# Inflation, War Bonds, and the Rise of Republicans in the 1950s

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Abstract: We study the role of war bonds in the presidential elections of the 1950s. During World War II, the federal government conducted aggressive campaigns to convince Americans to invest their savings in wartime savings bonds. Although they were nonnegotiable and protected from interest rate fluctuations, the real returns paid by the bonds were eroded by two major inflationary episodes after the war, in 1946-48 and 1950-51, contributing to a political backlash against the incumbent Democrats. In a difference-indifferences framework, we find that counties with higher war bond purchases shifted their votes towards the Republican party in the postwar elections, relative to the elections of the late 1930s and early 1940s. To address concerns related to the endogeneity of war bond purchases, we instrument for WWII bond subscriptions using county data from the World War I liberty loans, and find similar results. Our results indicate that the promotion of savings bonds made Americans more sensitive to the high inflation that prevailed after the war, contributing to the breakdown of the New Deal Democratic coalition and Republicans' victories in the 1950s.

Keywords: War Bonds, Inflation, Economic Voting, World War II, Household Savings, Republicans

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## 1. Introduction

During World War II (WWII), the American government waged an aggressive campaign to convince its citizens to invest in war bonds. Through a payroll deduction program and a series of eight bond drives, households purchased war savings bonds at very high rates, with more than 85 million Americans subscribing. This reallocation of Americans' savings had far-reaching consequences, not all of which were anticipated. The government-led drives sought to convince Americans that savings bonds were excellent investments; surveys from the period indicate that households were persuaded, as they considered those assets the key to their financial futures. Yet in the years following the war, high inflation substantially eroded the purchasing power of the bonds' returns, leading many Americans to feel bitter. Republicans blamed the incumbent Democrats for the increases in the price level, and made controlling inflation a central promise of their successful campaigns in the 1950s.

We study the role of war bonds in the presidential elections of the 1950s. After two decades of dominance by Democrats, the Republicans won the presidency in 1952 and 1956, and inflation was a major issue for voters in both elections. Whereas inflation had benefitted the Democrats' electoral fortunes in the 1930s following the deflationary years of the Great Depression, many voters perceived the high rates of inflation that prevailed following WWII as harmful (Lubell, 1951). Using a difference-in-differences design with a panel of counties and state-by-time fixed effects, we test whether purchases of wartime savings bonds contributed to increased support for the Republicans in the 1950s. Our results indicate that counties with higher war bond purchases shifted their preferences towards the Republican Party in the postwar elections at higher rates, relative to their voting patterns in the elections of the late 1930s and early 1940s, and relative to other counties within the same state. War bond purchases thus created a constituency for anti-inflationary policy, which was promised by the Republicans.

The changing magnitude of the effects we estimate across different elections highlights the importance of inflation in our results. There were two major inflationary episodes following WWII, in 1946-48 and 1950-51. The inflation of 1946-48 following the relaxation of wartime price controls was generally anticipated, and both survey data and narrative evidence from economists at the time indicated deflation was expected to follow the immediate burst of post-WWII inflation. Consistent with this, our estimates indicate that the impact of war bonds on the 1948 election was muted.

By contrast, the surge in inflation in 1950-51 at the outbreak of the Korean War was unexpected and made clear that there would be no prolonged deflation to restore the purchasing power of war savings bonds. President Truman's efforts in 1951 to pressure the Federal Reserve to continue to peg interest rates at low levels rather than pursue a policy change aimed at curtailing inflation strengthened the association between the Democratic Party and high inflation. In the 1952 election, Eisenhower and the Republicans

won with a platform that argued that the Democrats would "further cheapen the dollar, rob the wage earner, impoverish the farmer and reduce the true value of the savings, pensions, insurance and investments of millions of our people" if they remained in power. Inflation remained low over the next four years, and in 1956, Eisenhower won again, with a party platform that boasted of having "fulfilled our 1952 pledge to halt the skyrocketing cost of living." In 1952 and 1956, we find large and significant effects of war bond purchases on the Republicans' vote share.

A natural concern regarding these results could be that wealthier counties were likely to have owned more war bonds, and may have shifted their support toward the Republicans in the 1950s for reasons unrelated to the bonds' returns. We address this concern in a variety of ways. First, we control for average wage income in 1940 from the federal census. Second, we control for the value of war spending per capita, a major source of wartime income, and the value of bank deposits per capita, a measure which reflects wartime savings that were not allocated to war bonds. Importantly, we find funds allocated to bank accounts had much weaker effects on voting outcomes than savings bond purchases, even though both reflect local incomes. The difference in these estimated effects suggests that households felt their war bonds were uniquely important, and had been convinced that they would be a good long-term investment by the government's sales efforts. We also control for numerous social and economic characteristics of counties that could be correlated with unobservable factors related to war bond subscriptions and political preferences.

Of course, it is possible that other unobservable factors correlated with war bond purchases may have led some counties to turn against the Democrats in the 1950s. To address this possibility, we instrument for WWII savings bond purchases using participation rates in the liberty loan drives of World War I (WWI). The WWI bond drives were quite successful and generated high participation rates in many counties. The variation in liberty bond subscription rates was driven in part by the approaches taken to the marketing of the bonds, with some counties adopting a highly centralized system that quite effectively reached a large share of the population (see Hilt et al., 2022). When savings bonds sales during WWII initially failed to meet expectations, the Treasury shifted to strategies that emulated those of the WWI bond drives beginning in 1942; the local lessons learned from the liberty loan drives were remembered and adopted in the promotion of WWII savings bonds. Although they are only available for 1,432 counties, the liberty bond participation rates predict E bond participation quite well in those counties. 2SLS results using this instrument produce estimates similar to those obtained via OLS. This suggests that variation in unobservable factors that could have been responsible for both higher E bond subscriptions and subsequent changes in political preferences are not responsible for our results.

Another concern might be that our results are driven by ideological preferences, rather than financial motives. For example, voters who strongly supported the war effort in WWII by purchasing E

bonds at high rates may have shifted their support to the Republicans during the Cold War, if they were persuaded that the Democrats were 'soft on communism.' Yet when we control for other nonfinancial measures of support for the war effort in WWII, including the rates at which a county's population volunteered for the war or won medals for distinguished service from Caprettini and Voth (2023), we find that E bond subscription rates had a uniquely large and significant effect on the Republican vote share. This suggests that the financial attributes of E bond subscriptions, rather than their association with support for the war, are responsible for their political effects.

These results highlight the importance of WWII financing policies for the subsequent evolution of American politics. Efforts to promote war savings bonds served multiple objectives: they channeled household resources into long-term savings vehicles, reducing spending on scarce consumption goods and holding down wartime inflation by reducing demand; they raised funds to support the war effort; and, perhaps most importantly, they created opportunities to present the public with propaganda touting the importance the war, and to encourage participation in rallies and parades supporting the American war effort. Yet by inducing Americans to purchase war savings bonds with promises that they would be excellent long-term investments, these campaigns made American households more sensitive to inflation, magnifying its impact on voters' preferences.

The importance of inflation as a factor in American elections over the twentieth century was established by the first empirical studies of economic voting (Kramer, 1971; Stigler, 1973), and remains an important focus of elections research (e.g., Palmer and Whitten, 1999; Lewis-Beck and Stegmeier, 2000). We advance this literature by using local variation in the purchases of an asset—war bonds—whose realized returns were unexpectedly reduced by inflation to study the impact of inflation on election outcomes. A more recent line of research has analyzed the connection between economic conditions and support for populist or authoritarian political parties. Our focus on a period when many households became significant creditors marks an interesting contrast to the focus on the political motives of debtors in many of those works (e.g., Gyöngyösi and Verner, 2022). Our analysis of war bond purchases also contributes to a related literature on the effects of asset ownership on political behavior (e.g., Duca and Saving, 2008; Nadeau et al., 2010; Jha and Shayo, 2019; Hilt and Rahn, 2020).

The changing partisan alignment of the American electorate over the mid-twentieth century has been the subject of considerable research, and our results help explain some of the shifts observed in the 1950s. The Great Depression and 1932 election realigned American voters, shifting the loyalties of large segments of the electorate toward the Democrats (Burnham, 1970; Clubb et al., 1980; Sundquist, 1983). The association between the Republican Party and economic depression persisted through the 1950s

<sup>&</sup>lt;sup>1</sup> Examples include de Bromhead et al. (2013), Funke et al. (2016), Doerr et al. (2020), Ahlquist et al. (2020), and Galofré-Vilà et al. (2021). See Rodrik (2021) for a survey.

(Campbell et al., 1964), but our analysis helps explain Republicans' success in that decade as a response to inflation. Our results also help explain some of the shifts in the geographic patterns of support between the parties beginning in the 1950s, although other factors were more important in those changes (see, for example, Black and Black, 2003; Bazzi et al. 2023).

Finally, our paper contributes to the literature on the financing of America's efforts in WWII (e.g., Rockoff, 1995, 2012; Ohanian, 1997; Hall and Sargent, 2011). The bond drives of the war in particular have been the subject of considerable research, which includes some early foundational contributions to the study of social psychology (Merton, 1946) and behavioral economics (Katona, 1951), as well as modern works across a range of disciplines (e.g., Samuel, 1997; Kimble, 2006; Sparrow, 2008). Some of this work has argued that WWII transformed the role of the federal government by eroding popular opposition to a powerful national state and inculcating in Americans a sense of 'fiscal citizenship' (e.g., Sparrow, 2008, 2011; Brinkley, 1989). We advance this literature by quantitatively analyzing the largely unanticipated political consequences of war bond purchases, which created a constituency for anti-inflation policy.

# 2. The Bond Drives of World War II

The US economy transformed rapidly after Pearl Harbor, as war production ramped up to levels that had previously been inconceivable, turning the US into the "great Arsenal of Democracy." Leading figures within the U.S. Treasury and Federal Reserve debated different approaches to financing the government's rapidly growing expenditures. Ultimately, the spending was financed by a mix of taxes, borrowing, and money creation (Rockoff, 2012).

Raising money from households was viewed as a key objective of the war finance program. Given that much of civilian manufacturing would be converted to war production, policymakers feared that rising incomes in combination with limited supplies of consumption goods could produce rapid inflation, a problem highlighted by Keynes (1940). Some policymakers, including Fed Chairman Marriner Eccles and budget director Harold Smith, argued that it was necessary to adopt compulsory savings measures to capture a sufficient share of household incomes. Yet President Roosevelt and Treasury Secretary Morgenthau disagreed and insisted on voluntary savings programs, in part because they feared that Congress would lower tax rates if a compulsory program were enacted, but also because they felt that the promotion efforts behind a voluntary campaign could be used to strengthen support for the war effort, and "make the country war-minded – there just isn't any other way to do it" (Morgenthau, quoted in Blum, 1967: 19). In response to public sentiment that was initially reluctant to get involved in

another war in Europe, Roosevelt and Morgenthau "used *bonds* to sell the *war*, rather than vice versa" (Harold Smith, quoted in Blum, 1967: 19-20, emphasis in original).<sup>2</sup>

The design of the war savings bonds benefitted from lessons learned in WWI. The liberty bonds sold during that war were negotiable instruments, whose market prices fell when interest rates rose, resulting in capital losses to many households who sold them prior to maturity. In addition, the smallest denomination liberty bond was \$50, a large sum relative to incomes at the time (see Kang and Rockoff, 2015). In WWII, a new series of non-negotiable savings bonds, which had been pioneered in the 1930s, was sold to households, while marketable securities were sold to institutions. The new series E savings bonds marketed to households during wartime were offered in denominations as low as \$25, and paid a nominal interest rate of 2.9 percent compounded semi-annually, which was higher than the rates offered by the securities sold to institutions. Owners of savings bonds could not resell them, but could redeem them at a fixed series of values, which protected the holder against interest rate fluctuations, and were structured to incentivize holding them to maturity—early redemptions received lower rates. Series E bond purchases were restricted to individuals, with annual subscription limits (\$5,000 maturity value per person); wealthy households could supplement E-bond purchases by buying larger quantities of other savings bonds (series F and G) offering slightly lower returns, or other government securities.

Sales of E bonds began in May 1941, as the Treasury's Defense Savings Staff (later renamed War Savings Staff) began advertising and promoting bond ownership. The staff also promoted a 'payroll savings plan,' in which workers were encouraged to deduct 10 percent from their paychecks for war bonds. After a relatively slow start, sales surged following the attack on Pearl Harbor. In early 1942, several national campaigns were conducted to promote war bonds, such as the "Stars Over America" campaign, which sent groups of celebrities around the country (Olney, 1971). Yet the Treasury felt that the sales of E bonds failed to capture a sufficient share of household incomes, and sought to better coordinate the sales efforts of the many state and local organizations marketing the bonds. Ultimately, the bond drives of WWI were emulated, in which sales goals over a specific period were announced and intensive campaigns to reach the goal were conducted. After a successful pilot test of a bond drive in the town of Vineland NJ, the approach was adopted nationally, and ultimately eight bond drives (called "war loans") were conducted.

Movie stars, government officials, popular musicians, authors, hundreds of civil society organizations, and a volunteer sales force of more than five million people were enlisted in these drives, which were seen by the federal government not only as a way to increase bond sales, but also to blanket

<sup>&</sup>lt;sup>2</sup> Evidence of the public's reluctance to support joining the war prior to Pearl Harbor is illustrated a Gallup poll from October 1941; at the time, 82 percent of respondents opposed sending "part of our Army to Europe to help Britain" (Gallup Poll 1941-0251, Question 17; 3,066 respondents). Although public sentiment shifted quickly in response to Peal Harbor, a resurgence of isolationist sentiments was a concern among American policy makers.

the population with propaganda in support of the war effort. The message of the drives framed bond subscriptions as patriotic obligations to fund the fight against tyranny and preserve the 'American way of life.' But they also highlighted the attractiveness of the war bonds as investments. For example, the campaign book created by the planners of the fourth bond drive in 1944 stated:

to pass up the purchase of War Bonds is to deny yourself ownership of the most desirable and safest investment in the world today... To deny yourself that investment today is to miss the opportunity for guaranteeing the future security of your family, your children and your country.<sup>3</sup>

The drives also discouraged households from redeeming their bonds early, with slogans that emphasized that war bonds were 'to have and to hold.' One promotional film, entitled *These Are Your Bonds* (1944), featured President Roosevelt telling Americans that "to buy and hold all that we can of war bonds" is "a small service to ask of those who do not fight."

Table 1 presents some details of these bond drives. The vast majority of the funds raised came from the sale of Treasury securities to institutions, but E bond sales to households were always a major focus of the drives. The Treasury conducted extensive research into its sales methods and adapted its approach over time as it learned what worked best. The first and second drives had no specific goal for E bond sales, and although the total funds raised far surpassed its overall goal (\$12.9 billion compared to a goal of \$9 billion), sales of E bonds were regarded as disappointing, reaching only \$726 million. Later drives set explicit goals for E bond sales and made intensive use of personal solicitations, advertising, and various other marketing strategies that the Treasury's research determined to be effective. The goals for E bond sales for many of the drives were quite aggressive and were not always met; the third drive had a goal of \$3 billion for E bonds, whereas \$2.5 billion were sold, and the seventh had a goal of \$4 billion, and just under that amount were sold. The ambitious drives were considered generally successful at mobilizing household resources.

Figure 1 presents monthly sales of E bonds from May 1941 to June 1946. The surge in December 1941 and January 1942, following the attack on Pearl Harbor, is clearly evident in the figure, and the growing monthly sales throughout 1942 reflected the increasing success of the payroll savings plan and the sales campaigns conducted in that year. The first bond drive in December 1942 is barely visible in the figure; sales were not much higher than they would have been without the drive. Yet most of the later bond drives are clearly visible in the figure, and represent substantial increases in sales; the Treasury's approaches to the conduct of the drives clearly benefitted from experience. In the end, about 53 percent of the wartime E bond sales were a product of the bond drives with the remaining 47 percent driven by payroll savings plan (Murphy, 1950). In total, about \$40 billion of E bonds were sold from May of 1941

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<sup>&</sup>lt;sup>3</sup> Olney (1971: 78). The campaign book guided the creation of posters, speeches, and other campaign materials for the bond drive.

through December 1945, and the bonds continued to be sold in later years.<sup>4</sup> In the peak year of war bond sales, 1944, net sales of savings bonds accounted for 9.7 percent of personal after-tax income.

During the war years, personal savings reached unprecedented levels (see Figure 2). A number of factors contributed to this surge in savings, including increased incomes and labor force participation due to war production, and the strict rationing of durable consumption goods (see Brunet and Hlatshwayo, 2023). The E bond sales campaigns captured a greater share of those savings than many believed possible of a voluntary program.

The rate at which E bonds were owned among the adult population over time, as reflected in Gallup poll responses, is shown in Figure 3. The effects of Pearl Harbor, the 1942 sales campaigns, and the bond drives are clearly evident in the figrue; reported ownership rates rose from 21 percent in November 1941 to 65 percent in May 1942 to around 85 percent in 1944. The effects of the Treasury's sales campaigns on households' finances are evident in Table 2, which presents data on the liquid asset holdings from the Survey of Consumer Finances over 1947 to 1951. The table summarizes data for 16,119 households surveyed in those years. On average, savings bonds accounted for about 34 percent of households' liquid assets; the share was slightly lower for households with below-median income, and higher among households with above-median income. Although many households held large savings account balances and other liquid assets, the returns realized from investing in war bonds were clearly important for most households.

Whether or not the bond drives and payroll savings program actually increased total household savings, or merely converted the form in which they were held from bank balances to E bonds, has been the subject of some debate (e.g., Friedman and Schwartz, 1963: 559; Murphy, 1950; Katona, 1951). Yet irrespective of whether the drives changed total savings, they certainly reallocated a substantial portion of them, convincing Americas to shift their funds into war bonds and out of bank deposits or other liquid assets.

# 3. Inflation, Real E Bond Returns, And Voting

## 3.1 Inflation and Realized E Bond Returns

Although price controls and increased household saving limited wartime inflation, the surge in inflation after the war significantly eroded the real value of the returns paid by E bonds. Figure 4 presents monthly inflation rates from 1930 to 1960, as reflected in the change in the CPI relative to 12 months prior. As the figure makes clear, inflation rose briefly during the war until price controls were imposed,

<sup>&</sup>lt;sup>4</sup> The \$40 billion figure is calculated from the Treasury's annual reports, and counts gross revenues from sales of E bonds, without adjusting for redemptions.

was very high during 1946-48 following the relaxation of price controls, and surged again during 1950-51 with the outbreak of the Korean War.

The effect of these inflationary episodes on the real returns received by holders of E bonds varied somewhat with the timing of subscriptions. The returns of bonds purchased in 1941 and held to maturity suffered from the effects of the wartime inflation as well as the postwar inflation; those purchased at the end of the war were bought with dollars whose value had already been eroded by the wartime inflation, and therefore suffered somewhat less. Table 3 presents the annual returns realized by E bonds of different purchase dates, on the assumption that they were held to maturity (10 years). Real returns were negative no matter when the bonds were purchased, but the returns from bonds purchased early in the war were significantly worse than those purchased late in the war.

Many holders of E bonds chose to redeem them well before maturity, and the impact of inflation on the returns earned at redemption varied on the timing of their redemptions. In Figure 5, we use the official redemption schedule and realized inflation rates to compute the cumulative nominal and real returns at six month intervals for an E bond purchased in mid-1944, the peak year of savings bond sales. The lines show the value of the nominal and real cumulative returns an investor would have received if they had chosen to redeem their bond at different dates. The cumulative nominal return did not grow at a constant rate: in order to provide an incentive for investors to hold their bonds rather than redeem them early, the redemption schedule of E bonds offered low nominal returns over the first five years, before increasing them over the second half of the bond's time to maturity. The surge in inflation in 1946-48 produced steeply negative returns over this period. An investor who redeemed their bond at any point after mid-1946 would have earned substantially negative real returns. Later in the bond's life, the higher nominal returns were greater than prevailing inflation rates, and cumulative real returns rose somewhat, but they were never better than -22 percent. These returns were likely far lower than expected; in 1944, a Gallup poll found that 91 percent of adults agreed that E bonds would be a "good investment."

Although they were quite low, the E bonds' real returns were actually better than those paid by savings accounts, the most important alternative to E bonds. Yet the low returns paid by E bonds may have been perceived as more significant than the returns paid by other assets. Surveys of consumers conducted by the Federal Reserve in 1945 found that the overwhelming majority of households did not

<sup>&</sup>lt;sup>5</sup> Cumulative real returns at time T are calculated at six month intervals as:  $\prod_{t=0}^{T} \left( \frac{1 + \frac{P_t - P_{t-1}}{P_{t-1}}}{1 + \pi_t} \right) - 1$ , where  $P_t$  is the redemption value at time t.

<sup>&</sup>lt;sup>6</sup> Gallup poll 1944-0335, Question 21; 2,429 respondents.

<sup>&</sup>lt;sup>7</sup> From 1936 to 1952, the maximum rate that Fed member banks could pay on time deposits and savings accounts was limited to 2.5% by Regulation Q, and the average rate paid on those accounts was close to 1% for most of that period (Federal Reserve Bank of St. Louis, 1960). By contrast, the nominal rate paid by E bonds held to maturity was 2.9%.

intend to use their E bonds to purchase consumption goods, but instead reserved them for 'permanent assets' such as a home or a farm (Weiler, 1945: 870). Consistent with the messages of the bond drives, which told Americans to buy war bonds for the security of "your family, your children and your country," American households considered their E bonds the key to their financial futures. The reduced purchasing power of the bonds' payouts relative to what was initially expected may therefore have been regarded as particularly impactful and disappointing. By contrast, bank deposits were often seen as short-term savings for consumption, and thus less important—and perhaps also more likely to have been spent relatively quickly.

# 3.2 Inflation and Post-War Politics

The low real returns paid by E bonds suggest that a voter in the 1950s motivated by economic concerns and retrospectively evaluating the performance of the incumbent Democrats might decide to punish them and vote for the Republicans.<sup>8</sup> Yet to evaluate that concern, it is important to understand what voters' expectations of inflation had been; the significance of a given level of inflation may be influenced by whether or not it was higher than what had been expected.<sup>9</sup> It is also important to determine the level of expected inflation at the time of elections, as voters may also incorporate prospective evaluations of the candidates into their decisions. There is some evidence to suggest that in elections where the incumbent is not on the ballot, as was the case in 1952, prospective evaluations become particularly important (Nadeau and Lewis-Beck, 2001).<sup>10</sup>

To understand inflation expectations it is helpful to consider the deflationary episodes displayed in Figure 4. The substantial deflation in 1930-33 and the smaller deflation in 1938 were significant events, and contributed to persistent fears of an economic collapse following WWII. But they also may have contributed to expectations of deflation following periods of inflation—as were typical prior to and immediately after WWI.

The surge in inflation that began in mid-1946 was a consequence of the relaxation of wartime price controls, which had artificially suppressed price increases. This immediate post-war inflation episode was widely expected. Inflation had been significant before strict price controls were adopted, so it was understood that the price controls had restricted inflation, and that their relaxation would cause inflation to increase. After several years of strict rationing, pent-up consumer demand was also widely expected—though ex post many observers were surprised by how long elevated consumer demand persisted. Many commentators expected deflation to follow the immediate post-war inflation as

<sup>&</sup>lt;sup>8</sup> This is the retrospective voting hypothesis; see Fiorina (1981).

<sup>&</sup>lt;sup>9</sup> On the importance of benchmarks and reference points, see Healy and Malhotra (2013).

<sup>&</sup>lt;sup>10</sup> In 1952, President Truman chose not to stand for reelection; the Democrats nominated Illinois governor Adlai Stevenson.

reconversion was completed and supply chain issues were resolved. And indeed, a mild deflation did occur in 1949, but it was much smaller than expected—and was quickly reversed after the outbreak of the Korean War in July 1950 (Friedman and Schwartz, 1963: 597-598; Binder and Brunet, 2022). The outbreak of inflation associated with the Korean War was quite sudden, and also signaled to voters that there would be no major downward revision in prices that would raise the real returns of their financial asset holdings. Relative to the deflation that had been expected, the Korean War inflation was quite high.

Some evidence on inflation expectations is available from the Survey of Consumer Finances, which asked respondents whether they expected inflation or deflation to prevail in the following year. Figure 5 presents the margin by which inflation or deflation was expected in each year from 1947 to 1953, calculated as the difference between the share expecting inflation, and the share expecting deflation. When the value is negative (positive), the share expecting deflation was larger (smaller) than the share expecting inflation, and the value of the series shows the size of the difference. These surveys were conducted during the first quarter of the year, so unfortunately they do not directly coincide with the timing of elections.

In the first quarter of 1948, respondents were equally likely to expect inflation and deflation, and by the first quarter of 1949, deflation was more widely expected than inflation. At the time of the 1948 election, voters likely expected mild deflation. This suggests that voters focused on prospective economic evaluations would not have had a strong motive to oppose the incumbent Democrats.

As the data presented in Figure 4 make clear, these expectations were not fulfilled, and a sudden increase in inflation occurred at the onset of the Korean War. In 1952, a voter focused on retrospective economic evaluations might have concluded that inflation (and therefore the returns paid by their E bonds) was much worse than had been expected. In early 1952, many more voters expected inflation than deflation, so if those expectations persisted through the November election, voters may also have had a reason to prefer the Republicans on the basis of prospective economic evaluations (if they found the Republican's anti-inflation agenda convincing).

The major inflation episodes of the late 1940s and early 1950s had a number of different impacts, but the erosion of the purchasing power of the returns paid by wartime savings bonds increased the salience and political significance of the high inflation. Interviews with voters revealed a simmering frustration. "The Democrats are pushing too far...When I cashed [my war bond], I thought how much more I could have bought for the money back in 1940 than now. This inflation has got to be stopped" (Lubell, 1951: 161). Opinion poll data from August 1952 showed that a majority (57 percent) of Americans felt that inflation was among the most important issues in that year's political campaign, and

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<sup>&</sup>lt;sup>11</sup> The Survey of Consumer Finances is available through ICPSR by the Survey Research Center of the University of Michigan.

that more Americans felt that the Republicans would be better able to "keep prices from going higher" than the Democrats.<sup>12</sup>

The parties' platforms in the 1950s focused on inflation to an unusual degree. Figure 7 presents a simple count of the number of sentences containing the word "inflation" or equivalent terms in both parties' platforms. <sup>13</sup> It was generally the case that the Republicans' platform mentioned inflation more frequently than the Democrats'; even in 1932, a time of extraordinarily high unemployment and persistent deflation, the Republicans pledged to preserve a "sound currency and an honest dollar," and warned that "relief by currency inflation is unsound in principle and dishonest in results." <sup>14</sup> Mentions of inflation rose for both parties in 1948, before increasing substantially in 1952, especially for the Republicans. In that year, the Republican Party's platform blamed inflation on the Democrats' policy choices, arguing

The wanton extravagance and inflationary policies of the Administration in power have cut the value of the dollar in half and imposed the most confiscatory taxes in our history. These policies have made the effective control of Government expenditures impossible. If this Administration is left in power, it will further cheapen the dollar, rob the wage earner, impoverish the farmer and reduce the true value of the savings, pensions, insurance and investments of millions of our people. Further inflation must be and can be prevented.<sup>15</sup>

Although inflation peaked prior to the election and remained low in the mid-1950s, in part due to a significant shift in the Fed policy, it remained an important topic in American politics. The 1956 Republican Party platform boasted of having "curbed the runaway inflation," and claimed that the Eisenhower Administration had fulfilled its pledge to "halt the skyrocketing cost of living that in the previous 13 years had cut the value of the dollar by half, and robbed millions of the full value of their wages, savings, insurance, pensions and social security." Polling data showed that this rhetoric was effective; voters in 1956 stated that the Republicans would "do the best job of holding down inflation" relative to the Democrats by a margin of 39 percent to 31 percent. 17

# 4. Empirical Analysis

4.1 Data

<sup>&</sup>lt;sup>12</sup> Roper poll sponsored by NBC broadcasting, conducted August 1952 among 3,917 adults (Roper 31097073; https://ropercenter.cornell.edu/ipoll).

<sup>&</sup>lt;sup>13</sup> Equivalent terms include "high cost of living," "rising prices," "stable currency," "sound currency," "honest dollar," "integrity of our national currency," among others.

<sup>&</sup>lt;sup>14</sup> https://www.presidency.ucsb.edu/documents/republican-party-platform-1932.

<sup>&</sup>lt;sup>15</sup> https://www.presidency.ucsb.edu/documents/republican-party-platform-1932.

<sup>&</sup>lt;sup>16</sup> The mention of social security is quite significant; far from attacking that pillar of the New Deal, the Republicans argued that controlling inflation would benefit its recipients.

<sup>&</sup>lt;sup>17</sup> Opinion Research Center Poll, August 1956, face-to-face interviews with 1,471 adults (Roper 31103157; https://ropercenter.cornell.edu/ipoll).

The analysis that follows focuses on county E bond subscription rates, as reported in the 1947 County Data Book. The available data report only subscriptions during 1944; our main variable of interest is 1944 E bond purchases in thousands of dollars, scaled by the county's 1940 adult (21+) population. This is an imperfect measure of what we would want to observe, the share of the population that owned E bonds, as it reflects purchases per capita for one year only, rather than participation rates for the entire war. However, 1944 was the year of the highest level of E bond sales, and the correlation between statelevel sales per capita in 1944 and total state-level sales per capita from 1941-47 is 0.989. In addition, the correlation between this measure and the ownership rate reported in Gallup polls in 1945 (at the state level) is 0.655, and the correlation with the level observed in the postwar SCF data is 0.544. The measure is thus a reasonable proxy for E bond ownership rates.

We match the E bond subscription data to data on county voting patterns from Clubb et al. (2006). In order to control for county characteristics, we also match these counties to 1940 county characteristics as reported in historical federal censuses, as compiled in Haines (2010) and from the Consolidated City and County Data Books.

The Consolidated City and County Data Books also include annual data on bank account balances. 19 Like E bond subscriptions, these balances reflect the level of income in a county, as well as savings behavior. Yet unlike the available E bond subscription data, bank balances reflect the stock of funds allocated to those accounts, rather than only the flow for that year. To construct a measure of flows into checking accounts in 1944, which is directly comparable to our measure of E bond subscriptions for that year, we decompose 1944 stock of bank accounts into two components: the 1943 value of the stock, plus the difference between the county's balances in 1944 and those of 1943—the 1944 flow. We include both components in our regression, and compare the effect of the latter to the effect of E bond subscriptions to determine whether E bond subscriptions had unique political effects.

We also include war spending data by county, which has been reconstructed from the microdata on individual war production contracts tabulated by the Civilian Production Administration (1946),<sup>20</sup> supplemented by war facilities spending as reported in the 1947 County Data Book. Finally, in order to obtain a measure of pre-war wage income, we use the full-count microdata from the 1940 census to compute median wage income in each county (conditional on having wage income), and the share of households whose income was top coded.

<sup>&</sup>lt;sup>18</sup> Authors' calculations using 1939 population as denominator, from quarterly E bond sales data as reported in Treasury Bulletins dating from February 1942 to August 1947 (data ending with Q2 1947).

<sup>&</sup>lt;sup>19</sup> The banking data were digitized and made available to us by Paul Rhode.

<sup>&</sup>lt;sup>20</sup> War production contracts are listed by the city and state of the main establishment of production. These locations were mapped to counties by Gillian Brunet and Elisabeth Perlman.

Appendix Table A1 presents summary statistics for our main variables, which together are available for 2,950 counties. The mean and interquartile range for our measure of E bond subscriptions in 1944 (107 and 76 dollars, respectively) was quite similar to that of our measure of inflows into bank accounts in 1944 (115 and 75), making the estimates obtained for those two variables easily comparable.

To assess whether E bond owners supported Republicans at higher rates at all times, not just during the war, we use Gallup poll data on voting intentions. In a subset of the polls presented in Figure 3, respondents were asked which party they would prefer to win in the next election. In Appendix Figure A2, we present results of regressions in which we estimate the effect of E bond ownership on support for the Republican party among respondents. The data in the figure show that the bond drives expanded war bond ownership among the population, E bond owners became no more likely than non-owners to prefer the Republican party.

## 4.2 Baseline Analysis

Some initial evidence indicating that E bond purchases may have played a role in Eisenhower's victory in 1952 is presented in Figures 8a and 8b. The top panel presents a map of E bond subscription rates in 1944, by county. The bottom panel shows the change in the Republicans' vote share between the presidential elections of 1944 and 1952, and is shaded so that areas that showed stronger support for Republicans are darker. There are many similarities between the two maps. The darker areas in the E bond map, such as Iowa, northern North Dakota, Montana, and some counties in the far west correspond to places that shifted toward the Republicans at high rates. Likewise, the lighter areas of the E bond map, such as much of New Mexico, Missouri, Kentucky, and West Virginia, did not shift toward the Republicans. Yet there are also some differences; the general trend towards the Republicans in the South does not correspond to high E bond subscription rates across that region.

To analyze this variation more rigorously and expand the set of elections included, we construct a panel of county election data from 1936 to 1956. To sweep out the regional trends evident in Figure 8b, we use state-by-year fixed effects in our analysis, to use only variation within states. More formally, we first estimate regressions of the form:

Repshare 
$$_{ist} = \alpha_i + \gamma_{st} + \sum_{t=1936}^{1956} \delta_t ebonds 44_i \times year_t + \varepsilon_{ist},$$
 (1)

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<sup>&</sup>lt;sup>21</sup> In the 1952 election, the Republican candidate (Eisenhower) appeared on the ballot as an "Independent" in Mississippi and South Carolina. This renders the votes for the Republican party as recorded in Clubb et al. (2006) an inaccurate reflection of the share of votes won by Eisenhower. We therefore delete those states from our analysis.

where  $Repshare_{ist}$  is the percentage of the vote won by the Republican presidential candidate in county i, state s, and year t;  $\alpha_i$  is a county fixed effect;  $\gamma_{st}$  is state-by-year fixed effects;  $ebonds44_i$  is the subscription rate for E bonds in 1944 (total sales in county i divided by 1940 adult population) in county i; and  $year_t$  is year fixed effects.

The results are presented in Figure 9, with 1944 as the excluded year. Reassuringly, the estimates in the figure show no evidence of differential changes prior to 1944; counties with high E bond subscription rates in 1944 were not trending toward the Republicans in presidential elections prior to that year. After the 1944 election, the effect of E bond subscriptions becomes positive in 1948, although insignificant, and then positive and statistically significant in 1952-56. These effects were unlikely to have been decisive, at least on average; a one-SD increase in E bond rates led to a 1.23 percent increase  $(=0.063 \times 19.498)$  in the vote share for the Republicans in 1952, whereas the median county share of the Republicans was 46.9 percent. Yet E bond purchases clearly contributed to support for Eisenhower.

A natural concern regarding those results might be that they simply capture the effect of higher-income counties (or counties that were different along other dimensions) turning toward the Republicans in 1952 for reasons other than E bonds and inflation. To investigate the role of other county characteristics that may have influenced both E bond subscriptions and election outcomes, we estimate a version of our model with E bonds and many other county characteristics interacted with a post-1944 indicator, rather than separate year indicators:

$$Repshare_{ist} = \alpha_i + \gamma_{st} + \delta ebonds44_i \times post44_t + \beta_t X_i \times post44_t + \varepsilon_{ist}, \tag{2}$$

where  $post44_t$  is the indicator for presidential elections after 1944,  $X_i$  is a vector of various county characteristic controls (also interacted with post-1944), and the other variables retain their previous definitions.

The results of these regressions are reported in Table 4. In column (1), we control for bank account balances in 1943, which reflect accumulated income, as well as the change in bank accounts from 1943 to 1944, which measures the new inflows into bank accounts in 1944, the same year in which we observe E bond purchases. The estimated effect of E bond purchases implies that on average over the postwar elections in our sample (1948-56), a one-SD increase in E bond sales led to an increase in the Republican vote share of 0.89 percentage points, an effect that is highly statistically significant, but modest in size.<sup>22</sup>

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<sup>&</sup>lt;sup>22</sup> In Appendix Figure A1, we present the effects of E bonds on the Republicans' vote share across states for the 1952 election, using the  $\delta$  obtained from estimating Equation (2) from state-level data. The counterfactual shares presented in the figure suggest that the effect of E bonds was too small to be decisive in all but a handful of states.

The parameters for both bank account variables are positive, indicating that counties with higher levels of income and savings shifted toward the Republicans. Yet the estimated effect of inflows into bank accounts in 1944 was less than half the size of the estimate for E bonds, and the difference is statistically significant (p = 0.034). This differences suggests that balances invested in E bonds were more politically significant than balances held in bank accounts, and that efforts to shift savings out of bank accounts and into E bonds had lasting political effects.

In column (2), we add per capita war production contracts, and find that war production had strongly negative effects on Republican vote shares after 1944. War spending appears to have fostered loyalty to the Democratic party, and counties receiving large amounts of it shifted toward the Republicans at much lower rates. In column (3), we add median wage income and the share of incomes that were top coded, from the 1940 census. Median wage incomes had a small but significantly positive estimated effect on the Republican vote share, whereas the share of top-coded incomes does not seem to matter. In columns (4) and (5), we add other county characteristics (from the 1940 Census) that likely influenced voting patterns. Even when all these county characteristics (interacted with post-1944) included in the regression, the effect of E bond subscriptions remains quite robust. Finally, in column (6), we restrict the sample to the 1944-52 elections and find similar effects, indicating that the result does not depend on including long pre- and post-periods.

Another concern regarding these results might be that they are driven by strong effects in particular regions where E bonds sold particularly well or where shifts in support for Republicans occurred for other reasons. In Table 5, we further explore the robustness of our results to changes in the sample. In the columns of the table, we drop the South, the far west, the northeast, and the smallest counties (those in the bottom 5 percent of population), and in each case we obtain very similar estimates. One noteworthy result from this exercise is that the coefficient on the share of the population that is Black, which is strongly positive, changes sign and becomes strongly negative when the South is dropped, reflecting gains in support for the Democrats within counties with large Black populations outside the South.

The strong positive effect of the Black population share on support for the Republicans was driven entirely by counties within the South, where Black Americans were disenfranchised. As Black and Black (2003: 22) note, in the South in the 1950s, "the size of the black population served as an indicator of racial traditionalism among white Democrats. The larger the black population, the more "southern Democratic" the behavior of native whites." These white voters in the South shifted differentially toward the Republicans, although from a very low initial level. In 1952 Eisenhower won the states of Virginia, Tennessee, Florida and Texas, but none of the deep South states, where loyalty to the segregationist elements of the Democratic Party was strongest.

Finally, in column (6) of the table we expand the sample from our usual 20-year period of 1936-56 to a 40-year period, 1928-68. The estimated effect is smaller, but it remains statistically significant. This suggests the effects of this episode echoed into the 1960s, although at a much lower level.

# 4.3 IV Analysis

To address the concern that some unobserved time-varying factor may have been responsible both for E bond ownership and subsequent political behavior, we instrument for E bond subscriptions in 1944 using county subscription rates for the liberty bonds of WWI. Liberty bond participation rates are a valid instrument in our setting if they produced changes in electoral preferences in the 1950s only through WWII war bond ownership, which we find plausible. The 1918 subscription rates for liberty bonds (measured as subscribers per capita) occurred sufficiently far in the past to be considered unrelated to current income, especially in a framework where 1944 bank deposits and county fixed effects are included in the regression. WWI subscription rates were driven in part by the approaches taken to the marketing of the bonds, with some counties adopting a highly centralized approach that quite effectively reached a large share of the population (see Hilt et al. 2022). The local lessons learned from the liberty bond campaigns were remembered and adopted in the promotion of the E bonds.

We present the results in Table 6. In column (1) of the table, we report a baseline OLS regression, which is the specification of column (3) of Table 4. Then in column (2), we instrument for  $ebonds44_i \times post44_t$  with  $libertybonds_i \times post44_t$ , and estimate the same regression via 2SLS. The F-statistic is reasonably strong, about 17, and the first stage shows a clear positive effect of liberty bond subscriptions on E bond subscriptions at the county level, in a framework with state-by-year fixed effects. The IV estimate in column (2) is larger than the OLS estimate, but not unreasonably so. In columns (3) through (5), we add additional controls and change the sample as in columns (4) though (6) of Table 4. Although the estimated effect of E bonds varies somewhat in magnitude, we consistently find a strong positive effect on the Republicans' vote share in presidential elections. The analysis thus helps rule out the potential that the previous results are being driven by unobserved county characteristics.

## 4.4 Patriotism as an Alternative Explanation for the Results

The argument of this paper holds that economic motives were responsible for the relationship we find between E bond subscriptions and shifting political preferences. Yet it is possible that ideological motives may instead account for that relationship. Counties subscribing to E bonds at high rates may have been more supportive of the war effort, more patriotic, or more nationalistic, which may have influenced their subsequent political choices if the Republican party's agenda or if Republican candidates became more appealing to voters with those views in the 1950s.

For example, the Republicans' candidate for president in 1952 and 1956, Dwight Eisenhower, may have been especially appealing to voters who were strongly supportive of the war effort and subscribed to E bonds at high rates.<sup>23</sup> This could potentially explain the strong effect of E bond subscriptions on the Republican vote share that we find in those years (recall Figure 6). Yet in Appendix Table A2, we present estimates of Equation (2) applied to Congressional elections, and find effects very similar to the ones we obtained for presidential elections. This suggests that Eisenhower's candidacy for president is unlikely to be responsible for our results, as we find evidence of stronger support for Republican congressional candidates, not just for president.

More difficult to rule out would be that voters who supported the war effort at higher rates also supported the Republicans at higher rates after 1944, due to that party's anticommunist agenda during the Cold War, or due to some other foreign policy issue. Anticommunism was by no means a unique to the Republicans; in 1947 President Truman enacted an executive order that led to the investigation of the loyalties of millions of government employees. Yet the Republicans accused the Democrats of being 'soft on communism' and may have been more appealing to nationalist or anticommunist voters. To address this concern, we use two alternative measures of support for the war effort: the rate at which people volunteered for service and the rate at which service members from the county were awarded medals, which are both from Caprettini and Voth (2023). To the extent that those variables identify the strength of support for the war effort in a county, their inclusion in our regressions as controls should help address this concern.

The results of regressions of the form of Equation (2) with those variables added as controls are reported in Table 7. In column (1), we first regress the Republican vote share on the two measures of support for the war effort, and find that both were in fact associated with stronger support for the Republicans after 1944. Yet in column (2), when we include E bond subscriptions, the estimate we obtain is similar to the one from Table 4, and the coefficient on medals becomes small and insignificant. In column (3), we add our full set of additional controls, and in column (4), we estimate our IV specification, and the estimate we obtain for E bond remains similar to what was found with the same specification without the service variables, although the IV estimate is noisier. It is impossible to rule out that E bonds were uniquely associated with nationalism and a preference for the Republicans' hardline Cold War agenda. However, the fact that E bonds had a strong effect on the Republican vote share even conditional on other measures of support for the war suggests that they affected voting behavior through voters' evolving views on E bonds as financial assets.

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<sup>&</sup>lt;sup>23</sup> As Supreme Commander of the Allied Expeditionary Force in Europe, Eisenhower had planned and commanded the D-Day invasion in 1944, and later served as Army Chief of Staff and Supreme Commander of NATO.

## 5. Conclusion

This paper has analyzed the role of war bond ownership in presidential elections in the 1950s. The E bonds were well designed for retail investors, and offered an attractive nominal return relative to prevailing interest rates. The promotion of E bonds to American households encouraged them to postpone consumption, which may have helped control inflationary pressures during the war, while also raising funds to finance war spending. More importantly, the program avoided the coercive measures that would have been necessary under the forced savings programs that were proposed as alternatives, and provided an opportunity to wage enormous propaganda campaigns in support of the war effort. In most respects, the E bond campaigns of WWII were a tremendous success.

Yet by inducing households to allocate their savings into E bonds with the claim that they were excellent long-term investments, the campaigns made Americans more sensitive to inflation after WWII, and created a constituency for anti-inflation policies. When an unexpected surge of inflation during the onset of the Korean War made it clear that a sustained postwar deflation would not occur, voters shifted their preferences towards the Republicans, who made controlling inflation a central campaign promise. We find that E bond ownership was a significant determinant of the shift in voters' preferences towards the Republicans, especially in the elections of 1952 and 1956.

With the benefit of hindsight, it is clear that the Truman Administration's very public resistance to the Fed's efforts to control inflation in 1951 was a mistake. During WWII and in the years that followed, the Fed maintained a policy of pegging the interest rates paid by long-term government securities by purchasing them in large quantities. In response to high inflation in late 1950, the Fed sought to end this policy, but was vigorously opposed by Truman and the Treasury.<sup>24</sup> Ultimately the conflict became heated, and was resolved through the negotiation of the Treasury-Fed Accord in 1951, which helped establish the foundations of the Fed's modern independence (see Hetzel and Leach, 2001; Conti-Brown, 2017).

The Republican Party's 1952 platform advocated for "A Federal Reserve System exercising its functions in the money and credit system without pressure for political purposes from the Treasury or the White House," calling attention to Truman's efforts to force the Fed to maintain lower rates. If Truman had permitted the Fed to alter its policy and act to control inflation at an earlier date, the costs of servicing the federal debt would have been higher, but the public might not have seen the Democrats as the party of high inflation.

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<sup>&</sup>lt;sup>24</sup> Truman was motivated in part by a desire to protect households by preventing a depreciation in the values of Treasuries that would result from rate increases, which had happened with the WWI liberty bonds (see Hilt and Rahn, 2020). He apparently failed to recognize that E bonds were nonnegotiable and would not be affected by interest rate changes.

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**Table 1: Bond Drives of World War II (Amounts in Billions of Dollars)** 

	First Dec '42	Second Apr-May '43	Third Sep-Oct '43	Fourth Jan-Feb '44	Fifth Jun-Jul '44	Sixth Nov-Dec '44	Seventh May-Jun '45	Victory Oct-Dec '45
Total Goal	9	13	15	14	16	14	14	11
Total Raised	12.9	18.6	18.9	16.7	20.6	21.6	26.3	21.1
Goal for E Bonds			3	3	3	2.5	4	2
Raised from E Bonds	0.726	1.473	2.5	3.2	3.036	2.9	3.976	2.2

Source: Annual Report of the Secretary of the Treasury, various years.

Table 2: Holdings of Liquid Assets, by Income Group, 1947-51

				Aı	nnual Inco	me:		
			1,000	2,000	3,000	4,000	5,000	
		1 to	to	to	to	to	to	7,000
	All	999	1,999	2,999	3,999	4,999	6,999	and up
Savings bond holdings	653.5	137.9	197.4	362.5	519.1	999.5	1,472.2	3,138.6
Other US bond holdings	140.0	14.5	42.5	49.6	23.1	158.8	102.3	1,339.0
Savings account balance	747.5	265.6	356.4	502.3	738.6	965.9	1,418.1	2,778.0
Checking account balance	353.1	74.1	114.7	148.3	217.1	368.5	501.7	2,560.5
Currency holdings	56.3	20.9	44.1	54.1	71.4	59.5	64.3	111.8
Savings bonds/all liquid								
assets	0.34	0.27	0.26	0.32	0.33	0.39	0.41	0.32

Source: Authors' calculations from the Survey of Consumer Finances (SCF), 1947-51. The year 1947 was the first year of the SCF. The total number of households included in the table is 16,119.

Table 3: E Bond Returns, 10-Year Holding Periods

Holding Period	Nominal Annual Return	Realized Real Annual Return
Dec '41 - Dec '51	2.900%	-2.478%
Jun '42 - Jun '52	2.900%	-2.004%
Dec '42 - Dec '52	2.900%	-1.711%
Jun '43 - Jun '53	2.900%	-1.397%
Dec '43 - Dec '53	2.900%	-1.461%
Jun '44 - Jun '54	2.900%	-1.402%
Dec '44 - Dec '54	2.900%	-1.210%
Jun '45 - Jun '55	2.900%	-1.052%
Dec '45 -Dec '55	2.900%	-1.021%

Notes: This table presents the annual nominal and real rate of return received by owners of E bonds, assuming they held their bonds to maturity, for different purchase dates. The nominal returns to holding E bonds were fixed at 2.9% if held for the full ten-year maturity; it was lower if held for shorter periods.

Table 4: Effect of E Bonds on Republicans' Vote Share in Presidential Elections, 1936-56

-	(1)	(2)	(3)	(4)	(5)	(6)
Post-1944 ×			•	•		
E Bond purchases per capita, 1944	14.277**	16.385**	15.410**	17.933**	18.254**	16.368**
	(2.748)	(2.922)	(2.819)	(2.826)	(2.835)	(3.410)
Bank deposit inflows per cap, 1944	6.672**	6.232**	6.282**	6.683**	7.049**	3.154
	(2.031)	(2.032)	(1.948)	(1.967)	(1.922)	(2.015)
Bank deposits per capita, 1943	3.624**	3.692**	2.499**	2.031**	2.567**	1.583*
	(0.664)	(0.668)	(0.652)	(0.644)	(0.640)	(0.703)
War spending per capita		-0.123*	-0.327**	-0.383**	-0.419**	-0.348**
		(0.060)	(0.064)	(0.064)	(0.064)	(0.071)
Median wage income			0.004**	0.004**	0.002**	0.001
			(0.000)	(0.001)	(0.001)	(0.001)
Share incomes top coded			-1.495	-2.202	-0.671	-1.540
			(1.586)	(1.576)	(1.558)	(1.698)
Share Black				12.131**	16.066**	14.609**
				(1.089)	(1.188)	(1.408)
Adult population (000s)				-0.005**	-0.003*	-0.002
				(0.002)	(0.001)	(0.001)
Share urban				0.015*	0.003	0.008
				(0.007)	(800.0)	(0.009)
Share agricultural workers					-15.380**	-13.404**
					(2.560)	(2.779)
Share owner occupied housing					7.488**	4.122*
					(1.543)	(1.706)
Constant	49.870**	49.756**	49.221**	47.794**	47.041**	50.242**
	(0.301)	(0.306)	(0.312)	(0.326)	(1.148)	(1.246)
Observations	17,270	17,270	17,258	17,258	17,258	8,674
R-squared	0.967	0.967	0.967	0.968	0.969	0.977
County FE	YES	YES	YES	YES	YES	YES
State × Year FE	YES	YES	YES	YES	YES	YES
Sample	1936-56	1936-56	1936-56	1936-56	1936-56	1944-52
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Notes: This table presents estimates of Equation (2), with the E bond subscription rate for 1944, along with various other controls, interacted with a post-1944 indicator in a panel of counties with the Republican vote share as the dependent variable and county and state-by-year fixed effects. In columns (1) through (5) the sample period is 1936-56; in column (6) the sample is shortened to 1944-52. Robust standard errors clustered by county are presented in parentheses; \*\* p<0.01, \* p<0.05, + p<0.1

Table 5: Effect of E Bonds on Republicans' Vote Share in Presidential Elections, Alternative Samples

	(1)	(2)	(3)	(4)	(5)	(6)
		Dran	Duan	D===	Drop	Long
	Baseline	Drop South	Drop Far West	Drop Northeast	Small	Panel 1928-68
Post-1944 ×	Daseille	South	rai Wesi	Northeast	Counties	1920-00
E Bond purchases per capita, 1944	18.254**	15.866**	19.794**	20.138**	18.082**	11.510**
E Bond purchases per capita, 1944				(3.097)		
Bank deposit inflows per cap, 1944	(2.835) 7.049**	(2.509) 5.042**	(3.023) 9.037**	6.663**	(3.018) 6.589**	(2.614) 8.743**
Bank deposit innows per cap, 1944	(1.922)	(1.738)	(2.050)	(2.004)	(1.981)	(2.002)
Pank dangaita par agaita 1042	2.567**	1.210*	(2.030) 3.147**	(2.004) 2.727**	(1.901) 2.451**	(2.002) 2.772**
Bank deposits per capita, 1943	(0.640)	(0.565)	(0.685)	(0.714)	(0.662)	(0.672)
Mar an anding par agnita	(0.640) -0.419**	-0.316**	(0.665) -0.418**	-0.485**	-0.406**	-0.301**
War spending per capita						
Madian waga inggma	(0.064)	(0.061)	(0.066)	(0.069)	(0.064)	(0.064)
Median wage income	0.002**	0.002*	0.001*	0.002**	0.001+	-0.001
Chara in compare to a code d	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Share incomes top coded	-0.671	-2.152	-1.278	-0.885	-0.352	2.151
Oh Dii-	(1.558)	(1.517)	(1.592)	(1.595)	(1.587)	(1.633)
Share Black	16.066**	-9.001**	13.871**	16.138**	16.215**	17.459**
A I I ( (000 )	(1.188)	(2.917)	(1.248)	(1.200)	(1.198)	(1.269)
Adult population (000s)	-15.380**	-6.793*	-16.165**	-14.872**	-16.135**	-2.560
	(2.560)	(2.831)	(2.767)	(2.647)	(2.658)	(2.468)
Share urban	7.488**	6.907**	6.641**	7.610**	7.188**	1.908
	(1.543)	(1.878)	(1.627)	(1.590)	(1.588)	(1.636)
Share agricultural workers	-0.003*	-0.002	-0.004*	-0.002+	-0.003*	-0.004**
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Share owner occupied housing	0.003	0.010	0.000	0.002	0.008	-0.001
	(800.0)	(0.007)	(800.0)	(800.0)	(0.008)	(800.0)
Constant	47.041**	54.559**	47.732**	45.611**	47.153**	38.866**
	(1.148)	(1.375)	(1.208)	(1.169)	(1.206)	(1.165)
Observations	17,258	11,310	15,682	15,980	16,693	31,806
R-squared	0.969	0.955	0.969	0.967	0.969	0.928
County FE	YES	YES	YES	YES	YES	YES
State × Year FE	YES	YES	YES	YES	YES	YES

Notes: This table presents estimates of Equation (2), with the E bond subscription rate for 1944, along with various other controls, interacted with a post-1944 indicator in a panel of counties with the Republican vote share as the dependent variable and county and state-by-year fixed effects. The regression in column (1) is the same as that of column (5) in Table 4, and in subsequent columns the sample is changed. In column (2), the South, defined as the states that seceded in the Civil War, is dropped; in column (3) the states of the 12<sup>th</sup> Federal Reserve district are dropped; in column (4), New England and NY, NJ and PA are dropped; in column (5) counties at or below the bottom 5% in adult population are dropped; and in column (6) the panel is expanded from 1936-56 to 1928-68. Robust standard errors clustered by county are presented in parentheses; \*\* p<0.01, \* p<0.05, + p<0.1

Table 6: IV Regressions: Effect of E Bonds on Republicans' Vote Share in Presidential Elections, 1936-56

	(1)	(2)	(3)	(4)	(5) 1944-52
	OLS	IV-2SLS	IV-2SLS	IV-2SLS	IV-2SLS
Post-1944 ×					
E Bond purchases per capita, 1944	15.410**	44.928*	33.832*	37.635*	46.000*
	(2.819)	(18.194)	(16.479)	(16.931)	(18.416)
Bank deposit inflows per cap, 1944	6.282**	0.872	0.779	0.823	-1.049
	(1.948)	(2.837)	(2.923)	(2.960)	(2.880)
Bank deposits per capita, 1943	2.499**	-0.769	-0.960	-0.828	-3.417+
	(0.652)	(1.676)	(1.670)	(1.657)	(1.861)
War spending per capita	-0.327**	-0.542**	-0.465*	-0.541**	-0.504*
	(0.064)	(0.201)	(0.189)	(0.199)	(0.214)
Median wage income	0.004**	0.004**	0.003**	0.001	-0.000
	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Share incomes top coded	-1.495	-0.420	-1.422	0.072	-0.636
	(1.586)	(1.849)	(2.030)	(2.136)	(2.083)
Share Black			8.661**	12.111**	10.838**
			(1.317)	(1.540)	(1.503)
Adult population (000s)			-0.001	-0.001	0.001
			(0.001)	(0.001)	(0.001)
Share urban			0.028*	0.019+	0.027*
			(0.011)	(0.011)	(0.011)
Share agricultural workers				-13.454**	-9.369**
				(3.471)	(3.586)
Share owner occupied housing				6.669**	3.499+
				(1.917)	(1.938)
Observations	17,258	8,125	8,125	8,125	4,087
R-squared	0.967	0.860	0.866	0.867	0.852
County FE	YES	YES	YES	YES	YES
State × Year FE	YES	YES	YES	YES	YES
Kleibergen-Paap F		13.30	14.14	13.58	13.43

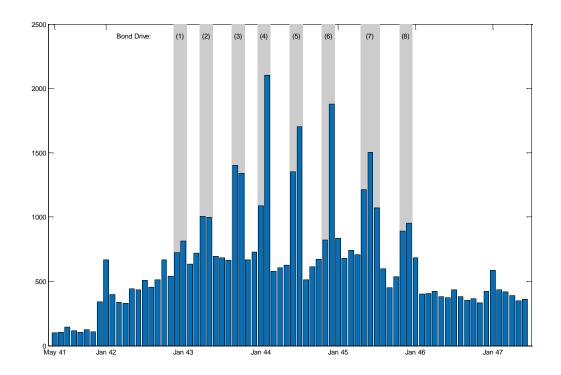
Notes: This table presents estimates of Equation (2), where we instrument for E bonds x post-1944 with the subscription rate for WWI liberty bonds x post-1944. The liberty bond data are available for 1,432 counties and are from Hilt and Rahn (2020). Columns (2), (3) and (4) have the same specifications as columns (3) (4) and (5) of Table 4, only estimated via 2SLS. The F statistics for the first stage are presented in the bottom row of the table. Robust standard errors clustered by county are presented in parentheses; \*\* p<0.01, \* p<0.05, + p<0.1

Table 7: E Bonds, 'Patriotism,' and Electoral Outcomes

	(1)	(2)	(3)	(4)
				IV-2SLS
Post-1944 ×				
E Bond purchases per capita, 1944		12.068**	18.101**	77.863*
		(2.600)	(2.888)	(37.448)
World War II volunteers per capita	3.149**	1.496**	1.747**	-0.982
	(0.514)	(0.491)	(0.482)	(1.048)
World War II medals per capita	1.685*	0.398	0.002	0.726
·	(0.800)	(0.816)	(0.775)	(1.229)
Observations	17,793	17,144	17,138	8,023
R-squared	0.964	0.967	0.969	0.849
County FE	YES	YES	YES	YES
State x Year FE	YES	YES	YES	YES
			Same as	Same as
Additional Controls	None	None	Table 4,	Table 6,
			Column (5)	Column (2)
Kleibergen-Papp F			<u></u>	8.943

Notes: This table presents estimates of Equation (2), where we include measures of volunteers per capita and medals per capita from Caprettini and Voth (2023) as additional controls. The regression in column (3) includes all the same controls as that of column (5) of Table 4: bank deposit inflows per capita for 1944, bank deposits per capita for 1943, war spending per capita, and the 1940 values of median wage income, the share of incomes top coded, the share Black, the adult population (in 000s), the share urban, the share agricultural workers, and the share of owner occupied housing, all interacted with a post-1944 indicator. The regression of column (4) includes all the same controls as that of column (2) of Table 6: bank deposit inflows per capita for 1944, bank deposits per capita for 1943, war spending per capita, and the 1940 values of median wage income, and the share of incomes top coded, all interacted with post-1944.Robust standard errors clustered by county are reported in parentheses; \*\* p<0.01, \* p<0.05, + p<0.1

Figure 1: Monthly Sales of E Bonds, 1941-46



*Notes:* This figure presents monthly sales of E bonds from 1941 to 1946. The time periods of the eight bond drives are highlighted in grey. *Source: Annual Report of the Secretary of the Treasury*, various years.

Figure 2: Household Saving, 1929-60



Source: Authors' calculations using data from Bureau of Economic Analysis.

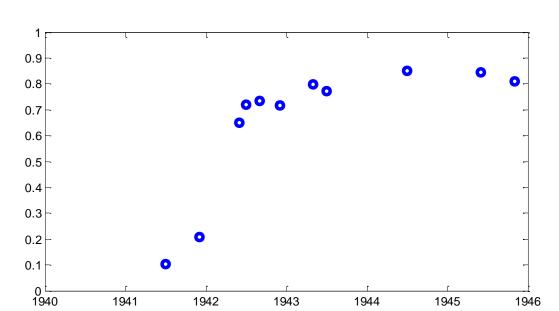


Figure 3: Share of the Adult Population Owning War Savings Bonds

Notes: This figure presents the share of the adult population reporting that they owned war savings bonds, as reflected in responses to Gallup polls. Prior to the 1950s, Gallup used 'quota-controlled' samples; political scientists have developed weights that can be used to make the results nationally representative (see Caughey et al., 2020). All polls that ask the question "Have you bought any War Bonds as yet?" (or a similarly worded question) for which weights are available are included in the figure. The data points in the figure are calculated using the 'WtPubComp' weights, which produce results that are comparable across years. Sample sizes typically range from 2,700 to 3,000. Source: Authors' calculations from Gallup polls 1941-0239, 1941-0251, 1942-0267, 1942-0270, 1942-0273, 1942-0282, 1942-0293, 1943-0296, 1944-0321, 1945-0344, and 1945-0357, accessed via the Roper Center's ipoll website (https://ropercenter.cornell.edu/ipoll/).

1936 Election 1944 Election 1952 Election 1932 Election 1940 Election 1948 Election 1956 Election 12 World War I

Figure 4: Monthly CPI Inflation Rates and Presidential Elections, 1930-1960

Notes: This figure presents monthly inflation rates from 1930 to 1960, as measured using the CPI, and calculated as the percentage change from the previous year. The months of presidential elections are marked with a vertical line. The time periods of WWII and the Korean War are highlighted in grey. Source: FRED series M04128USM350NNBR.

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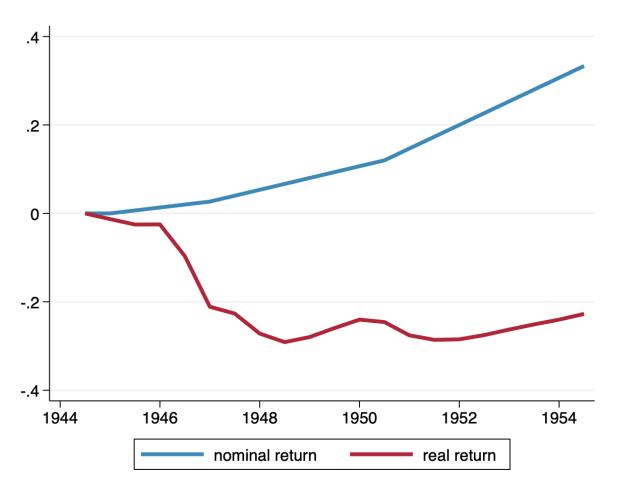
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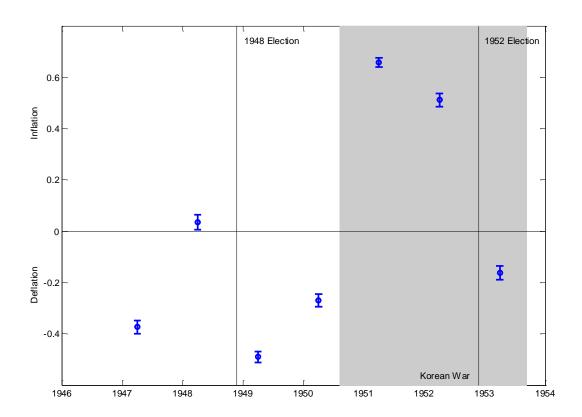
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Figure 5: Cumulative Nominal and Real Returns for an E Bond Purchased in June 1944



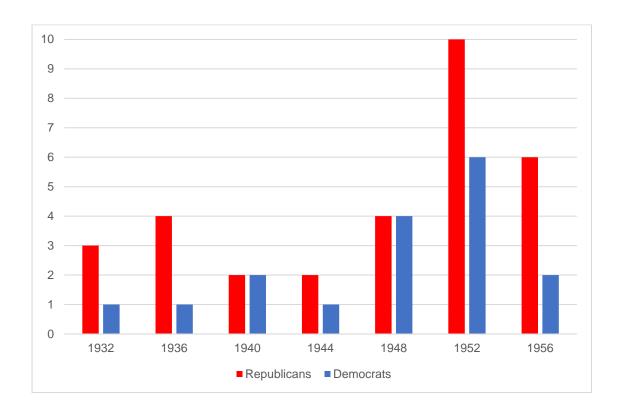
*Notes:* This figure presents the cumulative nominal and real returns to owning an E bond that was purchased in June 1944; the two series show the cumulative returns received if held to the date marked on the horizontal axis and redeemed. Nominal returns are calculated from the redemption schedule for E bonds which lists redemption values for 6-month holding periods. Real returns are calculated using inflation rates from the CPI.

Figure 6: Surveyed Inflation Expectations, 1947-1953



*Notes:* This figure presents the margin by which inflation or deflation was expected by respondents to the Survey of Consumer Finances (SCF) in the survey years 1947-53. Each data point is calculated as the difference between the share of survey respondents expecting inflation and the share of respondents expecting deflation; negative values correspond to a greater fraction expecting deflation than inflation. The error bars show two times the standard error of the difference in each direction. The SCF was administered in the first quarter of the year.





Notes: This figure presents counts of sentences that mention inflation in the Republicans' and Democrats' party platforms from 1932 to 1956. Terms that have meanings that are closely related to inflation are counted; these include, for example, "cost of living," "honest dollar," "rising prices," "integrity of the currency," "high prices," "sound currency," and "value of the dollar," among others.

Figure 8a: E Bond Subscriptions Per Capita, 1944

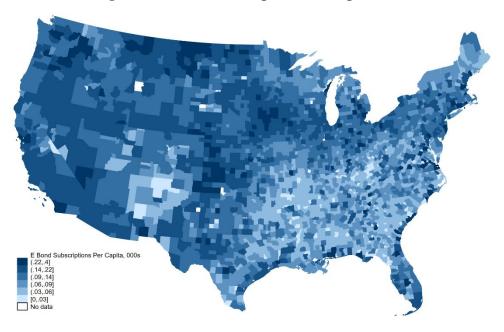
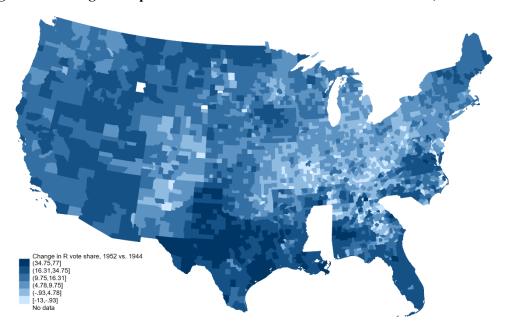
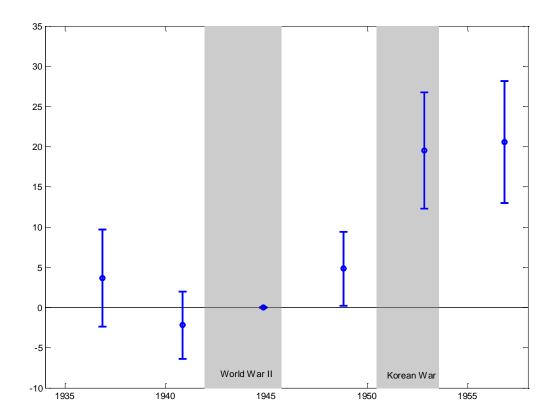


Figure 8b: Change in Republicans' Vote Share in Presidential Elections, 1952 vs. 1944



*Notes:* This figure presents choropleth maps of 1940 counties shaded by E bond subscriptions per adult capita (7a, top) and the change in the Republican Party presidential vote share from 1944 to 52, (7b, bottom). In the bottom figure no data are available for South Carolina and Mississippi because the Republican candidate appeared on the ballot as an Independent.

Figure 9: Effect of 1944 E Bond Subscriptions on the Republicans' Vote Share in Presidential Elections, 1936-56



*Notes:* This figure presents estimates of Equation (1), in which the Republican vote share in presidential elections is regressed on E bond subscriptions x election year interactions, in a panel model with county and state-by-election year fixed effects, and the 1944 interaction excluded. The error bars depict two standard errors (which account for clustering by county) in either direction. The periods of World War II and the Korean War are highlighted in grey.

**Appendix: Additional Figures and Tables** 

**Table A1: Summary Statistics, Main Variables** 

			25th	50th	75th
	Mean	SD	pctile	pctile	pctile
Republican vote share, 1944, in percentage points	42.1	20.7	25.2	46.9	58.3
E bond purchases per adult, 1944, in 000s	0.107	0.062	0.062	0.094	0.138
Bank deposit inflows per adult, 1944, in 000s	0.115	0.069	0.070	0.103	0.145
Bank deposit balances per adult, 1943, in 000s	0.488	0.286	0.275	0.443	0.639
War spending per adult	0.775	1.832	0.000	0.030	0.607
Median wage income, 1940	383.1	356.9	103.0	292.5	570.8
Share of incomes top coded by census, 1940	0.057	0.063	0.012	0.031	0.081
Share of the population that is Black, 1940	0.106	0.176	0.001	0.013	0.132
Share of the population that is agricultural workers, 1940	0.179	0.093	0.105	0.184	0.250
Share owner occupied housing, 1940	0.499	0.114	0.434	0.509	0.574
Adult population, 1940, in 000s	26.4	91.5	6.5	11.2	19.9
Share urban, 1940, in percentage points	23.2	24.4	0.0	19.0	39.0

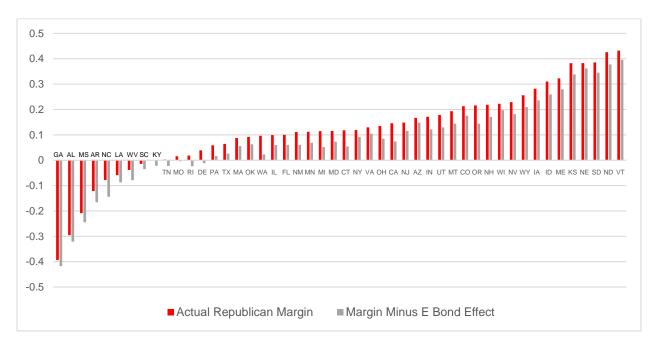
Notes: This table presents summary statistics for our main variables, which are available for 2,950 counties

Table A2: Effect of E Bonds on Republicans' Vote Share in Congressional Elections, 1934-58

	(1)	(2)	(3)	(4)	(5)	(6)
Post-1944 x						
E Bond purchases per capita, 1944	11.279**	15.646**	15.974**	15.618**	15.731**	17.032**
	(3.248)	(3.563)	(3.579)	(3.672)	(3.662)	(3.466)
Bank deposit inflows per cap, 1944	10.863**	9.757**	9.849**	9.468**	9.319**	6.141*
	(2.706)	(2.724)	(2.719)	(2.775)	(2.757)	(2.472)
Bank deposits per capita, 1943	0.895	1.140	1.207	1.585+	1.677+	-0.333
	(0.831)	(0.831)	(0.835)	(0.876)	(0.864)	(0.829)
War spending per capita		-0.289**	-0.264**	-0.249**	-0.267**	-0.219*
		(0.082)	(0.085)	(0.086)	(0.087)	(0.096)
Median wage income			-0.000	-0.000	0.001	-0.002+
			(0.001)	(0.001)	(0.001)	(0.001)
Share incomes top coded			4.557+	4.389+	3.593	6.069**
			(2.336)	(2.388)	(2.387)	(2.108)
Share Black				-2.256	-1.146	-3.228+
				(1.454)	(1.575)	(1.939)
Adult population				-0.000+	-0.000	-0.000
				(0.000)	(0.000)	(0.000)
Share urban				-0.001	0.006	0.014
				(0.009)	(0.010)	(0.010)
Share agricultural workers					3.331	-5.523
					(3.404)	(3.518)
Share owner occupied housing					5.216*	0.338
					(2.111)	(2.303)
Constant	40.322**	40.057**	39.854**		36.039**	46.823**
	(0.404)	(0.414)	(0.450)	(0.461)	(1.445)	(1.697)
Observations	28,329	28,329	28,303	28,303	28,303	15,304
R-squared	0.920	0.920	0.920	0.920	0.920	0.949
County FE	YES	YES	YES	YES	YES	YES
State × Year FE	YES	YES	YES	YES	YES	YES
Sample	1934-58	1934-58	1934-58	1934-58	1934-58	1942-54

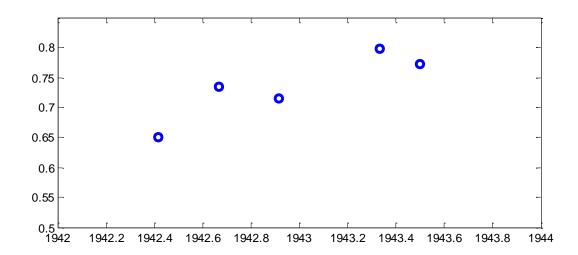
Notes: This table presents the same regressions as Table 4, but using congressional elections from 1934-58, rather than presidential elections from 1936-56. Each column presents estimates of Equation (2), with the E bond subscription rate for 1944, along with various other controls, interacted with a post-1944 indicator in a panel of counties with the Republican vote share as the dependent variable and county and state-by-year fixed effects. Robust standard errors clustered by county are presented in parentheses; \*\* p<0.01, \* p<0.05, + p<0.1

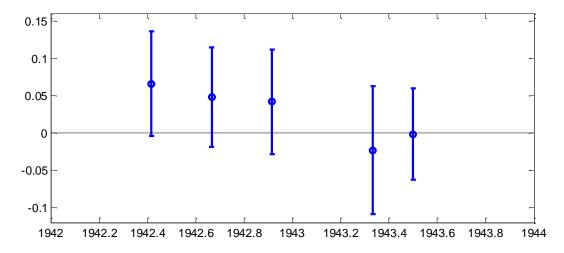
Figure A1: Actual and Adjusted Republican Electoral Margins by State, 1952 Presidential Election



Notes: This figure presents, in red, the Republican margin of victory in each state in the 1952 presidential election. The Republicans won 39 out of 48 states and 442 out of 531 electoral votes in that year. In gray, we present Republican margins of victory with the estimated effect of E bonds removed, under counterfactual assumptions intended to capture an upper-bound E bond effect. To calculate the counterfactual vote shares, we first estimate Equation (2) using state-level data for E bonds and Republican votes with region-by-year fixed effects for 1936-56. We then subtract from each state's actual Republican margin the estimated effect of E bonds ( $\delta$ ) multiplied by that state's 1944 E bond sales per capita. We thus set each state's E bond purchases to 0, and assume there were no changes in other financial holdings such as bank accounts, which would have had offsetting (but smaller) effects. The Republicans won few states by narrow margins; removing the E bond effect from their margin of victory under these assumptions would have caused them to lose only Tennessee, Missouri, Rhode Island and Delaware, which in total had 31 electoral votes.

Figure A2 Share of Adult Population Owning Liberty Bonds and Differential Rates of Support for Republicans Among Liberty Bond Owners, 1942-43





Notes: The top panel of the figure shows the percent of the adult population that reported owning E bonds, from the subset of Gallup polls for which political preference questions were asked. The bottom panel shows the differences, in the same polls, in the support for Republicans among E bond owners compared to survey respondents who did not own E bonds, as estimated from linear regressions with robust standard errors. The questions typically take the form "Leaving the question of candidates aside if the Presidential election were being held today, which party would you vote for?" or "If you were voting for Congressman today, would you be most likely to vote for the Democratic candidate, or the Republican candidate?" As the bond drives spread bond ownership to a greater share of the population, the political preferences of E bond owners became indistinguishable from those of the rest of the population. Source: Authors' calculations from Gallup polls 1942-0267, 1942-0273, 1942-0282, 1942-0293, and 1943-0296, accessed via the Roper Center's ipoll website (https://ropercenter.cornell.edu/ipoll/).