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# Homeownership, Political Participation, and Social Capital in Post-Communist Countries and Western Europe

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**Abstract**

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We study whether the positive effects of homeownership on political participation and social capital, found in developed market economies, extend to post-communist countries. We find that homeownership is strongly related to higher participation in local-level and national elections. In post-communist countries, homeownership is also related to higher social trust. However, the positive association between homeownership and volunteering found in developed market economies does not extend to post-communist countries. Together, our results corroborate that homeownership is associated with positive social benefits. However, these effects are highly heterogeneous and context-dependent.

**Key words**

Homeownership, social capital, political participation, post-communist countries.

**JEL: D62, D72, P14, P26**

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**Introduction**

In most countries homeownership is heavily subsidized through various policies, such as direct subsidies, tax exceptions and deductions, or interest rate subsidies on mortgages. The existence of these policy interventions can be explained from the political economy perspective. However, their economic justifiability requires that social returns to homeownership exceed private ones, i.e. that homeownership generates positive externalities. Such externalities may, indeed, arise as a result of homeowners' lower mobility and therefore higher incentives to invest in their community and local social capital (DiPasquale and Glaeser 1999).

A substantial empirical literature aims to identify these social benefits (see Dietz and Haurin, 2003, and Rohe, Van Zandt, and McCarthy, 2013, for surveys), by looking at the impact of homeownership on variables such as social capital formation and political participation (DiPasquale and Glaeser 1999; Hilber 2010), life satisfaction (Rossi and Weber 1996; Zumbro 2014), self-assessed health (Aizawa and Helble 2015; Rossi and Weber 1996), and children's educational outcomes (Aaronson 2000; Green and White 1997; Haurin, Parcel, and Haurin 2002). Most of these studies find that homeownership has positive effects on the respective outcomes, i.e. that homeowners are "better citizens" (DiPasquale and Glaeser 1999). However, recent quasi-experimental evidence by Engelhardt, Eriksen, Gale, and Mills (2010) casts some doubt on the causality behind these findings. In addition, the literature is heavily focused on the United States and it is not clear to what extent these patterns are general.

This paper asks whether homeowners are "better citizens" also in the context of post-communist countries. This is of interest because previous literature has shown that post-communist countries have lower levels, as well as a different structure, of social capital than most developed market economies (Boenisch and Schneider 2013; Fidrmuc and Gërxhani 2008; Raiser, Haerpfer, Nowotny, and Wallace 2002). At the same time, this social capital deficiency has been mentioned as a potential cause for poor economic performance and high levels of corruption in post-communist countries (e.g. Paldam and Svendsen 2000). Understanding the degree to which the social benefits of homeownership found for developed market economies also apply to post-communist countries might therefore provide insights as to whether subsidizing homeownership and continued privatization of public housing can help reconstruct their social capital.

Specifically, using data from the two most recent waves of the Life in Transition Survey (LiTS), we extend the evidence on the social benefits of homeownership to 28 post-communist countries and compare the results to a set of seven mostly Western European, henceforth "comparator," countries. The LiTS survey contains a representative individual-level data for each of the countries considered and allows us to study the impact of homeownership on several outcomes related to political participation and social capital. Furthermore, the data allows us to gauge the robustness and potential causal interpretation of the estimated effects of homeownership using two alternative identification strategies.

Our main findings can be summarized as follows. With regard to political participation, we find that homeownership is positively related to a higher frequency of voting in both local-level and national elections. This result holds for both post-communist and comparator countries. With regard to social capital, we find that in post-communist countries, homeownership is positively related to social trust. This does not hold for the comparator countries. However, homeowners in both geographic regions interact with their family members more often than renters. Consistent with the results reported by DiPasquale and Glaeser (1999) for the United States, we also find a positive association between homeownership and participation in voluntary organizations in the comparator countries. This result does not extend to post-communist countries. Finally, we study the heterogeneity in the effects of homeownership across post-communist geographic regions and countries. The effects of homeownership on participation in elections are highly consistent. However, the results for other outcomes exhibit a varying degree of heterogeneity, both at the geographic-region level and at the country level.

## 1 Empirical Strategy

As a starting point for our discussion, consider a regression in the form

$$y_i = \alpha + \beta h_i + \boldsymbol{\gamma}' \boldsymbol{x_i} + \boldsymbol{\delta_{ct}} + e_i, \quad (1)$$

where $y_i$ is the outcome of person i living country $c$ observed in survey wave $t$, $h_i$ is an indicator variable for homeownership status, taking on the value of one if a person lives in a home owned by one of the household members and zero otherwise, $x_i$ is a vector of individual-level and household characteristics, $\delta_{ct}$ is a full set of country-year dummies, capturing any unobserved country-level characteristics and shocks, and $e_i$ is the residual.

In this regression, the parameter of interest is $\beta$. It measures the average difference in $y_i$ between homeowners and renters within a country-year cell. A key challenge in interpreting the estimated $\beta$ is the potential endogeneity of homeownership. This arises because homeownership may induce people to invest into their locality, but also individuals that are invested into a locality (perhaps because of their preferences for such investments and the associated benefits) may be more likely to become homeowners. We deal with this issue through two alternative approaches.

The first, which has been often used in previous contributions, uses regional homeownership rates as an instrument for the individual-level homeownership status (e.g. Aaronson, 2000, and DiPasquale and Glaeser, 1999). The identification requirements for this IV-strategy are that regional homeownership rates are a good predictor of individual level homeownership, are random across individuals, and that there is no direct impact of the regional homeownership rate on the outcomes (the exclusion restriction). The first of these assumptions can be tested by standard F-tests for instrument validity. The random assignment and exclusion restriction are in principle untestable. In our context they can, however, be doubted if there are externalities from homeownership that directly impact on social capital formation and investment in local community. This almost by definition implies that regional homeownership rates have a direct impact on individual behavior (see Durlauf and Fafchamps, 2005). Such externalities may then also attract different individuals to different localities.

To overcome this drawback, we follow Broulíková, Huber, Montag, and Sunega (2018), who document that the housing privatization in post-communist countries resulted in an exogenous assignment of homeownership to public housing renters.[1] Specifically, housing privatization in post-communist countries was a result of a difficult to predict event, the fall of the Iron Curtain. It was predominantly organized at the central-government level and took the form of transfers of property rights over publicly-owned housing units to the sitting tenants at substantially discounted rates (relative to market prices). As a consequence, housing privatization arguably resulted in an as-good-as random assignment of homeownership to individuals, creating a quasi-experimental variation in homeownership status within the population of renters. This implies that for post-communist countries the causal effects of homeownership can be identified by estimating equation (1) on a sample restricted to renters and privatizers (i.e. former renters who

[1] See also Broulíková (2017), who provides a detailed survey of the literature describing privatization processes in both post-communist and Western European countries.

became homeowners through privatization).[2] Because housing privatization also occurred in the comparator countries, we estimate the same models for them and report the results for completeness. However, we note that privatization in Western European countries does not provide as good a quasi-experiment as in the post-communist region (Broulíková 2017).

## 2 Data and Descriptive Statistics

We use data from the 2010 and 2016 waves of the Life in Transition Survey conducted by the European Bank for Reconstruction and Development.[3] LiTS data contains information on various measures of social capital and political participation as well as on homeownership and other demographic and social characteristics of respondents in 28 post-communist countries and seven mostly Western European comparator countries. Specifically, both waves collected information on all post-communist countries, i.e. the Central and Eastern Europe EU-member states (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia), henceforth the CEE, the Balkan countries (Albania, Bosnia, Croatia, Kosovo, Macedonia, Montenegro, and Serbia), and the Former Soviet Union countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine, and Uzbekistan), henceforth the FSU. The 2010 wave additionally includes five Western European countries (Germany, France, Italy, Sweden, and the United Kingdom). In the 2016 wave, France, Sweden, and UK were replaced by Cyprus and Greece.

For each country in each wave, 50 or 75 local electoral units were selected as Primary Sampling Units (PSUs), with the probability of selection proportional to PSU size. Within each PSU, 20 households and within each household one member above the age of 18 were randomly

[2] This approach could be criticized on account of the long time-lag between the main privatization episodes, which occurred in 1990s and early 2000s, and our data. This may have allowed privatizers to sort after privatization. Bloze (2009) and Stephens, Lux, and Sunega, (2015), however, both point to the low liquidity and credit supply as well as the few transactions in post-communist housing markets. Consistent with that, Broulíková (2017) shows that the share of residents in privatized homes increased or stayed constant between 2006 and 2010 in the clear majority of post-communist countries covered in LiTS data. This suggests that sorting is a minor concern only in the current context.

[3] LiTS data has previously been used to analyze post-communist economies by, e.g., Broulíková et al. (2018), Cojocaru (2014), and Nikolova and Sanfey (2016). The 2006 LiTS wave could not be used because many of the questions relevant for our analysis were not included, while the others were incompatible with the two more recent waves, in that survey year. We exclude Turkey and Mongolia from the analysis as these are out of the geographic scope of this paper. The data and documentation are available at http://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html (last accessed on January 21, 2019).

selected as respondents. As a result, each LiTS wave contains representative samples of roughly 1000 or 1500 respondents (depending on the number of PSUs) from each country.

### 2.1 Outcome Variables

We collected a total of ten indicators, five of which capture different aspects of political participation and five measure different dimensions of social capital. The outcome variables, their coding, related survey questions, and availability in the two LiTS waves are summarized in Table A1 in the Appendix.

To measure political participation, we use a set of questions in which respondents were asked whether they voted in the last local-level, parliamentary, or presidential elections. From this we construct two indicators of participation in elections. One measures whether the respondent voted in the last local-level elections. The other measures participation in the last national-level (either parliamentary or presidential) elections. In addition, we include three indicator variables that measure whether respondents would or have participated in a strike, a demonstration, or a petition.

As social capital is not directly observable, we use five proxy variables, suggested in the previous research, to measure its different dimensions (see e.g. Durlauf and Fafchamps, 2005, and Fidrmuc and Gërxhani, 2008). The first is the response to a question on whether people in general can be trusted. This variable measures the social (generalized) trust, an important output component of social capital (Durlauf and Fafchamps, 2005), and it is coded on a scale from one, i.e. strong distrust to other people, to five, i.e. strong trust to other people. Second and third, we use the response to two separate questions on the frequency of contact with family and friends (available only in the 2010 wave) that are coded on five-point scale ranging from "never" to "on most days." These two variables are used to capture strong social ties (Granovetter 1973; Putnam 2001). Fourth, the number of memberships in voluntary organizations, from a given list of nine types of organizations, is used to measure civic participation and weak ties (Bönisch and Scheider 2013; Fidrmuc and Gërxhani 2008). This variable can range from zero to nine, depending on the number of types of organizations in which the respondent is a member. Finally, we use the question whether a person has friends or acquaintances that could help her in finding a job, settle disputes with neighbors, or to obtain permits, papers, and university places (available only in the 2010 wave). Several authors have suggested that such support networks are an important aspect of social capital, particularly

when it comes to job search (Addison and Portugal 2002; Granovetter 1995; Holzer 1988). This variable is coded as one if the answer is affirmative and zero otherwise and we will refer to it simply as "job network."

Table 1 provides descriptive statistics of the outcome variables for both post-communist and comparator countries, broken down by homeownership status. With regard to political participation, individuals in post-communist countries cast votes in local and national elections slightly less often, by about three to five percentage points, than respondents in comparator countries. Participation in strikes, demonstrations, and petitions in post-communist countries is substantially lower than in the comparator countries; the differences in participation in strikes and demonstrations amount to as much as 19 percentage points. These patterns are generally consistent with the previous literature (Bernhagen and Marsh 2007; Bönisch and Scheider 2013; Fidrmuc and Gërxhani 2008; Hooghe and Quintelier 2013).

(Table 1 about here)

With regard to social capital, individuals in post-communist countries appear to exhibit similar levels of social trust as well as substantially better job networks. This is somewhat at odds with previous results reported by Fidrmuc and Gërxhani (2008) who find post-communist countries to have worse outcomes, often by as much as 50 percent.[4] This difference may be due to Fidrmuc and Gërxhani (2008) focusing only on the EU-member countries, whereas we cover all post-communist countries. Their data also came from an earlier period, as early as 1990 and 1996 in the case of generalized trust, and used a slightly different question to define social networks. More consistent with the earlier research is the lower frequency of interactions with friends and family and lower participation in voluntary organizations in post-communist countries than in the comparator countries.

Comparing homeowners to renters, homeowners in both geographic regions are more likely to have participated in the last local-level and national elections. Unlike in comparator countries, however, homeowners in post-communist countries are less likely to demonstrate or sign

[4] In our data the average values for generalized trust are slightly lower in the CEE and FSU countries (2.85 and 2.84, respectively) than in comparator countries (2.88), while those in the Balkan countries are somewhat higher (2.93). The prevalence of job networks is substantially higher in the FSU countries (0.74) than in the CEE and Balkan countries (0.64 and 0.67, respectively). But all three regions exhibit higher rates than the comparator countries (0.53). This may indicate that in post-communist countries, and particularly in the FSU, knowing the "right people" may be more valuable than in developed market economies.

petitions, although the latter result is not statistically significant. In both regions, homeowners are less likely to strike.

With regard to social capital, homeowners in post-communist countries declare higher levels of social trust. This pattern is reversed in comparator countries, although the difference is not statistically significant. By contrast, homeowners in both regions exhibit a higher frequency of contact with their family, a lower frequency of contact with friends, and slightly less access to job networks. Unlike in comparator countries, homeowners in post-communist countries participate in fewer voluntary organizations than renters.

### 2.2 Explanatory and Control Variables

In the regressions, aside from including the homeownership indicator, as the variable of interest, and country-year effects, we also include the following demographic and household characteristics as controls: Age, age squared, the years of residence in the municipality, female and marital status indicators, as well as full sets of indicators for the education level (primary or less, secondary, and tertiary), for household size (1, 2, 3, 4, and 5 or more persons), for the quartile of the wealth distribution in which the respondent considers herself to be, and for dwelling type (detached house, semi-detached house, flat, or other type of dwelling, with detached homes as the reference category).[5] The number of years a respondent spent residing in the same municipality is included in order to control for the fact that homeowners tend to have longer residence spells than renters, and so they may have accumulated more social capital or exhibit higher interest in the local community simply by staying put for a longer time.

The descriptive statistics for these control variables are presented in Table A2 in the Appendix. They confirm that homeownership rates and years of residence in post-communist countries are substantially higher than in the comparator countries: 88 percent of the households in these countries own their home and the average respondent lived in the same municipality for 38 years. In comparator countries, 67 percent of households own their home and the average time of residence is 34 years, 21 percentage point and three years less, respectively, than in post-communist countries. These patterns are consistent with the existing literature (Bloze 2009; Dübel, Brzeski, and Hamilton 2006; Stephens et al. 2015). Furthermore, individuals in post-communist countries are younger and males are more significantly underrepresented than in

[5] In earlier versions of the paper also regressions excluding self-assessed wealth and dwelling type were estimated. Results are robust to these changes.

comparator countries, perhaps due to enlarged gender differentials in life expectancy in post-communist countries, particularly in the FSU (Brainerd and Cutler 2005). A significantly higher percentage of respondents in post-communist countries state that they are in the first or second quartiles of the wealth distribution, while fewer state that they are in the third quartile. This may reflect an amplified tendency to understate one's (relative) income in these countries. Finally, household sizes are larger in post-communist countries than in comparator countries as is the share households residing in detached houses.

The differences between homeowners and renters are quite comparable across the two geographic regions. Homeowners in both regions are older, more often married, and have a slightly higher self-assessed wealth than renters. Their households are larger, length of residence longer, and they are more likely to live in a detached house, whereas renters tend to live in apartments. The gender composition of homeowners is the same as that of renters in both regions.

## 3 Results

Tables 2 and 3 report the estimates for the effects of homeownership on political participation and social capital indicators, run separately for post-communist and comparator countries. The top blocks report the baseline OLS estimates of equation (1). The middle blocks report the instrumental variable (IV) estimates, where the homeownership dummy is instrumented with the regional homeownership rate.[6] Finally, the bottom blocks report estimates comparing renters and privatizers, i.e. using the housing privatization as a quasi-experiment in homeownership assignment. However, this estimation is possible only for the 2010 data, as the 2016 LiTS wave contains no information on how homeowners acquired their dwellings.

### 3.1 Homeownership and Political Participation

The results for political participation, reported in Table 2, indicate that homeowners in both in post-communist and comparator countries are significantly more likely to participate in both local-level and national elections. The coefficients are also substantively significant. Specifically, in post-communist countries, homeowners' participation rates in national and local elections are seven to seventeen percentage points higher than those of renters (compare with the

[6] The Cragg-Donald F-statistic for instrument relevance suggests highly relevant instruments in all specifications.

renters' participation rates of 53 percent in local-level and 60 percent in national elections reported in Table 1). In comparator countries, the differences are between six to eleven percentage points (compare with the renters' participation rates of 78 and 81 percent). In the case of post-communist countries these results hold across all three estimation strategies. For comparator countries, this holds for OLS and IV, but not when renters are compared with privatizers. However, this may be due to the lower relevance of this empirical approach in the case of the comparator countries noted earlier.

(Table 2 about here)

Results for the participation in demonstrations, strikes, and petitions are more varied and indicate substantial differences between post-communist and comparator countries. The baseline regressions in Table 2 suggest that there are no differences between homeowners and renters with respect to these variables in post-communist countries. However, when homeownership is instrumented with the regional homeownership rate or when renters are compared to privatizers, homeowners in post-communist countries appear to be less likely to demonstrate or strike. By contrast, homeowners in the comparator countries exhibit higher tendency to demonstrate and sign petitions than renters. The IV estimates additionally suggest that homeowners therein are more likely to strike. Thus, homeownership appears to be positively associated with the probability of striking, demonstrating, and signing petitions in the comparator countries. In post-communist countries, this relationship is rather negative.

### 3.2 Homeownership and Social Capital

The results for social capital, reported in Table 3, point to some differences and some communalities in the social benefits of homeownership between the two geographic regions. One difference is that in post-communist countries, homeowners exhibit higher levels of trust than renters; the coefficient on the homeowner indicator is statistically significant and substantively meaningful for all three estimation approaches. In the comparator countries, by contrast, homeownership and trust are either orthogonal or negatively related.

(Table 3 about here)

In both geographic regions, however, homeowners are more likely to interact with family members. The estimated coefficients are statistically significant in five out of six cases. Only the IV specification for post-communist countries does not yield a statistically significant estimate.

However, this is primarily due to a higher standard error; the point estimate is numerically equivalent to the other two estimates.

The results for the frequency of meeting friends are less clear-cut. In the post-communist countries the coefficient of the homeownership on meeting friends is negative across the three estimation approaches, but statistically significant only in the baseline specification and very close to zero when renters are compared to privatizers. In the comparator countries, this coefficient is mostly positive but insignificant in the baseline estimate and only weakly significant in the others.

The positive association between homeownership and participation in voluntary organizations, found in the previous literature on the US, also applies to the Western European comparator countries. The estimated effects are statistically significant in both the baseline and the IV models. By contrast, in post-communist countries, the estimates of the effects of homeownership on volunteering are contradictory. They indicate a weakly significant positive association in the baseline specification, a statistically significant negative association in the IV model, and a zero effect when comparing privatizers to renters.

Finally, the results for job networks are inconclusive for both geographic regions. The baseline models and the models which renters are compared to privatizers give zero or small (and not statistically significant) estimates, while the IV models generate moderate or large, statistically significant effects.

In summary, for social capital, homeownership is generally associated with increased interactions with family members in both geographic regions. Homeowners in post-communist countries, but not in the comparator countries, exhibit higher levels of social trust. By contrast, the higher tendency of homeowners to volunteer seems to be specific to the comparator countries.

### 3.3 Heterogeneity Across Geographic Regions and Countries

As the last step in this analysis, we inquire to what extent are the results for the post-communist region general within this rather heterogeneous group of 28 countries. Table 4 therefore presents the estimates of the baseline specification run separately for each of the three post-communist geographic regions, the CEE, the FSU, and the Balkans. Table A3 in the Appendix

complements these results with country-by-country estimates. These, however, need to be interpreted cautiously as they are based on fewer observations.

The most robust communality across the geographic regions as well as countries is the strong and significant positive association between homeownership and voting in both local-level and national elections. The estimates are statistically as well as substantively significant in all three regions. Moreover, the country-by-country estimates of the effect of homeownership on voting in local-level elections are all positive and are statistically significant for 21 out of 35 countries. Similarly, the effects on voting in national elections are positive for 33 countries and are statistically significant for 21 out of 35 countries.

(Table 4 about here)

By contrast, the estimated effects of homeownership on the other forms of political participation are more varied. Specifically, homeownership appears negatively associated with the probability to demonstrate, strike, and sign petitions in CEE and FSU countries, although the coefficient estimates are statistically significant only in three out of six cases. For the Balkans, all three estimates are positive.

With respect to social capital variables, the positive relationship between homeownership and social trust found for the post-communist countries as a group is primarily driven by the CEE and the FSU countries, while homeownership is an insignificant determinant of trust in the Balkan and comparator countries.[7] The positive relationship between homeownership and interaction with family members is mainly driven by CEE countries. The estimates for the FSU and the Balkans are also positive but smaller and are not statistically significant. The negative correlation between homeownership and the frequency of interaction with friends among post-communist countries is entirely driven by the FSU region. The positive association between homeownership and membership in voluntary organizations holds for all comparator countries, except Sweden but the estimates vary widely in sign and significance across the three post-communist regions as well as across countries within the regions. There is no association between homeownership and job networks in any of the three-post communist regions.

[7] At the country level, this coefficient is positive for 15 out of 21 CEE and FSU countries and statistically significant in seven cases. For comparator countries the estimates vary in sign and are never statistically significant.

**Conclusions**

Our inquiry into the social benefits of homeownership in post-communist countries and Western Europe revealed a few robust patterns but also many differences between the two regions as well as within the former Eastern Bloc. Among the communalities, homeownership appears to be strongly associated with higher participation in both local-level and national elections. This pattern holds across alternative estimation approaches and prevails even at the at the country level. Homeownership is also generally associated with higher frequency of interaction with family members.

Among the differences, homeownership is positively related social trust in the post-communist countries but not in the comparator countries. Conversely, the positive association between homeownership and participation in voluntary organizations found in previous research on the US holds also for the Western European comparator countries, but not for post-communist countries.

One implication of these results is that the high rates of homeownership in post-communist countries, which were further increased through housing privatization during the transition period, could have led to closing the gap in social trust that existed in the 1990s (Fidrmuc and Gërxhani 2008). In addition, the high rates of homeownership may have led to higher levels of political participation in these countries, possibly a significant benefit in the context of countries undergoing transition from centrally planned totalitarian systems to democracy and open market economy.

At the same time, the heterogeneity of the results across geographic regions and countries for all outcomes except for voting suggests that the social benefits of homeownership are highly context-specific and cannot be taken for granted. We hypothesize that the specific effects of homeownership arising in a country or region depend on their cultural, historical, and institutional context. Investigations leading to a better understanding of the institutional settings in which homeownership yields social benefits and the channels, through which these benefits are produced are therefore potentially fruitful agenda for future research. A better understanding of these mechanisms could be of value to policy makers. It may also lead to a better understanding of the forces behind political engagement and social capital.

**References**


AARONSON, D. (2000). A Note on the Benefits of Homeownership. Journal of Urban Economics 47(3), 356–369.

ADDISON, J.T., PORTUGAL, P. (2002). Job Search Methods and Outcomes. Oxford Economic Papers 54(3), 505–533.

AIZAWA, T., HELBLE, M.C. (2015) Health and Home Ownership: Findings for the Case of Japan. Working Paper no. 525. Asian Development Bank Institute, Tokio.

BERNHAGEN, P., MARSH, M. (2007). The partisan effects of low turnout: Analyzing vote abstention as a missing data problem. Electoral Studies 26(3), 548-560.

BLOZE, G. (2009). Interregional migration and housing structure in an East European transition country: A view of Lithuania 2001–2008. Baltic Journal of Economics 9(2), 47–66.

BOENISCH, P., SCHNEIDER, L. (2013). The social capital legacy of communism-results from the Berlin Wall experiment. European Journal of Political Economy 32, 391–411.

BRAINERD, E., CUTLER, D.M. (2005). Autopsy on an Empire: Understanding Mortality in Russia and the Former Soviet Union. Journal of Economic Perspectives 19(1), 107–130.

BROULÍKOVÁ, H.M. (2017). Housing Privatization in Europe: An Overview of Policies and Outcomes. Working paper, Mendel University, Brno. URL https://ssrn.com/abstract=2899928.

BROULÍKOVÁ, H.M., HUBER, P., MONTAG, J., SUNEGA, P. (2018). Homeownership, Mobility, and Unemployment: Evidence from Housing Privatization. WIFO Working Paper no. 548. Austrian Institute for Economic Research, Vienna.

COJOCARU, A. (2014). Fairness and inequality tolerance: evidence from the life in transition survey. Journal of Comparative Economics 42(3), 590–608.

DIETZ, R.D., HAURIN, D.R. (2003). The social and private micro-level consequences of homeownership. Journal of Urban Economics 54(3), 401–450.

DIPASQUALE, D., GLAESER, E.L. (1999). Incentives and Social Capital: Are Homeowners Better Citizens? Journal of Urban Economics 45 (2), 354–384.

DÜBEL, H-J., BRZESKI, W.J., HAMILTON, E. (2005). Rental Choice and Housing Policy Realignment in Transition: Post-Privatization Challenges in the Europe and Central Asia Region. Working Paper no. 35103. World Bank, Washington, D.C.

DURLAUF, S.N., FAFCHAMPS, M. (2005). Social Capital. In: Aghion, P., Durlauf, S. (Eds.) Handbook of Economic Growth. Volume 1, Elsevier, pp. 1639–1699.

ENGELHARDT, G.V., ERIKSEN, M.D., GALE, W.G., MILLS, G.B. (2010). What are the social benefits of homeownership? Experimental evidence for low-income households. Journal of Urban Economics 67(3), 249–258.

FIDRMUC, J., GËRXHANI, K. (2008). Mind the gap! Social capital, East and West. Journal of Comparative Economics 36(2), 264–286.

GRANOVETTER, M.S. (1973). The strength of weak ties. American Journal of Sociology 78(6), 1360–1380.

GRANOVETTER, M.S. (1995). Getting a Job: A Study of Contacts and Careers. Second Edition, University of Chicago Press.

GREEN, R.K., WHITE, M.J. (1997). Measuring the benefits of homeowning: Effects on children. Journal of Urban Economics 41(3), 441–461.

HAURIN, D.R., PARCEL T.L., HAURIN, R.J. (2002). Does homeownership affect child outcomes? Real Estate Economics 30(4), 635–666.

HILBER, C.A.L. (2010). New housing supply and the dilution of social capital. Journal of Urban Economics 67(3), 419–437.

HOLZER, H.J. (1988). Search Method Use by Unemployed Youth. Journal of Labor Economics 6(1), 1–20.

HOOGHE, M., QUINTELIEr, E. (2014). Political participation in European countries: The effect of authoritarian rule, corruption, lack of good governance and economic downturn. Comparative European Politics 12(2), 209–232.

NIKOLOVA, E., SANFEY, P. (2016). How much should we trust life-satisfaction data? Evidence from the Life in Transition Survey. Journal of Comparative Economics 44(3), 720–731.

PALDAM, M., SVENDSEN, G.T. (2000). Missing social capital and the transition in Eastern Europe. Working paper, Department of Economics, Aarhus School of Business, Aarhus.

PUTNAM, R. (2001). Social capital: Measurement and consequences. Canadian Journal of Policy Research 2(1), 41–51.

RAISER, M., HAERPFER, C., NOWOTNY, T., WALLACE, C. (2002). Social capital in transition: a first look at the evidence. Sociologický časopis/Czech Sociological Review 693–720.

ROHE, W.M., VAN ZANDT, S., MCCARTHY, G. (2013). The social benefits and costs of homeownership: A critical assessment of the research. In: Tighe, J.R., Mueller, E.J. (Eds.), The Affordable Housing Reader. Routledge, pp. 196–213.

ROSSI, P.H., WEBER, E. (1996). The social benefits of homeownership: Empirical evidence from national surveys. Housing Policy Debate 7(1), 1–35.

STEPHENS, M., LUX, M., SUNEGA, P. (2015). Post-Socialist Housing Systems in Europe: Housing Welfare Regimes by Default. Housing Studies 30(8), 1210–1234.

ZUMBRO, T. (2014). The relationship between homeownership and life-satisfaction in Germany. Housing Studies 29(3), 319–338.

**Tables**

**Table 1: Descriptive statistics for outcome variables by geographic regions and homeownership status**

| | Post-Communist Countries | | | Comparator Countries | | |
|---|---|---|---|---|---|---|
| | All | Owners | Renters | All | Owners | Renters |
| | Political participation | | | | | |
| Voted local | 0.68 *** | 0.70 *** | 0.53 | 0.73 | 0.78 *** | 0.63 |
| | (0.47) | (0.46) | (0.50) | (0.44) | (0.42) | (0.48) |
| Voted national | 0.73 *** | 0.75 *** | 0.60 | 0.76 | 0.81 *** | 0.66 |
| | (0.44) | (0.44) | (0.49) | (0.43) | (0.39) | (0.47) |
| Demonstrate | 0.25 *** | 0.25 *** | 0.27 | 0.44 | 0.45 *** | 0.42 |
| | (0.43) | (0.43) | (0.44) | (0.50) | (0.50) | (0.49) |
| Strike | 0.19 *** | 0.19 *** | 0.23 | 0.38 | 0.37 *** | 0.40 |
| | (0.39) | (0.39) | (0.42) | (0.49) | (0.48) | (0.49) |
| Sign petition | 0.12 *** | 0.12 | 0.13 | 0.21 | 0.22 *** | 0.19 |
| | (0.33) | (0.33) | (0.34) | (0.41) | (0.41) | (0.39) |
| | Social Capital | | | | | |
| Trust | 2.87 | 2.88 *** | 2.78 | 2.88 | 2.87 | 2.89 |
| | (1.08) | (1.08) | (1.06) | (1.02) | (1.03) | (0.99) |
| Meet family | 2.24 *** | 2.25 *** | 2.16 | 2.44 | 2.51 *** | 2.30 |
| | (1.02) | (1.02) | (1.02) | (1.04) | (1.02) | (1.08) |
| Meet friends | 2.63 *** | 2.62 *** | 2.77 | 2.74 | 2.71 *** | 2.80 |
| | (1.07) | (1.07) | (1.05) | (0.92) | (0.90) | (0.95) |
| Memberships in | 0.59 *** | 0.58 * | 0.61 | 1.44 | 1.54 *** | 1.23 |
| voluntary org. | (1.27) | (1.27) | (1.25) | (1.75) | (1.83) | (1.54) |
| Job network | 0.69 *** | 0.69 *** | 0.70 | 0.53 | 0.52 *** | 0.56 |
| | (0.46) | (0.46) | (0.46) | (0.50) | (0.50) | (0.50) |

Note: Values in parentheses are standard deviations. *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$ signify significance of a t-test for difference in means. In the first column this tests for differences in the means of former communist and comparator countries. In the remaining columns the test is for differences between homeowners and renters within the respective country group. Data source: Life in Transition Survey 2010 and 2016.

**Table 2: Homeownership and political participation**

| | Post-communist countries | | | | | Comparator countries | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Vote in local elections | Vote in national elections | Demonstrate | Strike | Sign petition | Vote in local elections | Vote in national elections | Demonstrate | Strike | Sign petition |
| | Baseline | | | | | | | | | |
| Homeowner | 0.082*** | 0.071*** | -0.003 | -0.006 | -0.002 | 0.062*** | 0.075*** | 0.023** | 0.009 | 0.027*** |
| | (0.006) | (0.006) | (0.005) | (0.005) | (0.004) | (0.011) | (0.010) | (0.011) | (0.010) | (0.009) |
| *N* | 65634 | 65726 | 65633 | 65346 | 66784 | 10886 | 10814 | 11040 | 11049 | 11032 |
| $R^2$ | 0.111 | 0.084 | 0.148 | 0.227 | 0.153 | 0.111 | 0.076 | 0.193 | 0.253 | 0.153 |
| | IV | | | | | | | | | |
| Homeowner | 0.167*** | 0.111*** | -0.063*** | -0.045*** | -0.007 | 0.097*** | 0.113*** | 0.203*** | 0.079** | 0.078*** |
| | 0.0162 | 0.0156 | 0.0148 | 0.0129 | 0.0107 | 0.0352 | 0.0341 | 0.037 | 0.0342 | 0.0296 |
| *N* | 65634 | 65726 | 65633 | 65346 | 66784 | 10886 | 10814 | 11040 | 11049 | 11032 |
| $R^2$ | 0.111 | 0.084 | 0.148 | 0.227 | 0.153 | 0.111 | 0.076 | 0.193 | 0.253 | 0.153 |
| *F*-weak | 6616.2 | 6657 | 6651.9 | 6655.2 | 6683.6 | 1126.7 | 1126.9 | 1140.5 | 1142 | 1136.1 |
| | Renters and privatizers | | | | | | | | | |
| Homeowner | 0.077*** | 0.065*** | -0.032*** | -0.044*** | -0.017* | -0.029 | 0.002 | 0.011 | -0.044 | 0.001 |
| | (0.013) | (0.012) | (0.012) | (0.012) | (0.010) | (0.025) | (0.025) | (0.028) | (0.028) | (0.027) |
| *N* | 9124 | 9168 | 9252 | 9047 | 9252 | 2473 | 2420 | 2489 | 2492 | 2484 |
| $R^2$ | 0.12 | 0.106 | 0.14 | 0.176 | 0.093 | 0.14 | 0.081 | 0.148 | 0.132 | 0.136 |

Note: All specifications include the controls listed in Table A2 in the Appendix and country-year effects. Full results of the baseline specification for post-communist countries are reported in Table A4 in the Appendix. F-weak denotes Cragg-Donald F-statistic for instrument relevance. Heteroscedasticity-robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Data source: Life in Transition Survey 2010 and 2016.

**Table 3: Homeownership and social capital**

| | Post-communist countries | | | | | Comparator countries | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trust | Meet family | Meet friends | Member in voluntary organizations | Job network | Trust | Meet family | Meet friends | Member in voluntary organizations | Job network |
| | Baseline | | | | | | | | | |
| Homeowner | 0.066*** | 0.063*** | -0.052*** | 0.029* | -0.001 | 0.004 | 0.118*** | 0.037 | 0.209*** | -0.008 |
| | (0.014) | (0.020) | (0.020) | (0.016) | (0.008) | (0.023) | (0.036) | (0.032) | (0.035) | (0.017) |
| *N* | 63809 | 30106 | 30088 | 65358 | 30335 | 10866 | 5388 | 5400 | 11025 | 5387 |
| $R^2$ | 0.085 | 0.077 | 0.108 | 0.058 | 0.188 | 0.161 | 0.088 | 0.110 | 0.214 | 0.052 |
| | IV | | | | | | | | | |
| Homeowner | 0.244*** | 0.064 | -0.084 | -0.101** | 0.045** | -0.188** | 0.779*** | 0.223* | 0.637*** | 0.160** |
| | (0.036) | (0.052) | (0.052) | (0.043) | (0.022) | (0.074) | (0.146) | (0.125) | (0.124) | (0.068) |
| *N* | 63809 | 30106 | 30088 | 65358 | 30335 | 10866 | 5388 | 5400 | 11025 | 5387 |
| $R^2$ | 0.083 | 0.077 | 0.108 | 0.057 | 0.187 | 0.156 | 0.029 | 0.104 | 0.205 | 0.036 |
| *F*-weak | 6409.9 | 2959.7 | 2958.8 | 6648.1 | 2969.8 | 1126.3 | 397.6 | 400.9 | 1136.2 | 396.2 |
| | Renters and privatizers | | | | | | | | | |
| Homeowner | 0.088*** | 0.062** | -0.006 | 0.006 | 0.011 | -0.090 | 0.125** | 0.097* | 0.107 | 0.023 |
| | (0.028) | (0.027) | (0.028) | (0.025) | (0.011) | (0.056) | (0.061) | (0.055) | (0.088) | (0.029) |
| *N* | 8819 | 9156 | 9169 | 9247 | 9251 | 2454 | 2478 | 2488 | 2491 | 2482 |
| $R^2$ | 0.093 | 0.064 | 0.116 | 0.099 | 0.228 | 0.134 | 0.093 | 0.105 | 0.266 | 0.063 |

Note: All specifications include the controls listed in Table A2 in the Appendix and country-year effects. Full results of the baseline specification for post-communist countries are reported in Table A4 in the Appendix. *F*-weak denotes Cragg-Donald *F*-statistic for instrument relevance. Heteroscedasticity-robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Data source: Life in Transition Survey 2010 and 2016.

**Table 4: Regression results by post-communist regions, baseline specifications**

| | CEE countries | | | FSU countries | | | The Balkans | | |
|---|---|---|---|---|---|---|---|---|---|
| | Homeowner | *N* | $R^2$ | Homeowner | *N* | $R^2$ | Homeowner | *N* | $R^2$ |
| Political participation | | | | | | | | | |
| Vote local | 0.077*** | 24030 | 0.092 | 0.097*** | 25551 | 0.152 | 0.062*** | 16053 | 0.065 |
| | (0.009) | | | (0.011) | | | (0.013) | | |
| Vote national | 0.073*** | 24015 | 0.078 | 0.079*** | 25575 | 0.108 | 0.060*** | 16136 | 0.067 |
| | (0.009) | | | (0.011) | | | (0.013) | | |
| Demonstrate | -0.015** | 24401 | 0.163 | -0.001 | 24582 | 0.057 | 0.018 | 16650 | 0.18 |
| | (0.008) | | | (0.009) | | | (0.011) | | |
| Strike | -0.008 | 24401 | 0.247 | -0.018** | 24295 | 0.077 | 0.021** | 16650 | 0.256 |
| | (0.007) | | | (0.008) | | | (0.010) | | |
| Sign Petition | -0.012** | 24401 | 0.09 | -0.009 | 25733 | 0.065 | 0.027*** | 16650 | 0.237 |
| | (0.006) | | | (0.007) | | | (0.009) | | |
| Social capital | | | | | | | | | |
| Trust | 0.081*** | 23650 | 0.072 | 0.096*** | 24824 | 0.107 | 0.017 | 15335 | 0.066 |
| | (0.019) | | | (0.027) | | | (0.029) | | |
| Meet family | 0.086*** | 10346 | 0.043 | 0.048 | 12048 | 0.071 | 0.037 | 7712 | 0.126 |
| | (0.030) | | | (0.036) | | | (0.041) | | |
| Meet friends | -0.012 | 10345 | 0.105 | -0.112*** | 12015 | 0.078 | 0.011 | 7728 | 0.085 |
| | (0.029) | | | (0.037) | | | (0.040) | | |
| Member in | 0.005 | 24358 | 0.065 | -0.015 | 24506 | 0.049 | 0.095*** | 16494 | 0.065 |
| voluntary org. | (0.021) | | | (0.031) | | | (0.035) | | |
| Job Network | 0.016 | 10431 | 0.163 | -0.001 | 12169 | 0.262 | -0.026 | 7735 | 0.101 |
| | (0.013) | | | (0.012) | | | (0.019) | | |

Note: All specifications include the controls listed in Table A2 in the Appendix and country-year effects. Heteroscedasticity-robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Data source: Life in Transition Survey 2010 and 2016.

## Appendix

### Table A1: Outcome variables, survey questions and coding

| Variable name | Survey question | Coding | Available in survey years | Number of observations by geographic region | |
|---|---|---|---|---|---|
| Political participation variables | | | | Post-communist | Comparator |
| Vote local | Did you vote in the most recent local-level elections? | 0 or 1 (equal to one if affirmative, zero otherwise). | Both | 67,634 | 13,124 |
| Vote national | Did you vote in the most recent parliamentary / presidential elections? | 0 or 1 (equal to one if either affirmative, zero otherwise). | Both | 67,730 | 13,056 |
| Demonstrate | How likely are you to attend a lawful demonstration? | 0 or 1 (equal to one if participated or might do, zero otherwise). | Both | 67,637 | 13,386 |
| Strike | How likely are you to participate in a strike? | 0 or 1 (equal to one if participated or might do, zero otherwise). | Both | 67,350 | 13,395 |
| Sign Petition | How likely are you to sign a petition? | 0 or 1 (equal to one if signed or might do, zero otherwise). | Both | 68,788 | 13,378 |
| Social capital variables | | | | | |
| Trust | Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please answer on a scale of 1 to 5, where 1 means that you have complete distrust and 5 means that you have complete trust. | 1 to 5 (complete distrust to complete trust). | Both | 65,759 | 13,188 |
| Meet family | How often do you meet up with relatives who are not living with you | 1 to 5 (most days to never). | 2010 | 31,062 | 6,391 |
| Meet friends | How often do you meet up with friends? | 1 to 5 (most days to never). | 2010 | 31,042 | 6,381 |
| Member in voluntary organizations | Here is a list of voluntary organizations. (The list contains religious, sports, cultural, parties, unions, environmental, professional, charities, and youth organizations.) For each one, please indicate, whether you are an active member, an inactive member, or not a member of that type of organization. | 1 to 9 (number of organizations) | Both | 67,360 | 13,336 |
| Job Network | Some people, because of their job, position in the community or contacts, are asked by others to help influence decisions in their favor. Do you know anyone whom you could ask? | 0 or 1 (equal to one if affirmative, zero otherwise). | 2010 | 31,293 | 6,389 |

**Table A2: Descriptive statistics for explanatory and control variables by geographic region and homeownership status**

| | Post-Communist Countries | | | | Comparator Countries | | | |
|---|---|---|---|---|---|---|---|---|
| | All | | Owners | Renters | All | | Owners | Renters |
| Homeowner | 0.88 | *** | | | 0.67 | | | |
| | (0.32) | | | | (0.47) | | | |
| Years of residence in PSU | 38.17 | *** | 39.66 *** | 27.16 | 34.23 | | 37.47 *** | 27.76 |
| | (19.48) | | (19.00) | (19.43) | (20.90) | | (20.35) | (20.49) |
| Age | 47.60 | *** | 48.61 *** | 40.16 | 49.99 | | 52.84 *** | 44.31 |
| | (17.54) | | (17.42) | (16.58) | (16.87) | | (15.95) | (17.20) |
| Married | 0.58 | *** | 0.61 *** | 0.43 | 0.55 | | 0.65 *** | 0.37 |
| | (0.49) | | (0.49) | (0.49) | (0.50) | | (0.48) | (0.48) |
| Male | 0.41 | *** | 0.41 *** | 0.41 | 0.46 | | 0.46 *** | 0.46 |
| | (0.49) | | (0.49) | (0.49) | (0.50) | | (0.50) | (0.50) |
| Primary education | 0.12 | *** | 0.12 * | 0.10 | 0.14 | | 0.15 *** | 0.12 |
| | (0.10) | | (0.11) | (0.09) | (0.12) | | (0.13) | (0.10) |
| Secondary Education | 0.50 | *** | 0.50 | 0.51 | 0.52 | | 0.50 | 0.56 |
| | (0.50) | | (0.50) | (0.50) | (0.50) | | (0.50) | (0.50) |
| Tertiary Education | 0.39 | *** | 0.39 | 0.40 | 0.34 | | 0.35 *** | 0.32 |
| | (0.49) | | (0.49) | (0.49) | (0.47) | | (0.48) | (0.47) |
| First Quartile Wealth | 0.29 | *** | 0.29 ** | 0.33 | 0.21 | | 0.17 *** | 0.30 |
| | (0.21) | | (0.21) | (0.22) | (0.17) | | (0.14) | (0.21) |
| Second Quartile Wealth | 0.48 | *** | 0.49 * | 0.47 | 0.44 | | 0.44 *** | 0.46 |
| | (0.50) | | (0.50) | (0.50) | (0.50) | | (0.50) | (0.50) |
| Third Quartile Wealth | 0.18 | *** | 0.18 *** | 0.17 | 0.29 | | 0.33 *** | 0.21 |
| | (0.39) | | (0.39) | (0.37) | (0.46) | | (0.47) | (0.41) |
| Fourth Quartile Wealth | 0.04 | *** | 0.04 ** | 0.03 | 0.05 | | 0.06 *** | 0.03 |
| | (0.19) | | (0.19) | (0.18) | (0.22) | | (0.24) | (0.18) |
| Detached house | 0.53 | *** | 0.57 *** | 0.20 | 0.40 | | 0.52 *** | 0.15 |
| | (0.25) | | (0.24) | (0.16) | (0.24) | | (0.25) | (0.13) |
| Semi-detached house | 0.05 | *** | 0.05 *** | 0.08 | 0.16 | | 0.17 *** | 0.14 |
| | (0.22) | | (0.21) | (0.27) | (0.36) | | (0.37) | (0.35) |
| Apartment | 0.41 | *** | 0.37 *** | 0.68 | 0.43 | | 0.29 *** | 0.69 |
| | (0.49) | | (0.48) | (0.47) | (0.49) | | (0.46) | (0.46) |
| Other type of dwelling | 0.01 | *** | 0.00 *** | 0.02 | 0.01 | | 0.01 | 0.01 |
| | (0.08) | | (0.07) | (0.15) | (0.10) | | (0.10) | (0.11) |
| One-member household | 0.20 | *** | 0.18 *** | 0.32 | 0.27 | | 0.20 *** | 0.40 |
| | (0.16) | | (0.15) | (0.22) | (0.20) | | (0.16) | (0.24) |
| Two-member household | 0.28 | *** | 0.28 | 0.29 | 0.38 | | 0.41 *** | 0.32 |
| | (0.45) | | (0.45) | (0.45) | (0.49) | | (0.49) | (0.47) |
| Three-member household | 0.19 | *** | 0.19 ** | 0.18 | 0.17 | | 0.18 *** | 0.15 |
| | (0.39) | | (0.39) | (0.39) | (0.38) | | (0.39) | (0.36) |
| Four-member household | 0.16 | *** | 0.16 *** | 0.13 | 0.13 | | 0.15 *** | 0.09 |
| | (0.37) | | (0.37) | (0.34) | (0.34) | | (0.36) | (0.28) |
| Five or more-member h. | 0.16 | *** | 0.18 *** | 0.07 | 0.05 | | 0.05 | 0.05 |
| | (0.37) | | (0.38) | (0.26) | (0.22) | | (0.22) | (0.21) |

Note: Values in parentheses are standard deviations. *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$ signify significance of a t-test for difference in means. In the first column this tests for differences in the means of former communist and comparator countries. In the remaining columns the test is for differences between homeowners and renters within the respective country group. Data source: Life in Transition Survey 2010 and 2016.

## Table A3: Regression results for baseline specification by country

| | Political participation | | | | | Social capital | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Vote in local elections | Vote in national elections | Demon-strate | Strike | Sign petition | Trust | Meet family | Meet friends | Member in voluntary org. | Job network |
| **Central and Eastern Europe** | | | | | | | | | | |
| Bulgaria | 0.038 | 0.035 | 0.011 | 0.010 | -0.009 | -0.011 | 0.032 | 0.073 | 0.081 | 0.024 |
| Czech Rep. | 0.073*** | 0.068*** | -0.018 | -0.011 | -0.028 | 0.060 | 0.101 | -0.012 | -0.106 | 0.045 |
| Estonia | 0.039 | 0.047* | -0.034 | -0.043** | -0.012 | 0.080 | 0.094 | -0.069 | -0.014 | 0.000 |
| Hungary | 0.087*** | 0.112*** | -0.008 | 0.009 | -0.020 | 0.038 | 0.228** | -0.350*** | 0.037 | -0.021 |
| Latvia | 0.0407* | 0.049** | -0.015 | -0.033* | -0.032** | 0.042 | 0.162** | 0.111 | -0.008 | 0.029 |
| Lithuania | 0.037 | 0.057* | 0.000 | 0.030 | 0.024 | -0.001 | 0.169 | 0.093 | 0.052 | 0.120* |
| Poland | 0.170*** | 0.163*** | -0.093*** | -0.027 | -0.010 | 0.302*** | 0.013 | 0.145** | 0.011 | 0.000 |
| Romania | 0.074** | -0.020 | 0.005 | 0.031 | 0.020 | -0.104 | 0.163 | -0.088 | 0.044 | 0.016 |
| Slovakia | 0.096*** | 0.102*** | 0.022 | -0.007 | -0.035 | 0.158** | -0.077 | 0.151* | 0.043 | -0.056 |
| Slovenia | 0.091*** | 0.088*** | 0.021 | 0.020 | 0.022 | 0.134** | 0.085 | -0.049 | 0.016 | -0.010 |
| **Former Soviet Union** | | | | | | | | | | |
| Armenia | 0.136*** | 0.050* | 0.018 | -0.015 | 0.004 | -0.062 | -0.077 | -0.025 | -0.041 | 0.019 |
| Azerbaijan | 0.053 | 0.005 | -0.009 | 0.019 | 0.011 | 0.067 | 0.041 | -0.053 | 0.0982** | -0.007 |
| Belarus | 0.041 | 0.052 | 0.046* | 0.008 | -0.013 | 0.189** | 0.252*** | -0.036 | -0.086 | |
| Georgia | 0.185*** | 0.139*** | 0.014 | -0.071** | -0.046* | 0.183* | -0.099 | -0.038 | -0.146 | -0.011 |
| Kazakhstan | 0.050 | 0.086** | 0.008 | 0.041** | 0.010 | 0.146* | 0.174 | -0.043 | 0.097 | 0.034 |
| Kyrgyzstan | 0.199*** | 0.116** | -0.034 | -0.086** | -0.045 | 0.153 | 0.260** | 0.236 | -0.178 | 0.045 |
| Moldova | 0.051 | 0.081** | -0.060 | -0.028 | -0.013 | 0.162* | -0.121 | -0.303** | -0.017 | 0.055 |
| Russia | 0.086*** | 0.084*** | 0.000 | -0.001 | -0.011 | 0.051 | -0.013 | -0.238*** | 0.059 | 0.000 |
| Tajikistan | 0.123* | 0.072 | 0.012 | 0.035 | 0.013 | -0.036 | 0.210 | 0.187 | 0.008 | -0.033 |
| Ukraine | 0.074* | 0.042 | -0.044 | -0.045 | 0.023 | 0.062 | -0.249** | -0.276** | 0.213* | -0.057 |
| Uzbekistan | 0.006 | 0.079 | 0.048 | -0.013 | -0.007 | -0.009 | 0.114 | -0.180 | 0.057 | -0.085* |
| **Former Yugoslavia** | | | | | | | | | | |
| Albania | 0.004 | 0.071* | -0.035 | -0.014 | 0.050 | 0.034 | -0.002 | -0.165 | 0.060 | 0.0873* |
| Bosnia | 0.071* | 0.060 | -0.005 | 0.122*** | 0.063** | 0.000 | -0.119 | -0.001 | 0.210** | -0.008 |
| Croatia | 0.064** | 0.076*** | 0.028 | 0.018 | -0.013 | -0.012 | -0.072 | -0.189* | -0.067 | -0.091* |
| Kosovo | 0.137*** | 0.092** | -0.020 | -0.037 | 0.009 | 0.133 | 0.075 | 0.141 | -0.125 | -0.043 |
| Macedonia | 0.057 | 0.039 | 0.029 | 0.004 | 0.023 | 0.054 | 0.163 | 0.316* | 0.279*** | -0.094 |
| Montenegro | 0.072*** | 0.067** | 0.043* | 0.019 | 0.017 | 0.137** | 0.127 | 0.143* | 0.111 | -0.019 |
| Serbia | 0.037 | 0.020 | 0.016 | 0.008 | 0.017 | -0.114* | 0.081 | -0.009 | 0.089 | -0.035 |
| **Western European comparator countries** | | | | | | | | | | |
| France | 0.134*** | 0.102*** | -0.009 | -0.024 | 0.077** | -0.070 | 0.091 | 0.147* | 0.281** | -0.031 |
| Germany | 0.067** | 0.052** | 0.010 | 0.006 | -0.019 | 0.000 | 0.333*** | 0.161** | 0.283*** | -0.007 |
| UK | 0.109*** | 0.112*** | 0.063** | 0.034 | 0.083*** | 0.007 | 0.081 | -0.013 | 0.330*** | -0.010 |
| Italy | 0.019 | 0.049** | -0.014 | -0.025 | 0.001 | -0.056 | 0.157* | 0.004 | 0.096 | 0.037 |
| Sweden | 0.002 | 0.031 | 0.058 | -0.022 | 0.031 | 0.099 | 0.049 | 0.001 | -0.171 | -0.052 |
| Cyprus | 0.124*** | 0.114*** | 0.022 | 0.063*** | 0.053*** | -0.100 | | | 0.305*** | |
| Greece | 0.073*** | 0.114*** | 0.009 | 0.003 | -0.010 | 0.005 | | | 0.034 | |

Note: All specifications include the controls listed in Table A2 in the Appendix and year effects. Heteroscedasticity-robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Data source: Life in Transition Survey 2010 and 2016.

**Table A4: Full regression results for post-communist countries, baseline specification**

| | Social capital | | | | | Political participation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trust | Meet family | Meet friends | Member in voluntary organizations | Job network | Vote in local elections | Vote in national elections | Demonstrate | Strike | Sign petition |
| Homeowner | 0.0664*** | 0.0634*** | -0.0517*** | 0.0285* | 0.000 | 0.114*** | 0.0815*** | 0.0713*** | -0.003 | -0.006 |
| | (0.014) | (0.020) | (0.020) | (0.016) | (0.008) | (0.013) | (0.006) | (0.006) | (0.005) | (0.005) |
| Years of residence | 0.025 | 0.471*** | 0.305*** | -0.032 | 0.0755*** | -0.191*** | 0.0300** | 0.020 | -0.014 | -0.010 |
| in PSU/100 | (0.030) | (0.044) | (0.047) | (0.034) | (0.019) | (0.028) | (0.013) | (0.012) | (0.011) | (0.009) |
| Age | -0.00242* | -0.0172*** | -0.0227*** | -0.00386** | -0.00153* | -0.0264*** | 0.0143*** | 0.0141*** | 0.000 | -0.00133*** |
| | (0.001) | (0.002) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.000) |
| Age squared | 0.0000313** | 0.000111*** | 0.000107*** | 0.000011 | -0.000009 | 0.000269*** | -0.0000980*** | -0.000102*** | 0.000 | -0.0000131*** |
| | (0.00001) | (0.00002) | (0.00002) | (0.00002) | (0.00001) | (0.00001) | (0.00001) | (0.00001) | (0.00001) | (0.00000) |
| Married | 0.0310*** | 0.102*** | -0.163*** | -0.0570*** | 0.000 | 0.128*** | 0.0420*** | 0.0481*** | -0.0117*** | -0.0101*** |
| | (0.011) | (0.015) | (0.015) | (0.013) | (0.006) | (0.010) | (0.005) | (0.004) | (0.004) | (0.004) |
| Male | 0.005 | -0.001 | 0.175*** | 0.0315*** | 0.0113** | -0.0295*** | -0.004 | -0.001 | 0.0143*** | 0.0441*** |
| | (0.008) | (0.012) | (0.012) | (0.010) | (0.005) | (0.008) | (0.004) | (0.003) | (0.003) | (0.003) |
| Secondary Education | 0.0359** | -0.002 | -0.011 | 0.0799*** | 0.0598*** | 0.0906*** | 0.0604*** | 0.0602*** | 0.0489*** | 0.0533*** |
| | (0.014) | (0.020) | (0.021) | (0.016) | (0.009) | (0.014) | (0.006) | (0.006) | (0.006) | (0.005) |
| Tertiary Education | 0.128*** | 0.011 | -0.0393* | 0.271*** | 0.0865*** | 0.223*** | 0.106*** | 0.118*** | 0.0714*** | 0.0872*** |
| | (0.016) | (0.022) | (0.023) | (0.019) | (0.009) | (0.015) | (0.007) | (0.007) | (0.006) | (0.005) |
| Second Quartile Wealth | 0.208*** | 0.108*** | 0.0935*** | 0.0768*** | 0.0461*** | 0.607*** | 0.0400*** | 0.0414*** | 0.006 | 0.00736** |
| | (0.010) | (0.014) | (0.015) | (0.011) | (0.006) | (0.010) | (0.004) | (0.004) | (0.004) | (0.003) |
| Third Quartile Wealth | 0.379*** | 0.196*** | 0.218*** | 0.185*** | 0.0898*** | 0.883*** | 0.0409*** | 0.0453*** | 0.00963* | 0.0203*** |
| | (0.013) | (0.018) | (0.018) | (0.017) | (0.007) | (0.012) | (0.006) | (0.005) | (0.005) | (0.004) |
| Fourth Quartile Wealth | 0.411*** | 0.218*** | 0.256*** | 0.297*** | 0.0965*** | 0.975*** | 0.0347*** | 0.0280*** | -0.011 | 0.0192** |
| | (0.024) | (0.034) | (0.034) | (0.034) | (0.013) | (0.022) | (0.010) | (0.010) | (0.009) | (0.008) |
| Semi-detached house | -0.0592*** | -0.037 | 0.017 | 0.105*** | 0.0257** | 0.028 | -0.008 | -0.006 | 0.010 | 0.0145** |
| | (0.019) | (0.027) | (0.026) | (0.025) | (0.011) | (0.018) | (0.008) | (0.008) | (0.008) | (0.007) |
| Flat | -0.0394*** | -0.0325** | -0.023 | 0.0453*** | -0.004 | -0.004 | -0.0433*** | -0.0201*** | 0.0160*** | 0.0279*** |
| | (0.010) | (0.014) | (0.014) | (0.012) | (0.006) | (0.009) | (0.004) | (0.004) | (0.004) | (0.003) |
| Other type of dwelling | -0.012 | 0.055 | -0.107 | 0.260*** | 0.026 | -0.120** | -0.0695*** | -0.0629*** | 0.003 | 0.025 |
| | (0.052) | (0.083) | (0.087) | (0.077) | (0.034) | (0.048) | (0.023) | (0.023) | (0.018) | (0.016) |
| Two-member household | -0.014 | -0.0890*** | -0.0636*** | 0.0447*** | 0.013 | 0.012 | 0.0234*** | 0.0120** | 0.0196*** | 0.0125*** |
| | (0.014) | (0.021) | (0.021) | (0.016) | (0.009) | (0.013) | (0.006) | (0.006) | (0.005) | (0.005) |
| Three-member househ. | -0.017 | -0.0617*** | -0.0476** | 0.0647*** | 0.0210** | -0.012 | 0.0321*** | 0.0290*** | 0.0299*** | 0.0223*** |
| | (0.016) | (0.023) | (0.023) | (0.019) | (0.010) | (0.015) | (0.007) | (0.007) | (0.006) | (0.005) |
| Four-member household | -0.011 | -0.103*** | -0.0649*** | 0.0719*** | 0.015 | 0.014 | 0.0460*** | 0.0322*** | 0.0252*** | 0.0248*** |
| | (0.017) | (0.024) | (0.024) | (0.021) | (0.010) | (0.016) | (0.007) | (0.007) | (0.007) | (0.006) |
| Five or more-member h. | -0.0540*** | -0.0815*** | -0.034 | 0.0788*** | 0.006 | 0.002 | 0.0724*** | 0.0524*** | 0.0247*** | 0.0102* |
| | (0.019) | (0.025) | (0.026) | (0.022) | (0.011) | (0.017) | (0.008) | (0.008) | (0.007) | (0.006) |
| *N* | 63809 | 30106 | 30088 | 65358 | 30335 | 65717 | 65634 | 65726 | 65633 | 65346 |
| $R^2$ | 0.085 | 0.077 | 0.108 | 0.058 | 0.188 | 0.221 | 0.111 | 0.084 | 0.148 | 0.227 |

Note: All specifications include the controls listed in Table A2 in the Appendix and country-year effects. Heteroscedasticity-robust standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Data source: Life in Transition Survey 2010 and 2016.