Regime Changes and Economic Preferences: Global Evidence

Milestone 2: Data

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Sources

In our project, we are making use of 3 datasets:

- Vdem (Coppedge et al. (2025)) dataset comes also as an R package:`vdemdata`. This dataset contains various democracy indicators for 202 countries starting of year 1789. We will be using the **Liberal democracy index which** combines many of these indicators into a single number for each country/year.

- Global Preference Survey (Falk et al. (2018)) dataset was downloaded as a ZIP file from the following website. This dataset contains information about economic preferences of 80337 individuals from 76 countries. The survey was conducted between 2012 and 2013.

- Data on country's GDP's was downloaded from the Maddison Project Database 2023 (Bolt and Zanden (2025)). This dataset was downloaded on 5th May 2025.

Data

The following table shows how were the economic preferences from the GPS survey (Falk et al. (2018)) measured.

Preference	Measurement Approach	Description	Scale (min–max)
Time Preference/Patience	Combined quantitative and qualitative	• Quantitative: Five binary choices between immediate vs. delayed financial rewards (today or in 12 months) • Qualitative: Self-assessment on willingness to wait (11-point Likert scale)	-1.3 – 2.8
Risk Preference	Combined quantitative and qualitative	• Quantitative: Five binary choices between fixed lottery and varying sure payments • Qualitative: Self-assessment (11-point Likert scale)	-1.9 – 2.5
Positive Reciprocity	Combined quantitative and qualitative	• Quantitative: Scenario about giving a gift to a helpful stranger (choice of presents worth 5-30 euros) • Qualitative: Self-assessment on willingness to return favors (11-point Likert scale)	-3.8 – 1.3
Negative Reciprocity	Three qualitative self-assessments	• Willingness to take revenge at personal cost • Willingness to punish unfair behavior toward self • Willingness to punish unfair behavior toward others (prosocial punishment)	-1.6 – 2.3
Altruism	Combined quantitative and qualitative	• Quantitative: Hypothetical donation scenario (how much of 1,000 euros would be donated) • Qualitative: Self-assessment on willingness to give without expecting returns (11-point Likert scale)	-2.6 – 1.7
Trust	Single qualitative item	• Self-assessment on whether others have the best intentions (11-point Likert scale)	-2 – 1.7

Value	Measurement approach	Description	Scale (min – max)
Liberal democracy index (v2x_libdem)	Aggregation of **55 unique indicators** using Bayesian factor analysis	The indicators come from the Liberal Democracy index and Liberal component index. Here you can find the exact indicators.	**0**(least liberal democratic) − **1**(most liberal democratic)

Since we have information about age of each individual during the time of interview in the GPS survey, we were able to calculate their birth years. Then we could determine whether they

experienced a regime change during their formative years. For this, we had to link the V-Dem dataset with the GPS survey data. Our goal was to separate the treated and control group of individuals based on the change of liberal democracy index from the V-Dem dataset. **The treated group in our analysis consists of individuals, who experienced a regime change before turning 21 years old**. We are still considering a range of 18-21 years, since this range aligns with legal adulthood in many countries. We are planning to test multiple thresholds, to see if our results will be robust across different specifications. **The regime change is determined as a year over year change in the Liberal democracy index**. Here we also had to decide on a **threshold**, which we think is rather arbitrary. That is why we are considering a different approach, to capture linear changes of the index, not just sudden changes over years.

Assigning the formative years threshold to 21 years results to the following number of observations in both groups
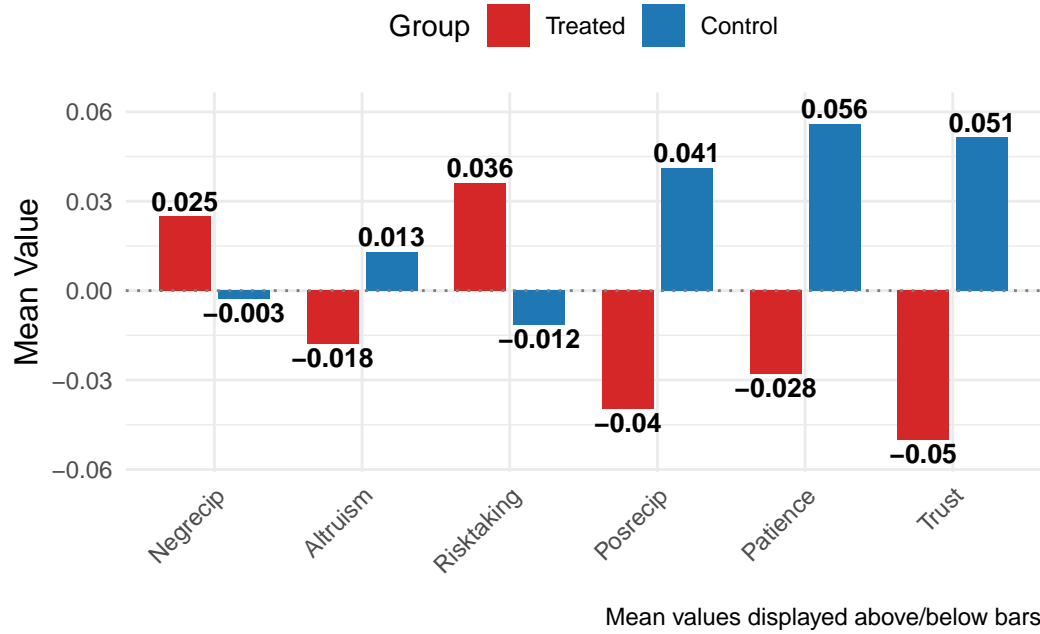
<div align="center">

Table 3

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     0      1
 37601  42736
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Sample period

Our sample period is defined by the birth years of the indviduals, which we calculated based on the age information in the GPS dataset. Each study unit (=individual) appears once. We have data for 80337 individuals.

Variables

Figure 1: Mean Preference Profiles by Regime Change Exposure

Mean values displayed above/below bars

In the Figure 1 you can see simple mean comparison graph between Treated and Control group for all 6 economic preferences.For completeness, we include **summary statistics** table for all 6 economic preferences in Table 4. Table 5 depicts the summary statistics for our control variables.

Table 4: Economic Preferences Comparison by Group

| | Mean (SD) | | |
	Control Group	Treatment Group	Difference
Trust	0.051	-0.050	-0.102***
	(0.998)	(0.991)	(0.007)
Patience	0.056	-0.028	-0.084***
	(1.038)	(0.973)	(0.007)
Risk Taking	-0.012	0.036	0.048***
	(1.007)	(0.989)	(0.007)
Positive	0.041	-0.040	-0.081***
Reciprocity	(0.981)	(1.016)	(0.007)
Negative	-0.003	0.025	0.028***
Reciprocity	(0.981)	(1.005)	(0.007)
Altruism	0.013	-0.018	-0.031***
	(0.998)	(0.993)	(0.007)

Note:
Standard deviations in parentheses. Standard errors for differences in parentheses.
* *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 5: Control Variables Comparison by Group

| | Mean (SD) | | |
	Control Group	Treatment Group	Difference
age	42.705	40.460	-2.245***
	(17.125)	(17.430)	(0.126)
gdppc	21376.276	16003.442	-
	(16600.145)	(13382.343)	5372.834***
			(111.375)
Subjective	5.289	5.144	-0.145***
Math Skills	(2.798)	(2.807)	(0.021)

Note:
Standard deviations in parentheses. Standard errors for differences in parentheses.
* *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

The Figure 2 below depict the average values grouped by country in *2012* and *2013*.

Figure 2: Average Economic Preference Values by Country
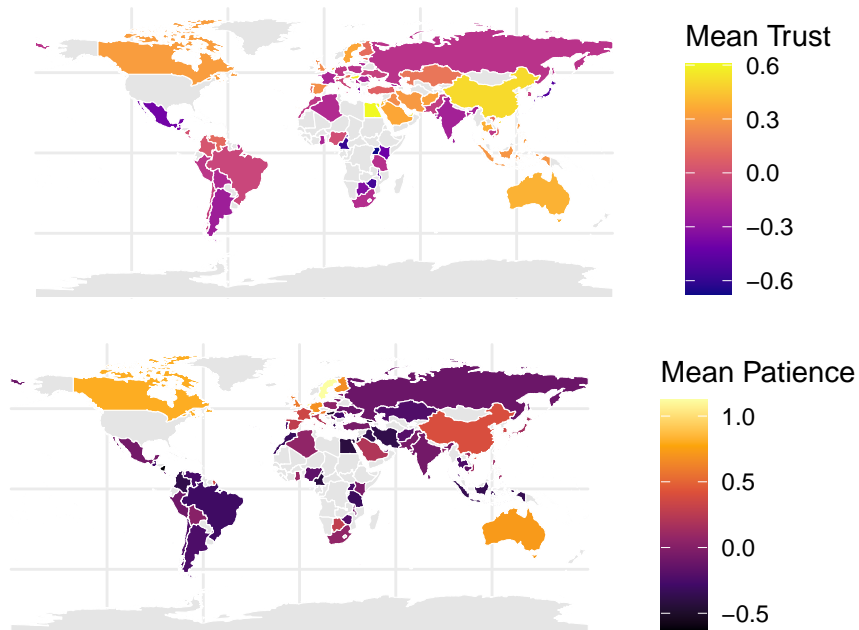
Descriptive statistics

The following figures present a detailed **visual overview of the descriptive statistics**, including distribution histograms, group-level comparisons, and difference-in-differences style visualizations highlighting trends across cohorts.

Figure 3: Distribution of Key Economic Preferences

By regime change exposure during formative years (<21 years)
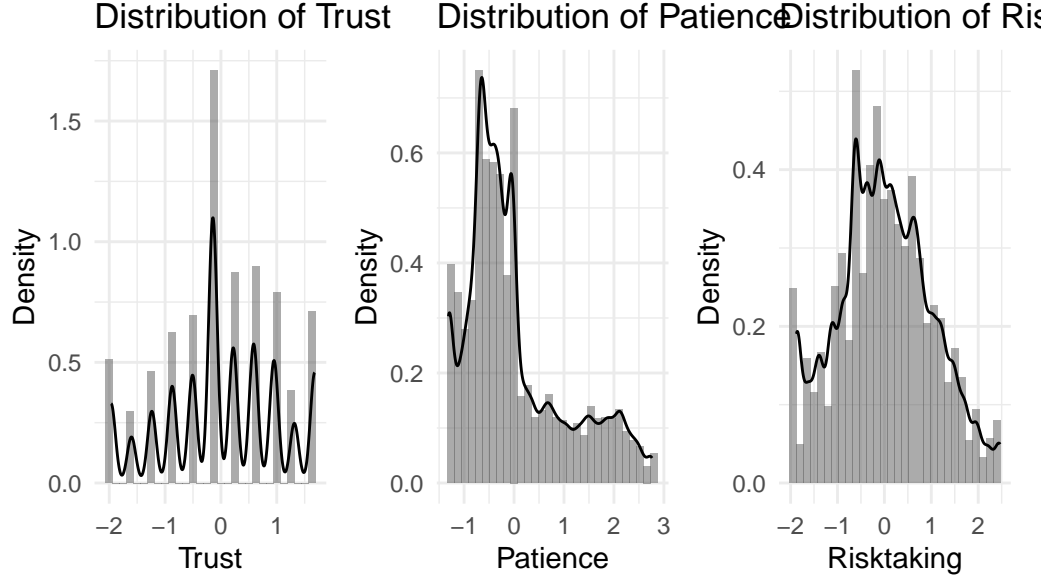
The following figures present additional visualizations of our data. In the following two graphs we are aiming to evaluate the **parallel trends assumption**.

The patience graph shows largely parallel trends for middle-aged groups (30-65), supporting the DiD assumption for these cohorts. A notable divergence appears in older ages (65+), where the no-regime-change group shows sharp decline while the regime-change group remains stable, suggesting potential long-term protective effects of early regime exposure on patience.

The trust graph reveals consistently higher trust levels among those without regime change experience across most age groups.The significant trust gap in youngest cohorts (15-25) provides some evidence supporting the hypothesis that experiencing regime changes during formative years negatively impacts trust development. Interestingly, this gap narrows and even reverses in the oldest cohorts (65+), suggesting possible delayed resilience effects.

Trust by Age Cohort and Regime Change Experience

Patience by Age Cohort and Regime Change Experience
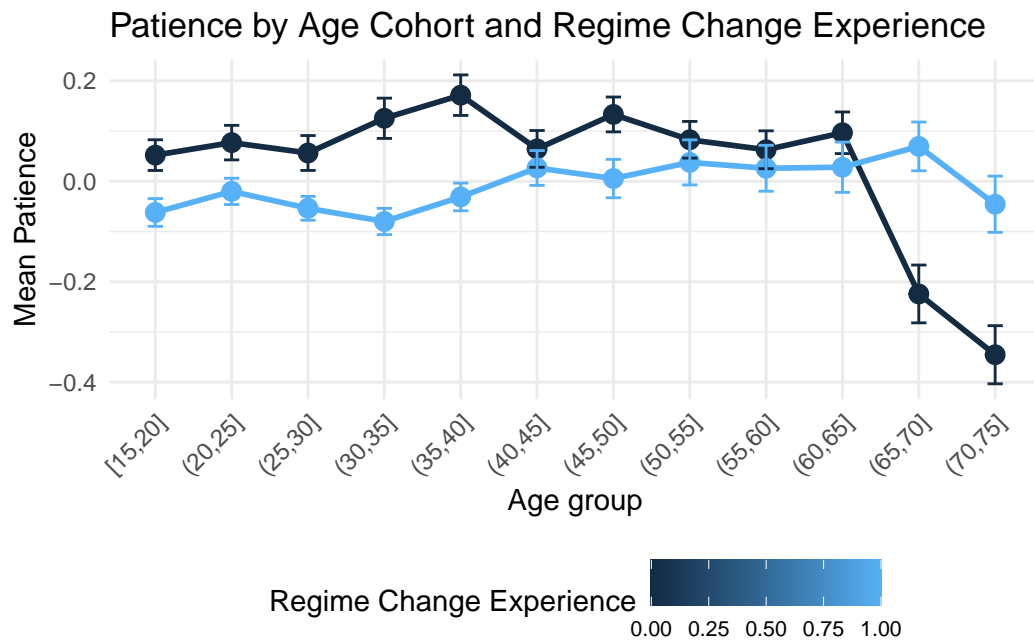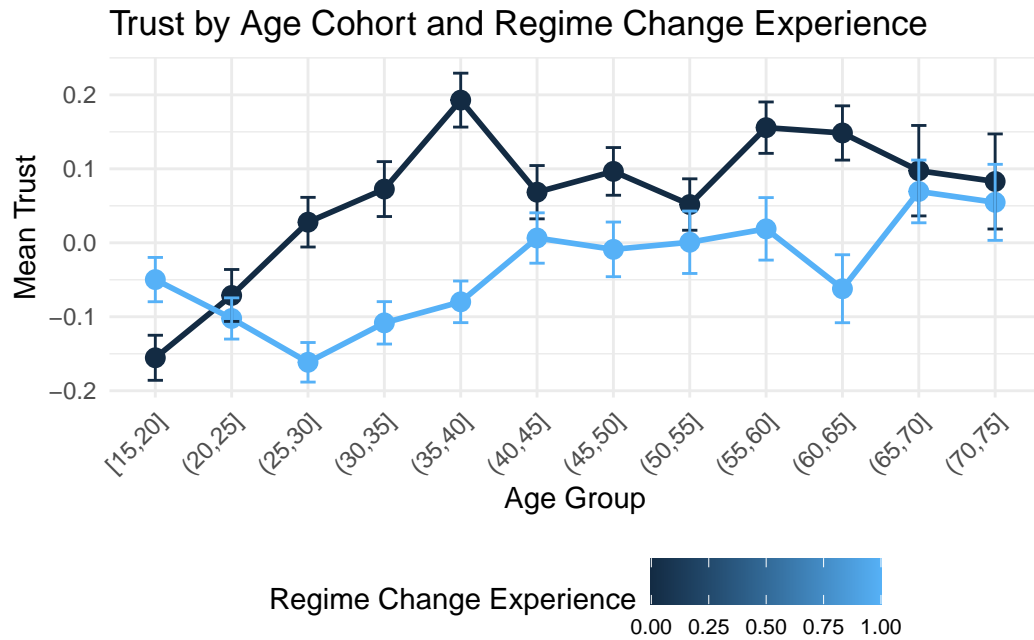
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`geom_smooth()` using formula = 'y ~ x'

Warning: The following aesthetics were dropped during statistical transformation:
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colour.
i This can happen when ggplot fails to infer the correct grouping structure in
  the data.
i Did you forget to specify a `group` aesthetic or to convert a numerical
  variable into a factor?
```

Trust Score vs. Subjective Math Skills by Regime Change Exp
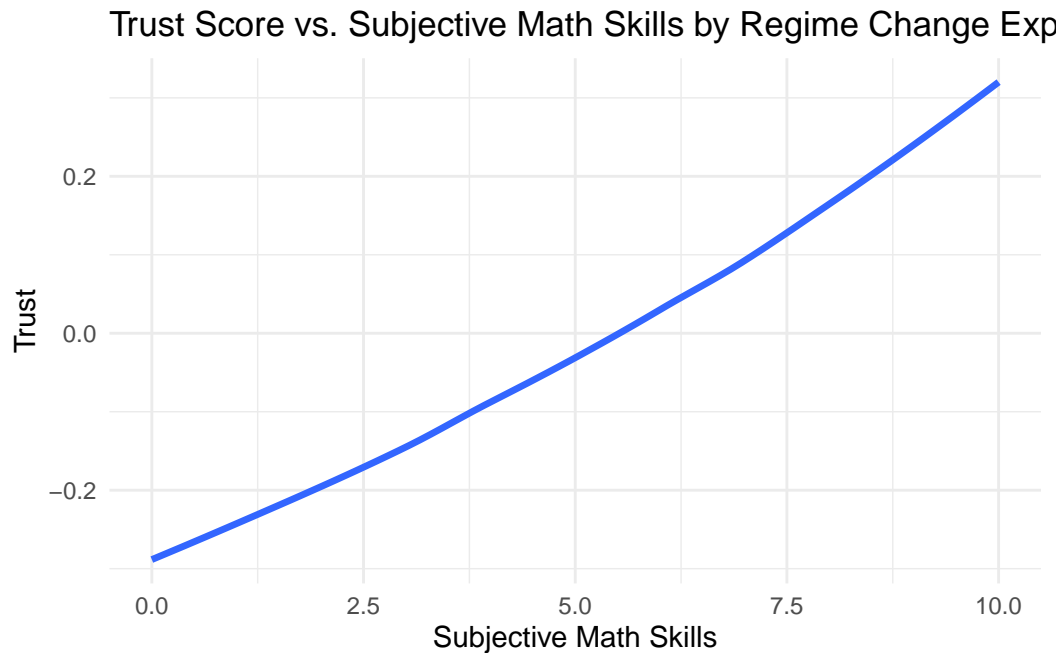
References

Bolt, Jutta, and Jan Luiten van Zanden. 2025. "Maddison-Style Estimates of the Evolution of the World Economy: A New 2023 Update." *Journal of Economic Surveys* 39 (2): 631–71. https://doi.org/10.1111/joes.12618.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, David Altman, Fabio Angiolillo, et al. 2025. "V-Dem Dataset V15." Varieties of Democracy (V-Dem) Project. https://doi.org/10.23696/VDEMDS25.

Falk, Armin, Anke Becker, Thomas Dohmen, Benjamin Enke, David Huffman, and Uwe Sunde. 2018. "Global Evidence on Economic Preferences." *The Quarterly Journal of Economics* 133 (4): 1645–92. https://doi.org/10.1093/qje/qjy013.