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 Table 2 shows how were the economic preferences from the GPS survey (Falk et al. (2018)) measured. The table Table 4 shows how the LDI was calculated.

Table 2

Economic preferences from the Global Preference Survey

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

Table 4

Liberal democracy index information

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)

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 had data for 80337 individuals. After merging and removing NAs it reduced to 75468.

Treatment calculation

Since we have information about the 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, which we define following the literature as the period between 3 and 18 years of age. This definition aligns with the National Library of Medicine, which considers childhood as the stage from 3–11 years and adolescence from 12–18 years (Balasundaram and Avulakunta 2025). Research also supports that the formation of economic preferences such as patience and risk-taking during childhood and adolescence has lasting consequences for life outcomes, including educational attainment and financial decision-making (Detlefsen et al. 2024).

To implement this classification, we linked the V-Dem dataset with the GPS survey data. Our objective was to separate individuals into treated and control groups based on the **Liberal Democracy Index (v2x_libdem)** from the V-Dem dataset. The treated group consists of individuals who experienced a regime change during their formative years (ages 3–18), while the control group did not. Also we calculated the amount of years spend after regime changes.

Following the methodology proposed by Lührmann et al. (2020), we define regime change as a **substantial and statistically significant change in the Liberal Democracy Index over a 10-year period**. Specifically, we compute the difference between the index value at time `t` and time `t-10`. A change is considered *substantial* if the absolute value of the change

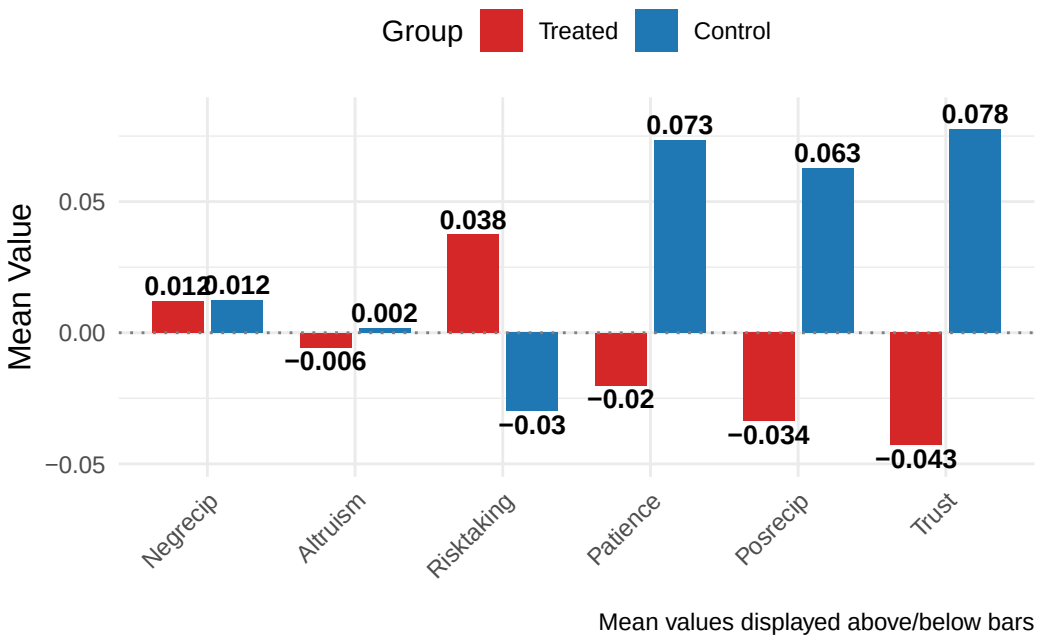
exceeds **0.05**, and *significant* if the confidence intervals at time `t` and `t-10` do not overlap. This procedure captures both sudden and gradual transformations in regime type. After that, we gain following number of observations in each group, as shows in table Table 5.

Table 5: Number of treatment variables

```
    0     1
24925 50543
```

Variables

Figure 1: Mean Preference Profiles by Regime Change Exposure



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 6. Table 7 depicts the summary statistics for our control variables.

Table 6: Economic Preferences Comparison by Group

	Mean (SD)		
	Control Group	Treatment Group	Difference
Trust	0.078	-0.043	-0.121***
	(0.983)	(1.001)	(0.008)
Patience	0.073	-0.020	-0.094***
	(1.046)	(0.982)	(0.008)
Risk Taking	-0.030	0.038	0.067***
	(1.014)	(0.988)	(0.008)
Positive	0.063	-0.034	-0.096***
Reciprocity	(0.973)	(1.012)	(0.008)
Negative	0.012	0.012	-0.000
Reciprocity	(0.982)	(1.001)	(0.008)
Altruism	0.002	-0.006	-0.007
	(1.007)	(0.990)	(0.008)

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

Table 7: Control Variables Comparison by Group

	Mean (SD)		
	Control Group	Treatment Group	Difference
age	43.768	40.341	-3.427***
	(16.132)	(17.763)	(0.129)
gdppc_2012	22873.619	16286.720	-
	(16970.573)	(13699.832)	6586.899***
			(123.711)
Subjective	5.342	5.132	-0.210***
Math Skills	(2.795)	(2.813)	(0.022)

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 and Figure 3 below depict the average values grouped by country in *2012* and *2013*.

Figure 2: Average Economic Preference Values by Country: Trust, Patience, Altruism

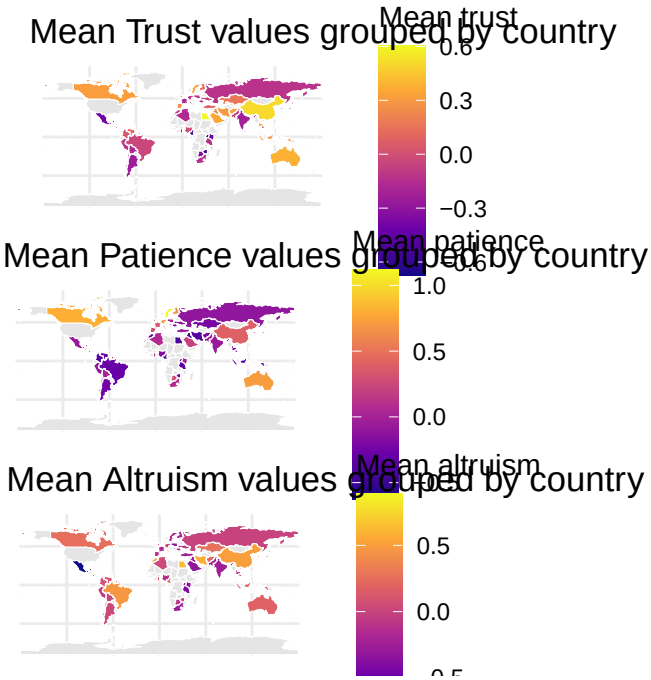
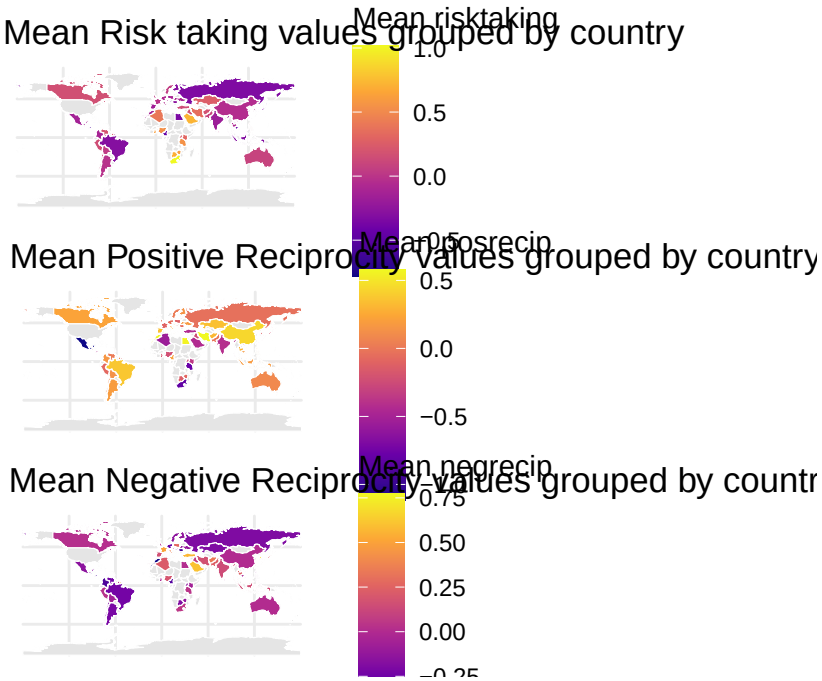


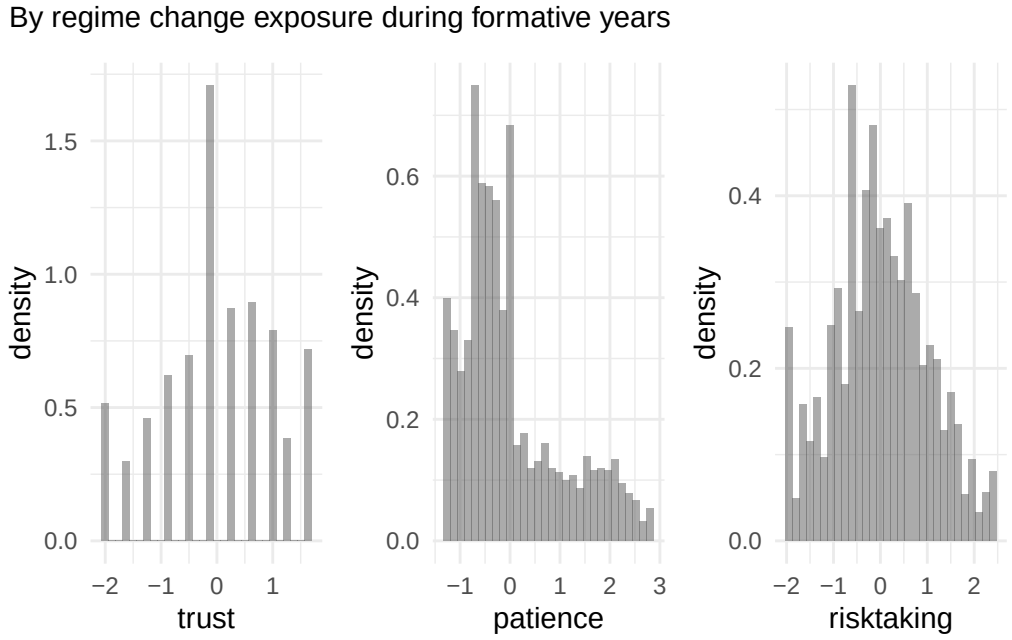
Figure 3: Average Economic Preference Values by Country: Risk, Negative and Positive reciprocity



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 4: Distribution of Key Economic Preferences



The following figures present additional visualizations of our data. In the following graphs Figure 5, Figure 6, Figure 7, Figure 8, Figure 9, Figure 10 we are aiming to examine the **parallel trends assumption** between treated and control groups in all 6 economic preferences.

Figure 5: Trust by Age Cohort and Regime Change Experience

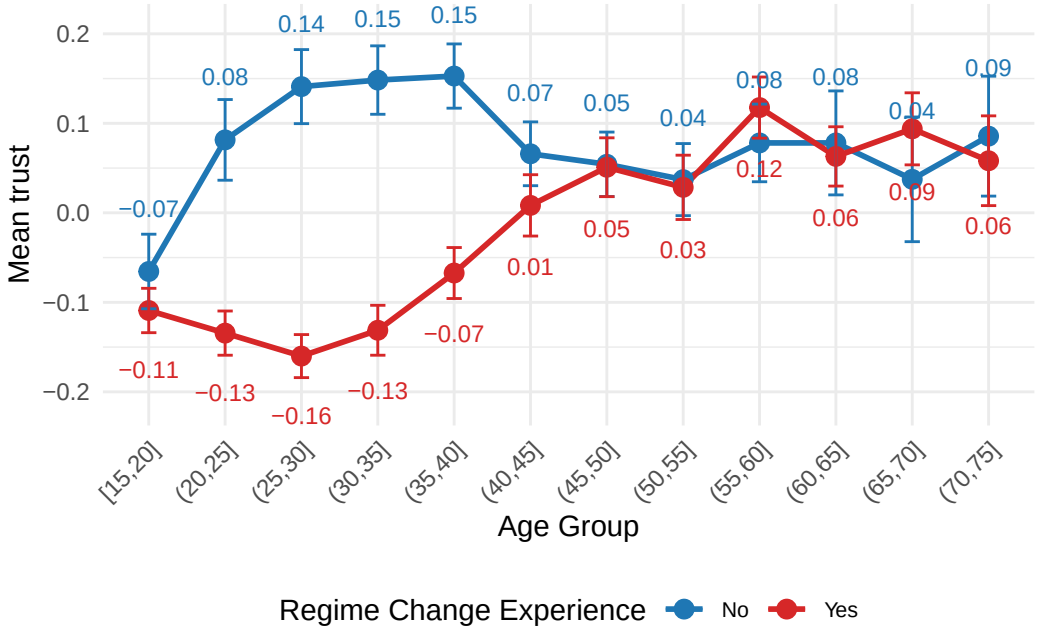


Figure 6: Patience by Age Cohort and Regime Change Experience

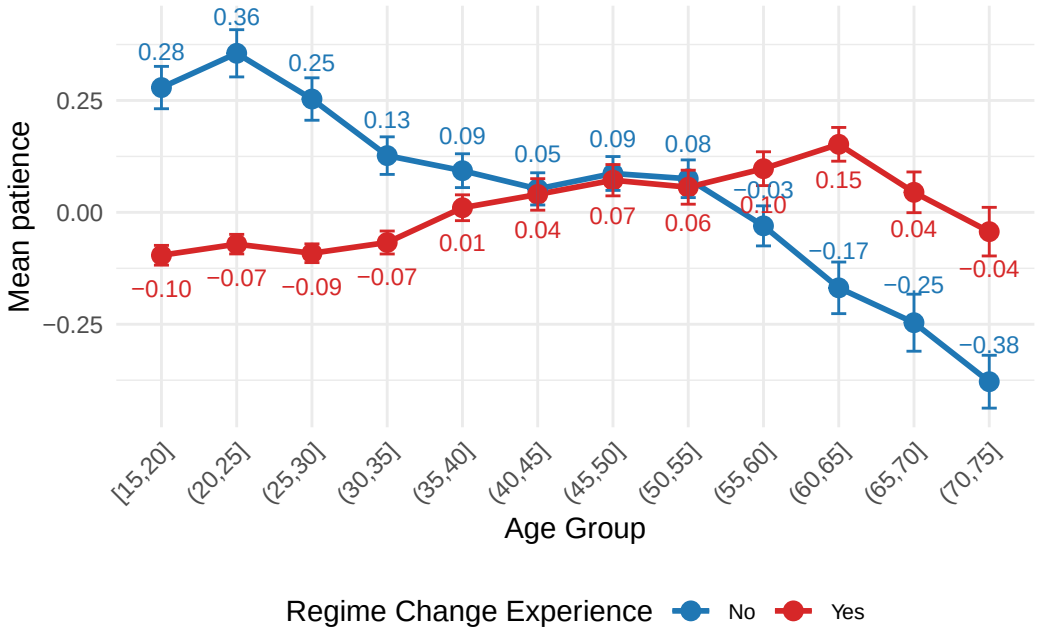


Figure 7: Risk Taking by Age Cohort and Regime Change Experience

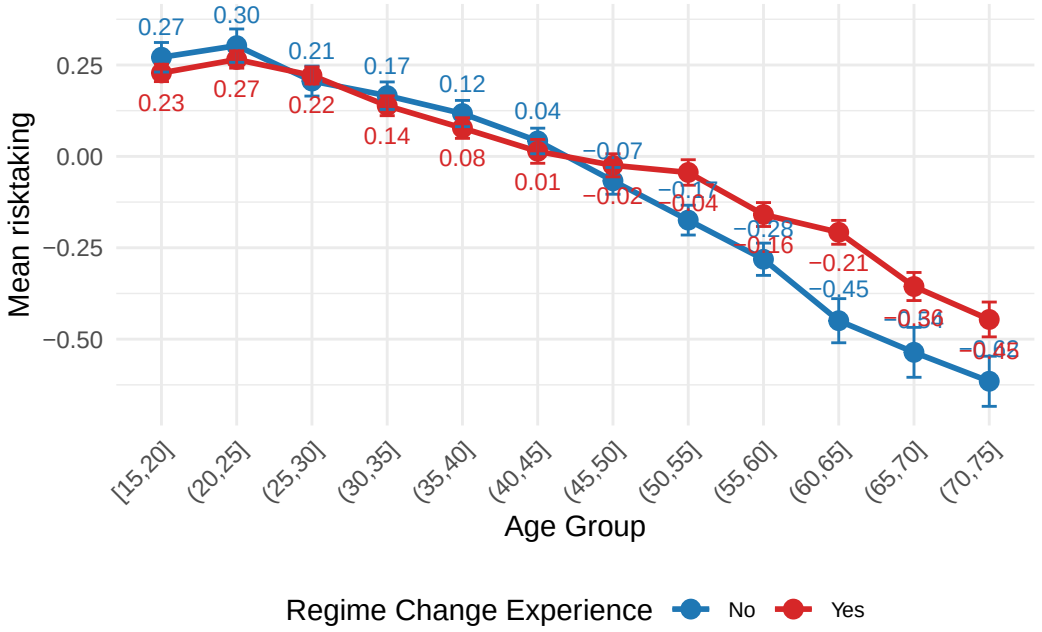


Figure 8: Altruism by Age Cohort and Regime Change Experience

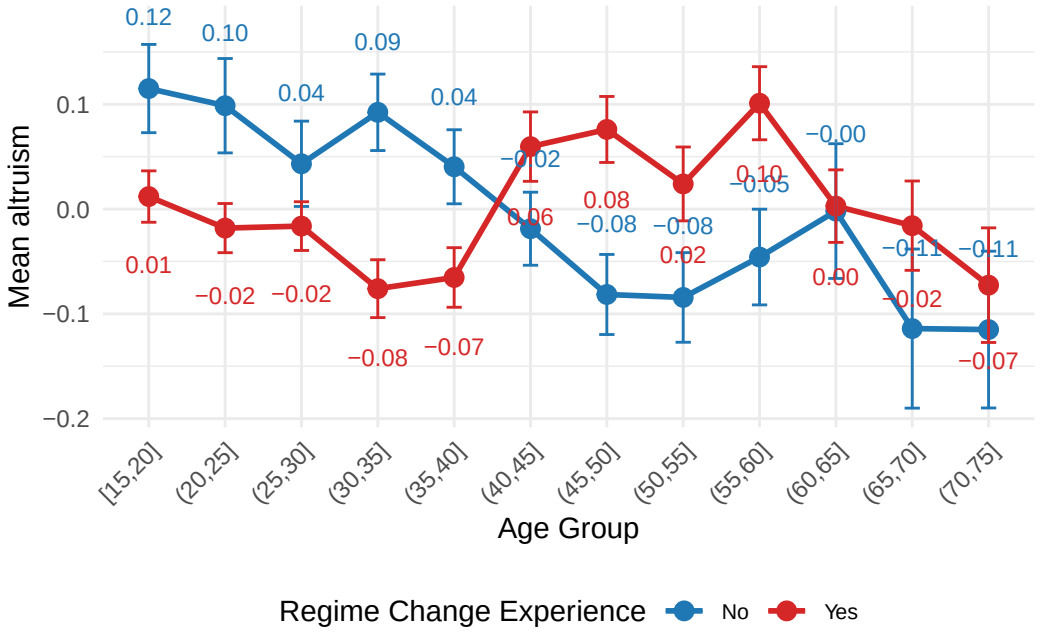


Figure 9: Negative Reciprocity by Age Cohort and Regime Change Experience

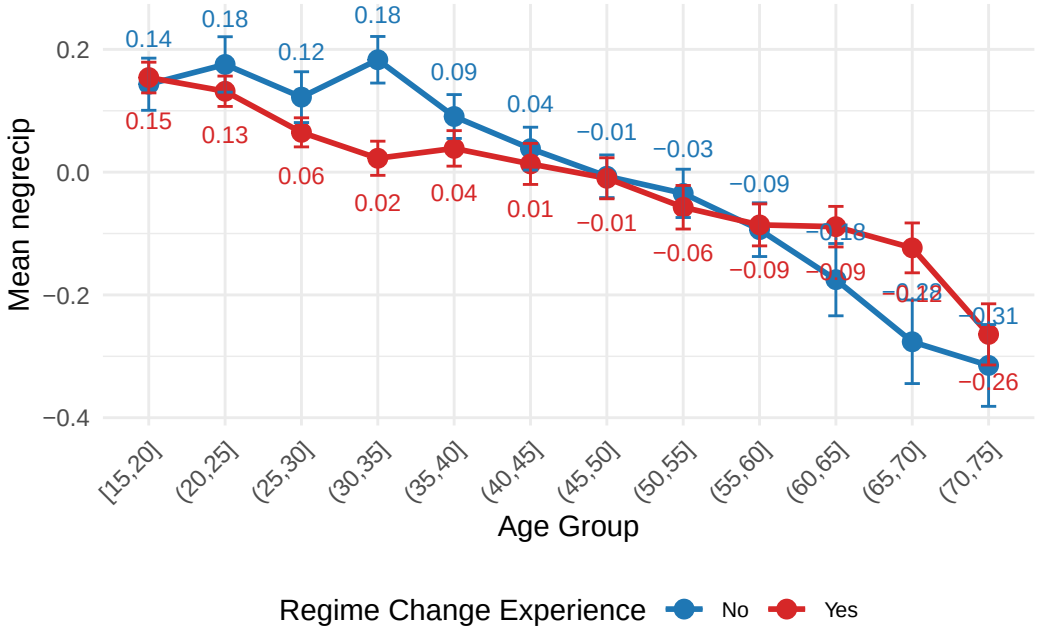
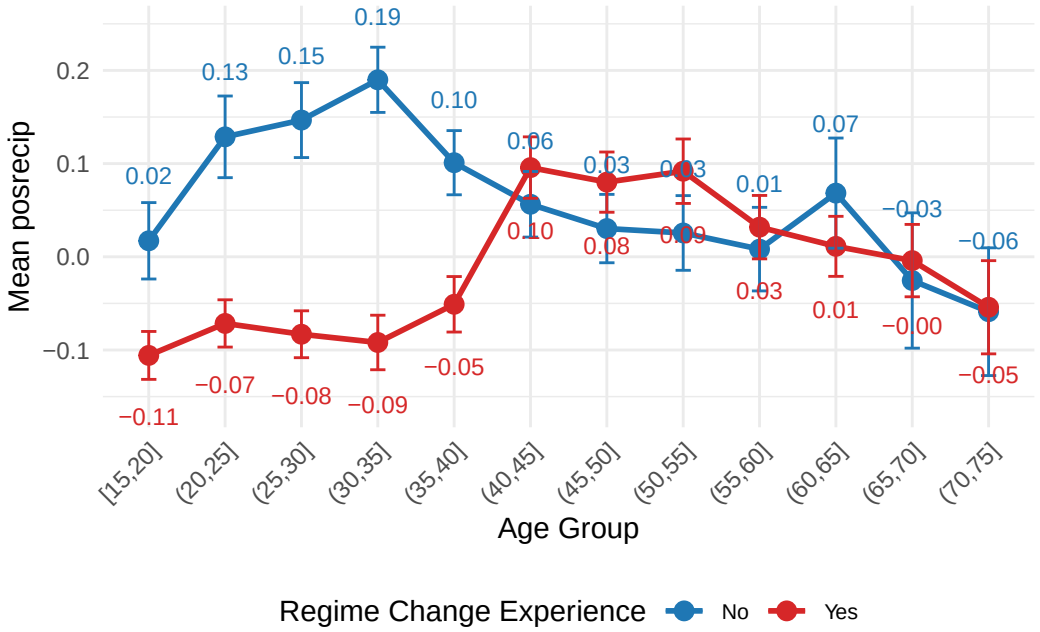


Figure 10: Positive Reciprocity by Age Cohort and Regime Change Experience



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