

# Shades of Empire: Evidence from Imperial Transitions in the Baltics

## The Effects of imperial legacies on socio-economic development

### Introduction

In this paper, we explore the long-run effects of imperial legacies in Latvia and Estonia. Based on the Life-In-Transition Survey, we use robust regression discontinuity and identify persistent differential patterns of economic development, social capital and political openness across the borders of the former imperial territories of Estland, Livonia (Swedish Livonia), Lettgallia (Polish Livonia) and Courland that emerged as a result of the breakup of Livonian Confederation (1561). We argue that the underlying cause for this set of differences is the legacy of Swedish vs. Polish imperial rule from mid-16th to mid-/late 18th century. These imperial legacies are drivers of divergent nationalism and development paths in the Baltic region.

Table 1: Imperial rule in the Baltics

Region	13th - 16th century	The Swedish, Polish and Danish rule	The Russian Empire	Present
Estland	Duchy of Estonia (Danish Estonia) 1219-1346 Livonian Confederation 1346-1561	Swedish Estonia 1561-1721	Governorate of Estland 1721-1918	Estonia (North)
Livonia	Livonian Confederation 1346-1561	Livonia* 1561-1629 Swedish Livonia 1629-1721 Danish Ösel/Saaremaa 1559-1645	Governorate of Livonia 1721-1918	Estonia (South) Latvia (Vidzeme)
Lettgallia		Polish Livonia 1562-1772	(Part of) Vitebsk governorate 1772-1918	Latvia (Latgale)
Courland		Duchy of Courland* 1562-1795	Courland governorate 1795-1918	Latvia (Kurzeme and Zemgale)

Notes: \*Vassals to the Polish-Lithuanian Commonwealth

Figure 1: Historical regions of the Baltics: Estland, Livonia, Courland and Lettgallia



Source: Own maps.

### Literature

- Tabellini (2005) shows that prior political institutions and literacy rates at the end of 19th century are important determinants of regional social capital (trust, respect, confidence) and contemporary economic performance in Western Europe.
- Easterly and Levine (2016) find a remarkably strong impact of colonial European settlement on development and they identify human capital as the main channel in that direction.
- Spolaore and Wacziarg (2013) argue that a higher proportion of descendants from technologically more advanced territories five hundred, or even a thousand years ago, leads to higher income per capita in these territories nowadays.
- A large body of literature focuses on the role of institutions in economic performance, e.g. North (1990, 1994), Acemoglu et al. (2002, 2005, 2006), Williamson (1995), and many more.
- Quasi-experimental methods prove the importance of institutions by allowing to identify similarities or differences in communities that used to belong in a homogenous society but were divided by a "political" border in the context of a historical natural experiment. See e.g. Michalopoulos and Papaioannou (2010).

### Data

- 1) **State data** and data from official registries (incl. census data), such as population, income, education level, unemployment level, soil fertility, number of Lutheran churches, election data of the last parliamentary elections, etc.
- 2) **Survey data:** we use individual-level (household) responses from the Life in Transition Survey III (conducted in 2015/16) to construct measures of values and attitudes, such as trust, risk taking, obedience to law, attitude towards market economy or income equality, etc. The localization of respondents is available at a sub-municipal level (48 and 42 sample points in Latvia and Estonia, respectively). The measures are aggregated to the level of districts of the Russian Empire in 1898 (data available for 41 out of 58 districts).
- 3) **Geographic data:** we use a historical map of the governorates of Livonia, Estland and Courland produced in Riga in 1898 from the 1900 Map Collection to create digital maps of the governorates and districts of the Russian Empire in the territory of contemporary Latvia and Estonia.

Table 3: Descriptive statistics

Variable	Full sample					Latvia	Estonia
	N	Min	Max	Mean	SD	Mean	Mean
Trust	2788	-2.00	2.00	-0.05	1.08	-0.12	0.10
Risk taking	2745	1.00	10.00	4.42	2.56	4.57	4.11
Obedience to law	2698	1.00	10.00	7.09	2.95	6.99	7.27
Respect for authorities	2654	1.00	10.00	3.29	2.58	3.25	3.37
Trust in government	2709	-2.00	2.00	-0.61	1.13	-0.72	-0.38
Prefer market to planned economy	2565	-1.00	1.00	0.00	0.76	-0.01	0.01
Prefer democracy to autocracy	2699	-1.00	1.00	0.24	0.80	0.18	0.36
Prefer more income equality	2729	-2.00	2.00	1.25	0.72	1.27	1.21
Competition	2729	1.00	10.00	7.60	2.44	7.41	7.79
Catholic	2815	0.00	1.00	0.13	0.33	0.18	0.01
Lutheran	2815	0.00	1.00	0.28	0.45	0.31	0.22
Orthodox Christian	2815	0.00	1.00	0.24	0.43	0.20	0.34
Atheist	2815	0.00	1.00	0.29	0.45	0.24	0.37
Number of Lutheran churches	800	0	24	0.57	1.11	0.49	0.78
Pro-EU vote	51	0.32	0.92	0.69	0.12	0.71	0.66
Votes for center-left parties	143	0.01	0.69	0.13	0.13	0.13	0.16
Votes for right-wing parties	143	0.03	0.04	0.24	0.08	0.27	0.09
Income (2016)	800	317.23	1504.98	734.75	202.30	644.89	983.98
Income (2015)	800	276.88	1442.50	683.87	197.71	595.34	929.43
Income (2014)	800	226.94	1279.06	620.49	155.10	567.46	767.56
Higher education	800	0.04	0.50	0.15	0.06	0.13	0.20
Literacy	800	0.91	1.00	1.00	0.01	1.00	1.00
Unemployment	800	0.00	0.21	0.05	0.03	0.06	0.02
Ethnic minority	800	0.00	0.95	0.18	0.20	0.20	0.13
Soil Fertility	733	11.00	66.34	36.34	7.37	37.17	34.30

### Methods

After the collapse of the Livonian Confederation, the Baltic regions experienced different cultural-historical treatments under Polish and Swedish imperial rule, and after the Great Northern War, under the Russian Empire. This allows us to use quasi-experimental methods to identify differences in communities that were divided by a "political" border. To estimate whether affiliation with the historical has a lasting effect on socioeconomic development, personal values, political and religious preferences, we follow the empirical strategy of Grosfeld and Zhuravskaya (2015) and use a one-dimensional regression discontinuity model:

$$Outcome_i = \alpha_i Region_i + \delta_i Distance_i + \beta_i Region_i Distance_i + \epsilon_i$$

where Outcome indicates a contemporary outcome variable from the official or survey data.

Furthermore, we implement the robust regression discontinuity method introduced by Calonico, Cattaneo and Titiunik (2014, 2015, 2017); the key assumption underpinning this approach is that the political borders that emerged in the Baltics in the aftermath of the collapse of the Livonian Confederation were exogenously defined.

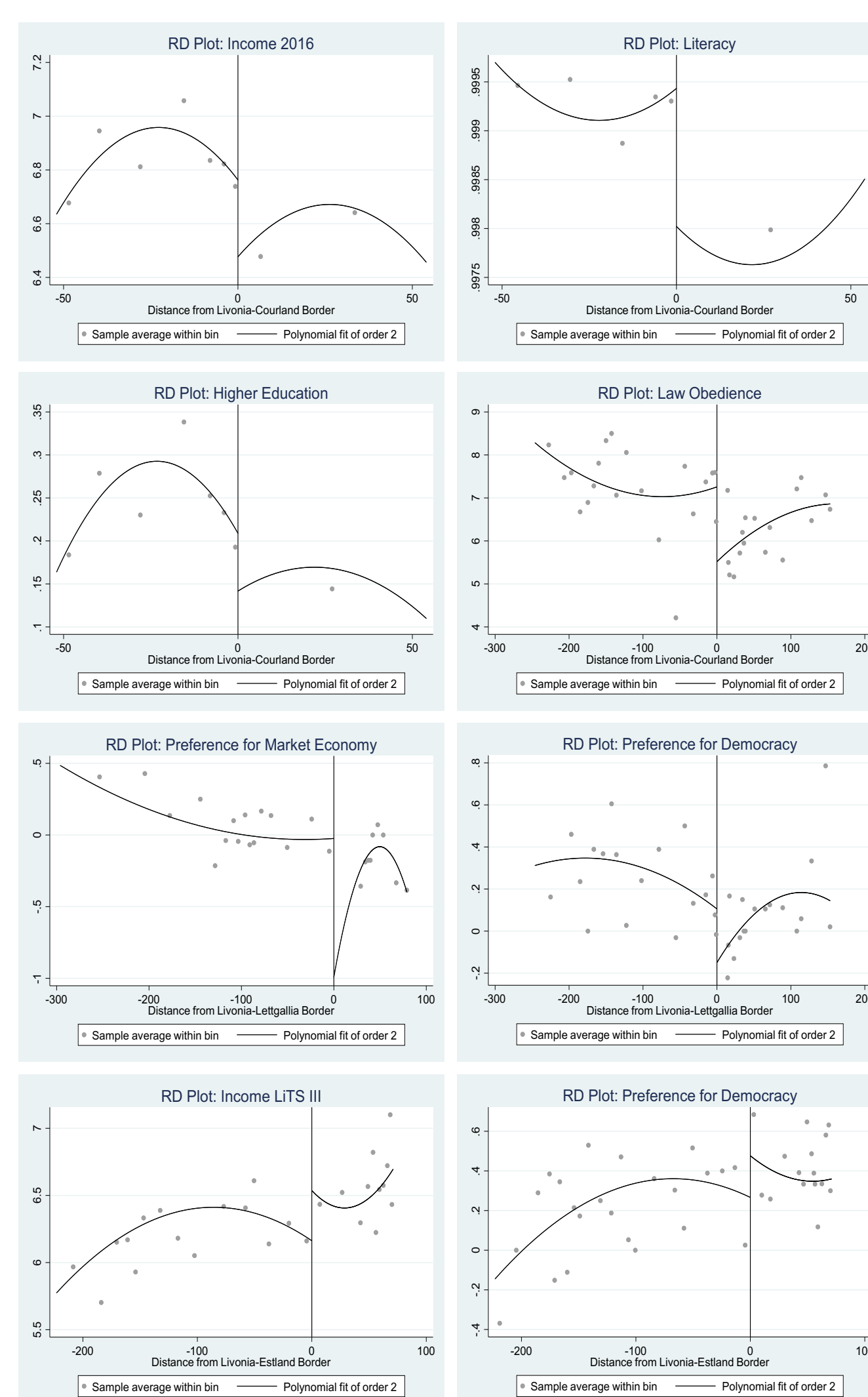
### Results

#### The Breakup of the Livonian Confederation (1561)

- 1) **Livonia-Courland** political border has generated long-run differences in socioeconomic development in favor of Livonia, which was under Swedish imperial rule. Income, literacy, higher education level, preferences for income equality, market economy and generalized trust, as well as the rejection of authority are significantly higher in Livonia than in Courland (1% level significance for all except higher ed. with 5%).
- 2) **Livonia-Lettgallia:** no sufficient state data; significantly (1%) stronger preference for democracy, market economy, and a higher commitment to institutions in former Livonian territories. A statistically significant difference in trust in government across the border confirms the existence of a more advanced institutional and infrastructural legacy on the Livonian side of the border, which is due to Swedish imperial rule in the aftermath of the breakup of Livonian Confederation.
- 3) **Estland-Livonia** border reveals only low levels of statistical significance, which is explained by the fact that both Livonia and Estland were under the influence of Swedish imperial rule. A stronger preference for democracy (1%) and a higher income (5%) in Estland. However, we do not find any robust evidence for the long-run persistence of the Livonia-Estland border.

#### Robustness check: Differential annexation by the Russian Empire (18th century)

Earlier rather than later integration into the Russian Empire has facilitated overall higher levels of socio-economic development in the Baltics. The different treatment of former Swedish and Polish territories by Russian officials is also endogenous to the breakup of the Livonian Confederation itself. The statistical significance of the Nystad border reflects elite dynamics determined under Polish and Swedish tutelage and prior to the annexation of Livonia and Estland by the Russian Empire. The German nobility that was largely concentrated in Estland and Livonia was willing to serve the Russian crown, which was not the case for the Polish nobility of Lettgallia and Courland that joined the Russian Empire in 1772 and 1795 respectively and was less willing to abide by Russian rule throughout the 19th century. Hence, this is a post-treatment difference that complements our original hypothesis about the cleavage between Swedish and Polish imperial legacies in the Baltic region.



### Conclusions

- The long-run nature of the Swedish-Polish imperial cleavage that shapes contemporary socio-economic development and political openness in the Baltic region has been confirmed. While Swedish imperial tutelage facilitated literacy and introduced Estonian and Latvian identity in politics, the Polish-Lithuanian Commonwealth underscored the significance of diversity and interethnic tolerance. This explains why Polish-dominated regions are more likely to vote for the center-left and be more acceptant of the Russian minority, whereas Swedish-dominated regions are more likely to vote in favor of right-wing parties and advocate the EU and NATO perspectives.
- The Livonia-Lettgallia and Livonia-Courland borders are much more persistent than that of Estland-Livonia, mainly due to the different imperial legacies underpinning the first two borders. Swedish-led Livonia displays higher levels of socioeconomic development than Polish-led Lettgallia, while the Polish imperial legacy generates stronger preferences for authority and centralized governance. The differences in development and political preferences become more acute at the Livonia-Courland border. Despite its independence status, respondents in former Courland territories have socioeconomic preferences closer to respondents in former Lettgallian rather than in former Livonian or Estland territories. The Swedish imperial legacy, which explains the socioeconomic and political preponderance of Livonia over Courland and Lettgallia, also captures the higher levels of political openness and wealth in Estland compared to Livonia. The longer duration of Swedish imperial rule in Estland thus validates our initial hypothesis about the lasting effects of imperial borders, which is also supported by Grosfeld and Zhuravskaya (2015).
- The differential timing of annexation by the Russian Empire and the location of the Pale of Settlement in Lettgallia do not alter the long-run socio-economic importance of the Swedish-Polish cleavage. In the context of overlapping empires in the Baltic region, we underscore the persistent effects of competing imperial rules and how they have shaped the political map of East-Central Europe.