

# Seminar in Long-run Development

Winter Term 2018/2019

Specialization: Growth, Labor and Inequality in the Global Economy

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**Module:** Seminar in Growth, Labor and Inequality in the Global Economy

**Introductory meeting:** Thu, October 11, 2018. 16:00-17:30, Room 510

**Seminar:** Fri & Sat, December 07/08, 2018. 09:00-17:00, Room 510

**Instructors:** Prof. Dr. Erik Hornung and Eduardo Villacs Hidalgo (TA)

**Email:** [villacis@wiso.uni-koeln.de](mailto:villacis@wiso.uni-koeln.de) (will not be answered until October)

**Office:** 7.20, WiSo building

**Office Hours:** please make an appointment by mail

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## Course Overview

This seminar will focus on discussing recent advances in economic research on the persistence of historical events and factors affecting long-run socio-economic development and growth. During the seminar, we will cover research that investigates how geography, institutions, culture, human capital, and technology shape economic development by generating heterogeneity in income, inequality, migration, and conflict.

Each of the assigned papers analyzes events and factors that affect historical or contemporary economic development and growth. The literature covered in this seminar relies on sophisticated econometric methods to identify causal effects that will help us understand the reasons why regions across the world are poorer than others. The suggested papers are chosen to deepen the acquired knowledge in both economic history and econometric methods.

The seminar can be attended in combination with any of courses in the specialization 'Growth, Labor and Inequality in the Global Economy'. In particular, it constitutes a **natural supplement to the lecture "Determinants of Growth in Economic History"** which studies similar issues and uses similar econometric techniques. A natural chronology would be to first attend the lecture in the Summer Term and subsequently attend the seminar in the Winter Term.

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## Requirements

**Qualifications:** The course is designed for Master students with knowledge at the level of Basismodul Econometrics I oder Basismodul Econometrics (Research Track). In particular, knowledge of identification methods such as Instrumental Variables, Difference-in-Differences, Panel Estimation with Fixed Effects, and Regression Discontinuity Design will be highly advantageous.

**Language:** The course is taught in English and good command of the English language is assumed. In particular, all assignments are to be delivered in English.

**Course Readings:** Students are expected to have read *all* listed papers before the seminar meeting in December. The success of the course critically hinges on students reading the relevant material and actively participating in class discussions.

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## Assessment

Passing of the course is based on a threefold assessment. Successful participants must:

- **actively participate in class.** Students are expected to read *all* listed papers and prepare two comments and/or questions for each of the papers which are to be submitted along with their presentation slides. Further details will be provided in class. **(20%)**.
  - **deliver a presentation of their allocated topic.** Presentations should last 30 minutes *plus* a 15 minutes discussion. Students should introduce the research question, concisely retrace the argument, provide a brief summary of the historical background, the data, the main result, and motivate the main econometric approach. Students are further expected to provide a critical assessment of their allocated paper. Further details will be provided in class. **(30%)**.
  - **write a term paper on the topic of their presentation due on January 7, 2019.** Beyond following the general structure of their presentation, students should draw insightful connections to the surrounding literature and expand on their critical review of their allocated paper. The term paper must not exceed 5000-6000 words (approx. 10-12 pages). It is strongly advised to write the term paper based on the knowledge gained throughout the seminar. **(50%)**
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## Important Dates

- September 19, 2018: Last day of registration via KLIPS (LV-Nr 14302.0903).
- October 11, 2018: Compulsory introductory meeting with introduction of seminar paper topics in seminar room 510. Official registration forms for the examination office are handed out. Participants can fill out the registration form during this meeting or hand it in at the CMR-office (Room 7.24-7.25 WiSo-Building) within two days.
- October 15, 2018: Deadline for submission of students' five most preferred topics via email to [villacis@wiso.uni-koeln.de](mailto:villacis@wiso.uni-koeln.de).
- October 17, 2018: Announcement of paper allocation via email.

- December 4, 2018, midnight: Submission deadline for presentation slides, comments and/or questions (see “Assessment”).
  - December 7 and 8, 2018: Student presentations and discussions in seminar room 510.
  - January 7, 2019, midnight: Submission deadline for seminar papers.
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## Required Reading

The following paper provides an introduction to the topic. Every participant is **expected to have read this paper** to build common ground for discussions at the seminar.

Nunn, N. (2009). The Importance of History for Economic Development. *Annual Review Economics*, 1(1): 65–92. [[link](#)]

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## Topics (tentative)

Below, possible presentation and term paper topics are specified, including title, abstract, econometric methodology. The associated stable link will allow to download the paper from the publisher’s homepage (Note: You can access the papers from within the university wifi, using a VPN connection, or using a university computer, e.g. at the library). The list of topics may be slightly adjusted until the introductory meeting on October 11, 2018.

## Block 1: Geography

**Paper 01:** Mayshar, J., Moav, O., Neeman, Z., & Pascali, L. (2018). The Emergence of Hierarchies and States: Productivity vs. Appropriability. *CEPR Discussion Papers 10742*. [\[link\]](#)

**Abstract:** According to conventional theory, hierarchies and states were formed following the Neolithic Revolution because the increase in land productivity generated a food surplus. Regional differences in state hierarchies are therefore explained by differences in land productivity. We challenge this productivity-and-surplus theory, proposing that differences in appropriability, and not in productivity, account for differences in hierarchy between regions. To test our proposition, we follow the claim that cereals are easier to appropriate than most other crops. Utilizing several data sets, spanning several millennia, we find that the causal effect of the cultivation of cereals on hierarchy is significant, and leaves nothing that can be explained by land productivity per se.

**Methodology:** OLS, Logit, Instrumental Variables, Cross sectional data

**Paper 02:** Andersen, T. B., Dalgaard, C., & Selaya, P. (2016). Climate and the Emergence of Global Income Differences. *The Review of Economic Studies*, 83(4): 1334-1363. [\[link\]](#)

**Abstract:** The latitude gradient in comparative development is a striking fact: as one moves away from the equator, economic activity rises. While this regularity is well known, it is not well understood. Perhaps the strongest correlate of (absolute) latitude is the intensity of ultraviolet radiation (UV-R), which epidemiological research has shown to be a cause of a wide range of diseases. We establish that UV-R is strongly and negatively correlated with economic activity, both across and within countries. We propose and test a mechanism that links UV-R to current income differences via the impact of disease ecology on the timing of the take-off to sustained growth.

**Methodology:** OLS, Instrumental Variables, Cross sectional data

**Paper 03:** Waldinger, Maria. (2015). The Economic Effects of Long-Term Climate Change: Evidence from the Little Ice Age. *Centre for Climate Change Economics and Policy Working Paper No. 239*. [\[link\]](#)

**Abstract:** Recent studies have consistently found important economic effects of year-to-year weather fluctuations. This paper studies the economic effects of long-term and gradual climate change, over a period of 250 years, when people have time to adapt. In particular, I study the effects of the Little Ice Age, a historical episode of long-term climate change. Results show significant negative economic effects of long-term climate change. Cities with good access to trade were substantially less affected. Results from yearly historical wheat prices and yield ratios show that temperature change impacted economic growth through its effect on agricultural productivity. Further evidence shows a lack of adaptation. I show evidence of the relevance of these results to the context of contemporary developing countries and recommend ways in which these findings may improve Integrated Assessment Models.

**Methodology:** Fixed Effects Regression, Panel data

**Paper 04:** Feir, D., Gillezeau, R., & Jones, M. (2017). The Slaughter of the Bison and the Reversal of Fortunes on the Great Plains. *University of Victoria DDP1701*. [\[link\]](#)

**Abstract:** In the late 19th century, the North American bison was slaughtered in a dramatic near-extinction episode that occurred in a period of just over ten years. We argue that the rapidity of this slaughter led to a reversal of fortunes for the Native American societies that relied on the bison. We exploit regional variation in the speed at which the bison were slaughtered and tribal variation in bison-dependence to show that bison-dependent Native American tribes suffered a significant change in living

standards immediately after the bison near-extinction, as measured by changes in height. Once the tallest people in the world, the generations of bison-dependent people born after the slaughter were amongst the shortest. We show that these effects persist into the present: formerly bison-dependent societies have between 20-40% less income per capita in 2000 than the average Native American nation, and this effect is strongest among the least historically diverse economies. Our results are robust to the inclusion of cultural, colonial, contemporary, and geographic factors and hold in both Canada and the United States. Although the living conditions of historically bison-dependent nations improved modestly between 1910 and 2010, as measured by standardized occupational rank, outcomes remain lower than non-bison-dependent nations, particularly for those living on Native American reservations. We suggest that the restrictions on mobility and economic diversification that were placed on Native Americans by federal Indian policy during the 19th and 20th centuries likely hampered the ability of these economies to adjust in the long-run.

**Methodology:** Difference-in-Differences, Panel data

## **Block 2: Institutions**

**Paper 05:** Bentzen, J. S., Kaarsen, N., & Wingender, A. M. (2017). Irrigation and Autocracy. *Journal of the European Economic Association*, 15(1): 1-53. [[link](#)]

**Abstract:** Irrigated agriculture makes societies more likely to be ruled by authoritarian regimes. Ancient societies have long been thought to follow this pattern. We empirically show that irrigation affects political regimes even in the present. To avoid endogeneity, we use geographical and climatic variation to identify irrigation dependent societies. We find that countries whose agriculture depended on irrigation are about six points less democratic on the 21-point polity2 scale than countries where agriculture has been rainfed. We find qualitatively similar results across regions within countries. We argue that the effect has historical origins: irrigation allowed landed elites in arid areas to monopolize water and arable land. This made elites more powerful and better able to oppose democratization. Consistent with this conjecture, we show that irrigation dependence predicts land inequality both at the country level, and in premodern societies surveyed by ethnographers.

**Methodology:** OLS, Instrumental Variables, Cross sectional data

**Paper 06:** Michalopoulos, S. & Papaioannou, E. (2016). The Long-Run Effects of the Scramble for Africa. *American Economic Review*, 106(7): 1802-1848. [[link](#)]

**Abstract:** We explore the consequences of ethnic partitioning, a neglected aspect of the Scramble for Africa, and uncover the following. First, apart from the land mass and water bodies, split and non-split groups are similar across several dimensions. Second, the incidence, severity, and duration of political violence are all higher for partitioned homelands which also experience frequent military interventions from neighboring countries. Third, split groups are often entangled in a vicious circle of government-led discrimination and ethnic wars. Fourth, respondents from survey data identifying with split ethnicities are economically disadvantaged. The evidence highlights the detrimental repercussions of the colonial border design.

**Methodology:** Linear Probability Model, Negative Binomial, Maximum Likelihood Estimation, Cross sectional data

**Paper 07:** Lowes, S. R. & Montero, E. (2018). The Legacy of Colonial Medicine in Central Africa. *CEPR Discussion Paper No. DP12772*. [[link](#)]

**Abstract:** Between 1921 and 1956, French colonial governments organized medical campaigns to treat and prevent sleeping sickness. Villagers were forcibly examined and injected with medications with severe, sometimes fatal, side effects. We digitized thirty years of archival records to document the locations of campaign visits at a granular geographic level for five central African countries. We find that greater historical exposure to the campaigns reduces trust in medicine - measured by willingness to consent to a free, non-invasive blood test. The resulting mistrust is specific to the medical sector. We examine relevance for present day health initiatives; we find that World Bank projects in the health sector are less successful in areas with greater exposure to the campaigns.

**Methodology:** OLS, Instrumental Variables, Cross sectional data

**Paper 08:** Dell, M. & Olken, B. A. (2017). The Development Effects of the Extractive Colonial Economy: The Dutch Cultivation System in Java. *NBER Working Paper No. 24009*. [\[link\]](#)

**Abstract:** Colonial powers typically organized economic activity in the colonies to maximize their economic returns. While the literature has emphasized long-run negative economic impacts via institutional quality, the changes in economic organization implemented to spur production historically could also directly influence economic organization in the long-run, exerting countervailing effects. We examine these in the context of the Dutch Cultivation System, the integrated industrial and agricultural system for producing sugar that formed the core of the Dutch colonial enterprise in 19th century Java. We show that areas close to where the Dutch established sugar factories in the mid-19th century are today more industrialized, have better infrastructure, are more educated, and are richer than nearby counterfactual locations that would have been similarly suitable for colonial sugar factories. We also show, using a spatial regression discontinuity design on the catchment areas around each factory, that villages forced to grow sugar cane have more village owned land and also have more schools and substantially higher education levels, both historically and today. The results suggest that the economic structures implemented by colonizers to facilitate production can continue to promote economic activity in the long run, and we discuss the contexts where such effects are most likely to be important.

**Methodology:** Regression Discontinuity Design, Cross sectional data

### **Block 3: Culture**

**Paper 09:** Gorodnichenko, Y., & Roland, G. (2017). Culture, Institutions, and the Wealth of Nations. *The Review of Economics and Statistics*, 99(3): 402-416. [\[link\]](#)

**Abstract:** We argue that a more individualist culture leads to more innovation and to higher growth because of the social status rewards associated with innovation in that culture. We use data on the frequency of particular genes associated with collectivist cultures, as well as a measure of distance in terms of frequencies of blood types, and historic prevalence of pathogens to instrument individualism scores. The relationship between individualism and innovation/growth remains strong even after controlling for institutions and other potentially confounding factors. We also provide evidence consistent with two-way causality between culture and institutions.

**Methodology:** OLS, Instrumental Variables, Cross sectional data

**Paper 10:** Grosjean, P., & Rose Khattar (2018). Its Raining Men! Hallelujah? The Long-Run Consequences of Male-Biased Sex Ratios. *The Review of Economic Studies*, forthcoming [\[link\]](#)

**Abstract:** We document the short- and long-run effects of male-biased sex ratios. We exploit a natural historical experiment where large numbers of male convicts and far fewer female convicts were sent to

Australia in the 18th and 19th centuries. In areas with more male-biased sex ratios, women were historically more likely to get married and less likely to work outside the home. In these areas today, both men and women continue to have more conservative attitudes towards women working, and women work fewer hours outside the home. While these women enjoy more leisure, they are also less likely to work in high-ranking occupations. We demonstrate that the consequences of uneven sex ratios on cultural attitudes, labour supply decisions, and occupational choices can persist in the long run, well after sex ratios are back to the natural rate. We document the roles of vertical cultural transmission and marriage homogamy in sustaining this cultural persistence.

**Methodology:** Fixed Effects Regression, Instrumental Variables, Panel data

**Paper 11:** Bazzi S., Fiszbein M., & Gebresilasse M. (2018). Frontier Culture: The Roots and Persistence of "Rugged Individualism" in the United States. *NBER Working Paper No. 23997*. [\[link\]](#)

**Abstract:** The presence of a westward-moving frontier of settlement shaped early U.S. history. In 1893, the historian Frederick Jackson Turner famously argued that the American frontier fostered individualism. We investigate the Frontier Thesis and identify its long-run implications for culture and politics. We track the frontier throughout the 1790-1890 period and construct a novel, county-level measure of total frontier experience (TFE). Historically, frontier locations had distinctive demographics and greater individualism. Long after the closing of the frontier, counties with greater TFE exhibit more pervasive individualism and opposition to redistribution. This pattern cuts across known divides in the U.S., including urban-rural and north-south. We provide suggestive evidence on the roots of frontier culture: selective migration, an adaptive advantage of self-reliance, and perceived opportunities for upward mobility through effort. Overall, our findings shed new light on the frontier's persistent legacy of rugged individualism.

**Methodology:** Fixed Effects Regression, Instrumental Variables, Panel data

**Paper 12:** Becker, S. O. & Pascali, L. (2016). Religion, Division of Labor and Conflict: Anti-Semitism in German Regions over 600 Years. *CAGE Working Paper 288/2016*. [\[link\]](#)

**Abstract:** Anti-Semitism continues to be a widespread societal problem rooted deeply in history. Using novel city-level data from Germany for more than 2,000 cities and county-level data, we study the role of economic incentives in shaping the co-existence of Jews, Catholics and Protestants. The Catholic ban on usury gave Jews living in Catholic regions a specific advantage in the moneylending sector. Following the Protestant Reformation (1517), the Jews lost this advantage in regions that became Protestant but not in those regions that remained Catholic. We show that 1) the Protestant Reformation induced a change in the geography of anti-Semitism with persecutions of Jews and anti-Jewish publications becoming more common in Protestant areas relative to Catholic areas; 2) this change was more pronounced in cities where Jews had already established themselves as moneylenders; 3) the Reformation reduced the specialization of Jews in the financial sector in Protestant regions but not in Catholic regions. We interpret these findings as evidence that, following the Protestant Reformation, the Jews living in Protestant regions lost their comparative advantage in lending. This change exposed them to competition with the Christian majority leading, eventually, to an increase in anti-Semitism.

**Methodology:** Difference-in-Differences, Panel data

## **Block 4: Technology and Human Capital**

**Paper 13:** Xue, Melanie M. (2016). High-Value Work and the Rise of Women: The Cotton Revolution and Gender Equality in China. *UCLA mimeo*. [\[link\]](#)

**Abstract:** The cotton revolution (1300-1840 AD) in imperial China constituted a substantial shock to the value of women's work. Using historical gazetteers, I exploit variation in cotton textile production across 1,489 counties and establish a robust negative relationship between high-value work opportunities for women in the past and sex ratio at birth in 2000. To overcome potential endogeneity in location, I use an instrument pertaining to suitability for cotton weaving. I find evidence that premodern cotton textile production permanently changed cultural beliefs about women's worth, and that its effects have persisted beyond 1840 and endured under various political and economic regimes.

**Methodology:** Instrumental Variables, Cross sectional data

**Paper 14:** Boerner, L., & Severgnini B. (2016). Time for Growth. *LSE Economic History Working Paper No. 222/2015*. [\[link\]](#)

**Abstract:** This paper studies the impact of the early adoption of one of the most important high-technology machines in history, the public mechanical clock, on long-run growth in Europe. We avoid endogeneity by considering the relationship between the adoption of clocks with two sets of instruments: distance from the first adopters and the appearance of repeated solar eclipses. The latter instrument is motivated by the predecessor technologies of mechanical clocks, astronomic instruments that measured the course of heavenly bodies. We find significant growth rates between 1500 and 1700 in the range of 30 percentage points in early adopter cities and areas.

**Methodology:** Instrumental Variables, Difference-in-Differences, Panel data

**Paper 15:** Abramitzky, R., & Sin, I. (2014). Book Translations as Idea Flows. The Effects of the Collapse of Communism on the Diffusion of Knowledge. *Journal of the European Economic Association*, 12(6): 1453-1520. [\[link\]](#)

**Abstract:** We use book translations as a new measure of international idea flows and study the effects of Communism's collapse in Eastern Europe on these flows. Using novel data on 800,000 translations and difference-in-differences approaches, we show that while translations between Communist languages decreased by two thirds with the collapse, Western-to-Communist translations increased by a factor of 4 and quickly converged to Western levels. Convergence was more pronounced in the fields of applied and social sciences, and was more complete in Satellite and Baltic than in Soviet countries. We discuss how these patterns help us understand how repressive institutions and preferences towards Western European ideas shaped the international diffusion of knowledge.

**Methodology:** OLS, Difference-in-Differences, Panel data

**Paper 16:** Squicciarini, M. O., & Voigtlander, N. (2015). Human Capital and Industrialization. Evidence from the Age of Enlightenment. *The Quarterly Journal of Economics*, 130(4): 1825-1883. [\[link\]](#)

**Abstract:** While human capital is a strong predictor of economic development today, its importance for the Industrial Revolution has typically been assessed as minor. To resolve this puzzling contrast, we differentiate average human capital (literacy) from upper-tail knowledge. As a proxy for the historical presence of knowledge elites, we use city-level subscriptions to the famous Encyclopédie in mid-18th century France. We show that subscriber density is a strong predictor of city growth after the onset of French industrialization. Alternative measures of development such as soldier height, disposable income, and industrial activity confirm this pattern. Initial literacy levels, on the other hand, are associated with development in the cross-section, but they do not predict growth. Finally, by joining data on British patents with a large French firm survey from the 1840s, we shed light on the mechanism: upper-tail knowledge raised productivity in innovative industrial technology.

**Methodology:** OLS, Propensity Score Matching, Cross sectional data



## Block 5: Migration

**Paper 17:** Franck, R., & Michalopoulos, S. (2018). Emigration during the French Revolution *NBER Working Paper No. 23936*. [\[link\]](#)

**Abstract:** During the French Revolution, more than 100,000 individuals, predominantly supporters of the Old Regime, fled France. As a result, some areas experienced a significant change in the composition of the local elites whereas in others the pre-revolutionary social structure remained virtually intact. In this study, we trace the consequences of the migrants' flight on economic performance at the local level. We instrument emigration intensity with local temperature shocks during an inflection point of the Revolution, the summer of 1792, marked by the abolition of the constitutional monarchy and bouts of local violence. Our findings suggest that migrants have a non monotonic effect on comparative development. During the 19th century, there is a significant negative impact on income per capita, which becomes positive from the second half of the 20th century onward. This pattern can be partially attributed to the reduction in the share of the landed elites in high-emigration regions. We show that the resulting fragmentation of agricultural holdings reduced labor productivity, depressing overall income levels in the short run; however, it facilitated the rise in human capital investments, eventually leading to a reversal in the pattern of regional comparative development.

**Methodology:** OLS, Instrumental Variables, Panel data

**Paper 18:** Sequeira, S., Nunn, N., & Qian, N. (2017). Migrants and the Making of America: The Short and Long-Run Effects of Immigration During the Age of Mass Migration. *NBER Working Paper No. 23289*. [\[link\]](#)

**Abstract:** We study the effects of European immigration to the United States during the Age of Mass Migration (1850-1920) on economic prosperity today. We exploit variation in the extent of immigration across counties arising from the interaction of fluctuations in aggregate immigrant flows and the gradual expansion of the railway network across the United States. We find that locations with more historical immigration today have higher incomes, less poverty, less unemployment, higher rates of urbanization, and greater educational attainment. The long-run effects appear to arise from the persistence of sizeable short-run benefits, including greater industrialization, increased agricultural productivity, and more innovation.

**Methodology:** OLS, Instrumental Variables, Panel data

**Paper 19:** Fouka, V., Mazumder, S., & Tabellini, M. (2018). From Immigrants to Americans: Race and Assimilation during the Great Migration. *University of Stanford, mimeo*. [\[link\]](#)

**Abstract:** How does the appearance of a new out-group affect the economic, social, and cultural integration of previous outsiders? We study this question in the context of the first Great Migration (1915-1930), when 1.5 million African Americans moved from the US South to urban centers in the North, where 30 million Europeans had arrived since 1850. We test the hypothesis that black inflows led to the establishment of a binary black-white racial classification, and facilitated the incorporation of previously racially ambiguous European immigrants into the white majority. We exploit variation induced by the interaction between 1900 settlements of southern-born blacks in northern cities and state-level outmigration from the US South after 1910. Black arrivals increased both the effort exerted by immigrants and their eventual Americanization. These average effects mask substantial heterogeneity: while initially less integrated groups (i.e. Southern and Eastern Europeans) exerted more effort, assimilation success was larger for those that were culturally closer to native whites (i.e. Western and Northern Europeans). These patterns are consistent with a framework in which perceptions of racial threat among native whites lower the barriers to the assimilation of white immigrants.

**Methodology:** OLS, Instrumental Variables, Panel data

**Paper 20:** Ochsner, C., & Roesel, F. (2016). Migrating Extremists. *CESiifo Working Paper No. 5799*. [\[link\]](#)

**Abstract:** We show that migrating extremists shape political landscapes toward their ideology in the long run. We exploit the unexpected division of the state of Upper Austria into a US and a Soviet occupation zone after WWII. Zoning prompts large-scale Nazi migration to US occupied regions. Regions that witnessed a Nazi influx exhibit significantly higher voting shares for the right-wing Freedom Party of Austria (FP) throughout the entire post-WWII period, but not before WWII. We can exclude other channels that may have affected post-war elections, including differences in US and Soviet denazification and occupation policies, bomb attacks, Volksdeutsche refugees and suppression by other political parties. We show that extremism is transmitted through family ties and local party branches. We find that the surnames of FP local election candidates in 2015 in the former US zone are more prevalent in 1942 phonebook data (Reichstelefonbuch) of the former Soviet zone compared to other parties.

**Methodology:** Regression Discontinuity Design, Difference-in-Differences, Panel data