# **Politically Polarized Depositors**\*

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## Abstract

Do political values shape depositor behavior? Exploiting a shock drawing public attention to banks' financial relationships with the gun industry, I find that banks that lend to the gun industry experience significant decreases in deposit growth. The effect is stronger in counties with more Democrats or higher support for gun control. Anti-gun depositor movements increase funding costs for gun-lending banks and thus reduce their lending business, which coincides with slower growth in gun establishments. Moreover, I find evidence that banks with public anti-gun policies also experience reduced deposit growth, specifically in counties with more Republicans or higher support for gun rights. The findings suggest that political values shape depositor behavior and pose financial risks to bank operations.

JEL: *G21*, *G41*, *M14* Keywords: Depositor behavior, Political value, Financial activism, ESG

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## 1. Introduction

Do political values shape depositor behavior? Answering this question is essential to understanding bank operations in a politically polarized era because deposits finance a large portion of bank assets. Recent studies document the role of political values in consumer behavior and financial markets (e.g., Ke, 2020; Meeuwis et al., 2021; Liaukonyte et al., 2022). Yet, we have a limited understanding of their role in the banking sector, especially in the deposit market. This paper sheds light on this issue by examining how depositors respond when they do not agree with their banks' political stances.

To study this idea, I focus on political beliefs about gun policy, one of the most divisive issues in the US.<sup>1</sup> I identify gun stances of banks based on their financial relationships with the gun industry and those of depositors based on granular socio-political measures. In general, depositors are unaware of banks' asset portfolios (Freixas and Rochet, 2008), making it hard for depositors to identify banks' gun stances. I thus exploit an exogenous shock drawing public attention to the bank's financial relationships with the gun industry, specifically anti-gun financial activism movements following the deadly school shooting at Marjory Stoneman Douglas High School in Parkland, Florida, on February 14, 2018.

In the wake of the shooting, activists urged financial institutions to engage in gun violence prevention by cutting their business ties with the gun industry. On February 26, 2018, ThinkProgress, an American progressive news website, revealed a list of banks financing the gun industry.<sup>2</sup> In early 2019, Guns Down America, a left-of-center advocacy campaign, published a

<sup>&</sup>lt;sup>1</sup> According to a 2019 Pew Research Center survey, the largest partisan gaps occur with gun policy, followed by racial attitudes and climate/environment. See <u>https://www.pewresearch.org/politics/2019/12/17/in-a-politically-polarized-era-sharp-divides-in-both-partisan-coalitions/.</u>
<sup>2</sup> ThinkProgress. "These are the banks financing the assault weapons industry." See

<sup>&</sup>lt;sup>2</sup> ThinkProgress. "These are the banks financing the assault weapons industry." See <u>https://archive.thinkprogress.org/banks-financing-guns-c985a46dd4d1/.</u>

widely cited online report card titled "Is Your Bank Loaded?" highlighting financial relationships between the top fifteen US banks and the gun industry.<sup>3</sup> Some banks (e.g., Bank of America, Citibank) responded by implementing anti-gun policies and restricting business with the gun industry. Others (e.g., Wells Fargo) refused to change their business practices.<sup>4</sup> In April 2019, during testimony before the House Committee on Financial Services, Democrats praised bank leaders for their anti-gun policies. In contrast, Republican committee member Sean Duffy (R-Wis) said to Bank of America CEO Brian Moynihan, "There's a lot of Americans who you serve that would greatly disagree with that policy [to stop loaning money to gun makers]. It might play well in the East Coast, it might play well in California, but your bank is not the Bank of New York or California, it's the Bank of America."<sup>5</sup>

Using 2018 anti-gun financial activism movements as a source of exogenous variation in public attention to banks' gun stances, I employ a difference-in-differences approach to examine whether depositors discipline banks that lend to the gun industry ("gun lender"). I use a bank-branch-year deposit growth sample from 2015 through 2019, including granular county-by-year or zip code-by-year fixed effects to compare bank branches operating in similar markets whose holding banks have different gun stances. I find that gun lenders experience 1 percentage point (ppt) decreases in deposit growth, which is a sizable 12.5% relative to the average annual deposit growth of 8%. The estimated economic magnitude is \$1.32 billion annual deposit losses per bank, which is 13.2 times larger than the average lending amount of gun lenders to the gun industry. These findings suggest

<sup>4</sup> The banks' gun stances imposed financial burdens on their business. For example, some states, including Texas and Louisiana, banned Bank of America and Citibank from participating in municipal bond sales. The American Federation of Teachers removed Wells Fargo from its list of approved mortgage lenders. <sup>5</sup> UPI. "Big banks defend policies on gun manufacturers to Congress" See

https://www.upi.com/Top\_News/US/2019/04/10/Big-banks-defend-policies-on-gun-manufacturers-to-Congress/4691554916335/.

<sup>&</sup>lt;sup>3</sup> Guns Down America. "Is Your Bank Loaded?" See <u>https://isyourbankloaded.org/.</u>

that anti-gun depositor movements have an economically significant impact on gun lenders' deposits.

According to a 2018 Pew Research Center survey, Republicans are four times more likely than Democrats to say that gun rights are more important than gun control (76% versus 19%).<sup>6</sup> Using cross-sectional variation in bank branch exposure to Democrats, I find that the effect of anti-gun depositor movements is stronger in more Democrat-leaning counties. Specifically, gun lenders experience 3.1 ppt decreases in deposit growth in blue counties while having no differentials from control banks in red counties.<sup>7</sup> In addition, using the Political Action Committee (PAC) donation share to the Republican Party, I find that the effect is stronger for gun lenders that contribute more. These findings suggest that political values affect depositor behavior.

To strengthen the identification and mitigate potential unobserved heterogeneity, I conduct a series of triple-difference-in-differences analyses with the following measures: switching cost, public attitude towards gun control, social movement engagement, and social proximity to Parkland. I find that the effect is more significant in counties with lower switching costs, higher proportions of people supporting gun control, higher proportions of people engaging in social movements, and higher social proximities to Parkland. Most importantly, the effect of political values on depositor behavior remains significant after controlling for these confounding factors.

If anti-gun depositors take disciplinary action by moving their funds away from gun lenders, then a natural question is whether pro-gun depositors similarly discipline banks publicizing antigun policies ("anti-gun banks"). I find that anti-gun banks also experience significant decreases in deposit growth, the effect of which is comparable to that of anti-gun depositor movements. In

<sup>&</sup>lt;sup>6</sup> Pew Research Center. "Gun Policy Remains Divisive, But Several Proposals Still Draw Bipartisan Support" See <u>https://www.pewresearch.org/politics/2018/10/18/gun-policy-remains-divisive-but-several-proposals-still-draw-bipartisan-support/.</u>

<sup>&</sup>lt;sup>7</sup> Blue (red) is defined as the county with a democrat (republican) share greater than or equal to 70%.

contrast to anti-gun depositor movements, however, the effect of pro-gun depositor movements is stronger in counties with more Republicans or higher support for gun rights. This evidence strengthens the view that conflicting political values between banks and depositors lead to depositor movements.

Given the significant impact of anti-gun depositor movements on gun lenders, I assess their implications for the deposit market and gun industry. I first examine whether gun lenders adjust deposit spreads to attract depositors. I find that gun lenders raise smaller deposit spreads (fed funds rate minus deposit rate) in more Democrat-leaning counties, suggesting that anti-gun depositor movements worsen the market competitiveness of gun lenders, leading them to reduce deposit spreads and thus raise their funding costs. Combined with the loss of deposits, the increased funding costs of gun lenders curtail their lending business. I document that gun lenders decrease the dollar amount of small business loans by 15 percent, and this result is stronger in more Democrat-leaning counties. Then, I examine how this contracted lending business affects the gun industry and find that the number of firearms businesses shrinks more in counties with larger borrowing exposures to gun lenders. The effect is concentrated in Democrat-leaning counties. These findings imply that anti-gun depositor movements lead to a contraction of the gun industry by transferring the increased funding costs of gun lenders to the gun industry.

This paper contributes to different strands of the literature. First, it links political values to depositor behavior. Prior literature on depositor behavior primarily emphasizes banks' fundamentals or depositors' financial interests (Saunders and Wilson, 1996; Martinez Peria and Schmukler, 2001; Maechler and McDill, 2006; Egan et al., 2017; Martin et al., 2018). Yet, few studies evaluate how banks' non-fundamentals and depositors' non-financial interests (e.g., corporate social responsibility, political ideology) affect depositor behavior. This paper adds to the

literature by examining how divergent political (i.e., gun policy) beliefs of banks and depositors influence depositor movements. To my best knowledge, this paper is the first to explore the role of political beliefs in the deposit market and the real economic implications.

Second, I contribute to the literature examining the relationship between political values and financial decision making. This literature documents that different political ideologies result in divergent financial decisions among corporations (Hutton et al., 2014; Di Giuli and Kostovetsky, 2014), institutional investors (Hong and Kostovetsky, 2012; Kempf and Tsoutsoura, 2021; Kempf et al., 2022), entrepreneurs (Engelberg et al., 2022), and households (Kaustia and Torstila, 2011; Cookson et al., 2020; Ke, 2020; Meeuwis et al., 2021). This paper relates to the household side. Kaustia and Torstila (2011) and Ke (2020) show that Democrats are less likely to participate in the stock market. Cookson et al. (2020) and Meeuwis et al. (2021) provide evidence of a partisan divide in investor beliefs during the COVID-19 pandemic and 2016 presidential election, respectively. Distinct from these studies focusing on stock market participants, this paper extends the literature to include depositors by documenting divergent depositor movements by political value.

Lastly, this paper fits into the literature focusing on corporate social responsibility. Recent studies show that stakeholders pay attention to corporate social responsibility and try to discipline socially irresponsible firms (Albuquerque et al., 2019; Chen et al., 2019; Naaraayanan et al., 2021; Homanen, 2022). In the banking sector, for example, Chen et al. (2019) document that adverse bank social performance causes significant deposit outflows that lead to a deterioration in bank financial performance. Homanen (2022) shows that depositors disciplined banks financing the 2016 Dakota Access Pipeline project. Different from these studies documenting one-dimensional market discipline on socially irresponsible banks, this paper complement this literature by

documenting two-dimensional market disciplines (i.e., anti-gun depositors against gun lenders; pro-gun depositors against anti-gun banks) by political value.

The rest of this paper is organized as follows. Section 2 describes data and variables, and Section 3 presents summary statistics. Section 4 discusses empirical methodologies and results, and Section 5 discusses implications. Section 6 concludes.

# 2. Data and Variables

## 2.1 Bank-branch-year deposit growth sample

I collect annual data on deposit holdings from the Federal Deposit Insurance Corporation (FDIC) Summary of Deposits (SOD). The FDIC SOD, the annual survey of branch office deposits as of June 30, provides bank-branch-year-level data on deposit holdings of US branches of all FDIC-insured institutions, including insured US branches of foreign banks. Using the granular SOD bank-branch-year data, I compute the deposit growth for each branch in each year and then construct a bank-branch-year deposit growth sample from 2015 to 2019.<sup>8</sup> For the control variables *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type,* and *Branch type,* as well as *Scandal*,<sup>9</sup> I use SOD data on financial and business characteristics of banks and branches. Appendix A provides detailed variable definitions.

I restrict the sample to branches with deposits between \$100,000 and \$1 billion because large branches are funded mainly by large institutions rather than retail depositors, which are the focus of my study, and small branches might exhibit abnormal deposit growth (Homanen, 2022). I also

<sup>&</sup>lt;sup>8</sup> I use deposit growth as the dependent variable to difference out bank-specific trends (Gilje et al., 2016). My findings are robust to using the log value of deposit holdings as the dependent variable.

<sup>&</sup>lt;sup>9</sup> I control for the Wells Fargo account fraud scandal with *Scandal*, which is equal to one if the bank is Wells Fargo and the year is 2017. Furthermore, I test the robustness of the findings in a sample excluding Wells Fargo. Table IA2 shows that the findings remain statistically and economically significant in the sample excluding Wells Fargo.

exclude acquired, entering, or exiting branches during the sample period to control for the effect of market entries and exits.<sup>10</sup>

#### 2.2 Bank-branch-quarter deposit spread sample

I use RateWatch data to evaluate how banks adjust deposit spreads in response to anti-gun depositor movements. RateWatch collects weekly bank-branch-level deposit rates of multiple products from US depository institutions, including banks and credit unions. The data cover 80% of all US branches of FDIC-insured banks as of 2017 and contain information on whether the branch is an active setter of deposit rates.

I restrict the sample to branches that set their own deposit rates to mitigate duplication of observations (Drechsler et al., 2017). In addition, I focus on four types of certificates of deposits (CDs): 12-month CD with an account size of \$10,000 (12MCD10K), which is among the most common deposit products, as well as 12MCD50K, 12MCD100K, and 24MCD10K deposit products.<sup>11</sup> For each deposit product in each branch in each quarter, I compute the deposit spread as the federal funds rate minus the deposit rate. Deposit spread measures the cost of holding deposits. Then, I construct the dependent variable  $\Delta$  *Spread* as the change in deposit spread over a quarter. The final sample comprises bank-branch-product-quarter deposit spreads from 2017 through 2019 for active branches that offer the four types of CDs.

#### 2.3 County-year firearms business sample

To evaluate the impact of anti-gun depositor movements on the gun industry, I use the federal firearms license data provided by the Bureau of Alcohol, Tobacco, Firearms, and Explosives. The federal firearms license is a legal requirement in the US to engage in a business pertaining to

<sup>&</sup>lt;sup>10</sup> BB&T and SunTrust completed merger on December 6, 2019. Though my sample ranges from July 2015 to June 2019, I test the robustness of the findings in a sample excluding BB&T. Table IA2 shows that the findings remain statistically and economically significant in the sample excluding BB&T.

<sup>&</sup>lt;sup>11</sup> My findings are robust to using other types of deposit products.

firearms and ammunitions. The data include federal firearms licensees by business activity (e.g., dealer of firearms other than destructive devices, manufacturer of firearms other than destructive devices) and geographic location.

I focus on federal firearms licenses issued for manufacturers and dealers of firearms other than destructive devices. The data present 11,919 manufacturers and 55,659 dealers in 2,076 and 3,037 counties, respectively, in 2017. For each business type, I construct a county-year firearms business sample from 2015 through 2019. Specifically, for each type of business in each county in each year, I compute the number of licensees and construct the dependent variable, *Log* # *firearms manufacturers* or *Log* # *firearms dealers*, as the log value of the number of licensees.

# 2.4 Gun lenders and anti-gun banks

I define gun lenders based on the following three criteria: (1) banks that financed the ten biggest firearms manufacturers in the US at the time of the 2018 Parkland shooting, (2) banks that did not implement anti-gun policies after the shooting, and (3) banks whose gun business received media attention following the shooting.<sup>12</sup> Using DealScan's detailed information on historical loan contracts, I identify 32 banks that financed \$3.2 billion in loans and facilities to six major firearms manufacturers at the time of the shooting. Of the 32 banks, four banks implemented anti-gun policies following the shooting. Bank of America, Berkshire Bank, and Fifth Third Bank stopped business with the gun industry, and Capital One restricted transactions pertaining to firearms and ammunitions. Finally, 15 banks out of 28 banks were listed on either ThinkProgress or Guns Down America as banks financing the gun industry. Criterion (3) addresses information asymmetry

<sup>&</sup>lt;sup>12</sup> According to a 2016 Mother Jones report, the following 10 U.S. firearms manufacturers produced more than 8 million firearms per year for the US market, accounting for more than two-thirds of the total market: Sturm Ruger, Remington Outdoor (formerly Freedom Group), Smith & Wesson, Glock, Sig Sauer, O.F. Mossberg & Sons, Savage Arms (owned by Vista Outdoor), Springfield Armory, Beretta, and Taurus International. In 2014, they produced 95% of all firearms in the US (8.59 million out of 9.05 million). See <a href="https://www.motherjones.com/politics/2016/06/fully-loaded-ten-biggest-gun-manufacturers-america/">https://www.motherjones.com/politics/2016/06/fully-loaded-ten-biggest-gun-manufacturers-america/</a>.

between banks and depositors, which hinders depositors from identifying gun stances of banks based on their asset portfolios.<sup>13</sup> Table 1 Panel A lists 15 gun lenders with media attention, which I use in the empirical analysis. Table 1 Panel B lists 13 gun lenders without media attention. Table 1 Panel C lists 7 anti-gun banks whose anti-gun policies were publicized following the shooting, which I use to study pro-gun depositor movements as a backlash against anti-gun depositor movements.

## 2.5 Political values of depositors

To measure political values of depositors, I collect the 2016 presidential election vote shares for each county from CQ Press. I then construct county-level *Democrat share* as the major percentage of votes for Hillary Clinton. Figure 2 presents a map of county-level *Democrat share* across the US, along with blue (red) counties whose *Democrat (Republican) share* is greater than or equal to 70%. The blue and red counties are used in sub-sample analyses later.

I construct a more granular zip code-level *Democrat share* to complement the county-level *Democrat share*. Following Meeuwis et al. (2021), I use 2015–2016 individual campaign donation data from the Federal Election Commission, specifically individual donations to Political Action Committees (PACs) associated with the two major parties and with at least \$20 million in donations. I first count the number of donors to either party in each zip code. I exclude zip codes with fewer than ten donors to eliminate noise stemming from zip codes with insignificant numbers of donors. Then, for each zip code, I compute *Democrat share*, which equals the number of donors to the Democratic Party divided by the total number of donors.

<sup>&</sup>lt;sup>13</sup> My findings are robust to the exclusion of criterion (3). However, Table IA2 shows that the effect of anti-gun depositor movements is concentrated among gun lenders that receive media attention.

## 2.6 Political leanings of gun lenders

To measure political leanings of gun lenders, I use the Federal Election Commission's 2015–2016 reported PAC donations to Republican or Democratic politicians by each gun lender. I construct *Rep PAC share*, which equals the amount of donations to Republican politicians divided by the total amount of donations. *Rep PAC share* thus serves as a proxy for gun lenders' political leanings. Gun lenders contributed, on average, \$206,210 and \$89,296 to Republican and Democratic politicians, respectively. The average *Rep PAC share* is 0.658, suggesting that gun lenders in general lean Republican. Table IA1 provides a summary of the results.

#### 2.7 Additional variables

To strengthen the identification and mitigate potential unobserved heterogeneity, I construct several cross-sectional variables that measure (1) switching cost, (2) public attitude towards gun control, (3) social movement engagement, and (4) social proximity to Parkland. First, based on Klemperer (1995) that switching costs make a market less competitive, I use the county-level Herfindahl-Hirschman Index (*HHI*) as a proxy for switching costs. *HHI* is the sum of the squared deposit market shares of all bank branches operating in the county in 2017.

Second, based on Luca et al. (2020) that people who experience mass shootings are more likely to support gun control, I construct *Mass shooting*, which equals one for counties where at least one public mass shooting occurred during 1999–2018. I find 78 such counties in the Washington Post database. Figure 3 plots a map of public mass shooting counties across the US. Furthermore, I construct variables to measure state-level variations in public attitudes towards the National Rifle Association (NRA) and towards a political action committee led by 20 surviving students of the 2018 shooting at Marjory Stoneman Douglas (MSD) high school. *Boycott NRA* and *Never again* 

*MSD* indicate state-level intensities of Google searches for "Boycott NRA" and "Never Again MSD" in 2018. Figure 4 illustrates those state-level variations.

Third, as Campbell (2006) finds that educated people are more likely to engage in social movements, I construct county-level *Education*, which equals the proportion of people with a bachelor's degree or higher. In addition, anecdotal evidence shows that young adults played significant roles in spreading anti-gun movements across the US following the 2018 Parkland shooting.<sup>14</sup> Thus, I construct county-level *Young*, which equals the proportion of people under age 65. The data for *Education* and *Young* are from the U.S. Census Bureau.

Fourth, given that anti-gun movements rapidly spread through social media such as Facebook and Twitter, I use Facebook's Social Connectedness Index (*SCI*) to measure each county's social proximity to Parkland in Broward County, FL.<sup>15,16</sup> *SCI* measures the probability of randomly selected Facebook users being Facebook friends with a Facebook user in Broward County as of 2019. To control for the physical distance effect, I compute each county's distance to Broward County, based on their centroids. Figure 5 illustrates a map of *SCI* with Broward County.

Lastly, to control for local economic conditions, I collect county-level data on population, per capita income, and unemployment rate from the U.S. Bureau of Economic Analysis and the Economic Research Service of U.S. Department of Agriculture.

# **3.** Summary Statistics

<sup>&</sup>lt;sup>14</sup> NeverAgain.com See <u>https://www.neveragain.com/gun-control/.</u>

<sup>&</sup>lt;sup>15</sup> For example, "Never Again MSD" gained 35,000 followers on Facebook, and the Twitter hashtag "#NeverAgain" went viral, with tweets generating between 2,000 and 6,000 likes and being retweeted from 300 to 2,000 times over the next three days after the shooting. See <u>https://www.diggitmagazine.com/articles/neveragain-msd-outrage-movement-gun-control/.</u>

<sup>&</sup>lt;sup>16</sup> Roughly 70% of the adult population in the US use Facebook, and users' demographic characteristics closely resemble those of the overall population (Kuchler et al., 2022).

Table 2 reports summary statistics for the main variables used in the empirical analysis. Panel A presents the numbers of branches and their operating counties for each group of gun lenders and control banks. The control banks, a benchmark to evaluate the impact of anti-gun depositor movements, are defined as banks either not financing the ten biggest firearms manufacturers in the US at the time of the shooting or implementing anti-gun policies after the shooting. They comprise all FDIC-insured banks except the 28 banks that meet both criteria (1) and (2) in Section 2.4.<sup>17</sup> In particular, I restrict attention to branches in counties where gun lenders operate. Control banks have 38,059 branches in 1,730 counties (22 branches per county), and gun lenders have 20,673 branches in 1,783 counties (12 branches per county).

Panel B provides summary statistics for key variables of the bank-branch-year deposit growth sample, described in Section 2.1. Gun lenders are large relative to control banks, with average branch deposit holdings of \$91.6 million versus \$76.9 million.<sup>18</sup> In addition, gun lenders run more businesses in counties with higher *Democrat share*, higher proportions of people supporting gun control, and higher social proximities to Parkland. These findings suggest that gun lenders do not cater to depositors in terms of gun stances, thus mitigating potential endogeneity issues caused by their business decisions catering to depositors.

Panel C presents summary statistics of the bank-branch-quarter deposit spread sample for 12MCD10K, described in Section 2.2. The average change in deposit spread for the sample period is positive 5 basis points because the federal funds rate increased during the sample period and the deposit rate lagged behind this increase. In addition, consistent with Driscoll and Judson (2013)

<sup>&</sup>lt;sup>17</sup> My findings are robust to using different sets of control banks in Table IA11: matched control banks based on key bank characteristics, control banks excluding anti-gun banks, control banks excluding community banks, control banks excluding both anti-gun banks and community banks.

<sup>&</sup>lt;sup>18</sup> To mitigate potential endogeneity issues caused by fundamental differences (e.g., size, performance) between gun lenders and control banks, I test the robustness of my findings in a matched sample constructed using a 1-to-3 nearest neighbor matching approach with key bank characteristics (bank assets, capital asset ratio, profitability, number of branches, and political exposure). Tables IA7 through IA9 show that my findings hold in the matched sample.

that larger banks adjust deposit spread more slowly when the federal fund rate rises, gun lenders, which are relatively large compared to control banks, have larger changes in deposit spread than control banks.

Panel D summarizes two county-year firearms business samples for manufacturers and dealers, described in Section 2.3. The average numbers of firearms manufacturers and dealers are 5.65 and 18.11 per county, respectively. Both are primarily located in Republican-leaning counties, with average *Democrat share* values of 35% and 33%. Gun lenders finance, on average, 26%–27% of total small business loans in these counties.

#### 4. Empirical Methodologies and Results

## 4.1 Anti-gun depositor movements

Using 2018 anti-gun financial activism movements as a source of exogenous variation in public attention to gun lenders, I examine whether depositors discipline gun lenders. Specifically, I run the following difference-in-differences regression using the bank-branch-year deposit growth sample:

Branch deposit growth<sub>i,j,c,t</sub> = 
$$\beta \times Gun \ lender_i \times Post_t + Control \ Variables$$
  
+ $\gamma_{i,j} + \delta_{c,t} + \varepsilon_{i,j,c,t}$  (1)

where Branch deposit growth<sub>i,j,c,t</sub> refers to the deposit growth of branch *j* of bank *i* in county (or zip code) *c* in year *t*. Gun lender<sub>i</sub> is an indicator equal to one if bank *i* is the gun lender, as defined in Section 2.4. Post<sub>t</sub> is an indicator equal to one if year *t* is either 2018 or 2019. Control Variables is a set of bank- and branch-level control variables, including Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type, and Scandal.  $\gamma_{i,j}$  are branch fixed effects that remove time-invariant branch characteristics.  $\delta_{c,t}$  are county-by-year or zip-byyear fixed effects that capture time-varying local economic conditions that affect local deposit demands. They mitigate the possibility that local deposit demands drive my results. Standard errors are clustered at the branch level.<sup>19</sup>

Table 3 shows that depositors discipline gun lenders. The most stringent specification in column (4) reports that the coefficient estimate on  $Gun \ lender_i \times Post_t$  is -0.01 and statistically significant at the 1% level, suggesting that gun lenders experience 1 ppt decreases in deposit growth relative to control banks. The result remains statistically and economically similar when I run different specifications in columns (1) through (3). These reductions account for 12.5% of the average annual deposit growth of 8%.

The estimated economic magnitude of anti-gun depositor movements is sizable. The average branch deposit holdings of gun lenders is \$91.6 million, and a 1 ppt decrease in annual deposit growth is equivalent to \$0.92 million annual losses per branch (\$91.6 million  $\times$  1%). The average number of gun lender branches is 1,438, yielding total annual deposit losses of \$1.32 billion per bank (\$0.92 million  $\times$  1,438). These losses are 13.2 times larger than the average lending amount of gun lenders to the gun industry of \$100 million.<sup>20</sup> These findings suggest that anti-gun depositor movements have an economically significant impact on gun lenders' deposits.

Figure 1 and columns (5) through (8) show the dynamic impact of anti-gun depositor movements on gun lenders. These results validate the assumption of parallel trends underlying the difference-in-differences approach. I find that gun lenders had no differentials from control banks

<sup>&</sup>lt;sup>19</sup> My findings are robust to using different clustered standard errors in Table IA11: state, county, state-by-bank, county-by-bank, state and year.

<sup>&</sup>lt;sup>20</sup> As my empirical setting captures depositor movements within the same market, the estimate might double-count the effect by taking the difference between gun lenders and control banks. The conservative interpretation is, therefore, half the effect (i.e., 0.5 ppt decreases and \$660 million annual losses per bank).

prior to the anti-gun financial activism movements, but they lost 1.1 ppt and 1 ppt in deposit growth in 2018 and 2019, respectively.

#### 4.2 Politically polarized movements

**4.2.1 Political values of depositors.** According to a 2018 Pew Research Center survey, Republicans are four times more likely than Democrats to say that gun rights are more important than gun control (76% versus 19%).<sup>21</sup> Using cross-sectional variation in bank branch exposure to Democrats, I test whether Democrats engage more in anti-gun depositor movements than Republicans. Specifically, by matching the deposit growth sample with the county-level and zip code-level *Democrat share*, as defined in Section 2.5, I run the following triple-difference-in-differences regression:

Branch deposit growth<sub>i,j,c,t</sub> = 
$$\beta_1 \times Gun \ lender_i \times Post_t$$
  
+  $\beta_2 \times Gun \ lender_i \times Democrat \ share_{i,j,c} \times Post_t$   
+ $\gamma_{i,j} + \delta_{c,t} + \tau_{i,t} + \varepsilon_{i,j,c,z,t}$  (2)

where *i* indexes bank, *j* indexes branch, *c* indexes county or zip code, and *t* indexes year. *Democrat share*<sub>*i,j,c*</sub> is the proportion of Democrats in county (or zip code) *c*, where branch *j* of bank *i* is located.  $\tau_{i,t}$  are bank-by-year fixed effects that control for time-varying bank characteristics and generate within-bank variation in deposit growth. Other variables and fixed effects are the same as those in equation (1). Standard errors are clustered at the branch level.

Table 4 shows that Democrats primarily drive anti-gun depositor movements. In column (1), I find that a one-standard-deviation increase in county-level *Democrat share* (0.18) decreases the deposit growth of gun lenders by 0.7 ppt. The result is more apparent when I run equation (1) using

<sup>&</sup>lt;sup>21</sup> Pew Research Center. "Gun Policy Remains Divisive, But Several Proposals Still Draw Bipartisan Support" See <u>https://www.pewresearch.org/politics/2018/10/18/gun-policy-remains-divisive-but-several-proposals-still-draw-bipartisan-support/.</u>

subsamples with respect to county-level *Democrat share* in columns (2) through (4). In blue counties whose *Democrat share* is greater than or equal to 70%, gun lenders experience 3.1 ppt decreases in deposit growth relative to control banks. In moderate counties with *Democrat share* between 30% and 70%, gun lenders also see significant 0.7 ppt decreases, but the magnitude is far less than that in blue counties. In red counties with less than or equal to 30% *Democrat share*, gun lenders have no differentials from control banks. The results are robust to using zip code-level *Democrat share* with zip-by-year fixed effects in Table IA3. These findings suggest that political values affect depositor behavior.

**4.2.2 Political leanings of gun lenders.** To complement the above findings, I test whether the effect of anti-gun depositor movements differs with respect to political leanings of gun lenders. I partition gun lenders into two groups based on *Rep PAC share*, as defined in Section 2.6: *High gun lender* and *Low gun lender*. I then run the following regression:

$$\begin{aligned} Branch \ deposit \ growth_{i,j,c,t} &= \beta_1 \times High \ gun \ lender_i \times Post_t \\ &+ \beta_2 \times Low \ gun \ lender_i \times Post_t \\ &+ \ Control \ Variables + \gamma_{i,j} + \delta_{c,t} + \varepsilon_{i,j,c,t} \end{aligned} \tag{3}$$

where *i* indexes bank, *j* indexes branch, *c* indexes county or zip code, and *t* indexes year. *High gun lender*<sub>*i*</sub> (*Low gun lender*<sub>*i*</sub>) is an indicator equal to one if bank *i* is the gun lender and its *Rep PAC share* is above (below) the median *Rep PAC share* of 0.637. Other variables and fixed effects are the same as those in equation (1). Standard errors are clustered at the branch level.

Table 5 shows that the effect of anti-gun depositor movements is stronger for gun lenders that contribute more to the Republican Party. Column (1) reports that highly Republican-leaning gun lenders experience 2.1 ppt decreases in deposit growth, whereas less Republican-leaning gun lenders experience 0.3 ppt decreases. The difference between them is significant at the 1% level.

Furthermore, subsample analyses with respect to county-level *Democrat share* in columns (2) through (4) show that the effect is strongest for highly Republican-leaning gun lenders in blue counties, where they lose 5.6 ppt in deposit growth compared to 1.2 ppt for less Republican-leaning gun lenders. In moderate counties, the effect is muted for less Republican-leaning gun lenders, but highly Republican-leaning gun lenders still see significant 1.6 ppt decreases. In red counties, the effect is muted for both types of gun lenders. The results are robust to using zip code-level *Democrat share* with zip-by-year fixed effects in Table IA4. These findings corroborate the view that conflicting political values between banks and depositors lead to depositor movements.

#### 4.3 Cross-sectional tests

To strengthen the identification and mitigate potential unobserved heterogeneity, I conduct a series of triple-difference-in-differences analyses with the following measures: (1) switching cost, (2) public attitude towards gun control, (3) social movement engagement, and (4) social proximity to Parkland. Specifically, I run the regression of equation (2) but replace *Democrat share* with *HHI*, *Mass shooting*, *Boycott NRA*, *Never Again MSD*, *Education*, *Young*, or *Log SCI*, as defined in Section 2.7. These variables serve as proxies for the measures above.

**4.3.1 Switching cost.** Kiser (2002) documents that households perceive a switching cost as a significant determinant in shifting between banks. I thus test whether the effect of anti-gun depositor movements is smaller in counties with higher switching costs. I use the county-level Herfindahl-Hirschman Index (*HHI*) as a proxy for switching costs, as described in Section 2.7. A lower *HHI* indicates lower switching costs.

Table 6 provides evidence consistent with Kiser (2002). Column (1) reports that a onestandard-deviation decrease in *HHI* (0.08) reduces the deposit growth of gun lenders by 0.5 ppt. The result is more apparent when I run equation (1) using the tercile subsamples sorted on *HHI* in columns (2) through (4). In counties with low switching costs, gun lenders experience 2 ppt decreases in deposit growth. In counties with moderate switching costs, gun lenders still see significant 0.8 ppt decreases, but the magnitude is less than half that in counties with low switching costs. The effect is muted in counties with high switching costs. These findings indicate that switching costs impede anti-gun depositor movements.

**4.3.2** Public attitude towards gun control. Though public stances on gun control are highly politically polarized, other factors independent of political beliefs also contribute. For example, Luca et al. (2020) document that people who experience public mass shootings are more likely to support gun control. I thus test whether the effect of anti-gun depositor movements differs with respect to public attitude towards gun control.

Table 7 shows that the effect is more significant in counties where at least one public mass shooting occurred during 1999–2018, where people are more likely to stand against the NRA, and where people pay more attention to the "Never again MSD" gun control movement. Specifically, column (1) reports that gun lenders lose 1.3 ppt more in mass shooting counties than in other counties. Columns (2) and (3) show that a one-standard-deviation increase in *Boycott NRA* (1.62) or *Never Again MSD* (2.1) is associated with 0.6–0.8 ppt decreases in deposit growth for gun lenders. In particular, when I control for *Democrat share* in column (4), the effects of *Mass shooting* and *Never Again MSD* remain significant. These findings imply that other social factors also affect public stances on gun control.

**4.3.3 Social movement engagement.** I evaluate whether the effect of anti-gun depositor movements is more pronounced in counties with higher proportions of people engaging in social movements. Campbell (2006) documents that educated people are more likely to engage in social movements. In addition, anecdotal evidence indicates that young adults played significant roles in

spreading anti-gun movements across the US following the 2018 Parkland shooting. I thus use *Education* and *Young* to capture cross-sectional variation in county-level social movement engagement.

Table 8 shows that the effect is larger in counties with higher proportions of college degree holders or people under age 65. Specifically, column (1) reports that a one-standard-deviation increase in *Education* (0.11) decreases the deposit growth of gun lenders by 0.5 ppt. In column (2), a one-standard-deviation increase in *Young* (0.04) is associated with 0.4 ppt decreases in deposit growth for gun lenders. These findings suggest that anti-gun depositor reactions are stronger in counties with higher proportions of people engaging in social movements.

**4.3.4 Social Proximity to Parkland.** Following the 2018 Parkland shooting, anti-gun movements rapidly spread through social media. The online group "Never Again MSD" gained 35,000 followers on Facebook over the next three days after the shooting, and the Twitter hashtag "#NeverAgain" went viral. Thus, I test whether the effect of anti-gun depositor movements is larger in counties with higher social proximities to Parkland. I use Social Connectedness Index (*SCI*) data from Facebook to capture cross-sectional variation in county-level social proximity to Parkland.

Columns (3) through (5) in Table 8 show that the effect is more significant in counties with higher social proximities to Parkland. Column (3) reports that a one-standard-deviation increase in *Log SCI* (0.94) is associated with 0.6 ppt decreases in deposit growth for gun lenders. When I control for the effect of physical distance with *Log Phy Distance*, the effect becomes stronger. A one-standard-deviation increase in *Log SCI* (0.94) is associated with 1.7 ppt decreases in deposit

growth for gun lenders.<sup>22</sup> These findings suggest that social connection facilitates anti-gun depositor movements.

All of the findings in Sections 4.3.1 through 4.3.4 align with evidence from the extant literature, thus strengthening the identification. Most importantly, when I compare *Democrat share* with these confounding factors, the effect of *Democrat share* on gun lenders remains both statistically and economically significant. These findings confirm that political values affect depositor behavior.

## 4.4 Pro-gun depositor movements

Previous sections demonstrate that anti-gun depositors take disciplinary action by moving their funds away from gun lenders. To determine whether pro-gun depositors similarly discipline anti-gun banks, I run the regressions of equations (1) and (2) but replace *Gun lender* with *Anti-gun*.

Table 9 provides evidence of pro-gun depositor movements. Column (1) reports that anti-gun banks experience 0.8 ppt decreases in deposit growth, which is comparable to the 1 ppt decreases in anti-gun depositor movements. However, in contrast to anti-gun depositor movements, pro-gun depositor movements are primarily driven by Republicans. Column (2) reports that a one-standard-deviation decrease in *Democrat share* (0.18) reduces the deposit growth of anti-gun banks by 1 ppt. In addition, columns (3) through (5) show that the effect of pro-gun depositor movements is more pronounced in localities with higher support for gun rights. In column (3), anti-gun banks lose 1.8 ppt less in mass shooting counties than in other counties. Similarly, in columns (4) and (5), a one-standard-deviation decrease in *Boycott NRA* (1.62) or *Never Again MSD* (2.1) is associated with 1.1–1.3 ppt decreases in deposit growth for anti-gun banks. The results are robust

<sup>&</sup>lt;sup>22</sup> The insignificant estimate of *Log Phy Distance* in column (4) and the significant but negative sign of *Log Phy Distance* in column (5) are consistent with Jeung and Lee (2022) and Kuchler et al. (2022). They provide evidence that social proximity dominates physical distance in shaping investors' decisions, and social proximity is one potential driver of the effect of physical distance.

to controlling for the effect of anti-gun depositor movements in Table IA5. These findings suggest that pro-gun depositors also discipline anti-gun banks. Furthermore, the evidence of opposite drivers behind those divergent movements strengthens the view that conflicting political values between banks and depositors lead to depositor movements.

#### 5. Implications of Anti-gun Depositor Movements

This section assesses the implications of anti-gun depositor movements for the deposit market and gun industry. Given the significant deposit losses of gun lenders, I first evaluate how gun lenders respond to anti-gun depositor movements. Specifically, in Section 5.1, I test whether gun lenders adjust deposit spread to attract depositors. Then, Section 5.2 examines how the increased funding costs of gun lenders affect the gun industry.

## 5.1 Deposit market

If anti-gun depositor movements deteriorated the market competitiveness of gun lenders, they would be more likely to decrease deposit spread to attract depositors, particularly in more Democrat-leaning counties. To test this idea, I run the regression of equation (4) using the bank-branch-quarter deposit spread samples described in Section 2.2. In particular, I include *HHI* and its interaction terms to control for the effect of market concentration on deposit spreads (Drechsler et al., 2017). *HHI* is the county-level Herfindahl-Hirschman Index in 2017.

$$\Delta Spread_{i,j,c,t} = \beta_1 \times Gun \ lender_i \times Post_t + \beta_2 \times Gun \ lender_i \times Democrat \ share_{i,j,c} \times Post_t + \beta_3 \times Gun \ lender_i \times HHI_{i,j,c} \times Post_t + Control \ Variables + \gamma_{i,j} + \delta_{c,t} + +\varepsilon_{i,j,c,t}$$
(4)

where  $\Delta$  Spread<sub>*i*,*j*,*c*,*t*</sub> refers to the change in deposit spread of branch *j* of bank *i* in county *c* in year-quarter *t*. Deposit spread is the cost of holding deposits, computed as the federal funds rate

minus the deposit rate. *Gun lender<sub>i</sub>* is an indicator equal to one if bank *i* is the gun lender. *Post<sub>t</sub>* is an indicator equal to one if year *t* is either 2018 or 2019. *Democrat share<sub>i,j,c</sub>* is the proportion of Democrats in county *c*, where branch *j* of bank *i* is located. *HHI<sub>i,j,c</sub>* is the Herfindahl-Hirschman index in county *c*, where branch *j* of bank *i* is located. *Control Variables* is a set of bank- and branch-level control variables, including *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.*  $\gamma_{i,j}$  are branch fixed effects that remove time-invariant branch characteristics.  $\delta_{c,t}$  are county-by-quarter fixed effects that capture time-varying local economic conditions that affect local deposit demands, thus mitigating the possibility for local deposit demands driving my results.<sup>23</sup> Standard errors are clustered at the branch level.

Table 10 shows that gun lenders raise lower deposit spread in more Democrat-leaning counties.<sup>24</sup> In column (1), for 12-month certificates of deposit with an account size of \$10,000 (12MCD10K), a one-standard-deviation increase in *Democrat share* (0.18) decreases 1 basis point in  $\Delta$  *Spread* for gun lenders, which is a sizable 20% relative to the average deposit spread change of 5 basis points. The result remains statistically and economically similar for other deposit products in columns (2) through (4). Overall, the declines in  $\Delta$  *Spread* with the increasing extent of anti-gun depositor movements indicate that anti-gun depositor movements worsen the market competitiveness of gun lenders and thus lead them to cut deposit spreads in favor of depositors. Furthermore, these findings suggest that anti-gun depositor movements impose additional costs on gun lenders beyond their deposit losses.

 $<sup>^{23}</sup>$  As most banks have a few number of active branches that set deposit rates (average 1.3 active branch per bank in the sample), the power of statistical tests is largely sacrificed with bank-by-quarter fixed effects. The results with bank-by-quarter fixed effects are statistically insignificant (t-statistics range from -0.6 to -1.1), but the direction and magnitude of coefficients are consistent with the findings in Table 10.

<sup>&</sup>lt;sup>24</sup> On average,  $\Delta$  Spread of gun lenders was higher than that of control banks during the sample period, which is consistent with Driscoll and Judson (2013) that larger banks adjust deposit spreads more slowly when the federal funds rate rises. During the sample period from 2017 to 2019, the federal funds rate steadily increased, and gun lenders are large relative to control banks, as described in Section 3.

## 5.2 Gun industry

If the sluggish deposit growth and decreased deposit spreads of gun lenders elevated their funding costs, especially in Democrat-leaning counties, the gun industry would face higher financing costs that would disrupt its business (financial constraint channel).<sup>25</sup> To test this idea, I first construct *Gun lender loan share* that captures cross-sectional variation in county-level borrowing exposure to gun lenders. Specifically, using data on small business lending from the Community Reinvestment Act, I compute the share for each county, which equals the amount of small business loans made by gun lenders divided by the total amount of small business loans in 2017. I then run the regression of equation (5) using the county-year firearms business samples described in Section 2.3. In particular, I include *Democrat share* and its interaction terms with time dimension (i.e.,  $\times$  year) to control for the effect of local political factors.

$$Log \# firearms \ business_{c,t} = \sum_{s \neq 2017} \beta_s \times Gun \ lender \ loan \ share_c \times 1_{t=s}$$
$$+ \sum_{u \neq 2017} \beta_u \times Democrat \ share_c \times 1_{t=u}$$
$$+ Control \ Variables + \gamma_c + \delta_t + \varepsilon_{c,t} \tag{5}$$

where  $Log \# firearms business_{c,t}$  refers to the log value of the number of firearms manufacturers or dealers in county c in year t. Gun lender loan share<sub>c</sub> is the share of small business loans made by gun lenders in county c. Democrat share<sub>c</sub> is the proportion of Democrats in county c. Control Variables is a set of county-level control variables, including Log Population, Log Per capita income, Change in population, and Unemployment rate.  $\gamma_c$  are county

<sup>&</sup>lt;sup>25</sup> Table IA6 shows that the dollar amount of small business loans made by gun lenders decreases by 15 percent, and the effect is stronger in more Democrat-leaning counties. A one-standard-deviation increase in *Democrat share* (0.18) decreases gun lenders' small business loans by 13 percent.

fixed effects that remove time-invariant county characteristics.  $\delta_t$  are year fixed effects that control for time-varying macro conditions. Standard errors are clustered at the county level.

Table 11 shows that anti-gun depositor movements disrupt the gun industry through the financial constraint channel. The full-sample analysis for firearms manufacturers in column (1) presents an insignificant effect on the manufacture business. However, the effect manifests when I partition counties into two groups based on *Democrat share* in columns (2) and (3). This partition studies the heterogeneous effect by the extent of deposit losses of gun lenders. Specifically, in counties with *Democrat share* greater than or equal to 50%, column (2) reports that, relative to 2017, a one-standard-deviation increase in *Gun lender loan share* (0.16) reduces the number of firearms manufacturers by 3 percent in 2018. In contrast, the effect is muted in counties with *Democrat share* less than 50%, as shown in column (3). To mitigate concerns that local political factors drive the results (e.g., local government law enforcement), I include county-level *Democrat share* and its interaction terms with time dimension in columns (4) through (6). The results still remain statistically and economically similar. These findings also hold for firearms dealers in Table IA10, implying that anti-gun depositor movements contract the gun industry by transferring the increased funding costs of gun lenders to the gun industry.

## 6. Conclusion

A growing literature explores the role of political values in the financial market. This paper extends the literature to the deposit market by investigating how depositors respond when they do not agree with their banks' political stances. Focusing on political beliefs about gun policy, one of the most divisive issues in the US, I find that Democrats discipline gun lenders by moving their funds away from these banks, and Republicans similarly discipline anti-gun banks. As a result of anti-gun depositor movements, the increased funding costs of gun lenders reduce their lending business. These costs are then transferred to the gun industry, leading to a contraction of its business.

This paper concludes that conflicting political values between banks and depositors lead to depositor movements and pose financial risks to bank operations. The evidence hints at the potential risk of segmentation in the deposit and lending markets. An interesting direction for future research would be to explore how the banking sector can be segmented by political ideology of banks and depositors and the implications for bank operations and, more broadly, industry formation through politically polarized lending channels. This area is worth exploring in depth in such a politically polarized era.

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Figure 1: Dynamic Impact of Anti-gun Depositor Movements



*Note: The y-axis represents the difference in deposit growth between gun lenders and control banks.* 



Figure 2.A: 2016 Presidential Election Results by County

Note: This figure illustrates the county-level vote shares for Hillary Clinton. Darker blue indicates higher share. No information is available for Alaska at the county level.

# Figure 2.B: Blue and Red Counties



Note: This figure illustrates Democrat- and Republican-leaning counties. Blue indicates a Democrat share greater than or equal to 70%; red indicates a Democrat share less than or equal to 30%. No information is available for Alaska at the county level.



Note: Red dots indicate a US county with at least one public mass shooting during 1999–2018.



Figure 4.A: Google Trends: "Boycott NRA"

*Note: This figure illustrates state-level intensity of Google searches for "Boycott NRA" in 2018. Darker blue indicates higher intensity.* 



Figure 4.B: Google Trends: "Never Again MSD"

*Note: This figure illustrates state-level intensity of Google searches for "Never Again MSD" in 2018. Darker blue indicates higher intensity.* 



Figure 5: Social Proximity to Parkland in Broward County, FL

Note: This figure shows a heat map of U.S. counties' social proximity to Parkland in Broward County, FL. Darker green indicates stronger connectedness. (Source: Facebook)

# Table 1. Lists of gun lenders and anti-gun banks

This table lists gun lenders and anti-gun banks used in the empirical analysis. Panel A (Panel B) reports the list of gun lenders that received media (no media) attention following the 2018 Parkland shooting. Panel C reports the list of anti-gun banks that implemented anti-gun policies following the 2018 Parkland shooting. See Section 2.4 for detailed definitions of each bank type.

Panel A: Gun Lenders with Media Attention						
Wells Fargo & Co	JPMorgan Chase	U.S. Bancorp				
PNC	BB&T	Regions Bank				
TD Bank	Citizens Financial Group	Bank of Montreal				
Zions First National Bank	People's United Bank	MUFG Bank				
Northern Trust Company Stifel Bank & Trust		Morgan Stanley				
Panel B: Gun Lenders without Media Attention						
American Bank & Trust Co	Associated Bank	Bank of the West				
Bear State Bank	Busey Bank	Deutsche Bank				
First Bank	First Federal Bank	First Guaranty Bank				
Midland States Bank	Raymond James Bank	Royal Bank of Canada				
Woodforest National Bank						
Panel C: Anti-gun Banks						
Amalgamated Bank	Bank of America	Berkshire Bank				
Citibank Capital One		Fifth Third Bank				
First National Bank of Omaha						

#### **Table 2. Summary statistics**

This table provides the summary statistics of the main variables used in the empirical analysis. Panel A reports the structure of treatment (gun lenders) and control groups. *# Branches* and *# Counties* are the numbers of branches and their operating counties. Panels B, C, and D report statistics of the bank-branch-year deposit growth sample, the bank-branch-quarter deposit spread sample for 12MCD10K, and two county-year firearms business samples for manufacturers and dealers, respectively, as described in Section 2. Variable definitions are provided in Appendix A.

	All		Treatment (0	Treatment (Gun lenders)		Control	
Variable	Mean	Std	Mean	Std	Mean	Std	
Panel A: Treatment and Control Groups							
# Branches	58,	732	20,	673	38,	059	
# Counties	1,7	783	1,7	/83	1,7	/30	
# Branches / # Counties	3	3	1	2	2	2	
Pan	el B: Bank-	Branch-Yea	r Deposit Grow	th Sample			
Branch deposit growth	0.08	0.18	0.09	0.17	0.08	0.19	
Branch deposit (in \$ millions)	82.03	92.49	91.59	94.02	76.84	91.23	
Bank assets (in \$ trillions)	0.52	0.76	1.04	0.83	0.23	0.54	
Bank deposits (in \$ trillions)	0.34	0.50	0.68	0.51	0.16	0.39	
Democrat share (county)	0.51	0.18	0.54	0.17	0.49	0.18	
Democrat share (zip)	0.61	0.20	0.63	0.19	0.60	0.20	
HHI	0.17	0.08	0.17	0.08	0.18	0.08	
Mass shooting	0.18	0.39	0.23	0.42	0.16	0.37	
Boycott NRA	3.38	1.62	3.61	1.67	3.26	1.59	
Never Again MSD	3.30	2.10	3.64	2.13	3.12	2.05	
Education	0.33	0.11	0.34	0.11	0.32	0.11	
Young	0.84	0.04	0.84	0.04	0.84	0.04	
Log SCI	8.13	0.94	8.25	1.01	8.06	0.90	
Obs. (branch × year)	293	,660	103,365		190,295		
Pane	l C: Bank-E	Branch-Quar	ter Deposit Spre	ad Sample			
ΔSpread (12MCD10K)	0.05	0.25	0.08	0.25	0.04	0.25	
Deposit spread	1.05	0.59	1.58	0.51	1.00	0.57	
Democrat share (county)	0.39	0.18	0.46	0.17	0.38	0.18	
Obs. (branch × quarter)	62,604		6,0	948	56,	556	
Panel D: County-Yea	ar Firearms	Business Sa	mples (Left: Ma	anufacturer, Rig	ht: Dealer)		
# licensees	5.65	11.94	18.11	25.19			
Gun lender loan share	0.27	0.16	0.26	0.17			
Democrat share (county)	0.35	0.16	0.33	0.16			
Obs. (county × year)	10,	421	15,	192			

# Table 3. Anti-gun depositor movements and deposit growth of gun lenders

This table tests the effect of anti-gun depositor movements on gun lenders using a difference-in-differences regression with 2018 anti-gun financial activism movements. Specifically, the table reports estimates for the regression specification of equation (1). The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Columns (1) through (4) report the average effect of anti-gun depositor movements. Columns (5) through (8) report the dynamic effect of anti-gun depositor movements by interacting *Gun lender* with time dimension (i.e.,  $\times$  year). Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth							
		Averag	e Effect			Dynami	ic Effect	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Gun lender × Post	-0.009***	-0.009***	-0.010***	-0.010***				
	(-5.78)	(-5.82)	(-6.67)	(-6.74)				
Gun lender $\times$ 2015					0.002	0.002	0.003	0.003
					(1.08)	(1.08)	(1.08)	(1.11)
Gun lender × 2016					-0.001	-0.001	-0.003	-0.003
					(-0.33)	(-0.34)	(-1.14)	(-1.15)
Gun lender × 2017					Omitted	Omitted	Omitted	Omitted
Gun lender × 2018					-0.007***	-0.007***	-0.011***	-0.011***
					(-3.29)	(-3.32)	(-4.51)	(-4.53)
Gun lender $\times$ 2019					-0.008***	-0.008***	-0.010***	-0.010***
					(-3.76)	(-3.78)	(-4.08)	(-4.12)
Bank controls	No	No	Yes	Yes	No	No	Yes	Yes
Bank FE	Yes	No	Yes	No	Yes	No	Yes	No
Branch FE	No	Yes	No	Yes	No	Yes	No	Yes
County $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	293,520	293,520	293,520	293,520	293,520	293,520	293,520	293,520
Adj R-Squared	0.051	0.091	0.055	0.093	0.051	0.091	0.055	0.093

#### Table 4. Anti-gun depositor movements by political value of depositors

This table tests the heterogeneous effect of anti-gun depositor movements by political value of depositors. Specifically, the table reports estimates for the regression specification of equation (2). The dependent variable is *Branch deposit* growth. Gun lender is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. Post is an indicator equal to one if the year is either 2018 or 2019. Democrat share is the proportion of Democrats at the county level, defined in Section 2.5. Bank controls include Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type, and Scandal. Column (1) present the result of the full-sample analysis including bank-by-year fixed effects. Columns (2) through (4) present results based on subsamples with respect to Democrat share. Blue (red) includes counties whose Democrat (Republican) share is greater than or equal to 70%. Moderate includes all counties except blue and red. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth				
	Eull Commu	Sub Sample by Democrat Share			
	Full Sample	Blue	Moderate	Red	
	(1)	(2)	(3)	(4)	
Gun lender × Democrat share × Post	-0.037***				
	(-3.45)				
Gun lender × Post		-0.031***	-0.007***	0.003	
		(-8.44)	(-3.93)	(0.57)	
Bank controls	No	Yes	Yes	Yes	
Branch FE	Yes	Yes	Yes	Yes	
Bank × Year FE	Yes	No	No	No	
County × Year FE	Yes	Yes	Yes	Yes	
Observations	288,095	44,985	210,200	38,335	
Adj R-Squared	0.105	0.161	0.079	0.081	

#### Table 5. Anti-gun depositor movements by political leaning of gun lenders

This table tests the heterogeneous effect of anti-gun depositor movements by political leaning of gun lenders. Specifically, the table reports estimates for the regression specification of equation (3). The dependent variable is *Branch deposit growth*. *High (Low) gun lender* is an indicator equal to one if the bank is the gun lender and its *Rep PAC share* is above or equal to (below) the median value of 0.637, defined in Section 2.6. *Post* is an indicator equal to one if the year is either 2018 or 2019. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Column (1) presents the result of the full-sample analysis. Similar to Table 4, columns (2) through (4) present results based on subsamples with respect to *Democrat share*. Difference (*High-Low*) reports the difference of coefficients between *High gun lender* × *Post* and *Low gun lender* × *Post* with its statistical significance. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth					
	Eull Commis	Sub S	Sub Sample by Democrat Share			
	run Sample	Blue	Moderate	Red		
	(1)	(2)	(3)	(4)		
High gun lender × Post	-0.021***	-0.056***	-0.016***	0.005		
	(-9.28)	(-10.73)	(-5.67)	(0.74)		
Low gun lender × Post	-0.003*	-0.012***	-0.002	0.000		
	(-1.79)	(-2.73)	(-0.99)	(0.08)		
Difference (High - Low)	-0.018***	-0.044***	-0.014***	0.005		
Bank controls	Yes	Yes	Yes	Yes		
Branch FE	Yes	Yes	Yes	Yes		
County $\times$ Year FE	Yes	Yes	Yes	Yes		
Observations	293,520	44,985	210,200	38,335		
Adj R-Squared	0.093	0.161	0.079	0.081		

#### Table 6. Anti-gun depositor movements by switching cost

This table tests the heterogeneous effect of anti-gun depositor movements by switching cost. I run a similar regression as in Table 4 but replace *Democrat share* with *HHI*. The dependent variable is *Branch deposit growth*. *Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. Post is an indicator equal to one if the year is either 2018 or 2019. *HHI* is county-level Herfindahl-Hirschman Index used as a proxy for switching cost, defined in Section 2.7. *Democrat share* is the proportion of Democrats at the county level, defined in Section 2.5. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal*. Column (1) presents the result of the full-sample analysis including bank-by-year fixed effects. Columns (2) through (4) present results based on subsamples with respect to *HHI*. Low, Moderate, and High are the tercile groups by *HHI*. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth					
	Eull Comula		Sub Sample by HHI			
	Full Sample	Low	Moderate	High		
	(1)	(2)	(3)	(4)		
<i>Gun lender</i> × <i>HHI</i> × <i>Post</i>	0.063***					
	(2.85)					
Gun lender × Post		-0.020***	-0.008***	-0.001		
		(-7.73)	(-3.09)	(-0.42)		
Bank controls	No	Yes	Yes	Yes		
Branch FE	Yes	Yes	Yes	Yes		
Bank × Year FE	Yes	No	No	No		
County × Year FE	Yes	Yes	Yes	Yes		
Observations	288,095	98,555	97,250	97,715		
Adj R-Squared	0.105	0.103	0.100	0.074		

#### Table 7. Anti-gun depositor movements by public attitude towards gun controls

This table tests the heterogeneous effect of anti-gun depositor movements by public attitude towards gun controls. I run a similar regression as in Table 4 but replace *Democrat share* with *Mass shooting, Boycott NRA*, or *Never Again MSD*. The dependent variable is *Branch deposit growth*. *Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. Post is an indicator equal to one if the year is either 2018 or 2019. *Mass shooting* is an indicator equal to one for counties where at least one public mass shooting occurred during 1999–2018. *Boycott NRA* and *Never Again MSD* are state-level intensities of Google searches "Boycott NRA" and "Never Again MSD" in 2018. *Democrat share* is the proportion of Democrats at the county level, defined in Section 2.5. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal*. Columns (1) through (3) report the heterogeneous effects by *Mass shooting, Boycott NRA*, and *Never again MSD*. In column (4), I compare *Mass shooting, Boycott NRA, Never again MSD,* and *Democrat share*. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth				
	MS	NRA	MSD	Comparison	
	(1)	(2)	(3)	(4)	
Gun lender × Mass shooting × Post	-0.013***			-0.009**	
	(-3.28)			(-2.14)	
Gun lender × Boycott NRA × Post		-0.004***		-0.002	
		(-3.70)		(-1.61)	
Gun lender $ imes$ Never Again MSD $ imes$ Post			-0.004***	-0.002**	
			(-3.78)	(-2.09)	
Gun lender $\times$ Democrat share $\times$ Post				-0.025**	
				(-2.23)	
Branch FE	Yes	Yes	Yes	Yes	
Bank × Year FE	Yes	Yes	Yes	Yes	
County $\times$ Year FE	Yes	Yes	Yes	Yes	
Observations	288,095	288,095	288,095	288,095	
Adj R-Squared	0.105	0.105	0.105	0.105	

# Table 8. Anti-gun depositor movements by social movement engagement and socialproximity to Parkland

This table tests the heterogeneous effects of anti-gun depositor movements by social movement engagement and social proximity to Parkland. I run a similar regression as in Table 4 but replace *Democrat share* with *Education, Young, Log SCI,* or *Log Phy Distance*. The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Education (Young)* is the proportion of people with a bachelor's degree or higher (people under age 65) at the county level, defined in Section 2.7. *Log SCI (Log Phy Distance)* is the log value of social proximity (physical distance) to Parkland at the county level, defined in Section 2.7. Columns (1) and (2) report the heterogeneous effects by *Education* and *Young.* Columns (3) through (5) report the heterogeneous effect by social proximity to Parkland. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth				
	Education	Young	Social Proximity to		Parkland
	(1)	(2)	(3)	(4)	(5)
<i>Gun lender</i> × <i>Education</i> × <i>Post</i>	-0.049***				
	(-3.20)				
Gun lender × Young × Post		-0.107**			
		(-2.48)			
Gun lender $\times$ Log SCI $\times$ Post			-0.006***		-0.018***
			(-3.17)		(-4.87)
Gun lender $\times$ Log Phy Distance $\times$ Post				0.001	-0.013***
				(0.60)	(-3.66)
Branch FE	Yes	Yes	Yes	Yes	Yes
Bank × Year FE	Yes	Yes	Yes	Yes	Yes
County × Year FE	Yes	Yes	Yes	Yes	Yes
Observations	288,095	288,095	288,095	288,095	288,095
Adj R-Squared	0.105	0.105	0.105	0.105	0.105

#### Table 9. Pro-gun depositor movements and deposit growth of anti-gun banks

This table tests the effect of pro-gun depositor movements on anti-gun banks. I run similar regressions as in Tables 3, 4, and 7 but replace *Gun lender* with *Anti-gun*. The dependent variable is *Branch deposit growth*. *Anti-gun* is an indicator equal to one if the bank is anti-gun, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Democrat share* is the proportion of Democrats at the county level, defined in Section 2.5. *Mass shooting* is an indicator equal to one for counties where at least one public mass shooting occurred during 1999–2018. *Boycott NRA* and *Never again MSD* are state-level intensities of Google searches "Boycott NRA" and "Never Again MSD" in 2018. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal*. Column (1) reports the average effect of pro-gun depositor movements on anti-gun banks. Columns (2) through (5) report the heterogeneous effects of pro-gun depositor movements by cross-sectional variables, as specified in each column. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable		Branch deposit growth				
	Deceline	Democrat	F	le		
	Baselille	Share	MS	NRA	MSD	
	(1)	(2)	(3)	(4)	(5)	
Anti-gun × Post	-0.008***					
	(-3.54)					
Anti-gun $\times$ Democrat share $\times$ Post		0.053***				
		(3.24)				
Anti-gun × Public Attitude × Post			0.018***	0.008***	0.005***	
			(3.55)	(4.50)	(3.87)	
Bank controls	Yes	No	No	No	No	
Branch FE	Yes	Yes	Yes	Yes	Yes	
Bank $\times$ Year FE	No	Yes	Yes	Yes	Yes	
County $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	
Observations	293,520	288,095	288,095	288,095	288,095	
Adj R-Squared	0.093	0.105	0.105	0.105	0.105	

#### Table 10. Anti-gun depositor movements and deposit spread of gun lender

This table tests whether gun lenders adjust deposit spread to attract depositors. Specifically, the table reports estimates for the regression specification of equation (4). The dependent variable is  $\Delta$  Spread, defined in Section 2.2. Deposit spread is the cost of holding deposits, computed as the federal funds rate minus the deposit rate. Gun lender is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. Post is an indicator equal to one if the year is either 2018 or 2019. Democrat share is the proportion of Democrats at the county level, defined in Section 2.5. HHI is county-level Herfindahl-Hirschman Index. Bank controls include Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type, and Scandal. Each column reports the effect of anti-gun depositor movements on  $\Delta$  Spread of the deposit product, as specified in the column. 12MCD10K is a 12-month certificate of deposit with an account size of \$10,000. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	$\varDelta$ Spread					
	12MCD10K	12MCD50K	12MCD100K	24MCD10K		
	(1)	(2)	(3)	(4)		
Gun lender $\times$ Democrat share $\times$ Post	-0.053***	-0.061**	-0.052***	-0.061***		
	(-2.83)	(-2.19)	(-2.59)	(-2.79)		
Gun lender $\times$ HHI $\times$ Post	0.006	-0.040	-0.012	0.013		
	(0.17)	(-0.64)	(-0.29)	(0.31)		
Gun lender $\times$ Post	0.036***	0.046**	0.039***	0.023		
	(3.04)	(2.51)	(2.95)	(1.64)		
Bank controls	Yes	Yes	Yes	Yes		
Branch FE	Yes	Yes	Yes	Yes		
County × Quarter FE	Yes	Yes	Yes	Yes		
Observations	52,515	45,832	49,515	50,356		
Adj R-Squared	0.545	0.558	0.515	0.439		

#### Table 11. Anti-gun depositor movements and gun industry

This table tests whether the increased funding costs of gun lenders affect the gun industry. Specifically, the table reports estimates for the regression specification of equation (5). The dependent variable is *Log # firearms manufacturers*, defined in Section 2.3. *Gun lender loan share* is the share of small business loans made by gun lenders at the county level in 2017. Democrat share controls include county-level *Democrat share* and its interaction terms with time dimension. County controls include *Log Population, Log Per capita income, Change in population,* and *Unemployment rate*. Columns (1) and (4) report results of the full-sample analyses. Columns (2), (3), (5), and (6) report results based on subsamples with respect to *Democrat share*. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the county level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Log #firearms manufacturers					
	All	$Dem \ge 50$	Dem < 50	All	$Dem \ge 50$	Dem < 50
	(1)	(2)	(3)	(4)	(5)	(6)
Gun lender loan share $\times$ 2015	-0.031	0.088	-0.044	-0.028	0.091	-0.040
	(-0.54)	(0.60)	(-0.71)	(-0.49)	(0.63)	(-0.65)
Gun lender loan share $\times$ 2016	-0.009	0.073	-0.019	-0.011	0.075	-0.019
	(-0.20)	(0.69)	(-0.42)	(-0.27)	(0.72)	(-0.41)
Gun lender loan share $\times$ 2017	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Gun lender loan share $\times 2018$	-0.029	-0.205**	-0.008	-0.027	-0.195*	-0.007
	(-0.87)	(-2.01)	(-0.23)	(-0.78)	(-1.94)	(-0.20)
Gun lender loan share $\times$ 2019	-0.019	-0.025	-0.011	-0.004	-0.017	-0.004
	(-0.37)	(-0.15)	(-0.20)	(-0.08)	(-0.11)	(-0.07)
Democrat share controls	No	No	No	Yes	Yes	Yes
County controls	Yes	Yes	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,267	1,830	8,437	10,267	1,830	8,437
Adj R-Squared	0.933	0.958	0.920	0.933	0.958	0.920

# **Appendix A: Variable Definitions**

# A.1 Bank and Branch Variables

- Gun lender indicator equal to one if the bank is the gun lender, as defined in Section 2.4
- Anti-gun indicator equal to one if the bank is anti-gun, as defined in Section 2.4
- *Post* indicator equal to one if the year is either 2018 or 2019
- Log Bank assets log value of bank assets in \$ thousands [Source: FDIC SDI]
- Log Bank deposits log value of bank deposits in \$ thousands [Source: FDIC SDI]
- *Bank asset specialization* categorical variable for primary asset specialization (e.g., commercial lending, mortgage lending) [Source: FDIC SDI]
- *Bank type* categorical variable for institution type (e.g., national member, state member) [Source: FDIC SDI]
- Branch deposit amount of branch deposits in \$ millions [Source: FDIC SDI]
- Branch deposit growth (Branch deposit<sub>t</sub> Branch deposit<sub>t-1</sub>) / Branch deposit<sub>t-1</sub>, winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles
- *Branch type* categorical variable for branch service type (e.g., brick and mortar office, retail office) [Source: FDIC SDI]
- Scandal indicator equal to one if the bank is Wells Fargo and the year is 2017
- *Rep PAC share* the share of the PAC donation to the Republican Party [Source: Federal Election Commission]
- *Deposit spread Fed funds target rate Deposit rate* [Source: FRED & RateWatch]
- $\Delta$  Spread Deposit spread<sub>t</sub> Deposit spread<sub>t-1</sub>
- *Gun lender loan share* amount of small business loans made by gun lenders divided by the total amount of small business loans at the county level in 2017 [Source: Community Reinvestment Act]

# A.2 Demographic Variables

- *Democrat share (county)* proportion of Democrats at the county level based on the 2016 presidential election vote shares [Source: CQ Press]
- *Democrat share (zip)* proportion of Democrats at the zip code-level based on the individual campaign donations during the 2015–2016 election cycle [Source: Federal Election Commission]
- *HHI* sum of the squared deposit market shares at the county level in 2017
- *Mass shooting* indicator equal to one if the county experienced at least one mass shooting from 1999 to 2018 [Source: Washington Post]
- *Boycott NRA* intensity of Google search "Boycott NRA" at the state-level for 2018 [Source: Google Trends]
- *Never Again MSD* intensity of Google search "Never Again MSD" at the state-level for 2018 [Source: Google Trends]
- *Education* proportion of people with a bachelor's degree or higher at the county level [Source: U.S. Census Bureau]

- *Young* proportion of people younger than age 65 at the county level [Source: U.S. Census Bureau]
- Log SCI log value of social proximity to Parkland in Broward County, FL at the county level [Source: Facebook]
- Log Population log value of population at the county level [Source: U.S. Bureau of Economic Analysis]
- *Log Per capita income* log value of per capita income at the county level [Source: U.S. Bureau of Economic Analysis]
- Change in population (Population<sub>t</sub> Population<sub>t-1</sub>) / Population<sub>t-1</sub>
- *Unemployment rate* unemployment rate at the county level [Source: U.S. Department of Agriculture]

# A.3 Gun Business Variables

- Log #Firearms manufacturers log value of the number of firearms manufacturer business licensees at the county level [Source: Bureau of Alcohol, Tobacco, Firearms, and Explosives]
- Log # Firearms dealers log value of the number of firearms dealer business licensees at the county level [Source: Bureau of Alcohol, Tobacco, Firearms, and Explosives]

# A.4 Additional Variables in Appendix B

- Log \$ Loans log value of the amount of small business loans in \$ thousands at the county level [Source: Community Reinvestment Act]
- Log Bank Assets log value of bank assets in \$ thousands [Source: FDIC SDI]
- Log # Branches log value of the number of bank branches [Source: FDIC SDI]
- Capital-asset Ratio Total equity capital / Total assets [Source: FDIC SDI]
- Deposit-asset Ratio Total deposits / Total assets [Source: FDIC SDI]
- Mortgage-asset Ratio Mortgage loans / Total assets [Source: FDIC SDI]
- Business Loan-asset Ratio Business loans / Total assets [Source: FDIC SDI]
- *ROA Net income / Total assets* [Source: FDIC SDI]
- NPL Non-performing loans / Total loans [Source: FDIC SDI]
- Cost-to-income Operating expenses / Operating incomes [Source: FDIC SDI]
- *(Non)Media* indicator equal to one if the bank is the gun lender with (without) media attention
- *Exposure to democrats* deposit-weighted average of county-level democrat share

# **Internet Appendix**

# Table IA1. PAC share of gun lenders

This table reports the donation amounts of political action committees of gun lenders during the 2015–2016 election cycle. *\$ Republican (Democrat)* is the donation amount to Republican (Democratic) politicians. *Rep PAC share* is the share of donations to Republican politicians.

	\$ Republican	\$ Democrat	Rep PAC share
Wells Fargo	539,000	306,700	0.637
JPMorgan Chase	647,750	311,500	0.675
U.S. Bancorp	278,700	166,000	0.627
PNC	304,525	55,700	0.845
BB&T	355,500	20,000	0.947
Regions Bank	293,700	135,500	0.684
TD Bank	61,750	47,500	0.565
Citizens Financial Group	64,500	57,750	0.528
Bank of Montreal	27,000	29,200	0.480
Zions First National Bank	69,300	4,500	0.939
People's United Bank	10,000	6,500	0.606
MUFG Bank	3,500	6,000	0.368
Northern Trust Company	25,500	14,000	0.646
Stifel Bank & Trust	13,300	10,800	0.552
Morgan Stanley	545,000	282,000	0.659
Mean	206,210	89,296	0.658
Median	69,300	47,500	0.637

## Table IA2. Robustness tests in different samples

This table tests the robustness of the findings in different samples. I run similar regressions as in Table 3 and 4 using four different samples: sample including gun lenders without media attention (columns (1) through (3)), sample excluding Wells Fargo (columns (4) and (5)), sample excluding BB&T (columns (6) and (7)), sample excluding both Wells Fargo and BB&T (columns (8) and (9)). The dependent variable is *Branch deposit growth*. *Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4 (regardless of media attention in columns (1) through (3)). *Post* is an indicator equal to one if the year is either 2018 or 2019. (*Non)Media* is an indicator equal to one if the bank is the gun lender with (without) media attention. *Democrat share* is the proportion of Democrats at the county level, defined in Section 2.5. Bank controls include *Log Bank assets*, *Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal*. Columns (1), (4), (6), and (8) report the average effect of anti-gun depositor movements on gun lenders. In columns (2), I interact *Gun lender* × *Post* with *Media* and *NonMedia* reports the difference of coefficients between *Gun lender* × *Media* × *Post* and *Gun lender* × *NonMedia* × *Post* with its statistical significance. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth								
	Sample including Gun lenders without Media Attention		Sample e Wells	Sample excluding Sample e Wells Fargo BB		excluding &T	Sample e Wells Fargo	excluding and BB&T	
	Baseline	Media	Democrat	Baseline	Democrat	Baseline	Democrat	Baseline	Democrat
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gun lender × Post	-0.010***			-0.009***		-0.016***		-0.016***	
	(-6.45)			(-5.65)		(-10.05)		(-9.54)	
Gun lender × Media × Post		-0.010***							
		(-6.78)							
Gun lender × NonMedia × Post		0.005							
		(0.72)							
Gun lender $\times$ Democrat share $\times$ Post			-0.038***		-0.023*		-0.040***		-0.026**
			(-3.60)		(-1.95)		(-3.74)		(-2.10)
Difference (Media – NonMedia)	_	-0.015**	_	_	_	_	_	_	-
Bank controls	Yes	Yes	No	Yes	No	Yes	No	Yes	No
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank $\times$ Year FE	No	No	Yes	No	Yes	No	Yes	No	Yes
County × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	297,450	297,450	292,020	267,695	262,280	286,590	281,160	260,760	255,340
Adj R-Squared	0.092	0.092	0.105	0.092	0.103	0.097	0.110	0.097	0.108

#### Table IA3. Anti-gun depositor movements by political value of depositors (zip code)

This table tests the heterogeneous effect of anti-gun depositor movements by political value of depositors. Specifically, the table reports estimates for the regression specification of equation (2). The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Democrat share* is the proportion of Democrats at the zip code level, defined in Section 2.5. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Column (1) reports the average effect of anti-gun depositor movements on gun lenders with zip-by-year fixed effects. Column (2) presents the result of the full-sample analysis including bank-by-year fixed effects. Columns (3) through (5) present results based on subsamples with respect to *Democrat share.* Blue (red) includes zip codes whose *Democrat (Republican) share* is greater than or equal to 70%. Moderate includes all zip codes except blue and red. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth					
	E11 Q	1-	Sub Sample by Democrat Shar			
	Full Sample		Blue	Moderate	Red	
	(1) (2)		(3)	(4)	(5)	
Gun lender × Post	-0.010***		-0.018***	-0.007***	0.013*	
	(-5.62)		(-6.31)	(-2.92)	(1.79)	
Gun lender $\times$ Democrat share $\times$ Post		-0.028***				
		(-2.77)				
Bank controls	Yes	No	Yes	Yes	Yes	
Branch FE	Yes	Yes	Yes	Yes	Yes	
Bank × Year FE	No	Yes	No	No	No	
$Zip \times Year FE$	Yes	Yes	Yes	Yes	Yes	
Observations	253,070	247,300	86,555	149,620	16,895	
Adj R-Squared	0.041	0.058	0.060	0.033	-0.006	

#### Table IA4. Anti-gun depositor movements by political leaning of gun lenders (zip code)

This table tests the heterogeneous effect of anti-gun depositor movements by political leaning of gun lenders. Specifically, the table reports estimates for the regression specification of equation (3). The dependent variable is *Branch deposit growth*. *High (Low) gun lender* is an indicator equal to one if the bank is the gun lender and its *Rep PAC share* is above or equal to (below) the median value of 0.637, defined in Section 2.6. *Post* is an indicator equal to one if the year is either 2018 or 2019. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Column (1) presents the result of the full-sample analysis with zip-by-year fixed effects. Similar to Table IA3, columns (2) through (4) present results based on subsamples with respect to *Democrat share*. Difference (*High-Low*) reports the difference of coefficients between *High gun lender* × *Post* and *Low gun lender* × *Post* with its statistical significance. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth						
	Enll Commu	Sub S	ample by Democrat	Share			
	run sample	Blue	Moderate	Red			
	(1)	(2)	(3)	(4)			
High gun lender × Post	-0.022***	-0.033***	-0.019***	0.017*			
	(-8.54)	(-7.89)	(-5.72)	(1.78)			
Low gun lender × Post	-0.002	-0.010***	0.002	0.009			
	(-0.89)	(-2.87)	(0.83)	(0.86)			
Difference (High - Low)	-0.020***	-0.023***	-0.021***	0.008			
Bank controls	Yes	Yes	Yes	Yes			
Branch FE	Yes	Yes	Yes	Yes			
$Zip \times Year FE$	Yes	Yes	Yes	Yes			
Observations	253,070	86,555	149,620	16,895			
Adj R-Squared	0.041	0.061	0.034	-0.006			

#### Table IA5. Pro-gun depositor movements and deposit growth of anti-gun banks

This table tests the effect of pro-gun depositor movements on anti-gun banks after controlling for the effect of antigun depositor movements. I run a similar regressions as in Tables 3, 4, and 7 but add *Anti-gun* and its interaction terms. The dependent variable is *Branch deposit growth*. *Anti-gun (Gun lender)* is an indicator equal to one if the bank is anti-gun (the gun lender), defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Democrat share* is the proportion of Democrats at the county level, defined in Section 2.5. *Mass shooting* is an indicator equal to one for counties where at least one public mass shooting occurred during 1999–2018. *Boycott NRA* and *Never again MSD* are state-level intensities of Google searches "Boycott NRA" and "Never Again MSD" in 2018. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal*. Column (1) reports the average effect of pro-gun depositor movements on anti-gun banks. Columns (2) through (5) report the heterogeneous effects of pro-gun depositor movements by cross-sectional variables, as specified in each column. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth							
	Deseline	Democrat	Public Attitude					
	Dasenne	Share	MS	NRA	MSD			
	(1)	(2)	(3)	(4)	(5)			
Anti-gun × Post	-0.016***							
	(-6.26)							
Gun lender × Post	-0.014***							
	(-8.43)							
Anti-gun $\times$ Democrat share $\times$ Post		0.036**						
		(1.98)						
Gun lender $\times$ Democrat share $\times$ Post		-0.026**						
		(-2.16)						
Anti-gun × Public Attitude × Post			0.012*	0.006***	0.003**			
			(1.87)	(2.73)	(1.99)			
Gun lender × Public Attitude × Post			-0.009*	-0.002	-0.002*			
			(-1.73)	(-1.40)	(-1.94)			
Bank controls	Yes	No	No	No	No			
Branch FE	Yes	Yes	Yes	Yes	Yes			
Bank $\times$ Year FE	No	Yes	Yes	Yes	Yes			
County × Year FE	Yes	Yes	Yes	Yes	Yes			
Observations	293,520	288,095	288,095	288,095	288,095			
Adj R-Squared	0.093	0.105	0.105	0.105	0.105			

#### Table IA6. Anti-gun depositor movements and small business loans of gun lenders

This table tests the effect of anti-gun depositor movements on gun lenders' small business loans. I run the similar regressions as in Table 3 and 4 but replace the dependent variable *Branch deposit growth* with *Log \$ Loans*. *Log \$ Loans* is the log value of the amount of small business loans at the county level. *Gun lender (Anti-gun)* is an indicator equal to one if the bank is the gun lender (anti-gun), defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Democrat share* is the proportion of Democrats at the county, defined in Section 2.5. Bank controls include *Log Bank Assets, Log # Branches, Capital-asset Ratio, Deposit-asset Ratio, Mortgage-asset Ratio, Business Loan-asset Ratio, ROA, NPL,* and *Scandal*. The control variables are one-year lagged. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the county level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable		Log \$	Loans	
	(1)	(2)	(3)	(4)
Gun lender × Post	-0.153***		-0.159***	
	(-12.57)		(-12.46)	
Anti-gun × Post			-0.031**	
			(-2.51)	
Gun lender $\times$ Democrat share $\times$ Post		-0.745***		-0.725***
		(-11.65)		(-11.13)
Anti-gun $\times$ Democrat share $\times$ Post				0.157**
				(2.49)
Bank controls	Yes	Yes	Yes	Yes
Bank $\times$ County FE	Yes	Yes	Yes	Yes
$Bank \times Year FE$	No	Yes	No	Yes
County $\times$ Year FE	Yes	Yes	Yes	Yes
Observations	822,284	822,274	822,284	822,274
Adj R-Squared	0.524	0.619	0.524	0.619

# Table IA7. Test of equality (1-to-3 nearest neighbor matching)

This table reports the mean values of matched bank characteristics (*Log # Branches, Log Bank assets, Capital-asset ratio, ROA,* and *Exposure to democrats*) and other bank characteristics (*Cost-to-income, Deposit-asset Ratio, Business Loans-asset Ratio, Mortgage-asset Ratio,* and *NPL*) with the test of equality between treatment and control groups for each variable. Detailed variable definitions are provided in Appendix A. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

	Summary statistics		Test of	equality
Variables	Treatment	Control	Diff	<i>t</i> -stat
Matched Bank Characteristics as of 2017				
Log # Branches	6.966	6.486	0.480	0.85
Log Bank assets	19.216	18.580	0.636	1.34
Capital-asset Ratio	0.117	0.119	-0.002	-0.25
ROA	0.905	1.075	-0.170	-1.33
Exposure to democrats	0.571	0.559	0.012	0.38
Other Bank Characteristics as of 2017				
Cost-to-income	1.990	2.790	-0.800	-0.63
Deposit-asset Ratio	0.772	0.785	-0.013	-0.55
Business Loan-asset Ratio	0.150	0.181	-0.031	-0.94
Mortgage-asset Ratio	0.394	0.377	0.017	0.18
NPL	0.011	0.010	0.001	0.39

#### Table IA8. Anti-gun depositor movements in the matched sample – Part I

This table tests the robustness of the findings in the matched sample. I run similar regressions as in Table 3, 4, and 6 using the matched sample. The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Democrat share* is the proportion of Democrats at the county or zip code level, defined in Section 2.5. *HHI* is county-level Herfindahl-Hirschman Index used as a proxy for switching cost, defined in Section 2.7. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Columns (1) and (2) report the average effect of anti-gun depositor movements on gun lenders. Columns (3) through (5) report the heterogeneous effects by political value of depositors and switching cost. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth						
			at Share				
	Base	eline	County	Zip	HHI		
	(1) (2)		(3)	(4)	(5)		
Gun lender × Post	-0.018***	-0.018***					
	(-8.37)	(-7.07)					
Gun lender $\times$ Democrat share $\times$ Post			-0.059***	-0.042***			
			(-4.27)	(-3.10)			
Gun lender $\times$ HHI $\times$ Post					0.178***		
					(4.26)		
Bank controls	Yes	Yes	No	No	No		
Branch FE	Yes	Yes	Yes	Yes	Yes		
Bank × Year FE	No	No	Yes	Yes	Yes		
County × Year FE	Yes	No	Yes	No	Yes		
$\operatorname{Zip} \times \operatorname{Year} \operatorname{FE}$	No	Yes	No	Yes	No		
Observations	152,270	134,895	152,270	134,895	152,270		
Adj R-Squared	0.081	0.007	0.100	0.031	0.100		

## Table IA9. Anti-gun depositor movements in the matched sample – Part II

This table tests the robustness of the findings in the matched sample. I run similar regressions as in Table 7 and 8 using the matched sample. The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. *Mass shooting* is an indicator equal to one for counties where at least one public mass shooting occurred during 1999–2018. *Boycott NRA* and *Never again MSD* are state-level intensities of Google searches "Boycott NRA" and "Never Again MSD" in 2018. *Education (Young)* is the proportion of people with a bachelor's degree or higher (people under age 65) at the county level, defined in Section 2.7. *Log SCI (Log Phy Distance)* is the log value of social proximity (physical distance) to Parkland at the county level, defined in Section 2.7. Each column reports the heterogeneous effect of anti-gun depositor movements by cross-sectional variable, as specified in the column. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the branch level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Branch deposit growth					
		Public Attitude		S	ocial Engageme	nt
	MS	NRA	MSD	Education	Young	SCI
	(1)	(2)	(3)	(4)	(5)	(6)
Gun lender × Mass shooting × Post	-0.020***					
	(-4.14)					
Gun lender × Boycott NRA × Post		-0.006***				
		(-4.21)				
Gun lender $ imes$ Never Again MSD $ imes$ Post			-0.004***			
			(-3.79)			
Gun lender × Education × Post				-0.077***		
				(-3.72)		
Gun lender × Young × Post					-0.175***	
					(-3.36)	
Gun lender × Log SCI × Post						-0.027***
						(-5.61)
<i>Gun lender</i> × <i>Log Phy Distance</i> × <i>Post</i>						-0.021***
						(-4.99)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes
County $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	152,270	152,270	152,270	152,270	152,270	152,270
Adj R-Squared	0.100	0.100	0.100	0.100	0.100	0.100

#### Table IA10. Anti-gun depositor movements and gun industry

This table tests whether the increased funding costs of gun lenders affect the gun industry. Specifically, the table reports estimates for the regression specification of equation (5). The dependent variable is *Log # firearms dealers*, defined in Section 2.3. *Gun lender loan share* is the share of small business loans made by gun lenders at the county level in 2017. Democrat share controls include county-level *Democrat share* and its interaction terms with time dimension. County controls include *Log Population*, *Log Per capita income*, *Change in population*, and *Unemployment rate*. Columns (1) and (4) report results of the full-sample analyses. Columns (2), (3), (5), and (6) report results based on subsamples with respect to *Democrat share*. Detailed variable definitions are provided in Appendix A. The t-statistics, computed from standard errors clustered at the county level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Dependent Variable	Log # firearms dealers					
	All	$Dem \ge 50$	Dem < 50	All	$Dem \ge 50$	Dem < 50
	(1)	(2)	(3)	(4)	(5)	(6)
Gun lender loan share $\times$ 2015	0.004	0.067	-0.003	0.001	0.062	-0.007
	(0.19)	(1.14)	(-0.11)	(0.05)	(1.05)	(-0.26)
Gun lender loan share $\times$ 2016	0.002	0.052	-0.002	0.002	0.050	-0.005
	(0.12)	(1.15)	(-0.12)	(0.12)	(1.10)	(-0.25)
Gun lender loan share $\times$ 2017	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Gun lender loan share $\times 2018$	-0.017	-0.098**	-0.009	-0.017	-0.096*	-0.009
	(-1.12)	(-1.99)	(-0.52)	(-1.08)	(-1.95)	(-0.55)
Gun lender loan share $\times$ 2019	0.037	-0.157*	0.059**	0.039	-0.154*	0.059**
	(1.37)	(-1.91)	(2.08)	(1.45)	(-1.88)	(2.08)
Democrat share controls	No	No	No	Yes	Yes	Yes
County controls	Yes	Yes	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	15,177	2,348	12,829	15,177	2,348	12,829
Adj R-Squared	0.979	0.990	0.975	0.979	0.990	0.975

## Table IA11. Robustness to different control banks and clustered standard errors

This table tests the robustness of the result in Table 3 to different control banks and clustered standard errors. The dependent variable is *Branch deposit growth. Gun lender* is an indicator equal to one if the bank is the gun lender, defined in Section 2.4. *Post* is an indicator equal to one if the year is either 2018 or 2019. Bank controls include *Log Bank assets, Log Bank deposits, Bank asset specialization, Bank type, Branch type,* and *Scandal.* Panel A presents results using different control banks, as specified in the columns. Panel B presents results using different clustered at the branch level, are shown in parentheses. In Panel B, the t-statistics, computed from standard errors clustered at the specified level, are shown in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Different Control Banks								
Dependent Variable		Bra	inch deposit gr	owth				
	Baseline	Matching	Excluding Anti-gun Banks	Excluding Community Banks	Excluding (3) & (4)			
	(1)	(2)	(3)	(4)	(5)			
Gun lender × Post	-0.010***	-0.018***	-0.014***	-0.011***	-0.016***			
	(-6.74)	(-8.37)	(-8.10)	(-6.03)	(-7.70)			
Controls & Fixed Effects		Bank controls,	Branch FE, Co	ounty × Year FE				
Observations	293,520	152,270	262,040	209,705	178,175			
Adj R-Squared	0.093	0.081	0.101	0.075	0.086			
Pane	l B: Different C	Clustered Stand	ard Errors					
Dependent Variable		Bra	inch deposit gr	owth				
	State	County	State-by- Bank	County-by- Bank	State and Year			
	(1)	(2)	(3)	(4)	(5)			
Gun lender × Post	-0.010***	-0.010***	-0.010**	-0.010***	-0.010**			
	(-2.94)	(-4.23)	(-2.14)	(-4.51)	(-4.42)			
Controls & Fixed Effects		Bank controls,	Branch FE, Co	ounty × Year FE				
Observations	293,520	293,520	293,520	293,520	293,520			
Adj R-Squared	0.093	0.093	0.093	0.093	0.093			