6.057
	(-4.79)	(-4.80)	(-4.80)	(-4.80)	(-5.43)	(-5.27)	(-5.33)	(-0.83)	(-0.86)	(-0.84)
SGA / Sales	-0.002	-0.002	-0.002	-0.002	-0.019	-0.019	-0.021	-0.975	-0.946	-0.980
	(-0.07)	(-0.08)	(-0.07)	(-0.08)	(-0.58)	(-0.58)	(-0.64)	(-0.62)	(-0.59)	(-0.62)
Advertisement / Sales	-0.154	-0.156	-0.155	-0.157	-1.670	-1.671	-1.717	-4.360	-4.913	-4.664
	(-0.14)	(-0.14)	(-0.14)	(-0.14)	(-1.22)	(-1.22)	(-1.26)	(-0.47)	(-0.54)	(-0.51)

Capex / Lag Assets	-2.702***	-2.701***	-2.702***	-2.701***	-2.870***	-2.833***	-2.819***	-13.473***	-13.388***	-13.400***
	(-11.05)	(-11.04)	(-11.05)	(-11.04)	(-10.13)	(-10.01)	(-9.96)	(-4.03)	(-3.96)	(-4.00)
Cash / Lag Assets	0.422***	0.422***	0.422***	0.422***	0.716***	0.711***	0.721***	-0.156	-0.171	-0.107
	(5.13)	(5.12)	(5.12)	(5.12)	(7.31)	(7.25)	(7.36)	(-0.08)	(-0.08)	(-0.05)
1(Accounting Loss)	-47.113***	-47.136***	-47.115***	-47.137***	-71.464***	-70.708***	-71.621***	-20.891	-17.130	-20.721
	(-13.92)	(-13.92)	(-13.92)	(-13.92)	(-16.51)	(-16.32)	(-16.53)	(-0.87)	(-0.71)	(-0.87)
Log(Firm Age)	43.213***	42.638***	43.126***	42.653***	80.149***	84.854***	79.894***	162.868***	180.469***	165.214***
	(7.09)	(6.96)	(7.07)	(6.96)	(14.39)	(15.16)	(14.50)	(4.96)	(5.37)	(5.00)
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed	Yes	Yes	Yes	Yes	No	No	No	No	No	No
Adj. R-squared	0.27	0.27	0.27	0.27	0.35	0.35	0.35	0.53	0.53	0.53
N of firm-years	87670	87670	87670	87670	82196	82196	82196	5474	5474	5474

Table 7. Stock returns around the 2016 presidential election

The table provides the average cumulative abnormal returns in percentage around the 2016 presidential election. We show results for four samples. Column 1 shows results for the 10 banks subject to the 2016 CCAR and with assets of more than $250 billion. Column 2 shows results for the 15 banks subject to the 2016 CCAR, and with assets larger than $50 billion, and smaller than $250 billion. Column 3 shows results for all other sample banks. Column 4 shows results for all industrial firms. The election day was November 8th, 2016, and the result was not known before markets closed. We show three sets of results, using excess returns over risk free returns, Fama-French 5-factor adjusted returns (Fama and French, 2015), and q5-factor adjusted returns (Hou et al., 2021)), respectively. Factor loadings are calculated using daily data in 2015. The last three columns summarize the statistical significance of the difference in mean. Numbers in parentheses represent standard errors, which are calculated with 1,000 laps of bootstrapping. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively. "Not sig." in the last three columns indicate that differences are not statistically significant at the 10% level.

	Abnormal returns on Nov 9, 2016				Difference		
	(1)	(2)	(3)	(4)			
	CCAR Banks 250bn ≤ Assets	CCAR Banks Assets [50, 250)	Non-CCAR Banks	Industrial Firms	(1)-(2)	(1)-(3)	(1)-(4)
Excess returns	4.474***	3.680***	0.994*	0.156	Not sig.	(***)	(***)
	(0.66)	(0.62)	(0.51)	(1.30)			
FF5-adjusted returns	2.626***	2.178***	0.863**	-0.192	Not sig.	(***)	(***)
	(0.35)	(0.32)	(0.44)	(0.53)			
q5-adjusted returns	2.994***	2.554***	0.916*	-0.193	Not sig.	(***)	(***)
	(0.44)	(0.36)	(0.47)	(0.51)			
Number of firms	10	14	374	2640			

Table 8. Dynamic difference-in-difference around Trump administration

The table presents results of regressions of the payout rate on the interaction between the indicator variable for large firms and yearly indicator variables. The sample period is from 2013 to 2020, covering 4 years before and after the inauguration of president Trump. We present the results separately for banks (Columns 1 to 3) and industrial firms (Columns 4 to 6). For banks, "1(Large)" equals one if lagged nominal assets are at least $50 billion. For industrial firms, "1(Large)" equals one if lagged nominal assets are at least $10 billion. "1(Year *n*)" equals one if the firm-year is in year *n*. Year 2016, the year before the Trump inauguration, is omitted because it is the benchmark year. For control variables in Columns 1 to 3, we include log assets, net income, Tobin's q, Tier 1 capital ratio, volatility of ROA, loan loss provisions, and net interest margin. For those in Columns 4 to 6, we include log assets, net income, Tobin's q, asset tangibility, R&D costs, SG&A costs, advertisement costs, capital expenditures, cash holdings, log (firm age), and an indicator variable equal to one if the firm experienced an accounting loss. The coefficients on control variables are omitted for brevity. Definitions of control variables can be found in Appendix Table A1. All continuous variables are winsorized at the 1% and 99% levels. Numbers in parentheses represent *t*-statistics, where standard errors are clustered by firm. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. To enhance readability, coefficients are multiplied by a hundred.

	(1)	(2)	(3)	(4)	(5)	(6)
	Banks			Industrial firms		
	Net Payouts / Lag Assets	Dividends / Lag Assets	Net Repurchases / Lag Assets	Net Payouts / Lag Assets	Dividends / Lag Assets	Net Repurchases / Lag Assets
1(Large)	17.479	-7.777**	23.206	-54.633	-9.684	-50.250
	(0.91)	(-2.07)	(1.37)	(-1.38)	(-0.77)	(-1.45)
1(Year 2013)	-6.179	1.213	-7.035	43.434	-23.677**	75.151**
* 1(Large)	(-0.81)	(0.65)	(-1.01)	(1.10)	(-1.97)	(2.13)
1(Year 2014)	0.339	0.746	-0.056	63.156**	-12.668	78.029***
* 1(Large)	(0.05)	(0.50)	(-0.01)	(1.96)	(-1.45)	(2.59)
1(Year 2015)	-0.330	-0.377	-0.025	30.647	-0.629	33.154
* 1(Large)	(-0.05)	(-0.32)	(-0.00)	(1.10)	(-0.08)	(1.30)
1(Year 2017)	35.007***	1.823	32.231***	26.481	11.114	9.577
* 1(Large)	(3.62)	(1.64)	(3.70)	(1.04)	(1.46)	(0.43)
1(Year 2018)	44.303***	2.360	41.308***	105.829***	15.192*	94.582***
* 1(Large)	(4.04)	(1.47)	(3.88)	(3.15)	(1.90)	(3.03)
1(Year 2019)	36.772***	4.702**	32.060***	110.402***	27.618***	76.805**
* 1(Large)	(3.09)	(2.32)	(2.95)	(3.18)	(2.68)	(2.48)
1(Year 2020)	-17.002	4.299*	-22.153**	25.459	19.290**	2.566
* 1(Large)	(-1.53)	(1.95)	(-2.10)	(0.77)	(1.98)	(0.08)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed	Yes	Yes	Yes	Yes	Yes	Yes
Time fixed	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.51	0.83	0.40	0.58	0.76	0.49
N of firm-years	2981	2981	2981	18597	18597	18597

Appendix

Table A1. Variable definitions

The table explains how we construct dependent variables and control variables. All fractions are expressed in percentage terms, except for Tobin's q.

Variables	Description
Dividends	Dividends for common stocks (DVC)
Net Repurchases	Maximum value of share repurchases minus stock issuance and zero. We use Fama and French (2001) and Floyd, Li, and Skinner (2015) to measure share repurchases as the increase in common treasury stock (TSTKC). If a firm employs the retirement method, which we infer from zero treasury stock in the current and prior year, we calculate repurchases as the purchase of common and preferred stock (PRSTKC) minus any reduction in the value of preferred stock. Depending on availability, we use redemption (PSTKRV), liquidating (PSTKL), or par value (PSTK) for the value of preferred stock. Net repurchases are equal to repurchases minus the issuance of stock (SSTK). If either calculation yields a negative value, net repurchases are set to zero.
Net Payouts	Dividends plus net repurchases
Planned 9-quarters Net Payouts	Implied payout plans of CCAR banks. They are calculated by comparing DFAST and CCAR results as in Schneider, Strahan, and Yang (2023) Appendix 2.
Log(Assets)	Log of real assets (AT*1000000 x Inflation factor). The inflation factor is calculated with the 2022 CPI.
Net Income / Lag Assets	Net income (NI) divided by lagged assets (AT)
Tobin's q	The market value of assets divided by the book value of assets. The market value of assets is equal to the market value of equity (CSHO*PRCC_F) plus the book value of debt (DLC+DLTT) plus the book value of preferred stock minus investment tax credits (TXDITC).
Tier 1 Capital Ratio	Depending on availability, we use data from Chicago Fed (BHCK7206), SNL Financial (var_133175), and Compustat (CAPR1), in that order
Std(ROA)	Standard deviation of yearly net income/lagged assets for previous five years
Loan Loss Provision / Lag Assets	Provision for loan losses divided by lagged assets. Depending on availability, we use data from Chicago Fed (BHCK4230), SNL Financial (var_132652), and Compustat (PCLC, (NIINT-NIIPL)), in that order
Net Interest Margin	Depending on availability, we use data from Chicago Fed (BHCK4074), SNL Financial (var_133372), and Compustat (NIM), in that order
Asset Tangibility	Net PPE (PPENT) divided by assets
R&D / Lag Assets	R&D (XRD) divided by lagged assets. If R&D is missing, it is set equal to 0
SGA / Sales	SG&A (XSGA) divided by sales (SALE)
Advertisement / Sales	Advertising expenses (XAD) divided by sales (SALE); XAD set to zero if missing
Capex / Lag Assets	Capital expenditures (CAPX) divided by lagged assets
Cash / Lag Assets	Cash and short-term investments (CHE) divided by lagged assets
1(Accounting Loss)	Indicator variable equal to one if (IB + XIDO) < 0, and zero otherwise. IB is net income excluding extraordinary items and discontinued operations, and XIDO is extraordinary items and discontinued operations.
Log(Firm Age)	Log of years since first CRSP listing
1(Democrat President)	Indicator variable equal to one if the US president at the end of the current year belongs to the democratic party, and zero otherwise

1(High Financial Regulation Uncertainty)	Indicator variable equal to one if the year-end financial regulation uncertainty index is above the median of the sample period, and zero otherwise. The financial regulation uncertainty index is a categorical uncertainty index of economic policy uncertainty (Baker, Bloom, and Davis, 2016). The data is available free of charge at: https://www.policyuncertainty.com/categorical_epu.html
1(High Economic Policy Uncertainty)	Indicator variable equal to one if the year-end economic policy uncertainty index is above the median of the sample period, and zero otherwise. The economic policy uncertainty comes from Baker, Bloom, and Davis (2016).
1(Large)	Indicator variable equal to one if a firm-year belongs to the large group. The threshold for "Large" is \$50 billion for banks and \$10 billion for industrial firms. We use nominal assets for post-2010 periods and real assets for the pre-2010 periods (2010 CPI).