The quality of institutions and satisfaction with democracy in Western Europe — A panel analysis

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Abstract

This paper analyses how institutional factors affect satisfaction with democracy (SWD). It employs a panel of observations from Eurobarometers in the time span 1990–2000, and thus is one of the first studies to consider the longitudinal dimension of the driving forces of SWD. We find that high-quality institutions like the rule of law, well-functioning regulation, low corruption, and other institutions that improve resource allocation have a positive effect on average satisfaction with democracy.

Keywords: Satisfaction with democracy; Political economy; Institutions

JEL classification codes: H11; P16

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1. Introduction

In this paper, we analyze how institutional factors affect satisfaction with democracy (SWD). To do so, we employ (for the first time, to our knowledge) a panel of observations from Eurobarometers in the time span 1990–2000. We find that institutions matter in statistically and economically important ways. High-quality institutions like the rule of law and low corruption are associated with higher satisfaction with democracy.

Work on satisfaction with democracy is important, first, because scholars interested in the political economy of democracy often still tend to compare countries on the basis of more or less objective indicators of the degree of democracy. But quite obviously even countries that achieve exactly the same democracy ranking in, say, the Freedom House index, will not offer the same degree of satisfaction with the way democracy works to their citizens. Much as we want to know what drives subjective perceptions of personal happiness in life (Frey and Stutzer, 2002), scholars and policymakers should be interested in what drives subjective perceptions of SWD.1

A second motivation for our story comes from the observation that confidence in the performance of representative democratic institutions has declined. The articles in the comprehensive volume by Pharr and Putnam (2000) highlight widely decreasing confidence in political parties, parliaments, and politicians in Europe, the US, and Japan. Therefore, we wished to study developments in support for democratic institutions and for the way democracy works more broadly, and to understand some of the basic factors that influence this support.

SWD is an appropriate dependent variable for such a study. A number of recent papers have focused on SWD and its determinants (and we mention several of these below). Dufour et al. (2005) review that literature and find that it suffers from four problems: (1) SWD is conceptualized too easily; (2) certain factors, in particular informal rules of the game in a society have not been considered as determinants of SWD (with a handful of exceptions); (3) very little work is available on intertemporal determinants of satisfaction with democracy (in other words, almost all studies to date have been cross-sectional analyses); and (4) even in the cross-sectional studies the interaction of individual-level factors and society-level institutions has not been interpreted appropriately in quantitative terms.

Dufour et al. (2005) focused mostly on the fourth issue and also made some progress on the second problem. In particular, they analyzed the interaction of individual-level variables with institutions. They found that while some institutions of conflict management are good for average satisfaction with democracy, they can make some individuals in society worse off. However, they considered a limited number of institutions and, more importantly, also only studied the cross-section.

In this paper, we set out to deal with the second and third problem to a greater extent.2 We quantify the impact of institutions that govern the efficiency of resource allocation on satisfaction with democracy as it is measured by Euro-Barometers, cross-national surveys in Western Europe. Drawing on existing work on individual-level satisfaction with democracy, it seems clear that worse economic performance of a country overall is likely to lead to lower satisfaction with democracy. Going beyond that, we hypothesize that higher-quality institutions increase satisfaction with democracy. We find considerable support for
In particular, we find that controlling for various variables, better rule of law, lower corruption, a smaller shadow economy, less regulated political executive recruitment, less regulation of political participation, and better checks and balances all are associated with higher degrees of SWD. Other variables — in particular a preference for left or right ideology, the quality of monetary policy, union density, proportional representation, plurality, total fractionalization; opposition fractionalization, government fractionalization, and even whether a party has executive control of all relevant houses — do not have a significant impact, controlling for other economic variables.

The paper is — to our knowledge — the first study to use aggregated time-series data to provide insights into how time-varying economic factors and institutional quality determine the macro-trends of satisfaction with democracy in Europe. By doing so, it circumvents a problem many existing studies on SWD suffer from, namely potentially conflating institutional and other country-fixed effects. Historically, the first work on SWD has been on what determines individual SWD. More recently, researchers have extended such analyses by including data on political and institutional variables. For example, in a seminal paper, Anderson and Guillory (1997) find support for the hypothesis that consensual systems (in the sense of Lijphart) allow “losers”, i.e., individuals who voted for a party in the last election that is now not part of the government, to retain a higher SWD than majoritarian systems. This finding is certainly plausible.

Unfortunately, studies using cross-sectional data suffer from an important econometric problem, a problem that cannot be properly addressed in the datasets employed so far: Fixed effects cannot be accounted for in a context where the institutional variable does not vary differently than the panel groups. In other words, since the institutional variable is only observed on the country level, it is not clear whether the effect that happens to be ascribed to the institutional variable included in the regression is in fact related to the variable, or whether that variable picks up a different country-fixed effect. The problem is well-known in other areas. For example, as the economic growth literature matured in the late 1990s, researchers have moved away from the methodology that had dominated in the early 1990s, namely, growth panel regressions with institutional quality variables that do not vary over time. In defense of growth panels with non time-varying institutions, it is sometimes argued that institutional quality changes slowly and that therefore this is not such a big issue. This argument has two problems. First, it is often wrong, as evidenced by the immense fluctuation of now widely used institutional quality indices like those of Business and Environment Risk Intelligence (BERI) used in this paper. Second, precisely where it is correct, the argument does not solve, but instead worsens the issue of an unidentified country-fixed effect.

In this study, we forego conclusions for the individual level and instead focus on average statements, but with the benefit of being able to speak to intertemporal aspects of regime satisfaction. Of course, the advantages of the macro-approach employed in this paper also have a flip side: Much information is lost through aggregating 1000 observations per country-year into one number, average SWD. In the absence of true permanent panels for the SWD in Europe, however, longitudinal inference has to proceed in this way. Overall, this study should be seen as a complement to, not as a replacement of existing studies that employ individual-level data from one year.

The rest of the paper proceeds as follows. Section 2 makes some comments on the concept of SWD. Section 3 describes trends in SWD. Section 4 presents hypotheses and data sources. Section 5 presents the main quantitative findings, and Section 6 concludes.

2. Conceptualizing SWD

We have so far proceeded under the assumption as if the dependent variable is universally accepted as measuring what it purports to measure and that therefore the only real difficulty would relate to finding the best predictors. In reality, SWD has been under considerable criticism as a concept. Despite the problems attached to the concept and measurement of “satisfaction with democracy,” we see it as a very useful measure of our (unobserved) variable of interest. We take the pragmatic view that the SWD item can act as a summary indicator (Clarke et al., 1993). Although it contains some ambiguity, that ambiguity is acceptable.
Linde and Ekman (2003) provide an excellent survey of the concept of SWD, and we review their main findings here. They conclude (p. 401) that the item “satisfaction with the way democracy works” is not an indicator of system legitimacy per se. Rather, it is one indicator of support for the performance of a democratic regime. Apart from the general problems involved when trying to draw conclusions about different levels of support based on a single measured item.” In the light of these conclusions, it is fortunate that this paper is specifically not about legitimacy or the consolidation of democracy. It is about how democracy works in practice. Two things are worth bearing in mind when interpreting our results. First, we only look at Western European countries. We are not claiming that our findings apply directly to the “new” democracies of Eastern Europe, neither statically nor as a dynamic predictor for what is likely to happen with democracy in those countries. Second, SWD captures all aspects of how democracy works. By contrast, the findings of Pharr and Putnam (2000) relate most directly to the representative elements in democratic systems.

Linde and Ekman (2003) also point out that there are benefits that arise from the longitudinal study of satisfaction with democracy. In particularly, they argue (p. 405–406) that “even if everybody agrees that the Eurobarometer, the Central and Eastern Eurobarometer and the Candidate Countries Eurobarometer all have serious limitations, at least these surveys — since they have been around for quite some time — do provide us with time-series data that may be utilised to make meaningful statements about public support for democracy.” As noted by Lipset (1959), (Easton, 1975) and (Easton, 1965), and Almond and Verba (1965), generalized or diffuse support (e.g., support for regime principles) does not emerge overnight. Rather, it must be built on a record of acknowledged regime performance or ‘system outputs’ or, to put it differently, on a history of specific support. It should be noted that ‘system outputs’ are not only of an economic nature, say, a matter of economic growth or social reforms. Crucial for the creation of a reserve of generalised system support is also the regime's capacity to maintain order, to maintain the rule of law, and to otherwise respect human rights and the democratic rules of the game. To once again speak with Linde and Ekman, “a permanent performance deficit, for example, erodes diffuse support in the long run. Conversely, democratic legitimacy (support for the principles of democracy) derives to a great extent from the long-term performance of the democratic regime. In other words, time-series data allow us to assess at least some aspects of the level of democracy's legitimacy, even if we are left with nothing but performance indicators.” (p. 406) It is this view, combined with the notion that institutional quality has played an extremely important role in the literature on economic performance, that underlies the analysis of this paper.

3. Trends in satisfaction with democracy

We begin by documenting the fact that SWD indeed varies both across countries and across time. We collected all available data on satisfaction with democracy in Western Europe in the period 1990–2001. This posed considerable logistical problems, as the Eurobarometer unfortunately does not ask the question at the same point in the survey every time. This required sorting through approximately 80 codebooks of Eurobarometers in the period under consideration. Even so, data were not available for all years and all countries. For most countries, data were available for all years except 1995 and 1998, and for countries that joined the European Union in 1995, data was only available for the second half of the decade.

Fig. 1 speaks a clear language. Average satisfaction with democracy fluctuates enormously over time. A key insight we can draw from this picture is that analyses that focus on one year — as most existing articles have done so far — are likely to be incomplete.
Fig. 1 also illustrates that, as is known from anecdotes, Denmark and Luxembourg do very well in terms of satisfying their citizens’ expectations towards the democracy. (Note that higher values on the graph correspond to lower levels of SWD.) The most satisfied country-years were (in this order) Denmark (2001), Norway (1994), Luxembourg (1991), Denmark (1997), and Denmark (1994); among the top 15 country-years in terms of average SWD, there were only 3 which are not those of Denmark and Luxembourg.

Perhaps surprisingly — especially in the light of the negative findings on the development of confidence in representative democratic institutions reflected in Pharr and Putnam (2000) — there is no downward trend in satisfaction with democracy per se in Europe.7 We cannot, within this paper, study the reasons for this notable difference between general support and confidence in the representative elements of democracy. To the extent that SWD is the “sum” of confidence in representative and other, more direct elements of democracy, the deficit citizens appear to identify on the part of representative institutions is partially or completely compensated by increased satisfaction with other elements of the democratic process. However, future research is clearly needed on this important relationship.

It is also noteworthy that there is a quite high negative correlation between average SWD and its standard deviation: -0.43. This is illustrated in Fig. 2. In other words, country-years with high dissatisfaction on average also tend to exhibit highly unequal perceptions of the way democracy works in a country.8 This implies that improving either average SWD or reducing its variation has immediate positive effects on the other measure as well, unless this improvement results in a “structural break” (which is a possible, though implausible hypothesis). In this paper, we focus exclusively on average satisfaction with democracy as the dependent variable. Future work may, however, glean further insights from considering “inequality in satisfaction” as a policy-relevant dependent variable.

4. Hypotheses, data, and methodology

4.1. Hypotheses and data

Having accepted the SWD item as the most operational variable for support for the constitution in operation, we can ask: What factors do we anticipate to play a role? We expect that SWD cannot but be extremely hard to predict, since it is driven by individual interpretation on both sides of the “discrepancy”: what democracy should look like, and the way it works. Different scholars have emphasized different factors at different times: democratic history and political culture ([Almond and Verba, 1965], [Anderson, 1998], [Bowler and Donovan, 2002] and [Inglehart, 1997]), political and economic performance ([Anderson and Guillory, 1997] and [Lipset, 1994]), and others mentioned earlier. We use a very simple theoretical logic to predict signs of our explanatory variables. The descriptive statistics of all variables that we use to proxy for the theoretical factors are in Table 1.

Table 1.

Descriptive statistics
4.1.1. Economic variables

First, the worse the overall economic performance of a country, the lower average satisfaction with democracy is expected to be. This hypothesis in itself is not surprising; indeed, individual-level regressions show that richer, working individuals are more satisfied than poorer, unemployed individuals. As proxies for the overall economic performance we use data on GROWTH (GDP growth per capita), UNEMPLOYMENT, and (log) INFLATION. All of these data come from OECD sources. These three variables have been the focus of an immense literature that aims to improve people’s wellbeing (see Frey and Stutzer, 2002) and also in the economic voting literature (see, e.g., [Alesina et al., 1997], [Persson and Tabellini, 2000] and [King et al., 2008]). Beyond these three variables, it is questionable which economic variables we should control for. After all, hardly any non-economist would seem to care directly for government debt (except perhaps in extreme cases) or openness. Moreover, these variables are arguably strongly endogenous to institutional quality. Therefore, we restrict ourselves to this basic set of economic control variables in the main specification, and deal with larger sets of economic controls only in the robustness tests.

4.1.2. High-quality institutions

Second, we hypothesize that institutions that promote the quality of resource allocation, political participation, and provision of public goods increase SWD. For formal institutions, this idea has been discussed and tested in the literature, starting with Anderson and Guillory (1997) and most recently in Criado and Herreros (2007), Dufour et al. (2005) focus on informal institutions of conflict management.9

Few studies so far have considered the effect of institutional variables other than the consensus/majoritarian system, and none, to our knowledge, has done so in an intertemporal context. This is quite surprising, since there exists a wide variety of institutional and social indices which can be hypothesized to be related to system support.10 We take institutions to broadly mean “rules of the game in a society.”

In the present paper, we present and evaluate the results for a large array of institutional quality variables that are potentially relevant for the quality of resource allocation. We do this because the literature on the political economy of economic performance has not been able to identify a single institution or set of institutions that capture everything there is to the notion of “high-quality institutions.” Rather, virtually every recent study on the impact of institutions has employed a large set of variables to test for robustness.

We use the following variables (for detailed descriptions see the Appendix A)

1. The BERI Composite Index

<table>
<thead>
<tr>
<th>Observations</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with democracy</td>
<td>135</td>
<td>2.44</td>
<td>0.30</td>
<td>1.85</td>
</tr>
<tr>
<td>GDP p.c. 1974 (log)</td>
<td>121</td>
<td>2.94</td>
<td>1.09</td>
<td>1.11</td>
</tr>
<tr>
<td>Growth in p.c. GDP</td>
<td>121</td>
<td>2.77</td>
<td>3.12</td>
<td>−2.42</td>
</tr>
<tr>
<td>Inflation (log)</td>
<td>106</td>
<td>0.04</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Unemployment in %</td>
<td>136</td>
<td>8.01</td>
<td>3.57</td>
<td>1.26</td>
</tr>
<tr>
<td>BERI composite index</td>
<td>112</td>
<td>60.54</td>
<td>8.49</td>
<td>39.67</td>
</tr>
<tr>
<td>Quality of monetary policy</td>
<td>60</td>
<td>1.32</td>
<td>0.65</td>
<td>1.00</td>
</tr>
<tr>
<td>Regulatory quality</td>
<td>60</td>
<td>0.99</td>
<td>0.27</td>
<td>0.58</td>
</tr>
<tr>
<td>Rule of law</td>
<td>60</td>
<td>1.38</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Control of corruption</td>
<td>60</td>
<td>1.50</td>
<td>0.49</td>
<td>0.63</td>
</tr>
<tr>
<td>Size of the shadow economy</td>
<td>87</td>
<td>17.69</td>
<td>5.28</td>
<td>9.00</td>
</tr>
<tr>
<td>Left/right placement</td>
<td>90</td>
<td>5.23</td>
<td>0.40</td>
<td>4.02</td>
</tr>
<tr>
<td>Checks and balances</td>
<td>121</td>
<td>4.31</td>
<td>1.49</td>
<td>2.00</td>
</tr>
</tbody>
</table>
2. Quality of monetary policy (from World Bank Data)

3. Regulatory quality (from World Bank Data)

4. Rule of law (from World Bank Data)

5. Control of corruption (from World Bank Data)

6. Size of the shadow economy (from Schneider)

7. Left/right placement (from Eurobarometer, calculated as the average individual left/right placement in a given year)

8. Inequality (from Eurobarometer, calculated as the standard deviation of income categories individuals put themselves in)

9. Checks and Balances (from the database of political institutions, DPI)

10. Union density (from DPI)

11. Proportional representation (from DPI)

12. Plurality (from DPI)

13. Total fractionalization; opposition fractionalization, government fractionalization (from DPI)

14. A dummy indicating whether a party has executive control of all relevant houses (from DPI).

We also considered using variables like regime durability, regulation of executive recruitment, regulation of political participation, political competition, parliamentary or presidential system, etc., but these rarely vary across time or even across the countries in our sample.

4.2. Estimation strategy

Summarizing, we estimate a panel regression of the form

$$ SWD_i = \alpha + \beta_1 \text{GROWTH}_i + \beta_2 \text{UNEMP}_i + \beta_3 \text{INFLATION}_i + \gamma \text{INST}_i + \epsilon_i $$

where the indices "i" indicate that we have panel data for all the relevant dependent and explanatory variables.

Our dependent variable is average satisfaction with democracy. A higher value of SWD indicates less satisfaction. (A value of 4 means an individual is “not at all satisfied,” whereas a value of 1 means an individual is “very satisfied.”). To be consistent with our hypotheses, we therefore expect \( \beta_1 < 0 \), \( \beta_2 > 0 \), \( \beta_3 > 0 \).

As for institutions, we expect their coefficients to reflect that better institutions promote SWD. In other words, we expect \( \gamma < 0 \) for those variables where a higher value of the institutional variable corresponds to better institutions. This is true for variables 1–5 and 9 above. For the size of the shadow economy and inequality, we expect \( \gamma > 0 \), while for the others we have no prior. We use random effects panel estimations to make use of the between-country variation to the greatest possible extent.

5. Empirical results

5.1. Basic correlations

We begin by considering the basic correlations between our central variables of interest. Table 2 shows these. What is striking about the first column is that most institutional quality indicators are strongly positively related to satisfaction with democracy (recall that a higher value of SWD indicates lower satisfaction). Only left/right placement has a correlation with SWD of less than 0.2 in absolute value; by contrast, the correlation of control of corruption with SWD is a huge – 0.73. The institutional variables among themselves are correlated, but not extremely highly so. This suggests that it is worth considering each institution separately.
Table 2.

Correlations of dependent and explanatory variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SWD</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>GDP p. c. 1974</td>
<td>0.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Growth</td>
<td>0.27</td>
<td>0.39</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Inflation</td>
<td>0.05</td>
<td>0.47</td>
<td>0.03</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Unemployment</td>
<td>0.24</td>
<td>0.32</td>
<td>0.24</td>
<td>0.08</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Composite</td>
<td>0.22</td>
<td>0.47</td>
<td>0.20</td>
<td>0.60</td>
<td>0.35</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Monetary</td>
<td>0.25</td>
<td>0.67</td>
<td>0.09</td>
<td>0.83</td>
<td>0.22</td>
<td>0.72</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Regulatory quality</td>
<td>0.56</td>
<td>0.11</td>
<td>0.53</td>
<td>0.23</td>
<td>0.32</td>
<td>0.48</td>
<td>0.44</td>
</tr>
<tr>
<td>9</td>
<td>Rule of law</td>
<td>0.58</td>
<td>0.45</td>
<td>0.07</td>
<td>0.50</td>
<td>0.44</td>
<td>0.60</td>
<td>0.63</td>
</tr>
<tr>
<td>10</td>
<td>Low corruption</td>
<td>0.73</td>
<td>0.52</td>
<td>0.16</td>
<td>0.37</td>
<td>0.36</td>
<td>0.45</td>
<td>0.54</td>
</tr>
<tr>
<td>11</td>
<td>Shadow economy</td>
<td>0.40</td>
<td>0.34</td>
<td>0.01</td>
<td>0.43</td>
<td>0.43</td>
<td>0.74</td>
<td>0.64</td>
</tr>
<tr>
<td>12</td>
<td>Left/right</td>
<td>0.11</td>
<td>0.15</td>
<td>0.43</td>
<td>0.35</td>
<td>0.06</td>
<td>0.54</td>
<td>0.22</td>
</tr>
<tr>
<td>13</td>
<td>Checks</td>
<td>0.39</td>
<td>0.23</td>
<td>0.26</td>
<td>0.20</td>
<td>0.29</td>
<td>0.35</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Two scatterplots should suffice to illustrate these apparently strong correlations between satisfaction with democracy and institutional quality. The two graphs below concern the rule of law and control of corruption. There is a clear positive relation between rule of law and SWD (Fig. 3). A similar relationship holds for (lack of) corruption and SWD, as evidenced in Fig. 4.

5.2. Multiple regressors

While these pictures allow us some first insights, we need to make the analysis more statistically rigorous by running regressions with more explanatory variables. The results of our study are summarized in Table 3, Table 4 and Table 5.
Table 4. Satisfaction with democracy and institutional quality

<table>
<thead>
<tr>
<th>BERI composite index</th>
<th>Quality of monetary policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule of law</td>
<td>Control of corruption</td>
</tr>
<tr>
<td>GDP p.c. 1974</td>
<td></td>
</tr>
<tr>
<td>(0.45)</td>
<td>(0.44)</td>
</tr>
<tr>
<td>Growth in GDP p.c.</td>
<td></td>
</tr>
<tr>
<td>(0.20)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Log inflation</td>
<td></td>
</tr>
<tr>
<td>(2.01)</td>
<td>(2.01)</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td></td>
</tr>
<tr>
<td>(1.94)</td>
<td>(1.94)</td>
</tr>
<tr>
<td>Institutional index</td>
<td></td>
</tr>
<tr>
<td>(3.41)</td>
<td>(3.41)</td>
</tr>
<tr>
<td>(10.35)</td>
<td>(10.35)</td>
</tr>
<tr>
<td>Observations</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Average yearly satisfaction with democracy; 1 = very satisfied, 4 = not at all satisfied. Random effects panel regressions. Absolute value of z statistics in parentheses. *significant at 5%; **significant at 1%.
Dependent variable: Average yearly satisfaction with democracy: 1 = very satisfied, 4 = not at all satisfied.

Random effects panel regressions.

Absolute value of z statistics in parentheses.

*significant at 5%; **significant at 1%.

Table 5.

Satisfaction with democracy and institutional quality

<table>
<thead>
<tr>
<th>Checks and balances</th>
<th>Left/Right placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>(19)</td>
<td>(20)</td>
</tr>
<tr>
<td>GDP p.c. 1974</td>
<td>0.103</td>
</tr>
<tr>
<td></td>
<td>(1.98)**</td>
</tr>
<tr>
<td>Growth in GDP p.c.</td>
<td>0.030</td>
</tr>
<tr>
<td></td>
<td>(2.18)**</td>
</tr>
<tr>
<td>Log inflation</td>
<td>-0.295</td>
</tr>
<tr>
<td></td>
<td>(0.38)</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.028</td>
</tr>
<tr>
<td></td>
<td>(2.75)**</td>
</tr>
<tr>
<td>Institutional index</td>
<td>0.036</td>
</tr>
<tr>
<td></td>
<td>(2.40)**</td>
</tr>
<tr>
<td>Constant</td>
<td>2.680</td>
</tr>
<tr>
<td></td>
<td>(15.18)**</td>
</tr>
<tr>
<td>Observations</td>
<td>112</td>
</tr>
</tbody>
</table>

Dependent variable: Average yearly satisfaction with democracy: 1 = very satisfied, 4 = not at all satisfied.

Random effects panel regressions.

Absolute value of z statistics in parentheses.

*significant at 5%; **significant at 1%.

5.2.1. Economic variables

We begin by noting that also with controlling for institutional variables, we find that the effects of the basic economics variables go in the expected direction:

First, countries and years with faster growth have higher satisfaction with democracy.

Second, countries and years with higher unemployment growth have lower satisfaction with democracy.

Third, countries and years with higher inflation have lower satisfaction with democracy.

While these findings are certainly intuitive and reflect what was to be expected, it is noteworthy that this is the first systematic multi-year evidence on these relationships that is available.
5.2.2. Institutional variables

The results that emerge in the multiple regressions are interesting. We find that, controlling for various variables,

• a better rule of law,
• lower corruption,
• a smaller shadow economy,\textsuperscript{11}
• better checks and balances,
• and a better institutional quality generally (as measured by the BERI composite index)

all lead to higher degrees of SWD. This is consistent with findings by Newton and Norris (2000) who point out that institutional and governmental performance appear to explain confidence in public institutions better than general measures of trust.

Curiously, higher income equality is found to potentially negatively affect SWD, though not consistently in a statistically significant way. Other variables — in particular a preference for left or right ideology, the quality of monetary policy, union density, proportional representation, plurality, total fractionalization; opposition fractionalization, government fractionalization, and even whether a party has executive control of all relevant houses — do not have a significant impact, controlling for other economic variables. (These results are not shown.)

5.3. Quantitative interpretation

The effects implied by these regression results are also economically significant. To understand this, first select a “rule of the game” of interest. Since we have estimated a linear regression, the coefficients can be interpreted directly without the need for simulations. For example, let us consider control of corruption. The results in the three different regressions indicate that the coefficient remains relatively stable even controlling for other variables like GDP, growth, inflation, or unemployment. This heightens our confidence in the results. Regression (15) implies that a one-point increase in the quality of the control of corruption increases average satisfaction with democracy by 0.36 points, which is approximately one full standard deviation. This is a large effect, especially taking into account that a one-point increase in the quality of the control of corruption is potentially feasible (that variable ranges from 0.63 to 2.24 in the sample). Similarly, increasing institutional quality as measured by the BERI composite index also has a potentially significant effect. A two standard deviation increase in the composite index is predicted to result in approximately half a standard deviation increase in satisfaction with democracy.

5.4. Robustness tests

Several economic and statistical robustness tests increase our confidence in the results. First, we cannot find robust statistical evidence for other macroeconomic variables like openness, debt, or the foreign exchange regime. Therefore, we do not show these results. In many different specifications, also allowing for quadratic terms of the control variables, the direction of the effects remains the same.

Second, likelihood ratio tests confirm that leaving out all institutional variables does worse than including some combination of them. The hypothesis that the restricted model is indistinguishable from the unrestricted one (the latter being created by adding one or more institutional variables) is rejected for each institution considered here at the highest confidence levels. Applying fixed instead of random effects does not change the substantive results. Leaving out all observations pertaining to Italy does not change the results.

6. Conclusion and policy implications

This paper is, to our knowledge, the first study of the roots of satisfaction with democracy in a panel setting. Clearly, this empirical setting is superior to a cross-sectional study in that...
we have an intertemporal dimension that allows us to identify the effect of institutions on SWD; by contrast, existing work had relied exclusively on cross-sectional information and was, therefore, unable to distinguish institutional impacts from other country-fixed effects. The drawback of the method in this paper is that we are not able to make individual-level inferences or other statements about how the average effects on SWD are distributed across the population.

We have noted that there is no general downward trend in SWD in Europe in the 1990s. This is to be compared to the stark decrease in confidence in representative democratic institutions documented in Pharr and Putnam (2000). Further research is needed to clarify the relationship between support for representative institutions and for the way democracy works more broadly. In our statistical analysis, we found that high-quality institutions — low corruption, a good rule of law, etc. — have a statistically and economically significant positive effect on SWD. A puzzling result in our sample is the positive effect of inequality on average satisfaction with democracy. We can only speculate that the particular measure of inequality we have employed (namely the standard deviation of income categories in the Eurobarometer) is not fully appropriate. Moreover, inequality is, in this sample, negatively related to growth. This will merit further inquiry.

We emphasized earlier that, since the dependent variable is average SWD, we are not able to make too strong policy recommendations because of the possibility that certain groups in society would be harmed despite a general increase in SWD. However, we had also found that average SWD and the variance in SWD typically are inversely related. Thus, at least in expectation, increasing average SWD would put a country on a higher welfare level with a significant degree of certainty. All in all, then, the paper provides another reason for a country to improve its institutional environment.

Acknowledgements

We thank the editor (Jakob de Haan) and an anonymous referee for comments that much improved the paper. Mathias Dufour deserves special credit for inspiring Wagner to continue pursuing this research topic after their first joint paper on the subject. Bruno Frey, Pippa Norris, Gemot Wagner, Heinz Welsch and Rainer Winkelmann also provided helpful comments. We would like to thank Silke Mader and Jürgen Wegmayr for research assistance and the Jubiläumsfonds of the Austrian National Bank (project no. 10939), the APART fellowship of the Austrian Academy of Sciences, the NCCR FINRISK, the University Research Priority Program Finance and Financial Markets, and the Swiss Finance Institute for financial support.

References


Dufour et al., 2005 Dufour, M., Wagner, A.F., Schneider, F., 2005. Institutions of conflict management and satisfaction with democracy in Western Europe. Harvard University, University of Zurich and University of Linz.


Appendix A. Data sources
World bank

(Kaufmann et al. 1999a), (Kaufmann et al. 1999b) and (Kaufmann et al. 2002) (KKZ) define governance broadly as the traditions and institutions by which authority in a country is exercised. They have compiled a large number of governance measures from a variety of sources into a governance database. The sources include international organizations, political and business rating agencies, think tanks, and non-governmental organizations.\(^{12}\)

The two basic types of sources are polls and surveys. Polls are explicitly designed for cross-country comparability, but they are typically based on the opinions of only a few experts per country. Surveys, on the other hand, reflect the opinions of a larger number of respondents, but questions can be interpreted in context- or culture specific ways. Also, surveys are much more costly and therefore typically cover a smaller set of countries. The main contribution of KKZ is to use unobserved variables techniques to flesh out six aggregate governance indicators from the large variety of partly overlapping governance indicator databases. These six indicators are the following:

“Voice and Accountability” is intended to capture the process by which those in authority are selected and replaced. Indicators measuring various aspects of the political process, civil liberties and political rights are included to measure the extent to which citizens of a country are able to participate in the selection of governments. KKZ also include in this category three indicators measuring the independence of the media, which serves an important role in monitoring those in authority and holding them accountable for their actions.

“Political Instability and Violence” combines several indicators which measure perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means. This index captures the idea that the quality of governance in a country is compromised by the likelihood of wrenching changes in government, which has a direct effect on the continuity policies.

“Government Effectiveness” combines perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitment to policies.

“Regulatory burden” is more focused on the policies themselves. It includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development.

“Rule of Law” stands for several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of both violent and non-violent crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.

Finally, “Control of corruption” (or “Graft”) measures perceptions of how successful the country is in keeping the exercise of public power for private gain at a minimum. The presence of corruption is often a manifestation of a lack of respect of both the corrupter (typically a private citizen) and the corrupted (typically a public official) for the rules which govern their interactions, and hence represents a failure of governance.

The unobserved components model expresses the observed data in each cluster as a linear function of the unobserved common component of governance, plus a disturbance term capturing perception errors and/or sampling variation in each indicator. Formally, then, the estimate of governance for each country is the mean of the distribution of unobserved governance conditional on the observed data for that country. The assumptions of the model KKZ apply ensure that the distribution of governance in each country is normal, conditional on the data for that country. Even though in the present paper we employ the point estimates of the governance indicators (as is the usual procedure in work on the impact of institutional quality), it is noteworthy that KKZ find that the underlying governance concepts in each cluster are themselves not very precisely estimated. Still, although imprecise, each aggregate indicator provides a more precise signal of its corresponding...
broader governance concept than do any of its component indicators. For more details on the method, we refer the reader to the original papers.

**BERI**

The Business Environment Risk Intelligence (BERI) data package covers 53 countries from 1980–2000. The countries covered include: Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, China (P.R.C.), Colombia, Czech Republic, Denmark, Ecuador, Egypt, Finland, France, Germany, Greece, Hungary, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Kazakhstan, Korea (South), Malaysia, Mexico, Morocco, Netherlands, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan (R.O.C.), Thailand, Turkey, Ukraine, United Kingdom, United States, Venezuela, Vietnam.

The three categories available from BERI are constructed as follows. The COMPOSITE INDEX that is used in this paper is an average of these factors.

The objective of ORI is to gauge the operations climate for foreign businesses. There are two variables being measured: (1) the degree to which nationals are given preferential treatment and (2) the general quality of the business climate, including bureaucratic and policy continuity. A permanent panel of 105 experts around the world rate present conditions for 15 criteria that measure the country's business environment from 0 (unacceptable conditions) to 4 (superior conditions). The following criteria have been used for over twenty years (weights are given in parentheses): Policy Continuity (3.0), Labor Cost/Productivity (2.0), Attitude: Foreign Investors and Profits (1.5), Professional Services and Contractors (0.5), Degree of Privatization (1.5), Communications and Transportation (1.0), Monetary Inflation (1.5), Balance of Payments (1.5), Local Management and Partners (1.0), Bureaucratic Delays (1.0), Economic Growth (2.5), Short-Term Credit (2.0), Currency Convertibility (2.5), Long-Term Loans and Venture Capital (2.0), Enforceability of Contracts (1.5).

The Political Risk Index (PRI) focuses on sociopolitical conditions in a country. BERI utilizes a permanent panel of experts with diplomatic careers and training in a political science. The index is constructed in two steps. In the first step, the expert rates the present conditions for each of the 8 causes from 7 (no problems) to zero (prohibitive problems). These causes include: fractionalization of the political spectrum and the power of these factions; mentality, including xenophobia, nationalism, corruption, nepotism, willingness to compromise, etc.; fractionalization by language, ethnic and/or religious groups and the power of these factions; social conditions, including population density and wealth distribution; restrictive (coercive) measures required to retain power; organization and strength of forces for a radical government; dependence on and/or importance to a major hostile power; negative influences of regional political forces. Then, two symptoms are rated on the same scale in the present: societal conflict involving demonstrations, strikes, and street violence; instability as perceived by nonconstitutional changes, assassinations, and guerrillas wars. The perspective is from the viewpoint of an international bank rather than private enterprise owned by nationals. This subtotal involves a maximum of 70 for the perfect country. Since one or more of the causes may have an overwhelming impact on the overall political stability, the second subtotal of the system allocates a total of 30 points to causes (not symptoms) to reward especially advantageous situations. The expert can apply the points to one, two, etc., causes or opt to allocate no additional points. The lowest risk country could receive a rating of 100 as a result of steps one and two.

The purpose of the R (for remittances and repatriation of capital) Factor is to estimate a country's capacity and willingness for private foreign companies to convert profits and capital in the local currency to foreign exchange and transfer the funds and have access to convertible currency to import components, equipment, and raw materials. It consists of four subindices, the legal framework subindex, the foreign exchange generation subindex, the accumulated international reserves subindex, and the foreign debt assessment subindex. This index does not rely on experts but uses data like the IMF's International Financial Statistics, data on public foreign debt from the World Bank, etc. More detailed information is available from BERI and from the authors.
Database of political institutions (DPI)

“Checks” is incremented by one if there is a chief executive. “Checks” is incremented by one if the chief executive is competitively elected. “Checks” is incremented by one if the opposition controls the legislature. In presidential systems, “Checks” is incremented by one: (a) for each chamber of the legislature unless the president's party has a majority in the lower house and a closed list system is in effect (implying stronger presidential control of his/her party, and therefore of the legislature); (b) for each party coded as allied with the president's party and which has an ideological (left–right–center) orientation closer to that of the main opposition party than to that of the president's party. In parliamentary systems, “Checks” is incremented by one (a) for each party in the government coalition as long as the parties are needed to maintain a majority (the previous version of “Checks” — Checks3 in DPI3 — incremented by one for each of the three largest parties in the government coalition, regardless of whether they were needed for a legislative majority); (b) for every party in the government coalition that has a position on economic issues (right–left–center) closer to the largest opposition party than to the party of the executive. In parliamentary systems, the prime minister's party is not counted as a check if there is a closed rule in place — the prime minister is presumed in this case to control the party fully.

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2 In the long term, SWD may be an important driver of individuals’ preferences for democracy as such. Direct evidence on this is available, for example, from Latin America (Sarsfield and Echegaray, 2006).

3 We continue to leave it to other papers to explore theoretical problems with the concept of SWD (Anderson, 2005) and (Canache et al., 2001). We will also have a little bit to say about the theoretical concept of SWD, but the character of the paper is strictly empirical.

4 This has a very good reason: The richness of datasets like the Eurobarometer allowed detailed inferences about how a person's educational background, age, income, perceptions of the economic environment etc. impact SWD.

5 A substantial body of research exists on how individuals who belong to the political majority and those who belong to the minority differ in their view of the functioning of democratic political institutions. Anderson and Tverdova (2001) compare the effect of political majority and minority status on attitudes toward government in mature and newly established democracies. Using surveys conducted by the International Social Survey Project (ISSP) in 12 democracies in 1996, they find that being in the majority generally translates into more positive attitudes toward government. However, this effect is not of uniform magnitude across countries, nor does it affect all attitudes toward government equally. Specifically, the data show that being in the political majority or minority strongly affects attitudes toward the performance of the political system and the power of government, but does not affect people's levels of political efficacy in systematic ways. Blais and Gelineau (2007) find that the outcomes both in the local constituency and in the national election matter.

6 What is worse, when using both individual level and aggregate level data, OLS estimates will generally be biased, making multi-level analysis the appropriate method. Weils and Krieschhaus (2006) forcefully demonstrate this point in their replication of two earlier studies. Properly incorporating the hierarchical structure into the analysis, they confirm the earlier findings of Anderson and Guillory (1997) for the importance of the political system, but they find that economic growth, political freedom, and corruption no longer remain significant determinants of satisfaction with democracy (in contrast to findings in Rose et al. (1998)). Hierarchical-level modeling is becoming the standard in research that uses data structures with multiple levels. See, for example, Mattes and Bratton (2007) and Halla et al. (2008).

7 Moreover, from an econometric perspective, the problem introduced — measurement error — would not bias the estimates, since the error is on the dependent variable. Instead, the standard errors would be too large.

8 We thank the referee for pointing this out to us.

9 Italy is remarkable in several ways. The three highest levels of average dissatisfaction in the whole European Union from 1990 to 2001 all occurred in Italy (in 1992, 1993, and 1996, respectively); of the top 15 country-years in terms of average dissatisfaction, 9 are those of Italy. Italy's experience is not uniform across the years. The standard deviation of SWD in
the three worst years was substantially below the average standard deviation, indicating that there were not a few Italians who were in fact quite satisfied, but that most Italians experienced high degrees of dissatisfaction. By contrast, in the other years, the standard deviation was much higher than average.

9 The argument is that institutions like consensual democracy — which is measured mostly with respect to the election system, a formal institution — allow even those who voted for parties other than the government parties to be represented by the system. Already Lijphart (1994) makes the point that consensual democracies outperform majoritarian democracies in terms of responsiveness and do at least as well in terms of efficiency, and thus lead to higher levels of satisfaction with democracy.


11 The coefficient of this variable is significant only when controlling for other variables.