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Financial crises and political radicalization: How failing banks paved Hitler's path to power

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JEL Classification: E44, G01, G21, N20, P16

Keywords: financial crisis, political extremism, populism, Anti-Semitism, Culture, Great Depression

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1 Introduction

Do financial crises fan the flames of fanaticism? Many political commentators and journalists believe this to be the case: on the 10^{th} anniversary of the Lehman collapse, the *Financial Times* headlined its editorial "Populism is the true legacy of the financial crisis".[1] In this perspective, the global financial crisis of 2007-09 not only wrought havoc on employment and output; its problematic aftermath of failing financial institutions, public bailouts, and austerity may have also paved the way for populists around the world. Several cross-country studies have argued that there is a correlation between financial crises and right-wing populist movements (De Bromhead et al., 2013; Funke et al., 2016; Algan et al., 2017). Eichengreen (2018), surveying the period since 1850, emphasizes the importance of economic and financial shocks interacting with cultural identity in the turn toward radicalization.

Nonetheless, cross-country results are often difficult to interpret, and the literature on populism has highlighted drivers other than financial distress.[2] Two recent papers have made important progress by documenting a link between financial shocks and radicalization with detailed micro-data. Gyöngyösi and Verner (2020) show how a currency crisis in Hungary increased votes for a far-right party that promised mortgage relief to indebted households. Braggion et al. (2020) demonstrate that a shock to bank lending in interwar China led to more Communist-supported strikes. However, what is still missing are studies demonstrating that a financial shock can lead to broad-based radicalization of the electorate with major political consequences, and that interaction effects with underlying cultural attitudes matter.[3]

In this paper, we examine the canonical case of a radical government coming to power: Hitler and his Nazi party in 1930s Germany. Following Germany's severe banking crisis in 1931, the Nazi party became the single largest party. Its electoral successes led it into government – a turning point in modern history. Using newly-collected data on cross-sectional exposure to major failing banks, we show that a financial shock led to generalized radicalization of the electorate, directly contributing to the Nazi party

[1] *Financial Times*, 30 August 2018.

[2] These include rising concerns over immigration, growing income inequality, fiscal austerity, and the adverse effects of foreign trade and technology adoption (Dippel et al., 2016; Autor et al., 2017; Becker et al., 2017; Moriconi et al., 2018; Fetzer, 2019).

[3] As Gyöngyösi and Verner (2020) show, the Hungarian example constitutes 'pocketbook voting', i.e., voters effectively "bribed" by a party promising financial relief. Braggion et al. (2020) investigate strikes a decade before the Communists' takeover.

winning office. Importantly, we demonstrate that the financial shock interacted with pre-existing cultural attitudes: the surge in Nazi support in response to the shock was greatest in places with a previous history of anti-Semitism. Not only did the financial crisis lead to broad-based political radicalization shortly thereafter; once the Nazis were in power, both pogroms and deportations were more common in places more affected by the banking crisis.

While different factors contributed to the financial crisis during the summer of 1931, in the public's eye it became largely synonymous with the collapse of Danatbank, Germany's second-largest bank. Following a banking crisis in Austria earlier in May, German banks had endured major foreign deposit withdrawals and interbank deposits declined. Danatbank itself faced unsustainable losses when one of its borrowers, a large textile firm, defaulted. In July 1931, it failed. Newspapers at the time quickly singled out Danat and its leading manager, Jakob Goldschmidt, as key actors during the crisis (Figure 1). As central bank support was limited because of depleted reserves and the political conflict between Germany and France over World War I reparations, Danatbank's troubles triggered a bank run by retail depositors, followed by a system-wide banking crisis (Ferguson and Temin, 2003; Schnabel, 2004; Blickle et al., 2020).

We show that the German banking crisis not only reduced output, but also had important political consequences. It boosted the electoral fortunes of the Nazi Party through both economic and non-economic channels. We collect historical information on bank branch networks and bank connections for the universe of 5,610 joint stock firms.[4] These novel data enable us to reconstruct pre-crisis cross-sectional variation in exposure to failing banks for all major German municipalities. Our empirical strategy exploits that the biggest German banks lent countrywide and that the German economy was heavily bank-based, with persistent bank-firm relations. We establish that municipalities more exposed to collapsing Danatbank suffered sharper economic declines. Their incomes during the crisis fell by 7.8 percentage points (p.p.) more than the average 14 p.p. decline across cities.

Crucially, bank distress bolstered the Nazi Party's performance at the ballot box – localities affected by Danatbank's failure voted significantly more for the Hitler movement. Figure 2 summarizes our key finding: in locations exposed to Danatbank there was a clear upward shift in voting for the Nazis. It added up to 2.9 p.p. to the party's votes

[4]Joint stock companies were responsible for the majority of output and employment in the German economy; only a fraction of them were listed on exchanges.

between September 1930 and July 1932, equal to 15% of its mean vote gain and 37% of the standard deviation. We find no differential pre-trends in support for the NSDAP across cities: before 1932, Danat exposure had no effect on Nazi voting, not even during the early years of Germany's Great Depression in 1930 (see Figure 3).

Pre-existing anti-Semitism amplified the effect of financial distress on radical voting. Some towns and cities had already persecuted their Jewish communities during the Middle Ages, or voted for anti-Jewish parties before 1914; others had no earlier record of anti-Semitism. The surge in Nazi voting was more pronounced in towns and cities with a long history of anti-Semitism: there, Danat's presence added 6 p.p. to the Nazi party's electoral gains – a sizeable increase relative to a mean gain of 17 p.p. from 1930 to July 1932. The link between pre-existing anti-Semitism and the effect of the financial crisis on Nazi voting points to an important synergy between cultural and economic factors. These results are consistent with the Nazis' hate message "selling" more easily in places where a history of anti-Semitism coincided with real suffering induced by financial distress.[5] The Nazis themselves felt that exploiting the financial crisis as evidence of the Jewish-dominated financial system and corrupt democratic Weimar "regime" was crucial in broadening its electoral appeal (VB 28.5.1932). This misguided message was apparently more successful in areas already ill-disposed towards Jews. In line with this hypothesis, we find that the failure of another large bank (Dresdner Bank), which was not singled out during the banking crisis to the same extent, had similar economic effects – but it did not lead to the same surge in Nazi voting as Danat's failure.

In response to the banking crisis, voters were not only radicalized at the ballot box; they also became radicalized in their actions. As the fate of German Jews worsened after 1933, towns and cities more affected by the financial turmoil of 1931 engaged in more persecution. Higher pre-crisis Danatbank exposure is associated with more frequent attacks on synagogues during the *Kristallnacht* pogroms in 1938, more anti-Semitic letters sent to a far-right Nazi newspaper, and higher post-1933 deportation rates of Jews.

A potential concern for identification is that Danat-connected cities may have already been more vulnerable before the crisis. However, Danat-exposure was not systematically correlated with the pre-crisis share of blue-collar workers, the share of Jews or Protestants, income per capita, or the unemployment rate (conditional on city population). We also examine whether Danat-connected *firms* may have already been more vulnerable before

[5]Our findings echo results by D'Acunto et al. (2019). In Germany, anti-finance and anti-Semitic messages often overlapped.

the crisis. Our analysis of firm-level data from the universe of 5,610 joint stock companies, covering two-thirds of total non-financial assets in the German economy, rules this out: pre-crisis leverage of Danat-connected enterprises was identical to that of firms connected to the other great banks, and notably lower than at companies dealing with smaller banks.[6] There were also no significant differences in firm profitability before the crisis.

We further rule out any differential trends in support for the Nazi Party before the banking crisis erupted: Danat exposure does not predict support for the Nazi movement or its predecessor parties in any federal election prior to the banking crisis (1924, 1928, or 1930). A difference-in-differences analysis shows parallel trends in exposed vs. unexposed cities before Danat's failure, but a highly significant differential in each election thereafter. We also find that including city controls and region fixed effects in our regressions leads to no material change in coefficients, while the R^2 increases by over 50 p.p. Unobservables are hence unlikely to explain our finding, reducing potential concerns about self-selection and omitted variable bias (Altonji et al., 2005; Oster, 2019).

Danat expanded geographically in the 1920s. Perhaps, while the average firm associated with it was no riskier than those linked to other banks, new clients were less stable in unobservable ways? To examine this issue, we construct measures of firm- and city-level exposure based on bank-firm connections and branch networks before 1921. In that year, Danat emerged from a takeover of Darmstädter Bank by the Nationalbank. Danat's regional expansions began only thereafter. We find near-identical effects of 1921-involvement with Danat on firms' wages, as well as on city-level output and voting. Similarly, cities with and without Danat exposure exhibit no significant differences in economic conditions between 1929–30 and 1930–31, i.e., during the early years of Germany's Great Depression and prior to the banking crisis.

For a subset of around 400 firms, we can also trace the real effects of credit restrictions on their total payrolls, reflecting wage, salary, and headcount cuts. Firm-level data allow us to control for observable pre-crisis company characteristics such as size, age, profits, and leverage, as well as unobservable shocks at the city or industry level. In firm-level regressions, firms' pre-crisis connections to Danat are associated with an additional 25% reduction in their payroll, compared with companies not linked to the lender. Danat-connected firms see a significantly stronger reduction in their wage bill even when we

[6] Great banks refers to the four largest German banks at the time (so-called *"Großbanken"*). Apart from Danatbank (ca 2,600 million Reichsmark in total assets as of 1930), they included Deutsche Bank (5,200 mn RM), Dresdner Bank (2,500 mn RM), and Commerzbank (1,800 mn RM).

compare firms within the same industry and city: including industry and city fixed effects in our firm-level regressions does not change the size or significance of our coefficients, despite increasing R^2 by more than 40 p.p. Again, this suggests that unobservables are not driving our real effects (Altonji et al., 2005; Oster, 2019).

Our findings are robust to a wide range of alternative specifications. We examine whether the memory of the hyperinflation (1921-23) or cities' export exposure could account for changes in voting patterns and find no evidence. They are also robust to controlling for the share of the Jewish population, the share of Jews out of total employees in the financial sector, or the employment share of the financial sector in general. Through the inclusion of state-level fixed effects we also exclude the possibility that fiscal austerity explains our results. No single city or firm drives our results, and they do not change when we exclude entire regions such as the Ruhr (Germany's industrial powerhouse) or the Austrian border region (potentially subject to spillover effects from Austria's banking crisis). We also show that our results remain similar when we exclude the headquarter cities of smaller banks that failed in 1931/32, as well as all when we drop cities where Deutsche Bank, which was restructured in 1932, had a branch.[7] They remain similar when we stratify our sample of cities by terciles of the unemployment rate in 1931. Their significance cannot be attributed to either spatial correlation in residuals. To overcome potential imbalances in covariates, we also show that our results are robust to coarsened exact matching and a differences-in-differences analysis with fixed effects. Finally, Danat exposure has no significant impact on support for the Communist Party.

Our main contribution is to document the effects of financial distress on broad based radicalization of the electorate with major political consequences. Moreover, we highlight the importance of interaction effects between economic and cultural factors for radicalization.

A growing literature has documented the economic effects of financial crises (Gertler and Gilchrist, 2018), but their political consequences are still poorly understood (Mian et al., 2014). In addition to the cross-country literature on financial crises and radicalization (Funke et al., 2016; Eichengreen, 2018), we build on recent contributions identifying the causal effect of financial shocks (Braggion et al., 2020; Gyöngyösi and Verner, 2020). More broadly, we contribute to the literature on the origins of populism and extreme

[7] Among Germany's 40 largest banks, Danatbank, Dresdner Bank, and Allgemeine Deutsche Credit-Anstalt failed, with total assets of around 2,600, 2,500, and 400 million Reichsmark at the start of the crisis, respectively. Fifteen small banks failed as well (Blickle et al., 2020).

movements. Several papers argue that trade shocks can increase support for more extreme candidates (Dippel et al., 2016; Autor et al., 2017; Dal Bó et al., 2018). Algan et al. (2017) find that the Great Recession undermined trust in national and European institutions. Others have argued that immigration is a major determinant of right-wing voting (Moriconi et al., 2018; Dustmann et al., 2019), and point to the significance of cultural concerns (Eatwell and Goodwin, 2018).

The rise of the Nazi Party has also attracted scholarly attention for the last 80 years. The National Socialists constituted a "catch-all" political movement that enjoyed support not only from the middle classes, but from all strata of German society (Childers, 1983; Falter and Zintl, 1988). Nonetheless Protestants were likelier to back the party than Catholics, and the well-off turned toward it after 1930, while the unemployed backed the Communists. While few scholars have doubted that the party's rise was facilitated by the Great Depression (Evans, 2004; Kershaw, 2016), there has so far only been limited evidence of a link between economic distress and radicalized voting in Nazi Germany.[8]

2 Historical background

In this section we briefly describe three aspects of the historical context: the Great Depression in Germany, the banking crisis of 1931, and the rise of the Nazi Party to power.

The Great Depression in Germany. The Great Depression in Germany ranked among the worst worldwide. Peak to trough, German industrial output fell by 40%. The only other major industrialized country whose decline in economic activity compared in severity was the US. In 1933, Germany counted six million unemployed, a third of its workforce. Unemployment insurance benefits were cut several times. After some months, the unemployed received only emergency aid, which offered minimal assistance. Joblessness was only the most visible manifestation of economic misery. Workers were put on short working hours, civil servants' wages and public pensions were reduced, and many small business owners and entrepreneurs suffered severe income declines. Wages and real earnings declined by more than 20%, and GDP contracted by almost 40% (Feinstein et al., 2008).

[8]Together with Galofré-Vilà et al. (2021), ours is one of the first papers showing a clear link between deprivation and extremism.

Fiscal austerity was one important feature of the German slump (Galofré-Vilà et al., 2021). German states had borrowed heavily before 1929, often from abroad. Once international debt markets froze, authorities had to raise taxes and cut expenditure. Germany's export industries suffered as protectionism surged after 1929. New tariffs and difficulties in obtaining export financing translated into rapidly falling sales of German products abroad, especially during the early years of the crisis (Eichengreen, 1992). By 1933, German exports had declined by over 60% relative to their 1929 value.

The banking crisis of 1931. In the summer of 1931, Germany's downturn was aggravated by a severe banking crisis. Output had contracted before, but the banking crisis helped turn a recession into the Great Depression: over 80% of the decline in output in durable production from peak to trough occurred after the start of the banking crisis. The crisis became visible to the wider public with the collapse of Darmstädter Nationalbank (Danatbank or simply Danat), the second-largest of Germany's four great universal banks, even if strains had already begun to appear in the banking system before (Blickle et al., 2020). In May 1931, the failure of Austrian Creditanstalt had made investors nervous (Kindleberger, 1986) and interbank deposits declined over the following weeks. Also in May, huge losses at the German textile firm Nordwolle came to the attention of its main creditor, Danatbank. Nordwolle management's ill-timed speculation prompted them to hide losses in a Dutch shell company (Born, 1967; Ferguson and Temin, 2003). It declared bankruptcy in June. Loans to the defaulting textile firm were equivalent to 80% of Danatbank's equity and threatened the bank's survival. Dresdner Bank was also heavily exposed.

The German central bank's reserve position and commitment to the gold standard limited its ability to come to the aid of Danat. Political inactivity because of repayments due to the Versailles Treaty and conflict between Germany and France over a proposed customs union with Austria destroyed all hope of international support being extended to the German central bank (James, 1985; Schnabel, 2004). Also, German banks had entered the Great Depression with relatively low equity ratios, and a significant share of their deposits was short term and came from abroad (Eichengreen, 1992).[9]

When the scale of Danatbank's problems became public in July 1931, the ensuing

[9] Ferguson and Temin (2003) nonetheless conclude: "German banks failed in 1931, but the problem was not primarily with them. Instead, the crisis was a failure of political will in a time of turmoil that induced a currency crisis".

bank run among retail depositors led to a suspension of bank deposits, the failure of Danat and Dresdner Bank, a three-week bank holiday and Germany's de facto exit from the gold standard (Born, 1967). During the crisis, several smaller banks became distressed as well, the largest among them the Leipzig-based Allgemeine Deutsche Credit-Anstalt, with around one-sixth of Danat's assets. Ultimately, Danat was merged with Dresdner in the summer of 1932 at the behest of the government, which initially held 75% of the new bank's equity (Krenn, 2012). Deutsche Bank was restructured in early 1932.

Danat was at the heart of Germany's banking crisis, and the contemporary press reflects its prominent role. Figure 1 compares mentions of Germany's three largest banks during the 1930s (together with the word "crisis", panel a) and their leading managers (panel b) in the German-speaking press. The spike for Danat in the summer of 1931 is orders of magnitude larger than for Deutsche Bank or Dresdner Bank. The same divergence – reinforcing the importance and prominence of Danat during the crisis – occurs among the names of leading managers: while mentions of the name Goldschmidt (Danat's CEO) spike during the banking crisis, mentions of the leading managers of Dresdner or Deutsche barely change.[10] These patterns are mirrored in historical accounts of the crisis: James' (1986) history of Germany during the Great Depression makes multiple mentions of Danat or Goldschmidt, but far fewer of Dresdner or Deutsche Bank and their leading managers; in his seminal work, Born (1967) singles out Danat as the main cause for the financial system's collapse on the first page.

Some scholars have termed the German banking crisis a "twin crisis": a latently fragile banking system faltered due to foreign withdrawals and a run on the Mark (Schnabel, 2004). Underlying this view is the belief that many banks lent recklessly in the late 1920s, believing themselves "too big to fail". Others have argued that "the crisis was primarily [an] exchange rate and foreign liability crisis, which [...] would have occurred [...] even if the banks had acted with exemplary caution in the 1920s" (Hardach, 1976). Ferguson and Temin (2003) and Temin (2008) emphasize politics, contending that the crisis was "made in Germany" – that the German government's bid to renegotiate reparations caused foreign withdrawals of funds and the subsequent banking collapse.

The banking crisis was caused by a confluence of internal and external factors, from the failure of Creditanstalt to the reparations problem and the pressure on the German currency. Though banks might have acted with less-than-exemplary caution – and a banking crisis ex-post is no proof that they did – no evidence suggests that Danatbank

[10]The Internet Appendix shows that near-identical patterns are visible in the English-speaking press.

was laxer in its lending standards than other Großbanken.[11]

The rise of the Nazi Party. From obscure beginnings, the Nazi Party grew in influence in postwar Munich. It made a violent but failed bid for power in 1923, the so-called Beerhall Putsch. After this bid was bloodily thwarted, Nazi leaders were tried and sent to prison, Hitler chief among them, and the party was outlawed.

Hitler returned to politics in 1925. The Nazi Party initially had little success, receiving only 2.8% of the vote in 1928. Thereafter, the Nazis changed their tune. They no longer publicly advocated a violent revolution and instead emphasized legal means of gaining government control. This made the party more acceptable to middle- and upper-class voters (Evans, 2004), and Hitler formed links with businessmen (Ferguson and Voth, 2008). The party also played a prominent role in a referendum against the rescheduling of Germany's reparations obligations ("Young Plan", Hett (2018)). Shortly thereafter, the Nazis scored their biggest success yet, winning 18.3% of the vote in the September 1930 election.

As aggregate GDP in Germany plunged by 40% and unemployment surged, the Nazis went from capturing 18.3% of the popular vote in 1930 to 43.9% in March 1933. The party's biggest ballot box breakthrough came in July 1932 (the first national parliamentary elections held after the banking crisis). The Nazi Party became the largest party in parliament, receiving 13.7 million votes (37.4%), more than the Social Democrats and Communists combined. Hitler demanded to be named chancellor – but was rebuffed by President Paul von Hindenburg. By November 1932, in another round of federal parliamentary elections, electoral support for the party began to slip. However, barely a month later von Hindenburg appointed Hitler as chancellor. Within two months, the Nazis had staged elections and taken over effective power in the entire country (Turner, 2003). Their rise to power and the end of German democracy ultimately led to genocide, the Second World War, and more than 60 million casualties.

In 1925, Hitler wrote a book about his political vision, entitled *Mein Kampf* ("My Struggle"). In it, Anti-Semitism was combined with anti-finance rhetoric. Germany losing World War I, the reparations settlement as part of the Versailles treaty, and the hyperinflation – all stemmed in Hitler's mind from a vast Jewish conspiracy. His beliefs about

[11] Also, Blickle et al. (2020) show that demand deposits only declined after Danat's collapse – not during the early phase of the crisis, and that banks' pre-crisis equity or liquidity ratios were uncorrelated with their probability of default.

Jewish finance are well-summarized in his contention that "Jewish finance desires [...] not only the economic smashing of Germany but also its complete political enslavement" (p. 905).[12]

Nazi propaganda exploited the 1931 banking crisis, which provided seemingly incontrovertible proof for their misguided theories of Jewish domination and destruction. The party blamed Jews for Germany's slump. Immediately after the banking crisis erupted, Josef Goebbels instructed party propagandists to exploit the financial crisis and emphasize that it demonstrated the structural flaws of Weimar democracy and society. The substantial over-representation of Jews in high finance (and top management in general) likely facilitated this message (Mosse, 1987; D'Acunto et al., 2019). By mid-1932, when the party was about to become the single largest party in German parliament, its central mouthpiece, the *Völkischer Beobachter*, argued that the banking crisis had led to its breakthrough in terms of middle class support:

> the banking crisis led, among the bourgeoisie, to "an ever-increasing convergence towards national socialist language and national socialist thought. The turning point came approximately during the summer crisis of 1931 [...] the conflict between Germany's vital needs and those of the global economic and financial policy can no longer be obscured" (VB 31.5.1932).

In retrospect, the Nazi press was thus convinced that the financial crisis in the summer of 1931 had been a turning point for the "movement".

A key target of Nazi propaganda was Danatbank's prominent Jewish manager Jakob Goldschmidt, targeted as a scapegoat for Germany's banking crisis. Nazi newspapers featured highly anti-Semitic *Der Stürmer* cartoons, showing a gigantic, obese Jewish banker hanging a starving German businessman, or a rotten apple with a human-faced worm inside, against a background of the names of Jews associated with scandals, including Goldschmidt's. While the national Nazi press was banned for much of the crisis period, some regional newspapers affiliated with the Nazi party continued to publish. Representative for much of their sentiment is the *Bielefelder Beobachter*, which lays the main blame for the "catastrophe" of the banking crisis at the feet of the "great banker" Jakob Goldschmidt; the *Koblenzer Nationalblatt* claims that Goldschmidt, through Danat's bankruptcy, personally benefitted from Germany's incredible economic suffering, turning

[12] Cited according to the 1941 edition (Reynal and Hitchcock).

in "another fat Jewish bankruptcy". Goldschmidt is frequently insulted as a "bank Jew" or "financial Jew", and as a reckless gambler ("Hassadeur"). While the papers mention alleged victims of Danat – small private banks that quit the business – they did not single out another bank like Dresdner or Deutsche, nor any of their board members.[13] Not only the Nazi press, but also mainstream newspapers focused on Goldschmidt during the crisis, and to a much greater extent than on managers of the other great banks (Figure 1, panel b).

3 Data and main variables

3.1 Data

We combine a number of data sources for interwar Germany, several of them hand-collected and digitized for the first time. We collect data for the universe of German joint stock companies in 1929 to construct a measure of a municipality's exposure to Danatbank.[14] The Handbook of German Joint Stock Companies (*"Handbuch der deutschen Aktien-Gesellschaften"*), an annual 4,000-page compendium of balance sheet information for each joint stock company, contains data on assets, capital, location, and bank connections for 5,610 individual firms. In the aggregate, joint stock firm assets total 3.6 billion Reichsmark (RM), equivalent to 40% of GDP in 1929, or around two-thirds of all non-financial assets.

No data on individual bank loans are available. To establish connections between firms and banks, we use information on the banks that paid out firms' dividends (so-called *"Zahlstellen"*). German companies typically had a strong and long-lasting relationship with a single bank. Their main bank (*"Hausbank"* – house bank), usually the one that had brought them to market, typically owned shares in them, offered them capital market and payment services, supplied them with credit, and often appointed members to their supervisory boards (Fohlin, 2007). For each company, we record the connected banks prior to the banking crisis. Since German banks lent nationwide in the 1930s (in contrast to the US), we can exploit cross-sectional variation in firms' and cities' pre-crisis exposure

[13] Figure OA1 and Table OA2 in the Internet Appendix reproduce the cartoons and provide the respective newspaper quotes.

[14] From now on, we use the term city and municipality interchangeably, even if many of the observations refer to towns, strictly speaking.

to banks to identify the effect of the banking crisis on voting.

To gauge the importance of Danatbank at the city level, we combine two indicators. First, we measure city c's exposure as the share of all assets of firms connected to Danatbank:

$$exposure_c = \sum_f I_{f,c} \times \frac{assets_f}{assets_c} \times Danat\ connection_f, \tag{1}$$

where $I_{f,c}$ indicates whether firm f is located in city c, and $Danat\ connection_f$ is a dummy with a value of one if a company is connected to Danatbank in 1929; *exposure* ranges from zero to one.

Our second measure is based on Danatbank's branch network in 1929. We specify a dummy $has\ branch_c$ that equals one if Danatbank had at least one branch in city c in 1929. The two measures are complementary: *exposure* captures the importance of Danatbank to local joint stock companies, while *has branch* also captures deposit-taking and lending to smaller firms. In addition, the failure of a bank's branch would have been highly visible – with queues forming in front of branches and many customers losing access to (part of) their savings. In the baseline specification, we combine both measures and use the dummy $danat_c$, which takes on a value of one if a city either had a Danat branch or significant exposure to Danat, defined as above-average exposure.

Our main outcome variables are the the change in the Nazi Party vote share between September 1930 and July 1932 the change in city income from 1928 to 1934. Voting results by party are calculated as the number of votes at the city level, divided by the number of total votes cast (*"Statistik des Deutschen Reichs"*, ICPSR 42). We assemble data on city incomes in 1928 and 1934 from Germany's Statistical Handbooks (*"Statistik des Deutschen Reichs, Neue Folge 1884-1944"*, bulletins 378 and 492).[15] We compute $\Delta income_c$ as the growth rate in city income from 1928 to 1934. Data on city incomes are available for all major German cities.

We also collect data on a city's earlier history of anti-Semitism, using the history of pogroms between 1300 and 1929 and support for anti-Semitic parties between 1890 and 1913 as indicators (Voigtländer and Voth, 2012, 2015). To capture the impact of the hyperinflation, we use the vote share of the VRP (*"Volksrechtspartei"*), an association-turned-party of inflation victims (Fritsch, 2007). In addition, we use standard data on city population, the share of blue-collar workers, of Protestants, and of Jews from the

[15]The government did not collect data on city incomes in 1930 because of budget cuts. Hence, 1928 and 1934 are the only available data points around the crisis.

Statistical Yearbooks of German Cities (*"Statistisches Jahrbuch deutscher Städte"*) and the 1925 census (Falter and Hänisch, 1990).

Measures of post-1933 persecution from Voigtländer and Voth (2012) are an additional outcome variable; *synagogues* is a dummy that takes on the value of one if a city's synagogue was damaged or destroyed during the 1938 pogroms (Alicke, 2008); *deportations* is measured as log total deportations from 1933-45 in a city, standardized by its Jewish population (Bundesarchiv); and *letters* refers to four years of letters submitted to the editor of *Der Stürmer* (a far-right anti-Semitic Nazi newspaper), from 1935 to 1938, scaled by city population. We then take the first principal component across all three measures. Used as our main measure of *persecution*, it explains a sizeable 41% of the sample variance.

Finally, at the firm level, we identify those companies reporting wage bills in 1929 and 1934.[16] For this subset of firms we further collect pre-crisis (1929) balance sheet items on total assets and capital, return on assets, dividends, industry and location. This results in a subsample of 386 companies in 239 cities and 20 industries. Of these, 27 firms are connected to Danatbank and 37 to Dresdner Bank. We define the change in the wage bill ($\Delta wages_f$) as the growth rate from 1929 to 1934. We use the subsample of firms with wage-bill information in Section 5 to further examine the real effects of Danat's failure.

3.2 Descriptive statistics

Our main dataset contains information on 209 major German cities with an aggregate population of nearly 20 million for which are able to collect data on exposure to Danatbank, incomes, and elections. Appendix Table A1 presents descriptive statistics. The Nazi Party's vote share increased by 17.2 p.p. on average between 1930 and July 1932. The Communists saw almost no change. Average city income fell by 14.4%. The mean (median) city in our sample had 86,700 (37,500) inhabitants, and 41.7% of the workforce was blue collar. Protestants accounted for 65.7% of the population, while Jews made up 0.9%. In 22% of our cities anti-Semitic parties received votes before 1914, while 24.4% engaged in a pogrom at some point prior to 1929.[17]

[16] Information is often scarce; filing requirements were minimal. Firms reporting a wage bill in 1929 are often missing in 1934: some had gone bankrupt or merged. Others stopped reporting their wage bill.

[17] In 11% of cities, there was electoral backing of anti-Semitic parties as well as evidence of earlier pogroms. The correlation between both measures is 0.32.

A Danat branch existed in 36.4% of cities, and 42.6% of localities boasted a branch of Dresdner Bank. A full 46.4% of cities either had a Danat branch or were home to firms doing business with the bank. On average, Danat-connected firms accounted for 11% of total assets in a city. Figure 4 shows the geographical distribution of Danat-connected cities. Cities with Danat-connected firms or branches (blue dots) span the entire country.

Panel (a) of Appendix Table A2 examines balancedness and presents the results of multivariate regressions with *danat*, *branch*, or *exposure* as the dependent variable. We standardize all independent variables to have mean zero and standard deviation one and estimate regressions without and with province fixed effects. Only population is consistently significant. Because Danatbank had a greater presence in large cities, we control for log population throughout. Danat-exposure is not systematically correlated with the share of blue-collar workers, or with the percentage of Jews. There were no statistically significant differences in the share of Protestants, pre-crisis log income per capita, or the unemployment rate. In the Internet Appendix Table OA3, panel (a), we also follow Pei et al. (2019) to detect potential selection in observables by using the pre-crisis control variables as left-hand side variables in balancing regressions. We further report normalized differences, following Imbens and Wooldridge (2009). This eliminates the dependence of t-statistics on the sample size. The normalized difference for each of our variables is below 0.12, significantly lower than the rule of thumb of 0.25 as proposed by Imbens and Wooldridge (2009). None of the balancing regressions yield a systematic correlation between Danat-exposure and any of the control variables. These results make it unlikely that our findings are explained by selection on observables.

Were companies connected to Danatbank riskier than those connected to other banks? If so, a declining wage bill or falling incomes could reflect weaker firm fundamentals, including weaker credit demand. Figure 5, panel (a) shows that Danatbank- (blue solid line) and Großbanken-borrowers (red dashed line) were almost identical in terms of pre-crisis leverage (defined as liabilities over capital). Firms borrowing neither from Danatbank nor any other large bank (black dashed line) had higher average leverage.[18] Thus, firms borrowing from Danat were no riskier before the crisis than other banks' borrowers. As we will show in more detail in Section 5, Danat-connected companies are also not statistically

[18]Regressing 1929 leverage for the full sample of 5,610 firms on a Danat dummy reveals that connected companies had 0.36 p.p. lower leverage (13% of the mean) than those not linked to Danat; the coefficient is significant at the 1% level. When we compare Danat-connected firms to the subset of Großbanken-connected firms (N=1,007), we find that the former had 0.06 p.p. (3% of the mean) lower leverage; the coefficient is insignificant.

different to Dresdner-connected companies when it comes to other firm characteristics, and differ from companies connected to other banks only in their size. Moreover, we also show that unobservable industry and city characteristics do not drive our firm-level results.

4 Main results

In this section, we demonstrate that, after the banking crisis, support for the Nazi Party grew more in towns and cities exposed to Danatbank than in the rest of Germany. We then show that the amplification of pre-existing anti-Semitism is one likely mechanism responsible for the rise: among Danat-exposed cities, the surge in Nazi support was greatest in places with a previous history of anti-Semitism. Comparing Danatbank and Dresdner Bank, whose manager was not singled out during the banking crisis to the same extent as Danat's (Goldschmidt), further underlines the role of cultural factors: while the economic impact of the two bank failures was almost identical, only exposure to Danat had a significant effect on Nazi voting.

4.1 Danatbank and voting for the Nazi Party

Figure 2 summarizes our main finding. It plots the distributions of the change in vote shares for the Nazi Party between September 1930 and July 1932 – the last election before the banking crisis, and the first one after it. The Nazis gained votes everywhere, but the distribution is sharply shifted to the right for Danat-exposed cities, where votes for the NSDAP increased by an additional 2.5 p.p. (equal to 15% of the mean vote change and 0.37 sd).

To go beyond the visual evidence, we estimate regressions of the following type:

$$\Delta NSDAP_c = \alpha + \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c, \tag{2}$$

where $\Delta NSDAP_c$ is the change in support for the NSDAP between September 1930 and one of the three elections after the banking crisis (July 1932, November 1932, March 1933) in city c, and $danat_c$ is an indicator of exposure to Danatbank. In our baseline specifications, we use the dummy $danat_c$ (equal to one if a city has a Danat branch or above-average exposure of joint stock companies to Danat). Alternatively, we use

$exposure_c$, based on the average asset-weighted share of firms connected to Danat; or $branch_c$, a dummy for branch presence. The vector of pre-crisis city-level $controls_c$ includes log population, as well as share of Protestants, Jews, and blue-collar workers out of cities' total population. θ_{WK} is a set of regional fixed effects, absorbing unobservable characteristics at the state/province level.[19] We report robust standard errors in all regressions.

Our baseline results use equation (2) for a cross-section of cities, since our control variables are not time-varying. As we show in Table A2 and Table OA3, our treated and control cities are balanced in terms of pre-crisis covariates. Results are equally strong in a difference-in-differences setting where we include city and time fixed effects (see Internet Appendix).

Table 1 shows that support for the NSDAP rose markedly more in Danat-exposed cities. In panel (a) we use the dummy *danat* as the independent variable. In column (1), without further controls or fixed effects, Danat presence predicts an increase in the Nazi vote share of 2.4 p.p. Adding city-level controls in column (2) and province fixed effects in column (3) yields larger coefficients. *danat* is significant at the 1% level in both specifications. The most demanding specification in column (3) implies that cities with Danat presence saw an additional rise in the Nazi vote share of 2.9 p.p. (17% of the mean or 0.43 sd). Adding several controls and fixed effects only changes the coefficient on Danat-connections slightly, despite a large increase in R^2 by 55 p.p. This suggests that unobservable factors are unlikely to account for our city-level findings (Altonji et al., 2005; Oster, 2019). Results are similar for later elections (columns 4 and 5). Column (6) uses the average change in the vote share across all three elections after the banking crisis, and again reports large effects. In what follows, we will thus mostly focus on the elections of September 1930 and July 1932.

Panel (b) repeats the estimation in columns (3)–(5) of panel (a), but uses either exposure (columns 1–3) or branch presence (columns 4–6) as the explanatory variable. For the period 1930-July 1932, there is a large and significant effect of exposure. Moving a city from the 50th to the 90th percentile in terms of exposure implies an increase of Nazi voting by 1.7 p.p. For the period 1930-November 1932, we find a somewhat smaller and insignificant coefficient on exposure – which nonetheless is not statistically different

[19] Fixed effects account for any potentially confounding effects of austerity, which was implemented at the state level (Galofré-Vilà et al., 2021). There are 15 distinct federal states/Prussian provinces in our sample.

from the one reported in column (1). For the period 1930-March 1933, the coefficient is again significant and somewhat larger. For the *branch* dummy in columns (4)–(6) the results are similar to those in panel (a): NSDAP vote shares climbed by an additional 1.8 to 2.5 p.p. in cities with a Danat branch. Overall, Table 1 provides evidence that support for the Nazi Party rose in Danat-connected cities after the banking crisis of July 1931.

Did voters in cities affected by Danat's collapse already turn toward the Nazi party before Danatbank's failure? We test for pre-trends in Figure 3, panel (a), which plots coefficients for the dummy *danat* in regression equation (2) for each federal election between 1924 and 1933, relative to results in the 1930 election. Coefficient estimates are statistically and economically insignificant for all polls prior to the banking crisis, but positive and highly significant thereafter. Here – and in the analogous coefficient plot resulting from a difference-in-difference analysis shown in panel (b) and Table OA9 – there is no evidence of pre-trends. Below, we further show that our results are robust to controlling for failures of smaller banks, as well as for the geographic footprint of distressed Deutsche Bank.

4.2 The economic vs. cultural channel

How did the banking crisis boost support for the Nazi Party? There are two plausible channels. First, Danat's default led to economic misery, which could have translated into greater Nazi backing. Second, scapegoating Jews (and the hated Weimar political and financial "system" allegedly dominated by Jews) for the economic depression was a key element of Nazi propaganda. The ability to point to real misery – arguably exacerbated by the collapse of the Jewish-led Danatbank, which was highly visible and received wide press coverage – arguably enhanced the credibility and appeal of this misguided message and turned voters towards the Nazi party. We first examine the "economic" channel, and then investigate the "cultural" channel.

Economic factors. Column (1) in Table 2, panel (a) indicates that in municipalities with a Danat presence incomes fell by 6.5% more than in those that did not have one. When we control for province fixed effects, the effect remains significant at the 5% level and increases in magnitude to 7.8% (column 2). This is a dramatic difference: the Danat-induced drop in incomes represents 54% of the mean income decline of 14.4% over

the period 1928 to 1934, or 0.44 sd.[20] Income declines went hand-in-hand with greater electoral support for the Nazi Party. Columns (3)–(6) suggest that, for every standard deviation drop in income, Nazi voting surged by an extra 0.7 p.p. from 1930-July 1932 (column 3), by 0.9 p.p. for 1930-November 1932 (columns 4), and by 1 p.p. for 1930-March 1933 (column 5). Using the average change across all elections provides similar results in column (6). The majority of papers on the rise of the Nazi Party rely on unemployment data and has found little evidence of immiserization as a major driving force. Based on new data, we provide the first evidence that falling *incomes* increased support for the Nazi movement.

The banking crisis was not the only reason why incomes decreased during the Great Depression. Lower incomes in general could produce radical voting. In panel (b) we first show that income declines, predicted by exposure to Danat, are associated with markedly more Nazi voting in July 1932 (column 1). Second, we include both predicted income and actual income changes in our voting regression in column (2). Predicted income has a much greater effect on voting, despite the fact that income and predicted income have a similar mean and dispersion. While income declines led to radical voting, those induced by financial collapse had a much more pronounced effect.

This analysis is performed in the spirit of traditional intermediation analysis. We report the formal version of the Sobel-Goodman test for intermediation in column (3). It suggests that the effect of the banking crisis on voting is mediated by income only to a limited extent (compare panel (a) in Table 1, column 3). In other words, financial distress mattered not only because of the income declines it brought, but in its own right. There are, however, important conceptual challenges with the standard Sobel-Goodman approach (Dippel et al., 2016; Acharya et al., 2016). To sidestep them, we also employ the Acharya et al. (2016) method in column (4), which purges the effect of *danat* on Nazi voting from the impact of associated income changes using sequential g-estimation.[21] Again, the direct effect of Danat exposure never declines by more than one-tenth of the baseline estimate and remains highly significant. Columns (5)–(6) show the Acharya

[20] Unfortunately, there is no high frequency data on economic outcomes. Instead, we examine long differences – the change in city-level incomes between 1928 and 1934 (published at the beginning of the year, i.e., capturing the difference between late 1927, the peak of the economic cycle in Germany, and late 1933, slightly after the very bottom). Despite the potential measurement error created by using data further from the event we examine, we find strong real effects of the banking crisis. We also show that cities with and without Danat exposure exhibit no significant differences in unemployment rates between 1929–30 and 1930–31.

[21] This approach first regresses the dependent variable on the mediator to remove the effect of the mediator. It then estimates the effect of the treatment variable on this de-mediated outcome variable.

et al. (2016) results for other elections, with similar results.

Table 2, panels (a) and (b) hence suggest that, while the economic repercussions of the banking crisis were severe, the crisis itself had electoral effects above and beyond the direct economic impact.

Anti-Semitism, Nazi voting, and the banking crisis. Anti-Semitism had deep historical roots in some German cities, but not others (Voigtländer and Voth, 2012). We split our sample into cities with above- and below-average historical anti-Semitism, using two indicators – voting for anti-Semitic parties from 1890-1914 and instances of pogroms from the Black Death to 1929.

Table 3 examines the cultural channel in more detail. Panel (a) shows that vote gains for the Nazi party were systematically greater in municipalities with a history of anti-Semitism. In cities with no voting for anti-Semitic parties (in the late Imperial period), Danat's presence increased Nazi voting by 1.9 p.p. between 1930 and July 1932 (column 1), significant at the 10% level. In cities with historical support for anti-Semitic parties, Danat's presence is associated with a much greater rise in the average increase in Nazi voting of 6 p.p. and the coefficient is statistically highly significant (column 2).

To alleviate possible concerns about observable or unobservable characteristic that could be correlated with historical anti-Semitism, column (3) uses a difference-in-differences framework at the city-time level, covering the elections between May 1928 and September 1932. The dummy *post 1931m7* takes on a value of one for the period after the banking crisis. The regression includes city and time fixed effects and interacts the measure of historical anti-Semitism with all control variables. Using the change in the NSDAP vote share between elections as dependent variable, column (3) shows that the interaction between *danat* and the post-banking crisis dummy is positive and significant, as is the triple interaction between *danat*, the post dummy, and the anti-Semitism dummy. In other words, the NSDAP vote share increased by more in cities with Danat presence during the post-crisis election, relative to cities with no presence of Danat – and these effects were exacerbated if there was a history of anti-Semitism.

The same pattern is visible when we use earlier pogroms as a stratifying variable. Where no historical pogroms occurred (column 4), having a Danat branch or Danat-connected firm was associated with a relative increase in Nazi voting of 1.8 p.p. (significant at the 10% level). Where pogroms had taken place previously (column 5), the rise was

6.1 p.p., significant at the 1% level. Results from a difference-in-differences specification in column (6) are similar to those obtained in column (3). In combination, the evidence suggests that that exposure to Danatbank led to an increase in support for the Nazi Party that was exacerbated in anti-Semitic cities. Yet, the interactions of the measure of historical anti-Semitism and the post dummy are generally not significant. This implies that the Nazis did not mechanically gain more votes in anti-Semitic areas absent any exposure to Danat, when one compares the 1928-1930 change to the 1930-32 change in support.[22]

To provide further evidence on the synergies between economic and cultural forces, we examine whether the presence of Dresdner had different economic and electoral consequences from Danat. Danat was headed by a prominent Jewish banker, Jakob Goldschmidt. While Dresdner Bank – like most German banks – had numerous Jews occupying leading positions, it was generally not perceived as equally culpable for the financial crisis as Danat and its speaker of the board. To this end, Figure 1 plots mentions in the German-speaking press of Danat plus 'crisis' and of Danat plus Goldschmidt against mentions of the other great banks (and their speakers of the board).[23] Contemporaries readily identified the financial crisis with the collapse of Danatbank: it featured several times more prominently at the peak of the crisis than either Dresdner Bank or Deutsche Bank (panel a). We also find staggeringly large differences for the lead managers: while mentions of Nathan or Goetz (of Dresdner Bank), as well as Wassermann (of Deutsche Bank), barely changed during and after the peak of the crisis, Danat's Goldschmidt is mentioned around 50 times as much compared to the pre-crisis period (panel b).[24]

In Table 3, panel(b) we contrast the differential effects of Danat's and Dresdner's presence in more detail, as both banks failed during the crisis. Column (1) demonstrates that the presence of Dresdner Bank has an economically and statistically significant negative effect on city-level incomes. Column (2) shows that it is similar to the impact of Danat – the presence of either failing bank led to a virtually identical decline in city

[22]However, the *level* of NSDAP support was generally higher in anti-Semitic areas.

[23]German newspapers from the period are largely not digitized; we rely on newspapers covered in the ANNO database of the Austrian National Library (mostly from Austria, but also from Germany, Poland and other countries) and British papers instead. Figure OA2 in the Internet Appendix shows that the same patterns are readily visible in the British press. When we contrast the level of mentions of different banks during the crisis period, qualitatively patterns remain similar. That said, Deutsche Bank is on average mentioned more frequently than other banks – which is likely reflecting that Deutsche Bank was Germany's by far largest bank.

[24]The Internet Appendix show how the Nazi press targeted Goldschmidt and his bank during and after the banking crisis.

incomes.

The electoral effect, however, was strikingly different: column (3) shows that the presence of Dresdner Bank alone does significantly predict changes in Nazi votes. Once we add *danat* in column (4) we see that Danat's presence has a highly significant effect on support for the NSDAP even after accounting for the presence of Dresdner. This pattern holds when we split our sample of cities into those with historically high vote shares for anti-Semitic parties (columns 5 and 6) or cities that did or did not experience pogroms (columns 7 and 8): while the effect of Danat exposure on support for the NSDAP was exacerbated in historically anti-Semitic cities, no such pattern is discernible for Dresdner Bank.

In sum, the economic channel matters for radicalization – declining incomes led directly to greater Nazi backing. Yet our results – the differential effects of Danat and Dresdner, as well as the fact that exposure to Danat led to stronger gains in areas with deep-seated anti-Semitism – suggest that cultural factors are key to understanding the surge in Nazi Party support. The highly visible failure of Danat and the Nazis' scapegoating of Danat's CEO Goldschmidt and Jews in general could have led voters to associate Danat with their economic misery and led to political radicalization in the aftermath of the banking crisis.

Persecution after 1933. Did the banking crisis directly affect relations between Jews and gentiles? To answer this question, we look at the persecution of Jews once the Nazis were in power. Table 4 shows that anti-Semitic actions and violence were more frequent in locations affected by Danatbank's failure. Columns (1)–(3) include city-level controls, columns (4)–(6) add province fixed effects. Across specifications, cities with Danat presence saw a sizeable increase in anti-Semitic actions and violence. In columns (1) and (4) we use *danat*; results are similar when we use *exposure* (columns 2 and 5), or the *branch* dummy (columns 3 and 6) separately, and whether we include province fixed effects in addition to city controls (columns 4–6). Except for column (3), coefficients are statistically significant. The result in column (4) implies that having any exposure to Danat increased anti-Semitic violence by around 0.27 standard deviations. Our measure of persecution cannot do justice to the atrocities committed by the Nazi regime. It does, however, suggest that anti-Semitic sentiment triggered by the banking crisis had repercussions long after Danat's failure. Voters were not only radicalized at the ballot box; they were also radicalized in their actions.

5 Firm-level results and additional robustness tests

In this section we present firm-level evidence on the real effects of Danat's failure and perform several robustness checks for our city-level results.

5.1 Firm-level analysis

In Section 4 we showed that incomes declined more in cities where Danat's presence was stronger. To substantiate the real effects of Danat's collapse, we analyze firm-level data. Firm-level data allow us to identify the effects of bank failures on firms via bank-firm connections by controlling for different fixed effects (industry or city) and firm fundamentals. For a subset of 386 out of our 5,610 joint stock companies, information on company wage bills in 1929 and 1934 is available. In Figure 5, panel (b) we show that the subset of companies reporting their wage bill is similar in terms of assets to the full sample: the distribution of log(assets) for the sample of enterprises that report their wage bill in 1929 (386 observations) largely overlaps with that for the universe of joint stock companies in 1929 (5,610 observations). The difference in means is insignificant. This suggests that our subsample of companies with wage bill information resembles − in size − the average joint stock company. Panel (b) of Table A1 presents summary statistics for our firm-level variables. As of 1929, the average firm was 30 years old and relatively large, reflecting the fact that our sample covers joint stock companies.

Is our sample of wage-bill enterprises balanced on observables? Panel (b) of Table A2 reports regressions with a dummy for being Danat-connected as the dependent variable. Total assets are larger at firms connected to Danat, but there are no major differences in terms of age, return on assets, leverage, and capital-to-labor ratio (wage bill over assets). The overall pattern is similar if we include industry fixed effects (column 2) and city fixed effects (column 3).[25] When we compare Danat-connected companies with Dresdner-connected ones only (columns 4 and 5), all coefficients are insignificant.[26] All in all, Danat-connected companies are not statistically different to Dresdner-connected companies, and differ from companies connected to other banks only in their size. We confirm this pattern in the Internet Appendix Table OA3, panel (b), in which we test for

[25] Adding fixed effects leads to a drop in observations, since not all industries and cities have more than one firm.

[26] We cannot include industry and city fixed effects, as the number of observations would become too small.

selection effects by using our pre-crisis firm controls as dependent variables (Pei et al., 2019). Importantly, no evidence suggests that Danat-connected companies had higher leverage before the crisis. As panel (a) in Figure 5 shows, companies borrowing from Danat had lower leverage than those borrowing from other large or smaller banks (see also Section 3).

The wage bill of the average firm in our sample declined by 19.5%. By how much more did that of Danat-connected companies decrease? We estimate the following regression:

$$\Delta wage\ bill_f = \alpha + \beta\ Danat\ connection_f + controls_f + \theta_i + \nu_c + \epsilon_f, \tag{3}$$

where $\Delta wage\ bill_f$ is the change in company f's wage bill between 1929 and 1934, $Danat\ connection_f$ is a dummy variable equal to one if a firm was connected to Danat in 1929 and zero otherwise, and $controls_f$ are pre-crisis company controls (log total assets, age, return on assets, leverage, and capital-labor ratio). Danat-connected enterprises could be subject to other unobservable shocks beyond reduced lending by their main bank. We therefore include industry (θ_i) and city (ν_c) fixed effects to control for shocks that affect all firms within the same industry or city.

Table 5, column (1) shows that firms with Danat connections reduced their total wage bill by 26.9% more than firms not connected to Danat. The coefficient is significant at the 1% level. In column (2), we add pre-crisis firm controls and find a highly significant negative coefficient of -21.3%. To control for unobservable industry-level shocks, column (3) adds dummies for 20 distinct industries. The coefficient on Danat remains significant at the 1% level and basically identical to columns (1) and (2), despite the fact that R^2 quadruples.

In columns (4)–(5) we further add city fixed effects to control for unobservable shocks to firms within the same city. We first replicate the specification in column (3) for the sample of cities with more than one firm in column (4), which results in 194 observations. The coefficient remains identical in size and is significant at the 5% level. In column (5), we add city fixed effects. Essentially, we are now comparing Danat-connected firms to other firms in the same city and industry. Despite the demanding fixed effects estimation, the coefficient remains significant and does not change in sign or size relative to column (4), while R^2 increases from 0.12 to 0.42. The fact that controlling for observable pre-crisis firm characteristics and unobservable shocks at the industry and city levels does not affect our coefficients in a statistically or economically meaningful way (despite a large

increase in R^2) suggests that unobservable differences are unlikely to be a major concern (Altonji et al., 2005; Oster, 2019). This is in line with the pattern of city-level results.

Columns (6) and (7) replicate column (3) with firm-level controls and industry fixed effects, but use additional explanatory variables. Column (6) uses connection dummies for both Danat and Dresdner as explanatory variables. Danat and Dresdner both had a negative and significant effect on firms' wage bills, but the effect of Danat is somewhat larger in magnitude. Column (7) addresses the concern that Danat potentially acquired a selection of risky borrowers during its expansion before 1929 (although we find no such evidence in terms of pre-crisis leverage). We use the dummy *Danat connection (old)* that equals one for the 19 firms already associated with Danat in 1923 (the earliest year before Danat's expansion for which we have data on bank-firm connections). We further include *Danat connection (new)* that equals one if a company was connected to Danat in 1929 but not in 1923 (14 firms). The coefficients on both dummies are negative, significant, and slightly larger for *old* firms, relative to our baseline results in column (3). This means that Danat's new clients, recruited in the 1920s, were no more fragile than old ones. In other words, column (7) provides further evidence that our results are not biased by Danat's selection of firms after its merger in the early 1920s.

Our firm-level regressions show that the failures of Danat and Dresdner led to a sharp contraction in connected companies' wages/salaries and/or employees – a result that is strong and robust even when we compare firms in the same city and industry. In line with our city-level results, we find no evidence that neither observable nor unobservable pre-existing differences in borrowers explain the negative effect of Danat's failure on incomes.

5.2 Alternative interpretations and further robustness

We interpret the interaction between a previous history of anti-Semitism and the effect of Danat's collapse, as well as the differential electoral impact of Danat and Dresdner, as indicative of a cultural channel. As anti-Semitic and the more-general anti-finance attitudes are often highly correlated, especially in Germany (Becker and Pascali, 2019; D'Acunto et al., 2019; D'Acunto, 2020), our results could also reflect general anti-finance sentiment. To examine this possibility in more detail, in Table 6, panel (a) we first examine if memories of the hyperinflation are a possible confounding factor. We use votes for the *Volksrechtspartei (VRP)*, a party that sought a revaluation of (old) Marks, as an indicator of suffering and antipathy towards the financial sector. In column (1)

areas that gave the VRP more votes did not support the Nazis more after the onset of the banking crisis. Moreover, adding the VRP vote share in column (2) does not affect the coefficient on *danat*.

Columns (3)–(7) introduce variables that measure the local presence of Jews in general, as well as in the financial industry: the share of Jews in the city population (*share Jewish*); Jews working in the financial sector as a share of total employment in the financial sector in 1882 (*emp share of Jews in financial sector*); and the employment share of financial services in 1882 (*share all finance*).[27] Potentially, a larger presence of Jews locally could have exacerbated the impact of Danat's failure on voting. In column (3), we interact each of these variables with a city's presence of Danatbank to examine this possibility. Results show that neither of these variables directly, nor their interaction with *danat*, are significant in any of the specifications. The only variable that emerges as strongly significant is the presence of Danatbank. When we split the sample based on votes for the anti-Semitic party (columns 4 and 5) or historical pogroms (columns 6 and 7), results remain similar: only the coefficient on *danat* is positive and significant, and the effect is stronger in cities with historical anti-Semitism, irrespective of the chosen measure.

The fact that we find no magnification effect of the finance variables (or of Jews in finance) need not imply that anti-finance sentiment did not matter, but rather that the cross sectional (local) involvement of Jews in finance did not matter differentially during the crisis.

Panel (b) examines whether cities with a presence of Danatbank already experienced a sharper downturn in economic activity in the early phase of the Great Depression, i.e., before July 1931. To this end, it reports results for variations of our baseline regression (see equation (2)), where the outcome variables are different measures of unemployment (in levels or changes) at the city level. Column (1) shows that cities with a Danat presence did not see a statistically significant change in the unemployment rate from 1929-30, relative to cities with no Danat presence. Column (2) reports a similar result for the change in the unemployment rate from 1930-31. Column (3) shows that there were also no significant differences in the 1930 unemployment rate across cities with and without Danat's presence.

[27] While Jews accounted for a little less than 1% of the population in our sample of cities, they made up around 20% of all employees in the financial sector. The financial sector as a whole employed less than 1% of the workforce.

To further investigate whether exposure to Danat could have had differential effects based on cities' pre-banking crisis economic trajectory, columns (4) and (5) interact *danat* with the 1929-30 and 1930-31 change in the unemployment rate. In both columns, the coefficient on *danat* remains economically and statistically significant and positive. The interaction effects of the measures of economic activity with *danat* have no significant effect on support for the NSDAP. Finally, we investigate to what extent exposure to Danat affected economic outcomes in 1931-32. While there are no data on city incomes in 1930 or 1931, there is data on the unemployment rate for 1931 and 1932. Column (6) shows that exposure to Danat has a significant positive effect on the change in the unemployment rate from 1931-32. In other words, not only did cities exposed to Danatbank see a decline in incomes, but they also experienced an increase in unemployment. Taken together, results in panel (b) suggest that the presence of Danat in a city was not associated with worse initial economic conditions, but a steeper economic decline only after Danat failed.

In the Internet Appendix, we show that our results are robust to excluding individual cities or regions. We further find that *danat* significantly affects NSDAP vote shares when we run regression equation (2) separately in the cross-section of cities sorted by terciles of the unemployment rate in 1931. The significance of our results also cannot be attributed to spatially correlated standard errors. Further, we exclude cities located at the border with Austria, whose banking crisis erupted in May 1931; the region around Bremen that was directly affected by the fall of Nordwolle, which could have had significant effects on the local economy; cities surrounding Darmstadt, where Danatbank was originally headquartered; and the Ruhr region, where a large share of German economic activity was concentrated. We also exclude the cities where smaller banks that failed in 1931/32 were headquartered; as well as all cities where Deutsche Bank, which was restructured in 1932, had a branch. None of these modifications affect the coefficient on *danat*. Finally, we show that results are similar under a Coarsened Exact Matching Approach and in difference-in-differences specifications.

6 Conclusion

Financial crises have real economic effects. What has been missing from the literature on the "real effects" of financial crises is a clear link between financial distress and broad-based radicalization of the electorate, and the importance of cultural factors. We establish such a link during one key historical episode – the Nazis' rise to power – while shedding

light on the underlying mechanisms.

The German banking crisis of 1931 – like other financial crises – was followed by a sharp economic decline. However, the collapse of Danatbank – the bank perceived to be at the heart of Germany's 1931 banking crisis – also had a major political effect, boosting votes for the Nazi party. Where firms had higher exposure to Danat or where the stricken bank operated branches, backing for the Hitler movement increased by more. Our empirical strategy uncovers only the additional effect of cross-sectional differences in local exposure, abstracting from the overall effect of the nationwide shock: where firms had exposure to Danat or where the stricken bank operated branches, backing for the Hitler movement surged. However, the banking crisis may in addition have expanded support for the Nazi Party countrywide, as the Nazi press argued.

Crucially, our results suggest a synergy between economic and cultural factors. The surge in Nazi voting was more pronounced in towns and cities with a long history of anti-Semitism: there, Danat's presence added 6 p.p. to the Nazi party's electoral gains after 1930 – a sizeable increase relative to a mean change of 17 p.p. from 1930 to July 1932. Comparing Danatbank and Dresdner Bank further underlines the role of cultural factors. While both bank failures had economic effects, only exposure to Danat had a significant effect on Nazi voting – possibly reflecting that Danat's Jewish chairman was singled out during the crisis, while the same was not true of Dresdner's chairman. More frequent attacks on Jews and deportations to concentrations camps after 1933 further suggest that the financial crisis created hatred. This is, voters were not only radicalized at the ballot box, they also became radicalized in their actions.

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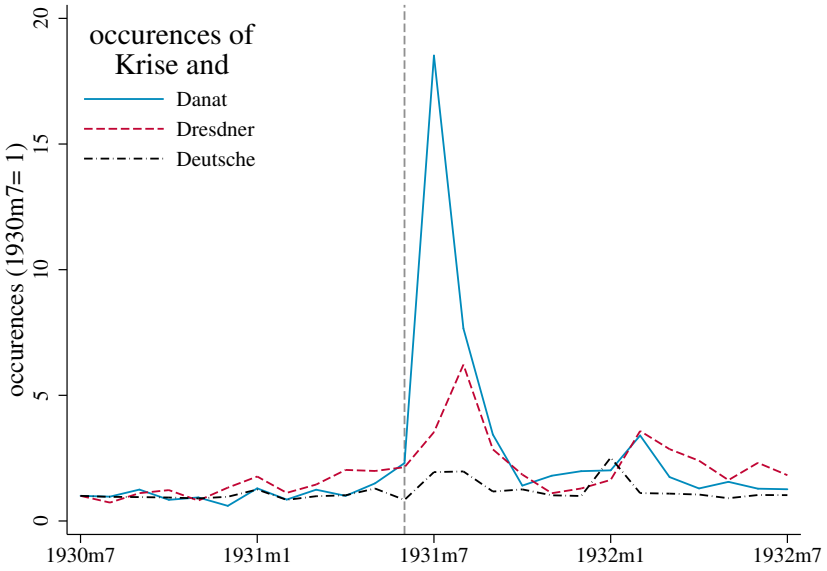
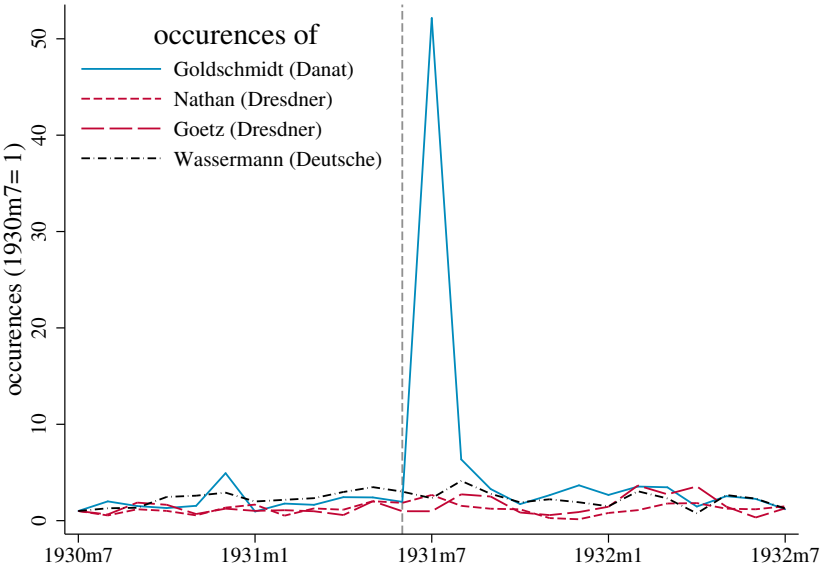
Tables and figures

Figure 1: **Danatbank and the crisis in newspapers**

(a) Danatbank vs. other great banks

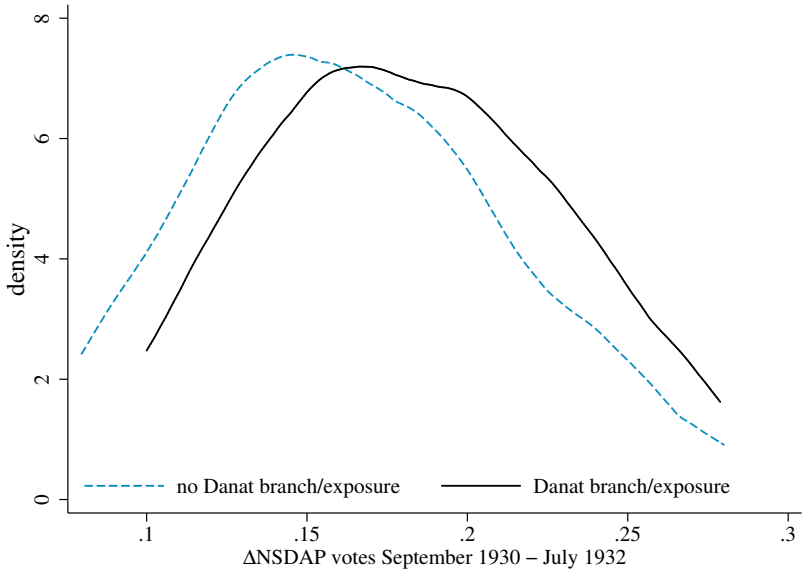


(b) Goldschmidt vs. other managers



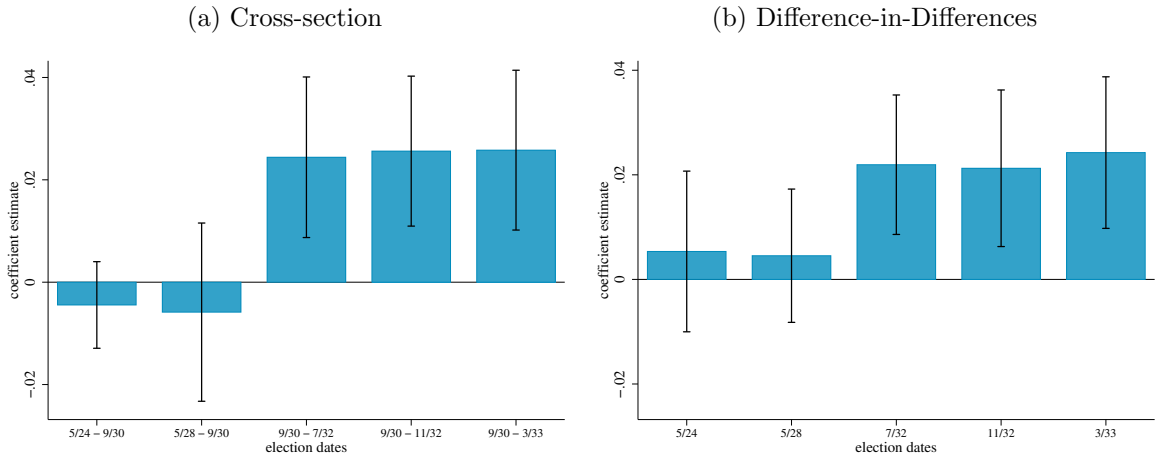
Panel (a) shows a frequency count of the number of mentions of Danatbank, Dresdner Bank and Deutsche Bank in connotation with the word 'Krise' (crisis) in contemporary German-speaking newspapers in the 12 months before and after the failure of Danatbank in July 1931. Panel (b) shows a frequency count of the number of mentions of Jakob Goldschmidt (Danatbank's leading manager), Henry Nathan and Carl Goetz (of Dresdner Bank), and Oscar Wassermann (of Deutsche Bank) in connotation with their respective banks over the same time period. Note that Dresdner Bank replaced its speaker Henry Nathan (who was Jewish) in 1931 with Carl Goetz. Each series is normalized to one in July 1930. Source: ANNO database of the Austrian National Library (German-speaking newspapers mostly from Austria, with additional sources from Germany, Switzerland, Poland, or the Czech Republic, among others).

Figure 2: **The banking crisis and Nazi voting: 1930-1932/7**



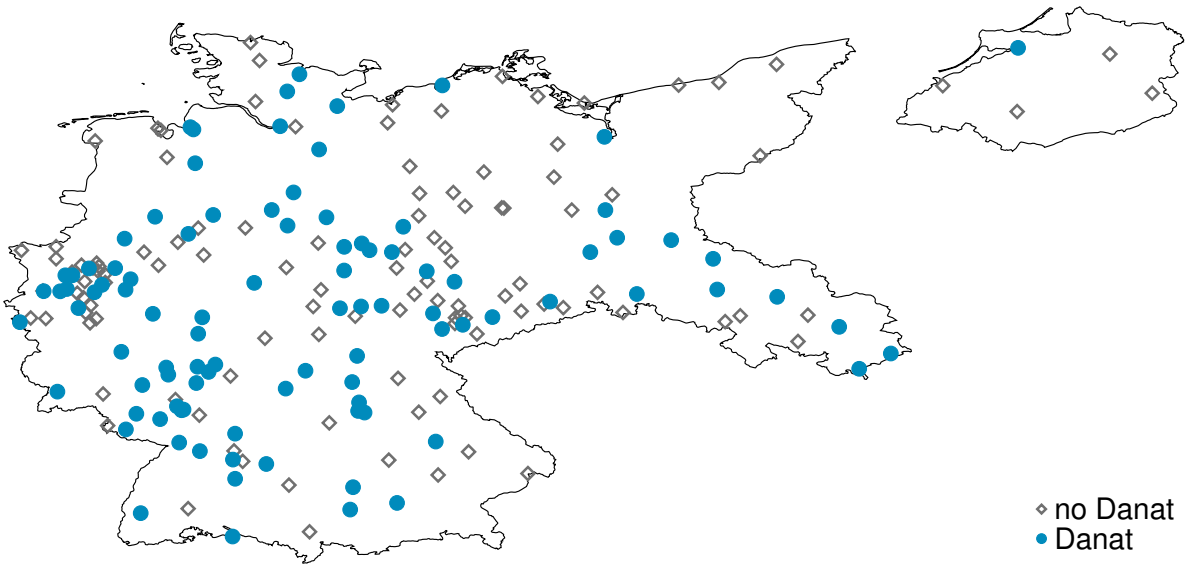
This figure shows a density plot of the September 1930 to July 1932 change in the NSDAP vote share, for municipalities with and without presence of Danat (defined as either having a Danat branch or being home to companies with above-average exposure to Danat). The change in NSDAP vote share is conditional on city-level controls. Exposure is based on the universe of joint stock companies ($n = 5,610$).

Figure 3: **Pre-trends**



Panel (a) shows the coefficient and 90% confidence interval for regression equation (2), where we use the change in NSDAP vote shares for different federal elections (covering 1924, 28, 7/32, 11/32, and 33) relative to the 1930 results as outcome variables. Panel (b) plots coefficients and 90% confidence intervals for regression equation $NS_{c,t} = \sum_{t=1924m5}^{T=1933m3} \beta_t danat_c + \beta_2 post1931m7_t + \beta_3(danat_c \times post1931m7_t) + (controls_c \times post1931m7_t) + \theta_c + \tau_t + \epsilon_{c,t}$, where c denotes city and t time. The dependent variable is the NSDAP vote share in each election, where the election in 9/30 is the omitted category. $danat_c$ is a dummy with a value of one if a city has above-average exposure to or a branch of Danatbank. $post1931m7$ is equal to one for the three elections after July 1931 and zero for elections before July 1931. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925, interacted with dummy $post1931m7$.

Figure 4: **Danatbank – Geographic distribution**

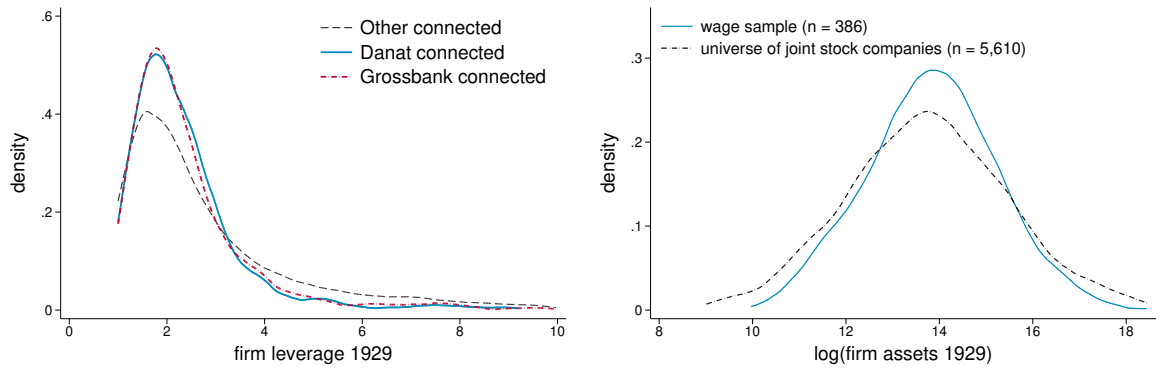


This figure shows a map of 1930 Germany. Blue solid dots indicate towns and cities with presence of Danat (defined as either having a Danat branch or being home to companies with above-average exposure to Danat). Grey diamonds are cities without presence of Danat. Exposure is based on the universe of joint stock companies ($n = 5,610$).

Figure 5: **Firm pre-crisis leverage and size**

(a) Pre-crisis leverage

(b) Assets by sample



Panel (a) shows firm leverage for all joint stock companies not connected to any of the four great banks (black line), firms connected to Danatbank (blue line), and firms connected to other great banks (red line). Panel (b) shows the distribution of log assets for the wage bill sample of firms (blue line), as well as for all joint stock companies in 1929 (black line).

Table 1: **Danat and Nazi voting**

Panel (a): Exposure or has branch

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ NS 30-7/32			Δ NS 30-11/32	Δ NS 30-3/33	Δ NS (avg)
danat	0.024**	0.025***	0.029***	0.029***	0.029***	0.027***
	(0.010)	(0.008)	(0.008)	(0.009)	(0.009)	(0.008)
Observations	196	196	196	194	204	189
R-squared	0.039	0.500	0.585	0.443	0.412	0.491
City Controls	-	✓	✓	✓	✓	✓
Province FE	-	-	✓	✓	✓	✓

Panel (b): Exposure vs. branch

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ NS 30-7/32	Δ NS 30-11/32	Δ NS 30-3/33	Δ NS 30-7/32	Δ NS 30-11/32	Δ NS 30-3/33
exposure	0.041***	0.025	0.032**			
	(0.015)	(0.017)	(0.015)			
branch				0.018*	0.022**	0.025**
				(0.009)	(0.010)	(0.010)
Observations	196	194	204	196	194	204
R-squared	0.568	0.414	0.382	0.564	0.424	0.395
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta x_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all as of 1925. Standard errors are robust. x_c is either a dummy *danat* with a value of one if a city has above-average exposure or a branch of Danatbank; asset-weighted *exposure*; or dummy *branch* with a value of one if the city had a Danat branch. *exposure* is based on the universe of joint stock companies ($n = 5,610$). All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table 2: **The economic channel**

Panel (a): Income and voting

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ income		Δ NS 30-7/32	Δ NS 30-11/32	Δ NS 30-3/33	Δ NS (avg)
danat	-0.065**	-0.078**				
	(0.031)	(0.032)				
Δ income			-0.041*	-0.048*	-0.059***	-0.043**
			(0.022)	(0.026)	(0.018)	(0.019)
Observations	193	193	182	182	188	177
R-squared	0.164	0.235	0.561	0.418	0.387	0.468
City Controls	✓	✓	✓	✓	✓	✓
Province FE	-	✓	✓	✓	✓	✓

Panel (b): Income and voting – intermediation

	(1)	(2)	(3)	(4)	(5)	(6)
			SG	ABS		
dep. var.:	Δ NS 30-7/32			Δ $\widetilde{NS30-7/32}$	Δ $\widetilde{NS30-11/32}$	Δ $\widetilde{NS30-3/33}$
Δ income (predicted by danat)	-0.372***	-0.348***				
	(0.104)	(0.106)				
Δ income		-0.030	-0.030			
		(0.022)	(0.022)			
danat			0.027***	0.027***	0.025***	0.028***
			(0.008)	(0.008)	(0.009)	(0.009)
Observations	182	182	182	182	182	188
R-squared	0.583	0.588	0.588	0.588	0.444	0.428
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). In Panel (b), $\Delta income$ (*predicted*) is predicted income from a regression on $\Delta income$ on *danat*. Column (3) uses the Sobel-Goodman intermediation test, columns (4)–(6) the Acharya-Blackwell-Sen intermediation test. Outcome variables with a tilde refer to changes in Nazi votes that have been purged from Δ *income*. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table 3: **The cultural channel**

Panel (a): Historical anti-Semitism

	(1)	(2)	(3)	(4)	(5)	(6)
	no AS	yes AS		no pog	had pog	
dep.var.:	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS
danat	0.019*	0.060***		0.018*	0.051***	
	(0.010)	(0.011)		(0.010)	(0.014)	
danat × post 1931m7			0.027**			0.019
			(0.013)			(0.014)
danat × high AS votes × post 1931m7			0.043*			
			(0.024)			
high AS votes × post 1931m7			0.107			
			(0.111)			
danat × had pogrom × post 1931m7						0.056***
						(0.021)
had pogrom × post 1931m7						0.028
						(0.103)
Observations	152	44	593	147	49	593
R-squared	0.467	0.740	0.837	0.473	0.617	0.838
City Controls	✓	✓	-	✓	✓	-
City FE	-	-	✓	✓	-	✓
Time FE	-	-	✓	✓	-	✓

Panel (b): Danat vs. Dresdner

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					no AS	yes AS	no pog	had pog
dep. var.:	Δ income		Δ NS 30-7/32					
danat		-0.065**		0.029***	0.019*	0.062***	0.018*	0.051***
		(0.029)		(0.008)	(0.010)	(0.012)	(0.010)	(0.015)
dresdner	-0.070**	-0.069**	0.001	-0.001	0.003	-0.017	0.001	-0.000
	(0.028)	(0.028)	(0.009)	(0.008)	(0.010)	(0.012)	(0.010)	(0.018)
Observations	193	193	196	196	152	44	147	49
R-squared	0.168	0.191	0.554	0.585	0.467	0.753	0.473	0.617
City Controls	✓	✓	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK province. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Panel (a) splits the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS); or into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog). Columns (3) and (6) use a difference-in-differences framework at the city-time level, covering the elections between May 1928 and September 1932. The dummy *post 1931m7* takes on a value of one for the period after the banking crisis. Each regression includes city and time fixed effects. All regressions interact the respective measure of historical anti-Semitism with the control variables. In Panel (b), *dresdner* is a dummy with a value of one if a city has above-average exposure to or a branch of Dresdner. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table 4: **Persecution after 1933**

dep.var.:	(1)	(2)	(3)	(4)	(5)	(6)
	persecution					
danat	0.259*			0.266*		
	(0.142)			(0.147)		
exposure		0.743***			0.577**	
		(0.238)			(0.247)	
branch			0.193			0.281*
			(0.154)			(0.154)
Observations	191	191	191	191	191	191
R-squared	0.313	0.323	0.306	0.423	0.424	0.421
City Controls	✓	✓	✓	✓	✓	✓
Province FE	-	-	-	✓	✓	✓

This table reports results for the following regression equation: $persecution_c = \beta x_c + controls_c + \epsilon_c$, where c denotes city. x_c is either a dummy *danat* with a value of one if a city has above-average exposure or a branch of Danatbank; asset-weighted exposure, *exposure*; or dummy *branch* with a value of one if the city had a Danat branch. *exposure* is based on the universe of joint stock companies ($n = 5,610$). Controls include log population, share blue collar, share protestant, share Jewish, all as of 1925. Standard errors are robust. Outcome variable *persecution* is the first principal component of three variables – anti-Semitic letters to the editor of Stürmer, destruction of synagogues, and deportations of Jews. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: **The economic channel: firm-level evidence**

dep.var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Δ wage bill						
	All			FE sample		All	
Danat connection	-0.269***	-0.213***	-0.236***	-0.229**	-0.227*	-0.257***	
	(0.079)	(0.082)	(0.078)	(0.091)	(0.122)	(0.079)	
Dresdner connection						-0.157**	
						(0.071)	
Danat connection (old)							-0.327***
							(0.101)
Danat connection (new)							-0.216**
							(0.096)
Observations	386	386	384	194	194	384	384
R-squared	0.007	0.019	0.076	0.118	0.415	0.024	0.081
Firm Controls	-	✓	✓	✓	✓	✓	✓
Industry FE	-	-	✓	✓	✓	✓	✓
City FE	-	-	-	-	✓	-	-

This table reports results for regression equation (3) with the change in firm-level wage bill as dependent variable. *Danat connection* is a dummy variable with value 1 if a firm is connected to Danatbank; *Dresdner connection* if a firm is connected to Dresdner Bank. *Danat connection (old)* is a dummy with value 1 if a firm was connected to Danatbank in 1923, *Danat connection (new)* is a dummy with value 1 if a firm was not connected to Danatbank in 1923, but in 1929. Firm controls (recorded in 1929) include age, log(assets), leverage, return on assets, and capital-labor ratio. Industry fixed effects capture 20 industries. Standard errors are clustered at the city level. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: **Anti-finance sentiment and other economic outcomes**

Panel (a): Anti-finance sentiment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	inflation			no AS	yes AS	no pog	had pog
dep.var.:	Δ NS 30-7/32						
danat		0.020**	0.043***	0.027*	0.086**	0.028*	0.127***
		(0.008)	(0.012)	(0.015)	(0.039)	(0.015)	(0.031)
vote share VRP	0.006	0.006					
	(0.004)	(0.004)					
share Jewish (1925)			-0.018	-0.014	-0.010	-0.010	-0.060
			(0.013)	(0.017)	(0.030)	(0.017)	(0.061)
danat × share Jewish (1925)			0.027*	0.025	0.012	0.019	0.030
			(0.015)	(0.018)	(0.034)	(0.019)	(0.054)
emp share of Jews in financial sector			0.002	0.006	-0.019	0.003	0.024
			(0.006)	(0.007)	(0.017)	(0.007)	(0.030)
danat × share Jewish in finance			0.003	0.003	0.010	0.012	-0.014
			(0.009)	(0.012)	(0.022)	(0.014)	(0.026)
emp share of financial sector			0.003	0.015	-0.050	0.015	-0.253
			(0.028)	(0.025)	(0.139)	(0.027)	(0.161)
danat × share all finance			-0.003	-0.013	0.071	-0.015	0.297
			(0.027)	(0.025)	(0.140)	(0.027)	(0.182)
Observations	196	196	103	76	27	82	21
R-squared	0.415	0.435	0.577	0.412	0.741	0.400	0.787
City Controls	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	-	-	-	-

Panel (b): Other economic outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
dep.var.:	Δ u-rate 29-30	Δ u-rate 30-31	u-rate 30	Δ NS 30-7/32	Δ NS 30-7/32	Δ u-rate 31-32
danat	0.014	0.000	0.001	0.030***	0.032**	0.054***
	(0.012)	(0.005)	(0.008)	(0.008)	(0.014)	(0.006)
Δ u-rate 29-30				0.038		
				(0.087)		
danat × Δ u-rate 29-30				0.014		
				(0.065)		
Δ u-rate 30-31					0.198	
					(0.182)	
danat × Δ u-rate 30-31					-0.021	
					(0.208)	
Observations	172	172	172	172	172	172
R-squared	0.556	0.147	0.430	0.587	0.590	0.645
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). In panel (a), *vote share VRP* denotes the vote share of the "Volksrechtspartei", a party seeking compensation for the victims of Germany's hyperinflation. In columns (3)–(7), Danat is interacted with the following variables: the share of Jews in the city population (*share Jewish*); Jews working in the financial sector as a share of total employment in the financial sector in 1882 (*emp share of Jews in financial sector*); and the employment share of financial services in 1882 (*share all finance*). All shares are standardized. Panel (a) splits the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS); or into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog). In panel (b) the dependent variable is the change or level in city-level unemployment rates. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Appendix

Table A1: **Descriptive statistics**

Panel (a): City level

Variable	Obs	Mean	Std. Dev.	P25	P50	P75
danat	209	.464	.5	0	0	1
exposure	209	.114	.213	0	0	.127
branch	209	.364	.482	0	0	1
dresdner	209	.426	.496	0	0	1
Δ NSDAP votes 1930-7/32	196	.172	.067	.139	.175	.218
Δ NSDAP votes 1930-11/32	194	.128	.062	.091	.13	.167
Δ NSDAP votes 1930-33	204	.222	.056	.186	.22	.262
persecution	191	0	1	-.588	.124	.694
Δ KPD 30-7/32	195	.012	.026	-.002	.013	.027
Δ income	193	-.144	.179	-.229	-.142	-.074
Δ income (predicted by danat)	193	-.144	.087	-.2	-.15	-.085
population (in 1,000s)	209	86.672	128.421	25.633	37.52	78.859
share blue collar	209	.417	.095	.349	.412	.481
share Jewish	209	.009	.008	.003	.006	.012
share Protestant	209	.657	.294	.481	.787	.894
anti-Semitic party presence	209	.22	.415	0	0	0
historical pogrom	209	.244	.431	0	0	0

Panel (b): Firm level

Variable	Obs	Mean	Std. Dev.	P25	P50	P75
Δ wage bill	386	-.195	.761	-.645	-.391	-.062
Danat connection	386	.07	.255	0	0	0
Dresdner connection	386	.096	.295	0	0	0
Grossbank connection	386	.207	.406	0	0	0
age	386	29.813	28.298	11	18	43
log assets	386	13.844	1.396	12.987	13.824	14.77
leverage	386	3.298	4.654	1.679	2.182	2.997
return on assets	386	.041	.129	0	.031	.062
wage bill/assets	386	.344	.504	.108	.237	.412

Table A1 shows summary statistics for the main variables. Panel (a) shows summary statistics at the city level, Panel (b) shows summary statistics at the firm level. For variable definitions, see Table OA1.

Table A2: **Balancedness**

Panel (a): City level

dep. var.:	(1)	(2)	(3)	(4)	(5)	(6)
	danat		branch		exposure	
log(population)	0.212***	0.244***	0.257***	0.284***	0.042**	0.047***
	(0.028)	(0.029)	(0.027)	(0.028)	(0.016)	(0.016)
share blue collar	-0.050	-0.043	0.015	0.022	-0.038**	-0.041**
	(0.036)	(0.036)	(0.030)	(0.032)	(0.017)	(0.017)
share Jewish	0.092**	0.019	0.109***	0.037	0.014	-0.001
	(0.040)	(0.045)	(0.039)	(0.044)	(0.012)	(0.017)
share Protestant	0.014	0.072	-0.003	0.065	-0.017	-0.026
	(0.028)	(0.048)	(0.027)	(0.044)	(0.014)	(0.025)
log(income p.c. 1928)	0.051	0.055	0.030	0.040	0.029	0.030
	(0.034)	(0.037)	(0.024)	(0.027)	(0.018)	(0.020)
unemployment-rate 1930	0.032	0.046	-0.011	-0.009	0.010	0.013
	(0.036)	(0.032)	(0.026)	(0.024)	(0.010)	(0.012)
Observations	197	197	197	197	197	197
R-squared	0.288	0.390	0.398	0.467	0.114	0.184
Province FE	-	✓	-	✓	-	✓

Panel (b): Firm level

dep. var.:	(1)	(2)	(3)	(4)	(5)
	Danat connection				
	All			DD sample	
age	0.000	-0.000	-0.002*	-0.001	-0.000
	(0.000)	(0.001)	(0.001)	(0.002)	(0.002)
log assets	0.045***	0.049***	0.069***	0.081	0.018
	(0.010)	(0.010)	(0.017)	(0.053)	(0.063)
return on assets	0.039	-0.049	-0.011	-0.087	-1.100
	(0.100)	(0.102)	(0.190)	(0.792)	(1.007)
leverage	-0.004	-0.003	-0.001	0.042	0.040
	(0.003)	(0.003)	(0.006)	(0.079)	(0.087)
wage bill/assets	-0.004	0.005	0.016	-0.178	0.103
	(0.026)	(0.026)	(0.043)	(0.267)	(0.325)
Observations	386	386	194	59	59
R-squared	0.066	0.146	0.465	0.074	0.337
Industry FE	-	✓	✓	-	✓
City FE	-	-	✓	-	-

Table A2 reports results on multivariate regressions at the city and at the firm level. Panel (a) reports results for the following regression equation: $y_c = controls_c + \theta_{WK} + \epsilon_c$, where c denotes city. y_c is dummy *danat* with a value of one if a city has above-average exposure or a branch of Danatbank, a dummy for *branch*, or asset-weighted *exposure*. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925, and log income per capita in 1928 and the unemployment rate in 1930. *exposure* is based on the universe of joint stock companies ($n = 5,610$). Columns 2, 4, and 6 include province fixed effects θ_{WK}. All explanatory variables are normalized to mean zero and standard deviation one. Panel (b) reports results for the following regression equation: $Danat\ connection_f = controls_f + \theta_i + \gamma_c + \epsilon_f$, where f denotes firm. Controls include firm age, log assets, return on assets, leverage, and capital-labor ratio, all as of 1929.

Internet Appendix for "Financial crises and political radicalization: How failing banks paved Hitler's path to power"*

Definitions and sources of variables: Table OA1 provides an overview over the definitions and sources of our main variables.

Examples of anti-Semitic propaganda: Figure OA1 shows anti-Semitic caricatures from the pro-Nazi newspaper "Der Stürmer", published in the summer of 1931 that illustrate how Nazi propaganda blamed the Jewish population for Germany's economic misery. Table OA2 provides further quotes from the paper copies articles in the Nazi press covering the banking crisis.

Newspaper analysis: Figure OA2 shows a frequency count of the number of mentions of Danatbank, Dresdner Bank and Deutsche Bank in contemporary German- and English-speaking newspapers in the 12 months before and after the failure of Danatbank in July 1931 (panels a and b). In panel (c), it shows the number of bank mentions (Danatbank, Dresdner Bank and Deutsche Bank) in connotation with the word 'crisis' in English-speaking newspapers. Finally, panel (d) shows a frequency count of the number of mentions of Jakob Goldschmidt (Danatbank's leading manager), Henry Nathan and Carl Goetz (the speakers for the board of Dresdner Bank at the time), and Oscar Wassermann (of Deutsche Bank) in connotation with their respective banks over the same time period.

Industrial production: Figure OA3 shows the monthly index of industrial production of durable consumption goods for Germany.

Distribution of exposure: Figure OA4 shows the distribution of city *exposure* to Danat-connected firms, based on the universe of joint stock companies ($n = 5610$).

Map of cities exposed to Danatbank: Figure OA5 shows the geographic footprint of Danatbank as of 1930 Germany. Blue solid dots denote cities with positive exposure to Danatbank in panel (a) and cities in which Danatbank had a branch in panel (b). Grey

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diamonds denote cities that had no exposure (panel a) or no branch (panel b).

Robustness to exclusion of observations: Figure OA6, panels (a) and (b) exclude one observation when estimating the underlying specification and then rank observations by the effect that this observation has on the estimated coefficient. Panel (a) plots coefficient and t-value of coefficient on Danat in regression $\Delta NS\ 30-32/7_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$ on the y-axis, where c denotes city and WK provinces. Dependent variable is change in NSDAP vote share from 1930 to July 1932. Each regression drops one individual city. The x-axis ranks firms according to their impact on the coefficient, from highest to lowest. The blue dashed line denotes coefficient estimates, the black solid line the corresponding t-value. Panel (b) does the same for regressions with the change in income from 1928 to 1934 as dependent variable. Across specifications, excluding cities one-for-one does not materially affect coefficients of interest in terms of sign, size, or significance. Panel (c) shows the coefficient on *danat* in regression equation (2) with $\Delta NS\ 30-32/7$ as dependent variable, estimated separately in the cross-section of cities sorted by terciles of the unemployment rate in 1931. Blue bands denote 90% confidence intervals. Panel (d) shows the coefficient on *danat* in regression equation (2) with $\Delta NS\ 30-32/7$ as dependent variable, estimated separately when we exclude individual regions. Blue bands denote 90% confidence intervals. We exclude cities located at the border with Austria, which saw a banking crisis in May 1931. Further, we exclude the region around Bremen that was directly affected by the fall of Nordwolle, which had significant effects on the local economy. We also exclude cities around Darmstadt, where Danatbank was originally headquartered. We also exclude the Ruhr region, where a large share of German economic activity was concentrated. An over-representation of firms in that region may limit the economic significance and representativeness of our findings for Germany as a whole. Finally, we exclude the headquarter cities of smaller banks that also failed in 1931/32 (based on Blickle et al. (2020)), as well as all cities in which Deutsche Bank had a branch in 1929. Figure OA7 shows that cities with a presence of Danatbank did not experience a sharper downturn in economic activity in the early phase of the Great Depression, i.e., before July 1931.

Balancedness at the city level: Table OA3, panel (a) tests for the balancedness in covariates at the city level. Following Pei et al. (2019), we report results for the following regression equation: $control_c = \beta\ danat_c + log(assets)_c + \theta_{WK} + \epsilon_c$, where c denotes city. Outcome variables are share blue collar, share protestant, share Jewish, all of 1925, log income per capita in 1928, and the unemployment rate in 1930. $danat_c$ is a dummy

with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Province fixed effects are denoted by θ_{WK}. All explanatory variables are normalized to mean zero and standard deviation one. Values in brackets denote the normalized difference (Imbens and Wooldridge, 2009), defined as $\Delta y = (\bar{y_1} - \bar{y_0})/(\sqrt{\sigma^2_{y_1} + \sigma^2_{y_2}})$, conditional on log population, where groups correspond to cities with and without Danat presence. Panel (b) tests for the balancedness in covariates at the firm level. Following Pei et al. (2019), we report results for the following regression equation: $control_f = \beta\ danat\ connection_f + \theta_i + \gamma_c + \epsilon_f$, where f denotes firm. Outcome variables are firm age, log assets, return on assets, leverage, and capital-labor ratio, all as of 1929. $danat\ connection_f$ is a dummy with a value of one if a firm is connected to Danatbank. Industry fixed effects θ_i include a set of 20 industry fixed effects; city fixed effects γ_c require at least two firms per city.

Spatial autocorrelation: Table OA4 clusters standard errors along different dimensions to account for possible spatial autocorrelation. Standard errors are clustered by *Kreis*, a relatively small German spatial unit comparable to U.S. counties or by *Wahlkreis*, German provinces. In addition, we provide Conley standard errors, which allow for spatial autocorrelation within a certain radius around a city. The distance used to calculate these standard errors is the maximum Eucledian distance between any two cities and we allow for standard errors to be correlated within a radius of that distance. While we only report standard errors according to this choice of distance, all results are robust to choosing a range of different distances.

Historic anti-Semitism and exposure to Dresdner Bank: Table OA5 reports results for the following regression equation: $\Delta NS\ 30{-}7/32_c = \beta\ dresdner_c + controls_c + \epsilon_c$, where c denotes city. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $dresdner_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Dresdner Bank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Panel (a) splits the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS). Panel (b) splits the sample into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog).

Danat exposure and city income: Table OA6 reports results for the following regression equation: $\Delta income_c = \beta x_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share

Jewish, all of 1925. Standard errors are robust. x_c is either a dummy *danat* with a value of one if a city has above-average exposure or a branch of Danatbank; asset-weighted *exposure*; or dummy *branch* with a value of one if the city had a Danat branch. *exposure* is based on the universe of joint stock companies ($n = 5,610$).

Intermediation analysis: Table OA7 presents results for an intermediation analysis and shows that *danat* has a significant effect on Nazi support when we control for the economic channel through the change in incomes as mediator.

Coarsened exact matching: Table OA8 reports results from regressions based on equation (2) using a coarsened exact matching (CEM) approach. While Table A2 shows a high degree of balance in covariates, some differences in observables between cities with and without Danat presence could persist. Coarsened exact matching (CEM) creates matches between the treatment and control group based on a set of covariates. Covariates are coarsened to maximize balance of the matched dataset and to ensure that most treated observations have a match in the control group (Iacus et al., 2012). We match on the log of 1925 population, as well as the share of Protestants, Jews, and blue-collar workers. With these parameters, the CEM algorithm creates 63 treated and 88 untreated matches. For 52 observations there is no match. Overall, CEM matching results in a substantial increase in balance. Column (1) with city controls shows a economically and statistically significant positive effect of dummy *danat* on support for the Nazi party. The addition of province fixed effects in column (2) does not materially affect the coefficient of interest. Column (3) shows that local presence of Dresdner Bank has an insignificant and small effect on support for the Nazi party. Finally, columns (4)–(5) and (6)–(7) split the sample into cities without and with a history of anti-Semitic violence (based on vote shares for an anti-Semitic party or the occurrence of pogroms). The positive effect of Danat presence on support for the Nazi party is economically larger if a city has a history of anti-Semitic violence.

Differences-in-differences: Our baseline analysis examines changes in Nazi vote shares in 1932 and 1933, relative to 1930. Here, we exploit the full set of federal election results from 1924 to 1933 in a difference-in-differences (DiD) framework:

$$\begin{aligned} \%NS_{c,t} = \beta_1\ danat_c + \beta_2\ post\ 1931m7_t + \beta_3\ (danat_c \times post\ 1931m7_t) \\ + (controls_c \times post\ 1931m7_t) + \theta_c + \tau_t + \epsilon_{c,t}, \end{aligned} \tag{4}$$

where c denotes city and t election dates. The dependent variable is the NSDAP vote

share in city c and election t. $danat_c$ is a dummy with a value of one if a city has above-average exposure to or a branch of Danatbank. *post* $1931m7$ is a dummy with a value of one for the three elections after Danatbanks' failure in July 1931 and zero for elections before July 1931. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925, interacted with dummy *post* $1931m7$. θ_c denote city fixed effects, τ_t election date fixed effects. Standard errors are clustered at the city level. Column (1) in Table OA9 shows a positive and significant coefficient on the interaction term: cities exposed to Danatbank experience a stronger increase in vote shares of the NSDAP after the 1931 banking crisis. Once we add time-varying fixed effects at the regional level in column (2), the coefficient remains highly significant and increases in magnitude: Danat-exposed cities see a relative increase in the percent of votes cast for the NSDAP of 2.3 p.p. (0.14 sd). Column (3) further adds a dummy for the presence of Dresdner Bank, interacted with the post-crisis dummy, to the regression. Dresdner has an insignificant effect on support for the Nazi party. Columns (4) and (5) split the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS). Columns (6) and (7) split the sample into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog). Similar to our baseline findings, the positive effect of Danat presence on support for the Nazi party is exacerbated if a city has a history of anti-Semitic violence.

Changes in and levels of NSDAP vote share: Table Table OA10 provides further robustness of our results on the cultural channel. Columns (1) to (3) provide cross-sectional results and columns (4) to (6) provide difference-in-differences results. In each regression we control for interactions between a measure of historic anti-Semitism and all city controls. Table Table OA11 shows similar specifications using the level of NSDAP vote shares as dependent variable. While we do not expect cities with higher Danat exposure to have higher levels of NSDAP votes, the data might still support some general trends. For example, anti-Semitic cities could see higher votes shares of the NSDAP in general. When looking at the cross-section of elections in Panel (a), either measure of historic anti-Semitism confirms that cities with either higher vote share for anti-Semitic parties in the past, more historical pogroms, or both saw higher vote shares for the

Since the Nazis were officially banned in 1924, we use combined vote totals for two surrogate parties – the German Völkisch Freedom Party (DVFP) and the National Socialist Freedom Movement (NSFP). The NSFP competed with a near-identical Nazi agenda and many overlapping candidates. The DVFP offered joint lists with the NSFP.

NSDAP in 1930 as well as in 1932. Danat exposure per se did not lead to significantly different vote shares in 1932 than in 1930. When testing for the equality of the coefficients of *danat* between columns 1 and 2, 3 and 4, or 5 and 6, we can never reject the null that the coefficients are equal. Danat exposure did lead however to higher vote shares in 1932 compared to 1930 in anti-Semitic cities. The coefficients of the interaction between Danat exposure and measures of historical anti-Semitism in the 7/1932 election are always significantly different from the coefficient on the interaction in the 1930 election. Panel (b) uses again our more demanding difference-in-differences setup with the same controls and fixed effects as above. In all specifications, the interaction between the post crisis dummy and different measures of anti-Semitism is insignificant, confirming that the banking crisis did not induce a significant differential change in levels across more or less anti-Semitic cities. The crisis did, however, lead to an increase in NSDAP vote shares in cities with Danat exposure, and especially so in cities with historical anti-Semitism.

Exports and 1920 branches: Table OA12 shows that accounting for city-level exports or using the presence of Danat branches in 1920 does not affect our main results. There was also no significant effect of Danat exposure on support for the communists.

Table OA1: **Definitions of main variables**

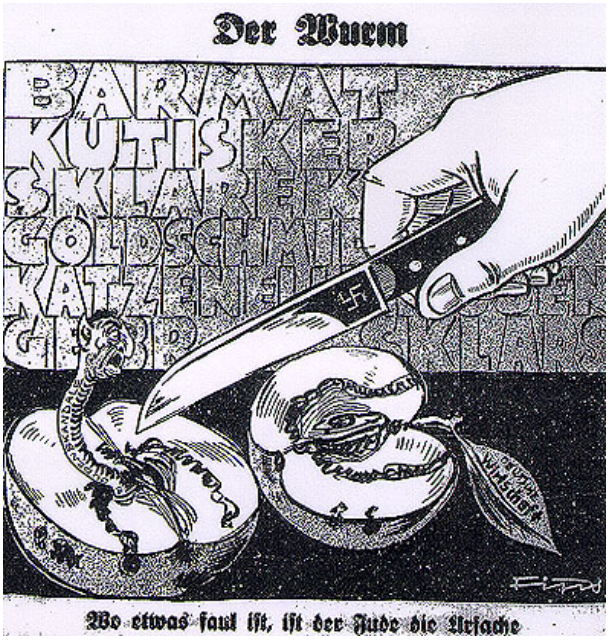
Variable	Definition	Source	Unit
City level			
danat	Dummy that is 1 if city has Danatbank branch or above-mean exposure	Handbook of German Joint Stock Companies	{0,1}
exposure	City exposure to Danatbank (see equation (1))	Handbook of German Joint Stock Companies	[0,1]
branch	Dummy that is 1 if city has Danatbank branch	Danatbank annual report 1929	{0,1}
Δ income	Change in city-level income between 1928 and 1934	Statistik des Deutschen Reiches, Neue Folge, 1884-1944	%
dresdner	Dummy that is 1 if city has Dresdner Bank branch or above-mean exposure	Handbook of German Joint Stock Companies	{0,1}
Δ income (predicted)	Predicted income of a regression of Δ income on *danat*		%
Δ NSDAP 9/30-7/32	Change in vote share for the NSDAP between the elections in September 1930 and July 1932	Statistik des Deutschen Reiches (ICPSR 42)	%
Δ NSDAP 9/30-11/32	Change in vote share for the NSDAP between the elections in September 1930 and November 1932	Statistik des Deutschen Reiches (ICPSR 42)	%
Δ NSDAP 1930-3/33	Change in vote share for the NSDAP between the elections in September 1930 and March 1933	Statistik des Deutschen Reiches (ICPSR 42)	%
Δ KPD 9/30-7/32	Change in vote share for the KPD between the elections in September 1930 and July 1932	Statistik des Deutschen Reiches (ICPSR 42)	%
persecution	First principal component of attacks on synagogues, deportations and letters to Der Stürmer	Voigtländer and Voth (2012)	Standardized
population	City population in 1925	Statistisches Jahrbuch Deutscher Städte	%
log(population)	logarithm of city population in 1925	Statistisches Jahrbuch Deutscher Städte	%
share blue collar	Share of blue collar workers in total city population 1925	Falter and Hänisch (1990)	%
share Jewish	Share of Jewish population in total city population 1925	Falter and Hänisch (1990)	%
share Protestant	Share of Protestants in total city population 1925	Falter and Hänisch (1990)	%
anti-Semitic party presence 1900	Dummy that is 1 if city had a positive vote share for anti-Semitic parties around 1900	Statistische Jahrbücher des dt. Reichsamts für Statistik	{0,1}
historical pogrom	Dummy that is 1 if a city had a pogrom between 1349 and 1920	Germanica Judaica	{0,1}
vote share VRP	Vote share for the Volksrechtspartei in 1928	Statistik des Deutschen Reiches (ICPSR 42)	%
emp. share of Jews in financial sector	Employment share of Jews in the financial sector in 1882	Becker et al. (2014)	%
emp. share of financial sector	Overall employment share in the financial sector in 1882	Becker et al. (2014)	%
Firm level			
Δ wage bill	Change in a firm's total wage bill from 1929 and 1933	Handbook of German Joint Stock Companies	%
Danat connection	Dummy with value 1 if a firm was connected to Danatbank in 1929	Handbook of German Joint Stock Companies	{0,1}
Dresdner connection	Dummy with value 1 if a firm was connected to Dresdner Bank in 1929	Handbook of German Joint Stock Companies	{0,1}
Danat connection (old)	Dummy with value 1 if a firm was connected to Danatbank in 1923	Handbook of German Joint Stock Companies	{0,1}
Danat connection (new)	Dummy with value 1 if a firm was connected to Danatbank in 1929 but not in 1923	Handbook of German Joint Stock Companies	{0,1}
assets	Firm's total assets as of 1929	Handbook of German Joint Stock Companies	Reichsmark
age	Firm's age in years as of 1929	Handbook of German Joint Stock Companies	Years
leverage	Firm's ratio of liabilities over capital as of 1929	Handbook of German Joint Stock Companies	%
return on assets	Firm's ratio of profits over assets as of 1929	Handbook of German Joint Stock Companies	%

This table lists main variables, data sources, and units for the city and firm level. For further details and variable construction, see main text.

Figure OA1: **"Der Stürmer" caricatures**

(a) The Jewish Businessman

(b) The worm



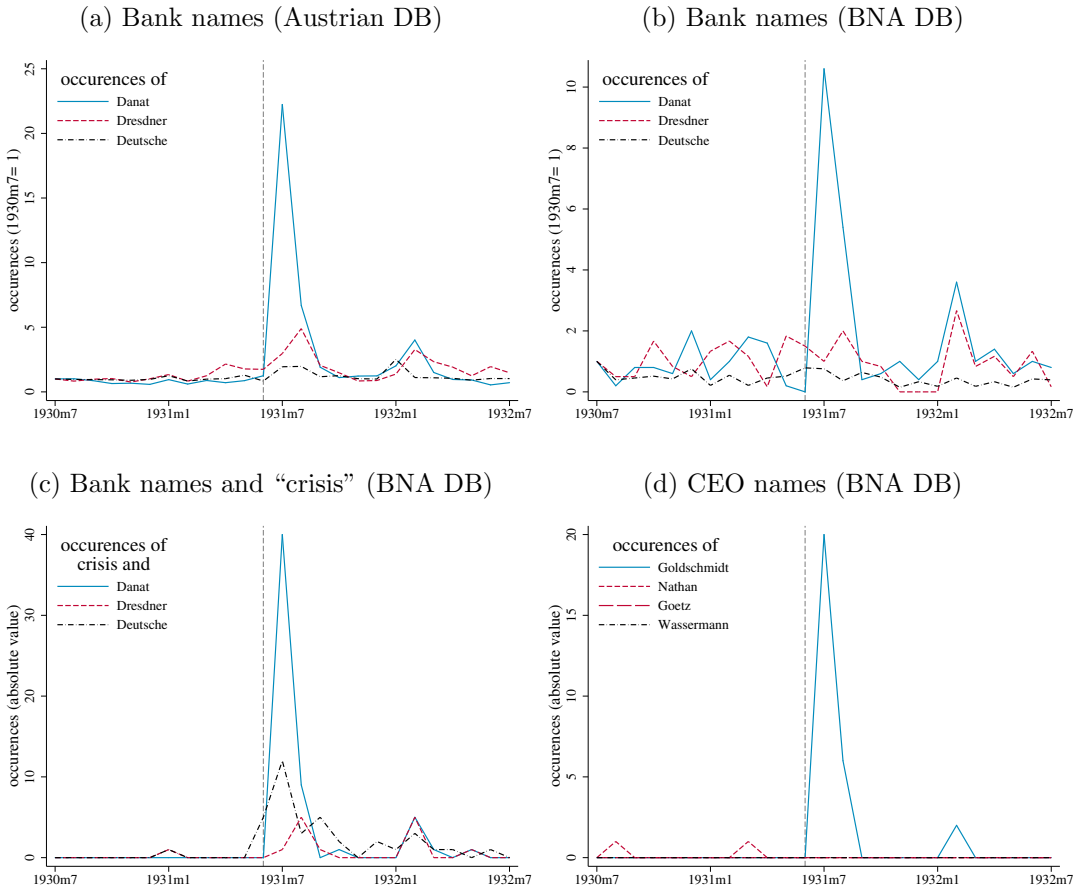
These figures show anti-Semitic caricatures from the pro-Nazi newspaper "Der Stürmer", published in the summer of 1931. In panel (a), the caption says "The Jew banker and the German business man", suggesting that Jewish-led banks are to blame for Germany's dire economic situation. In panel (b), the caption says "The worm" and the subcaption states "Where something is rotten, the Jew is the cause". The background lists names of Jewish businessmen and politicians that readers would connect to scandals during the Weimar Republic, with "Goldschmidt" very prominent in the middle of the graph.

Table OA2: **Nazi-affiliated newspapers from July 1931**

- "Wir aber klagen an den Grossbankier und Freund und Helfer der SPD, den Juden Jakob Goldschmidt [...], der doch der Hauptverantwortliche an der Katastrophe sein dürfte" (Bielefelder Beobachter)
  - Translation: Yet we put on trial the great banker and friend and helper of the SPD, the Jew Jakob Goldschmidt, who bears the main responsibility for this catastrophe
- "Goldschmidt benutzt die ungeheure Wirtschaftsnot Deutschlands, um einen echt jüdischen, fetten Konkurs zu machen" (Koblenzer Nationalblatt)
  - Translation: Goldschmidt uses Germany's dire economic crisis to make a truly Jewish, fat bankruptcy
- "An seiner Pleite [Nordwolle] ist der 9-fache Aufsichtsrat, Freund der SPD, und Kreditgeber der Vorwärts-Druckerei, der Bankjude Goldschmidt von der Danat-Bank erstickt." (Hakenkreuzbanner, Mannheim)
  - Translation: The bank jew [Bankjude] Goldschmidt of Danatbank [...] suffocated on his bankruptcy
- "Der Hassadeur Jakob Goldschmidt" (Der Donaubote, Ingolstadt)
  - Translation: The reckless gambler Jakob Goldschmidt

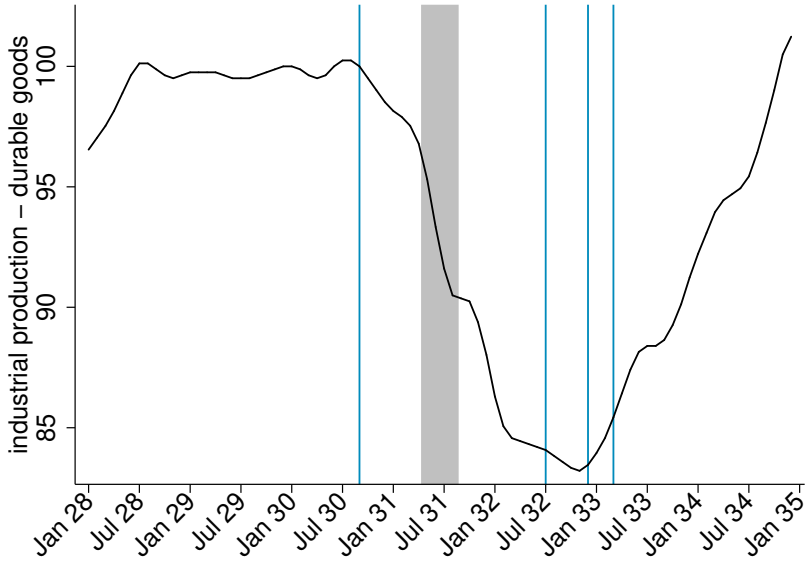
These table provides quotes from Nazi-affiliated newspapers in Germany.

Figure OA2: **Danat and Goldschmidt in English and German-speaking newspapers**



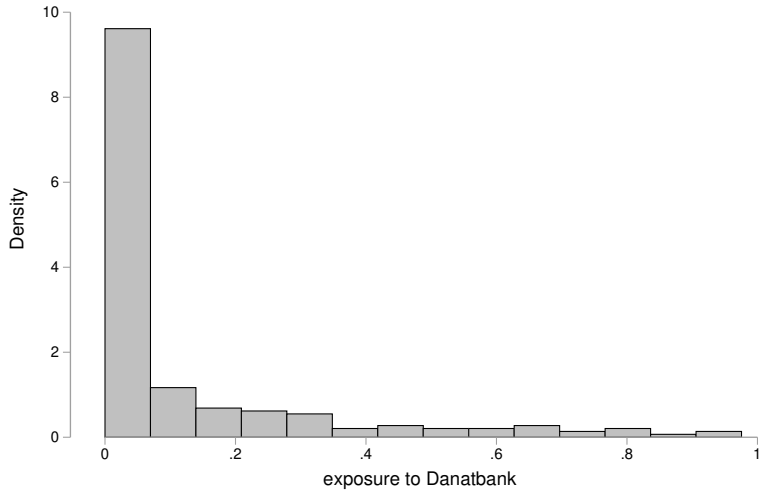
Panels (a) and (b) show a frequency count of the number of mentions of Danatbank, Dresdner Bank and Deutsche Bank in contemporary German- and English-speaking newspapers in the 12 months before and after the failure of Danatbank in July 1931. Panel (c) shows the number of bank mentions in connotation with the word 'crisis' in English-speaking newspapers. Panel (d) shows a frequency count of the number of mentions of Jakob Goldschmidt (Danatbank's leading manager), Henry Nathan and Carl Goetz (the speakers for the board of Dresdner Bank at the time), and Oscar Wassermann (Deutsche Bank's leading manager) in connotation with their respective banks over the same time period. Source: ANNO database of the Austrian National Library and British Newspaper Archive (BNA).

Figure OA3: **Industrial production**



This figure shows the monthly index of industrial production of durable consumption goods for Germany (Wagemann 1936). The production index is normalized to 100 in January 1930. The shaded area indicates the period of the 1931 banking crisis, from the beginning of troubles at Austrian Creditanstalt to the merger between Danatbank and Dresdner Bank in the summer of 1932. Blue vertical lines show federal election dates 09/1930, 07/1932, 11/1932, and 03/1933.

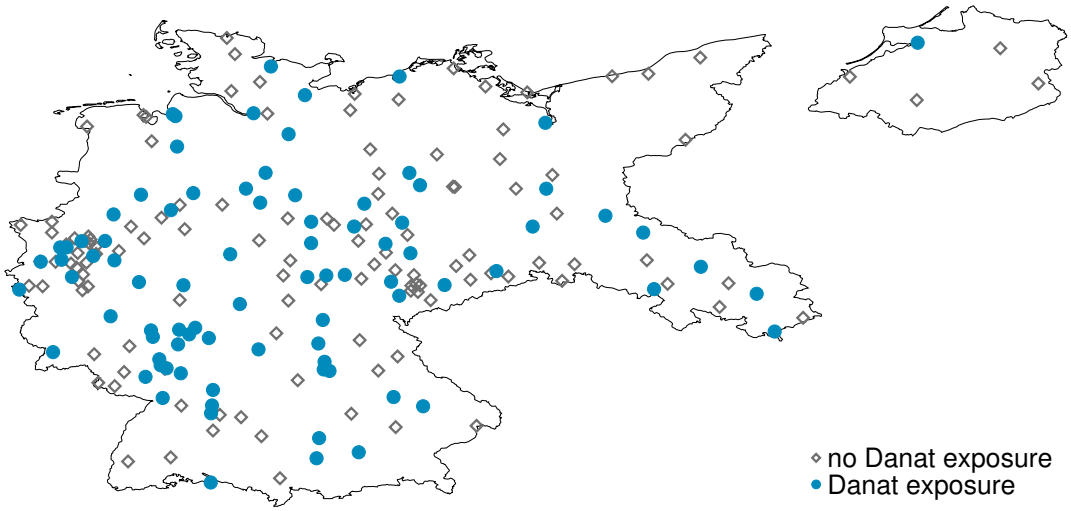
Figure OA4: **Histogram of exposure to Danatbank**



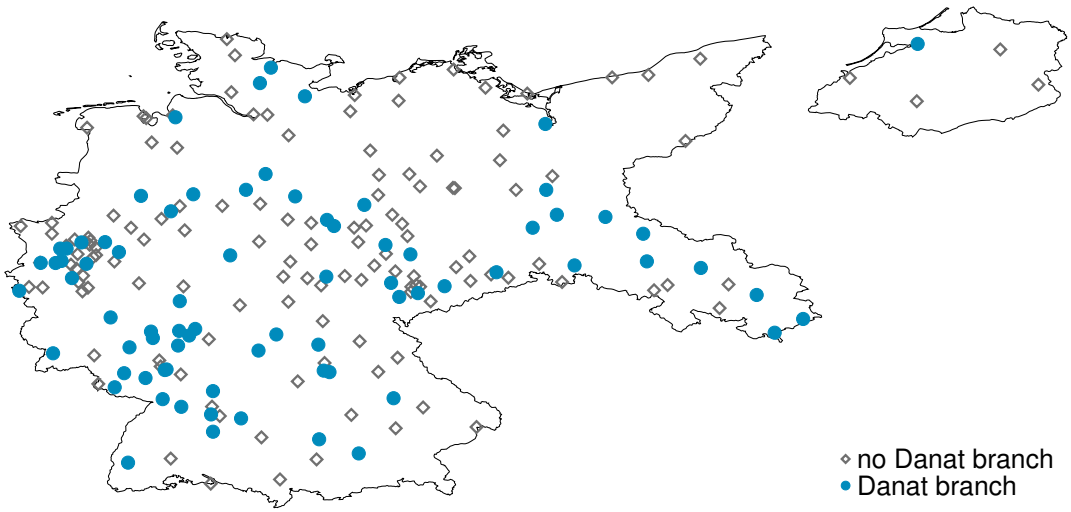
This figure shows the distribution of city *exposure* to Danat-connected firms, based on the universe of joint stock companies ($n = 5610$).

Figure OA5: **Danatbank – Geographic distribution**

(a) Exposure

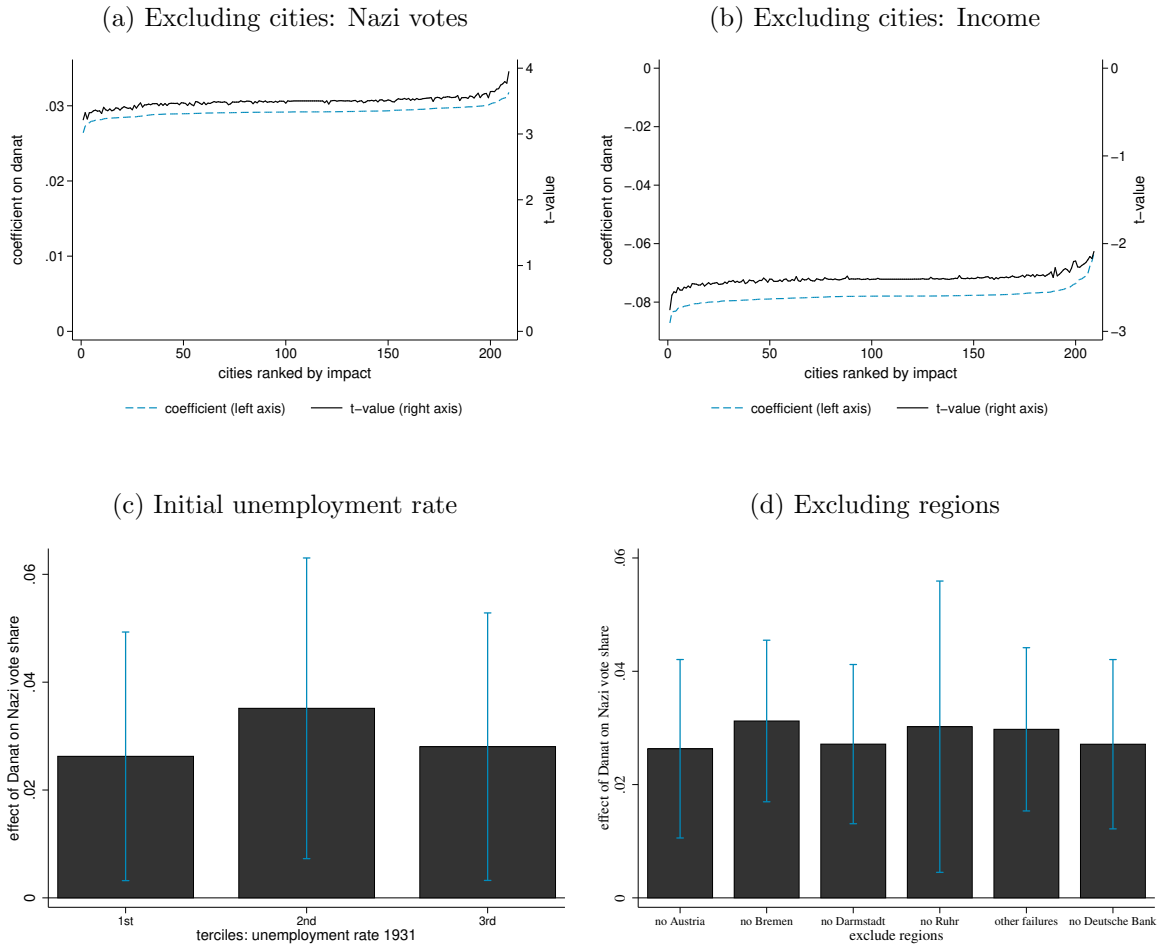


(b) Branches



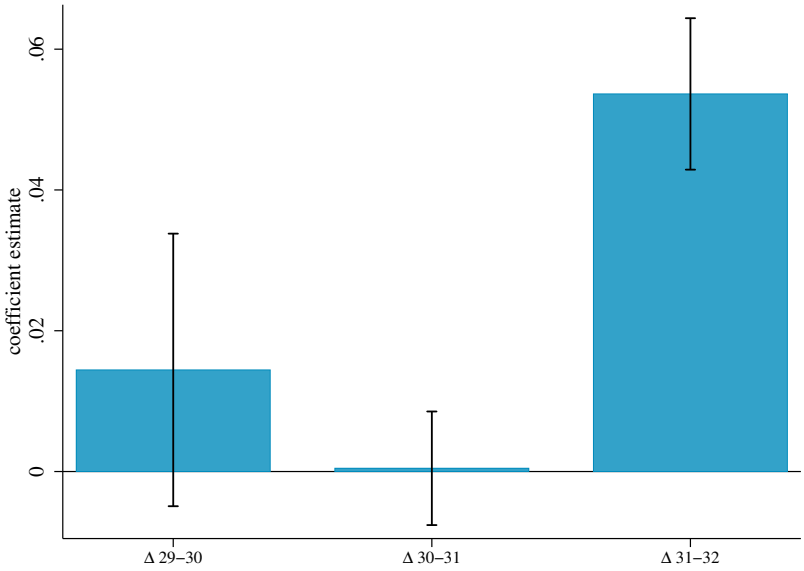
This figure shows maps of 1930 Germany. Blue solid dots denote cities with positive exposure to Danatbank in panel (a) and cities in which Danatbank had a branch in panel (b). Grey diamonds denote cities that had no exposure (panel a) or no branch (panel b).

Figure OA6: **Stability of coefficient**



Panels (a) and (b) exclude one observation when estimating the underlying specification and then rank observations by the effect that this observation has on the estimated coefficient. Panel (a) plots coefficient and t-value of coefficient on Danat in regression $\Delta NS\ 30-32/7_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$ on the y-axis, where c denotes city and WK provinces. Dependent variable is change in NSDAP vote share from 1930 to July 1932. Each regression drops one individual city. The x-axis ranks firms according to their impact on the coefficient, from highest to lowest. The blue dashed line denotes coefficient estimates, the black solid line the corresponding t-value. Panel (b) does the same for regressions with the change in income from 1928 to 1934 as dependent variable. Across specifications, excluding cities one-for-one does not materially affect coefficients of interest in terms of sign, size, or significance. Panel (c) shows the coefficient on *danat* in regression equation (2) with $\Delta NS\ 30-32/7$ as dependent variable, estimated separately in the cross-section of cities sorted by terciles of the unemployment rate in 1931. Blue bands denote 90% confidence intervals. Panel (d) shows the coefficient on *danat* in regression equation (2) with $\Delta NS\ 30-32/7$ as dependent variable, estimated separately when we exclude individual regions. Blue bands denote 90% confidence intervals. We exclude cities located at the border with Austria, which saw a banking crisis in May 1931. Further, we exclude the region around Bremen that was directly affected by the fall of Nordwolle, which had significant effects on the local economy. We also exclude cities around Darmstadt, where Danatbank was originally headquartered. We also exclude the Ruhr region, where a large share of German economic activity was concentrated. An over-representation of firms in that region may limit the economic significance and representativeness of our findings for Germany as a whole. Finally, we exclude the headquarter cities of smaller banks that also failed in 1931/32 (based on Blickle et al. (2020)), as well as all cities in which Deutsche Bank had a branch in 1929.

Figure OA7: **Unemployment – pre-trends**



This figure shows the coefficient on *danat* in regression equation (2) with the change in the unemployment rate across different years (as indicated on the x-axis) as dependent variable. Black bands denote 90% confidence intervals.

Table OA3: **Balancedness – control variables as dependent variable**

Panel (a): City level

dep. var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	share blue collar		share Jewish		share protestants		log inc p.c.		u-rate	
danat	-0.266	-0.171	0.487***	0.128	-0.077	0.101	0.072	0.119	0.008	0.015
	(0.163)	(0.176)	(0.147)	(0.131)	(0.165)	(0.118)	(0.162)	(0.175)	(0.010)	(0.010)
[normalized difference]	[-0.161]	[-0.073]	[0.305]	[0.082]	[-0.044]	[0.089]	[0.110]	[0.121]	[0.027]	[0.093]
Observations	194	194	194	194	194	194	194	194	194	194
R-squared	0.039	0.142	0.215	0.521	0.013	0.615	0.051	0.152	0.054	0.128
Province FE	-	✓	-	✓	-	✓	-	✓	-	✓

Panel (b): Firm level

dep. var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	age			log(assets)			return on assets			leverage			wage bill/assets		
Danat connection	0.401**	0.221	-0.113	0.964***	0.979***	1.207***	0.150	-0.031	0.047	-0.212	-0.122	0.010	-0.176	-0.158	-0.184
	(0.199)	(0.194)	(0.301)	(0.194)	(0.199)	(0.325)	(0.200)	(0.206)	(0.308)	(0.200)	(0.205)	(0.299)	(0.200)	(0.208)	(0.369)
Observations	386	386	194	386	386	194	386	386	194	386	386	194	386	386	194
R-squared	0.010	0.180	0.401	0.061	0.133	0.334	0.001	0.073	0.260	0.003	0.088	0.408	0.002	0.056	0.210
Industry FE	-	✓	✓	-	✓	✓	-	✓	✓	-	✓	✓	-	✓	✓
City FE	-	-	✓	-	-	✓	-	-	✓	-	-	✓	-	-	✓

Panel (a) tests for the balancedness in covariates at the city level. Following Pei et al. (2019), we report results for the following regression equation: $control_c = \beta\ danat_c + log(assets)_c + \theta_{WK} + \epsilon_c$, where c denotes city. Outcome variables are share blue collar, share protestant, share Jewish, all of 1925, log income per capita in 1928, and the unemployment rate in 1930. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Province fixed effects are denoted by θ_{WK}. All explanatory variables are normalized to mean zero and standard deviation one. Values in brackets denote the normalized difference (Imbens and Wooldridge, 2009), defined as $\Delta y = (\bar{y_1} - \bar{y_0})/(\sqrt{\sigma^2_{y_1} + \sigma^2_{y_2}})$, conditional on log population, where groups correspond to cities with and without Danat presence. Except in column (3) normalized difference do not exceed one quarter, suggesting that our sample is balanced in covariates. Panel (b) tests for the balancedness in covariates at the firm level. Following Pei et al. (2019), we report results for the following regression equation: $control_f = \beta\ danat\ connection_f + \theta_i + \gamma_c + \epsilon_f$, where f denotes firm. Outcome variables are firm age, log assets, return on assets, leverage, and capital-labor ratio, all as of 1929 $Danat\ connection_f$ is a dummy with a value of one if a firm is connected to Danatbank. Industry fixed effects θ_i include a set of 20 industry fixed effects; city fixed effects γ_c require at least two firms per city. All explanatory variables are normalized to mean zero and standard deviation one. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA4: **Spatial autocorrelation**

Panel (a): baseline specification with robust SE

	(1)	(2)	(3)	(4)	(5)	(6)
		low votes	low votes	no pog	had pog	
VARIABLES	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32
danat	0.0292***	0.0193*	0.0604***	0.0182*	0.0514***	0.0292***
	(0.0083)	(0.0101)	(0.0119)	(0.0097)	(0.0153)	(0.0083)
dresdner						-0.0010
						(0.0081)
Observations	196	152	44	147	49	196
R-squared	0.5851	0.4666	0.7397	0.4733	0.6172	0.5851
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	-	-	-	-	✓

Panel (b): cluster by Kreis

	(1)	(2)	(3)	(4)	(5)	(6)
		low votes	low votes	no pog	had pog	
VARIABLES	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32
danat	0.0292***	0.0193*	0.0604***	0.0182*	0.0514***	0.0292***
	(0.0083)	(0.0101)	(0.0119)	(0.0097)	(0.0153)	(0.0083)
dresdner						-0.0010
						(0.0081)
Observations	196	152	44	147	49	196
R-squared	0.5851	0.4666	0.7397	0.4733	0.6172	0.5851
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	-	-	-	-	✓

Panel (c): cluster by Wahlkreis (province)

	(1)	(2)	(3)	(4)	(5)	(6)
		low votes	low votes	no pog	had pog	
VARIABLES	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32
danat	0.0292***	0.0193*	0.0604***	0.0182*	0.0514***	0.0292***
	(0.0069)	(0.0098)	(0.0110)	(0.0095)	(0.0137)	(0.0068)
dresdner						-0.0010
						(0.0071)
Observations	196	152	44	147	49	196
R-squared	0.5851	0.4666	0.7397	0.4733	0.6172	0.5851
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	-	-	-	-	✓

Panel (d): spatial correlation

	(1)	(2)	(3)	(4)	(5)	(6)
		low votes	low votes	no pog	had pog	
VARIABLES	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32
danat	0.0292***	0.0193*	0.0604***	0.0182*	0.0514***	0.0292***
	(0.0078)	(0.0095)	(0.0119)	(0.0092)	(0.0140)	(0.0078)
dresdner						-0.0010
						(0.0080)
Observations	196	152	44	147	49	196
R-squared	0.5851	0.4666	0.7397	0.4733	0.6172	0.5851
City Controls	✓	✓	✓	✓	✓	✓
Province FE	✓	-	-	-	-	✓

This table shows the robustness of the main results to spatial autocorrelation. Panel (a) reproduces the main results using robust standard errors. Panel (b) clusters the standard errors by *Kreis*, a spatial unit often encompassing a single city. Panel (c) clusters standard errors by German provinces, *Wahlkreise*. Panel (d) reports Conley standard errors. The distance used for these standard errors is the maximum Eucledian distance between any two cities and we allow for standard errors to be correlated within a radius of that distance. While we only report standard errors according to this choice of distance, all results are robust to choosing a range of different distances. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA5: **Historical anti-Semitism: Dresdner Bank**

Panel (a): Anti-Semitism 1900

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ NS 30-7/32		Δ NS 30-11/32		Δ NS 30-3/33	
	no AS	yes AS	no AS	yes AS	no AS	yes AS
dresdner	0.003	-0.013	0.005	-0.016	0.019*	-0.003
	(0.010)	(0.015)	(0.011)	(0.016)	(0.010)	(0.018)
Observations	152	44	150	44	158	46
R-squared	0.453	0.597	0.293	0.434	0.220	0.229
City Controls	✓	✓	✓	✓	✓	✓

Panel (b): Pogroms

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ NS 30-7/32		Δ NS 30-11/32		Δ NS 30-3/33	
	no pog	had pog	no pog	had pog	no pog	had pog
dresdner	0.002	-0.005	0.002	-0.000	0.018*	0.012
	(0.010)	(0.021)	(0.011)	(0.021)	(0.010)	(0.019)
Observations	147	49	147	47	155	49
R-squared	0.460	0.511	0.311	0.269	0.204	0.203
City Controls	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta\ dresdner_c + controls_c + \epsilon_c$, where c denotes city. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $dresdner_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Dresdner Bank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Panel (a) splits the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS). Panel (b) splits the sample into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog). All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA6: **Danat and income**

	(1)	(2)	(3)	(4)	(5)	(6)
dep. var.:	Δ income 28-34					
danat	-0.065**	-0.078**				
	(0.031)	(0.032)				
exposure			-0.116**	-0.104*		
			(0.056)	(0.055)		
branch					-0.055*	-0.066**
					(0.030)	(0.031)
Observations	193	193	193	193	193	193
R-squared	0.164	0.235	0.155	0.216	0.153	0.223
City Controls	✓	✓	✓	✓	✓	✓
Province FE	-	✓	-	✓	-	✓

This table reports results for the following regression equation: $\Delta income_c = \beta x_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. x_c is either a dummy *danat* with a value of one if a city has above-average exposure or a branch of Danatbank; asset-weighted *exposure*; or dummy *branch* with a value of one if the city had a Danat branch. *exposure* is based on the universe of joint stock companies ($n = 5,610$). All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA7: **Income and predicted income – intermediation analysis**

Panel (a): Intermediation analysis

	(1)	(2)	(3)	(4)	(5)
				SG	
dep. var.:	Δ NS 30-7/32			Δ NS 30-11/32	Δ NS 30-3/33
Δ income (predicted)	-0.372***	-0.348***			
	(0.104)	(0.106)			
Δ income		-0.030	-0.030	-0.030	-0.047**
		(0.022)	(0.022)	(0.020)	(0.022)
danat			0.027***	0.025***	0.028***
			(0.008)	(0.008)	(0.009)
Observations	182	182	182	182	188
R-squared	0.583	0.588	0.588	0.444	0.428
City Controls	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓

Panel (b): Income and predicted income

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-11/32	Δ NS 30-11/32	Δ NS 30-3/33	Δ NS 30-3/33	Δ NS (avg)	Δ NS (avg)
Δ inc (predicted)	-0.372***	-0.348***	-0.359***	-0.302***	-0.319***	-0.377***	-0.342***	-0.592***
	(0.104)	(0.106)	(0.116)	(0.117)	(0.111)	(0.119)	(0.197)	(0.109)
Δ income		-0.030		-0.038		-0.047**		-0.034*
		(0.022)		(0.026)		(0.020)		(0.019)
Observations	182	182	182	182	188	188	180	177
R-squared	0.583	0.588	0.443	0.444	0.413	0.428	0.499	0.500
City Controls	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓

Panel (c): Mediated effect

Effect	Mean	[95% Conf.	Interval]
ACME	0.00170	-0.00062	0.005496
Direct Effect	0.02132	0.00512	0.03795
Total Effect	0.02302	0.006542	0.03931
% of total effect mediated	0.07494	0.043157	0.240433

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Panel (a) reports results for regression equation (2). Δ *income (predicted)* is predicted income from a regression on Δ *income* on *danat* and control variables. Columns (3)–(5) present results from a Sobel-Goodman intermediation analysis and show that *danat* has a significant effect on Nazi support when we control for the economic channel through the change in incomes as mediator. The economic channel intermediates only part of the overall effect of *danat* on support for the Nazi party. Panel (b) compares income and predicted income for different elections. Panel (c) reports results for the Imai et al. (2010) mediation test. ACME is the average mediation effect. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA8: **Danat and Nazi voting – coarsened exact matching**

dep.var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Δ NS 30-7/32						
	full sample			no AS	yes AS	no pog	had pog
danat	0.040***	0.040***	0.041***	0.028**	0.076***	0.033***	0.047**
	(0.009)	(0.009)	(0.009)	(0.012)	(0.011)	(0.011)	(0.018)
dresdner			0.008				
			(0.010)				
Observations	147	147	147	120	27	111	36
R-squared	0.668	0.668	0.670	0.530	0.865	0.567	0.691
City Controls	✓	✓	✓	✓	✓	✓	✓
Province FE	-	✓	✓	-	-	-	-

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. Each regression is weighted with respective coarsened exact matching weights. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA9: **Danat and Nazi voting – difference-in-differences**

dep.var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	% votes for NSDAP						
	full sample			no AS	yes AS	no pog	had pog
danat × post 1931m7	0.017**	0.023***	0.023***	0.012	0.045***	0.016*	0.032**
	(0.008)	(0.007)	(0.007)	(0.010)	(0.010)	(0.009)	(0.013)
dresdner × post 1931m7			0.003				
			(0.007)				
Observations	993	993	993	769	224	751	242
R-squared	0.957	0.968	0.968	0.955	0.972	0.958	0.960
City FE	✓	✓	✓	✓	✓	✓	✓
Time FE	✓	WK*T	WK*T	✓	✓	✓	✓
City controls	✓	✓	✓	✓	✓	✓	✓

This table reports results for the following regression equation: $NS_{c,t} = \beta_1 danat_c + \beta_2 post1931m7_t + \beta_3(danat_c \times post1931m7_t) + controls_c + \alpha_c + \gamma_t + \epsilon_{c,t}$, where c denotes city and t time. The dependent variable is the NSDAP vote share in each federal election (covering 1924, 28, 30, 7/32, 11/32, and 33). $danat_c$ is a dummy with a value of one if a city has above-average exposure to or a branch of Danatbank. $post1931m7$ is a dummy with a value of one for the three elections after July 1931 and zero for elections before July 1931. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925, interacted with dummy $post1931m7$. 'WK*T' denotes time-varying fixed effects at the province level. *dresdner* is a dummy with a value of one if a city has above-average exposure to Dresdner or a branch of Dresdner. Standard errors are clustered at the city level (all results are robust to double-clustering standard errors at the city and province*time level). Columns (4) and (5) in each panel split the sample into cities where an anti-Semitic party did not enter the election or received a zero vote share in 1900 (no AS), vs. areas in which it received a positive vote share (yes AS). Columns (6) and (7) in each panel split the sample into cities that had no pogrom between 1349 and 1920 (no pog) and those that had a pogrom between 1349 and 1920 (had pog). All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA10: **Changes in NSDAP votes**

	(1)	(2)	(3)	(4)	(5)	(6)
		Cross-section			Diff-in-diff	
dep.var.:	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS 30-7/32	Δ NS	Δ NS	Δ NS
danat	0.013	0.009	0.008			
	(0.010)	(0.010)	(0.011)			
high AS votes	0.228***					
	(0.051)					
danat × high AS votes	0.047***					
	(0.015)					
had pogrom		0.126				
		(0.078)				
danat × had pogrom		0.042**				
		(0.018)				
AS votes or pogrom			0.184***			
			(0.064)			
danat × AS votes or pogrom			0.043**			
			(0.017)			
danat × post 1931m7				0.027**	0.019	0.017
				(0.013)	(0.014)	(0.015)
danat × high AS votes × post 1931m7				0.043*		
				(0.024)		
high AS votes × post 1931m7				0.107		
				(0.111)		
danat × had pogrom × post 1931m7					0.056***	
					(0.021)	
had pogrom × post 1931m7					-0.028	
					(0.103)	
danat × AS votes or pogrom × post 1931m7						0.049**
						(0.022)
AS votes or pogrom × post 1931m7						0.068
						(0.103)
Observations	196	196	196	593	593	593
R-squared	0.082	0.060	0.088	0.837	0.838	0.838
City Controls	✓	✓	✓	-	-	-
City FE	-	-	-	✓	✓	✓
Time FE	-	-	-	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK province. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Columns (1) to (3) regress the change between the elections in 1930 and September 1932 on *danat* and an interaction between *danat* and a measure of a city's historic anti-Semitism. Columns (4) to (6) use a difference-in-differences framework at the city-time level, covering the elections between May 1928 and September 1932. The dummy *post 1931m7* takes on a value of one for the period after the banking crisis. Each regression includes city and time fixed effects. All regressions interact the respective measure of historical anti-Semitism with the control variables. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA11: **Levels of NSDAP votes**

Panel (a) Cross-section

VARIABLES	(1) NS p.c. Sep 30	(2) NS p.c. Jul 32	(3) NS p.c. Sep 30	(4) NS p.c. Jul 32	(5) NS p.c. Sep 30	(6) NS p.c. Jul 32
danat	-0.027*	-0.013	-0.019	-0.009	-0.024*	-0.017
	(0.013)	(0.014)	(0.012)	(0.013)	(0.015)	(0.016)
high AS votes	0.295***	0.523***				
	(0.106)	(0.098)				
danat × high AS votes	0.000	0.048**				
	(0.027)	(0.022)				
had pogrom			0.425***	0.551***		
			(0.136)	(0.112)		
danat × had pogrom			-0.020	0.021		
			(0.026)	(0.025)		
AS votes or pogrom					0.414***	0.598***
					(0.111)	(0.094)
danat × AS votes or pogrom					-0.002	0.041*
					(0.024)	(0.022)
Observations	196	196	196	196	196	196
R-squared	0.060	0.076	0.112	0.095	0.117	0.148
City Controls	✓	✓	✓	✓	✓	✓

Panel (b): Difference-in-differences

VARIABLES	(1) pct. NS	(2) pct. NS	(3) pct. NS	(4) pct. NS	(5) pct. NS	(6) pct. NS
danat × post 1931m7	0.008	0.014	0.012	0.018**	0.007	0.010
	(0.010)	(0.009)	(0.009)	(0.009)	(0.012)	(0.011)
danat × high AS votes × post 1931m7	0.045***	0.039***				
	(0.012)	(0.012)				
high AS votes × post 1931m7	0.054	0.032				
	(0.074)	(0.082)				
danat × had pogrom × post 1931m7			0.024	0.015		
			(0.017)	(0.017)		
had pogrom × post 1931m7			-0.045	-0.070		
			(0.086)	(0.090)		
danat × AS votes or pogrom × post 1931m7					0.035**	0.031**
					(0.015)	(0.016)
AS votes or pogrom × post 1931m7					0.052	0.047
					(0.080)	(0.085)
Observations	603	603	603	603	603	603
R-squared	0.958	0.966	0.958	0.966	0.958	0.966
City FE	✓	✓	✓	✓	✓	✓
Time FE	✓	✓	✓	✓	✓	✓
WK × Time FE	-	✓	-	✓	-	✓

This table reports results for the following regression equation: $y_c = \beta\ danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK province. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). Panel (a) reports the results for cross-sectional regressions of the level of NSDAP vote share on *danat* and an interaction of *danat* and a measure of historic anti-Semitism. Panel (b) use a difference-in-differences framework at the city-time level, covering the elections between May 1928 and September 1932. The dummy *post 1931m7* takes on a value of one for the period after the banking crisis. Each regression includes city and time fixed effects. All regressions interact the respective measure of historical anti-Semitism with the control variables. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.

Table OA12: **Alternative explanations**

	(1)	(2)	(3)	(4)
dep. var.:	Δ NS 30-7/32			Δ KPD 30-7/32
danat		0.029***		-0.003
		(0.008)		(0.004)
exports/pop	0.011	0.002		
	(0.031)	(0.027)		
danat branch 1920			0.017**	
			(0.008)	
Observations	196	196	196	195
R-squared	0.555	0.585	0.565	0.196
City Controls	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

This table reports results for the following regression equation: $y_c = \beta danat_c + controls_c + \theta_{WK} + \epsilon_c$, where c denotes city and WK provinces. Controls include log population, share blue collar, share protestant, share Jewish, all of 1925. Standard errors are robust. $danat_c$ is a dummy with a value of one if a city has above-average exposure or a branch of Danatbank. Exposure is based on the universe of joint stock companies ($n = 5,610$). In columns (1) and (1) *exports/pop* denote city-level exposure to exporting industries. KPD denotes "Kommunistische Partei Deutschlands", the German Communist Party. Column (4) uses the dummy *branch 1920* that takes on the value of one if Danatbank's predecessor banks had a branch in a city in 1920, and zero otherwise. All variables are described in Table OA1. *** p<0.01, ** p<0.05, * p<0.1.