

How Persistent is Social Capital?

Jan Fidrmuc^{*}

June 2014

Abstract

Social capital and other informal institutions are said to be highly persistent, with historical events such as conflict, dictatorship or colonization having a long-lasting effect. I test this proposition in the case of regions that experienced large-scale population displacements after WWII. As social capital is accumulated through relationships and connections, regions that were repopulated by migrants from a wide range of backgrounds are likely to have little inherited social capital. My analysis suggests that, in contrast, repopulated regions are little different from regions unaffected by population transfers. Hence, contrary to the Putnamesque view, much of the present-day social capital appears to have been formed in recent past rather than attributable to long-term historical legacies.

Keywords: social capital; trust; networks; institutions; migration; population transfer.
JEL Codes: Z13, P36, O57, O17

^{*} Department of Economics and Finance and Centre for Economic Development and Institutions (CEDI), Brunel University; and CESifo Munich. Contact information: Department of Economics and Finance, Brunel University, Uxbridge, UB8 3PH, United Kingdom. Email: Jan.Fidrmuc@brunel.ac.uk or jan@fidrmuc.net. Phone: +44-1895-266-528, Web: <http://www.fidrmuc.net/>. This work was supported by the Operational Programme Research and Development financed by the European Regional Development Fund within project no. ITMS 26240120017 under the contract no. 0117/2009/4.1/OPVaV. I am grateful for comments and suggestions received from Raul Caruso, Christina Gathmann, Victor Ginsburgh, Yuemei Ji, Gabriela Lubelcová, Darina Malová James Robinson, Luigi Zingales, as well as seminar participants at Katholieke Universiteit Leuven (KUL), Vrije Universiteit Brussel, University of Otago, DEPOCEN (Hanoi), Fudan (Shanghai), WIFO (Vienna), University of Warsaw and conference participants at the Silvaplane Workshop in Political Economy, the Norface Migration Conference in London and the Austroasian Public Choice Conference in Singapore.

“人走茶凉 (*people leave and tea gets cold*),” a Chinese saying.

1 Introduction

Social capital – informal norms of behavior that affect the quantity and quality of social interactions – is generally accepted as an important factor of economic and social development. Past research has shown that it is associated with a broad range of favorable economic and social outcomes. It helps overcome free riding and rent seeking, increases economic efficiency and therefore should foster economic growth. High density of trust and civic participation (two most common measures of social capital) has been shown to be associated with higher economic growth (Knack and Keefer, 1997; Whiteley, 2000; Beugelsdijk and van Schaik, 2005) and greater investment in human capital (Coleman, 1988). More broadly, Greif (1994) posits that common culture (defined broadly so that it encompasses various informal norms and institutions including social capital) in medieval societies reduced free riding and opportunistic behavior. Tabellini (2010) and Gorodnichenko and Roland (2010) make similar points. High level of social capital is thus a hallmark of developed countries while insufficient stock of social capital can be an impediment to economic development and prosperity.

In an especially influential study, Putnam (1993) argues that the large economic and social differences between North and South Italy can be attributed to social capital being much lower in the South than in the North. Furthermore, he posits that this social capital gap reflects the different historical experiences of the two regions. South Italy and Sicily were conquered by Normans in the 10th century who implemented an autocratic feudal top-down regime. This, in turn, discouraged trust and cooperative behavior. In contrast, the various kingdoms and city states of North Italy adopted relatively liberal form of government that encouraged wider participation of citizens in decision making and bottom-up liberal rule. In the South, wealth

was derived from owning land and controlling labor that worked it. North Italians, in contrast, became rich by engaging in commerce and finance, areas which crucially depend on trust, cooperation and reciprocity. These differences in historical legacies are said to have laid foundations for economic growth and prosperity in the North and underdevelopment in the South. These differences laid the foundations for subsequent economic prosperity of the North compared with low civic engagement and trust, rampant crime and corruption and low level of economic development

The Putnamesque view thus sees social capital as being accumulated slowly and shaped by historical legacies in a long-lasting manner: the eight centuries of Norman rule have not been undone by the subsequent 150 years of Italian unification. This resonates also with evidence on other norms and institutions, whether formal or informal, which appear highly persistent over time. Acemoglu, Johnson and Robinson in their broad and varied research (see their 2005 overview for a summary) argue that institutions, and in turn economic development, in emerging economies were shaped by the nature of colonial experience. The colonies with climate favorable to settlement by Europeans imported institutions prevailing in the home countries of the colonists. In contrast, colonies with inhospitable climates (mainly because of rampant tropical diseases) were given institutions geared towards profit maximization and wealth extraction. Nunn (2008) and Nunn and Wantchekon (2011) find that exposure to slave trade has had a lasting effect on West African countries, stretching well beyond the duration of the slavery period until the present. These institutions have remained in place also after independence and continue to affect economic development of these countries to present day.

Looking at European countries, Dimitrova-Grajzl (2007), Grosjean (2009), Roland (2010) and Becker et al. (2011) again argue that cultural norms and attitudes reflect long-term historical legacies. In particular, regions that used to belong to the main European empires

(Prussian, Hapsburg, Russian and Ottoman) continue to display markedly different attitudes, beliefs and values, even several generations later. Finally, and most strikingly, Voigtländer and Voth (2011) find that geographical patterns of pogroms against Jews in medieval German lands during the Black Death epidemic in the 14th century strongly correlate with deportations and persecution of Jews and support for the Nazis 600 years later, during the 1930s. In a follow-up study, Voigtländer and Voth (2012), find that geographic distribution of votes for anti-Semitic parties in Germany in 1890 and 1920-30s correlates very strongly with anti-Semitic attitudes expressed in opinion surveys in 1996 and 2006. Hence, norms and institutions can persist over several generations or even centuries and, once established, may be very slow to change. This may translate into an important developmental disadvantage for countries that, for whatever reason, inherited poor institutions. In line with Putnam's study, social capital would appear to be one of such slow-moving institutions.

The Putnamesque view of social capital has found considerable support in the literature, both on the theoretical and empirical front. Guiso, Sapienza and Zingales (2008a), in a carefully executed empirical study, revisit the Italian example and argue that the variation in social capital exists not only between North and South Italy, but also between a-priori similar cities within the North which subsequently diverged: some became relatively liberal free-city states while others belonged to authoritarian states. Using difference-in-difference approach, they find that approximately one half of the social-capital gap between North and South can be attributable to the historical legacy of free-city states in the North.¹ In a related paper, Guiso, Sapienza and Zingales (2008b) formulate a theoretical model to show how a relatively brief exposure to adverse conditions can leave a society trapped in a low-trust equilibrium.²

The Putnamesque view, however, is based on a casual observation that South Italy has both lower social capital and lower level of economic development than North Italy. That says

¹ See also Tabellini (2010).

² Acemoglu and Wolitzky (2012) make a similar point in their paper.

little about the direction of causality between the two phenomena. It may well be that lower level of economic development affects social capital or that both the social-capital and developmental gaps are driven by a third factor (Guiso et al, 2008, discuss at length the possibility that geography plays a role in Italy). Indeed, Fidrmuc and Gërkhani (2008) argue that the low level of social capital in the formerly communist countries in Eastern Europe can be attributed to their lower level of economic development and poor institutional environment. In the case of post-communist countries, it is beyond doubt that their economic underdevelopment has been caused primarily by the inefficiencies of the socialist economic system rather than by low social capital. The social-capital gap observed vis-à-vis Western Europe thus is either attributable to the legacy of communism (see Paldam and Svendsen, 2000; and Growiec and Growiec, 2011) or to their economic backwardness or to some other factor.

Yet another hypothesis is advanced by De Rosa (1988) who suggests that the economic and social underdevelopment of South Italy has been caused by the economic policies imposed on the South by the Northern rules following its forced annexation in the last stages of Italian reunification.³ These are said to have led to the impoverishment of the South and sowed the seeds of distrust in a manner similar to the colonization legacy of Acemoglu et al. or the economic legacy of reunification in the former GDR.

To address the question of persistence of social capital (and of other informal norms and institutions) convincingly, one needs a situation equivalent to a natural experiment. To this effect, I identify regions that, due to their specific historical circumstances, are likely to have inherited little or no social capital. Specifically, I consider areas that experienced large-scale population transfers in their not-too-distant past. Social capital is embedded in relationships and as such it should not be highly portable. People who move are therefore likely to lose

³ Similarly, Dickle (2014) argues that the Italian Mafia arose only after the Italian reunification because of the collapse of public order that ensued.

most (if not all) of their pre-migration stock of social capital, unless much of their social environment moves with them. Moreover, informal norms and institutions may differentiate between members of one's own peers and strangers: old neighbors are usually seen as more trustworthy than new arrivals.⁴ Therefore, regions that experienced large-scale population transfers should initially have very low stock of inherited social capital: in essence, they are starting anew, with a clean slate. Looking at inhabitants of such regions a few generations later can give us an indication how quickly is social capital rebuild.

The subjects are regions that experienced large-scale expulsions and migrations in mid-20th century. Most of these transfers occurred in the aftermath of World War II. The most dramatic case is Poland: the Eastern and Western borders of this country moved by approximately 200 miles to the West. In the process, Eastern provinces of Poland were annexed by the Soviet Union, while Poland in turn annexed the German territory East of the Oder-Neisse line as well as approximately half of East Prussia. The vast majority of the ethnic German inhabitants either fled before the advancing front or were forcibly expelled after annexation, to be replaced by Poles. Similarly, Germans were expelled from the Sudetenland area of Czechoslovakia while Italians were driven out or fled the Istria Peninsula and areas along the Dalmatian coast ceded to Yugoslavia (present day Slovenia and Croatia). Finally, the Dutch province of Flevoland was established in areas reclaimed from the sea and the vast majority of its inhabitants are immigrants from elsewhere in the Netherlands or descendants of such immigrants.

The key assumption underlying my analysis is that large-scale expulsions and population transfers as experienced by these regions indeed destroy social capital. Unfortunately, no measures of social capital are available for the period in the immediate aftermath of these

⁴ This is the basis of the often-made distinction between bonding and bridging social capital: the former applies to social ties and interactions between members of the same group while the latter to members of other groups (Putnam, 2000).

migrations. Nevertheless, this assumption is corroborated by Matějka (2008) who discusses extensively the post-war social development of Sudetenland. He argues that the expulsion of Germans from Sudetenland and its repopulation by settlers with a wide range of backgrounds and motivations resulted in a very low initial level of social capital and a general sense of alienation. Consequently, he suggests, the settlers never felt at home in Sudetenland and only their children managed to overcome this legacy.

I outline the history of regions that experienced large-scale population transfers in the following section. In section 3, I introduce the survey data that I utilize to measure social capital in my analysis, which then follows in section 4. In the final section, I draw lessons from my findings and offer some tentative conclusions.

2 Brief History of Population Transfers in Europe

The final year of World War II and the ensuing years were associated with massive involuntary population movements of Germans and, to a lesser extent, of other ethnic groups. It is estimated that over 12 million Germans were displaced during the last year of the war and in its aftermath (Prauser and Rees, 2004). Initially, Germans were moving on their own accord, or were evacuated by the German authorities, in order to escape the advancing Soviet troops. Following the conclusion of the war, further expulsions of ethnic Germans resulted from the border changes agreed by the Allies in the Potsdam Agreement of 1945.

The postwar settlement awarded Poland the parts of Germany lying East of the Oder-Neisse Line: Posen, Pomerania, Silesia, the Free City of Danzig as well as the Southern half of East Prussia. While these areas, referred to by the Poles as *Recovered Territories*⁵, did have some Polish inhabitants (as well as members of other Slavic minority groups) before the War,

⁵ Recovered because these regions were part of Poland during the Piast dynasty.

the bulk of the inhabitants were Germans. The vast majority of these, along with Germans from central Poland, were expelled by the Polish authorities (some fled during the last months of the war on their own). It is estimated that 7 million Germans were resettled from the areas annexed by Poland (Kamusella, 2004).⁶ In the present territorial structure of Poland, the annexed territories correspond quite closely to the Dolnoslaskie, Lubuskie, Opolskie, Warminsko-mazurskie and Zachodno-pomorskie provinces while Pomorskie and Slaskie provinces consist both of annexed territories and those that were part of pre-war Poland.

Poland did not only gain territory. It lost so-called *Kresy*, its Eastern provinces, which were annexed by the Soviet Union. This was due to the insistence by the Soviet Union to establish the post-war Soviet-Polish border on the Curzon Line: the demarcation line that was originally intended as the Russian-Polish border in the wake of World War I but was later disregarded after the Bolshevik revolution in Russia and Polish territorial gains at Soviet Russia's expense). The population of *Kresy* was mixed – besides Poles, they were inhabited by Ukrainians, Belarusians, Lithuanians and (before the German occupation) Jews. However, the provinces of Lwów (now Lviv, Ukraine), Tarnopol (Ternopil, Ukraine) and Wilna (Vilnius, Lithuania) were dominated by ethnic Poles. After the Soviet Union annexed them, most Poles living there were either forcibly expelled or compelled to leave by gradually intensifying repression.

The Recovered Territories were resettled by a mix of Polish refugees and expellees from *Kresy*, ethnic Poles moving back to Poland from other countries, settlers from central Poland, as well as ethnic Belarusians and Ukrainians from Central pre-War Poland (the areas not annexed by the Soviet Union which subsequently became the Eastern borderland). Around 5.3 million Poles (including members of other West-Slavic groups) and some 150 thousand Ukrainians and Belarusians were thus resettled in the formerly German territories after the

⁶ Additional 700 thousand were expelled from central Poland.

war (Kamusella, 2004). While the settlers from central Poland were voluntary, the resettlement of Polish refugees from Kresy was largely involuntary in that they were forced to leave by the Soviet government. Similarly, the removal of ethnic Belarusians and Ukrainians from areas close to the newly established Eastern border was imposed by the Polish authorities with the objective of accelerating their polonization. The Slavic minorities – Kashubians, Masurians and Silesians – were allowed to stay. These were West-Slavic groups that used to live both in pre-war Poland and in the annexed territories. Although most of them were given the German nationality during the War (or already had it during the pre-war period), they were seen by the Poles as polonizable and were not expelled.

Another area affected by large scale population transfer was the Sudetenland region of Czechoslovakia. Sudetenland is a label applied to the German-majority region alongside the borders of Czechoslovakia and pre-WW2 Germany which was annexed by Germany in 1938 following the conclusion of the Munich Agreement. Initially ethnically mixed, many of the Czech (and Jewish) inhabitants fled or were expelled following the German annexation. The loss of Sudetenland effectively rendered Czechoslovakia defenseless in case of future German aggression: the Czechoslovak-German border, following mountain ranges, presented a significant natural barrier to invading forces and was also heavily fortified.⁷ Consequently, Czechoslovakia lost its independence in 1939 when the remainder of the Czech Lands was occupied by Germany and reconstituted as the Protectorate of Bohemia and Moravia while Slovakia became a (nominally) independent state.

After the war, the vast majority of Germans were expelled to Germany or Austria: their number is estimated at 3-3.5 million (Pykel, 2004). The expulsion was proposed by the Czechoslovak government in exile and, as in the Polish case, it was formally sanctioned by

⁷ It also left Czechoslovakia economically crippled, as the Sudetenland was among the most industrialized parts of the country, and politically destabilized, with the President and Slovakia and Ruthenia being granted autonomy.

the Postdam Agreement. Sudetenland was subsequently repopulated by settlers from the rest of Czechoslovakia: besides Czechs, the settlers also included Slovaks as well as ethnic Roma and Hungarians from Slovakia and ethnic Czechs resettled from the Soviet Union (after several generations there). The resettlement was in part driven by economic opportunism: settlers were able to acquire ownership of properties and even personal effects abandoned by the expelled Germans who were allowed to take only limited possessions with them. Compulsion was also involved, in particular in the case of the Roma and Hungarians: the intention was to lower their regional concentration in Slovakia and to hasten their assimilation into the majority population. Following the communist take-over in 1948, Sudetenland was also used to resettle political opponents of the new regime and ex-convicts.⁸ As Matějka (2008) recounts, this transplantation of people with very different background resulted in a persistent sense of alienation: for example, even after living in Sudetenland for many years, its residents were reluctant to call their region 'home'.

In present territorial structure, the Sudetenland region corresponds to the Severozapadny (North-West) region as well as parts of Severovýchodny (North-East) and Juhozapadny (South-West) regions. In the wake of the Munich Agreement, Czechoslovakia was forced to cede territory also to Hungary (Southern Slovakia and, later, Ruthenia) and Poland (small area in Czech Silesia). While these territories were reinstated to Czechoslovakia after the war (except Ruthenia, which was annexed by the Soviet Union), the population transfers that took place there were much more limited than those in Sudetenland.

Germans were also expelled from other countries following the conclusion of the war: Yugoslavia, Romania, Hungary and the Netherlands are notable examples. In these cases, however, neither the regional concentrations of ethnic Germans prior to expulsion nor the size of the resulting population transfer were comparable to the cases of Polish and Czechoslovak

⁸ This practice is depicted in the concluding part of *I Served the King of England*, a novel by Bohumil Hrabal.

Germans.⁹

After World War I, Italy annexed *Venezia Giulia* (Julian March), a region encompassing Istria, islands along Dalmatian coast as well as areas on the coast itself, which were until then controlled by Austria-Hungary. The population of these areas was mixed, with Italians living alongside South-Slavs (Slovenes and Croats). Following the war, Yugoslav troops occupied the Eastern and Southern parts of *Venezia Giulia* while British and American troops occupied the Western part, including the city of Trieste, and an area around Pola (an Allied enclave in the South of Istria, now known as Pula). These lines of control largely turned into the permanent border between Italy and Yugoslavia in 1947 (with the Pola enclave ceded to Yugoslavia). The status of Trieste remained disputed longer: the city itself was mainly Italian while the surrounding countryside was predominantly Slovene. Initially, it was to become the Free State Trieste but neither the Yugoslavs nor the Allies relinquished control of the parts that they held. Eventually, these parts were appended to Yugoslavia and Italy, respectively, in 1954, with the city and its immediate hinterlands joining Italy.

It is estimated that more than 200 thousand Italians left the areas annexed by Yugoslavia (Ballinger, 2011). In contrast with the expulsions of Germans from Poland and Czechoslovakia, the Italian exodus was largely voluntary: the residents of the annexed areas were given the option to move to Italy (some moved already during the last months of the war after massacres perpetrated against Italians by Yugoslav troops and guerillas). Besides Italians, some Slovenes and Croats who were unhappy with the communist regime used this opportunity to leave Yugoslavia as well.

⁹ Hungary was the only other country which, according to the Postdam Agreement, was expected to transfer its German population to Germany. Around 200,000 to 250,000 Germans left or were expelled, approximately half of their number before the war, mostly from the area around Budapest, the capital (Apor, 2004). In Yugoslavia and Romania, the numbers of Germans who left, were forcibly expelled, killed or deported to the Soviet Union were likewise in the hundreds of thousands rather than millions as in Poland and Czechoslovakia. The Germans in the Baltic countries, in contrast, mostly left already at the beginning of World War II when the Baltics were occupied by the Soviet Union.

In the present territorial structure of Slovenia, the annexed parts of Venezia Giulia roughly correspond to the Goriška (Gorizzia) and Obalno-kraška (Coastal-Karst) regions. I do not include the parts of Julian March that are at present in Croatia in the analysis for two reasons. First, the regional structure of Croatia is very coarse, with the formerly Italian regions joined into much larger territorial entities. This makes it impossible to separate the regions affected by population transfers from the rest of the country. Second, Croatia experienced large population transfers also relatively recently in the 1990s, during and after its war of independence. Without pre-independence data, it would be difficult to distinguish the impacts of these two episodes from each other.

The final observation of a large-scale population transfer differs dramatically from the preceding ones in that it was not instigated by war but instead resulted from land reclamation, in the Netherlands. The inland sea, the *Zuiderzee*, was closed off by a dam (*Afsluitdijk*) in 1932 as a flood control measure. This both protected the inland areas from the danger of flooding and allowed for parts of the resulting lake, renamed *IJsselmeer*, to be drained and reclaimed. The reclamation was completed in three steps: in 1942 (North-East), 1957 (East) and 1968 (South). The reclaimed area was eventually reconstituted into a new province, *Flevoland*, in 1986. With the exception of two former islands, *Urk* and *Schokland* (the latter being uninhabited since 1859), the vast majority of the province is therefore former sea bed. The current population, 388 thousand by 2009, is thus mainly composed of relatively recent immigrants and their descendants.¹⁰ Moreover, the Dutch government sought to distribute the settlers from various origins evenly over the reclaimed areas rather than allow them to settle in villages dominated by populations stemming from the same region. One consequence of this is that Flevoland is said to be the only province whose inhabitants speak the official version of Dutch rather than a regional dialect.

¹⁰ The population of Urk, formerly an island, is approximately 20 thousand.

A notable example of mass migration that is missing from our analysis is Israel. Much of the population of this country, especially when excluding the territories controlled by the Palestinian Authority, are migrants and descendants of relatively recent migrants. However, in this case, the entire country has been subjected to population transfer and therefore it lacks a control group.

In summary, the analysis thus considers 15 regions that were affected by large-scale population transfers: seven in present-day Poland, three in the Czech Republic, two in Ukraine and in Slovenia, and one in the Netherlands. The vast majority of these cases involved involuntary expulsion and/or flight of members of a particular ethnic group in the aftermath of the World War II, with the depopulated regions resettled by nationals of the victorious country. The resettlement, however, was only in part voluntary and some of the settlers were themselves forced or compelled to move. The only exception to this pattern of war-induced population transfers is the Dutch region of Flevoland whose settlement was the result of land reclamation rather than expulsion.

3 Measuring Social Capital

The objective of this paper is to see whether the inhabitants of regions that experienced large-scale population transfers some 50-60 years ago still have lower stocks of social capital at present than the residents of unaffected regions. In other words, the question is how quickly can social capital be regenerated after it is lost or diminished due to an exogenous shock. The shock in this case is large-scale population transfer: those who have moved tend to lose much of their initial social capital and have to rebuild it anew at their destination.

The analysis is based on the first four waves of the European Social Survey (ESS henceforth) carried out every two years between 2000 and 2008 in 30 countries in Europe and

its neighborhood: besides the EU/EEA countries, Turkey, Russia and Israel are also included.

I consider the respondents' answers to the following three questions:

- (1) Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?
- (2) Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?
- (3) Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?

Answers to all three questions range from 0 (most people cannot be trusted, take advantage and look out for themselves) to 10 (most can be trusted, try to be fair and try to be helpful). Generalized trust (question 1) is a standard measure of social capital: trust encourages cooperation and reduces free riding. The remaining two questions reflect similar concepts of fairness and cooperativeness. In all three cases, higher responses are associated with higher social capital.

The drawback of the aforementioned questions, however, is that they do not necessarily measure the respondent's stock of social capital but instead reflect the average level of social capital in the respondent's social circles. For instance, an individual can find others trustworthy without being trustworthy herself. Therefore, I also utilize another three questions that reflect more directly the density and quality of the respondent's social contacts:

- (4) How often do you meet socially with friends, relatives or work colleagues?
- (5) Do you have anyone with whom you can discuss intimate and personal matters?
- (6) Compared to other people of your age, how often would you say you take part in social activities?

The possible answers to question (4) are never, less than once a month, once a month, several times a month, once a week, several times a week, and every day. Question (5) is dichotomous, allowing the respondents to answer only no or yes. Finally, the answers to question (6) can be much less than most, less than most, about the same, more than most, and much more than most. Again, higher values reflect greater social capital. In contrast to the first three questions, however, the social capital captured by these questions may be more of the bonding rather than bridging type.

For comparison, I also consider questions addressing the respondents' subjective happiness and self-reported health:

(7) Taking all things together, how happy would you say you are?

(8) How is your health in general?

Again, higher values represent more favorable outcomes, with happiness measured on a 0 to 10 scale and health taking values between 1 and 5. There is little reason to expect that migration by the respondents' parents or grandparents has had a lasting effect on their subjective wellbeing and health.

Table 1 summarizes the responses to these six questions across the countries included in the analysis. A similar pattern emerges with respect to all six measures: social capital tends to be high in Northern and North-Western European countries, with Scandinavian countries appearing especially well-endowed. On the other hand, social capital is low in Southern and Eastern European countries: Turkey scores worst on five measures out of six. Substantial inter-country differences also appear with respect to happiness and health.

The analysis is carried out by means of an ordered logit, with the exception of question (5) which is analyzed by simple logit. The respondents who refused to answer any of the question used or answered them with 'don't know' are omitted. The regressions account for the

respondents' socio-economic characteristics and include also country-specific fixed effects. To assess whether inhabitants of the regions affected by population transfers have lower or higher stock of social capital, I include dummies for those regions. If they inherited lower stock of social capital as a result of population transfers in the past, and this effect was sufficiently persistent then the coefficients estimated for these dummies should be significantly negative.

4 Long-term Impact of Population Transfers on Social Capital

Table 2 presents the results of baseline regressions controlling for respondents' individual socio-economic characteristics as well as for country fixed effects. The results are quite intuitive, similar across all six measures of social capital and also generally similar to the results of previous work on individual determinants of social capital (see Fidrmuc and Gërkhani, 2008). Age has a U-shaped effect on social capital: as individuals get older, their social capital first declines before rebounding again. The individuals with the most negative opinion of others (questions 1-3) are those aged between 35 and 40. In contrast, the minimum social participation is observed at a much higher age, 70-85, thus implying that the profile of social participation is effectively declining throughout with respect to age. Higher education is associated with greater stock of social capital and this social-capital premium is increasing with the level of education. Students have more social capital while those who are unemployed, inactive or sick/disabled tend to have less social capital. Retired persons are generally more distrustful of others but tend to be more socially active. Whether one lives in an urban or rural environment matters although the observed pattern differs somewhat between perceptions and social activities. Finally, most of the country effects (not reported) are significant, confirming that the differences in social capital across countries are large and cannot be attributed to differences in socio-economic characteristics.

Some respondents were born abroad or belong to an ethnic minority and the regressions control for this: immigrants and minorities may possess different stocks of social capital than the indigenous/majority population. Both dummy variables appear with negative signs and are significant at least at the 10% level and often at 5% or stronger. Immigrants and minorities thus have considerably less social capital than the general population. This negative effect is weakest for generalized trust but is particularly strong with respect to perceiving other people as being fair or helpful. One might expect that immigrants and minorities live in more closely-knit communities than the majority population and therefore should report more intense social ties. This does not seem to be the case, however: the negative gap is strongly significant not only for perceptions but also with respect to social activities.

Next, I add the dummy variables for regions affected by population transfers. These results are summarized in Table 3. The regressions control for the respondents' individual characteristics and include also country fixed effects. Only the coefficients for the dummies are reported as the remaining coefficients (available upon request) are very similar to those reported in Table 2. The estimated coefficients thus show whether respondents in such regions have a lower stock of social capital, happiness or health than other respondents with the same characteristics living in the same country. Panel A adds a summary dummy for all the regions enumerated in section 2. The repopulated regions appear to have less social capital when it is measured by trust but do significantly better than the remaining regions with respect to social meetings. The remaining measures are insignificant. In Panel B, this dummy is defined slightly differently: in ESS 2, when the regional information for the Czech Republic is more detailed, only the region of Liberec is included while Hradec Kralove and Pardubice are omitted, as these were predominantly outside of the Sudetenland area. The different definition has little effect on the regression results. Finally, Panels C through F consider the individual ESS waves. Again, there is little evidence that the repopulated regions have significantly more

or less social capital than the regions not affected by population transfers. In contrast, the inhabitants of the repopulated regions tend to be generally happier and healthier than their counterparts elsewhere.

In Table 4, I add individual coefficients for all 15 regions, across all four ESS waves. Again, the coefficients on the remaining socio-economic characteristics are not reported. None of the regions appears permanently blighted by the legacy of large-scale population transfer. The regions that experienced large-scale population transfers do not have lower stock of social capital than other regions. By and large, such regions no longer seem to suffer any penalty in terms of lower social capital after a lag of approximately two generations.

5 Conclusions

Institutions have been shown to be remarkably persistent over time. This appears to be the case with formal institutions (Acemoglu et al, 2005), informal institutions, culture and beliefs (Dimitrova-Grajzl, 2007; Grosjean, 2009; Gorodnichenko and Roland, 2010; Roland, 2010; Becker et al., 2011) and even xenophobic attitudes (Voigtländer and Voth, 2011). Correspondingly, exogenous shocks that deteriorate the quality of institutions can have long-lasting impact.

Investment in social capital, likewise, appears to be shaped by historical legacies. Putnam (1993) makes this point very convincingly using the differences between North and South Italy. He argues that the low social capital in the South is the consequence of the authoritarian regime there following the Norman occupation. He suggests that this social-capital gap is responsible for South Italy's underdevelopment. Paldam and Svendsen (2000), similarly, attribute the low stock of social capital in the post-communist countries to the legacy of repressive authoritarian regimes. Dictatorship and repression, they argue, discouraged trust

and cooperation and thus destroyed social capital.

The persistence of institutions, norms and attitudes can constitute a serious developmental obstacle: countries may find themselves locked in with inefficient institutions (or low stock of social capital) which in turn their growth performance. In this research, I address the persistence of social capital over the long-term (generations rather than years). So far, little is known about how social capital is formed, how quickly it depreciates and how easily it can be rebuilt (nevertheless, for an attempt to address the issue of inheritability of social capital, see Veselý, 2008).

To investigate the question, I consider regions that, because of their history, are likely to have had much of their stock of social capital destroyed. These are regions whose populations (or a large fractions thereof) consist of relatively recent migrants from other parts of their countries, either because of population displacement after World War II or as a result of land reclamation from the sea. With social capital imbedded in inter-personal relationships, the initial stock of social capital after the population transfer should therefore be especially low in such regions. I look at the levels of social capital in these regions some 50-60 years later, to see whether any evidence of the (presumed) initial social-capital gap can still be found.

The results suggest that some two generations after the population exchange/transfer, the residents of these regions do not appear to lag in terms of social capital behind their compatriots elsewhere. This suggests that social capital is less persistent than is commonly believed. In other words, if social capital is destroyed by adverse socio-political developments (wars, authoritarian regimes or repression) or lost due to migration, it appears to be rebuilt relatively quickly.¹¹

How then can we reconcile this result with the evidence that South Italy and other regions

¹¹ These results mirror the findings that the destruction of German and Japanese cities during World War II had no lasting effect on their size (Davis and Weinstein, 2002; Brakman, Garretsen and Schram, 2004).

of Europe have persistently low social capital as well as score poorly with respect to other economic, political and social measures? While social capital increases efficiency and boosts economic activity by facilitating cooperative behavior, investing in building social capital is costly and the return on such investment is limited without sufficiently effective formal or informal institutions for dispute resolution. Greif (1994) makes a similar point when discussing how medieval traders facilitated cooperation either by means of informal collectivist institutions or through formal (second-party) enforcement. Social capital and institutions for dispute resolution, enforcement of contracts and upholding of individual rights therefore are likely to be complementary. If so, then the Mezzogiorno's and post-communist Europe's underdevelopment need not be caused by low social capital. Rather, the low stock of social capital in these regions reflects the poor institutional environment there. Some post-communist countries, in which institutional quality deteriorated during the communist rule, are now fast catching up both with respect to institutional change and building up social capital. Mezzogiorno's backwardness, in contrast, appears to be more resilient, possibly reflecting the poor quality of informal institutions (including corrupt law and contract enforcement) and the intensity of organized crime there.

Finally, it is remarkable that the results differ little for regions where population transfers were the result of war and compulsion and for Flevoland, where they were voluntary and entirely non-violent. As dramatic and deplorable as war-induced population transfers are, they do not seem to leave scars that are any deeper than other population transfers.

References

- Acemoglu, D., S. Johnson and J. Robinson (2005), "Institutions as the Fundamental Cause of Long-Run Growth," in: Philippe Aghion and Steven Durlauf (eds.), *Handbook of Economic Growth*, Elsevier.
- Acemoglu, D., and A. Wolitzky (2012), "Cycles of Distrust: An Economic Model," NBER Working Paper 18257, National Bureau for Economic Research, Cambridge, MA.
- Apor, B. (2004), "The Expulsion of the German Speaking Population from Hungary." In: S. Prauser and A. Rees (eds.), *The Expulsion of the German Communities from Eastern Europe at the End of the Second World War*, EUI Working Paper HEC No. 2004/1, European University Institute, Florence.
- Ballinger, P. (2011), "At the Borders of Force: Violence, Refugees, and the Reconfiguration of the Yugoslav and Italian States," *Past and Present*, Supplement 6, 158-176.
- Becker, S.O., K. Boeckh, C. Hainz and L. Woessmann (2011), *The Empire Is Dead, Long Live the Empire! Long-Run Persistence of Trust and Corruption in the Bureaucracy*, CEPR Discussion Paper No. 8288.
- Beugelsdijk, S. and T. van Schaik (2005). "Social Capital and Growth in European Regions: An Empirical Test." *European Journal of Political Economy*, 21: 301-324.
- Brakman, S., H. Garretsen and M. Schram (2004), "The strategic bombing of German cities during World War II and its impact on city growth," *Journal of Economic Geography* 4 (2), 201-218.
- Burchardi, K.B. and T. Hassan (2011), "The Economic Impact of Social Ties: Evidence from German Reunification," CEPR Discussion Paper No. 8470, CEPR London.
- Coleman, J.S. (1988). "Social capital in the creation of human capital." *The American Journal of Sociology* 94: 95-120.

- Crespo Cuaresma, J. (2010). "Natural Disasters and Human Capital Accumulation." *World Bank Economic Review* 24 (2), 280-302.
- Crespo Cuaresma, J., J. Hlouskova, and M. Obersteiner (2008). "Natural Disasters as Creative Destruction: Evidence from Developing Countries." *Economic Inquiry* 46: 214–26.
- Davis, D.R., and D.E. Weinstein (2002), "Bones, Bombs, and Break Points: The Geography of Economic Activity," *American Economic Review* 92 (5), 1269-1289.
- De Rosa, L. (1988), *La provincia subordinata: saggio sulla questione meridionale*, Editori Laterza: Rome, Italy.
- Dickie, J. (2014), *Blood Brotherhoods: A History of Italy's Three Mafias*. Public Affairs.
- Dimitrova-Grajzl, V. (2007), "The Great Divide Revisited: Ottoman and Habsburg Legacies on Transition," *Kyklos* 60 (4), 539–555.
- Fidrmuc, J and K. Gërkhani (2008), "Mind the gap! Social capital, East and West," *Journal of Comparative Economics* 36, 264–286.
- Greif, A. (1994). "Cultural beliefs and the organization of society: A historical and theoretical reflection on collectivist and individualist societies." *Journal of Political Economy*, 102(5): 912-50.
- Grosjean, P. (2009), "The Role of History and Spatial Proximity in Cultural Integration: A Gravity Approach," University of California, Berkeley, mimeo.
- Gorodnichenko, Y. and G. Roland (2010), "Culture, Institutions and the Wealth of nations," CEPR Discussion Paper 8013, CEPR London.
- Growiec, K. and J. Growiec (2011), "Trusting only whom you know, knowing only whom you trust: the joint impact of social capital and trust on individuals' economic performance and happiness in CEE countries,"
- Guiso, L., P. Sapienza and L. Zingales (2008a), "Long Term Persistence," NBER Working

- Paper 14278, National Bureau for Economic Research, Cambridge, MA.
- Guiso, L., P. Sapienza and L. Zingales (2008b), "Social Capital as Good Culture," *Journal of the European Economic Association* 6 (2-3), 295-320.
- Kamusella, T. (2004), "The Expulsion of the Population Categorized as 'Germans' from the Post-1945 Poland." In: S. Prauser and A. Rees (eds.), *The Expulsion of the German Communities from Eastern Europe at the End of the Second World War*, EUI Working Paper HEC No. 2004/1, European University Institute, Florence.
- Knack, S., and P. Keefer (1997). "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation." *Quarterly Journal of Economics*, 112 (4): 1251-1288.
- Matějka, O. (2008), "Social Capital in Contemporary Sudetenland," in: Joseph D. Lewandowski and Milan Znoj (eds.): *Trust and Transitions: Social Capital in a Changing World*, Newcastle: Cambridge Scholars Publishing.
- Nunn N. (2008), "The long-term effects of Africa's slave trades," *Quarterly Journal of Economics*, 123, 139–176.
- Nunn, N., and L. Wantchekon (2011). "The Slave Trade and the Origins of Mistrust in Africa." *American Economic Review* 101(7): 3221-52.
- Paldam, M. and G.T. Svedsen (2000). "An essay on social capital: Looking for the fire behind the smoke." *European Journal of Political Economy*, 16(2): 339-366.
- Prauser, S. and A. Rees (2004), "Introduction." In: S. Prauser and A. Rees (eds.), *The Expulsion of the German Communities from Eastern Europe at the End of the Second World War*, EUI Working Paper HEC No. 2004/1, European University Institute, Florence.
- Putnam, R.D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*, with Robert Leonardi and Raffaella Y. Nanetti, Princeton University Press, Princeton, NJ.

- Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon & Schuster.
- Pykel, P. (2004), “The Expulsion of the Germans from Czechoslovakia.” In: S. Prauser and A. Rees (eds.), *The Expulsion of the German Communities from Eastern Europe at the End of the Second World War*, EUI Working Paper HEC No. 2004/1, European University Institute, Florence.
- Roland, G. (2010), *The Long-Run Weight of Communism or the Weight of Long-Run History?*, UNU-WIDER WP 2010/83.
- Skidmore, M., and H. Toya (2002), “Do Natural Disasters Promote Long-Run Growth?” *Economic Inquiry* 40, 664–687.
- Tabellini, G. (2010), “Culture and Institutions: Economic Development in the Regions of Europe,” *Journal of the European Economic Association* 8 (4), 677–716.
- Vesely, A. (2008), “Where Does Social Capital Come From?” in: Joseph D. Lewandowski and Milan Znoj (eds.): *Trust and Transitions: Social Capital in a Changing World*, Newcastle: Cambridge Scholars Publishing.
- Voigtländer, N. and H-J Voth (2011), “Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany,” CEPR Discussion Paper 8365, CEPR London.
- Voigtländer, N. and H-J Voth (2011), “(Re-) Shaping Hatred: Anti-Semitic Attitudes in Germany, 1890-2006,” CEPR Discussion Paper 8935, CEPR London.

Table 1 Social Capital in Europe

Variable [Scale]	Trust People [0-10]	People Fair [0-10]	People Help [0-10]	Meet Socially [1-7]	Discuss Matters [0-1]	Socially Active [1-5]	Happy [0-10]	Health [1-5]
Austria	5.1	5.7	5.2	5.1	0.90	2.8	7.5	4.0
Belgium	5.0	5.7	4.6	5.2	0.88	2.7	7.7	4.0
Bulgaria	3.4	4.4	<u>3.2</u>	4.8	0.85	3.0	<u>5.3</u>	3.6
Switzerland	5.7	6.4	5.5	5.2	0.96	2.7	8.0	4.1
Cyprus	4.2	4.6	4.1	4.3	0.90	2.6	7.5	4.1
Czech Rep.	4.4	5.2	4.2	4.5	0.81	2.6	6.7	3.6
Germany	4.7	5.8	4.9	4.8	0.95	2.7	7.2	3.6
Denmark	6.9	7.3	6.1	5.4	0.93	2.9	8.3	4.1
Estonia	5.4	5.7	4.9	4.5	0.86	<u>2.4</u>	6.6	3.4
Spain	5.0	5.3	4.5	5.4	0.93	2.6	7.5	3.7
Finland	6.5	6.8	5.8	5.1	0.92	2.8	8.0	3.8
France	4.4	5.7	4.5	5.2	0.88	3.0	7.1	3.7
UK	5.3	5.6	5.6	5.1	0.92	2.7	7.4	3.9
Greece	3.9	3.8	<u>3.2</u>	4.0	0.90	2.7	6.5	4.1
Croatia	4.4	4.6	3.7	5.3	0.88	2.5	6.7	3.7
Hungary	4.2	4.7	4.3	<u>3.7</u>	0.92	<u>2.4</u>	6.3	3.4
Ireland	5.4	5.9	5.9	4.8	0.91	2.7	7.6	4.2
Israel	5.1	5.3	4.7	5.3	0.87	2.7	7.4	4.0
Italy	4.4	4.6	3.9	4.9	0.80	<u>2.4</u>	6.3	3.7
Luxembourg	5.1	5.6	4.7	5.1	0.91	2.7	7.8	3.8
Netherlands	5.8	6.3	5.4	5.4	0.93	2.8	7.7	3.8
Norway	6.7	7.0	6.0	5.7	0.94	2.9	7.9	4.0
Poland	4.0	4.8	3.5	4.3	0.89	2.6	6.9	3.6
Portugal	3.9	4.9	3.9	5.7	0.89	2.6	6.5	3.4
Russia	4.0	4.9	4.0	4.4	0.89	2.6	6.0	3.2
Sweden	6.2	6.6	6.0	5.3	0.92	2.9	7.9	4.0
Slovenia	4.1	4.8	4.5	4.6	0.91	2.7	7.2	3.6
Slovakia	4.1	4.6	4.0	4.8	0.86	2.5	6.5	3.6
Turkey	<u>2.6</u>	<u>3.4</u>	<u>3.2</u>	4.8	<u>0.59</u>	<u>2.4</u>	6.0	3.7
Ukraine	4.1	4.5	3.7	4.5	0.85	2.9	5.5	<u>3.0</u>
Average	4.8	5.3	4.6	4.9	0.88	2.7	7.1	3.7

Notes: The answers to the questions on generalized trust, perceived fairness and helpfulness (columns 1-3) range between 0 and 10. Meeting people socially takes values 1 through 7. Having someone to discuss personal/intimate matters takes values 0 and 1. Participating in social activities takes values 1 through 5. Higher values always indicate higher stock of social capital.

Table 2 Determinants of Social Capital: Benchmark Regressions

	Trust People	People Fair	People Help	Meet Socially	Discuss Matters	Socially Active	Happy	Health
Male	0.105 (0.009)**	-0.154 (0.009)**	-0.124 (0.009)**	0.093 (0.009)**	-0.472 (0.018)**	0.037 (0.010)**	-0.138 (0.009)**	0.166 (0.010)**
Age	-0.012 (0.002)**	-0.011 (0.002)**	-0.013 (0.002)**	-0.055 (0.002)**	-0.056 (0.003)**	0.003 (0.002)*	-0.056 (0.002)**	-0.051 (0.002)**
Age sqrd/1000	0.182 (0.017)**	0.201 (0.017)**	0.206 (0.017)**	0.319 (0.017)**	0.338 (0.029)**	-0.096 (0.018)**	0.481 (0.017)**	0.160 (0.018)**
Education years	0.038 (0.001)**	0.041 (0.001)**	0.019 (0.001)**	0.007 (0.001)**	0.058 (0.003)**	0.044 (0.001)**	0.012 (0.001)**	0.049 (0.001)**
Household members (number)	0.027 (0.004)**	0.031 (0.004)**	0.028 (0.004)**	0.008 (0.004)	-0.010 (0.008)	0.028 (0.004)**	0.044 (0.004)**	0.026 (0.005)**
Children in household (dummy)	0.030 (0.012)*	-0.011 (0.012)	-0.010 (0.012)	-0.166 (0.012)**	0.020 (0.024)	-0.188 (0.013)**	-0.048 (0.012)**	-0.002 (0.013)
Married/cohabitating	-0.012 (0.011)	0.031 (0.011)**	-0.021 (0.011)*	-0.375 (0.011)**	0.825 (0.020)**	0.013 (0.011)	0.643 (0.011)**	0.045 (0.012)**
Suburb of city ⁽¹⁾	-0.006 (0.016)	-0.025 (0.016)	-0.054 (0.016)**	0.008 (0.016)	-0.011 (0.033)	-0.029 (0.017)	-0.028 (0.016)	-0.005 (0.017)
Town ⁽¹⁾	-0.032 (0.013)*	-0.001 (0.013)	-0.023 (0.012)	0.047 (0.013)**	-0.051 (0.025)*	-0.052 (0.013)**	0.024 (0.013)*	-0.019 (0.014)
Village ⁽¹⁾	0.004 (0.013)	0.040 (0.013)**	0.065 (0.013)**	0.075 (0.013)**	-0.076 (0.025)**	-0.044 (0.014)**	0.074 (0.013)**	0.012 (0.014)
Farm/countryside ⁽¹⁾	-0.090 (0.021)**	0.101 (0.021)**	0.150 (0.021)**	-0.039 (0.022)	-0.123 (0.043)**	-0.187 (0.023)**	0.128 (0.021)**	0.036 (0.023)
Coping with income ⁽²⁾	-0.293 (0.011)**	-0.232 (0.011)**	-0.147 (0.011)**	-0.154 (0.011)**	-0.154 (0.024)**	-0.236 (0.012)**	-0.476 (0.011)**	-0.409 (0.012)**
Difficult with income ⁽²⁾	-0.500 (0.015)**	-0.507 (0.015)**	-0.380 (0.015)**	-0.372 (0.015)**	-0.442 (0.029)**	-0.518 (0.015)**	-1.121 (0.015)**	-0.835 (0.016)**
Very difficult ⁽²⁾	-0.764	-0.797	-0.651	-0.561	-0.702	-0.893	-1.814	-1.266

Paidwork ⁽³⁾	(0.021)**	(0.021)**	(0.021)**	(0.021)**	(0.036)**	(0.022)**	(0.021)**	(0.022)**
	-0.025	0.002	-0.009	-0.111	0.251	0.102	-0.042	0.185
	(0.015)	(0.015)	(0.015)	(0.015)**	(0.031)**	(0.016)**	(0.015)**	(0.016)**
Student ⁽³⁾	0.265	0.198	0.120	0.398	0.423	0.367	0.178	0.141
	(0.020)**	(0.020)**	(0.020)**	(0.020)**	(0.049)**	(0.021)**	(0.020)**	(0.022)**
Unemployed ⁽³⁾	-0.164	-0.116	-0.099	0.054	-0.070	0.036	-0.393	0.081
	(0.026)**	(0.025)**	(0.025)**	(0.026)*	(0.047)	(0.027)	(0.026)**	(0.028)**
Inactive ⁽³⁾	-0.130	-0.125	-0.111	0.024	-0.085	-0.038	-0.279	-0.129
	(0.033)**	(0.033)**	(0.033)**	(0.034)	(0.058)	(0.035)	(0.033)**	(0.035)**
Sick/disabled ⁽³⁾	-0.226	-0.233	-0.150	-0.152	-0.100	-0.624	-0.575	-2.430
	(0.027)**	(0.027)**	(0.027)**	(0.028)**	(0.045)*	(0.029)**	(0.028)**	(0.030)**
Retired ⁽³⁾	-0.055	-0.047	-0.050	0.046	0.106	0.062	-0.008	-0.360
	(0.019)**	(0.019)*	(0.019)**	(0.019)*	(0.034)**	(0.020)**	(0.019)	(0.020)**
Homeworker ⁽³⁾	0.044	0.010	0.010	0.031	-0.036	-0.061	0.075	0.018
	(0.012)**	(0.012)	(0.012)	(0.012)**	(0.025)	(0.013)**	(0.012)**	(0.013)
Foreign born	-0.226	0.079	-0.002	0.114	0.314	0.199	0.054	0.089
	(0.017)**	(0.017)**	(0.016)	(0.017)**	(0.031)**	(0.017)**	(0.017)**	(0.018)**
Ethnic minority	0.037	-0.189	-0.153	0.014	-0.090	-0.009	-0.104	-0.012
	(0.022)	(0.021)**	(0.021)**	(0.021)	(0.037)*	(0.022)	(0.021)**	(0.022)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ESS wave dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	167,522	171,071	171,839	172,135	171,097	169,095	171,752	172,604

Notes: See text and notes to Table 1 for explanation of the dependent variables and their measurement. Significance levels: * 5%, ** 1%.

Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity.

Table 3 Determinants of Social Capital: Repopulated Regions

	Trust People	People Fair	People Help	Meet Socially	Discuss Matters	Socially Active	Happy	Health
Repopulated dummy	-.088 (.028)**	.032 (.028)	.010 (.029)	.109 (.028)**	.068 (.049)	-.017 (.030)	.070 (.028)*	.123 (.030)**
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repopulated dummy (alternative definition)	-.102 (.028)**	.038 (.029)	.017 (.029)	.123 (.028)**	.037 (.050)	-.029 (.030)	.068 (.029)*	.127 (.030)**
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repopulated dummy ESS Wave 1	-.039 (.057)	-.017 (.059)	.124 (.059)*	.094 (.058)	.110 (.107)	.004 (.061)	-.093 (.059)	.0004 (.061)
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repopulated dummy ESS Wave 2	-.062 (.050)	.061 (.051)	-.032 (.051)	.092 (.050)	.026 (.084)	-.046 (.054)	.068 (.052)	.138 (.054)**
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repopulated dummy ESS Wave 3	-.183 (.068)**	-.024 (.068)	.006 (.069)	.232 (.068)**	.173 (.136)	.071 (.072)	.079 (.071)	.114 (.072)
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repopulated dummy ESS Wave 4	-.040 (.052)	.065 (.053)	-.051 (.053)	.082 (.052)	.061 (.091)	-.049 (.056)	.179 (.053)**	.214 (.057)**
Controls and dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See text and notes to Table 1 for explanation of the dependent variables and their measurement. Significance levels: * 5%, ** 1%. The repopulated regions are Dolnoslaskie, Lubuskie, Opolskie, Warminsko-mazurskie, Zachodnopomorskie, Pomorskie and Slaskie in Poland, Severozapadny, Severovychodny and Juhozapadny in the Czech Republic, Goriska and Obalno-kraska in Slovenia, and Lviv and Tarnopol in Ukraine. In the alternative definition, Severovychodny region in the Czech Republic includes Liberec but omits Hradec Kralove and Pardubice in ESS waves 1 and 2 where more detailed regional data are available.

Table 3 Determinants of Social Capital: Repopulated Regions, Individual regional dummies

	TrustPeople	People Fair	PeopleHelp	Meet Socially	Discuss Matters	Socially Active	Happy	Health
Flevoland	-0.021 (0.129)	-0.174 (0.126)	-0.253 (0.132)	-0.032 (0.134)	1.076 (0.514)*	-0.015 (0.146)	-0.050 (0.130)	-0.029 (0.144)
Severozapadny	-0.095 (0.075)	0.114 (0.080)	0.188 (0.080)*	0.038 (0.077)	0.039 (0.117)	-0.135 (0.083)	0.063 (0.078)	0.072 (0.084)
Severovychodny	-207.261 (65.378)**	8.513 (67.217)	-59.750 (67.162)	89.562 (66.348)	153.982 (102.568)	-55.802 (71.660)	87.621 (67.187)	49.686 (71.802)
Juhozapadny	-0.248 (0.070)**	0.074 (0.074)	0.016 (0.074)	0.091 (0.072)	0.018 (0.111)	0.104 (0.077)	0.023 (0.073)	0.209 (0.078)**
Dolnoslaskie	0.093 (0.086)	0.003 (0.089)	0.066 (0.085)	0.078 (0.087)	-0.077 (0.155)	-0.066 (0.090)	0.091 (0.091)	-0.006 (0.092)
Lubuskie	0.195 (0.131)	-0.096 (0.134)	0.089 (0.132)	0.292 (0.135)*	0.236 (0.266)	0.190 (0.138)	-0.052 (0.142)	-0.083 (0.142)
Opolskie	0.322 (0.141)*	0.281 (0.141)*	0.146 (0.139)	-0.024 (0.142)	0.222 (0.278)	-0.068 (0.149)	0.631 (0.143)**	0.114 (0.152)
Pomorskie	-0.082 (0.095)	0.285 (0.096)**	0.282 (0.098)**	0.102 (0.092)	0.097 (0.183)	0.093 (0.098)	0.155 (0.098)	0.191 (0.099)*
Slaskie	-0.171 (0.066)**	-0.115 (0.068)	0.000 (0.068)	0.091 (0.066)	0.175 (0.134)	-0.087 (0.070)	-0.072 (0.069)	0.094 (0.071)
Warminsko-mazurskie	0.113 (0.109)	0.017 (0.113)**	0.214 (0.113)	0.115 (0.113)	-0.060 (0.198)	-0.146 (0.117)	-0.128 (0.115)	0.022 (0.119)
Zachodnopomorskie	-0.199 (0.111)	0.054 (0.109)	-0.169 (0.109)	0.422 (0.107)**	0.095 (0.205)	0.040 (0.115)	-0.013 (0.110)	0.009 (0.114)
Goriska	-0.022 (0.101)	0.287 (0.100)**	0.160 (0.102)	-0.031 (0.097)	0.262 (0.226)	0.112 (0.104)	-0.021 (0.102)	0.389 (0.107)**
Obalno-kraska	-0.137 (0.123)	-0.252 (0.123)*	-0.189 (0.123)	0.344 (0.124)**	0.042 (0.247)	-0.052 (0.129)	0.016 (0.130)	0.192 (0.130)
Lviv	0.123	0.125	-0.237	0.140	-0.237	-0.004	0.531	0.256

Tarnopol	(0.114) -0.780 (0.251)**	(0.105) -0.656 (0.263)**	(0.111)* -0.465 (0.264)	(0.106) 0.523 (0.270)*	(0.172) -0.784 (0.376)*	(0.110) -0.283 (0.283)	(0.107)** -0.035 (0.251)	(0.108)* 0.348 (0.262)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ESS wave dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	167,522	171,071	171,839	172,135	-	169,095	171,752	172,604

Notes: See text and notes to Table 1 for explanation of the dependent variables and their measurement. Significance levels: * 5%, ** 1%.