Poor Voters, Taxation and the Size of the Welfare State*

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This paper studies the impact of an increase in the number of poor voters on local public policy setting. We exploit the sudden arrival of 8 million forced migrants in West Germany after WWII who were poorer than the local population, eligible for social welfare and had full voting rights. We show that municipalities responded to this shock with selective tax raises and shifts in spending from infrastructure to social welfare. Voting data suggests that these changes were partly driven by the forced migrants' political influence. We further document a strong persistence of the effects. The poverty shock altered municipal redistribution policies for decades and changed the redistribution preferences of the following generations.

Keywords: taxation, social welfare, voting, forced migration

JEL Codes: D31, D72, H71, H72, J61

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1 Introduction

Growing income and wealth inequality presents a serious challenge to modern welfare states. In many countries, it has revitalized the debate on taxation and redistribution and is often seen as a driving force behind the recent rise of populism (see, e.g. Pastor and Veronesi, 2018, Rodríguez-Pose, 2018). Theories of political economy provide a clear link between inequality, voting and redistribution. In the 19th century, Alexis de Tocqueville (1965) hypothesized that extending the voting franchise to poorer people would lead to higher taxation and spending because taxes are paid by a rich minority while spending mainly benefits the poor. This idea is at the core of political economy models by Romer (1975), Roberts (1977) and Meltzer and Richard (1981), which link greater inequality and higher redistribution through shifts in the income position of the median voter. However, while this argument is compelling, the existing empirical evidence is mixed.[1] This is particularly due to the challenges of identifying a causal link between inequality and redistribution. The same economic forces that affect inequality may also affect the level of taxation and spending and people with stronger preferences for redistribution may self-select into places with higher taxation and spending (Tiebout, 1956).

In this paper, we provide an empirical test of these theories by exploiting a sudden and unexpected inflow of poor voters to West Germany in the 1940s. After World War II, Germany had to cede over 25% of its territory to Poland and the Soviet Union, which led to the forced migration of over 12 million Germans. Having lost all of their assets in transit, these migrants — often called 'expellees' — were considerably poorer than the West German population. However, as German citizens, they had voting rights and were eligible for social welfare from their time of arrival.

The placement of the expellees by the British and American forces gives rise to substantial variation in the inflow across regions, which forms the basis of our empirical strategy. Using panel data for 400 West German cities, we analyze whether cities responded to an increase in the number of poor voters by changing their tax and spending policies. Within Germany's federal system, cities have long enjoyed a high degree of fiscal autonomy, setting their own property and business taxes and deciding on a large number of spending items. Because the expellees had little wealth and faced an initial disadvantage in the labor market, many relied on social welfare. The welfare payments were mainly funded by the cities themselves, which meant that those with high inflows were forced to increase their spending on welfare. Cities had several margins along which to adjust their public finances,

[1] See Persson and Tabellini (2002) and Borck (2007) for reviews of the literature.

namely changing local tax rates, reducing spending on non-welfare items, and incurring debt. Our aim is to investigate which of these margins cities chose, as well as quantifying their importance.

An obvious challenge to identification is the potentially endogenous location choice of the expellees after their arrival in West Germany. We address this by using two identification strategies. For local tax rates, we have panel data dating back to the mid-1930s, which allows us to compare the evolution of tax rates in high- and low-inflow cities in a difference-in-difference (DiD) setting. For all other outcomes, data are only available for the post-war period, which is why we use an instrumental variable strategy. Our instrument predicts the inflow of expellees based on gravity forces that were important before the war but not thereafter. It assigns all expellees to West German counties based on their place of residence in 1939 and the distance from these places to each county in West Germany. The identifying assumption is that the geographic distribution of expelled Germans before 1939 is orthogonal to local economic conditions in West Germany after 1945. We argue that this assumption is plausible, given that the entire German population outside the newly-drawn borders had to leave and all economic exchange between West Germany and the former Eastern territories ceased after 1945 when the Iron Curtain separated Western and Eastern Europe. The fact that West German regions close to the newly-established inner-German border had slower growth after 1945 (Redding and Sturm, 2008) presents an important challenge to the validity of the instrument, which is why we control for the closeness of each municipality to the inner-German border. We further corroborate the validity of the instrument by performing several diagnostic tests and show that our results are robust to small violations of the exclusion restriction (Conley et al., 2012).

Our results show that the inflow of poor voters led municipalities to adopt more redistributive tax and spending policies. While high- and low-inflow cities had the same trends in tax rates before the inflow, we find that high-inflow cities significantly increased tax rates on agricultural properties as well as business capital and profits. The gap in tax rates persisted until at least the mid-1960s. At the same time, we find no effect on the tax rates for residential property and a firm's wage bill. This suggests that cities chose not to raise taxes on items that were most needed by poorer parts of society — namely housing and jobs — while shifting the burden of taxation to farmers and business owners. On the spending side, we find the expected positive effect on welfare spending. We also find an increase in the spending share to administration and the police, whereas cities reduced relative spending on infrastructure as well as schools and culture. Finally, we find small positive effects on debt, although these effects are not statistically significant.

Using data on elections, we further document that the expellees changed the political landscape in West Germany. High-inflow cities had significantly higher turnout in local elections, which indicates that the arrival of poor voters raised the political and economic stakes for the local population. In addition, high-inflow cities had significantly larger vote shares for the GB/BHE, a party that represented the specific interests of the expellees. While we see no significant effects on the vote shares of the two major parties — namely the social democrats (SPD) and the conservatives (CDU/CSU) — we show that both parties responded to the inflow by nominating more expellees as direct candidates for parliament. This is remarkable given that the expellees were in the minority in all constituencies, and that nominating a minority candidate was associated with a high opportunity cost for a party.

In the final part of the paper, we show that the inflow of poor people had a lasting effect on preferences for redistribution. Using survey data from the early-2000s and focusing on people born after the inflow of expellees, we show that people in high-inflow regions have significantly stronger preferences for redistribution more than 50 years later. This suggests that the arrival of the expellees is partly responsible for the significant differences in preferences for redistribution across German regions to this day.

In sum, this paper makes three contributions to the literature. First, we provide an empirical test of political economy models of the welfare state. These models — most prominently Meltzer and Richard (1981) — show that as the median voter shifts to poorer parts of society, there is stronger support for higher taxes and spending. The empirical literature mainly considers two channels that bring about this shift, namely changes in the income distribution of the existing voter base and an extension of the franchise to poorer parts of society. The evidence on these channels is mixed. Studies on inequality find little evidence at the national level (Alesina and Rodrik, 1994, Perotti, 1996), while studies at the sub-national level appear to confirm the theoretical predictions (Borge and Rattso, 2004, Boustan et al., 2013). By contrast, there is vast evidence that an extension of the voter franchise leads to higher taxation and spending (Husted and Kenny, 1997, Lott et al., 1999, Cascio and Washington, 2013). Our study highlights the importance of a third mechanism that shifts the locus of the median voter, namely the inflow of poor voters. This mechanism is particularly relevant for countries with high rural-to-urban migration. Urbanization is expected to grow in the decades to come (Michaels et al., 2012), which means that many more poor people will move to cities. Our results show that this inflow of poor voters may lead to immediate changes in public policies and have lasting effects on people's preferences for redistribution.

Second, our paper contributes to the literature on the determinants of preferences for redistribution. Several studies document that these preferences are determined by exposure to political and economic conditions early in life, such as growing up during a recession or under a different political system (Corneo and Grüner, 2002, Alesina and Fuchs-Schündeln, 2007, Giuliano and Spilimbergo, 2014, Fuchs-Schündeln and Schündeln, 2015). Our results indicate that such shifts in preferences triggered by historical events can persist over multiple generations. We find that people in areas that underwent the challenging experience of integrating forced migrants in the 1940s show stronger support for redistribution more than 50 years later.

Finally, our paper contributes to the literature on the economic consequences of migration, in particular forced migration (see Becker and Ferrara, 2019, for a survey of the literature). Several studies exploit the resettlement of Germans after WWII to study the economic impact of forced migration on the receiving regions, focusing on labor market outcomes (Braun and Omar Mahmoud, 2014, Braun and Weber, 2016) and economic growth (Burchardi and Hassan, 2013, Braun and Kvasnicka, 2014, Peters, 2017).[2] Our paper also adds to the recent literature on the impact of migration on public policy setting (Tabellini, forthcoming, Bandiera et al., forthcoming) by illustrating that forced migration may increase the demand for social welfare. The fact that the expellees had voting rights appears to be a decisive factor explaining these results. This can be seen from recent work by Tabellini (forthcoming) on European migration to the US in the early-1900s. Contrary to our findings, his results suggest that counties with high immigrant inflows reduced spending and lowered tax rates, because the migrants initially had no voting rights. By contrast, the German expellees could directly influence the political process through their voting rights, resulting in more generous redistribution.

2 Historical and Institutional Background

The expulsion and resettlement of over 12 million Germans in the aftermath of WWII is widely acknowledged as one of the largest forced population movements in history (Douglas, 2012). In this section, we provide an overview of the historical events that led to the expulsions as well as the context of the expellees' economic and political integration in West Germany. In particular, we explain why this inflow led to greater local demand for social welfare, as well as why this makes

[2] A further branch of this literature documents the slow integration of forced migrants into society (Bauer et al., 2013), while showing that forced migrants have stronger incentives to invest in the human capital accumulation of the next generation (Becker et al., 2018).

post-war Germany an exemplary setting for studying the impact of the inflow of poor voters on public policy setting. We then turn to our main outcome variables — namely local taxation, spending and debt — and provide a brief historical account of German cities' far-reaching autonomy in public policy setting and their obligation to provide social welfare.

2.1 The Forced Migration of Germans after World War II

Between 1944 and 1950, more than 12 million ethnic Germans were expelled and resettled from former territories of the German Reich in Eastern Europe as well as from Central and East European countries, where German communities had been living since the Middle Ages (Merten, 2012, ch.1).[3]FAcc Migration flows to the West began in the final phase of WWII when inhabitants of the Eastern territories fled from the advancing troops of the Soviet Army, and intensified when local militia began to seize German property, particularly in East Prussia, Pomerania and Silesia (Douglas, 2012). In June 1945, after Nazi Germany's unconditional surrender, the expulsions were institutionalized when the Winning Allies agreed upon the delineation of Germany's boundaries and ordered that all Germans living outside these new borders were resettled. Germany had to cede its territories East of the rivers Oder and Neisse — East Prussia as well as large parts of Pomerania, Silesia and Brandenburg — to Poland and the Soviet Union (see Appendix Figure B.1 for details). The remaining German territory was first occupied by the Winning Allies and later — from 1949 until the reunification in 1990 — formed the Federal Republic of Germany (*West Germany*) on the territory of the American, British and French occupation zones and the German Democratic Republic (*East Germany*) on the territory of the Soviet occupation zone.

Size of the population shock and initial settlement. Out of more than 12 million expellees, around 8 million arrived in West Germany between 1944 and 1950, while the remaining 4 million either died in transit or settled in East Germany. In West Germany, this inflow increased the country's population by almost 20% (Kossert, 2008). After reaching the West German territory, many expellees were first transferred to temporary refugee camps and subsequently assigned to municipalities in the American and British occupation zones. Because France suffered from greater war damage than the US and the UK, no expellees were allowed to settle in the French occupation zone before mid-1949 (Douglas, 2012, ch. 6). Until 1949, the Winning Allies further enforced mobility restrictions for the

[3] Among others, large German minorities had been living in Czechoslovakia, the Baltic countries, Poland, Hungary, Romania, Ukraine, Yugoslavia and parts of the Soviet Union.

expellees, preventing them from relocating within West Germany in the first years after arrival (Müller and Simon, 1959).

Data from the "Statistical Yearbook of the Expellees" (*Statistisches Taschenbuch über die Heimatvertriebenen*, Statistisches Bundesamt, 1953) allow us to precisely measure the initial inflow and geographic distribution of the expellees. For each West German county (*Kreis*), the yearbook provides detailed information on the total number and population share of expellees in September 1950, as well as aggregate information on the expellees' region of origin, religious composition, and further population characteristics. Therefore, it represents the earliest consistent account of the stock of expellees in West Germany.[4]

In 1950, the average share of expellees among the population was 17.3%, although the size of the inflow strongly varied across West Germany, ranging from 1.8% in Pirmasens/Rhineland-Palatinate to 44.1% in Salzgitter/Lower Saxony. Figure 1 illustrates the geographic distribution of expellees across West Germany.[5] Most expellees arrived in the states of Schleswig-Holstein and Lower Saxony in the North, as well as Bavaria in the South-East of the country, whereas substantially fewer settled in the federal states of North Rhine-Westphalia, Rhineland-Palatinate and Baden-Württemberg in the (South-)West. It becomes apparent that distance from the former German territories in the East substantially affected the distribution of migrants across West Germany, whereby we exploit this feature in the empirical analysis below.

The settlement of expellees across Germany did not follow a systematic protocol. Initially, the Allies' plan was to allocate them according to demographic and economic factors such as population density or economic potential. However, due to the severe destruction of the housing stock in most cities and the rapid inflow of refugees within a short time span, the availability of accommodation soon became the decisive factor. Consequently, the expellees were mostly allocated to rural areas and smaller cities, where the destruction of the housing stock was less severe (Henke, 1985).[6]

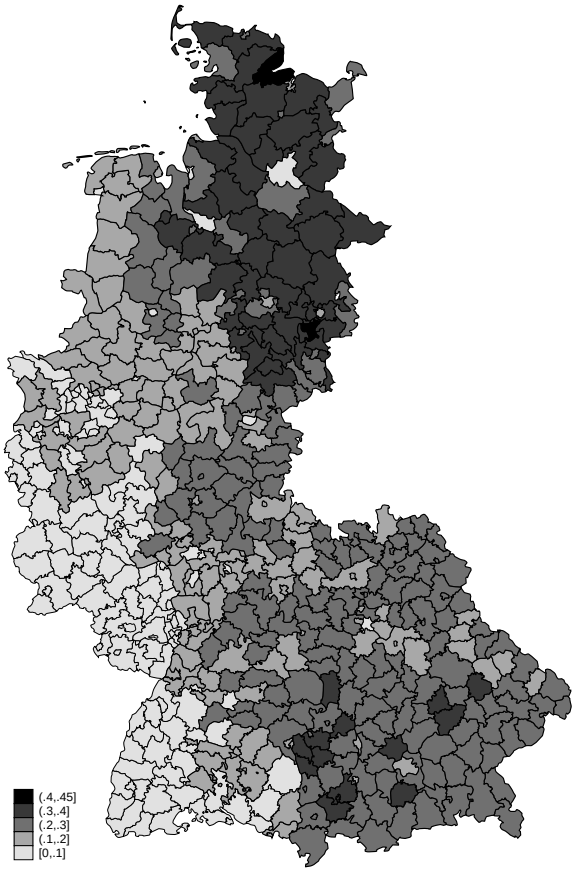
Economic and social integration of the expellees. Because most forced migrants were expelled from former German territories (Statistisches Bundesamt, 1953, p. 4), they had been subject to the

[4] Several state-level yearbooks provide data from as early as 1948. For the whole of West Germany, such data is only available for 1950.

[5] We exclude the city of West-Berlin from our analysis due to its very specific geographic position and structure. The Saarland — which was administered by France from 1947 to 1956 and rejoined West Germany in 1957 — is not covered by our data.

[6] While many expellees subsequently moved to larger cities, Schumann (2014) shows that the initial population shock was remarkably persistent across regions until the 1970s.

Figure 1: Population Shares of Expellees by County in West Germany, 1950



Notes: This map shows the county-level population share of expellees in West Germany in September 1950. Data are taken from the "Statistical Yearbook of Expellees" (Statistisches Bundesamt, 1953). The city of West-Berlin and the Saarland are excluded. The figure is based on shapefiles provided by the Max Planck Institute for Demographic Research (MPIDR) and the Chair for Geodesy and Geoinformatics, University of Rostock (2011).

same political and economic institutions as the West German population prior to WWII. Appendix Figure B.3 documents that ceded counties in the East did not systematically differ from the Western parts of the German Reich with respect to the occupational composition of the workforce or the political orientation of the electorate before WWII. However, the two parts differed in their religious composition: compared with West Germany, the Eastern territories had a significantly higher share of Protestants, whereby the inflow of the expellees changed the local religious composition of the population in some regions in the West (Kossert, 2008, ch. 7).

The economic and social integration of the expellees presented a major challenge to the West German society. Historical accounts document that the West German population was anything but welcoming towards the expellees. While natives and expellees shared the same ethnicity and citizenship, many West Germans expressed their hostility towards the expellees, in an episode

described as "*racism of Germans against German expellees*" (Kossert, 2008, ch. 4).

A key difference between the two population groups was the severe poverty of the expellees relative to the native population. During the resettlement, the expellees had lost their homes, jobs and virtually all of their possessions and real assets. Therefore, cities with a large inflow of expelled Germans experienced a significant shock to the local income and wealth distribution among their population. While many West Germans undoubtedly experienced severe losses from war destruction as well as economic deprivation during the early post-war years, a considerable number of people owned the remaining real assets such as agricultural land, livestock, properties and businesses. Moreover, unlike the expellees, West Germans could draw on their pre-existing social networks to find employment or obtain loans.

In order to improve the economic conditions of the expellees, the provisional West German government and the Allied Forces initiated a set of comprehensive policies (*Soforthilfegesetze*) including basic social assistance, once-off transfers to families, subsidies for education and training, credits for business creation, and funds for housing construction (Schillinger, 1985). These measures — along with a second redistribution program introduced in 1952 (*Lastenausgleichsgesetz*) — were funded by a federal tax on assets and a tax on gains from debt relief after the introduction of the Deutschmark (Schmölders, 1955, ch.2). While the transfers from both programs were provided to individuals and companies, there was no comprehensive transfer program between regions.[7]

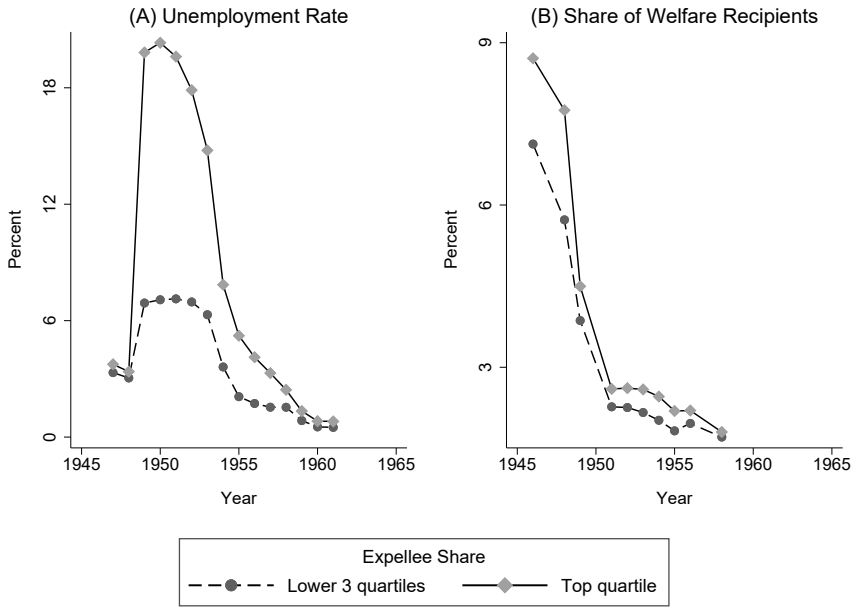
The economic and fiscal shock to cities with high inflows of expellees was substantial. This is reflected in Panels (A) and (B) of Figure 2, which contrast the evolution of the unemployment rate and share of welfare recipients in West German cities with a particularly high inflow of expellees (relative to the pre-inflow population) to cities less exposed to the forced population transfer. We first see that from the late-1940s to the mid-1950s — namely before Germany's growth miracle (*Wirtschaftswunder*) — unemployment was particularly high in cities with a large share of expellees among the population. While the economic upswing of the mid-1950s substantially reduced unemployment rates across the country, high-inflow cities were characterized by above-average unemployment levels until the early-1960s.[8] Unsurprisingly, this surge in unemployment was accompanied by a substantially higher

[7] Evidence abounds that the German government's efforts to integrate the expellees was only partially successful, if at all. As shown by Falck et al. (2012) and Bauer et al. (2013), the Federal Expellee Law (*Vertriebenengesetz*) — introduced in 1953 to foster the integration of expellees in the West German labor market — neither met its goals in the early post-war period nor in the longer run. In the 1970s, the first- and second-generation migrants were still lagging behind West German natives in earnings, home ownership rates and education.

[8] This difference can be partly explained by limited employment opportunities in more rural areas where most expellees initially settled, a greater mismatch between local labor demand and the expellees' skills, as well as labor market discrimination by West German employers.

share of welfare recipients in cities with a large expellee inflow, especially in the immediate post-war period (see Panel (B) of Figure 2). Having lost all of their assets and wealth, expellees with no labor income were entitled to mean-tested welfare benefits, comprising cash benefits, housing assistance, access to health care and support with nutrition and clothing.[9]

Figure 2: Forced Migration, Unemployment and the Share of Welfare Recipients



Notes: This graph shows how the average local unemployment rate (Panel A) and the population share of welfare recipients (Panel B) evolved over time in cities with low to medium and high inflows of expellees, respectively. See Appendix Table A.1 for definitions of the variables and the underlying data sources.

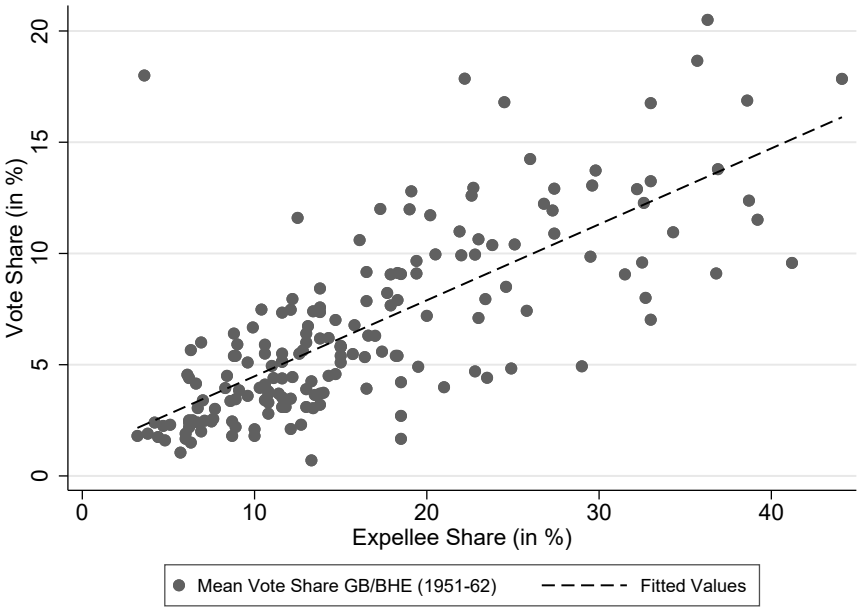
Citizenship and political representation of the expellees. The expellees were considered German citizens upon arrival, which granted them full voting rights in local, state and federal elections.[10] In 1950, expellees also founded a political party, the GB/BHE (*Gesamtdeutscher Block/Bund der Heimatvertriebenen und Entrechteten*), with the goal of improving the group's economic situation in West Germany as well as lobbying for a return of their properties in Germany's former Eastern territories. Figure 3 shows that the vote share for this party was substantially higher in cities with a larger share of expellees, suggesting that the expellees — despite not being a majority in any city — could influence local politics. This also meant that political parties had an incentive to cater for the

[9] While entitlement criteria for welfare were set by federal law, cities had considerable discretion regarding the overall generosity of welfare provision in their jurisdictions (see below).

[10] The electoral law for the first election of the West German Federal Parliament (*Bundestag*) in 1949 ruled that German citizens as well as individuals of German ethnic origin who were permanent residents of West Germany could vote. Electoral laws at the state and local level contained similar provisions.

interests of these new voters and account for their needs when setting public policies.

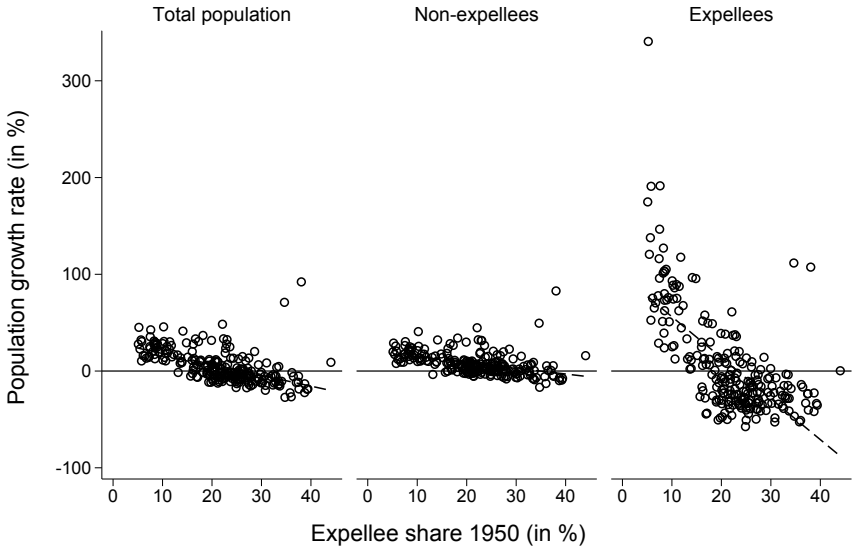
Figure 3: Expellee Inflow and Vote Share for the Expellee Party



Notes: This graph correlates the county-level population share of expellees with the mean vote share for the GB/BHE over the 1951-1962 period. See Appendix Table A.1 for definitions of the variables and the underlying data sources.

No evidence of native outflows. A common reaction to mass immigration is the outflow of natives (see, e.g. Boustan, 2010). Descriptive evidence suggests that this was not the case for the arrival of the expellees in West Germany. Figure 4 plots the initial county-level share of expellees against the county's population growth between 1950 and 1961. The negative correlation in the left panel indicates that people tended to move from high- to low-inflow areas. However, this correlation is mainly driven by the expellees themselves (right panel), who moved from rural high-inflow areas to urban areas that initially had low inflows. In contrast, the weak correlation for non-expellees suggests that the inflow of expellees did not trigger outflow of the pre-war West German population.

Figure 4: Population Growth for Natives and Expellees, 1950–1961



Notes: This graph displays the correlation between the share of expellees in 1950 and the population growth rates from 1950 to 1961 for the total population, the non-expellee (native) population and the expellee population. The dashed lines indicate fitted linear regressions. All variables are measured at the county level, based on census data from Schmitt et al. (1994). In this dataset, the 1950 population share of expellees is missing for all counties in the states of North Rhine-Westphalia and Rhineland-Palatinate, which had low population shares of expellees (cf. Figure 1).

2.2 Local Public Policy in West Germany

Our outcomes of interest are policy variables that were — and remain — set by the cities, namely local business and property taxes, spending on amenities and debt. Since the early-19th century, German cities and municipalities have had far-reaching autonomy in fiscal matters. These rights were substantially expanded and harmonized during the 1930s, when the Nazi regime re-organized the political organization as well as the system of public finances for all cities and municipalities in the German Reich (*Deutsche Gemeindeordnung*). The general principles of this code served as the basis for the fiscal self-government rules of cities in West Germany after WWII and — with some modifications — remain in place until today.[11]

Local taxation. The municipal code obliges cities to set local tax rates on an annual basis along with their budget plan for the following year.[12] Importantly, the legal definition and the valuation procedure of the respective tax base are set by the federal government, such that the cities' only

[11] While the original code specified that mayors and local council members (*Mitglieder des Gemeinderats*) had to be appointed by the Nazi party, since the end of World War II mayors and local councils have been elected.

[12] Since 1946, the tax rates and budget plan have to be passed by the elected local council. Before the end of WWII, the rates were set by the appointed mayor.

margin of adjustment is the actual tax rate. This margin of fiscal autonomy was only constrained during WWII, when the Nazi regime prohibited tax rate increases above the respective level of 1939. Only in 1942 and 1943 did the regime allow some limited increases in tax rates (Voigt, 1975).

The actual tax rate comprises two elements: the uniform basic rate (*Steuermesszahl*), which is set by the federal government, and the city-specific tax collection rate (*Hebesatz*). We focus on the five most important local tax rates, namely:

- *Agricultural Land Tax (Grundsteuer A)*, a tax on the value of agricultural enterprises (farmland);
- *Residential Property Tax (Grundsteuer B)*, a tax on the value of non-agricultural real estate;
- *Business Capital Tax (Gewerbekapitalsteuer)*, a tax on firms' capital stocks;
- *Business Profit Tax (Gewerbeertragssteuer)*, a tax on firms' profits; and
- *Wage Bill Tax (Lohnsummensteuer)*, a tax on firms' total wage bill.

Because the collection rates on capital and profits had to be identical by law, we will only report the effect on the tax on business capital below. Over the sampling period, these five taxes accounted for up to 90% of cities' overall tax revenue and more than 70% of their total revenue. Although cities received additional transfers from the federal and state governments in relation to their population size and economic situation, and could incur debt to finance their expenditures, local taxation was their most important source of revenue.

Given that the expellees initially owned neither properties nor businesses, the administrative burden of these taxes lay almost entirely on the incumbent West German population. However, the economic burden of these taxes may have been passed on to the expellees and West Germans without any asset holdings. For example, higher residential property taxes may have resulted in higher rents, a wage bill tax may have curbed workers' wages or employment opportunities, and higher agricultural taxes may have led to higher food prices.

Local public spending. While cities enjoyed autonomy in levying taxes, they were also responsible for the financing and provision of a wide range of public goods and services. Examples include the provision of social welfare, the upkeep of public safety and order, the provision of public and cultural amenities such as parks, sports facilities, museums and theaters, the building and upkeep of local infrastructure such as roads and public transport, the co-financing of hospitals and other health care facilities, and the provision of school buildings.

Given the expellees' dire economic situation after arrival, the majority of this group required social welfare, which posed a tremendous logistical and financial challenge to cities (Föcking, 2009). Importantly, throughout the 1940s and 1950s, local authorities had considerable discretion regarding the generosity of welfare provision. Before 1962, there were no unified and clear rules about the provision of benefits, such that benefit levels varied across cities. The payments largely aligned with local costs of living and followed the principle that benefits must be lower than local wages. However, to some degree the variation in benefit levels also reflected the municipalities decisions to spend their revenues on public amenities other than welfare (Willing, 2001, Föcking, 2009).

Debt. A further source of revenue for cities was public debt. Initially, municipalities' post-war level of debt was close to zero after the currency reform of 1948, which implied that 90% of the pre-1948 debt in Reichsmark was effectively eliminated (10 RM of debt became 1 DM of debt) while 100% of municipalities' deposits in Reichsmark were invalidated (Peters, 1959, p. 225). Consequently, municipalities' aggregate debt was 106 million Euros or two Euros per capita in 1950, corresponding to 1.2% of overall public debt (the sum of debt at the federal, state and municipal level). Starting in 1950, municipalities' indebtedness continuously increased to 241 Euros per capita in 1965, corresponding to 31.9% of overall public debt (see Statistisches Bundesamt, 2016, Table 1.1).

3 Main Analysis: Inflow of Poor Voters and Public Policy Setting

In this section, we analyze whether West German cities responded to the inflow of 8 million forced migrants by changing their public policies. We begin by focusing on tax rates, where panel data allow us to apply a DiD model. For all other outcomes — for which data are only available for the post-war period — we apply an instrumental variable strategy and provide a detailed discussion on the validity of the identifying assumptions. While it may appear mechanical that cities with high inflows of poor expellees were forced to raise welfare spending and, consequently, needed to raise taxes and reduce spending on non-welfare items, it is far from clear *which* taxes they would raise and on which items they would spend less. Our detailed tax and spending data allow us to provide a nuanced picture of the impact of the expellee inflow on the local policy mix. We describe the data sources along with the results. A more detailed description of the entire dataset can be found in Appendix A.

3.1 The Effect of Poor Voters on Local Taxation

Theoretical considerations. We begin by investigating the effect of the expellee inflow on local tax setting. As explained in Section 2, with the exception of the first half of the 1940s, cities had full discretion in setting local property and business tax rates. Standard models of optimal taxation (e.g. Ramsey, 1927) predict that cities would respond to the inflow of expellees and the need for higher fiscal revenues by increasing tax rates on less mobile assets or agents. Therefore, among the four main local tax rates, we would expect to see steeper raises in property tax rates compared with tax rates on a firm's capital or wage bill. Properties are immobile by definition, while firms may shift their operations to places with lower taxes.

However, in the context of post-war West Germany, the theoretical predictions may not be as clear-cut. For each tax, cities had to weigh the marginal increase in revenue against the marginal costs for all or some of their citizens. For example, in light of the severe housing shortages after WWII, cities had every reason to provide an incentive for construction by keeping taxes on residential properties low. Likewise, high taxes on agricultural properties could have led to higher food prices, which would have hurt poorer parts of society who had to spend an even larger share of their income on food. Similar arguments apply to tax increases on firms' capital and wage bill. Higher taxes on a firm's capital may have lowered incentives to invest, while a higher tax on a firm's wage bill may have reduced incentives to hire new workers in the short run or even induced a shift in production towards less labor-intensive production in the longer run. Ultimately, which of these tax rates cities decided to adjust — and to what extent — remains an empirical question.

Empirical model. In order to analyze the effect of the inflow of poor voters on local taxation we collected panel data on tax rates for the 400 largest German cities from the "Statistical Yearbooks of German Municipalities" for the period from 1938-1965.[13] The fact that we observe tax rates before and after the inflow of expellees allows us to estimate a causal effect using a DiD design with a continuous treatment.

Simple cross-sectional OLS estimates would most likely be biased because the same unobserved factors that determined the size of the expellee inflow into a city may have also determined a city's tax setting. Our DiD design enables us to absorb time-invariant city characteristics and compare

[13] *Statistische Jahrbücher Deutscher Gemeinden*; see Appendix Table A.1 for details. Our sample period ends in 1965 because municipalities could no longer be exactly matched thereafter. Starting in 1966, several territorial reforms changed the definition of city and municipality boundaries. Appendix Figure B.2 maps the cities covered in our data.

the evolution of local tax rates in cities with high and low inflows of expellees before and after the expulsions. While almost all cities considerably raised their local tax rates after WWII (see Appendix Figure A.1), our model allows for the estimation of the *differential* effect of the expellee inflow on tax setting, i.e. the extent to which cities with higher shares of expellees raised their taxes *more* than those with lower shares.

The specification of the regression model follows Duflo (2001) and Moser et al. (2014) and takes the form

$$y_{mct} = \sum_{t \neq 1944} \delta_t (ExpShare_c \times \tau_t) + \sum_{t \neq 1944} \rho_t (X_{mc} \times \tau_t) + \phi_t + \phi_m + \varepsilon_{mct}, \quad (1)$$

whereby we regress the respective tax rate of city m in county c in year t on the interaction terms of the expellee share in county c and year dummies ($ExpShare_c \times \tau_t$). In order to exploit variation within cities over time, we control for city fixed effects (ϕ_m). Year fixed effects (ϕ_t) further absorb changes in tax rates that are common to all cities in West Germany. We choose 1944 — the year before the onset of the migration flow — as the base year. Therefore, our coefficients of interest δ_t measure the effect of an increase in the share of expellees within a city on the local tax rate relative to the base year 1944.

While tax rates and all other outcome variables vary at the city level, our regressor of interest, the share of expellees in 1950, varies at the county level. These data represent the earliest available comprehensive data source to consistently measure the spatial distribution of expellees in Germany. Despite the potential risk of measurement error, we chose these data to capture the *initial* allocation of the expellees to the best possible degree. Because the expellees could freely move after the lifting of the mobility restrictions in 1949, later measures of the share of expellees would potentially be endogenous. In the appendix, we show that we obtain similar results when we use the municipality-level share of expellees, which is available for 1952.

In addition to the city and time fixed effects, we further account for historical and institutional differences that may have had persistent but time-varying effects on tax rates while also explaining the settling pattern of the expellees. The vector X_{mc} includes measures of institutional, economic and social differences as well as the local extent of housing destruction after the end of the war. In order to allow for a time-varying effect on taxation, we interact each variable with year dummies. The set of institutional controls comprises dummy variables for the three Western occupation zones, an indicator whether a city was part of Prussia, and a dummy variable that equals unity if a city

is located closer than 75km to the inner-German border. The occupation zone dummies control for common shocks within the occupation zones due to varying policies by the three Western Allies. The Prussia dummy, in turn, accounts for historical institutional differences between Prussia and the rest of the former German Empire. Finally, the border dummy controls for the lower growth trajectory of cities close to the inner-German border after the war, a direct consequence of the division of Germany into East and West in 1945. Cities that were located in the center of the country up until 1945 found themselves in a remote location thereafter, which meant reduced access to markets and lower subsequent growth. Redding and Sturm (2008) show that the economic consequences of closeness to the border were concentrated within approximately 75km of the border, which is why we define our dummy variable accordingly.

The vector X_{mc} further comprises county-level measures of social and economic differences across West Germany before WWII, namely the average vote share for the Social Democratic Party (SPD) in the federal elections between 1924-1933, the share of Protestants in 1925 — both proxies for potentially persistent differences in political attitudes, work ethic and social norms — as well as the respective share of civil servants and unemployed workers in 1933, and the (log) population density in 1939 — proxies for economic prosperity before the war. All data on pre-war social and economic differences are taken from King et al. (2008); see Appendix Tables A.1 and A.2 for details. Finally, to proxy for the degree of local war destruction, X_{mc} comprises the county-level share of destroyed housing units. In our setting, this control is important because cities with greater housing destruction received fewer expellees while having had good reasons to raise taxes to finance reconstruction.

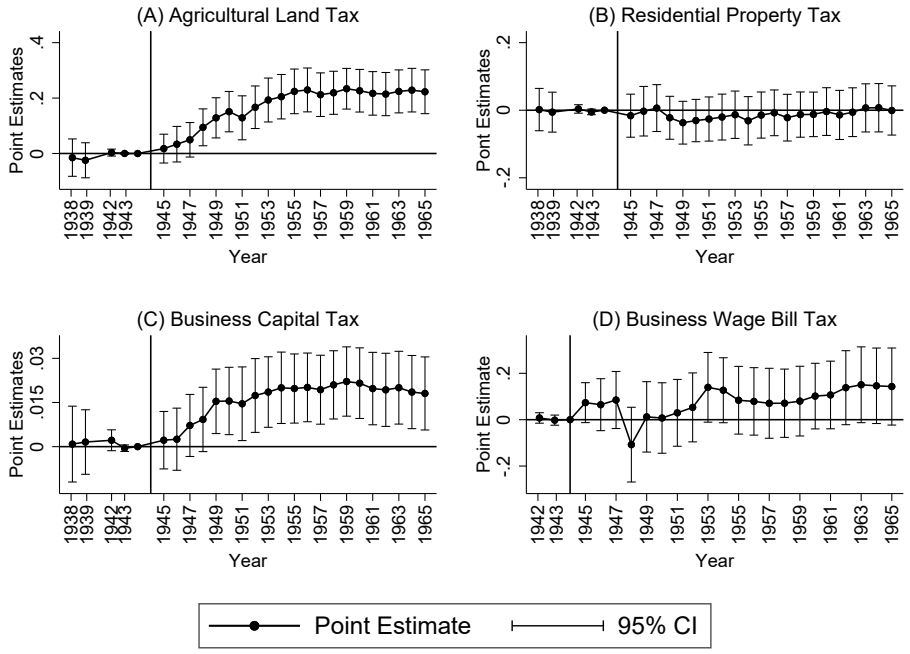
The error term ε_{mct} summarizes all determinants of local tax rates that are not captured by our set of regressors in Equation (1). Throughout the analysis, we cluster standard errors at the county level to account for any potential correlation in the error terms across cities within a county and within counties over time.

Identification. As is standard in DiD designs, causal identification of the parameters of interest δ_t rests upon the assumption that, conditional on covariates, tax rates in cities with a low and high inflow of expellees would have followed the same evolution in the absence of treatment. Our DiD approach allows us to corroborate the identifying assumption through the inspection of pre-trends, i.e. by considering the effect of the expellees share on tax rates prior to the inflow of forced migrants. If the expellees were to have any effect on tax rates, we would expect statistically significant estimates

after the inflow, but not before.

Effects on local tax rates. Figure 5 displays the estimated coefficients of our DiD approach for the four tax rates. In order to make the effects comparable across outcomes, we standardize the share of expellees by dividing it by the sample standard deviation. The vertical line marks the arrival of the first wave of expellees in late-1944, and thus the beginning of treatment.

Figure 5: The Effect of Expellee Inflows on Local Tax Rates - DiD Estimates



Notes: This figure displays the point estimates and 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model in Equation (1). Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level.

Figure 5 reveals two central results. First, cities responded to the expellees inflow with selective changes in tax rates. Cities with a high inflow of expellees raised tax rates on agricultural land and firms' capital (Panels (A) and (C)), while we find no effect on taxes on residential property and firms' wage bill (see Panels (B) and (D)). A one standard deviation increase in the share of expellees — corresponding to 9 percentage points — led to an additional raise in the agricultural land tax by 0.2 percentage points, corresponding to 14% of the mean tax rate in 1944 and a raise in the capital tax by 0.015 percentage points, corresponding to 3% of the mean.

Second, the initial changes in tax rates remained persistent over time. The gap in tax rates on agricultural land and business' capital between high- and low-inflow cities opens shortly after the

inflow, and remains at a similar level until the end of our sampling period in 1965. This persistence may appear surprising as it cannot be reconciled with standard theories of tax competition (e.g. Wilson, 1986, Zodrow and Mieszkowski, 1986). These theories predict that cities undercut each other's tax rates to attract businesses, such that in equilibrium all cities have the same tax rates. If this was true, we would expect that after entering an initial disequilibrium, tax rates in high-inflow cities would swiftly revert to those of low-inflow cities. One potential explanation for the observed persistence is differences in agglomeration rents. As highlighted by the literature on economic geography (Andersson and Forslid, 2003, Baldwin and Krugman, 2004, Luthi and Schmidheiny, 2014), cities that offer higher agglomeration rents can afford to tax firms more. In this case, a spatial equilibrium with diverging tax rates is sustainable because firms that move to places with lower taxes would lose parts of their agglomeration rents. In the context of the expellee inflow, this explanation appears plausible. Peters (2017) finds that cities with high initial migrant inflows grew faster over the 1950s and 1960s, which gave rise to higher agglomeration rents.

Panels (A)–(D) further corroborate the causal interpretation of the estimates, as trends in tax rates before the inflow are close to zero and statistically insignificant.[14] The parallel pre-trends lend support to the validity of our identifying assumption and indicate the absence of systematic sorting of expellees into cities with divergent levels or trends in tax rates.

The estimates $\widehat{\delta_t}$ for all years after 1944 represent reduced-form coefficients that describe the *total* effect of the inflow of expellees on tax rates. As such, they summarize a wide variety of causal pathways. For example, changes in voting patterns, internal migration or changes in firms' location decisions, which may all, in turn, affect tax setting. However, because these processes are direct consequences of the inflow, they represent adjustment channels through which the expellee inflows affected tax rates but — importantly — do not confound the estimation of a causal effect.

In a set of robustness checks, shown in Appendix C, we re-estimate the above regressions with different sets of controls. The results, displayed in Tables C.1.1–C.1.4, suggest that it is important to control for institutional differences, namely the occupation zone and whether a city was part of Prussia. While without these controls the pre-treatment coefficients for both business taxes are positive and statistically significant, they are close to zero and statistically insignificant once we add these controls.

[14] 1938 is the earliest year for which data on tax rates is available. The most relevant estimates for evaluating the pre-trends are those for 1938 and 1939. For 1940 and 1941, the Nazi regime prohibited changes in local tax rates, such that point estimates δ_t for these years are less informative (see Section 2 for details).

3.2 The Effect of Poor Voters on Spending and Debt

In addition to changing tax rates, cities could respond to the expellee inflow and its fiscal consequences along two further margins, namely reducing spending on items other than welfare and incurring debt. In order to analyze these effects, we collected city-level data on spending and debt levels from the Statistical Yearbooks of German Municipalities (see Table A.1 for details). Because these data are only available from 1950 onwards, we apply an instrumental variables (IV) strategy to estimate a causal effect. In the following, we first describe the construction of the instrument and why it yields a sufficiently strong first stage, before dicussing the plausibility of the exclusion restriction in detail. Finally, we address commonly known challenges to the validity of the exclusion restriction, by carrying out falsification and plausibility tests.

Instrumental Variables Strategy. The relationship of interest is summarized by the cross-sectional regression

$$y_{mct} = \delta_0 + \delta_1 ExpShare_c + \boldsymbol{X'_{mc}}\boldsymbol{\rho} + \varepsilon_{mct}, \tag{2}$$

whereby outcome y_{mct} is a function of the expellee share $ExpShare_c$ and a vector of city- and county-level controls, $\boldsymbol{X_{mc}}$.

The challenge to identification is that the share of expellees is potentially correlated with unobservable city characteristics that determine local spending and debt. In order to estimate a causal effect, we require an instrument that determines the size of the expellee inflow in West German cities while being uncorrelated with local conditions after 1944.

We instrument for the expellee share in a West German city with the interaction of two gravity forces, namely a "push" factor in the sending regions that is only relevant before WWII as well as the geographic proximity of the sending regions to a given city in the West.[15] The push factor is the number of Germans living in each county i in the ceded Eastern Territories of the German Reich and Sudeten in 1939, which provides a prediction for the population outflow after 1944. While the pre-war population is not a push factor for migration in the same sense as local economic conditions or extreme weather events would be (Boustan et al., 2010, Boustan, 2010), in our case the push was triggered by the expulsions during which the entire German population was forced to move

[15] This IV strategy of interacting push factors in the sending regions with geographic proximity to the destination bears resemblance with Boustan et al. (2010), Boustan (2010) and Llull (2017).

westwards. Because urban counties such as Breslau or Königsberg had much larger populations than rural counties, there is significant geographic variation in predicted outflows.

In a second step, we assign the predicted outflows from the source counties in the East to the destination cities in the West based on the Euclidean distance between source-destination pairs. It is generally established that distance represents a main determinant of migration, and this also holds true for the flow of expellees. For those expellees who made their own way to West Germany, after a tedious journey it was less costly to move to a place closer to the border. A similar argument holds for the Allied Forces, who temporarily hosted expellees in refugee camps along the border, and for whom it was less costly to assign the expellees to places in closer proximity.

Formally, we construct the instrument for receiving city c by multiplying the population share of a sending county i among the entire population of the Eastern Territories and Sudeten[16] (first term in the equation below) with the distance between sending county i and receiving city c,

$$\Delta Pop_c = \sum_i \left(\frac{Pop_i^{1939}}{\sum_i Pop_i^{1939}} \right) \times dist_{ic}. \tag{3}$$

By taking the sum over all sending counties i, we obtain a prediction of the total inflow into each Western city c. The first-stage relationship between the predicted population change and the share of expellees is given by

$$ExpShare_c = \delta_0 + \delta_1 \Delta Pop_c + \boldsymbol{X}'_{\boldsymbol{mc}} \boldsymbol{\gamma} + \eta_{mc}. \tag{4}$$

As shown in Appendix Figure B.4, there is a strong negative correlation between the two variables, which prevails when the full set of controls $\boldsymbol{X_{mc}}$ is added. The F-statistic of the instrument in the first stage, depending on the sample and the set of controls, ranges between $F = 20$ and $F = 84$, indicating that the instrument is a sufficiently strong predictor for the share of expellees.

Identification. The validity of our IV approach hinges on the assumption that the instrument has no direct effect on the outcomes of interest. For the exclusion restriction to hold, the predicted population change in West German cities based on the two gravity forces may hence only affect our outcomes through the inflow of expellees but no other channel. Put differently, we need to assume that the spatial distribution of Germans in the ceded territories *before* WWII is orthogonal to local economic conditions in West German cities after the war.

[16] County-level information on pre-war population is taken from the census in 1939, see Appendix Table A.1. In 1938, following the Munich Agreement, Sudeten was annexed by the German Reich, which is why population statistics on the Sudeten are available in the German census.

While not testable, the particular institutional set-up as well as the Allied Forces' decisions after WWII lend support to the exclusion restriction. Before the war, the Western and Eastern parts of the German Reich held important economic ties through trade, internal migration or knowledge flows. However, most pre-existing linkages were eliminated when the Eastern territories were ceded to Poland and the Soviet Union, and the Iron Curtain separated Western Europe from the Soviet Bloc. Therefore, the gravity forces that affected the flow of expellees and may have shaped economic development before the war were no longer at play thereafter.

Nonetheless, we acknowledge that the 40-year-long division of the remaining German territory into West and East Germany between 1949 and 1989 may threaten the validity of the instrument. The foundation of the GDR on the territory of the Soviet occupation zone and the subsequent isolation of the Soviet Bloc particularly affected West German cities close to the Iron Curtain that lost market access and trading partners within close proximity. Redding and Sturm (2008) show that this economic remoteness considerably slowed the growth of cities close to the inner-German border. Their estimated effect is non-linear and mainly concentrated within a 75km-corridor along the border. Such differential economic trajectories could invalidate our exclusion restriction if cities closer to the inner-German border set systematically different public policies independent of the fact that they received a higher share of expellees. In order to alleviate this concern, we control for an indicator that equals unity if a city is located closer than 75km to the Iron Curtain.

In the analysis to follow, we interpret our IV estimates as causal under the maintained assumption that, conditional on these controls, the exclusion restriction $cov(\varepsilon_{mct}, \Delta Pop_c | \boldsymbol{X_{mc}}) = 0$ holds and the instrument is valid. Below, we carry out two plausibility tests. First, further in this section, we compare the IV estimates for local tax rates to the DiD estimates. The difference between the two estimates is informative about the validity of the instrument given that the DiD approach controls for many omitted variables that could confound the IV results. Second, in the Appendix, we apply the method of Conley et al. (2012) and assess the extent to which the causal inference is robust to violations of the exclusion restriction. We also assess the quality of our inference through permutation tests.

Effects on Tax Rates Revisited: Testing the Plausibility of the Exclusion Restriction. The fact that tax rates are available for the pre-treatment period provides us with the opportunity to corroborate the instrument validity by comparing the DiD to the IV estimates. Because the DiD approach in

Section 3.1 includes city fixed effects and controls for differential time trends by interacting control variables with time dummies, it controls for many variables that could violate the exclusion restriction in the IV approach. If our cross-sectional IV estimates turn out to be similar to the (panel-)DiD estimates, this would support the assumption that the instrument is uncorrelated with the error term.

In order to make the IV estimates comparable to the DiD results, we use as outcomes the differences in tax rates between year t and our base year 1944, i.e. $y_{mct} = tax_{mct} - tax_{mc1944}$. We then estimate our IV model as displayed in Equation (2) separately for every year $t = [1938, \ldots, 1965]$, using the same control variables as in the DiD regressions in Section 3.1. As before, we cluster the standard errors at the county level.

The results — displayed in Figure C.1.1 in the Appendix — confirm that the IV and DiD estimates are indeed similar. We find no significant effect of the expellee share on tax rates before 1944, while the effects after 1944 are similar in terms of both magnitude and persistence. While this comparison cannot prove the validity of the instrument, it provides strong support in favor of it.

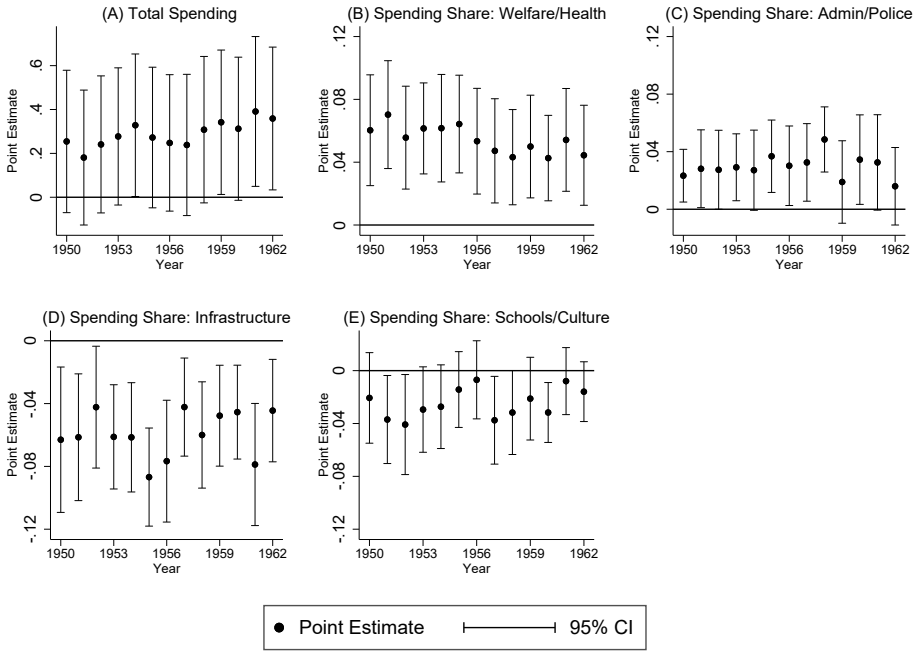
Effects on Spending. We now apply the IV approach to estimate the impact of the expellee inflow on public spending. For this purpose, we collected panel data on cities' expenditures from the Statistical Yearbook of German Municipalities for the 1950–1962 period.[17] The results are displayed in Figure 6. In Panel (A), we first show that the inflow of expellees considerably raised cities' total spendings, a one standard deviation increase in the expellee share raising total spendings by 0.265 standard deviations on average. However, as we are primarily interested in analyzing shifts in local spending items, we next focus on spending on (i) social welfare and health, (ii) public administration and the police, (iii) infrastructure, and (iv) schools and culture *relative* to total spending.[18] For each year $t = [1950..1962]$, we run a separate IV regression using the same controls as in the DiD approach.

In line with the higher welfare dependence of the expellees, Panel (B) of Figure 6 shows that the spending share on social welfare was significantly raised in areas with a higher expellee inflow. For a one standard deviation increase in the share of expellees, the spending share on welfare increased by 5.7 percentage points on average, which is equivalent to 33% of the mean. This increase

[17] As detailed in Appendix A, information on the local spending, debt and voting are only available for larger cities. The effects on tax rates are virtually identical when limiting our sample to those cities for that we observe local spending, debt and electoral results, see Figures C.1.2 and C.1.3.

[18] The statistical yearbooks provide information on more fine-grained levels of spending. However, the exact definitions of the spending categories differ from year to year, which is why we aggregated them to larger categories. The analysis is limited to the period from 1950 to 1962 due to large structural changes in fiscal laws in 1962 that particularly affected cities' local spending.

Figure 6: The Effect of Expellee Inflows on Local Spending (Shares) - IV Estimates



Notes: This graph displays the point estimates and the 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on spending (shares for different items) using the IV strategy laid out in Equations (2)–(4). Each point represents the coefficient of a separate regression. Estimates are based on the most comprehensive IV specification that includes measures of institutional differences and pre-WWII and the share of destroyed housing after the war (see Section 3.2 for details). Total spendings are standardized, spending shares in percentage points. Standard errors are clustered at the county level.

remains persistent until the end of our sample period in 1962. Upon first glance, the persistence of the effect over time appears surprising in light of Germany's substantial period of economic growth in the 1950s, during which per capita GDP nearly doubled (Eichengreen and Ritschl, 2009). However, as shown by Bauer et al. (2013), even in the 1970s the expellees were lagging behind the incumbent population in terms of labor force participation, employment, income and home ownership. Therefore, it is plausible that their welfare dependence remained high until at least the 1960s.

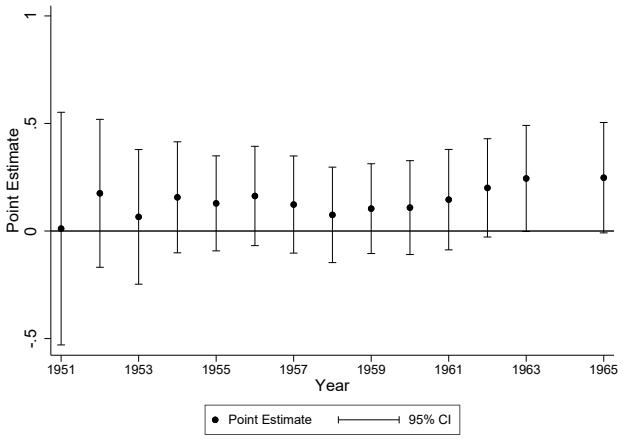
Panels (C)–(E) of Figure 6 show the corresponding effects for the remaining spending categories. The results point to substantial shifts in spending. High-inflow cities reduced relative spending on local infrastructure as well as schools and culture, although, over the course of the 1950s, these differences slowly fade out for the latter outcome. In terms of magnitude, the observed shifts in spending are substantial. A one standard deviation increase in the population share of expellees reduced the spending share on infrastructure by 6.1 percentage points (18% of the mean) and the share spent on schools and culture by 2.6 percentage points (9% of the mean).

The Effect on Debt. An additional margin of fiscal adjustment is incurring debt. In order to quantify the importance of this margin, we collected data on city-level per capita debt for the 1951-1965 period from the Statistical Yearbook of German Municipalities. Figure 7 displays the results based on the same regression model as before. The outcome variable is log per capita debt (in 1950 DM).

In contrast to the strong and precisely estimated effects on spending shares, the evidence on debt is weaker. Most point estimates indicate a positive effect of the expellee inflow on debt. From 1952 onwards, for a one standard deviation increase in the share of expellees, debt per capita increased between 7.5% and 25%. However, given the low precision of the estimates, we cannot rule out that the effects are zero.

Robustness and Plausibility Checks. In Appendices C to E, we carry out a series of checks to assess the robustness of our estimates and inference, as well as the plausibility of the instrumental variable strategy. For all IV results presented in this section, we report the corresponding OLS results for comparison. In addition, we assess the sensitivity of the OLS and IV coefficients to the inclusion of various sets of controls. The IV coefficients are generally larger than the OLS coefficients, although — some few exceptions aside — the difference is fairly small. The difference between

Figure 7: The Effect of Expellee Inflows on Local Debt - IV Estimates



Notes: This graph displays the point estimates and the corresponding 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on local debt per capita (in logs) using the IV strategy laid out in Equations (2)–(4). Each point represents the result of a separate regression. Estimates are based on the most comprehensive IV specification that includes measures of institutional differences and pre-WWII and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

the two coefficients may be explained by either endogeneity in the share of expellees in a city or a discrepancy between the average treatment effect identified by OLS and the local average treatment effect identified by the IV, or both.

We also assess the robustness of our inference using non-parametric permutation tests. These tests allow us to relax the assumption that the error terms are normally distributed in the population. The results strongly confirm the significance levels found with parametric standard errors.

Finally, using the method of Conley et al. (2012), we assess the robustness of the causal inference to violations of the exclusion restriction of the IV. The basic idea behind this method is that while the exclusion restriction ($cov(\varepsilon_{mct}, \Delta Pop_c | \boldsymbol{X_{mc}}) = 0$) may not hold exactly, the estimates may still have a causal interpretation if this correlation is small. In Appendix E, we perform a plausibility test by calculating the largest direct effect for which the IV coefficient would still be statistically significant at the 10% level. The results suggest that our estimates are highly robust to violations of the exclusion restriction. In combination with the comparison of the IV and the DiD, we view these results as strong evidence in favor of our IV strategy and and its ability to deliver causal estimates.

4 Expellee Inflow and Voting Behavior

The results of the previous section show that the arrival of 8 million forced migrants led to more redistributive public policy setting in post-war West Germany. Meltzer and Richard (1981) posit that greater inequality shifts the median voter towards poorer segments of society, which leads to stronger support for redistribution. The results presented thus far are consistent with this theory. In this section, we provide further evidence that the inflows of poor people affected the local political economy.

We first consider the effect of the expellees on voting in municipal elections. For this purpose, we collected data on voter turnout and party vote shares for city elections from the Statistical Yearbook of German Municipalities for the period from 1946 to 1962.[19] Municipal elections are the relevant elections in this context, because local tax rates and spending are decided by municipal and city councils, which are elected every four to five years. German municipal elections have very low thresholds for parties to gain seats in the councils. Most states had instituted electoral systems following proportional representation at the local level, such that vote shares translated almost one-to-one into seat representations. Local elections took place at different points in time across the country, which is why we divide the elections into five cycles (1946, 1947–50, 1951–55, 1956–59 and 1960–1962). Within each cycle, the majority of municipalities held an election. We consider four outcomes, namely voter turnout, the vote shares of the two major parties — the conservatives (CDU/CSU) and the social democrats (SPD) — as well as the vote shares of the GB/BHE, a party that specifically represented the interests of the expellees.[20]

4.1 Voter Turnout

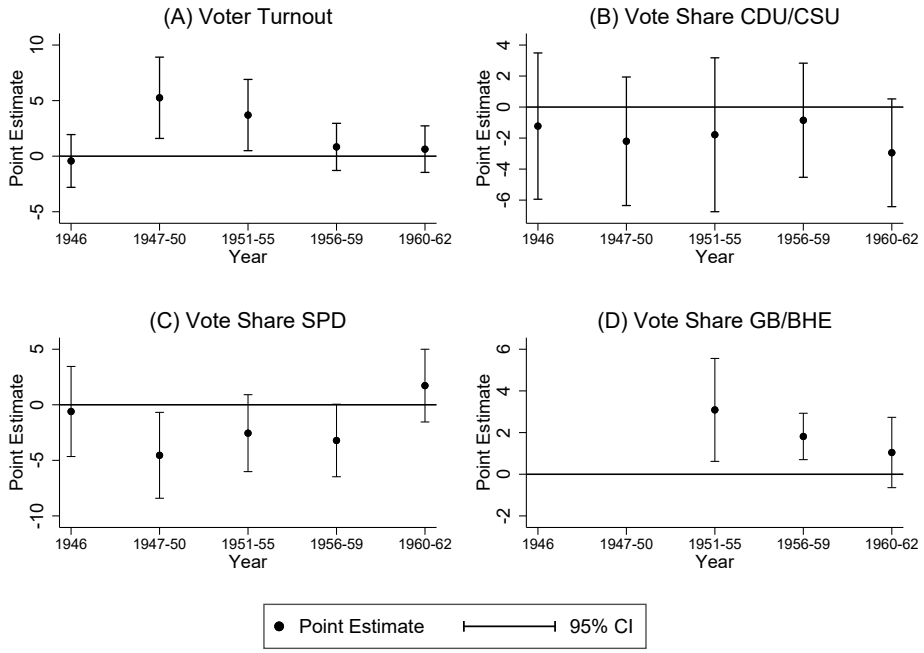
The effect on voter turnout provides indirect evidence of the economic and political stakes of different groups in a local election. Standard voting models predict that an increase in the size of the voter base decreases turnout because each vote is less likely to be decisive (Downs, 1957). In contrast, if a larger voter base increases the stakes of different groups in the election, voter turnout may actually increase (Andersen et al., 2014). This may be the case — for instance — if rich voters support low taxes while poor voters demand more redistribution. Panel A of Figure 8 presents the IV estimates for the effect of the expellee inflow on voter turnout. In the late-1940s and early-1950s, a larger inflow

[19] See Appendix Table A.1 for details and Figure A.1 for the evolution of voting outcomes over time.

[20] The abbreviation stands for "*Gesamtdeutscher Block/Bund der Heimatvertriebenen und Entrechteten*" (All-German Bloc/League of Expellees and Deprived of Rights).

of expellees significantly increased voter turnout in local elections. In elections held between 1947 and 1955, a one standard deviation increase in the share of expellees increased voter turnout by around 3.7–5.3 percentage points. This is a substantial effect given the mean voter turnout of around 74%, and suggests that the expellee inflow affected the voting behavior of the population, although the effect declined over time.

Figure 8: The Effect of Expellee Inflows on Voter Turnout & Vote Shares - IV Estimates



Notes: This graph shows the point estimates and 95% confidence intervals of the effect of a one standard deviation increase in the expellee share on local voter turnout and party vote shares (in %) using the IV strategy laid out in Equations (3)–(4). Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

4.2 Vote Shares for the Major Parties (CDU/CSU and SPD)

The effect on vote shares for the two major parties can further indicate shifts in people's preferences for redistribution. Among the two parties, the SPD has traditionally supported a more generous welfare state, while the CDU/CSU has pursued more business-friendly policies, although the parties' positions on the size of the welfare state have not been as divergent as in the US or the UK. Moreover, in line with Germany's federal political culture, both parties tolerate that local policies diverge from the party line. In Panels (B) and (C), we investigate the impact of the expellee inflow on the vote shares of the two major parties. During the sample period, both parties jointly achieved an average

vote share of 72.5% in municipal elections. Our estimates suggest that the inflow of expellees had little effect on the conservatives' vote share, whereas the vote share for the social democrats slightly declined. These findings provide no evidence that the inflow led to an increase in the vote share for the party that traditionally supports a larger welfare state.

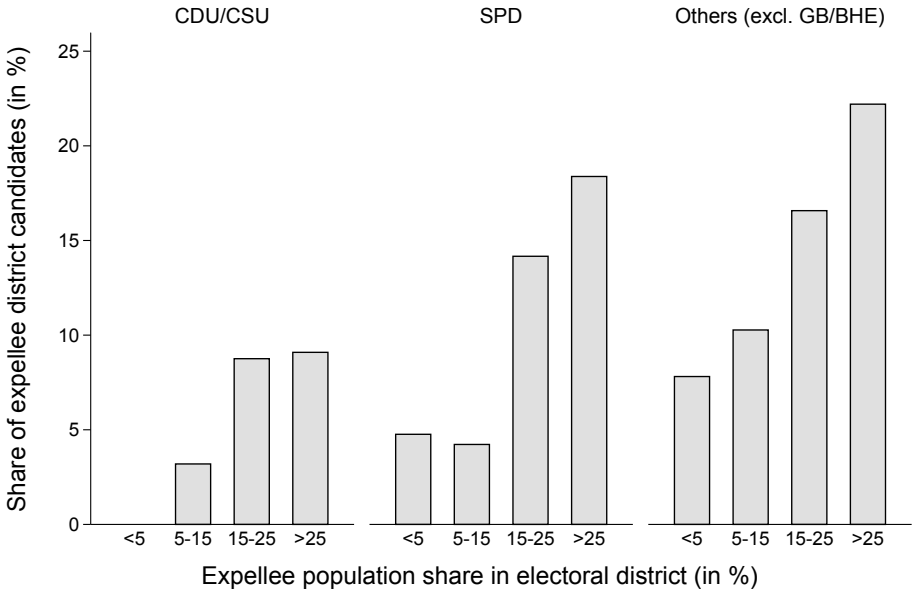
While this finding may appear surprising, our estimates only capture the extensive margin of local politics. It is well possible that both parties responded to the mass inflow of potential voters by changing their party programs to address the expellees' needs. In fact, historical accounts suggest that the CDU/CSU and SPD explicitly competed for the votes of the expellees by promising a fast improvement of their economic situation in West Germany as well as advocating the possibility of reclaiming their lost properties in the ceded territories (Kossert, 2008, pp. 165). Therefore, the expellees may have influenced local politics even without significantly affecting the local vote shares for the two major parties. In this context, Figure 9 provides further suggestive evidence for the expellees' political influence. It shows that in federal elections parties were more likely to select expellees as direct candidates in electoral districts with higher expellee shares.[21] The figure implies that the expellees indirectly influenced politics through the choice of candidates. This is remarkable because each party can only nominate one direct candidate per constituency, such that the decision for any particular candidate comes with high opportunity costs. Moreover, as newcomers, the expellees could not rely on the same social connections that are helpful for becoming a candidate within a party.

4.3 Vote Share for the Expellee Party (GB/BHE)

Finally, the effect on vote shares for the GB/BHE can provide an indication of the expellees' direct influence on local politics. The party was founded in 1950 and explicitly represented the expellees' interests. It pursued two main goals, namely improving the economic situation of the expellees in West Germany, and lobbying for a return of the expellees' properties in the ceded Eastern territories. The GB/BHE was part of the federal government between 1953 and 1955, and of several state governments between 1950 and 1961. In Panel (D), we find that a higher expellee share strongly increased the vote share of the GB/BHE, in particular during the 1950s. A one standard deviation increase in the expellee share increased the party's vote share by around 2.4pp, which is equivalent

[21] For this purpose, we collected biographical data for all direct candidates in the federal elections from 1949 and 1961. These data include information on a person's birthplace, and we consider as expellee every candidate who was born outside the post-1945 borders of Germany in the expellees' regions of origin.

Figure 9: Expellee Candidates in Federal Elections 1949–1961



Notes: This graph shows the share of direct candidates that were expellees in the federal elections 1949, 1953, 1957 and 1961 for the conservatives (CDU/CSU), social democrats (SPD), and other parties. The category *Other* does not include the GB/BHE, where the share of expellee candidates exceeded 60%. The numbers at the bottom indicate the share of expellees in the corresponding counties. See Appendix Table A.1 for further information on the variables.

to 33% of its mean vote share (see Appendix Tables C.4.1).[22] These findings provide evidence that the expellees influenced the political process in local elections, which may be one of the explanations for the implementation of more redistributive policies in cities with higher inflows.

4.4 Robustness Checks

In Appendix C, we report OLS and IV results for all regressions displayed in Figure 8 and assess the robustness of our estimates and inference in a series of sensitivity checks. While most OLS results are small and statistically insignificant, the IV coefficients are large and statistically significant, indicating the considerable selection of expellees into areas with certain voting patterns.

The permutation tests, displayed in Appendix D, confirm the statistical significance of most effects, with the exception of the effect on mean post-war voter turnout over the entire sampling period, for which the empirical p-value points to a statistically insignificant effect ($p = 0.18$). However, as shown in Panel (A) of Figure 8, the effect on turnout was strongly positive in the early-1950s but

[22] In Figure B.5 in the appendix, we additionally show that these vote shares are strongly correlated with actual seats in municipal councils, suggesting that in cities with higher shares of expellees, the expellees actually had a greater political representation.

reverted to zero after 1955, which may explain why the average effect from 1947 to 1962 is statistically insignificant.

We also assess the robustness of the causal inference to violations of the exclusion restriction (Conley et al., 2012). The effect on vote shares for the GB/BHE proves highly robust. The causal interpretation would hold up to a correlation between the error term and the instrument amounting to 52% of the original IV estimate.[23] We view this as strong evidence of a causal effect even if one doubts that the exclusion restriction exactly holds.

5 Long-Run Effects on Preferences for Redistribution

Thus far, our analysis has documented a short- to medium-run effect of the expellee inflow on redistribution. Cities with high inflows almost immediately implemented more redistributive tax and spending policies, and these changes were persistent until at least the mid-1960s. In this section, we turn to the long-run effects and investigate whether the impact of the expellee inflow persists over several decades.[24] Based on survey data from the early-2000s, we study the extent to which people living in cities that experienced high inflows in the 1940s differ in their preferences for redistribution from people living in low-inflow cities.

For this purpose, we link rich individual-level survey data from the German Socio-Economic Panel to the inflow of forced migrants based on the respondents' current county of residence.[25] Because we are interested in the impact of the expellee inflow on the non-expellee population, we restrict the sample to individuals born after the arrival of the expellees (i.e. after 1949). In order to measure preferences for redistribution, we follow Alesina and Fuchs-Schündeln (2007) and use the two waves of 1997 and 2002 that include questions about the respondents' preferred role of the state in different domains of social security, namely financial protection (i) for the family, (ii) when being old, (iii) when needing care, (iv) when being sick, and (v) when being unemployed. The response options were provided on a five-point scale, with higher values indicating a preference for a stronger role of the state in these matters (responsibility should rest "only [with] the state", "mostly [with] the

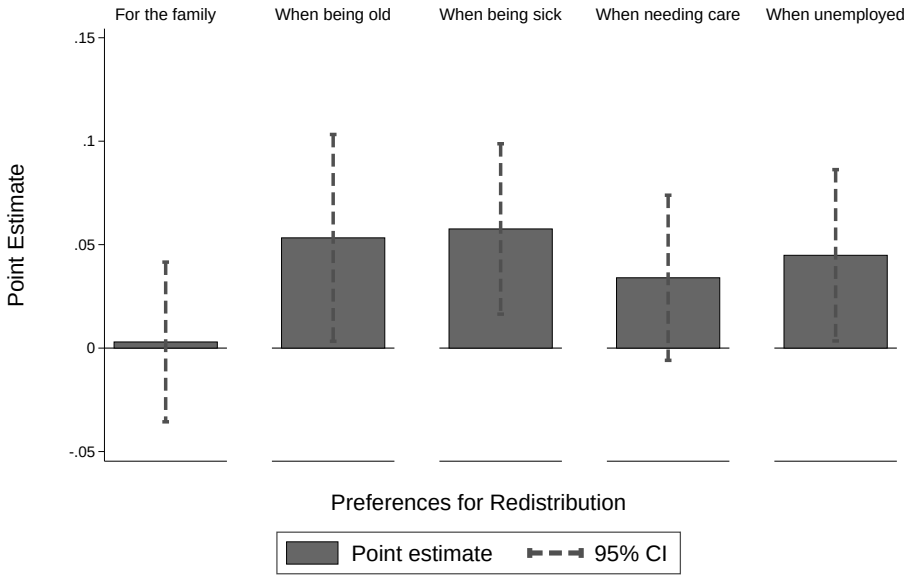
[23] For mean voter turnout the robustness is weaker, but the causal interpretation would still permit a correlation equal to 4% of the IV estimate. This finding is unsurprising given that the effect on voter turnout appears to be driven by early elections.

[24] One way to study long-run effects would be to consider taxation and spending in the same cities over an even longer period than in this paper. However, several territorial reforms in the 1960s and 1970s prevent us from doing so in a meaningful way. In these reforms, many municipalities that were previously cities in their own right became part of larger adjacent cities, thus making it difficult to link the data over time.

[25] Socio-Economic Panel (SOEP), data for years 1984-2016, version 33, SOEP, 2017, doi: 10.5684/soep.v33. See Goebel et al. (2018) and Appendix Tables A.3 for more details.

state"). Low values, in contrast, indicate a preference for people being individually responsible for financial protection ("mostly [by] private forces", "only [by] private forces"), while individuals can also prefer shared responsibilities in these matters ("state and private forces").[26]

Figure 10: The Effect of Expellee Inflows on Preferences for Redistribution 50 Years later - IV Estimates



Notes: This graph shows the estimates and 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on individuals' preferences for redistribution. The outcome is given on a five-point scale, higher values indicate stronger preferences for redistribution. We employ the IV model laid out in Equations (2)–(4). The set of controls comprises (i) respondents' characteristics, and (ii) historical controls (see Section 3.2 for details) to capture persistent differences across regions. Cross-sectional weights are used. Standard errors are clustered at the county level.

Applying our instrumental variables strategy with the same set of county-level controls as in the previous analysis, we find that preferences for redistribution in the early-2000s are substantially higher in counties that experienced a larger inflow of expellees in the 1940s. In terms of financial security in case of unemployment, sickness, need for care or when being old, individuals in high-inflow counties prefer a more active role of the state. Figure 10 indicates that one standard deviation increase in the share of expellees raises individuals' support for the welfare state by 3.5–5.1 percentage points, or 4.5-7.5% relative to the respective variable means (for further details see Appendix Tables A.3 and C.5.1).

In order to exclude the possibility that these effects merely reflect income differences across counties, we control for a person's individual labor income, current county-level employment rates as well as the current share of foreigners in an additional specification. The results, displayed in

[26] For each domain, we use as outcome the answer score between 1 and 5. See A.1 for a detailed description.

column (6) of Table C.5.1, remain unchanged when we add these controls. However, given that these variables may have been influenced by the expellees themselves and therefore may be seen as "bad controls", our preferred specification is one that excludes these variables.

These results suggest that the sudden arrival of 8 million expellees was a sufficiently large shock to persistently change the preferences of society. There are several plausible explanations for this long-run effect. One explanation is the intergenerational transmission of preferences. People who lived in high-inflow cities in the 1940s experienced an increase in the size of the welfare state, while being confronted with the greater poverty of the expellees. These experiences may have shaped the local narrative about poverty and redistribution, and may have been passed on to the next generations.[27] Another potential explanation is endogenous sorting based on preferences (Tiebout, 1956). The inflow of expellees triggered changes in public policies, which may have led to subsequent inflows of individuals with stronger preferences for redistribution. While our data do not allow us to disentangle these channels, the overall result suggests that the inflow of expellees is partly responsible for the significant differences in preferences for redistribution and welfare cultures across West German cities.

6 Conclusion

As early as 1835, de Tocqueville posited that extending the voter franchise to poorer parts of society should lead to an expansion of the welfare state because poor people benefit from public spending while contributing little in taxes (de Tocqueville, 1965, ch. XIII). Social scientists have repeatedly tested this hypothesis, with mixed evidence. In this paper, we exploit a natural experiment in post-war West Germany to advance empirical knowledge about the proposed mechanism. The re-drawing of Germany's borders after WWII led to a sudden inflow of 8 million Germans from other parts of the country into West Germany. The incoming migrants had full citizens' rights but were considerably poorer than the local population. Due to the uneven distribution of the forced migrants across West Germany, the inflow increased the number of poor people considerably more in some cities than in others.

This inflow of poor voters resulted in more redistributive public policies. Cities with high inflows selectively raised taxes and shifted spending from infrastructure to welfare. Moreover, we show that

[27] For example, Dohmen et al. (2012) show that attitudes (in their case the willingness to take risk and trust others) are transferred from parents but also the broader local environment to the next generation.

the inflow of poor people changed the preferences for redistribution of the following generations. People living in cities with high inflows in the 1940s are significantly more in favor of redistribution more than 50 years later. These results are in line with Tocqueville's hypothesis as well as with classic models of political economy (Romer, 1975, Roberts, 1977, Meltzer and Richard, 1981).

Our findings shed light on an important driver of economic development, namely internal migration. Due to rural-to-urban migration, the share of the world population living in cities has increased from less than 10% in 1300 to 50% today (Michaels et al., 2012) and is projected to further grow in the future. This trend in urbanization has arguably led to greater prosperity through a more productive use of production factors and the externalities of cities. However, given that the average rural-to-urban migrant is poorer than the average person in a city, our results indicate that internal migration may increase the demand for redistribution as cities grow. This opens up a promising avenue for future research. For instance, it would be interesting to see if the effects are similar at different stages of development and in different federal political systems. As with much work on migration, the challenge will be to find exogenous variation in internal migration to separate the casual effect of inflows from sorting based on preferences.

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Appendix

The Appendix is organized as follows. **Appendix A** provides information on the various datasets that we combined for our study, as well as descriptive statistics on the variables of interest for our study. **Appendix B** provides additional descriptive figures, **Appendix C** regression tables for all results presented in the main text of the paper as well as additional robustness checks. **Appendix D** provides results from permutation tests as an alternative strategy to infer the statistically significance of our results. **Appendix E** assesses the robustness of our IV estimates with respect to potential violations of the exclusion restrictions following Conley et al. (2012).

A Data Appendix and Descriptive Statistics

For our analysis, we draw upon a variety of datasets, which we explain in detail below. First, to investigate the short- to medium-run effects of the expellee inflow on public policy setting, we collected and harmonized historical city- and county-level data from various (statistical) publications. Data on the county-level share of expellees in 1950 was taken from the "Statistical Yearbook of Expellees" (*Statistisches Jahrbuch über die Heimatvertriebenen*), published by the Federal Statistical Office of West Germany in 1953. Our outcome variables on city-level tax rates, spending (by category), debt and voting have been collected from the "Statistical Yearbooks of German Municipalities" (*Statistische Jahrbücher Deutscher Gemeinden, Jhg. 1938-1965*). Data on tax rates are available from 1938 onwards, while information on public spending, debt and local elections are only given for the post-war period (1946-1965). In addition, the coverage of cities differs by outcome variable. Data on public spending, debt and electoral results are only given for cities (*Kreisfreie Städte*), as well as municipalities with at least 20,000 inhabitants. By contrast, data on tax rates is available for cities as well as municipalities with at least 10,000 inhabitants.

County-level control variables on institutional, economic and social differences prior to the inflow of expellees (i.e. prior to World War II) are taken from King et al. (2008) and are available for download from Gary King's website (`https://gking.harvard.edu/data`). Information on the local extent of destroyed housing stock after the war have been collected from the Federal Statistical Offices of the German States (*Landesämter für Statistik*); see Table A.1 for details.

For the construction of our instrument, we collected county-level population data from the "Statistical Yearbook of the German Reich 1939" (for the ceded Eastern Territories of the German

Reich), as well county-level data on the German population in Sudeten from Ourednicek et al. (2015). Euclidean distances between source and destination counties are calculated by means of historical shapefiles for the German Reich and the Czech Republic, provided by the Max Planck Institute for Demographic Research (MPIDR) and the Chair for Geodesy and Geoinformatics, University of Rostock (2011) and Ourednicek et al. (2015). In order to calculate the share of expellee candidates in federal elections, we used data from the German Statistical Office, which lists the names of all direct candidates for the German parliament in a brochure (*Die Wahlbewerber zum Deutschen Bundestag*). We additionally extracted biographical information on all candidates from Schumacher (2006).

In order to analyze the long-run effects on individuals' preferences for redistribution, we use data from the German Socio-Economic Panel (SOEP) and link individual-level measures of preferences for redistributive policies to the local inflow of expellees using the respondents' county of residence at the time of the interview. Information on individuals' county of residence is available via remote computing (SOEPRemote), see Knies and Spiess (2007) for details.

Table A.1 defines and describes all variables used in our analysis and details its corresponding source. Descriptive statistics for the set of city- and county-level variables are provided in **Table A.2**, for individual-level outcomes and controls in **Table A.3**. For all time-invariant county-level variables (i.e. the share of expellees, the instrument, and the set of historical pre-war controls), we present descriptive statistics at the city level (N=431). For our outcomes, we provide statistics based on the respective full sample that covers multiple years. In addition to these statistics, **Figure A.1** plots the evolution of our (city-level) outcome variables over time.

Table A.1: Variables and Data Sources

Variable	Years	Source
Panel A – Expellee Data		
Expellee Share	1950	Information on the expellee share at the county level in 1950 is taken from the "Statistisches Taschenbuch über die Heimatvertriebenen", published by the Federal Statistical Office of West Germany in 1953.

continued

Table A.1 continued

Variable	Years	Source
Panel B – City-Level Outcomes		
Debt	1951-1965	Information on cities' debt is taken from the "Statistical Yearbooks of German Municipalities". For every year, debt is reported for cities as well as municipalities with more than 20,000 inhabitants.
Tax Rates	1938-1965	Information on city-level tax rates are taken from the "Statistical Yearbooks of German Municipalities". In every year, tax rates for all cities as well as municipalities with more than 10,000 inhabitants are reported. The agricultural land and residential property taxes (*Grundsteuer A / Grundsteuer B*) are levied on the value of (agricultural) land and structures. The value of the land (the tax base) is uniformly determined at the federal level and reassessed every three years. It is multiplied by a city-specific tax rate that comprises the uniform basic rate, which is set by the federal government, and the tax collection rate defined by each city on an annual basis. The same logic applies to the tax rates on firms' business profits (*Gewerbeertragssteuer*), capital (*Gewerbekapitalsteuer*), and overall wage bill (*Lohnsummensteuer*).
Spending	1950-1962	Information on annual spending at the city level are taken from the "Statistical Yearbooks of German Municipalities". We focus on four types of local spending that cover all local expenses: spending for (i) welfare and health, (ii) the administration and the police, (iii) public infrastructure and housing, and (iv) schools, sports and culture. The definition of these groups follows the general presentation in the "Statistical Yearbooks of German Municipalities". As the information on spending items varies in the degree of detail over time, we harmonized spending groups accordingly. Information on spending is given for all cities as well as municipalities with at least 20,000 inhabitants in a given year.

continued

Table A.1 continued

Variable	Years	Source
Unemployment Rates	1946-1962	Information on local unemployment is taken from the "Statistical Yearbooks of German Municipalities". Information is available for all cities as well as municipalities with more than 20,000 inhabitants in a given year.
Voting results	1946-1962	Data on voter turnout and party vote shares in local elections between 1946 and 1962 are taken from the "Statistical Yearbooks of German Municipalities". On average, each municipality held three elections during the sampling period. We construct four different variables: (i) overall voter turnout, (ii) the vote share for the Christian Democrats (CDU/CSU), (iii) the vote share for the Social Democrats (SPD), and (iv) the vote share for the expellee party (GB/BHE). All West German cities as well as municipalities with more than 20,000 inhabitants are covered by the data.
Welfare recipients		Data on the number of individuals receiving social welfare benefits (*Fürsorge*) is taken from the "Statistical Yearbooks of German Municipalities". Information on the number of recipients is given for cities with more than 20,000 inhabitants only.
Panel C – City- and County-Level Controls		
Border Region Dummy		Following Redding and Sturm (2008), we create a dummy variable that assigns the value of one to all counties that were less than 75 kilometers away from the inner-German border.
Gravity Forces (Instrument)		The logic of our instrument is described in Section 3.2. For its construction, we use county-level population data from the "Statistical Yearbook of the German Reich 1939" and Ourednicek et al. (2015). Distances between the ceded territories in the East (and Sudeten) to West Germany are calculated using shapefiles provided by the Max Planck Institute for Demographic Research (MPIDR) and the Chair for Geodesy and Geoinformatics, University of Rostock (2011).

continued

Table A.1 continued

Variable	Years	Source
Historical Economic & Political Differences	1925-1933	We account for historical economic and political differences by controlling for (i) the population share of Protestants in 1925, (ii) the mean election vote share for the Social Democratic Party (SPD) in the elections between 1925 to 1933, and (iii) the respective share of civil servants and unemployed workers in 1933. All data are taken from King et al. (2008).

continued

Table A.1 continued

Variable	Years	Source
Housing destruction	1945-1950	Information on the extent of destroyed housing units at the county level has been collected from the Federal Statistical Offices of the German States (*Landesämter für Statistik*). The corresponding sources are: • *Statistik von Baden Württemberg - Band 6. Ergebnisse der Gebäude- und Wohnzählung vom 13. September 1950. Tabellenband II. Statistisches Landesamt Baden-Württemberg. Stuttgart 1953.* • *Statistisches Landesamt Schleswig-Holstein. Statistisches Handbuch für Schleswig-Holstein. Kiel 1951.* • *Niedersächsisches Amt für Landesplanung und Statistik. Zählung der Bevölkerung, Gebäude, Wohnungen und nichtlandwirtschaftlichen Arbeitsstätten. Gebäude- und Wohnungszählung in Niedersachsen 1950. B. Tabellenteil. Hannover 1952.* • *Statistisches Landesamt der Hansestadt Hamburg. Hamburg in Zahlen. Nr. 13, Jahrgang 1948. Hamburg 1948.* • *Statistisches Landesamt Bremen. Statistische Mitteilungen aus Bremen. Die Wohnungszählung am 13.09.1950 im Lande Bremen. Bremen o.J.* • *Wirtschaftsministerium des Landes Nordrhein-Westfalen. Wirtschaftsbeobachtung und Statistik. Nordrhein-Westfalen in Zahlen. O.O 1948.* • *Badisches Statistisches Landesamt. Statistische Zahlen aus Nordbaden. Kurzbericht Nr. 9. Allgemeine Wirtschaftsstatistik. Karlsruhe 1947.* item*Statistisches Handbuch für das Land Hessen. Kriegsschäden an Wohnungen. Wiesbaden 1948.* • *Statistisches Landesamt Rheinland-Pfalz. Volkszählung am 13. September 1950. Die Wohnungszählung in Rheinland-Pfalz. Bad-Ems 1952.* • *Bayerisches Statistisches Landesamt. Mitteilungen des Bayerischen Statistischen Landesamtes. Heft 5, München 1945.*

continued

Table A.1 continued

Variable	Years	Source
Occupation Zone Dummies		We assign each county to the respective occupation zone administrated by the US, GB or French forces, respectively.
Pre-War Population Density	1939	Information on the pre-war population density in West German counties is taken from the "Statistical Yearbook of the German Reich (1939)".
Prussia Dummy		We create a dummy variable that indicates whether a county was part of Prussia during the times of the Weimar Republic.
Panel D – SOEP data		
Controls	1997,2002	At the individual level, the set of controls comprises the respondents' age (squared and cubed), gender, educational and marital status, household size and the federal state of residence. In some specifications, we further control for individuals' (log) household income, the county-level employment rate and the county-level share of foreigners among the population. All variables are provided by the SOEP.
Individual Preferences for Redistribution	1997,2002	Respondents are asked about their preferred role of the state regarding different areas of social security. The question reads as follows: "*At present, a multitude of social services are provided not only by the state but also by private free market enterprises, organizations, associations, or private citizens. What is your opinion on this? Who should be responsible for (i) financial security in case of unemployment, (ii) financial security in case of illness, (iii) financial security of families, (iv) financial security for old-age, (v) financial security for persons needing care.*" Response options are given on a five-point scale, ranging from "*only private forces*", "*mostly private forces*', "*state and private forces*", "*mostly the state*", to "*only the state*". For each outcome, we create a binary indicator that equals unity if the response is "*mostly the state*", to "*only the state*" and zero otherwise.

continued

Table A.1 continued

Variable	Years	Source
Panel E – Data on Direct Candidates in Federal Elections		
Expellee Candidates	1949-1961	The information on district candidates for the federal parliament (Bundestag) were collected from the German Statistical Office's publications of all candidates running for parliament in the 1949, 1953, 1957 and 1961 elections (*Die Wahlbewerber zum Deutschen Bundestag*) by parties and electoral districts. The number of districts was 242 in 1949/1953 and increased to 247 in 1957/1961 (due to the reunification with the Saarland). The candidate publications provide information on how the electoral districts are composed with respect to administrative county borders. This allows us to assign counties to electoral districts and compute the population-weighted expellee share by electoral district based on the county population share of expellees in 1950 (Statistisches Bundesamt, 1953). About 90% of counties are nested in electoral districts. In the remaining cases where a county is split across more than one electoral district the population weights are adjusted accordingly. The 1950 expellee share by electoral district is then merged with biographical information on candidates running for West German parliaments after World War II provided in Schumacher (2006), which documents short biographies of candidates, in most cases including the place of birth. We were able to assign the place of birth to 4,273 out of 6,646 candidacies (about 64%), including individuals who ran in multiple elections over this period. Overall, 627 candidate birth places (14.7%) were assigned to expellees' regions of origin.

Table A.2: Descriptive Statistics for City-Level Outcomes and Controls

	Mean	Std Deviation	Minimum	Maximum	Observations
Exepllee Share					
Expellee Share (1950, in %)	17.29	9.47	1.80	44.10	430
Local Tax Rates (in %)					
Agricultural Land Tax	1.44	0.47	0.40	3.35	9,747
Residential Property Tax	2.04	0.45	0.48	3.75	9,749
Business Capital Tax	0.53	0.07	0.20	0.77	9,749
Business Wage Bill Tax	1.74	0.44	0.20	4.38	3,756
Debt and Spending Shares					
P.c. Debt (in 1950 DM)	202.35	170.94	0.04	1,580.36	3,185
Share Welfare (in %)	17.25	6.60	1.24	46.38	2,836
Share Admin./Police (in %)	20.39	6.58	-7.82	52.39	2,836
Share Public Infra. (in %)	33.36	7.99	7.78	64.77	2,836
Share Schools/Culture (in %)	29.00	7.64	7.00	79.81	2,836
Voter Turnout and Vote Shares (in %)					
Voter Turnout	74.49	7.74	42.50	93.40	990
Vote Share CDU/CSU	34.41	11.73	5.00	70.80	934
Vote Share SPD	38.89	9.61	7.40	70.00	990
Vote Share GB/BHE	7.11	4.69	0.60	28.70	353
Controls					
Occupation Zone USA	0.71	0.45	0.00	1.00	430
Occupation Zone GB	0.23	0.42	0.00	1.00	430
Occupation Zone France	0.06	0.24	0.00	1.00	430
City in former Prussia	0.66	0.47	0.00	1.00	430
City close to Iron Curtain	0.11	0.31	0.00	1.00	430
Log Pop. Density (1939)	5.50	1.11	3.63	8.17	430
Vote Share SPD (1924-1933)	0.19	0.09	0.02	0.45	430
Share Protestants (1925)	0.49	0.35	0.01	0.98	430
Share Unemployed (1933)	0.17	0.08	0.03	0.38	430
Share Civil Servants (1933)	0.04	0.03	0.02	0.39	430
Share Destroyed Housing	0.17	0.15	0.00	0.78	430
Instrument					
Distance to East (in 100km)	5.92	0.95	3.38	7.47	430

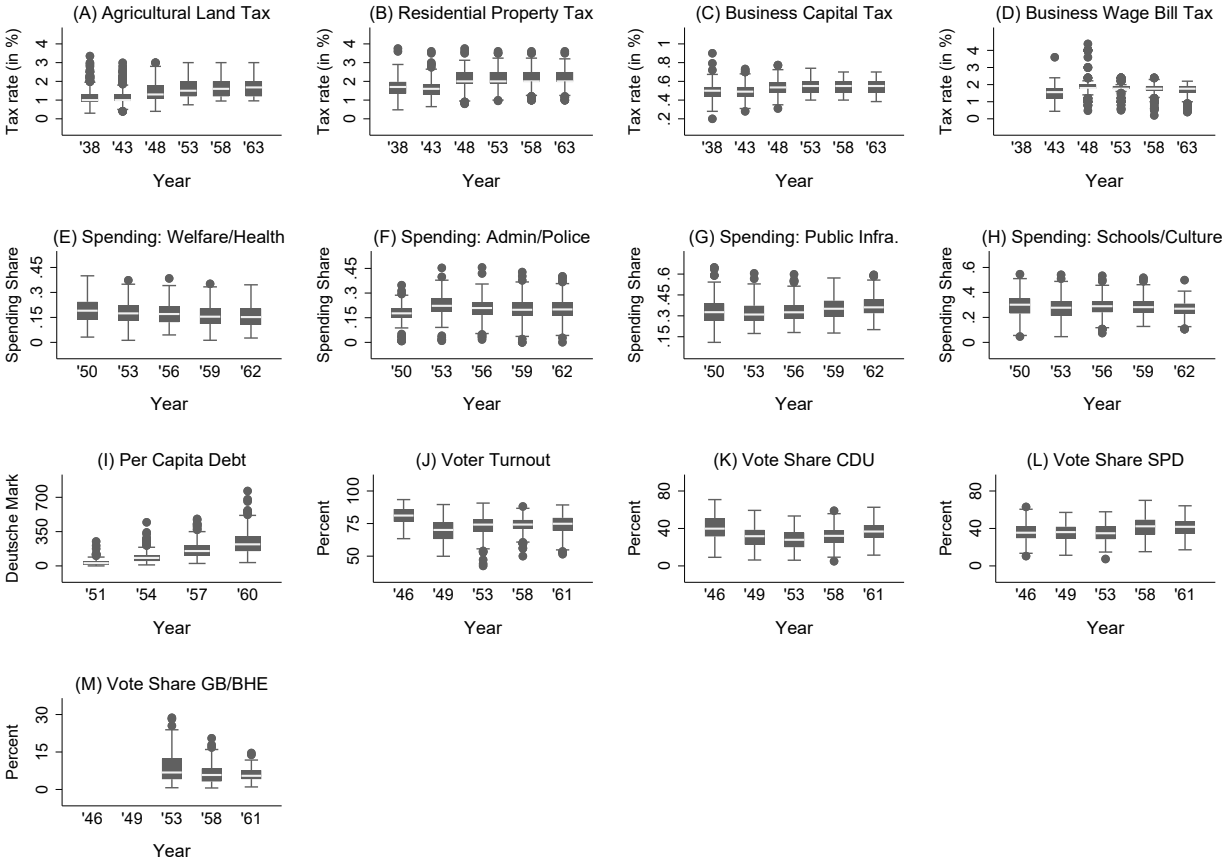
Notes: This table presents descriptive statistics for the outcome and control variables at the city and county level. All monetary variables are expressed in 1950 prices. Note that our data on local spending refers to municipalities' specific spending on different items net of appropriated transfers by higher levels of government. In rare cases, these spendings can be negative, which explains the negative spending share on the item administration/police for three observations in our data.

Table A.3: Descriptive Statistics - SOEP Sample

	Mean Value	Standard Deviation	Observations
Panel A – Dependent Variables			
State's Responsibility When Sick	0.68	0.16	8,974
State's Responsibility When Unemployed	0.77	0.16	8,974
State's Responsibility When Needing Care	0.70	0.16	8,974
State's Responsibility When Old	0.68	0.17	8,974
State's Responsibility For Families	0.66	0.17	8,974
Panel B – Control Variables			
Age	34.19	9.21	8,974
Male	0.48	0.50	8,974
Education	2.84	1.52	8,974
Marital Status	1.73	0.60	8,974
Household Size	3.19	1.21	8,974
(Log) Household Income	7.99	0.56	8,974

Notes: This table presents descriptive statistics on individual-level outcome and control variables from the German Socio-Economic Panel. For detailed information on the variables' definitions, see Appendix Table A.1.

Figure A.1: Evolution of Outcome Variables over Time

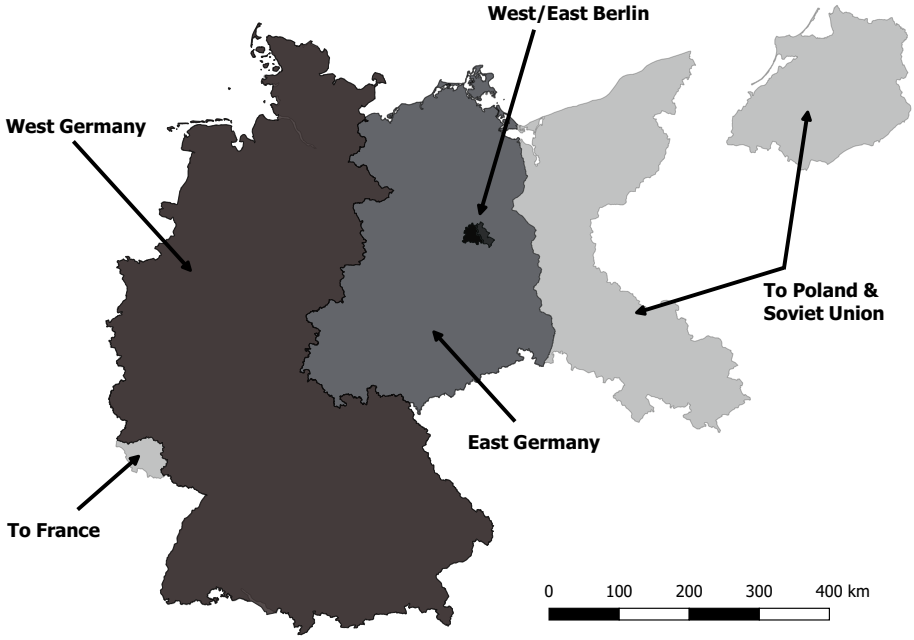


Notes: This graph plots the evolution of our outcome variables over time. See Appendix Tables A.1 and A.2 for a definition of each variable as well as additional descriptive statistics.

B Additional Figures

Appendix B provides additional figures. **Figure B.1** depicts Germany in its pre- and post-WWII borders. **Figure B.2** shows the location of West German cities covered by our data. **Figure B.3** shows county-level similarities and differences between the Eastern and Western part of the German Reich before WWII. **Figure B.4** shows the (conditional) correlation of the expellee share and our instrument, the population-weighted distance between West German cities and the ceded counties in the East and Sudeten. **Figure B.5** plots the correlation between local vote shares for the GB/BHE and the party's corresponding seats in municipal councils.

Figure B.1: German Territory before and after World War II

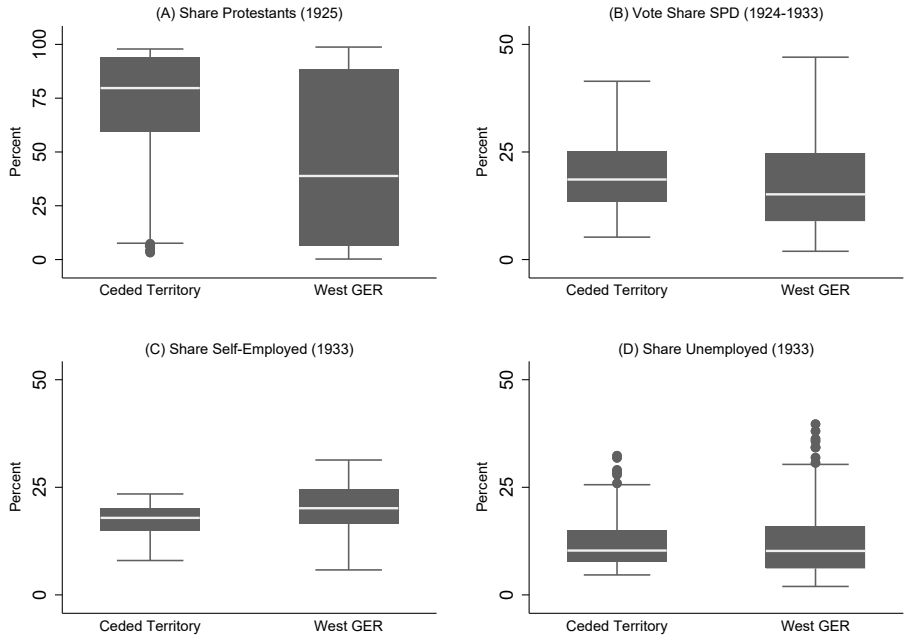


Notes: This map shows Germany in its pre- and post- World War II borders. The Saarland was ceded to France after WWII but rejoined West Germany in 1957. The figure is based on shapefiles provided by the Max Planck Institute for Demographic Research (MPIDR) and the Chair for Geodesy and Geoinformatics, University of Rostock (2011).

Figure B.2: Location of Cities in Estimation Sample

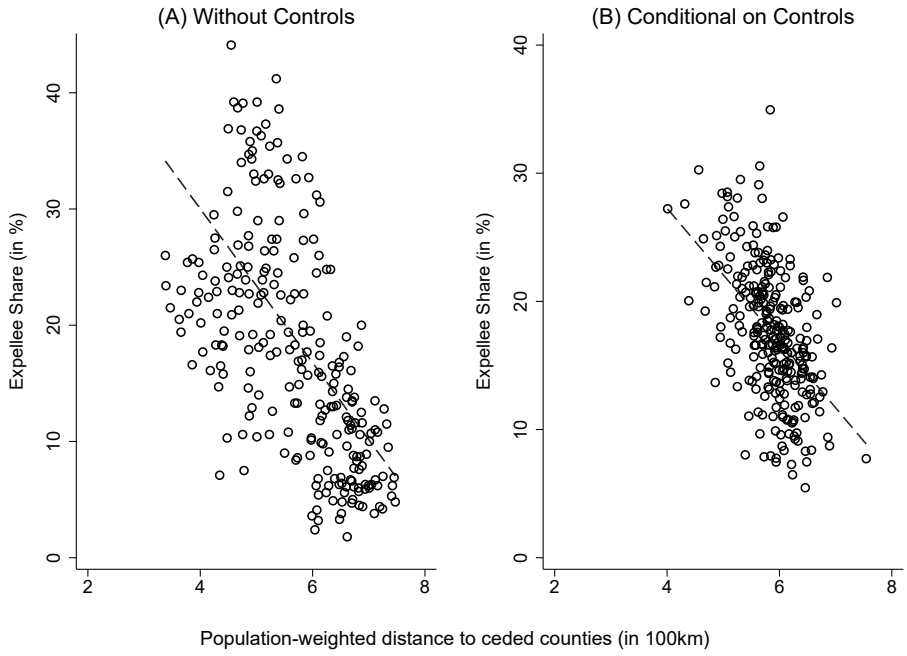
Notes: This map shows the location of each city covered by the "Statistical Yearbooks of German Municipalities" (see Panel (B) of Table A.1). The county boundaries correspond to those shown in Figure 1.

Figure B.3: Differences Between Expellees and Natives – Pre-WWII Variables



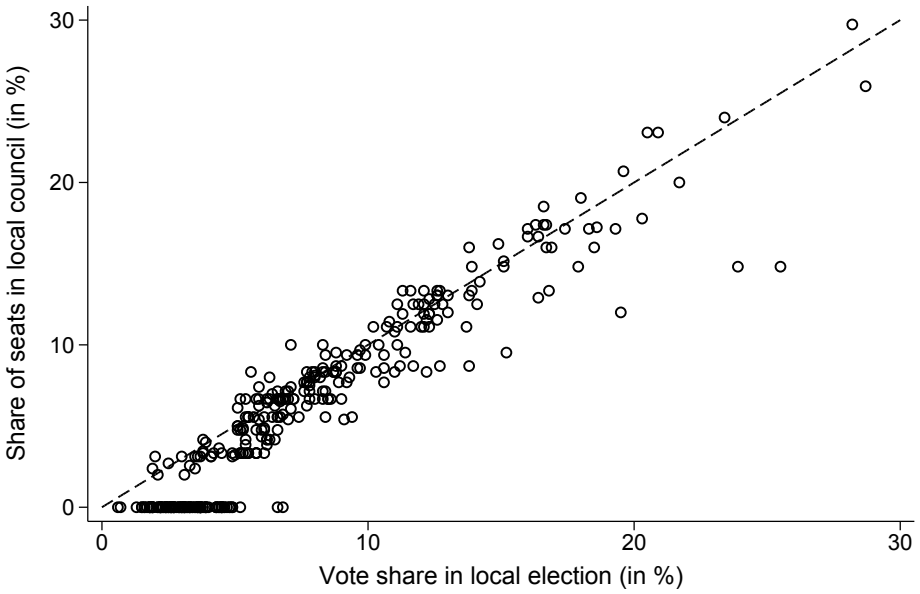
Notes: This graph shows similarities and differences between the Eastern and Western part of the German Reich before WWII. Data are taken from King et al. (2008). See Appendix Tables A.1 and A.2 for further information on the variables and additional descriptive statistics.

Figure B.4: IV First Stage: (Conditional) Correlation



Notes: This graph shows the correlation between our instrument and the expellee share at the county level. Panel (A) displays the raw correlation. In Panel (B), the full set of controls as defined in Section 3 is included. In order to make two graphs comparable, we added the sample means of both variables to each the observation.

Figure B.5: Vote Shares vs. Seats for the Expellee Party in Local Elections



Notes: This graph displays the correlation between the share of votes for the GB/BHE in local elections between 1950 and 1961, and the share of seats in municipal councils. See Appendix Table A.1 for further information on the variables.

C Additional Regression Results

Appendix C provides additional regression results. **Subsection C.1** presents additional results on local tax rates, **Subsection C.2** results on local spending. Results on debt are presented in **Subsection C.3**, regression results on voting in **Subsection C.4**. Finally, results on individuals' preferences for redistribution are provided in **Subsection C.5**.

C.1 Additional regression results: Local tax rates

Tables C.1.1-C.1.4 present estimation results based on our DiD design and varying sets of controls. **Table C.1.5** presents cross-sectional OLS and IV estimates for mean post-WWII local tax rates using varying sets of controls. **Tables C.1.6-C.1.13** present the corresponding annual effects (using the full set of controls). The IV estimates are further visualized in **Figure C.1.1**. **Figures C.1.2** and **C.1.3** display DiD and IV regression results when limiting the sample to those cities for which we observe local spending. Last, **Figures C.1.4** and **C.1.5** present regression results when using the municipality-level expellee share in 1952 as our main explanatory variable.

Table C.1.1: The Effect of Expellee Inflows on Agricultural Land Tax Rates - DiD Estimates

	(1)	(2)	(3)	(4)	(5)
Expellees Share × 1938	0.026	0.014	-0.000	0.001	-0.015
	(0.017)	(0.019)	(0.024)	(0.026)	(0.034)
Expellees Share × 1939	0.038**	0.023	-0.013	-0.011	-0.024
	(0.019)	(0.020)	(0.021)	(0.024)	(0.032)
Expellees Share × 1942	0.002	0.002	0.003	0.005	0.003
	(0.004)	(0.003)	(0.004)	(0.004)	(0.006)
Expellees Share × 1943	0.002	0.002	0.000	-0.001	0.000
	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)
Expellees Share × 1945	-0.005	0.015	0.028	0.007	0.018
	(0.014)	(0.013)	(0.017)	(0.019)	(0.026)
Expellees Share × 1946	-0.017	0.019	0.031	0.009	0.034
	(0.016)	(0.015)	(0.021)	(0.023)	(0.033)
Expellees Share × 1947	0.007	0.041**	0.053**	0.029	0.049
	(0.017)	(0.016)	(0.021)	(0.024)	(0.032)
Expellees Share × 1948	0.041**	0.074***	0.085***	0.078***	0.094***
	(0.020)	(0.017)	(0.022)	(0.028)	(0.034)
Expellees Share × 1949	0.105***	0.137***	0.150***	0.130***	0.129***
	(0.020)	(0.018)	(0.025)	(0.031)	(0.037)
Expellees Share × 1950	0.108***	0.144***	0.161***	0.143***	0.151***
	(0.020)	(0.018)	(0.025)	(0.031)	(0.037)
Expellees Share × 1951	0.106***	0.147***	0.148***	0.122***	0.129***
	(0.022)	(0.019)	(0.026)	(0.034)	(0.040)
Expellees Share × 1952	0.129***	0.172***	0.176***	0.150***	0.167***
	(0.021)	(0.018)	(0.024)	(0.032)	(0.039)
Expellees Share × 1953	0.150***	0.194***	0.202***	0.179***	0.193***
	(0.020)	(0.018)	(0.024)	(0.032)	(0.040)
Expellees Share × 1954	0.163***	0.207***	0.219***	0.197***	0.205***
	(0.020)	(0.018)	(0.025)	(0.033)	(0.041)
Expellees Share × 1955	0.175***	0.220***	0.232***	0.212***	0.224***
	(0.020)	(0.019)	(0.025)	(0.033)	(0.041)
Expellees Share × 1956	0.178***	0.221***	0.231***	0.214***	0.229***
	(0.020)	(0.019)	(0.025)	(0.033)	(0.040)
Expellees Share × 1957	0.185***	0.226***	0.232***	0.212***	0.212***
	(0.019)	(0.019)	(0.025)	(0.032)	(0.040)
Expellees Share × 1958	0.185***	0.231***	0.235***	0.217***	0.219***
	(0.020)	(0.019)	(0.025)	(0.032)	(0.039)
Expellees Share × 1959	0.193***	0.236***	0.243***	0.229***	0.234***
	(0.019)	(0.018)	(0.024)	(0.032)	(0.037)
Expellees Share × 1960	0.195***	0.237***	0.241***	0.225***	0.226***
	(0.019)	(0.018)	(0.024)	(0.032)	(0.039)
Expellees Share × 1961	0.198***	0.239***	0.237***	0.222***	0.217***
	(0.019)	(0.019)	(0.025)	(0.033)	(0.040)
Expellees Share × 1962	0.205***	0.247***	0.242***	0.224***	0.214***
	(0.020)	(0.020)	(0.026)	(0.033)	(0.040)
Expellees Share × 1963	0.212***	0.254***	0.251***	0.234***	0.224***
	(0.020)	(0.019)	(0.025)	(0.033)	(0.039)
Expellees Share × 1964	0.215***	0.257***	0.253***	0.238***	0.229***
	(0.020)	(0.020)	(0.025)	(0.034)	(0.040)
Expellees Share × 1965	0.216***	0.256***	0.252***	0.233***	0.223***
	(0.020)	(0.020)	(0.025)	(0.034)	(0.040)
Year FE	Yes		Yes	Yes	Yes
Year × Region FE		Yes	Yes	Yes	Yes
Geographical Controls			Yes	Yes	Yes
Pre WW-II Controls				Yes	Yes
WW-II Housing Destruction					Yes
Observations	11648	11648	11648	11648	9795
Adjusted R^2	0.483	0.521	0.527	0.531	0.579

Notes: This table shows the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model laid out in Equation (1). All specifications include city-level fixed effects. The varying set of controls comprises measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.2: The Effect of Expellee Inflows on Residential Property Tax Rates - DiD Estimates

	(1)	(2)	(3)	(4)	(5)
Expellees Share × 1938	-0.009	-0.007	0.010	0.031	0.002
	(0.019)	(0.020)	(0.022)	(0.027)	(0.032)
Expellees Share × 1939	-0.002	-0.003	-0.003	0.018	-0.006
	(0.019)	(0.020)	(0.020)	(0.024)	(0.030)
Expellees Share × 1942	-0.007	-0.006	-0.002	0.003	0.004
	(0.005)	(0.004)	(0.004)	(0.005)	(0.006)
Expellees Share × 1943	-0.002	-0.002	-0.002	-0.004	-0.005
	(0.002)	(0.002)	(0.002)	(0.003)	(0.004)
Expellees Share × 1945	0.018	0.034*	0.027	-0.017	-0.016
	(0.019)	(0.019)	(0.024)	(0.025)	(0.032)
Expellees Share × 1946	0.024	0.038**	0.028	-0.030	-0.003
	(0.020)	(0.019)	(0.027)	(0.029)	(0.037)
Expellees Share × 1947	0.034*	0.055***	0.048**	-0.005	0.006
	(0.019)	(0.018)	(0.023)	(0.028)	(0.035)
Expellees Share × 1948	0.014	0.018	-0.006	-0.032	-0.022
	(0.018)	(0.018)	(0.021)	(0.027)	(0.032)
Expellees Share × 1949	0.024	0.025	-0.012	-0.036	-0.037
	(0.017)	(0.017)	(0.020)	(0.027)	(0.032)
Expellees Share × 1950	0.030*	0.036**	-0.001	-0.034	-0.031
	(0.017)	(0.017)	(0.020)	(0.026)	(0.032)
Expellees Share × 1951	0.028	0.036**	0.004	-0.036	-0.026
	(0.018)	(0.018)	(0.020)	(0.027)	(0.033)
Expellees Share × 1952	0.031*	0.037*	0.003	-0.037	-0.020
	(0.019)	(0.019)	(0.020)	(0.028)	(0.034)
Expellees Share × 1953	0.039**	0.043**	0.011	-0.025	-0.013
	(0.017)	(0.018)	(0.021)	(0.028)	(0.036)
Expellees Share × 1954	0.043**	0.045**	0.013	-0.026	-0.031
	(0.018)	(0.019)	(0.021)	(0.030)	(0.036)
Expellees Share × 1955	0.054***	0.055***	0.023	-0.012	-0.014
	(0.018)	(0.019)	(0.021)	(0.029)	(0.035)
Expellees Share × 1956	0.056***	0.053***	0.024	-0.010	-0.008
	(0.018)	(0.019)	(0.021)	(0.029)	(0.034)
Expellees Share × 1957	0.065***	0.065***	0.027	-0.006	-0.022
	(0.019)	(0.020)	(0.022)	(0.029)	(0.035)
Expellees Share × 1958	0.068***	0.068***	0.033	0.005	-0.013
	(0.019)	(0.019)	(0.021)	(0.028)	(0.034)
Expellees Share × 1959	0.066***	0.067***	0.034	0.007	-0.012
	(0.019)	(0.019)	(0.021)	(0.028)	(0.033)
Expellees Share × 1960	0.070***	0.073***	0.039*	0.013	-0.004
	(0.019)	(0.020)	(0.023)	(0.029)	(0.036)
Expellees Share × 1961	0.071***	0.074***	0.035	0.007	-0.014
	(0.020)	(0.020)	(0.023)	(0.031)	(0.037)
Expellees Share × 1962	0.082***	0.084***	0.043*	0.018	-0.006
	(0.020)	(0.020)	(0.024)	(0.031)	(0.037)
Expellees Share × 1963	0.092***	0.094***	0.057**	0.031	0.007
	(0.020)	(0.020)	(0.024)	(0.030)	(0.036)
Expellees Share × 1964	0.093***	0.095***	0.057**	0.031	0.007
	(0.020)	(0.020)	(0.024)	(0.031)	(0.036)
Expellees Share × 1965	0.092***	0.091***	0.053**	0.022	-0.001
	(0.020)	(0.020)	(0.024)	(0.031)	(0.037)
Year FE	Yes		Yes	Yes	Yes
Year × Region FE		Yes	Yes	Yes	Yes
Geographical Controls			Yes	Yes	Yes
Pre WW-II Controls				Yes	Yes
WW-II Housing Destruction					Yes
Observations	11650	11650	11650	11650	9797
Adjusted R^2	0.544	0.571	0.575	0.590	0.618

Notes: This table shows the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model laid out in Equation (1). All specifications include city-level fixed effects. The varying set of controls comprises measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.3: The Effect of Expellee Inflows on Business Capital Tax Rates - DiD Estimates

	(1)	(2)	(3)	(4)	(5)
Expellees Share × 1938	0.003	0.002	-0.001	0.001	0.001
	(0.004)	(0.004)	(0.005)	(0.006)	(0.007)
Expellees Share × 1939	0.003	0.002	0.002	0.003	0.002
	(0.003)	(0.003)	(0.004)	(0.004)	(0.006)
Expellees Share × 1942	0.002*	0.002*	0.002*	0.002	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Expellees Share × 1943	-0.000	-0.000	-0.000	-0.000	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
Expellees Share × 1945	0.010***	0.011***	0.010***	0.002	0.002
	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)
Expellees Share × 1946	0.015***	0.014***	0.013***	0.001	0.003
	(0.003)	(0.004)	(0.005)	(0.004)	(0.005)
Expellees Share × 1947	0.019***	0.018***	0.017***	0.005	0.007
	(0.004)	(0.004)	(0.005)	(0.004)	(0.005)
Expellees Share × 1948	0.020***	0.020***	0.018***	0.009*	0.009*
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1949	0.026***	0.027***	0.023***	0.015***	0.015***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1950	0.026***	0.026***	0.024***	0.016***	0.016***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1951	0.025***	0.025***	0.022***	0.013**	0.015**
	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)
Expellees Share × 1952	0.026***	0.026***	0.024***	0.014***	0.017***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)
Expellees Share × 1953	0.028***	0.028***	0.026***	0.016***	0.019***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1954	0.029***	0.030***	0.028***	0.019***	0.020***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1955	0.029***	0.029***	0.027***	0.019***	0.020***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1956	0.029***	0.030***	0.027***	0.019***	0.020***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1957	0.029***	0.030***	0.026***	0.019***	0.019***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1958	0.030***	0.031***	0.028***	0.021***	0.021***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1959	0.031***	0.031***	0.028***	0.022***	0.022***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1960	0.031***	0.032***	0.028***	0.022***	0.022***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1961	0.031***	0.032***	0.027***	0.021***	0.020***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1962	0.031***	0.032***	0.027***	0.021***	0.019***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1963	0.032***	0.032***	0.028***	0.021***	0.020***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1964	0.031***	0.032***	0.028***	0.021***	0.019***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Expellees Share × 1965	0.031***	0.032***	0.028***	0.020***	0.018***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)
Year FE	Yes		Yes	Yes	Yes
Year × Region FE		Yes	Yes	Yes	Yes
Geographical Controls			Yes	Yes	Yes
Pre WW-II Controls				Yes	Yes
WW-II Housing Destruction					Yes
Observations	11650	11650	11650	11650	9797
Adjusted R^2	0.304	0.328	0.330	0.355	0.368

Notes: This table shows the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model laid out in Equation (1). All specifications include city-level fixed effects. The varying set of controls comprises measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.4: The Effect of Expellee Inflows on Business Wage Bill Tax Rates - DiD Estimates

	(1)	(2)	(3)	(4)	(5)
Expellees Share × 1942	0.019	0.014*	0.008	0.014	0.007
	(0.011)	(0.007)	(0.007)	(0.009)	(0.011)
Expellees Share × 1943	0.011	0.006	0.001	0.003	-0.002
	(0.010)	(0.005)	(0.005)	(0.008)	(0.011)
Expellees Share × 1945	0.017	0.022	0.033	0.058	0.073*
	(0.019)	(0.018)	(0.022)	(0.037)	(0.043)
Expellees Share × 1946	0.045	0.032	0.083*	0.039	0.065
	(0.031)	(0.032)	(0.045)	(0.049)	(0.057)
Expellees Share × 1947	0.061*	0.043	0.094*	0.049	0.085
	(0.035)	(0.036)	(0.052)	(0.058)	(0.062)
Expellees Share × 1948	-0.165***	-0.061	-0.056	-0.171**	-0.108
	(0.057)	(0.040)	(0.061)	(0.079)	(0.081)
Expellees Share × 1949	0.046	0.058	0.043	-0.056	0.012
	(0.050)	(0.046)	(0.059)	(0.074)	(0.077)
Expellees Share × 1950	0.008	0.036	0.080	-0.005	0.007
	(0.045)	(0.042)	(0.055)	(0.072)	(0.077)
Expellees Share × 1951	-0.004	0.027	0.088*	0.009	0.029
	(0.044)	(0.040)	(0.052)	(0.068)	(0.073)
Expellees Share × 1952	0.119***	0.065*	0.095*	0.051	0.053
	(0.043)	(0.039)	(0.052)	(0.071)	(0.075)
Expellees Share × 1953	0.117***	0.077**	0.117**	0.078	0.140*
	(0.041)	(0.039)	(0.053)	(0.070)	(0.076)
Expellees Share × 1954	0.118***	0.076**	0.103**	0.068	0.127*
	(0.040)	(0.037)	(0.050)	(0.066)	(0.071)
Expellees Share × 1955	0.110**	0.055	0.062	0.040	0.084
	(0.045)	(0.042)	(0.057)	(0.067)	(0.074)
Expellees Share × 1956	0.110**	0.052	0.061	0.027	0.079
	(0.045)	(0.041)	(0.056)	(0.066)	(0.073)
Expellees Share × 1957	0.114***	0.063	0.072	0.036	0.071
	(0.043)	(0.040)	(0.054)	(0.069)	(0.076)
Expellees Share × 1958	0.122***	0.074*	0.083	0.038	0.071
	(0.041)	(0.038)	(0.050)	(0.069)	(0.074)
Expellees Share × 1959	0.117***	0.065*	0.077	0.046	0.080
	(0.043)	(0.039)	(0.051)	(0.071)	(0.076)
Expellees Share × 1960	0.125***	0.073*	0.081	0.069	0.102
	(0.042)	(0.038)	(0.051)	(0.068)	(0.071)
Expellees Share × 1961	0.126***	0.072*	0.084	0.065	0.107
	(0.043)	(0.038)	(0.052)	(0.069)	(0.074)
Expellees Share × 1962	0.135***	0.081**	0.092*	0.092	0.138*
	(0.045)	(0.040)	(0.053)	(0.075)	(0.081)
Expellees Share × 1963	0.142***	0.087**	0.101*	0.104	0.151*
	(0.046)	(0.041)	(0.052)	(0.076)	(0.083)
Expellees Share × 1964	0.149***	0.088**	0.092*	0.079	0.146*
	(0.046)	(0.042)	(0.054)	(0.078)	(0.082)
Expellees Share × 1965	0.144***	0.082*	0.091*	0.081	0.143*
	(0.047)	(0.042)	(0.054)	(0.080)	(0.084)
Year FE	Yes		Yes	Yes	Yes
Year × Region FE		Yes	Yes	Yes	Yes
Geographical Controls			Yes	Yes	Yes
Pre WW-II Controls				Yes	Yes
WW-II Housing Destruction					Yes
Observations	4112	4112	4112	4112	3756
Adjusted R^2	0.149	0.359	0.361	0.361	0.375

Notes: This table shows the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model laid out in Equation (1). All specifications include city-level fixed effects. The varying set of controls comprises measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.5: The Effect of Expellee Inflows on Local Tax Rates - Average Effect post WW II

	OLS			Instrumental Variables		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Agricultural Land Tax						
Expellee Share	0.139***	0.132***	0.149***	0.226***	0.223***	0.263***
	(0.022)	(0.031)	(0.034)	(0.031)	(0.052)	(0.063)
Number of Observations	356	356	356	356	356	356
Kleibergen-Paap *F*-Statistic				125.97	85.06	71.83
Panel B – Residential Property Tax						
Expellee Share	0.036**	-0.029	-0.022	0.091***	0.023	0.044
	(0.016)	(0.024)	(0.028)	(0.028)	(0.045)	(0.055)
Number of Observations	356	356	356	356	356	356
Kleibergen-Paap *F*-Statistic				135.95	92.63	78.51
Panel C – Business Capital Tax						
Expellee Share	0.021***	0.011**	0.014**	0.037***	0.032***	0.040***
	(0.004)	(0.005)	(0.006)	(0.006)	(0.009)	(0.011)
Number of Observations	356	356	356	356	356	356
Kleibergen-Paap *F*-Statistic				139.68	91.54	77.13
Panel D – Business Wage Bill Tax						
Expellee Share	0.091**	0.034	0.065	0.101*	0.056	0.080
	(0.035)	(0.055)	(0.056)	(0.054)	(0.108)	(0.112)
Number of Observations	129	129	129	129	129	129
Kleibergen-Paap *F*-Statistic				71.26	54.93	48.46
Geography Controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-WWII Controls		Yes	Yes		Yes	Yes
Share Destroyed Housing			Yes			Yes

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on mean post-WW II local tax rate changes using simple OLS and the IV strategy laid out in Equations (2)-(4). Mean tax rates (post war) are relative to the respective tax rate in 1944. The set of controls includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.6: The Effect of Expellee Inflows on Agricultural Land Tax Rates - IV Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	-0.000	0.010	-0.009	0.008	0.036	0.075	0.152***	0.134**	0.211***
	(0.053)	(0.051)	(0.013)	(0.008)	(0.047)	(0.060)	(0.057)	(0.058)	(0.064)
Kleibergen-Paap F-Test	64.66	60.45	78.57	78.57	78.57	78.57	77.80	71.83	75.32
Number of observations	241	239	356	356	356	356	355	356	343
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	0.246***	0.237***	0.237***	0.241***	0.288***	0.307***	0.315***	0.300***	0.307***
	(0.063)	(0.067)	(0.072)	(0.075)	(0.076)	(0.075)	(0.078)	(0.080)	(0.074)
Kleibergen-Paap F-Test	75.32	72.62	72.62	73.50	73.65	73.34	73.12	71.89	75.99
Number of observations	343	350	350	348	345	346	345	343	343
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	0.321***	0.311***	0.303***	0.298***	0.293***	0.282***	0.278***		
	(0.075)	(0.075)	(0.076)	(0.074)	(0.074)	(0.073)	(0.075)		
Kleibergen-Paap F-Test	75.99	75.91	75.91	75.39	75.39	76.22	76.22		
Number of observations	343	344	344	344	344	344	344		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using the IV strategy laid out in Equations (2)-(4). The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.7: The Effect of Expellee Inflows on Agricultural Land Tax Rates - OLS Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	-0.003	-0.019	0.003	0.000	0.018	0.034	0.050	0.057	0.102***
	(0.024)	(0.021)	(0.006)	(0.002)	(0.026)	(0.033)	(0.032)	(0.035)	(0.036)
Adjusted R-Squared	0.051	0.085	0.022	0.002	0.120	0.157	0.201	0.250	0.308
Number of observations	241	239	358	358	358	358	357	358	345
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	0.126***	0.107***	0.136***	0.159***	0.172***	0.196***	0.209***	0.197***	0.210***
	(0.037)	(0.041)	(0.040)	(0.041)	(0.042)	(0.043)	(0.042)	(0.041)	(0.040)
Adjusted R-Squared	0.324	0.319	0.354	0.363	0.384	0.390	0.411	0.408	0.412
Number of observations	345	352	352	350	347	348	347	345	345
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	0.225***	0.207***	0.204***	0.203***	0.211***	0.212***	0.204***		
	(0.038)	(0.041)	(0.042)	(0.042)	(0.041)	(0.042)	(0.042)		
Adjusted R-Squared	0.432	0.412	0.408	0.413	0.422	0.429	0.433		
Number of observations	345	346	346	346	346	346	346		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using simple OLS. The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.8: The Effect of Expellee Inflows on Residential Property Tax Rates - IV Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	0.033	0.046	0.003	0.008	0.022	0.121	0.244***	0.085	0.014
	(0.052)	(0.054)	(0.011)	(0.009)	(0.058)	(0.075)	(0.073)	(0.062)	(0.057)
Kleibergen-Paap F-Test	65.02	60.81	78.57	78.57	78.57	78.57	77.80	78.51	81.24
Number of observations	242	240	356	356	356	356	355	356	343
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	0.004	0.029	0.002	0.012	0.024	0.020	0.030	0.017	0.035
	(0.058)	(0.065)	(0.069)	(0.069)	(0.071)	(0.069)	(0.066)	(0.066)	(0.065)
Kleibergen-Paap F-Test	81.24	78.49	78.49	79.43	79.30	78.79	78.48	77.49	82.00
Number of observations	343	350	350	348	345	346	345	343	343
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	0.047	0.037	0.039	0.051	0.046	0.036	0.027		
	(0.065)	(0.064)	(0.065)	(0.064)	(0.064)	(0.065)	(0.068)		
Kleibergen-Paap F-Test	82.00	81.68	81.68	81.25	81.25	81.54	81.54		
Number of observations	343	344	344	344	344	344	344		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using the IV strategy laid out in Equations (2)-(4). The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.9: The Effect of Expellee Inflows on Residential Property Tax Rates - OLS Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	0.008	0.004	0.004	-0.005	-0.016	-0.003	0.007	-0.025	-0.050
	(0.027)	(0.027)	(0.006)	(0.004)	(0.032)	(0.037)	(0.035)	(0.032)	(0.031)
Adjusted R-Squared	0.081	0.092	0.130	0.051	0.154	0.258	0.198	0.140	0.159
Number of observations	242	240	358	358	358	358	357	358	345
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	-0.045	-0.041	-0.041	-0.029	-0.047	-0.026	-0.018	-0.025	-0.014
	(0.031)	(0.032)	(0.034)	(0.035)	(0.036)	(0.034)	(0.034)	(0.034)	(0.033)
Adjusted R-Squared	0.181	0.210	0.229	0.213	0.187	0.173	0.177	0.186	0.176
Number of observations	345	352	352	350	347	348	347	345	345
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	-0.014	-0.008	-0.016	-0.005	-0.001	-0.001	-0.012		
	(0.032)	(0.035)	(0.036)	(0.035)	(0.035)	(0.035)	(0.036)		
Adjusted R-Squared	0.187	0.203	0.202	0.213	0.227	0.227	0.242		
Number of observations	345	346	346	346	346	346	346		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using simple OLS. The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.10: The Effect of Expellee Inflows on Business Capital Tax Rates - IV Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	0.005	0.001	0.001	-0.000	0.020**	0.019*	0.025***	0.016	0.030**
	(0.007)	(0.005)	(0.001)	(0.000)	(0.008)	(0.009)	(0.009)	(0.010)	(0.012)
Kleibergen-Paap F-Test	65.02	60.81	78.57	78.57	78.57	78.57	77.80	77.13	79.83
Number of observations	242	240	356	356	356	356	355	356	343
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	0.024**	0.036***	0.037***	0.040***	0.043***	0.046***	0.051***	0.048***	0.054***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Kleibergen-Paap F-Test	79.83	77.16	77.16	77.71	76.94	76.51	76.20	75.27	79.30
Number of observations	343	350	350	348	345	346	345	343	343
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	0.058***	0.057***	0.057***	0.054***	0.052***	0.050***	0.047***		
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)		
Kleibergen-Paap F-Test	79.30	78.54	78.54	78.77	78.77	79.48	79.48		
Number of observations	343	344	344	344	344	344	344		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using the IV strategy laid out in Equations (2)-(4). The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.11: The Effect of Expellee Inflows on Business Capital Tax Rates - OLS Estimates

	1938	1939	1942	1943	1945	1946	1947	1948	1949
Expellee Share	0.001	0.001	0.002	-0.001	0.002	0.003	0.007	0.008	0.011*
	(0.005)	(0.004)	(0.002)	(0.001)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Adjusted R-Squared	0.003	-0.002	0.033	0.027	0.186	0.263	0.288	0.268	0.257
Number of observations	242	240	358	358	358	358	357	358	345
	1950	1951	1952	1953	1954	1955	1956	1957	1958
Expellee Share	0.012*	0.014**	0.015**	0.017**	0.017**	0.018***	0.021***	0.021***	0.022***
	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
Adjusted R-Squared	0.240	0.222	0.232	0.247	0.228	0.213	0.217	0.204	0.210
Number of observations	345	352	352	350	347	348	347	345	345
	1959	1960	1961	1962	1963	1964	1965		
Expellee Share	0.023***	0.021***	0.019***	0.018***	0.018***	0.016**	0.015**		
	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)		
Adjusted R-Squared	0.216	0.206	0.210	0.214	0.215	0.201	0.201		
Number of observations	345	346	346	346	346	346	346		

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using simple OLS. The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.12: The Effect of Expellee Inflows on Business Wage Bill Tax Rates - IV Estimates

	1942	1943	1945	1946	1947	1948	1949	1950	1951
Expellee Share	0.008	0.006	0.184**	0.147	0.181*	-0.005	-0.017	-0.027	0.006
	(0.009)	(0.007)	(0.081)	(0.094)	(0.100)	(0.100)	(0.111)	(0.116)	(0.113)
Kleibergen-Paap F-Test	48.79	48.93	49.80	47.86	32.39	48.46	48.42	48.42	45.82
Number of observations	126	127	127	124	122	129	127	127	126
	1952	1953	1954	1955	1956	1957	1958	1959	1960
Expellee Share	0.093	0.109	0.135	0.048	0.075	0.022	0.094	0.098	0.126
	(0.127)	(0.130)	(0.129)	(0.134)	(0.143)	(0.169)	(0.151)	(0.152)	(0.149)
Kleibergen-Paap F-Test	45.82	45.95	48.51	48.37	48.37	45.72	47.30	47.30	44.64
Number of observations	126	125	124	125	125	122	123	123	122
	1961	1962	1963	1964	1965				
Expellee Share	0.111	0.117	0.193	0.201	0.198				
	(0.151)	(0.150)	(0.155)	(0.162)	(0.162)				
Kleibergen-Paap F-Test	44.37	51.74	49.55	45.06	44.58				
Number of observations	121	120	118	113	112				

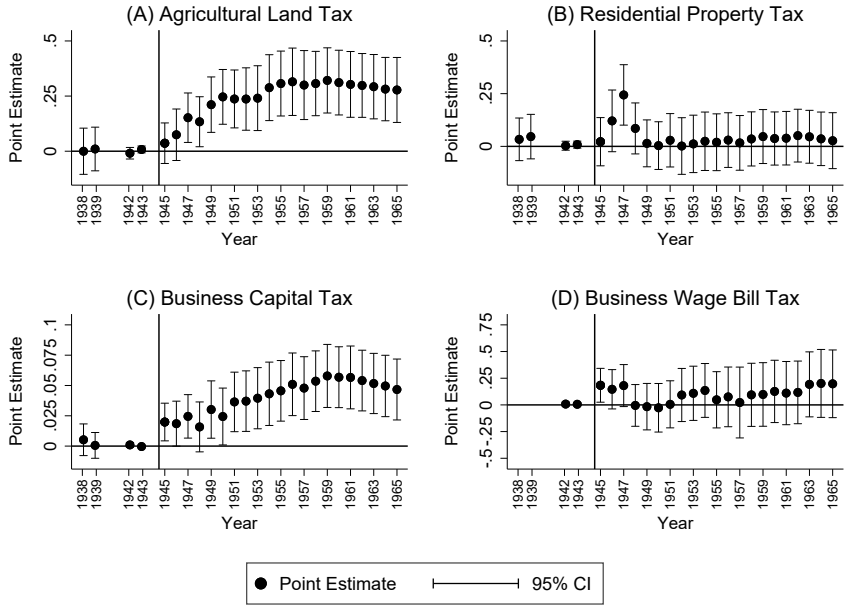
Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using the IV strategy laid out in Equations (2)-(4). The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.1.13: The Effect of Expellee Inflows on Business Wage Bill Tax Rates - OLS Estimates

	1942	1943	1945	1946	1947	1948	1949	1950	1951
Expellee Share	0.015	0.003	0.084*	0.075	0.077	0.009	-0.005	-0.005	0.013
	(0.009)	(0.003)	(0.042)	(0.057)	(0.059)	(0.053)	(0.065)	(0.065)	(0.062)
Adjusted R-Squared	0.083	-0.063	-0.033	0.101	0.116	-0.018	0.130	0.122	0.127
Number of observations	126	127	127	124	122	129	127	127	126
	1952	1953	1954	1955	1956	1957	1958	1959	1960
Expellee Share	0.093	0.152*	0.115*	0.024	0.028	0.014	0.041	0.048	0.060
	(0.069)	(0.078)	(0.067)	(0.074)	(0.075)	(0.092)	(0.077)	(0.079)	(0.072)
Adjusted R-Squared	0.134	0.151	0.154	0.095	0.096	0.095	0.082	0.080	0.111
Number of observations	126	125	124	125	125	122	123	123	122
	1961	1962	1963	1964	1965				
Expellee Share	0.065	0.124	0.155*	0.139*	0.135				
	(0.074)	(0.080)	(0.082)	(0.083)	(0.086)				
Adjusted R-Squared	0.097	0.103	0.115	0.130	0.111				
Number of observations	121	120	118	113	112				

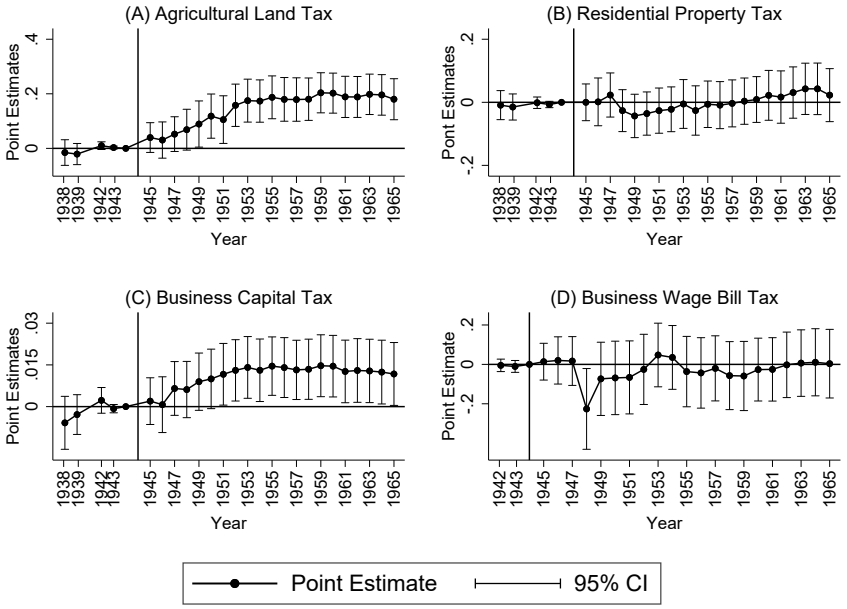
Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual local tax rates using simple OLS. The outcome is the difference in the tax rate between the respective year and the baseline year 1944. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure C.1.1: The Effect of Expellee Inflows on Local Tax Rates - IV Estimates



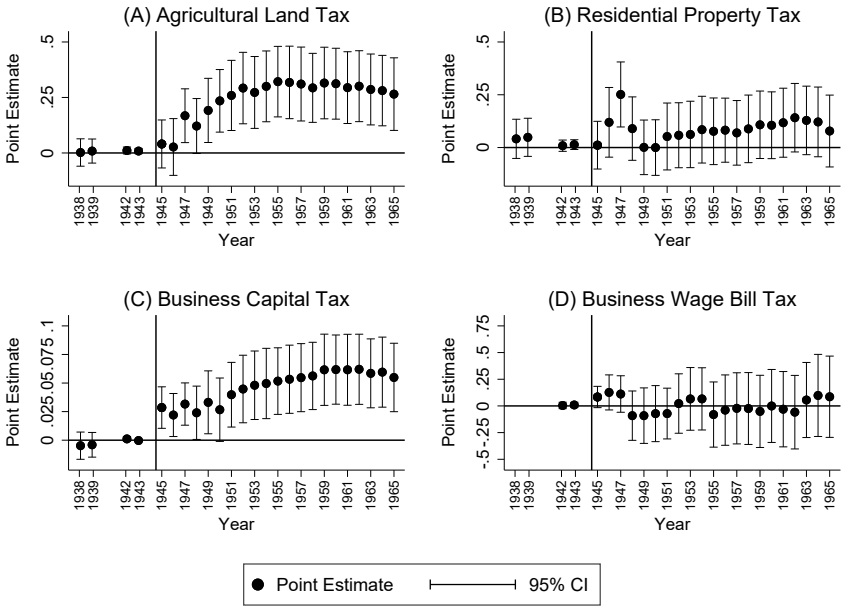
Notes: This graph shows the effect of a one standard deviation increase in the expellee share on our four local tax rates in a given year, using the IV strategy laid out in Equations (2)–(4). Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

Figure C.1.2: The Effect of Expellee Inflows on Local Tax Rates - DiD Estimates on Restricted Samples



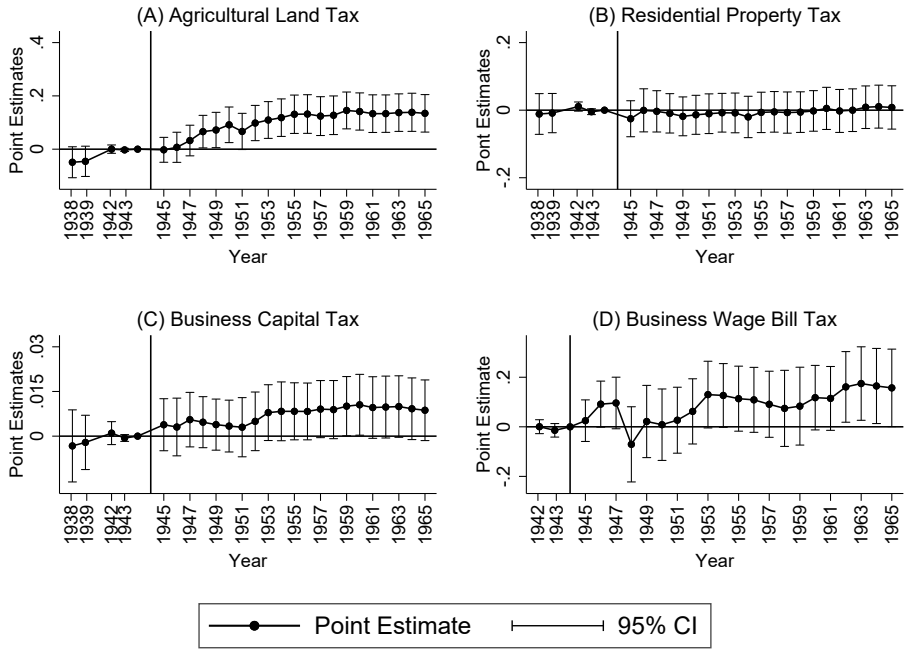
Notes: This figure displays the point estimates and 95%-confidence intervals for the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model in Equation (1). The sample is restricted to those cities for which we observe local spending in at least one year. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level.

Figure C.1.3: The Effect of Expellee Inflows on Local Tax Rates - IV Estimates on Restricted Samples



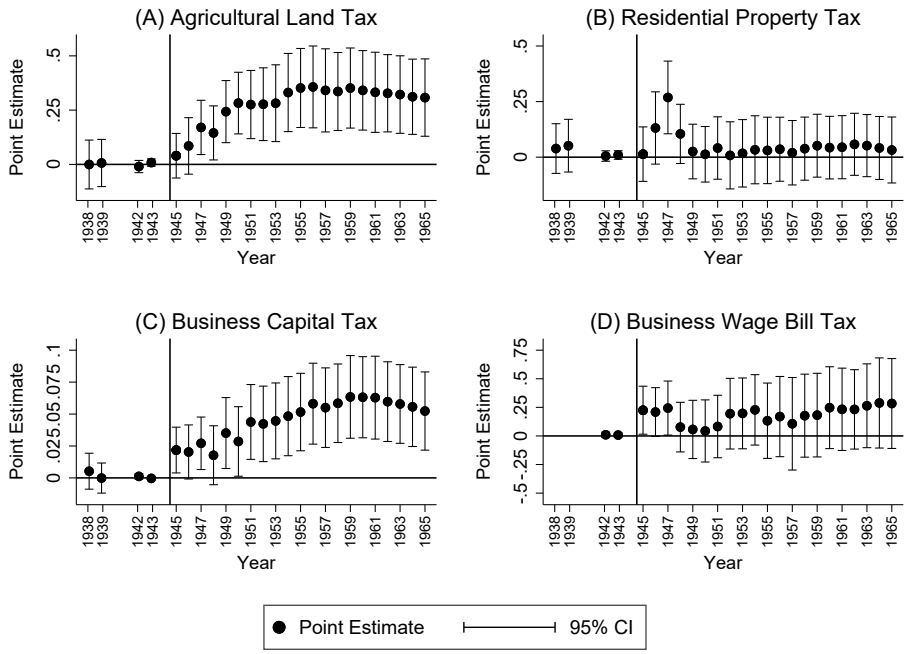
Notes: This graph shows the annual effect of a one standard deviation increase in the expellee share on our four local tax rates using the IV strategy laid out in Equations (2)–(4). The sample is restricted to those cities for which we observe local spending in at least one year. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

Figure C.1.4: The Effect of Expellee Inflows on Local Tax Rates - DiD Estimates Using the 1952 Municipality Expellee Share



Notes: This figure displays the point estimates and 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on local tax rates using the DiD model in Equation (1). The expellee share is measured at the municipality level in 1952. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1 for details). Standard errors are clustered at the county level.

Figure C.1.5: The Effect of Expellee Inflows on Local Tax Rates - IV Estimates Using the 1952 Municipality Expellee Share



Notes: This graph shows the effect of a one standard deviation increase in the expellee share on our four local tax rates in a given year, using the IV strategy laid out in Equations (2)–(4). The expellee share is measured at the municipality level in 1952. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

C.2 Additional regression results: Local spending

Table C.2.1 presents cross-sectional OLS and IV estimates for mean post-WWII spending shares on different items using varying sets of controls. **Tables C.2.2-C.2.3** present the corresponding annual effects (using the full set of controls). **Figure C.2.1** presents regression results when using the municipality-level expellee share in 1952 as our main explanatory variable.

Table C.2.1: The Effect of Expellee Inflows on Spending Shares - Average Effect post WW II

	OLS			Instrumental Variables		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Log Total Spending						
Expellee Share	-0.536***	-0.207***	0.029	-0.246*	-0.011	0.265*
	(0.080)	(0.071)	(0.074)	(0.140)	(0.138)	(0.151)
Number of Observations	234	234	234	234	234	234
Kleibergen-Paap *F*-Statistic				71.57	66.81	59.37
Panel B – Spending Share on Welfare/Health						
Expellee Share	-0.001	0.014**	0.017**	0.027***	0.047***	0.057***
	(0.005)	(0.006)	(0.007)	(0.008)	(0.012)	(0.014)
Number of Observations	234	234	234	234	234	234
Kleibergen-Paap *F*-Statistic				71.57	66.81	59.37
Panel C – Spending Share on Admin/Police						
Expellee Share	0.007*	0.012*	0.013*	0.018***	0.025***	0.030***
	(0.004)	(0.006)	(0.007)	(0.007)	(0.008)	(0.009)
Number of Observations	234	234	234	234	234	234
Kleibergen-Paap *F*-Statistic				71.57	66.81	59.37
Panel D – Spending Share on Public Infrastructure						
Expellee Share	-0.006	-0.021***	-0.026***	-0.032***	-0.050***	-0.061***
	(0.005)	(0.006)	(0.007)	(0.008)	(0.011)	(0.013)
Number of Observations	234	234	234	234	234	234
Kleibergen-Paap *F*-Statistic				71.57	66.81	59.37
Panel E – Spending Share on Schools/Culture						
Expellee Share	0.001	-0.005	-0.004	-0.014**	-0.023***	-0.026**
	(0.004)	(0.005)	(0.005)	(0.006)	(0.009)	(0.010)
Number of Observations	234	234	234	234	234	234
Kleibergen-Paap *F*-Statistic				71.57	66.81	59.37
Geography Controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-WWII Controls		Yes	Yes		Yes	Yes
Share Destroyed Housing			Yes			Yes

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on mean post-WW II spending shares for different items using simple OLS and the IV strategy laid out in Equations (2)-(4). The set of controls includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.2.2: The Effect of Expellee Inflows on Spending (Shares) - IV Estimates

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Panel A – Log Total Spending													
Expellee Share	0.254	0.181	0.241	0.277*	0.328**	0.272*	0.248	0.238	0.308*	0.342**	0.312*	0.391**	0.359**
	(0.166)	(0.157)	(0.159)	(0.160)	(0.166)	(0.164)	(0.159)	(0.164)	(0.170)	(0.168)	(0.166)	(0.174)	(0.166)
Kleibergen-Paap F-Test	62.16	63.48	56.69	55.08	54.38	55.67	57.75	52.40	56.86	59.37	60.92	59.92	58.26
Number of observations	189	194	205	211	208	212	215	218	228	234	237	242	248
Panel B – Spending Share: Welfare													
Expellee Share	0.060***	0.070***	0.056***	0.062***	0.062***	0.064***	0.053***	0.047***	0.043***	0.050***	0.043***	0.054***	0.044***
	(0.018)	(0.018)	(0.017)	(0.015)	(0.017)	(0.016)	(0.017)	(0.017)	(0.015)	(0.017)	(0.014)	(0.017)	(0.016)
Kleibergen-Paap F-Test	63.78	64.37	56.86	55.08	54.38	54.71	57.75	52.40	56.86	59.37	60.92	59.92	58.26
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel C – Spending Share: Admin/Police													
Expellee Share	0.023**	0.028**	0.027*	0.029**	0.027*	0.037***	0.030**	0.033**	0.048***	0.019	0.034**	0.033*	0.016
	(0.009)	(0.014)	(0.014)	(0.012)	(0.014)	(0.013)	(0.014)	(0.014)	(0.012)	(0.015)	(0.016)	(0.017)	(0.014)
Kleibergen-Paap F-Test	63.78	64.37	56.86	55.08	54.38	54.71	57.75	52.40	56.86	59.37	60.92	59.92	58.26
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel D – Spending Share: Public Infrastructure													
Expellee Share	-0.063***	-0.061***	-0.042**	-0.061***	-0.061***	-0.087***	-0.077***	-0.042***	-0.060***	-0.048***	-0.045***	-0.079***	-0.044***
	(0.024)	(0.021)	(0.020)	(0.017)	(0.018)	(0.016)	(0.020)	(0.016)	(0.017)	(0.016)	(0.015)	(0.020)	(0.017)
Kleibergen-Paap F-Test	63.78	64.37	56.86	55.08	54.38	54.71	57.75	52.40	56.86	59.37	60.92	59.92	58.26
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel E – Spending Share: Schools/Culture													
Expellee Share	-0.021	-0.037**	-0.041**	-0.029*	-0.027*	-0.014	-0.007	-0.038**	-0.032*	-0.021	-0.032***	-0.008	-0.016
	(0.017)	(0.017)	(0.019)	(0.016)	(0.016)	(0.015)	(0.015)	(0.017)	(0.016)	(0.016)	(0.012)	(0.013)	(0.012)
Kleibergen-Paap F-Test	63.78	64.37	56.86	55.08	54.38	54.71	57.75	52.40	56.86	59.37	60.92	59.92	58.26
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248

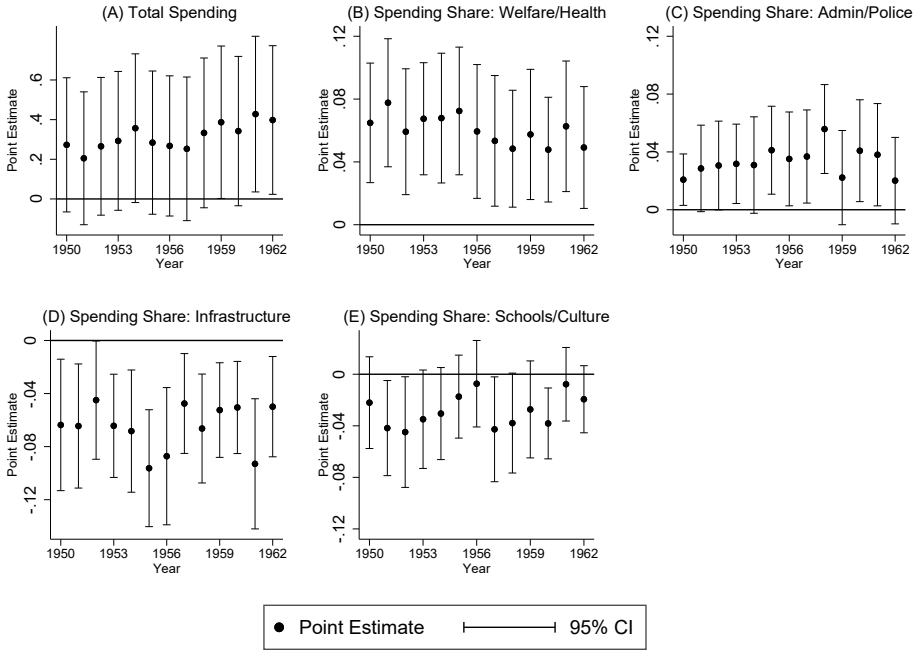
Note: This table shows the effect of a one standard deviation increase in the expelleee share on annual spending (shares) using the IV strategy laid out in Equations (2)-(4). Log spending are standardized, spending shares in percentage points. The set of controls includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.2.3: The Effect of Expellee Inflows on Spending (Shares) - OLS Estimates

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Panel A – Log Total Spending													
Expellee Share	0.074	0.044	0.038	0.034	0.034	0.039	0.036	0.030	0.001	0.049	0.091	0.027	0.064
	(0.074)	(0.073)	(0.074)	(0.076)	(0.076)	(0.079)	(0.076)	(0.082)	(0.088)	(0.082)	(0.085)	(0.081)	(0.077)
Number of observations	189	194	205	211	208	212	215	218	228	234	237	242	248
Panel B – Spending Share: Welfare													
Expellee Share	0.024***	0.039***	0.022**	0.018**	0.016*	0.016**	0.009	0.012	0.008	0.017*	0.008	0.007	0.010
	(0.009)	(0.011)	(0.009)	(0.008)	(0.009)	(0.008)	(0.008)	(0.010)	(0.007)	(0.009)	(0.007)	(0.010)	(0.008)
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel C – Spending Share: Admin/Police													
Expellee Share	0.002	-0.000	0.008	0.003	0.005	0.017**	0.012	0.018**	0.023***	0.016*	0.020**	0.019*	0.014*
	(0.006)	(0.009)	(0.010)	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.007)	(0.008)	(0.009)	(0.010)	(0.007)
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel D – Spending Share: Public Infrastructure													
Expellee Share	-0.031***	-0.035***	-0.026**	-0.030***	-0.027***	-0.037***	-0.024**	-0.022***	-0.020**	-0.025***	-0.015	-0.020**	-0.015**
	(0.012)	(0.011)	(0.010)	(0.009)	(0.009)	(0.009)	(0.010)	(0.008)	(0.009)	(0.007)	(0.009)	(0.010)	(0.007)
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248
Panel E – Spending Share: Schools/Culture													
Expellee Share	0.004	-0.003	-0.004	0.009	0.006	0.004	0.002	-0.008	-0.012	-0.009	-0.013*	-0.006	-0.008
	(0.009)	(0.008)	(0.009)	(0.008)	(0.008)	(0.006)	(0.008)	(0.008)	(0.008)	(0.007)	(0.008)	(0.008)	(0.006)
Number of observations	188	192	204	211	208	211	215	218	228	234	237	242	248

Note: This table shows the effect of a one standard deviation increase in the expelleee share on annual spending (shares) using simple OLS. Log spending are standardized, spending shares in percentage points. The set of controls comprises occupation zone dummies, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure C.2.1: The Effect of Expellee Inflows on Local Spending - IV Estimates Using the 1952 Municipality Expellee Share



Notes: This graph displays the point estimates and the 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on local spending (shares for different items) using the IV strategy laid out in Equations (2)–(4). The expellee share is measured at the municipality level in 1952. Each point represents the coefficient of a separate regression. Estimates are based on the most comprehensive IV specification that includes measures of institutional differences and pre-WWII and the share of destroyed housing after the war (see Section 3.2 for details). Total spendings are standardized,, spending shares in percentage points. Standard errors are clustered at the county level.

C.3 Additional regression results: Local debt

Table C.3.1 presents cross-sectional OLS and IV estimates for mean post-WWII debt using varying sets of controls. **Table C.3.2** presents the corresponding annual effects (using the full set of controls). **Figure C.3.1** presents regression results when using the municipality-level expellee share in 1952 as our main explanatory variable.

Table C.3.1: The Effect of Expellee Inflows on Per Capita Debt - Average Effect post WW II

	OLS			Instrumental Variables		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Per Capita Debt						
Expellee Share	0.010	-0.005	0.059	0.097	0.023	0.090
	(0.037)	(0.050)	(0.055)	(0.063)	(0.091)	(0.105)
Number of Observations	239	239	239	239	239	239
Kleibergen-Paap *F*-Statistic				76.22	80.39	73.18
Geography Controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-WWII Controls		Yes	Yes		Yes	Yes
Share Destroyed Housing			Yes			Yes

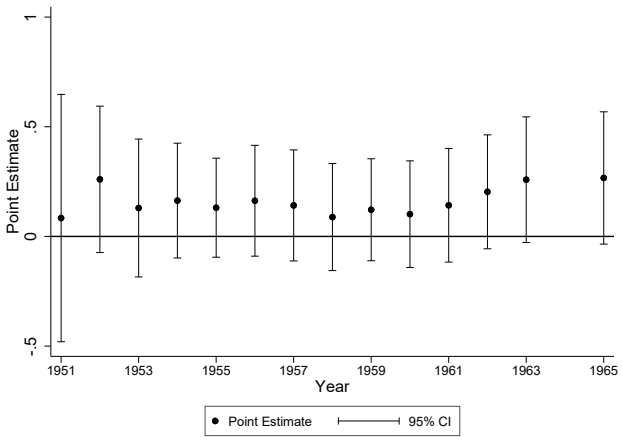
Notes: This table shows the effect of a one standard deviation increase in the expelleee share on mean post-WW II per capita debt (in logs) using simple OLS and the IV strategy laid out in Equations (2)-(4). The set of controls includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.3.2: The Effect of Expellee Inflows on Per Capita Debt - IV and OLS Results

Panel A – Per Capita Debt (IV Estimates)							
	1951	1952	1953	1954	1955	1956	1957
Expellee Share	0.011	0.175	0.066	0.157	0.129	0.163	0.123
	(0.276)	(0.175)	(0.160)	(0.132)	(0.113)	(0.118)	(0.115)
Kleibergen-Paap F-Test	79.10	74.42	67.37	64.67	66.64	66.64	68.18
Number of observations	179	181	192	198	199	199	204
	1958	1959	1960	1961	1962	1963	1965
Expellee Share	0.075	0.104	0.109	0.146	0.201*	0.244*	0.248*
	(0.113)	(0.106)	(0.111)	(0.119)	(0.117)	(0.126)	(0.131)
Kleibergen-Paap F-Test	61.84	66.42	74.68	76.57	73.19	71.95	73.99
Number of observations	206	216	224	233	238	238	240
Panel B – Per Capita Debt (OLS Estimates)							
	1951	1952	1953	1954	1955	1956	1957
Expellee Share	0.029	0.112	0.097	0.091	0.048	0.063	0.050
	(0.149)	(0.105)	(0.091)	(0.080)	(0.066)	(0.061)	(0.058)
Number of observations	179	181	192	198	199	199	204
	1958	1959	1960	1961	1962	1963	1965
Expellee Share	0.050	0.069	0.055	0.052	0.072	0.099	0.098
	(0.060)	(0.060)	(0.056)	(0.064)	(0.059)	(0.060)	(0.061)
Number of observations	206	216	224	233	238	238	240

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on annual per capita debt (in logs) using simple OLS and the IV strategy laid out in Equations (2)-(4). The set of controls includes measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure C.3.1: The Effect of the Expellee Inflow on Local Debt - IV Estimates Using the 1952 Municipality Expellee Share



Notes: This graph displays the point estimates and the corresponding 95% confidence intervals for the effect of a one standard deviation increase in the expellee share on local debt per capita (in logs) using the IV strategy laid out in Equations (2)–(4). Each point represents the result of a separate regression. The expellee share is measured at the municipality level in 1952. Estimates are based on the most comprehensive IV specification that includes measures of institutional differences and pre-WWII and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

C.4 Additional regression results: Local voting

Table C.4.1 presents cross-sectional OLS and IV estimates for mean post-WWII spending using varying sets of controls. **Tables C.4.2-C.4.3** present the corresponding annual effects (using the full set of controls). **Figure C.4.1** presents regression results when using the municipality-level expellee share in 1952 as our main explanatory variable.

Table C.4.1: The Effect of Expellee Inflows on Voter Turnout & Vote Shares - Average Effect post WW II

	OLS			Instrumental Variables		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A – Voter Turnout						
Expellee Share	-0.800*	0.444	-0.515	0.771	2.213**	1.641
	(0.428)	(0.586)	(0.634)	(0.720)	(0.931)	(0.993)
Number of Observations	215	215	215	215	215	215
Kleibergen-Paap *F*-Statistic				71.29	83.68	71.02
Panel B – Vote Share CDU/CSU						
Expellee Share	-2.796***	-0.084	0.329	-4.097***	-1.757	-1.723
	(0.726)	(0.924)	(1.015)	(1.222)	(1.522)	(1.765)
Number of Observations	214	214	214	214	214	214
Kleibergen-Paap *F*-Statistic				74.45	83.32	70.61
Panel C – Vote Share SPD						
Expellee Share	-1.089	-1.372	-1.640*	0.412	-1.828	-2.210
	(0.765)	(0.959)	(0.934)	(1.150)	(1.404)	(1.579)
Number of Observations	215	215	215	215	215	215
Kleibergen-Paap *F*-Statistic				71.29	83.68	71.02
Panel D – Vote Share GB/BHE						
Expellee Share	3.381***	3.218***	3.276***	3.002***	2.546***	2.465***
	(0.287)	(0.424)	(0.448)	(0.392)	(0.615)	(0.712)
Number of Observations	116	116	116	116	116	116
Kleibergen-Paap *F*-Statistic				55.19	55.06	50.91
Geography Controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-WWII Controls		Yes	Yes		Yes	Yes
Share Destroyed Housing			Yes			Yes

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on mean post-WW II voter turnout and party vote shares using the IV strategy laid out in Equations (2)-(4) and simple OLS. The set of controls includes measures of institutional difference, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.4.2: The Effect of Expellee Inflows on Voter Turnout & Vote Shares - IV Estimates

	1946	1947-50	1951-55	1956-59	1960-62
Panel A – Voter Turnout					
Expellee Share	-0.432	5.253***	3.698**	0.832	0.630
	(1.211)	(1.867)	(1.636)	(1.083)	(1.068)
Kleibergen-Paap F-Test	68.29	72.31	67.02	69.77	73.19
Number of observations	167	169	198	218	238
Panel B – Vote Share CDU/CSU					
Expellee Share	-1.227	-2.205	-1.785	-0.850	-2.948*
	(2.407)	(2.115)	(2.532)	(1.877)	(1.772)
Kleibergen-Paap F-Test	65.56	73.34	25.47	70.45	73.17
Number of observations	164	168	161	210	231
Panel C – Vote Share SPD					
Expellee Share	-0.602	-4.546**	-2.552	-3.211*	1.727
	(2.068)	(1.973)	(1.766)	(1.665)	(1.670)
Kleibergen-Paap F-Test	68.29	72.31	67.02	69.77	73.19
Number of observations	167	169	198	218	238
Panel D – Vote Share GB/BHE					
Expellee Share	3.088**	3.088**	3.088**	1.813***	1.044
	(1.260)	(1.260)	(1.260)	(0.568)	(0.861)
Kleibergen-Paap F-Test	39.43	39.43	39.43	53.59	31.11
Number of observations	122	122	122	149	82

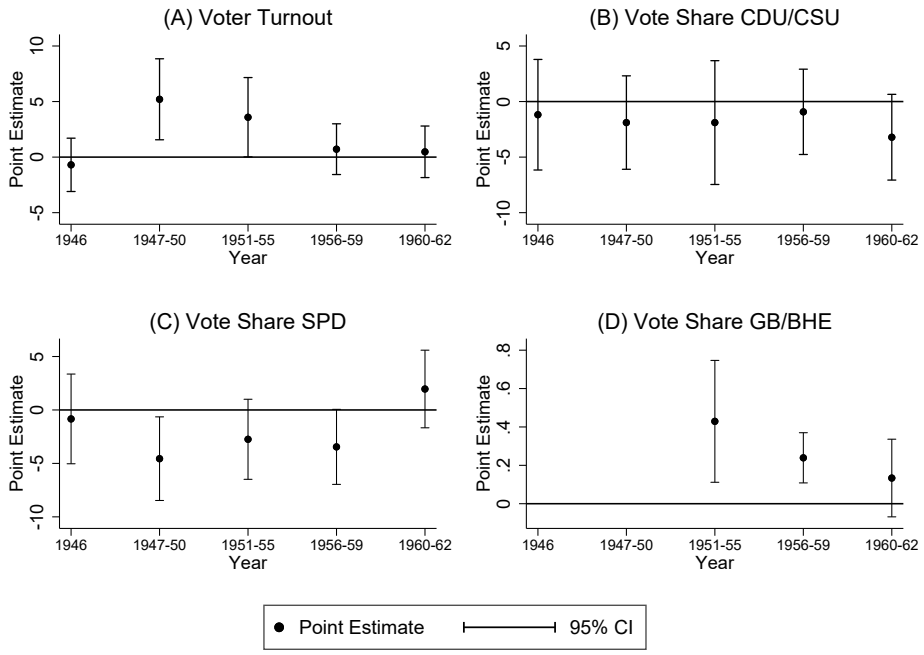
Note: This table shows the effect of a one standard deviation increase in the expelleee share on voter turnout and party vote shares over time using the IV strategy laid out in Equations (2)-(4). The set of controls includes election year fixed effects, measures of institutional differences, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C.4.3: The Effect of Expellee Inflows on Voter Turnout & Vote Shares - OLS Estimates

	1946	1947-50	1951-55	1956-59	1960-62
Panel A – Voter Turnout					
Expellee Share	-1.332*	1.821	0.821	-0.316	-1.859***
	(0.768)	(1.146)	(0.928)	(0.588)	(0.688)
Number of observations	167	169	198	218	238
Panel B – Vote Share CDU/CSU					
Expellee Share	-1.302	-0.642	-0.910	1.205	-0.268
	(1.629)	(1.382)	(1.252)	(1.026)	(0.928)
Number of observations	164	168	161	210	231
Panel C – Vote Share SPD					
Expellee Share	-1.760	-1.482	-2.467**	-2.798***	-0.624
	(1.281)	(1.099)	(1.017)	(0.936)	(0.804)
Number of observations	167	169	198	218	238
Panel D – Vote Share GB/BHE					
Expellee Share	4.597***	4.597***	4.597***	2.244***	1.629***
	(0.943)	(0.943)	(0.943)	(0.436)	(0.434)
Number of observations	122	122	122	149	82

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on voter turnout and party vote shares using simple OLS. The set of controls comprises election year fixed effects, occupation zone dummies, pre-WW II controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.1). Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure C.4.1: The Effect of Expellee Inflows on Voter Turnout & Vote Shares - IV Estimates Using the 1952 Municipality Expellee Share



Notes: This graph shows the point estimates and 95% confidence intervals of the effect of a one standard deviation increase in the expellee share on local voter turnout and party vote shares (in %) using the IV strategy laid out in Equations (3)–(4). The expellee share is measured at the municipality level in 1952. Estimates are based on the most comprehensive specification that includes measures of institutional differences, pre-WWII controls to capture persistent differences across regions, and the share of destroyed housing after the war (see Section 3.2 for details). Standard errors are clustered at the county level.

C.5 Additional regression results: Preferences for redistribution

Table C.5.1 presents cross-sectional OLS and IV estimates for long-term preferences for redistribution using varying sets of controls.

Table C.5.1: The Effect of Expellee Inflows on Preferences for Redistribution

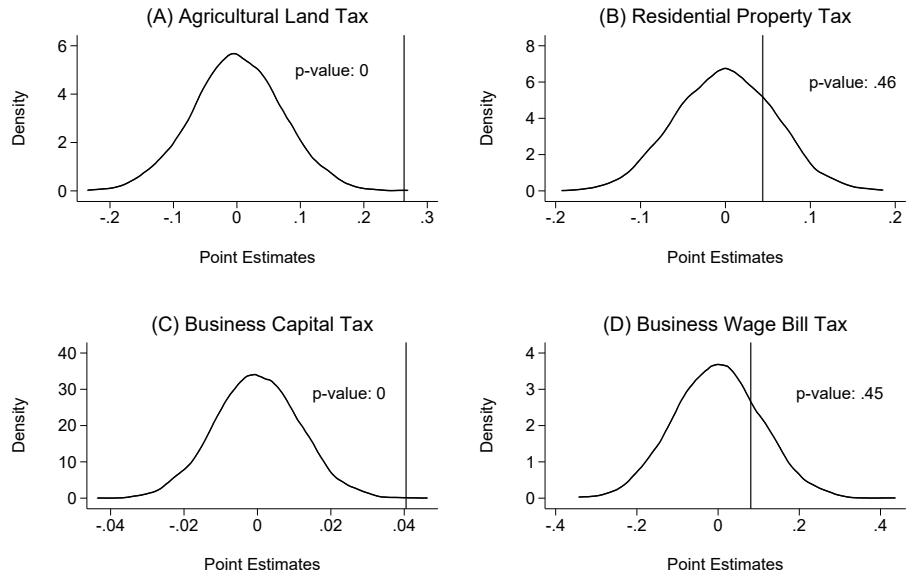
	OLS				Instrumental Variables			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A – For the family								
Expellee Share	0.005	0.004	0.004	0.002	0.024**	0.003	-0.005	-0.000
	(0.006)	(0.007)	(0.007)	(0.008)	(0.011)	(0.020)	(0.019)	(0.020)
Number of Observations	8,974	8,974	8,974	8,626	8,974	8,974	8,974	8,626
Kleibergen-Paap *F*-Statistic					41.97	20.74	21.40	20.82
Panel B – When being old								
Expellee Share	-0.005	0.003	0.003	0.000	0.034**	0.053**	0.046**	0.053**
	(0.004)	(0.007)	(0.006)	(0.007)	(0.014)	(0.025)	(0.023)	(0.026)
Number of Observations	8,974	8,974	8,974	8,626	8,974	8,974	8,974	8,626
Kleibergen-Paap *F*-Statistic					41.97	20.74	21.40	20.82
Panel C – When being sick								
Expellee Share	0.005	0.012**	0.013**	0.012**	0.044***	0.058***	0.051***	0.058***
	(0.005)	(0.006)	(0.005)	(0.006)	(0.012)	(0.021)	(0.019)	(0.021)
Number of Observations	8,974	8,974	8,974	8,626	8,974	8,974	8,974	8,626
Kleibergen-Paap *F*-Statistic					41.97	20.74	21.40	20.82
Panel D – When needing care								
Expellee Share	0.003	0.006	0.007	0.005	0.026**	0.034*	0.035*	0.036*
	(0.004)	(0.006)	(0.006)	(0.006)	(0.011)	(0.020)	(0.021)	(0.021)
Number of Observations	8,974	8,974	8,974	8,626	8,974	8,974	8,974	8,626
Kleibergen-Paap *F*-Statistic					41.97	20.74	21.40	20.82
Panel E – When unemployed								
Expellee Share	-0.000	0.008	0.007	0.009	0.032**	0.045**	0.035*	0.047**
	(0.007)	(0.009)	(0.008)	(0.009)	(0.013)	(0.021)	(0.018)	(0.021)
Number of Observations	8,974	8,974	8,974	8,626	8,974	8,974	8,974	8,626
Kleibergen-Paap *F*-Statistic					41.97	20.74	21.40	20.82
Historical county controls		Yes	Yes	Yes		Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Current county controls			Yes				Yes	

Notes: This table shows the effect of a one standard deviation increase in the expelleee share on individuals' preferences for redistribution (as measured by the respondents' preferred role of the state with regard to different areas of social security) using simple OLS and our IV strategy laid out in equations (2)-(4). The set of controls comprises (i) respondents' characteristics, (ii) current features of the county of residence, and (iii) historical controls to capture persistent differences across regions (see Sections 3.2 and 5 for details). In columns (4) and (8), we exlcude respondents who lived in East Germany prior to reunification. Cross-sectional weights are used. Standard errors are clustered at the county level. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D Permutation Tests

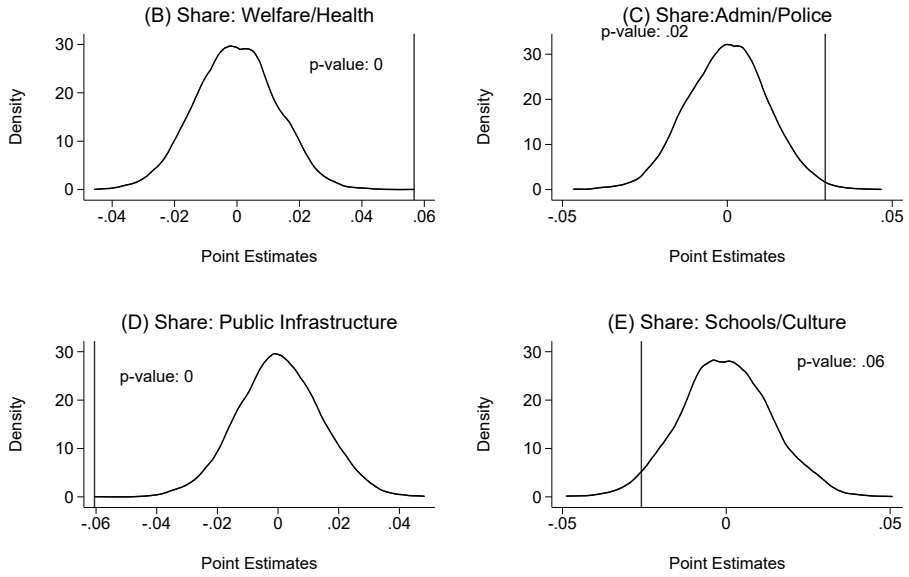
Appendix D presents the results of our permutation tests to re-assess the statistical significance the IV estimates. Permutation tests relax the parametric assumption that the error terms are normally distributed in the population.To obtain the relevant test statistics, we randomly shuffle the dependent variable in our sample and re-estimate our preferred IV specification (using the mean post-war outcomes) 5,000 times. The resulting empirical distributions of these placebo estimates allow us to calculate the corresponding p-values for the hypothesis $\delta_1 = 0$ by deriving the share of estimated coefficients that are larger (in absolute terms) than the point estimate of our preferred specification in the true model.

Figure D.1: Distribution of Placebo IV Estimates - Tax Rates



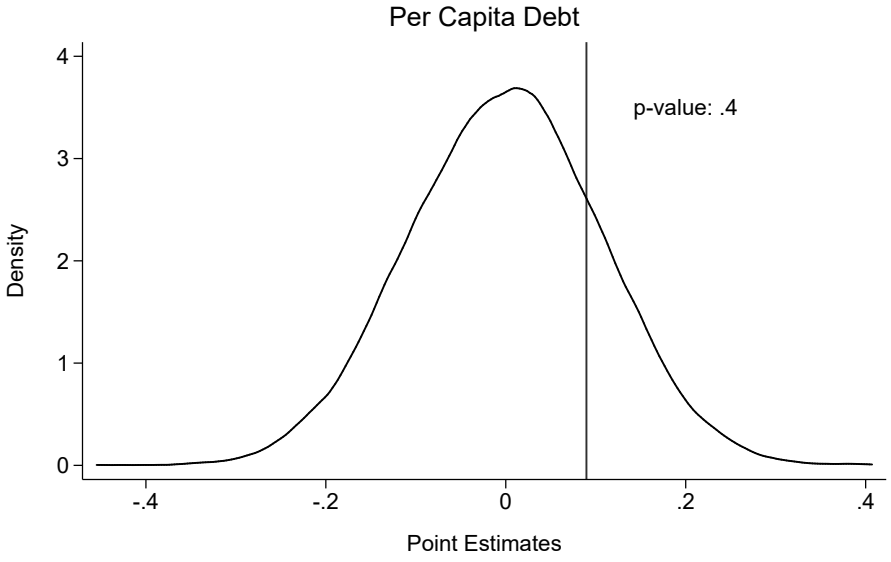
Notes: This figure shows the empirical distributions of placebo estimates for local tax rates on (A) agricultural land, (B) residential property, (C) business capital, and (D) business' wage bill. The cumulative distribution functions are based on 5,000 estimates of β using the IV specification displayed in column (6) of Table C.1.5 and random permutations of the respective dependent variable. The vertical lines indicate the corresponding point estimate as shown in column (6) of Table C.1.5.

Figure D.2: Distribution of Placebo IV Estimates - Per Capita Spending



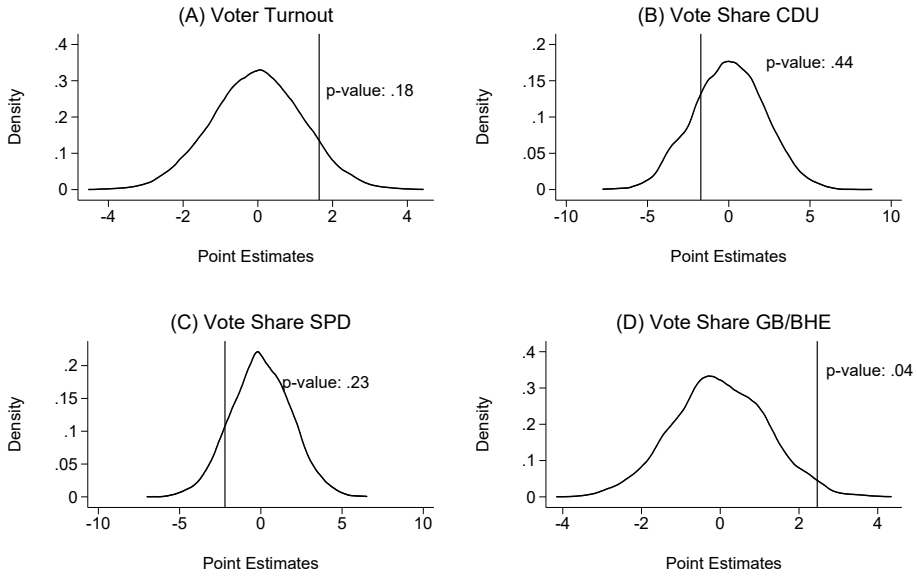
Notes: This figure shows the empirical distributions of placebo estimates for per capita spending on (A) welfare and health, (B) administration and the police, (C) public infrastructure and housing, (D) schools and culture, (E) all items. The cumulative distribution functions are based on 5,000 estimates of β using the IV specification displayed in column (6) of Table C.2.1 and random permutations of the respective dependent variable. The vertical lines indicate the corresponding point estimate as shown in column (6) of Table C.2.1.

Figure D.3: Distribution of Placebo IV Estimates - Per Capita Debt



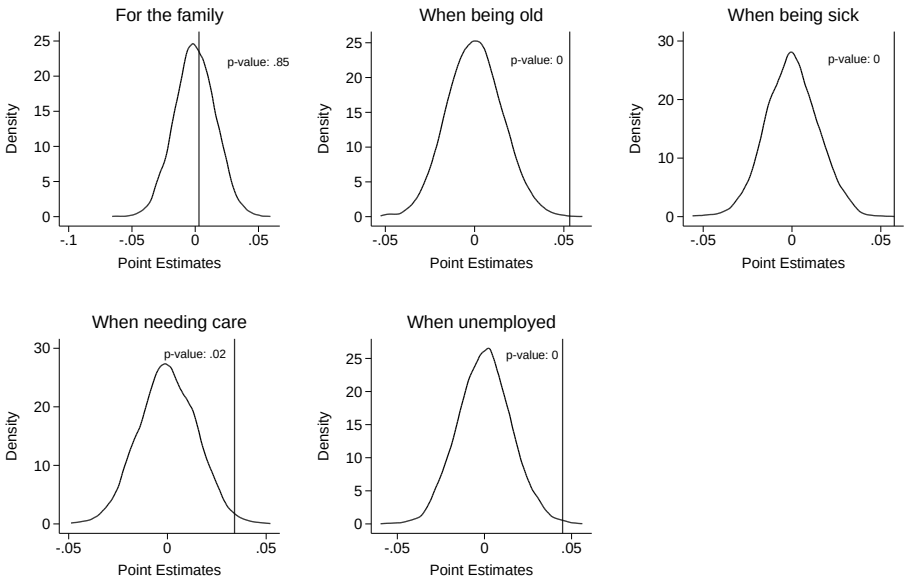
Notes: This figure shows the empirical distributions of placebo estimates for (A) per capita debt (in logs). The cumulative distribution functions are based on 5,000 estimates of β using the IV specification displayed in column (6) of Table C.3.1 and random permutations of the respective dependent variable. The vertical lines indicate the corresponding point estimate as shown in column (6) of Table C.3.1.

Figure D.4: Distribution of Placebo IV Estimates - Vote Turnout & Vote Shares



Notes: This figure shows the empirical distributions of placebo estimates for (A) voter turnout, (B) the CDU/CSU vote share, (C) SPD vote share, and (D) the GB/BHE vote share. The cumulative distribution functions are based on 5,000 estimates of β using the IV specification displayed in column (6) of Table C.4.1 and random permutations of the respective dependent variable. The vertical lines indicate the corresponding point estimate as shown in column (6) of Table C.4.1.

Figure D.5: Distribution of Placebo IV Estimates - Preferences for Redistribution

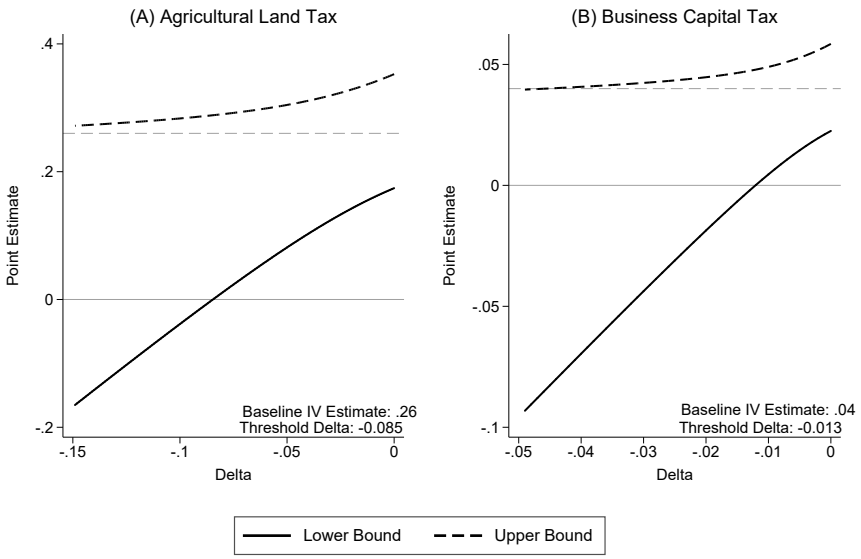


Notes: This figure shows the empirical distributions of placebo estimates for individuals' preferences for redistribution. The cumulative distribution functions are based on 5,000 estimates of β using the IV specification displayed in column (6) of Table C.5.1 and random permutations of the respective dependent variable. The vertical lines indicate the corresponding point estimate as shown in column (6) of Table C.5.1.

E Test of Exclusion Restriction

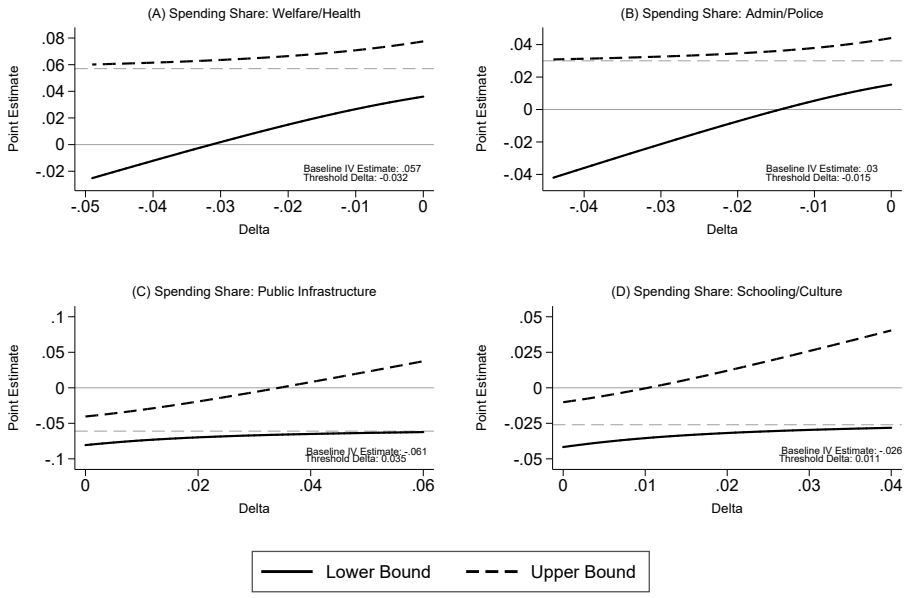
Appendix E assesses the robustness of our IV estimates regarding potential violations of the exclusion restriction. We follow Conley et al. (2012) and allow for a direct effect of the instrument on our outcomes, calculating threshold values for the direct effect of the instrument that would completely explain away our second-stage results. In detail, and following Conley et al. (2012) as well as Satyanath et al. (2017), we assume that the (potential) direct effect of the instrument on the respective outcome is uniformly distributed in an interval [0,δ]. By gradually allowing for larger direct effects of the instrument, we are able to trace out the threshold value at which the second-stage estimate for the expellee share becomes insignificant at the 10% level.

Figure E.1: Relaxing the Exclusion Restriction - Local Tax Rates



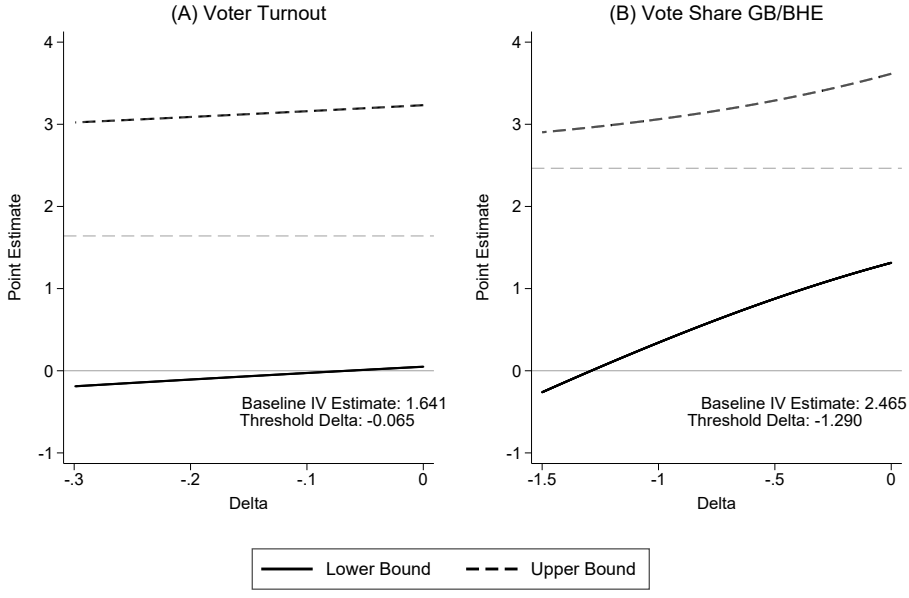
Notes: This figure shows the upper and lower bound of the 90% confidence interval of the second-stage point estimates for the expellee share on (A) the mean agricultural land tax rate and (B) the mean business capital tax rate when allowing for a direct effect of the instrument on the outcome (as indicated by coefficient δ depicted at the x-line). Following Conley et al. (2012), it is assumed that the possible direct effect of the instrument on the outcome of interest is uniformly distributed over the interval [-δ,0]. At the indicated threshold value of δ, the second-stage estimate becomes insignificant at the 10% level. For completeness, the dashed lines indicate our preferred IV point estimates when assuming $\delta = 0$, see column (6) of Table C.1.5.

Figure E.2: Relaxing the Exclusion Restriction - Local Spending



Notes: This figure shows the upper and lower bound of the 90% confidence interval of the second-stage point estimates for the expellee share on spending shares for different items when allowing for a direct effect of the instrument on the outcome (as indicated by coefficient δ depicted at the x-line). Following Conley et al. (2012), it is assumed that the possible direct effect of the instrument on the outcome of interest is uniformly distributed over the interval [0,δ]. At the indicated threshold value of δ, the second-stage estimate becomes insignificant at the 10% level. For completeness, the dashed lines indicate our preferred IV point estimates when assuming $\delta = 0$, see column (6) of Table C.2.1.

Figure E.3: Relaxing the Exclusion Restriction - Voter Turnout & Party Vote Shares



Notes: This figure shows the upper and lower bound of the 90% confidence interval of the second-stage point estimates for the expellee share on (A) voter turnout and (B) the GB/BHE vote share when allowing for a direct effect of the instrument on the outcome (as indicated by coefficient δ depicted at the x-line). Following Conley et al. (2012), it is assumed that the possible direct effect of the instrument on the outcome of interest is uniformly distributed over the interval [0,δ]. At the indicated threshold value of δ, the second-stage estimate becomes insignificant at the 10% level. For completeness, the dashed lines indicate our preferred IV point estimate when assuming $\delta = 0$, see column (6) of Panel (B), Table C.4.1.