

Essays in Economic History

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Abstract

In the first chapter we analyze the long-term effect of a migration on social capital. Starting from 1944, more than 10 millions of ethnic Germans were expelled from eastern Europe and forced to resettle in West Germany. Most of them lost in a few days their house, their personal effects, and their network of friends and contacts. In their new homeland, refugees often faced hostilities and discrimination from the native population. How did this impact the social capital of West Germany? We found that a higher share of refugees in a county is associated with a lower level of social capital. In the second chapter, we analyze how institutions affected economic growth, using as natural experiment the split of the Hapsburg Empire in two halves in 1867. As units of observation we use ethnically homogeneous regions on the two sides of the new border, and as indicator of economic development the urbanization rate between 1869 and 1910. We found that regions on the Austrian part of the Empire performed better.

The Impact of the German Refugees on the Social Capital of West Germany

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Abstract

This paper analyses the long-term effect of forced WWII migration on social capital. Starting from 1944, more than 10 millions of ethnic Germans were expelled from eastern Europe and forced to resettle in West Germany. Most of them lost in a few days their house, their personal effects, and their network of friends and contacts. In their new homeland, refugees often faced hostilities and discrimination from the native population, especially in the more conservative countryside. How did this impact the social capital of West Germany? We found that a higher share of refugees in a county is associated with a lower level of social capital.

1 Introduction

The final months of WWII saw a tremendous movement of ethnic Germans from eastern to western territories of the German Reich, fleeing from the advancing Red Army. By the time of the first census in 1950, roughly 8 million of displaced ethnic Germans, so-called *Vertriebene*, inhabited in West Germany, approximately 16% of the total West German population (see Table 1). While most of refugees doubted in the beginning that their displacement would be permanent, by 1950 at the latest, it was clear that return was impossible. The integration of the expellees became one of the highest priority in post-war Germany. Between 1950 and 1961, roughly 2.5 million refugees fled from East Germany and the eastern Europe, running away from the newly-established communist regimes. The expellee flow reduced drastically only after the construction of the Berlin wall in 1961. The refugees were unevenly distributed among the West German regions. Most of them were resettled in the territories near their former place of residence: Schleswig-Holstein, Bavaria, and eastern Lower Saxony.

In this study we want to analyze the long-term effects of the refugees and of their children on the social capital of West Germany. When the newcomers arrived in their new homeland, they had lost all their personal effects and all their network of friends and contacts. They were deprived of both their physical capital and of their social capital. In their new place of residence, the refugees had to face enormous challenges: they had to find an accommodation and a job in a country devastated by the war and, at the same time, find a place in the fabric of a stranger community. However, they hardly could be in a worse condition, they bore the physical and mental scars of their flight and many were traumatized by the ill treatment they had suffered. Moreover, once they finally reached West Germany, they had to confront with a local population that often was unsympathetic, unless hostile, to their situation, especially in the rural areas. From previous studies, we know that traumas and conditions of economic distress are correlated with a decrease in the social capital. For example, a person who has just lost the job will be less inclined to trust other people or to be involved in political activities. Thus, it is reasonable to assume that the harsh conditions faced by the refugees in West Germany caused a negative shock in their ability to rebuild their social capital, if this is true, we should observe a negative correlation between the share of refugees and the amount of social capital in a district.

Using voter turnout and the number of non-profit organizations per 10.000 inhabitants as indicators of social capital and an IV approach, we found that a higher share of refugees in 1961 in a county is associated with a lower voter turnout for the parliament elections between 1961 and 2013 and with a lower number of non-profit organizations in 2015. An increase of 1% in the share of refugees would correspond to an expected decrease in the number of organization per 10.000 residents of 1.91%, *ceteris paribus*. This effect is greater in rural counties than in cities, this is consistent with empirical studies of sociologists

that found a higher degree of conflict between newcomers and natives in the countryside. However the effect on voter turnout appears to be greater in the cities.

The economic and social integration of ethnic German expellees has recently started to receive attention by economists. These studies can be sorted into 2 categories: the effects on displaced Germans as forced migrants, and the effects on post-war Germany and its native inhabitants. Research belonging to the first category focuses on the economic impact on displaced ethnic Germans after WWII. For example, Bauer et al. (2013) find that the long-term effects on economic outcomes of displaced Germans were significantly negative, expellees experienced lower incomes and higher unemployment risks compared to native Germans, even 25 years after resettlement. This economic disadvantage seems to have been inherited by their children who, as second-generation migrants, were also economically worse off than their native peers. Falck et al. (2012) study the integration of displaced Germans into the labor market and thereby evaluate the 1953 Federal Expellee Law which intended to improve the economic situation of expellees. Although expellees experienced a considerable increase in their economic well-being during the post-war years, Falck et al. argue that this improvement cannot be attributed to the law but rather to the general economic boom of the 1950s and 60s. Studies belonging to second category focus on economic effects induced by immigration of displaced Germans. For example, Braun and Mahmoud (2014) find that expellees considerably reduced native employment rates in the short-run since both groups were considered close substitutes by employers. Braun and Kvasnicka (2014) find that the inflow of displaced ethnic Germans substantially contributed to structural change by speeding up the transition from low-productivity agriculture to high productivity sectors. One reason is that displaced farmers had to find work in other sectors due to the non-availability of free arable land. Finally, Semrad (2015) studies the long-term effects on educational outcomes, finding that the settlement of Sudeten Germans in the rural districts of Bavaria significantly improved the share of children in middle track secondary education 20 years later. This could be explained by the strong preferences of Sudeten refugees for secondary schooling, especially in form of a practical and business related education school.

2 Historical background

2.1 Flight and expulsion

Ethnic Germans settled in the regions to the east of the actual German border by the 12th century. In the following 800 years ethnic Germans lived more or less peacefully side by side with the local populations. During the 19th century the relations with other ethnic groups became increasingly strained. This was partly due to economic and religious factors, but the most important cause was

the growth of nationalist sentiments. As new homogeneous nation-states were established along ethnic lines, their leaders sought to assimilate or exclude all ethnic groups other than their own, this caused increasing frictions between ethnic Germans and the population of Eastern Europe, in particular Polish and Czech.

A turning point was the Treaty of Versailles, although the US President, Woodrow Wilson, promised that borders would be drawn according to the principle of national self-determination, this proved to be impossible to implement in practice. All in all, the First World War left 7 millions of Ethnic Germans outside the borders of Germany and Austria. The new Czechoslovakian state alone included as many as 3.2 million Germans, a number higher than the same Slovaks. This formed the background to the flight and the expulsion of the refugees from their homelands from 1944 onward. German minorities, unused to be ruled by a foreign power, invariably proved to be a dissident and a destabilizing element within the new states which had been established, in particularly after Nazi's rise to power. Sudeten Germans, hit by the economic crisis, became a fifth column for Hitler's expansionist aims. The invasion of Prague by the German army had a profound effect on the attitude of Beneš, the Czechoslovakian President, to the "Sudeten German problem". In fact, as early as December 1938 he privately advocated the expulsion of the Sudeten Germans and in September 1941 publicly put forward this idea. As consequences of the atrocities committed in Eastern and Central Europe by the German occupation forces, German minorities were regarded as willing instruments of the expansionist policies of the National Socialists. Thus, when the German offensive in the East failed, Soviet troops, as well as the indigenous inhabitants of countries such as Czechoslovakia, began to exact revenge on the German population for the appalling suffering they had experienced at the hands of the Nazis.

The first wave of refugees was triggered by the advance of the Red Army. The brutality with which they treated the German civilian population led to a huge exodus of terror-stricken refugees from eastern parts of the Reich in the face of the advancing soldiers. The Soviet offensive which began on 12 January 1945 prompted some 4 million refugees from Upper and Lower Silesia, Pomerania, Brandenburg and Danzig to flee westwards from their homelands. Some 2.4 million of these refugees were evacuated by ship from the Baltic Sea ports, the other escaped overland in the so-called "treks". The flight of Ethnic Germans from their homelands in South Eastern Europe also began in the autumn of 1944, as soon as the local populations in Hungary, Yugoslavia and Romania regained the power. The end of the war witnessed the beginning of the so-called "wild" expulsion, the second wave was carried out by the native populations of Poland and Czechoslovakia against their German minorities. In Czechoslovakia Beneš urged his fellow countrymen on 12 May 1945 to assist him in "liquidating the German question". Local reports indicate that the Poles and Czechs invariably treated the Germans with even greater brutality than the Soviet troops. Groups of Poles attacked the refugees and stole the few remaining valuables they still possessed. Germans continued to be expelled from Poland during the autumn of

1945 under extremely harsh conditions. Expulsion on a smaller scale continued until 1950.

Those who survived bore the physical and mental scars of their experiences. Many were ravaged by disease and malnutrition and traumatized by the ill treatment they had suffered and the horrific events they had witnessed.

2.2 The magnitude of the problem

By 1950, no fewer than 12 million of German refugees and expellees coming from the eastern part of the Reich and central Europe had settled in the four Occupation Zones. According to the census of September 1950, 7.9 millions were resident in the newly established West German state. They arrived in a country devastated by the effects of the war and the task of integrating them was one of the most serious problem faced by the Allied and German authorities. The most numerous groups were the Silesians (2.053.000), Sudeten Germans (1.912.000), East Prussians (1.347.000), and Pomeranians (891.000). Smaller groups included people from East Brandenburg, the Baltic States, the former free city of Danzig, Soviet Union, Yugoslavia, Hungary, Romania, and Poland (see Figure 1).

To deal with this enormous influx of people three categories of refugees were created. The Federal Expellee Law distinguished between "refugees" (*Fluchtlinge*) who fled from the Soviet occupation zone (SOZ)/German Democratic Republic (GDR) and "displaced people" (*Vertriebene*) as German citizens or ethnic Germans who lived in former eastern German territories (lost during or after the war) or beyond the borders of the German Reich in 1937 and were displaced during or after the war. The latter are further differentiated into "displaced from the homeland" (*Heimatvertriebene*) who lived in former eastern German territories (inside 1914-1937 borders) or former Austro-Hungarian territories in 31.12.1937, and into common "displaced persons" (*Vertriebene*) who lived in would-be eastern territories or outside the German reich on 31.12.1937. Children born to these displaced Germans inherit the displacement status of their parents. This study will follow the previous works about German refugees and will use the expressions "refugees", "expellees", and "newcomers" interchangeably, unless indicated otherwise.

As table 1 and figure 2 show, the refugees and the expellees were unevenly distributed among the ten West German states (*Länder*). At the Postdam conference, the Allies gave a commitment to securing "an equitable distribution" of refugees "among the several zones of occupation". However, the French, who had not been invited to the conference, did not feel compelled to abide by the decision and at first refused to accept newcomers into their zone; consequently, Wurttemberg-Hohenzollern, Baden and Rhineland-Palatinate were still sparsely populated with refugees as late as 1950. As result, it was the American and British Occupation Zones which had to cope with the brunt of the expellee influx.

However, even within these zones there were enormous variations. The vast majority of newcomers had to be accommodated in rural areas, where employment opportunities were scarce, because the Allied bombing campaign had created grave housing shortages in the large towns and cities where job prospects would have been more favorable. As a result, the mainly rural states of Bavaria, Lower Saxony and Schleswig-Holstein had to accommodate the majority of the newcomers. Yet, even here the refugees were not evenly distributed; as a rule, Schleswig-Holstein and the eastern parts of Bavaria and Lower Saxony were most severely overburdened with newcomers because their close geographical proximity to the GDR and, in the case of Bavaria, Czechoslovakia as well. The refugees settled in the areas near to the border for another obvious reason: these were not only the first accessible safe regions, but in case of return, which many refugees were in the beginning quite sure of, these regions were closest to their homes.

2.3 Refugees and native populations 1945-1950

The living conditions of the refugees in the very first years after the end of the Second World War were extremely harsh. In 1945 West Germany was hit by a food-crisis which lasted until 1948, the housing shortage was extremely acute all over the country, and the currency reform of 1948, which introduced the Deutsche Mark, had a sharp increase of the unemployment rate as short-term consequence. In this general negative circumstances, expelles, as the weakest part of the population, were generally more affected than the native population.

The economic prerequisites for integrating the refugees and expellees in post-war Germany could scarcely have been less favorable. When they arrived in the Western Occupation Zones they were without the financial means to begin a new life. They had lost their savings, they forfeited their homes and many had been able to save only their most precious personal possessions. They lacked many of the basic necessities of daily life. According to a survey carried out by the American Military Government, 90% of refugees had no cooking or household utensils as late as September 1949. The post-war food crisis affected the refugees more severely than the indigenous inhabitants. A public opinion poll conducted in the American Occupation Zone in autumn of 1947 concluded that 80% of the refugees as opposed to 66% of the native population believed that they were not getting enough to eat. Moreover since they lacked the "connection" of the native inhabitants and, as a result of the expulsion, had fewer belongings they had more difficulties in using the black market for additional food supplies. Many refugees had to endure deplorable housing conditions in early post-war years. The housing situation on Germany was a source of concern even before the WWII, according to one estimate, 2.5 million new dwellings were required in 1939 to provide satisfactory housing. The wartime bombing campaign of the Allied greatly exacerbated the housing shortage. The overwhelming majority of the refugees were accommodated in the rural areas where war-damages were

generally negligible. The Housing Law of 1946 confirmed the right of the state to confiscate occupied or unoccupied housing space and stipulated that a tenancy agreement should be drawn up between the householder and the tenant. Nonetheless the refugees' living conditions were significantly worse than those of the indigenous inhabitants. In fact, according to the census of September 1950, the "occupant density" per room totaled 1.75 among the newcomers but only 1.18 among the native population. The difference in the quality of housing between the two groups was even greater than these figures suggest, since the refugees were invariably allocated in the smallest rooms in the house.

Also the relations between the refugees and the native population rapidly deteriorated, especially in the countryside. Numerous regional and local studies have demonstrated that the relations between the refugees and the native population in rural communities in the period 1945-1950 were invariably characterized by tension and conflict. There is general agreement that most of the inhabitants initially responded sympathetically to the refugees. In fact, a public opinion poll conducted by the US Military Government in March 1946 revealed that some 75% of the newcomers had received a better reception than they had anticipated. The indigenous population was at first characterized "by pity and ... a willingness to help". However these feelings of compassion for the refugees soon began to disappear. While only 7% of Ethnic Germans in the American Occupation Zone expressed dissatisfaction with their treatment by the native inhabitants in March 1946, this figure had soared to 50% by June 1948. The deterioration in the relations can be attributed to several reasons: the increasing awareness that the refugees were not temporary guests who would return home in the near future, but were likely to settle permanently in West Germany; the increasing willingness of the refugees to improve their economic status challenging the interests of the native population; finally the original population perceived these refugees as "foreigners", and so as a threat to their cultural traditions and their way of life. This was particularly true in the rural districts, while town dwellers are more used to have contact with different background and cultures, this is not the case of the rural communities. In particular religion represented a major source of friction between the two groups, refugees were not able to self-select into migration and the new state Government were unable to distribute the new population elements according to their religious affiliations. As a result, in 1950 1.2 million of Catholic Germans were living in overwhelmingly Protestant areas, while 770.000 Protestant refugees had been settled in almost exclusively Catholic communities. The newcomers substantially changed the denominational structure of many parts of West Germany¹. In the rural districts of Bavaria, Lower Saxony, and Schleswig-Holstein religious bigotry was still prevalent and the newcomers of different religion encountered strong prejudice. Even when the refugees were of the same confession their forms of Protestantism and Catholicism were seen to be different from those in western Germany. Many had stories to tell relating to prejudice they had received from the local population

¹The number of exclusively Catholic or Protestant parishes (*Gemeinden*) in Bavaria fell from 1.564 at the outbreak of the Second World War to just nine in 1950.

for example, mistrust from the parents of local girlfriends and boyfriend. The native population's referenced frequently to the refugees' as "polacks", a derogatory term for people of Polish descent. On their side the refugees' willingness to establish social contacts with the local people was adversely affected by the often traumatic impact on their psychological well-being of the expulsion from their homelands.

2.4 Refugees and native populations since 1950

Between 1950 and 1961 roughly 2.5 millions of refugees fled in West Germany, mainly from the newly established German Democratic Republic (see Table 2). The original place of residence of many of the new refugees was in eastern Europe, initially they resettled in the Soviet occupation zone, but in the 1950s they moved in West Germany attracted by the local economic and political conditions. The flight of eastern Germans citizens became so common that in 1961 the East German government erected the Berlin wall. After this date the refugees flux dwindled, even if it never stopped.

Meanwhile the *Wirtschaftswunder* ("Economic miracle") of the 1950s greatly improved the economic conditions of both the refugees and the natives. In this decade most of the newcomers were able to find a job and a better accommodation. At the same time, the refugees were in 1961 still heavily underrepresented among the self-employed and this reflected the loss of social status many had suffered. These conclusions were reinforced by several empirical studies: Paul Luttinger² (1986) concluded that the economic and social integration of the refugees and expellees at the beginning of the 1970s was by no means as advanced as had been assumed. He found that, in times of economic recession, older newcomers, in particular, continued to be more susceptible to unemployment than the native population. Due to their own efforts, government legislation and West Germany's swift post-war economic recovery, the refugees made impressive progress on the labor market during the 1950s and 1960s. However, many felt that they had experienced a loss of social status since they had been unable to resume their former profession that they had or that they had to work much harder than the local people to achieve the same results.

With no more restriction to their movement, refugees moved from the rural areas to the cities. The proportion of expellees living in towns and cities with more than 100.000 inhabitants increased from 17.2% in 1950 to 27.6% in 1961 (see table 3). Generally speaking, however, the newcomers preferred to migrate to small or middle-sized towns where employment prospects tended to be more favorable.

²Der Mythos der schnellen Integration. Eine empirische Untersuchung zur Integration der Vertriebenen and Flüchtlinge in der Bundesrepublik Deutschland. (The myth of rapid integration. An empirical study on the integration of expelled people and refugees in the FRG).

While the refugees' economic and political integration in the West Germany was well advanced by the beginning of the 1960s, their integration into German society was a much longer and more difficult process. Case studies suggest that the relations between the refugees and the indigenous population gradually improved in the 1950s, though tensions frequently persisted, especially in rural areas. For example, empirical studies undertaken in the early post-war years indicated that the opposition to "mixed marriages" was particularly pronounced among both refugees and native located in small rural communities. During the 1950s and the 1960s there was a general increase in the incidence of "mixed" marriages among the younger cohorts of newcomers, but in rural areas these often encountered opposition from their parents, parents-in-law, and members of the local community. The study of Rainer Schulze³ (1991) with former refugees or expellees of the rural district of Celle some 40-50 years after their flight or expulsion reveal that many never felt fully accepted by the native population. The refugees drew attention to the fact that:

admission to the natives" associations, in particular to the prestigious voluntarily fire brigade associations, village church choirs, rifle associations and bowling clubs [...] was only granted hesitantly, and [...] in some places these traditional bastions of native rural elites often remained closed to them for decades.

3 Identification strategy

In the past months I tried different identification strategies to capture in the best way possible the effect of the refugees. Unfortunately, at the moment I cannot show what, in my intentions, will be my final identification strategy because of a temporary lack of data. As consequence, in the following sections I will present my results so far, while in section 3.4 I will discuss about my final strategy.

3.1 Data

To analyze whether the inflow of refugees in West Germany affected the social capital we employed data on 327 counties. We considered all the counties of West Germany, but West Berlin, due to its particular political and geographical situation. As several administrative and territorial reforms occurred since 1946, in particular in the 1970s, this paper chooses the administrative division of 1980 as the reference year (Figure 3). Counties are divided in 2 categories: cities (*Kreisfreie Städte*) and rural districts (*Landkreise*), in their turn, *Landkreise* are divided in parishes (*Gemeinden*). *Kreisfreie Städte* and *Landkreise*

³Unruhige Zeiten. Erlebnisberichte aus dem Landkreis Celle 1945/1949 (Troubled Times. Reports from Landkreis Celle, 1945/1949).

correspond to level 3 administrative units of the Nomenclature of Territorial Units for Statistics (NUTS 3). Characteristics of German counties are recovered from the Federal Statistical Office of Germany (*Statistisches Bundesamt*) and the censuses, besides general information about population structure, censuses reported the share of refugees, status of employment, religion, and so on. Unfortunately intra-census data are not available at the county level until, at least, the 90s, so for the previous period we have an observation just in the census years: 1961, 1971, and 1986.

As one indicator of social capital we use voter turnout for the parliament elections (*Bundestagwahlen*) from 1961 to 2013. Data for counties according to the administrative division of 1980 have been kindly furnished by Statistisches Bundesamt itself. We use the number of non-profit organization per 10.000 inhabitants in 2015 as a second indicator of social capital. Data for non-profit organizations are recovered from the *Handelregister* (register of commercial companies), each *Amtsgericht* (local district court) in Germany has a public register that contains details of all tradespeople and legal entities in the district. The public register is divided in several branches (*Registerart*), for our purpose it is relevant the *Vereinsregister*, that is, the register of associations. It refers to all the local associations working in social, cultural, educational, sports and leisure field. There were more than 450.000 active associations registered in former West Germany in 2015. For the moment I have the data for the non-profit organization just in 2015, but I am recovering data for previous years, that is, registered non-profit organization in 2005 and in 1995.

As other indicators of social capital, we would like to use indicators based on surveys. However, in the case of surveys we should use the *Raumordnungsregion* (ROR) as the reference administrative division, because data are not disaggregated enough to use counties. West Germany is divided in 74 ROR. Data could be recovered from the German Socio-Economic Panel (SOEP), SOEP is part of the German Institute for Economic Research (DIW Berlin). Since 1984 they have conducted regularly longitudinal surveys of private German households. We could construct 3 indicators of social capital based on the question of the surveys:

- Trust, using questions as: “On the whole trust people”, “Nowadays can’t trust anyone”, “Caution towards foreigners”, etc.
- Political Activism: “Participate in local politics”, “Supports political party”, “Importance to be socially and politically active”, etc..
- Social Connections: “Visit family, relatives”, “Visit neighbors, friends”, “Go out eating, drinking”, etc.

3.2 IV Estimation

We consider 2 different IV estimations: one at national level, and one at local level.

3.2.1 National Level

In selecting where to resettle, refugees might be attracted to counties with better social and economic conditions, for example, counties with better employment opportunities. Given that social capital is often correlated with economic conditions, an unobserved factor that improved social capital, could have increased also the share of expellees. This could lead to a problem of endogeneity. A higher level of social capital before the WWII should be correlated with better economic conditions and so with a higher share of refugees. Thus, a simple OLS estimation would lead to underestimate the effect of the refugees on social capital.

Endogenous location choices are likely to be less problematic in our specific historical context. The initial location of expellees was hardly driven by local conditions and the mobility of expellees and natives alike was severely restricted in the immediate post-war period. However, these restrictions gradually phased out and refugees may thus have relocate by 1950 based on unobserved factors. To deal with unobserved factors at the counties level, we instrument the share of expellees in the counties.

In order to predict the flows of expellees, we exploit the fact that the initial distribution of expellees across West German counties was largely driven by geographical and political reasons. Expellees were heavily concentrated in area close to their homelands, as they had sought shelter in the most accessible West German regions. For instance, about 53% of the refugees who fled from the Sudetenland resettled to the neighboring Bavaria, which was just on the other side of the mountains. In contrast the share of refugees in the westernmost *Länder* of Germany was less than 10%. One important escape route was through the Baltic Sea. In the final months of the war, more than 2.4 million of refugees were evacuated overseas, from Pomerania, East Prussia, and Danzig to the harbors of Lübeck, Rostock, and Kiel. Moreover during the so-called operation “Swallow” in 1946, about a half million of ethnic Germans expelled from Poland arrived in the Britain zone of occupation through the harbor of Lübeck. As a consequence, the districts near or on the Baltic coast received a disproportionately high number of refugees. Newcomers represented a third of the population of Schleswig-Holstein in 1950, and they were still over-represented in north-east of Germany even after freedom of movement was guaranteed again (Figure 2). For this reason, as first instrument we consider a dummy variable taking value 1 if the district is on the Baltic coast, and 0 otherwise (Figure 4).

The second instrument we use is given by the French zone of occupation. The French refused to accept newcomers in their zone of occupation until 1949 as retaliation to not have been invited to the Yalta conference. As consequence the districts in the former French zone have a lower share of refugees. This discontinuity persisted even after the creation of West Germany, in 1961 the share of refugees is 9-10% on one side of the former border and 16-17% on the other side. So, as second instrument we consider a dummy variable taking the value 1 if the district was in the former French zone, and 0 otherwise (Figure 4).

3.2.2 Local Level

One possible weak point of the previous identification strategy is that we cannot control for a pre-existing geographical gradient of social capital. For example, if we suppose that, for some reasons, the social capital is higher near France and that it becomes lower the more we move to the east, than this is a violation of the exclusion restriction. Thus, the results we have could be driven by this west-east gradient and not by the effect of refugees. A possible solution is to look just at the counties on the two sides of the former border between the French zone of occupation and the Britain and American zones (Figure 5). As before, we use as instrument if one district was part of the former French zone or not, but now we focus on just the counties that are on the two sides of the former border. The possible presence of a pre-existing gradient in the level of social capital should now be less problematic, given the geographical proximity of the counties.

One important thing to underline is that the border of the French zone was not drawn on pre-existing borders. The administrative division of Germany during the Weimar Republic and the Nazi regime was mainly based on the one of Imperial Germany, so internal borders between 1871 and 1939 remained more or less constant. The overlapping between the border of the French zone and the old administrative division is limited to a section of about 75 kilometers, less than 5% of the overall length of the border of the French zone. Thus, the effect we will capture should not be caused by something that was already present.

3.3 Model and Results

To test whether the share of refugees in a county is positively associated with a lower level of social capital, first of all we run the first stage regressions to predict the destination of expellees. If we consider the whole West Germany we have:

$$Refugees_i = \alpha_0 + \alpha_1 * FrenchZone_i + \alpha_2 * Baltic_i + \mu_i$$

While when we restrict our attention to the counties near the border of the former French zone, we have:

$$Refugees_i = \alpha_0 + \alpha_1 * FrenchZone_i + \mu_i$$

where $Refugees_i$ is the share of expellees in county i in 1961, $FrenchZone_i$ is a dummy variable that takes value 1 if county i was in the former French occupation zone, and $Baltic_i$ is a dummy variable that takes value 1 if county i is on the Baltic sea. We have considered 1961 as the reference year, instead of 1950, because of the influx of new refugees in West Germany in the 1950s and because of the movement of old expellees toward the cities in the same period. Data on expellee shares are taken from the census of 1961. As we can see from Table 4, Table 6, and Table 8, the instruments are always significant at the 5% or 1% level. $FrenchZone_i$ reduces the expected share of refugees of about 8-9 percentage points, while being near to the Baltic sea increases the expected share of refugees of more or less 6 percentage points. If we consider that the average share in 1961 was 21% (Table 2), then we can say that the effect is not only significant, but also relevant. In all the first stages the F statistic is well above the value of 10, so the instruments are not weak. The predicted share of refugees is then used in the second stage:

$$SocCap_{i,t} = \beta_0 + \beta_1 * \widehat{Refugees}_i + \beta_3 * X_{i,t} + \lambda_t + \mu_{i,t}$$

where $SocCap_{i,t}$ is an indicator of social capital for county i at time t , $X_{i,t}$ is a set of control variables, and λ_t are time fixed effects. The control variables include a dummy for urban counties, share of Protestants, share of Catholics, share of non-German immigrants, share of people under age 15, share of people over age 65, GDP per capita at current prices, labor force in agriculture, and labor force in industry. The variation in the indicator of social capital caused by the refugees is captured by β_1 . The results are presented in Table 5, Table 7, and Table 9. They indicate that a higher share of refugees is negatively and significantly associated with a decrease in voter turnout and in the number of non-profit organizations for 10.000 inhabitants.

According to witnesses and studies, conflicts between expellees and native have been longer and harsher in rural counties. We want to test if this had an impact on social capital. If inhabitants of rural counties were actually more hostile, then refugees' willingness to re-build a network of contacts could have been negatively affected. Thus, the negative relation between newcomers and social capital should be greater in rural counties than in urban ones. To test if this hypothesis is confirmed by the data, we run the previous regressions again, once just considering rural counties and once just considering urban counties. We restricted this analysis for the estimation at national level, in the second IV approach the sample was too small. Results are showed in columns (2) and (3) of the second stages tables. If we look at the number of organizations, then there is a confirmation of the previous hypothesis, the negative effect is much

higher in rural counties than in urban counties. However, in the case of voter turnout we have the opposite result, the negative correlation is mainly driven by the cities. We hope to solve this contradiction looking at further indicators of social capital or with a more accurate empirical strategy.

3.4 Future Identification Strategy

In my intentions, I would like to modify two things of the previous identification strategy:

- Substitute the share of refugees in 1961 with the share of refugees in 1950. The distribution in 1950 is the more exogenous distribution I can have, newcomers resettled where there was room, where Allied sent them, in the first place after the new border, and so on; without taking in consideration the economic or social conditions of their new hometowns. On the contrary, the distribution of refugees in 1961 was driven also by economic conditions, and, in particular, by the possibility to find a job.
- To use as couple of instrumental variables the French zone of occupation and war damages. In the very post-war years, the Allied and German authorities were forced to reallocate the expellees in the countryside, they cannot transfer them in the urban areas, because most of them had been destroyed by the Allied bombing campaign. The census of 1950 asked people if their house was severely damaged or destroyed at the end of the war. Thus, I have data about the share of damaged or destroyed houses at the end of war in each county. I would like to use this indicator as instrumental variable, the lower the share of houses destroyed the higher should be the share of refugees. This IV strategy have been already been used in some papers⁴. It is worth noting that the main determinant of the scale of bombing was proximity to Britain and not differences in the rate of industrialization.

The problem is that the data about the share of refugees in 1950 and the share of damaged or destroyed houses in 1945 have been collected according to the administrative division of 1950, when West Germany was divided in more than 500 counties. I need a key to transfer the data I have to the administrative division of 1980. At the moment, I am collaborating with professor Tamas Vonyo to solve this problem.

4 Conclusion

In this paper we analyze the long-term effects on social capital of West Germany caused by the mass inflow of displaced ethnic Germans after WWII. Compared

⁴For example: Tamas Vonyo, “The bombing of Germany: the economic geography of war-induced dislocation in West German industry”, 2012.

to their new neighbors, refugees faced the challenge to re-build their social capital, lost during the flight. In the beginning a fast integration of newcomers into West Germany seemed rather unlikely, since both natives and refugees did not believe in the definitive nature of their displacement. In addition, discrimination against expellees by local population was not uncommon. Results indicate that there is a significant association between the share of the refugees and the level of social capital of a county. A higher share of expellees correspond to lower level of voter turnout and number of non-profit organizations. This negative effect is persisting over time, an evidence that, somehow, sons inherited by their parents the negative shock on social capital.

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Figure 1: Distribution of German language in 1910 (above) and 1950 (below).

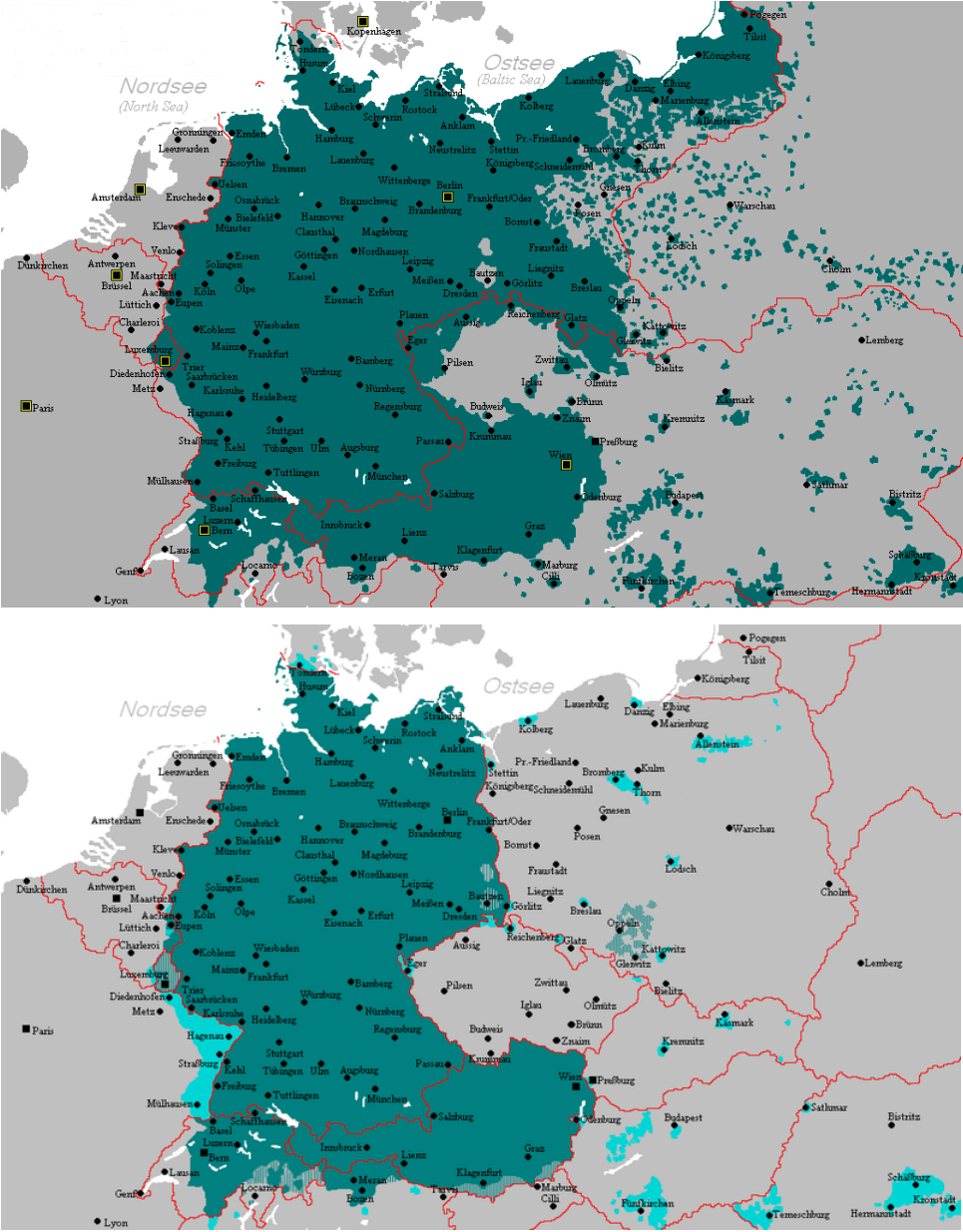


Figure 2: Share of refugees in total population (1961).

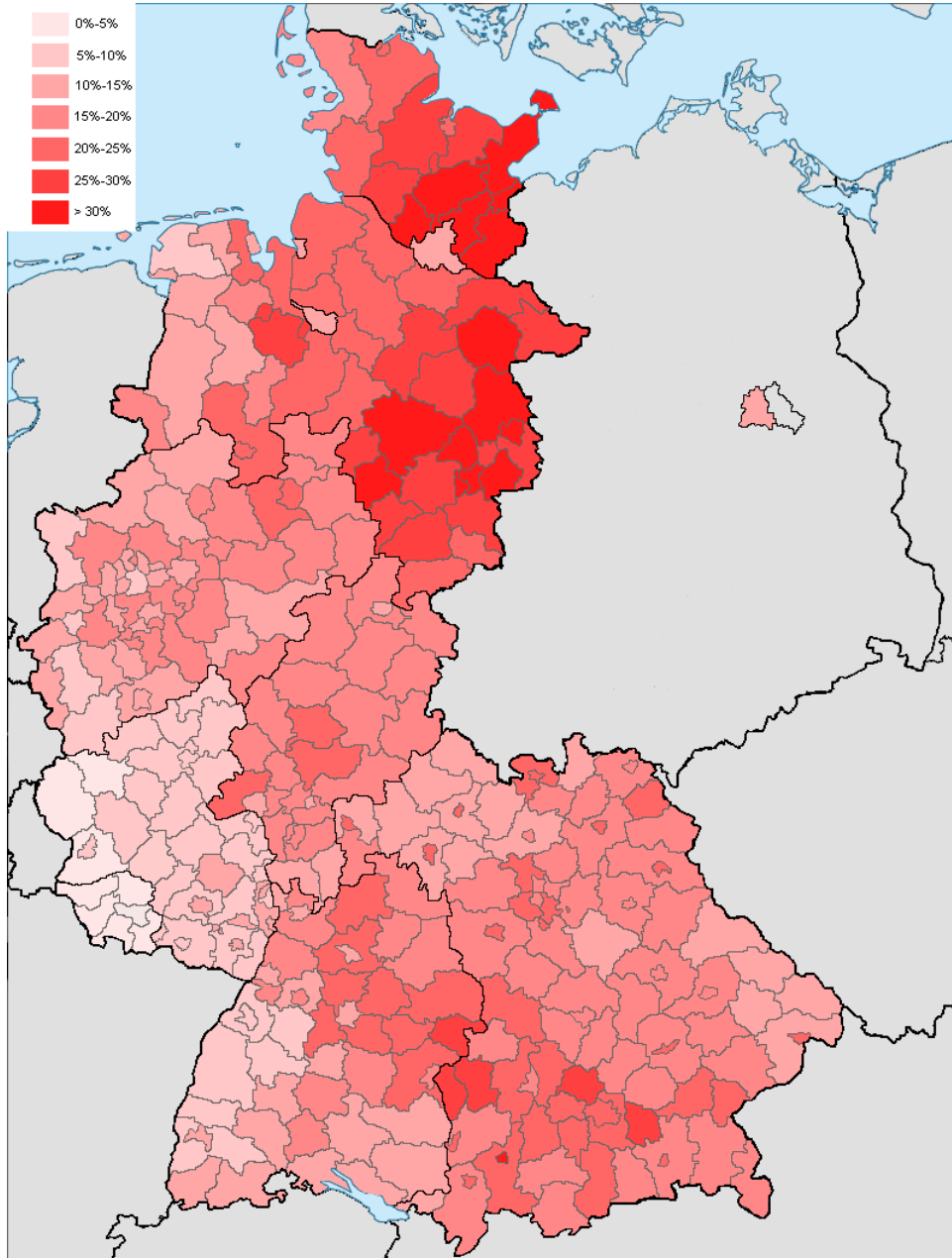


Figure 3: Administrative division of West Germany in 1980. Cities (yellow) and rural districts (white)

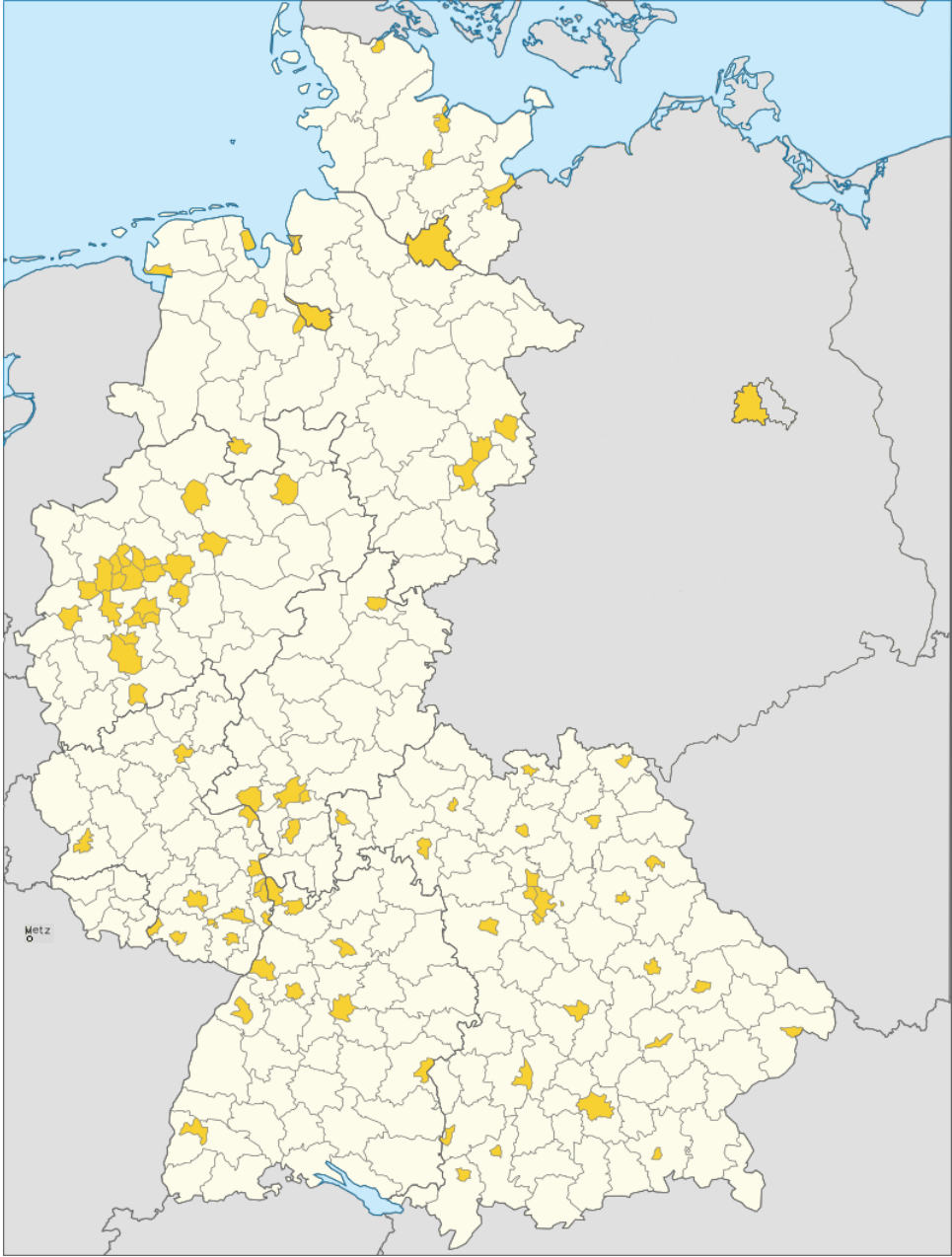


Figure 4: Red: districts in the former French zone of occupation. Blue: districts near the Baltic sea

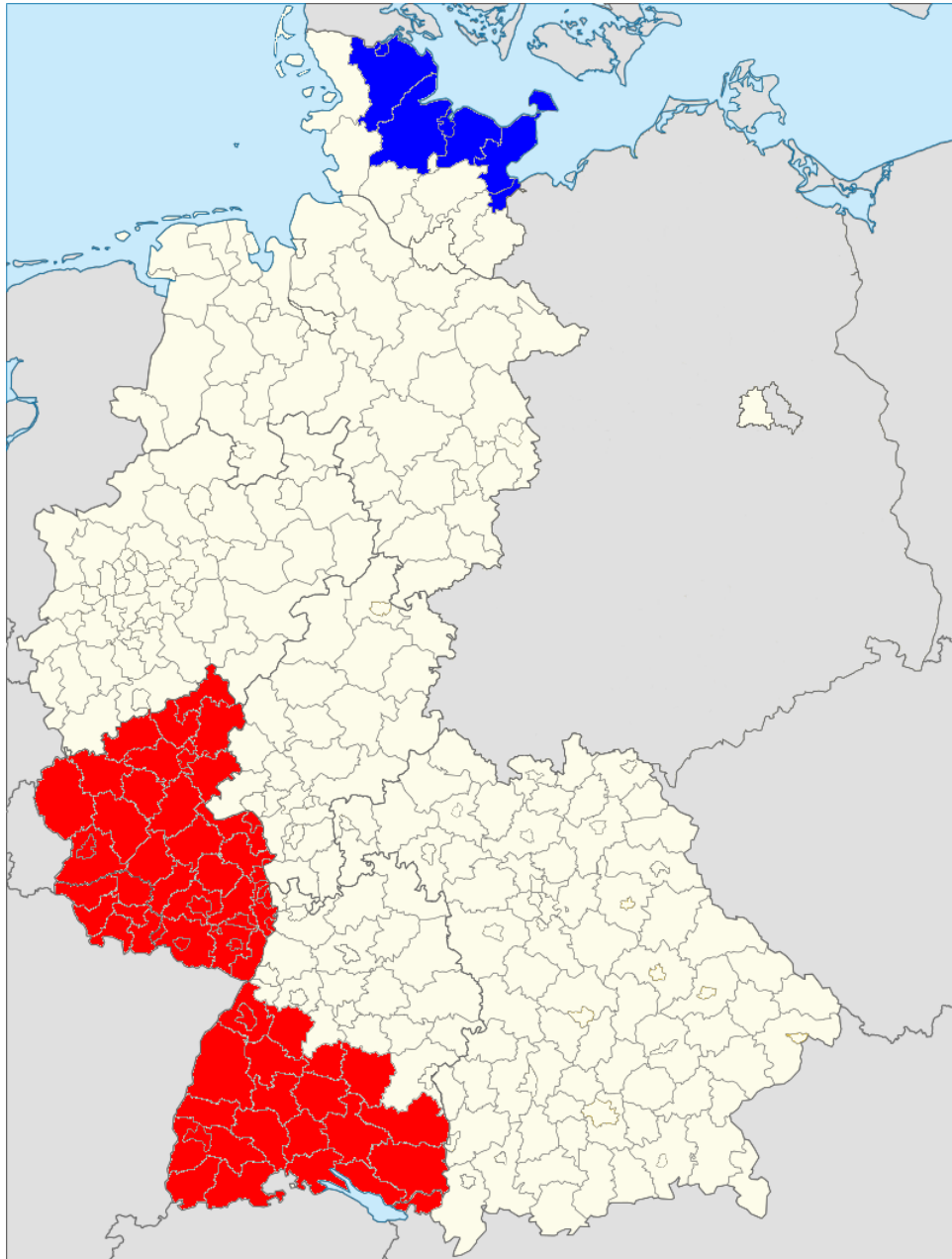


Figure 5: Counties considered in the local IV strategy. Red: districts in the former French zone of occupation. Green: districts in the former British or American zones

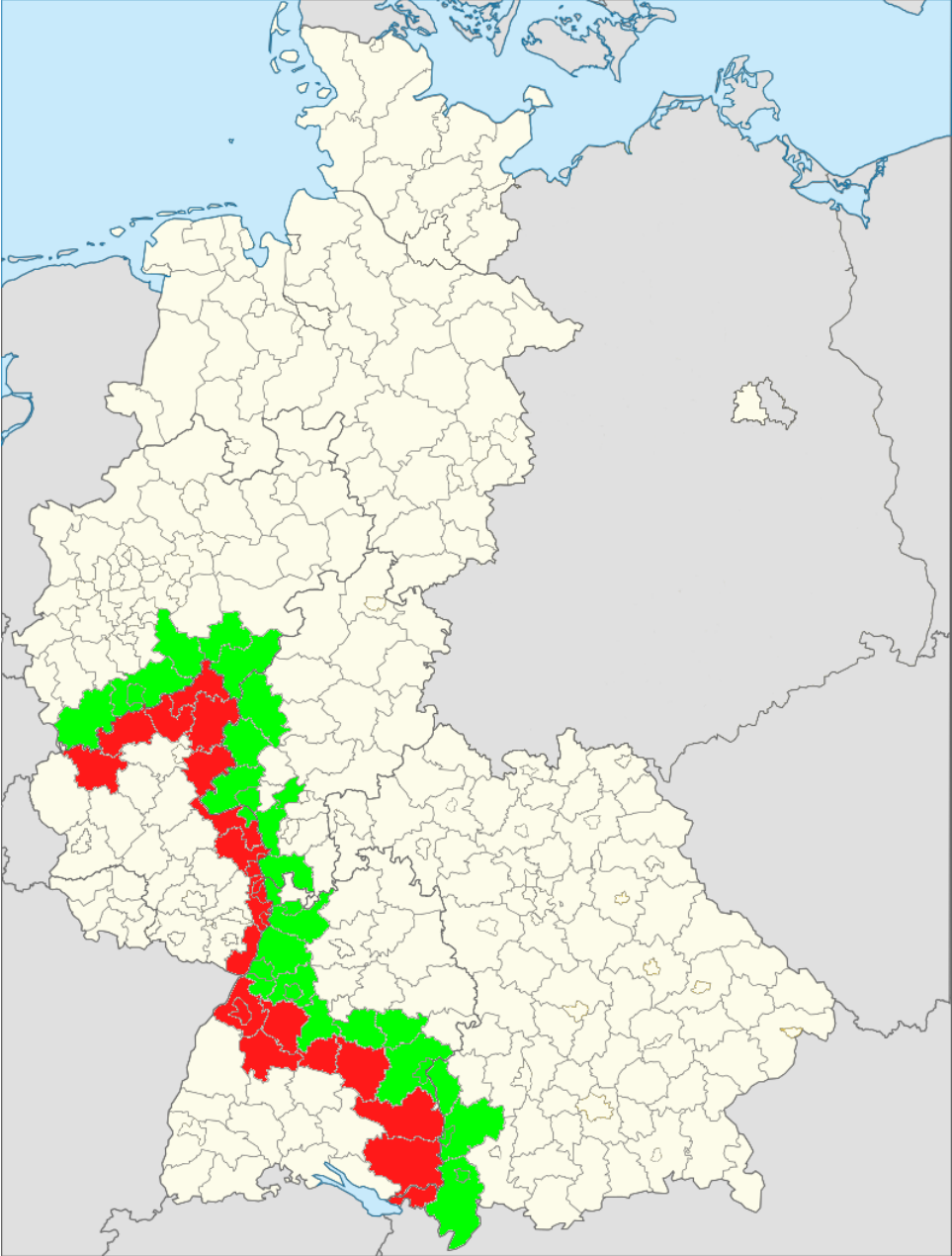


Table 1: Refugees in the West German states, 13 September 1950

State	Total population	Total refugees	Share of refugees in population
Baden-Württemberg	6.430.225	861.526	13.40%
Bavaria	9.174.466	1.937.297	21.09%
Bremen	558.619	48.183	8.63%
Hamburg	1.605.606	115.981	7.22%
Hesse	4.323.801	720.583	16.67%
Lower Saxony	6.797.379	1.851.472	27.24%
North Rhine - Westphalia	13.196.176	1.331.959	10.09%
Rheinland-Palatine	3.004.752	152.267	5.07%
Schleswig-Holstein	2.594.648	856.943	33.03%
Federal Territory	47.695.672	7.876.211	16.51%
West Berlin	2.146.952	148.389	6.91%
West Germany	49.842.624	8.024.600	16.10%

Source: Statistik der Bundesrepublik Deutschland, Band 114. Die Vertriebenen und Flüchtlinge in der Bundesrepublik Deutschland in den Jahren 1946 bis 1953, Statistisches Bundesamt, 1955.

Table 2: Refugees in the West German states, 6 June 1961

State	Population		Refugees		Germans from the GDR		Total Refugees	
	1.000	%	1.000	%	1.000	%	1.000	%
Baden-Württemberg	7.759		1.205	15.5	416	5.4	1.620	20.9
Bavaria	9.516		1.645	17.3	294	3.1	1.940	20.4
Bremen	706		98	13.9	48	6.8	146	20.7
Hamburg	1.832		206	11.3	130	7.1	336	18.4
Hesse	4.814		818	17.0	302	6.3	1.119	23.3
Lower Saxony	6.641		1.612	24.3	356	5.4	1.967	29.7
North Rhine - Westphalia	15.902		2.298	14.5	909	5.4	4.207	19.9
Rheinland-Palatine	3.417		276	8.1	128	3.7	404	11.8
Saarland	1.073		18	1.7	23	2.1	41	3.8
Schleswig-Holstein	2.317		630	27.2	114	4.9	744	32.1
West Berlin	2.197		151	6.9	381	12.3	532	19.2
West Germany	56.175		8.956	15.9	3.099	5.5	12.055	21.4

Source: Volks- und Berufszählung vom 6 Juni 1961, Heft 6. Vertriebene und Deutsche aus der SBZ. Statistisches Bundesamt, 1961.

Table 3: Total population and refugees by municipality size

Towns with population between ... and ... inhabitants	Census of 13 September 1950				Census of 6 June 1961			
	Population		Refugees		Population		Refugees	
	1.000	%	1.000	%	1.000	%	1.000	%
Under 500	2.840	5.7	678	8.5	3.128	5.6	406	4.5
500-1.000	4.850	9.7	1.133	14.2	4.234	7.5	628	7.0
1.000-2.000	5.853	11.7	1.284	16.1	5.317	9.5	840	9.4
2.000-5.000	5.979	12.0	1.229	15.4	6.543	11.6	1.217	13.6
5.000-10.000	4.184	8.4	774	9.7	5.033	9	954	10.7
10.000-20.000	3.323	6.7	566	7.1	4.020	7.2	786	8.8
20.000-50.000	4.383	8.8	630	7.9	5.531	9.8	1.004	11.2
50.000-100.000	2.918	5.9	311	3.9	3.568	6.3	650	7.2
Over 100.000	15.513	31.1	1.372	17.2	18.801	33.5	2.471	27.6
Total	49.843	100	7.977	100	56.175	100	8.956	100

Source: Die Deutschen Vertriebenen in Zahlen, Gerhard Reichling, 1985

Table 4: First Stage - Voter Turnout - National Level

	(1)	(2)	(3)
	Turnout	Turnout	Turnout
	All	Urban Counties	Rural Counties
<i>French Zone</i>	-8.91*** (0.829)	-9.46** (0.958)	-9.41*** (0.915)
<i>Baltic Sea</i>	6.79*** (2.031)	8.68*** (2.55)	4.88*** (1.86)
<i>_ cons</i>	16.33 (23.83)	0.0887 (33.42)	-2.98 (23.52)
K.-P. F statistic	72.54	71.79	64.65
Hansen J statistic	0.282	0.47	0.15

Clustered standard errors in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Second stage - Voter Turnout - National Level

	(1)	(2)	(3)
	Turnout All	Turnout Urban Counties	Turnout Rural Counties
<i>Refugees</i>	-0.067 (0.055)	-0.117** (0.0512)	-0.033 (0.0544)
<i>City</i>	-2.645*** (0.472)		
<i>Under 15</i>	-0.172* (0.0994)	0.0887 (0.162)	-0.155 (0.126)
<i>Over 65</i>	-0.259** (0.119)	-0.668*** (0.131)	0.0423 (0.182)
<i>Catholics</i>	-0.209*** (0.0342)	-0.218*** (0.0496)	-0.284*** (0.069)
<i>Protestants</i>	-0.223*** (0.0318)	-0.214*** (0.0524)	-0.316*** (0.069)
<i>Foreigners</i>	-0.292*** (0.0661)	-0.262*** (0.0863)	-0.26** (0.1039)
<i>Higher School</i>	0.028* (0.0168)	0.531** (0.0243)	0.012* (0.0228)
<i>Lab. Force Industry</i>	0.0128 (0.0215)	0.0594** (0.025)	0.0097* (0.0242)
<i>Lab. Force Agriculture</i>	0.0306 (0.0286)	0.347*** (0.128)	0.023* (0.0293)
<i>GDP per capita</i>	-0.0000297** (0.0000138)	0.000000385 (0.0000129)	-0.0000644* (0.0000324)
<i>_ cons</i>	101.9*** (12.401)	136.7*** (16.591)	83.9*** (18.73)
<i>Time fixed effects</i>	Yes	Yes	Yes
<i>N</i>	4905	1365	3540
<i>adj. R²</i>	0.794	0.817	0.792

Clustered standard errors in parenthesis.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: First Stage - Non-profit Organization per 10.000 inhabitants - National Level

	(1) Organization All	(2) Organization Urban Counties	(3) Organization Rural Counties
<i>French Zone</i>	-8.68*** (0.758)	-9.31** (0.893)	-8.85*** (0.785)
<i>Baltic Sea</i>	6.88*** (2.06)	8.32*** (2.99)	3.57** (1.57)
<i>_ cons</i>	48.14 (36.44)	9.921 (61.8)	4.348 (40.83)
K.-P. F statistic	74.93	66.14	69.94
Hansen J statistic	0.511	0.765	0.504

Clustered standard errors in parenthesis.
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Second Stage - Non-profit Organization per 10.000 inhabitants - National Level

	(1) Organization All	(2) Organization Urban Counties	(3) Organization Rural Counties
<i>Refugees</i>	-2.05*** (0.263)	-0.869** (0.391)	-2.214*** (0.316)
<i>City</i>	-7.312* (3.942)		
<i>Under 15</i>	-1.798 (1.467)	-5.457** (2.343)	0.54 (1.288)
<i>Over 65</i>	3.158*** (0.95)	-2.724** (1.234)	7.44*** (1.31)
<i>Catholics</i>	0.893** (0.398)	1.886*** (0.474)	-0.212 (0.495)
<i>Protestants</i>	0.984** (0.418)	2.324*** (0.526)	-0.246 (0.521)
<i>Foreigners</i>	-0.41 (0.716)	1.873** (0.914)	-0.744 (0.613)
<i>Higher School</i>	0.411 (0.716)	0.952*** (0.23)	0.224 (0.14)
<i>Lab. Force Industry</i>	-0.302 (0.243)	-1.06*** (0.313)	0.076 (0.161)
<i>Lab. Force Agriculture</i>	0.279 (0.619)	2.643 (2.95)	-0.319 (0.594)
<i>GDP per capita</i>	0.000347* (0.0001964)	0.0002887* (0.0001659)	-0.000147 (0.000142)
<i>_cons</i>	101.9*** (12.401)	136.7*** (16.591)	-443.7*** (120.17)
<i>N</i>	327	91	236
<i>adj. R²</i>	0.379	0.667	0.517

Clustered standard errors in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: First Stage - Local Level

	(1)	(2)
	Turnout	Organization
	All	All
<i>French Zone</i>	-7.62*** (1.233)	-7.51*** (1.227)
<i>_cons</i>	34.09 (27.85)	8.614 (60.46)
K.-P. F statistic	38.17	37.46

Clustered standard errors in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Second Stage - Local Level

	(1) Turnout All	(2) Organization All
<i>Refugees</i>	-0.1002** (0.051)	-0.821** (0.385)
<i>City</i>	-2.55*** (0.904)	4.853 (8.537)
<i>Under 15</i>	-0.213 (0.265)	1.18 (2.338)
<i>Over 65</i>	-0.025 (0.202)	-3.01** (1.482)
<i>Catholics</i>	-0.488*** (0.109)	1.904* (1.154)
<i>Protestants</i>	-0.527*** (0.12)	2.16** (1.252)
<i>Foreigners</i>	-0.509*** (0.126)	-0.61 (1.752)
<i>Higher School</i>	-0.0078 (0.046)	0.128 (0.158)
<i>Lab. Force Industry</i>	-0.022 (0.028)	-1.072* (0.419)
<i>Lab. Force Agriculture</i>	0.026 (0.055)	-1.091 (0.977)
<i>GDP per capita</i>	0.000001 (0.000039)	0.00089 (0.00066)
<i>_ cons</i>	71.48*** (19.24)	227.5 (172.38)
<i>N</i>	645	43
<i>adj. R²</i>	0.838	0.659

Clustered standard errors in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The Compromise of 1867 between Austria and Hungary as a Natural Experiment

Marco Lavoratornovo

Abstract

In this draft, we expose an idea for our second paper. We would like to analyze how institutions affected economic growth, using as natural experiment the split of the Hapsburg Empire in two halves in 1867. As units of observation we would like to use the ethnically homogeneous regions on the two sides of the new border, and as indicator of economic development we would like to use the urbanization rate between 1869 and 1910.

1 Introduction

One of the most important research agenda in economics is trying to understand the causes of the world distribution of income. Many explanations have been proposed for the differences in economic development between Western Europe and Latin America or between the U.S and Sub-Saharan Africa. One typical explanation underlines the role of institutions. Some institutions can trigger and help economic development, while others can perpetuate poverty. Thus, a region exposed to more liberal laws should have a faster economic growth than a region with still feudal legacies, guilds, serfdom, etc. However, this is not always easy to demonstrate, we should run an experiment giving some institutions to a group of regions, other institutions to other regions, and then confront the results. This impossible, but, looking at history, we could exploit some natural experiments. In this paper we would like to observe closer one of this natural experiment.

In the aftermath of the defeat against Prussia, the Hapsburg Empire split in two parts in the spring of 1867 (Figure 1). The new halves of the Empire, Cisleithania (Austria) and Transleithania (Hungary), had full control of their internal affairs and each half had its own Parliament, respectively in Vienna and in Budapest. They were united only in the person of Franz Joseph, Emperor of Austria and King of Hungary. As consequence, bordering regions that have been under the same rule for centuries were, now, under the control of two different Parliaments. In some cases, an ethnically homogeneous area was also divided by the new internal border. How did this impact the economic development of the regions in the Austrian-Hungarian Empire? Was it better to be under the Austrian or Hungarian rule? Why? These are the question we would like to answer in this project.

2 Historical background

In 1866, Austria was completely defeated in the Austro-Prussian War and its position as the leading state of Germany ended forever, as the remaining German minor states were soon absorbed into the German Empire created by Prussia. By the peace of Prague (August 23, 1866), Austria lost Venetia and was excluded from Germany.

In August 1866, immediately after the defeat, the Magyars offered themselves as partners. According to Andrassy, the future Prime Minister of Hungary, the Germans and Magyars were to be the two "people of state", while "the Slavs are not fit to govern, they must be ruled". Dualism as a partnership between Magyars and Germans was a way to strengthen the unity of the Empire, recently shaken by the defeats against Piedmont and Prussia. Together Austrian and Hungarian represented 40-45% of the population of the Empire, moreover

they were traditionally the two peoples economically and culturally more advanced. In the Eastern part of the Empire, most of the landowners was usually Hungarian, while the peasants were usually Romanians, Slovaks, or Serbs.

Dualism was exclusively a “compromise” between the Emperor and the Hungarians. The Hungarians agreed that there should be a single great state for war and foreign affair, while Francis Joseph handed over the internal affairs of Hungary to the “Magyar nation”. The Hungarians also agreed that there should be a custom union with the rest of the Monarchy, to be renewed every ten years. There were thus three separate organizations: the permanent “common monarchy”, which still presented a great Hapsburg Power to outer world, the temporary economic union of Austria-Hungary; and the two separate states, Austria and Hungary. The common monarchy was confined to the Emperor and his court, the Minister for Foreign Affairs, and the Minister of War. There was no common Prime Minister and no common cabinet. Unofficially and without constitutional authority, the Crown Council of the Emperor acted as a common cabinet: it was attended by the two Prime Ministers, the common ministers, a few Archdukes, and the Chief of Staff. They could no more than advise the Emperor; and decision on “great policy” remained in his hands, in foreign affairs he was still supreme. The internal affairs of the two constitutional states were delegated to the Parliaments: the House of Magnates and the House of Representatives in Budapest for Hungary, and the House of Lords and the House of Representatives in Vienna for Austria. As consequence of the Compromise, from 1867 onward the Cisleithanian (Austrian) and Transleithanian (Hungarian) regions of the Empire were governed by separate Parliaments and Prime Ministers and they were almost as two different states in the same custom union. Over time, they followed different economic trajectories, while Cisleithania developed an industrial basis centered in Austria and Bohemia, Transleithania, politically dominated by Hungarian landowners, specialized in the production of cereals. The Empire was not always divided along ethnic lines (Figure 1 and 2), thus we have Ruthenians (Ukrainians), Romanians, and even Germans on both sides of the borders.

3 Data

For our purpose, we need a way to measure the economic development of the different regions of the Empire. A strategy is to look at the urbanization rate, measured as the proportion of the population living in urban areas of 5,000 or more people. Urbanization is often used as proxy in attempts to estimate historical levels of income, in particular in pre-industrial or early industrial societies.

Data about population are taken from the censuses. The first census in the Empire was taken in 1857, this was the first count that was not provided purely for the registration of the recruiting potential. For the first time the collecting

was consistent for the entire territory and a key date (31st October 1857) was introduced. However, some relevant data such as age, profession, or household structure were missing in this earlier census. The second census of 1869 was based on the Census Act (*Volkszählungsgesetz*) of 29th March 1869. This act served as the basis for all other censuses until World War I. The record sheets contained some general items concerning the size of the household and a detailed table: name, year of birth, sex, religion, marital status, profession, birthplace, right of residence, presence. Further censuses followed in 1880, 1890, 1900 and 1910. All the censuses since 1869 are available on internet, both for the Austrian and for the Hungarian part.

4 Conclusion

In this draft, we proposed an idea for our second paper. We would like to analyze how institutions affected on the economic growth, using as natural experiment the split of the Hapsburg Empire in two halves in 1867. As units of observation we would like to use the ethnically homogeneous regions on the two sides of the new border, and as indicator of economic development we would like to use the urbanization rate between 1869 and 1910. Data are easily available online, however, now we need to deepen the knowledge of the economy and of the policy of the Austrian-Hungarian Empire in the second half of the 19th century.

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Figure 1: Austria-Hungary after the Compromise.



Figure 2: Ethnic composition of Austria-Hungary (1910).

