Measuring Public Opinion Toward Trust in Political Institutions:

Constructing Cross-National Time-Series Index from

a Survey Data Recycling Framework

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ABSTRACT

Summary statistics derived from national surveys are commonly used for macro indicators in cross-national comparative analyses, but the aggregate measures do not often consider variation in survey questionnaires and quality of survey data qualities. This study presents a novel approach for survey data aggregation into country-level indicators by accounting for differences in national surveys identified in the Survey Data Recycling (SDR) framework. We use the SDR database version 2.0 on trust in three public institutions—parliament, the legal system, and political parties—in 1,702 national surveys from 19 international survey projects in 155 countries for the period between 1981 and 2017. This study applies linear regression models to obtain the best estimates of the mean value of trust in public institutions, controlling for the lagged effects of trust, methodological differences in survey-specific questionnaires, and variation in the quality of the source surveys reflected in their documentation, processing errors, and errors or inaccuracies in computer data files. This approach for survey data aggregation contributes to survey methodology for indexing cross-national time-series measures of political attitudes and behaviors using individual-level survey data.

INTRODUCTION

Institutional trust is crucial for successful social policy implementation and representative democracy. The varied global response to the Covid-19 vaccine rollout underscores the importance of public trust in political institutions for addressing a global crisis through the smooth execution of social measures. Moreover, trust in political institutions reflects public approval or discontent with current political systems. To track cross-national trends in public opinion and amplify people's voices, this study explores methods for aggregating survey data into a cross-national time-series index of trust in three key political institutions: parliament, legal system, and political parties.

Summary statistics derived from respondent-level surveys are commonly used for macro indicators in cross-national comparative research. It is notable that simple mean values are often reported without paying any attention to temporal validity, methodological differences in the original questionnaires, and overall quality of survey data. To address the limitations, we employ the Survey Data Recycling (SDR)database version 2.0, which harmonizes the measures in political institutions from international surveys ex-post. While we employ linear regression models to provide the best estimates of the mean value of political trust, we assess the temporal reliability issue by incorporating the effects of the lags in the models. Capitalizing on the SDR framework, we incorporate the control for the harmonization controls that capture methodological differences in the questionnaires. Additionally, to account for variation in the quality of the source surveys, we use indicators measuring the quality of data records in the original data files and survey documentation, and processing errors.

In the following sections, we discuss the background of this research, introduce the SDR framework and the measurement model, outline the detailed steps for constructing the cross-national time-series index, and provide example cases of trends in political institutions.

BACKGROUND

Although research on trust has a long tradition in the social sciences, it has only become a clearly demarked field of study in the last two decades, marked by its own journal (*Journal of Trust Research*[1]), identifiable communities of scholars (First International Network of Trust, FINT[2]), and attention from NGOs (e.g., RAND[3]) and international organizations (OECD[4] and World Bank[5], in particular). Within this field, research on institutional trust—understood as people's belief that a set of basic societal institutions will act consistently with their expectations of positive outcomes—has achieved a prominent place. Academics and policymakers are interested in the level of trust in various societal institutions.

The range of institutions included in the studies is wide: government, political parties, military, business, mass media, parliament, education, and many more.[6] Usually, there is no justification for the choice of institutions assessed for trust. In contrast, this paper focuses on trust in three primary institutions essential for the functioning of democracy: parliament, the legal system, and political parties. Trust in parliament means that people expect good legislation; trust in the justice system implies anticipating quick and fair legal decisions; and trust in political parties means that they appropriately represent interests of their constituencies.

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[1] Journal of Trust Research (https://www.tandfonline.com/toc/rjtr20/current) has been established in 2010; it publishes two issues a year.

[2] The First International Network on Trust (https://fintweb.org) was created in 2001. In 2018-2021 it issued 9 Newsletters.

[3] See an extensive report: Kavanagh et al. (2020).

[4] OECD began to publish on trust in 2017 (González and Smith 2017; OECD 2017a, 2017b). For references to OECD publications on trust, see Brezzi et al. (2021).

[5] See World Bank blog *What is trust, why does it matter for development, and how do we measure it?* (Cloutier, Bove, and Zovighian 2024)

[6] For a list of institutions, see e.g., Uslaner (2017) and Zmerli and van der Meer (2017).

An extensive review of the literature demonstrates various ways in which questionnaire items on trust are formulated.[7] Differences pertain to both the questions about trust in particular institutions and the pre-categorized answers on rating scale, most often from 1 to 5 or from 0 to 10. The level of trust in various institutions is usually computed directly from the rating scale. In contrast, we treat trust in a given institution as an unobserved (latent) variable, inferred from the properties of the rating scale and its distribution within the survey sample.

We also noticed that the extant research neglects the methodological variations between national surveys and the overall quality of data. Our approach addresses these shortcomings by accounting for differences in the rating scale, including their length, direction, and polarity. We also consider inadequacies in data documentation, processing errors, and the quality of computer files.

SURVEY DATA RECYCLING FRAMEWORK

Commonly used as macro indicators to assess public confidence in current political systems, summary statistics for trust from international surveys serve as both dependent and independent variables in cross-national comparative analyses. However, international surveys began in the 1980s, initially limited to affluent democracies in Western Europe and North America. Despite later expansions to include countries in Asia, Latin America, and Africa, the persisting challenge remains limited coverage over time and space, hindering broad cross-national measures. To address this limitation, the Survey Data Recycling (SDR) project harmonizes survey items from 23 international social survey projects, encompassing 3,329 national surveys across 156 countries or territories from 1966 to 2017 for cross-national

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[7] On the issue of the measurement of institutional trust, see e.g., (Davidov and Coromina (2013); Durand et al. (2022); González and Smith (2017); Marien (2011, 2017); van der Meer and Ouattara 2019; Schneider (2017); Spadaro et al. (2020).

comparative research on political behaviors and political trust.[8] Recognizing inter-survey variability stemming from differences in survey item formulations and data quality, the project introduces innovative control variables. These variables capture methodological distinctions in questionnaires and variations in the quality of the source surveys, ensuring a more accurate representation of trust measures in cross-national analyses. The list of international survey projects and the details of the coverage used in this research for measuring trust index for three political institutions—parliament, legal system, and political parties—are provided in Table 1.

--Table 1--

The political trust variables in the SDR data are accompanied by three harmonization control variables that capture question properties in the source survey (Slomczynski et al. 2016). Scale length indicates the response scales in the original question ranging from 2 to 11. Scale direction measures whether the original scale is ordered from lowest to highest trust or from highest to lowest. Scale polarity indicates whether the response values are defined by one dimension—from no trust to strong trust—or if the response values are measured by two dimensions—from distrust to trust.

An important source of inter-survey variability is variation in data quality across surveys. The SDR data set offers three indices of survey quality that can be used as control variables (Kwak and Slomczynski 2019). Computer file quality index measures errors in computer data files by constructing an additive scale in three dichotomous variables that capture whether the survey has: (1) duplicate cases; (2) over 5% of missing data on either age

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8 Data base: Slomczynski, Kazimierz M.; Tomescu-Dubrow, Irina; Wysmulek, Ilona; Powałko, Przemek; Jenkins, J. Craig; Ślarzyński, Marcin; Zieliński, Marcin W.; Skora, Zuzanna; Li, Olga; Lavryk, Denys, (2023). "SDR2 Database", https://doi.org/10.7910/DVN/YOCX0M, Harvard Dataverse, V1, UNF:6:Fka89L898U+9Eb1gv2KpUQ== [fileUNF]. For description of the Survey Data Recycling approach, see Slomczynski and Tomescu-Dubrow (2015); Tomescu-Dubrow et al. (2024); Tomescu-Dubrow and Slomczynski (2016).

or gender variable; and (3) errors in respondent ID. Survey documentation index measures survey quality as reflected in the documentation of the source data (Kołczyńska and Schoene 2019). This index is also created as an additive scale in five dichotomous variables that measure whether the survey documentation has information on: (1) sampling; (2) response rate; (3) control of the quality of the questionnaire translation; (4) questionnaire pretesting; and (5) fieldwork control. Processing error index measures processing errors that indicate a contradiction between data file and survey documentation by counting the number of errors in seven selected variables (gender, age, birth year, education level, schooling year, trust in parliament, and participation in a demonstration) and dividing it by the number of variables in the survey (Oleksiyenko, Wysmulek, and Vangeli 2019). This index captures the number of processing errors adjusted by the total number of variables for which these errors were checked in a given survey. In this paper, for each index, higher values indicate poorer quality.

MEASUREMENT MODEL

Measurement of trust in parliament, legal system, and political parties was performed in a uniform way. Although there were methodological differences in the item formulation in the questionnaires of different projects, this item in the *semantic metalanguage[9]* can be expressed as follows:

To what extent do you "trust" Y on the scale S?

The word "trust" could have slightly different meninges in different languages. For instance, in some languages, "trust" subsumes "confidence," and there is one word for both (like in some Eastern European Languages, including Polish), while in other languages the meaning of "trust" and "confidence" overlap but there are separate words for both (like in

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[9] Semantic meta language for multi-laguage problems provides general forms of concepts or sentences so that they allow realization in different langages. It focuses on the core of the meaning of the diversified practice expressing a given idea.

English). However, we neglect these differences, assuming that the translation of the concept was optimal within the international survey project and between them.

In the quoted sentence, Y denotes a given political institution: parliament, the legal system, or political parties. The item refers to the rating scale for which responses indicate their relative position but not necessarily the objectively defined magnitude. In the context of survey research, rating scales S are sets of ordered responses (options) to closed-ended questions. The responses refer to the valuation of an object O concerning an attribute A by a criterion C in format F. For the question, *How much do you trust your parliament,* the attribute (A) is trust, while the parliament is the object (O); criterion C refers to the strength by asking how much; the format F is direct since the question refers to the respondent's opinion as such (as oppose to "hypothetical" or "if you" questions).

We harmonized all surveys so that the scale S is the same across surveys with respect to the length L (11-point scale from l_{10} to l_0), to the direction D (ascending, s_{10} the highest value), and to the polarity P (unipolar). We took these scale characteristics since they are crucial from a methodological point of view (for the review, see DeCastellarnau 2018; see also Dawes 2008, Kamoen et al. 2013, Kołczyńska & Slomczynski 2018, Wakita et al. 2012).

To transform original scales, we use the following formula (Slomczynski et al. 2016: 56):

$$r(k) = (10 / n \times 2) + [(k - 1) \times (10 / n)]$$

where $r(k)$ is a score for a target variable corresponding to the initial score k, and n is the number of k-values (see Table 2).

--Table 2--

The points on the scale were also transformed to the corresponding points in the percentage cumulative distribution, called R (from r_{10} as the highest), as indicated in Table 3. In addition, we created an interaction term between L and R, $W = L \times R$. This term provides

information on the position on the scale L relative to the proportion of people who are at the same level or below. Note that in the linear framework, W introduces non-redundant information about the scale, although it is expected to be highly correlated with its components, L and R. We decided to introduce W because the meaning of L depends on R. We noticed that the highest value of L could be extremely rare (below 1%) or more frequent than it could be expected from the uniform distribution (e.g. 12%). Similarly, the interpretation of other points on the scale L depends on the distribution, R. W takes this into account.

--Table 3--

We treat Y as the latent variable. Thus, the measurement model for trust in the parliament is as presented in Figure 1.

$$L = \lambda_1 Y + \varepsilon_1$$

$$R = \lambda_2 Y + \varepsilon_2$$

$$W = \lambda_3 Y + \varepsilon_3$$

subject to common conditions of factor analysis for computation factor scores for Y.

--Figure 1--

The analogue measurement models were performed for trust in the legal system and political parties. The computations were performed for the entire data set so that each respondent in each considered survey has a value for his or her trust in parliament, the legal system, and political parties in two versions: for the common model for the combined data for all surveys (universal model) and for each survey separately (country-specific model). Since the correlations were very high (all above 0.95), we assume that the universal trust measures in all three institutions are appropriate for further analyses.

CONSTRUCTING THE TRUST INDEX

The trust index is constructed using three measures—an 11-point scale, a distribution-preserving scale, and the interaction between the two—each capturing distinct dimensions of respondents' trust in political institutions. Table 4 presents the descriptive statistics for these three measures. The average of the 11-point scale varies across the political institutions, reflecting differences in absolute trust levels by country and year. The statistics indicate that people generally trust the legal system the most and political parties the least. In contrast, the mean value of the distribution-preserving scale is close to 50 percent across all three institutions, as this measure represents the within-survey cumulative distribution of the responses.

--Table 4--

As the first step in constructing the trust index, we investigated whether the three trust measures share a common underlying value. Table 5 presents the results of the factor analysis for the three different trust scales across three political institutions. The analysis yielded a one-factor solution for all three institutions, with the factor loadings indicating a high commonality (over 0.93) between each scale and the underlying unobserved value. This suggests that, while the three scales conceptually capture distinct aspects of survey responses, they share a universal concept of trust. Based on these results, we estimated the factor scores derived from the factor loadings using the regression method and calculated the mean value of the factor scores across surveys, applying survey weights standardized in the SDR database.

--Table 5--

Next, we estimated the survey-level predicted mean trust to account for time trends and variations in survey methodologies and data quality. The OLS regression model used to create the predicted mean trust is represented by the following equation:

$$\hat{y}_t = a + b_1 y_{t-d} + b_2 d + b_3 L_t + b_4 D_t + b_5 P_t +$$

$$b_6 V_t + b_7 W_t + b_8 S_t +$$

$$b_9 V_{t-d} + b_{10} W_{t-d} + b_{11} S_{t-d} +$$

$$b_{12} y_{t-d} V_{t-d} + b_{13} y_{t-d} W_{t-d} + b_{14} y_{t-d} S_{t-d}$$

where $\hat{y}_t$ is predicted mean value of factor score of trust in a given public institution; y_{t-d} is mean value of factor score of trust from the preceding national survey; d is a difference in time between the given and the preceding national survey; L is scale length; D is scale direction; P is scale polarity i.e., whether uni- or bi-polar; V is data documentation index (ranging from 1-5) which measures survey quality as reflected in the documentation of the source data; W is processing errors index (ranging from 0 to 1.33) which measures a contradiction between data file and survey documentation; S is computer files quality index (ranging from 0-4) which measures errors or inaccuracies in computer data files.

The mean trust from the preceding survey was used as a lagged value to account for the historical trajectory of trust levels. For years with multiple surveys within a country, the average mean factor scores were used as the lagged value. Given that the time gap between surveys is not constant, the difference in time between the current and preceding surveys was included to account for these varying intervals.

The model also addresses methodological variations by incorporating three harmonization control variables: scale length, scale direction, and scale polarity. Data quality is accounted for through three quality control variables: data documentation, processing errors, and computer files quality. Additionally, we included control variables for the data quality of the surveys used for the lagged value to account for its influence in preceding years. The interaction between these quality control variables and the lagged value itself is also included to capture the potential heterogeneous impact of the lagged values based on survey quality. The descriptive statistics for the variables used in this analysis are presented in Table 6.

--Table 6-

Table 7 presents the results of the survey-level OLS regression models. In the first model for each political institution (Models 1, 3, and 5), we included harmonization and quality control variables for the present year. First, the effects of the harmonization control variables are statistically significant and consistent across the models. Scale length has a negative effect on mean trust, suggesting that longer scales lead to lower trust responses in the institutions. Scale direction shows a positive effect, indicating that an ascending scale of trust (from low to high) results in higher trust ratings on survey items. Additionally, the effect of scale polarity is positive, indicating that unipolar scales yield higher trust responses compared to bipolar scales. These results align with previous literature on questionnaire construction (Dawes 2008; Kamoen and Holleman 2013).

--Table 7—

Next, the data quality control variables consistently show the same direction of coefficients across the three political institutions. The effect of computer file quality is positive but statistically nonsignificant. Data documentation has a positive and significant influence on mean trust, indicating that surveys with more detailed documentation on data collection yielded higher mean trust compared to surveys lacking such information. Finally, the coefficients for processing errors are negative, but statistically significant only for trust in the legal system. This result suggests that surveys with contradictions between survey documents and computer files tend to lead to higher trust ratings from respondents, particularly for items related to trust in the legal system. The adjusted R-squares for the models are .116 for parliament, .129 for the legal system, and .050 for political parties. These results suggest that methodological variation and data quality differences account for a substantial portion of the variation in survey-level mean trust in political institutions, confirming the significant role of harmonization and quality control variables in reducing inter-survey variability.

In the second set of models for each political institution (Models 2, 4, and 6), we included variables related to lagged values, such as lagged mean trust, the time difference between the current and preceding surveys, quality control variables, and interaction terms between lagged mean trust and quality control variables. The mean trust from previous surveys shows a strong positive correlation with the current year's mean trust across all three political institutions. We also found that several quality control variables from the lagged years and their interaction with the lagged mean trust are statistically significant in relation to the current year's mean trust. Additionally, the effects of the present year's harmonization and quality control variables generally remain consistent with the first model, except for processing errors. Including variables related to lagged values increases the adjusted R-squares to .601 for parliament, .647 for the legal system, and .592 for political parties. This significant increase in adjusted R-squares indicates that serial correlations across the years explain a substantial portion of the variation in current mean trust in political institutions. Therefore, we estimated the predicted values of mean trust for surveys using the second model in Table 7.

Subsequently, we constructed the cross-national time-series index of trust in each political institution using the survey-level predicted values. First, in cases where multiple surveys existed within a country in a specific year, we calculated the mean value of the surveys to create a country-year-level mean trust. Second, we standardized the country-year-level mean trust using z-transformation to facilitate comparison between political institutions. Third, we converted the z-scores to have a mean of 50 and a standard deviation of 15, making the index more readable and intuitive for the public. Finally, we applied a three-year moving average to reduce volatility and address missing data, ensuring a more stable representation of the cross-national time-series indicators of trust. The coverage of the final trust index created by the harmonized database is shown in Table 8, encompassing 138 countries

between 1989 and 2017, covering 2,035 country-years for trust in parliament, 135 countries from 1983 to 2017, resulting in 2,023 country-years for trust in the legal system, and 111 countries between 1991 and 2017, spanning 1,528 country-years for trust in political parties.

--Table 8--

TRENDS IN POLITICAL TRUST

Figure 2 illustrates the trends in trust in parliament, the legal system, and political parties in Poland and Nicaragua. Our trust index for Poland covers a span of 29 years, from 1989 to 2017. Panel A of Figure 1 shows that overall trust in these three institutions has declined over this period, despite fluctuations and periods of stagnation in the later years. Additionally, in Poland, the legal system tends to receive slightly higher trust than the other political institutions.

--Figure 2--

In contrast, the trend in political trust in Nicaragua from 1996 to 2017 exhibits a U-shaped pattern, declining until the mid-2000s and increasing afterward. During the tenure of Alemán (1997-2002), who was later convicted of corruption, political trust declined. However, under Bolaños (2002-2007) and during Ortega's tenure (2007-present), our trust index shows that public trust in political institutions has increased. Notably, unlike the trend in Poland, trust in political parties in Nicaragua is slightly higher than trust in other political institutions.

CONCLUSION

Utilizing the SDR database 2.0, we constructed cross-national time-series indicators of trust in three key political institutions—parliament, legal system, and political parties. To derive the most accurate estimate of the trust index, our process involved several steps. Initially, we calculated the survey-level mean values of the factor scores, estimated from three individual-level measures of trust using an 11-point rating, distribution-preserving scales, and their

14

interaction. Next, we estimated the predicted mean trust by considering the lagged value of the mean trust, along with three harmonization control variables addressing methodological differences in the original survey questions—length, direction, and polarity of the scale. Additionally, we incorporated three survey data quality control variables, evaluating the source surveys' documentation, processing errors, and inaccuracies in computer data files. At this stage, our findings highlighted the significant role of harmonization and quality control variables in mitigating inter-survey variability within the harmonized dataset. Finally, we applied a three-year moving average to reduce volatility and address missing data, ensuring a more stable representation of the cross-national time-series indicators of trust.

The resulting trust index, generated through this aggregation process, encompasses data from 138 countries spanning the years 1983 to 2017. Serving as a reflection of public opinion toward political institutions, this trust index proves valuable for political leaders and policymakers seeking to evaluate and enhance their political systems, formulate and implement social policies. Additionally, academics can leverage this index for cross-national comparative research.

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Table 1. 19 International Survey Projects in SDR 2.0 Database Used for Trust Index
(1,681 National Surveys within 140 Countries, 1981-2017)

Projects	Number of surveys	Number of countries	Years
Asian Barometer Survey (ABS)	42	13	2001, 2002, 2003, 2005, 2006, 2007, 2008, 2010, 2011, 2012, 2014, 2015
Afrobarometer (AFB)	134	34	1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2008, 2009, 2011, 2012, 2013, 2014, 2015
Americas Barometer (AMB)	155	26	2004, 2006, 2007, 2008, 2010, 2012, 2014, 2016, 2017
Arab Barometer (ARB)	35	13	2006, 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2016
Asia Europe Survey (ASES)	17	17	2000
Caucasus Barometer (CB)	20	3	2008, 2009, 2010, 2011, 2012, 2013, 2015
Consolidation of Democracy in Central and Eastern Europe (CDCEE)	22	14	1990, 1991, 1998, 1999, 2000, 2001
Comparative National Elections Project (CNEP)	3	2	2004, 2005, 2011
Eurobarometer (EB)	60	27	1984, 2009, 2010
European Quality of Life Survey (EQLS)	65	35	2007, 2008, 2011, 2012
European Social Survey (ESS)	194	36	2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017
European Values Study (EVS)	120	47	1981, 1982, 1983, 1984, 1990, 1991, 1992, 1993, 1999, 2000, 2001, 2008, 2009
International Social Survey Programme (ISSP)	85	41	1990, 1991, 1993, 1998, 1999, 2000, 2007, 2008, 2009, 2010
Latinobarometer (LB)	336	19	1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016
Life in Transition Survey (LITS)	98	37	2006, 2010, 2015, 2016
New Baltic Barometer (NBB)	12	3	1993, 1996, 2001, 2004
New Europe Barometer (NEB)	54	14	1992, 1993, 1994, 1995, 1998, 2001, 2004, 2005
Values and Political Change in Post-Communist Europe (VPCPCE)	5	5	1993
World Values Survey (WVS)	224	94	1981, 1982, 1984, 1989, 1990, 1991, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2009, 2010, 2011, 2012, 2013, 2014

Table 2. 11-Point Scale

Original scale	Recodes	Mean of scores	Standard deviation
11-points	0, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0	5.0	3.16
10-points	0.5, 1.5, 2.5, 3.5, 4, 5.5, 6.5, 7.5, 8.5, 9.5	5.0	2.87
7-points	0.71, 2.14, 3.75, 5.00, 6.43, 7.86, 9.29	5.0	2.86
5-points	1.0, 3.0, 5.0, 7.0, 9.0	5.0	2.83
4-points	1.25, 3.75, 6.25, 8.75	5.0	2.79
2-points	2.5, 7.5	5.0	2.50

Table 3. Examples of Distributional Scale

	11-point scale	Poland			South Korea		
		%	% Lower levels + (% same level/2)	Distributional scale	%	% Lower levels + (% same level/2)	Distributional scale
No confidence at all	1	16.4%	8.2%	8	22.3%	11.2%	11
Very little confidence	3	33.1%	32.9%	33	47.6%	46.1%	46
Some confidence	5	44.9%	71.9%	72	25.3%	82.6%	83
A great deal of confidence	7	5.2%	96.9%	97	2.8%	96.6%	97
Complete confidence	9	0.5%	99.7%	100	2.0%	99.0%	99

Table 4. 11-Point Scale, Distribution-Preserving Scale, and the Interaction Between the Two Scales for Trust in Political Institutions

	Trust in Parliament (N=2,181,787)		Trust in Legal System (N=2,042,553)		Trust in Political Parties (N=1,614,789)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
11-point scale (a)	4.33	2.47	4.78	2.49	3.59	2.31
Distribution-preserving scale (b)	49.93	27.46	49.93	27.58	49.91	27.18
(a) × (b)	276.30	247.96	300.18	257.02	235.61	228.59

Table 5. Factor Analysis for Trust in Political Institutions

	Eigenvalue	Factor loadings	Uniqueness
Trust in parliament (N=2,181,787)	2.744		
11-point scale (a)		.950	.098
Distribution-preserving scale (b)		.939	.119
(a) × (b)		.980	.039
Trust in legal systems (N=2,042,553)	2.760		
11-point scale (a)		.946	.106
Distribution-preserving scale (b)		.951	.095
(a) × (b)		.980	.040
Trust in political parties (N=1,614,789)	2.754		
11-point scale (a)		.963	.074
Distribution-preserving scale (b)		.931	.133
(a) × (b)		.980	.039

Table 6. Descriptive Statistics Used in Survey-Level Prediction Models

	Trust in Parliament (N=1,501)				Trust in Legal System (N=1,374)				Trust in Political Parties (N=1,103)			
	Mean	S.D.	Min.	Max.	Mean	S.D.	Min.	Max.	Mean	S.D.	Min.	Max.
Mean trust	-.023	.220	-.622	.787	-.019	.197	-.573	.604	-.020	.216	-.571	1.103
Harmonization control variables												
Scale length	5.931	2.628	4	11	5.843	2.587	4	11	5.878	2.585	4	11
Scale direction (1=ascending)	.486	.500	0	1	.493	.500	0	1	.458	.498	0	1
Scale polarity (1=unipolar)	.917	.276	0	1	.907	.291	0	1	.902	.297	0	1
Data quality control variables												
Computer file quality (errors)	.256	.499	0	3	.256	.500	0	3	.268	.513	0	3
Data documentation (accuracy)	4.366	1.762	0	7	4.429	1.790	0	7	4.388	1.894	0	7
Processing errors	.472	.257	0	1	.485	.247	0	1	.551	.224	0	1
Lagged variables												
Lagged mean trust	-.019	.216	-.569	.765	-.019	.191	-.573	.561	-.016	.213	-.571	1.103
Time difference between the given and the preceding survey	1.981	1.786	1	13	2.056	1.776	1	15	1.923	1.605	1	12
Lagged computer file quality	.279	.488	0	3	.288	.500	0	3	.297	.510	0	3
Lagged data documentation	.476	.240	0	1	.493	.234	0	1	.552	.207	0	1
Lagged processing error	4.237	1.714	0	7	4.307	1.749	0	7	4.222	1.874	0	7

Table 7. Survey-Level OLS Regression Models for Trust in Political Institutions

	Trust in Parliament (N=1,501)		Trust in Legal System (N=1,374)		Trust in Political Parties (N=1,103)	
	1	2	3	4	5	6
Harmonization control variables						
Scale length	-.038***	-.013***	-.021***	-.009***	-.035***	-.026***
	(.004)	(.002)	(.003)	(.002)	(.006)	(.004)
Scale direction (1=ascending)	.204***	.114***	.148***	.083***	.138***	.145***
	(.018)	(.012)	(.015)	(.010)	(.032)	(.022)
Scale polarity (1=unipolar)	.161***	.041*	.128***	.038**	.095**	.049*
	(.023)	(.016)	(.020)	(.014)	(.033)	(.024)
Data quality control variables						
Computer file quality (errors)	.017	.016*	.008	.013*	.016	.007
	(.011)	(.007)	(.010)	(.007)	(.013)	(.008)
Data documentation (accuracy)	.032***	.018***	.029***	.014***	.032***	.010**
	(.004)	(.003)	(.003)	(.002)	(.004)	(.003)
Processing errors	-.027	.028	-.085***	.000	-.008	.007
	(.021)	(.015)	(.021)	(.014)	(.030)	(.020)
Lagged variables						
Lagged mean trust		.497***		.464***		.543***
		(.059)		(.065)		(.080)
Time difference between the given and the preceding survey		.001		.003		.003
		(.002)		(.002)		(.003)
Lagged computer file quality		-.011		.007		-.015
		(.008)		(.007)		(.009)
Lagged data documentation		-.010***		-.004		.004
		(.003)		(.002)		(.003)
Lagged processing error		-.023		-.066***		-.033
		(.017)		(.015)		(.022)
Lagged mean trust × Lagged computer file quality		.093*		.064		-.026
		(.040)		(.040)		(.042)
Lagged mean trust × Lagged data documentation		.060***		.069***		.050***
		(.010)		(.010)		(.010)
Lagged mean trust × Lagged processing error		-.129		-.104		-.073
		(.072)		(.083)		(.099)
Constant	-.172***	-.065**	-.174***	-.057**	-.101**	-.020
	(.029)	(.024)	(.026)	(.021)	(.035)	(.030)
R^2	.119	.604	.132	.650	.055	.592
Adjusted R^2	.116	.601	.129	.647	.050	.587

Table 8. Coverage of Trust Index in Political Institutions

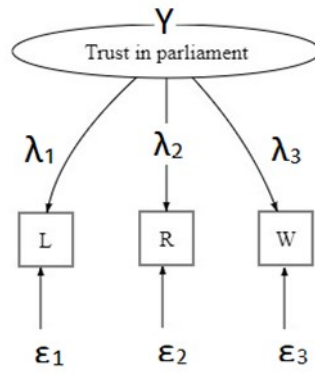|	Trust in Parliament	Trust in Legal System	Trust in Political Parties
Number of countries	138	135	111
Year coverage	1989-2017	1983-2017	1991-2017
Number of country-years	2035	2023	1528

Figure 1. Measurement model for trust in parliament

Figure 2. Trends in Political Trust

Panel A. Poland

Panel B. Nicaragua

Parliament --------- Legal system ——— Political parties