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RESEARCH ARTICLE

The relationship between institutional quality, trust and private savings

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Abstract

This paper draws on macroeconomics, the economics of institutions and the economics of trust to explain private savings at the national level for 33 OECD (mostly European) countries from 2002 to 2012. More specifically, it raises two questions: (i) is it the quality of institutions or trust in institutions that drives private savings? (ii) if trust matters, what is the appropriate institutional level at which it operates? To answer these questions, we add to the usual explanatory variables of private savings three measures of institutional quality and six measures of institutional trust, distributed between the following institutional levels, presented in assumed hierarchical order: political, legal, financial and social. We find that trust in political institutions is the most significant driver of private savings. This contributes to the literature underlining the importance of subjectivity in social and economic phenomena and suggests, for private bank savings in countries having highly regulated banking systems, the existence of a hierarchy of trust in which trust in the highest-ranking institutions (political – and to a lesser extent legal – institutions) acts as a substitute for trust in every lower-ranking institution (financial institutions and social trust).

Keywords: beliefs; institutional quality; institutional trust; private savings; social trust; subjectivity

Introduction

The amount of savings in a country has a crucial macroeconomic role. Recent research (Grigoli *et al.*, 2018) has identified key determinants of the saving rate at the macro level, but has left out the institutional factor, which is otherwise seen as central to growth through accumulation (Acemoglu *et al.*, 2014; Jordan, 2001; North, 1990). Savings represent the renunciation, or sacrifice, of present benefits in favour of benefits in an uncertain future. As such, it requires strong guarantees, likely to be provided by some institutions. Good institutions are indeed more likely to create good incentives, limit the risk of expropriation and encourage accumulation. It seems therefore reasonable to assume that good institutions are an indispensable prerequisite for savings and economic growth. This result is partially confirmed for developing and emerging countries by Freytag and Voll (2013), who find that better economic institutions (but not better political institutions) favour private savings.

In this article, we test whether this result is valid in developed countries and most importantly we extent the analysis by integrating insights from the economics of trust. This body of literature places beliefs at the centre of its analyses. Consequently, it may not be the objective quality of institutions that affects savers' choices, but their perceived quality. In this perspective, institutional trust would be a necessary determinant of the saving rate, irrespective of the objective quality of institutions. Going a step further, the question arises as to what is the appropriate institutional level at which trust

operates, i.e. whether it is trust in others (social trust) or trust in financial or legal or political institutions that matters. The stakes of such questions are high, since it is a question of knowing whether the implementation of good formal institutions can be sufficient to encourage savings and ultimately to promote investment and economic growth in a country.

In sum, this article proposes to study the role of formal and informal institutions, both from an objectivist and subjectivist perspective, on the private saving rate. It does so by articulating three bodies of literature that, oddly, ignore each other: the macroeconomics of savings, the economics of institutions and the economics of trust. Each of these fields of economic science deals with savings, but to our knowledge no attempt has been made thus far to integrate their results. More specifically, this article aims to test (i) whether it is the quality of institutions or trust in institutions that drives private savings; (ii) if trust matters, what is the appropriate institutional level at which it operates. It draws on the approach of Grigoli *et al.* (2018), which seeks to explain the level of private household savings at a macro (i.e. national) level, and extends it by adding three variables of institutional quality (quality of political institutions, quality of legal institutions and quality of financial institutions) and six trust variables (trust in political institutions: parliament and politicians, trust in legal institutions: judicial system and police, trust in financial institutions and social trust). Our main result is that trust in political institutions is the most significant driver of private savings, which pleads in favour of the subjectivist principle and is in accordance with a pyramidal approach to trust.

Institutional quality, trust and savings

An abundant literature demonstrates the importance of formal institutions (i.e. the system of property rights, laws and regulations) for growth and development (Acemoglu *et al.*, 2014; North, 1990). The protection of property rights, in the form of 'a fair and balanced judicial system, contract enforcement, and effective limits on government's ability to transfer wealth through taxation and regulation' (Sobel, 2008: 644), is indeed a condition for capital accumulation (Jordan, 2001: 22) and ultimately economic growth. Property rights encourage accumulation because they protect individuals against all forms of expropriation (Demsetz, 1967). Anything that increases the risk of expropriation (e.g. theft or tax) slows accumulation, investment and ultimately productivity gains and the level of production because agents have no incentive to accumulate and more generally to be more effective (Besley and Ghatak, 2010: 4,529). Under these conditions, the savings rate in a country should depend on the quality of its formal institutions. To encourage saving, it should be sufficient for the State to protect the property rights of savers.

Such a narrative logically recommends that poor countries should copy the institutions of rich countries to reach their level of accumulation and thus create good conditions for economic growth. Nonetheless, experience shows that institutional copying often fails (Chang, 2011; Couyoumdjian, 2012; Lecce and Ogliari, 2019; Rodrik, 2008; Seidler, 2018), suggesting that culture is crucial for the effectiveness of an institutional system. Law (formal institutions) and culture (informal institutions) are inseparable (North, 1990: 7; Williamson, 2000: 597). This implies that the question of the institutional determinants of the saving rate must be revisited and this is where the theme of trust enters the discussion, by introducing two extra dimensions into the picture.

First, trust can be thought of as a judgement about the quality of institutions (informal and formal). Institutions are crystallised knowledge (Hayek, 1960: 27). This knowledge is a set of cognitive rules. '*Cognitive rules are social constructs that convey information that distills and summarizes society's beliefs and experience*' (Greif and Mokyr, 2017: 26). The individuals are co-producers of shared beliefs about each type of institutions (Frolov, 2023). They make judgements about the quality of institutions, about the consistency and validity of the set of cognitive rules that justify and legitimize each institutional system. They may or may not trust these rules. They believe in them or not. Trust is a judgement on the quality of these cognitive rules according to which certain actions will lead to certain outcomes (Greif and Mokyr, 2017: 27). Trust is the mental model reflecting a common belief system that will translate into a set of institutions (North, 2005: 104). It is the glue of institutions (Gallagher and Petracca, 2022). Savers not only need to know that their savings are formally (*de jure*) protected by

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law. They need to believe that this is actually the case. They need to believe that their savings will not be confiscated in the event of a crisis or government need.

The second extra dimension introduced by trust is a consequence of the first. The need to believe is an act of faith. In an uncertain world, no amount of information or objective knowledge can guarantee that savings will not be confiscated. Trust thus complements the theory of institutions with a theory of beliefs that is not based on facts, but on will (James, 1897) and/or un-necessary reasons (Aquinas, 1265–1274[1]). (*i*) When the act of faith finds its origin in the will to believe, savers want to believe that the world can be what they want it to be. Trust, in this perspective, is a personal or cultural attribute (Fukuyama, 2000). Individuals' trust in others, in the State or in the market is independent of the reliability of others, the efficiency of public decisions and the performance of market institutions. The prevalence of pro-social behaviours makes formal contract enforcement mechanisms unnecessary (McCannon, 2011). Trust is a substitute for the quality of institutions and becomes essential in countries where the institutions that enforce contracts are weak (Karlan *et al.*, 2009). (*ii*) When the act of faith finds its origin in un-necessary reasons to believe it, savers are sure, without necessity, because of experience or education. Savers trust market institutions or government because they have rarely been disappointed by these institutions. They have always worked well. Or savers have confidence in the institutions of the market because they have had teachers or listened to journalists who explained to them how the market worked and what were the mechanisms that made it possible to protect their savings. Institutions play a key role as facilitators of trust (Bachmann and Inkpen, 2011: 287). Trust would thus evolve with the quality of institutions (Farrell, 2005). A positive experience of public institutions or officials increases trust (Edlund, 2006). A positive experience of law and regulations encourages people to be honest (Bohnet and Baytelman, 2007) and improves social trust (McCannon *et al.*, 2018: 812).

This will of belief is probably 'less realistic at least where business relationships are concerned' (Bachmann and Inkpen, 2011: 288), but when institutions are highly regulated by government, the trust of savers is not mainly in the quality of business relationship and private contracts, it is in economic institutions which are embedded in political institutions. The saver should not doubt the government's ability to maintain a currency (exchange rate risk) and to be fiscally responsible. It is then a matter of having confidence in the government's ability to manage the complexity of the social order. Because of the impossibility of gathering all the knowledge necessary to ensure this, the willingness to believe that the government is credible, benevolent and omniscient is a cognitive shortcut, a means of reducing the costs of information gathering. In a world organized into a system of territorial States and where States can enforce the law or change it and facilitate or not the production of money, the saver must above all have confidence in the State and in the hierarchy of norms that it imposes. Taking into account the hierarchy of legal norms, with the Constitution at the top and the contract at the bottom (Kelsen, 1967), creates the conditions for the existence of a hierarchy of trust (Figure 1).

This approach leads us to make the hypothesis that trust in the hierarchically highest institutions is a substitute for every lower level of trust down to social trust. Concretely, this means that even though social trust could theoretically matter because institutions are run by individuals, trust in institutions and more particularly in political institutions is probably sufficient to foster savings. One can believe that the banker is incompetent, but that in the event of the bank's failure, the central bank will preserve one's savings. One can believe that the central banker is incompetent, but that government under the democratic process will be obliged to prevent the bankruptcy of households to avoid losing the elections. Trust in political institutions should ultimately be the main determinant of household saving rates. It may operate in the minds of citizens through two channels: directly via regulation since political actors may easily seize or tax citizens' savings and indirectly via fiscal and monetary policy since citizens should be more prone to save if they trust the political actors to provide a reasonably stable economic environment.

There is already empirical evidence of a significant positive relationship between various types of trust and the investment volume of savers at the micro level (using individual data). It concerns social

[1]'*The believer has sufficient motive for believing (…) he does not believe lightly. He has not, however, sufficient reason for scientific knowledge*' (S. II-II, Question 2, article 9 ad.3)

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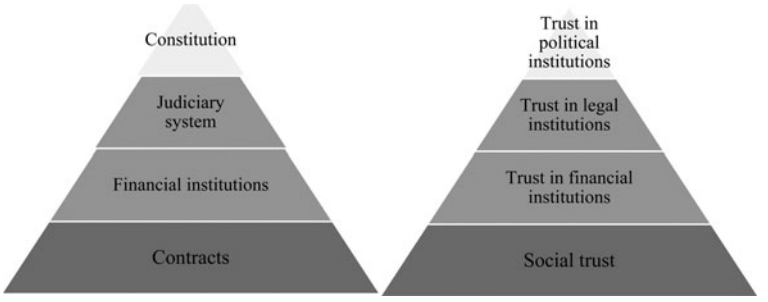

Figure 1. Pyramids of formal institutions and of corresponding trust related to banking and savings.

trust (Guiso *et al.*, 2004; Hong *et al.*, 2004), trust in the bank officer and in the bank (Coupé, 2011; Guiso *et al.*, 2008), trust in political institutions and in financial institutions (Baidoo and Akoto, 2019; Balloch *et al.*, 2015), trust in national currency and in current monetary policies and institutions (Brown and Stix, 2015). Evidence at the macro level, as well as an interpretation in terms of a hierarchy of trust, are however lacking, while it is known that trust in banks and financial institutions differs strongly from one country to another (Agnew *et al.*, 2012; Stix, 2013). The rest of the paper aims to contribute to fill this gap.

Data and hypotheses

Data on savings and macroeconomic determinants were obtained from Grigoli *et al.* (2018).[2] They explain the household savings rate by: (i) the GDP per capita in purchasing power parity, (ii) the GDP growth rate, (iii) the public sector savings rate, (iv) age, (v) the share of the population living in cities, (vi) the interest rate, (vii) the inflation rate, (viii) the flow of private sector credit and (ix) the terms of trade. They calculated their own private savings indicator using data mainly from the World Economic Outlook Database (WEO), UN National accounts and several national central banks for missing observations. Data for independent variables and controls were obtained from various sources (World Bank Development Indicators database, IMF World Economic Outlook, etc.; see Grigoli *et al.*, 2018). In the following analyses, we use the household savings rate as our explained variable and the nine other variables as control variables. Our explanatory variables of interest are the quality of institutions measured at three levels (political, legal and financial) and trust in institutions measured at four levels (political, legal, financial and social), which we now describe.

Our indicator of institutional quality at the political level is from the 'Polity5 Project' Database by Marshall and Gurr, from the Center for Systemic Peace. We use the 'Polity2' Index, which subtracts a score measuring the strength of democratic patterns of a country from a score measuring the strength of autocratic patterns. The result is a unified polity scale ranging from +10 (strongly democratic) to −10 (strongly autocratic).

Our indicators of institutional quality at the legal and financial levels are taken from the 'Economic Freedom of the World Report' issued each year by the Fraser Institute, which combines data from various sources, mostly based on experts' opinions on their national institutions.[3] We use the indicator 'legal system and property rights' as a measure of the quality of legal institutions. It refers to the respect of the rule of law, the security of property rights, an independent and unbiased judiciary and impartial and effective enforcement of the law. We use the indicator 'sound money' as a measure of the quality of financial institutions. It measures the stability of the money growth taking into account inflation, but also the freedom to own foreign currency bank accounts.

[2]We thank the authors for providing us with their database.

[3]Fraser Institute, 'Economic Freedom of the World', Appendix – Explanatory Notes and Data Sources.

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We use six indicators of trust. Five of them (two measures of trust in political institutions, two measures of trust in legal institutions and one measure of social trust) are taken from the European Social Survey, which is an academic-quality opinion survey on the values of Europeans conducted by a team of researchers and carried out every 2 years since 2002. Sampling is random and involves around 1,500 people over 15 years of age for each country for each of the survey waves. Data are collected in face-to-face computer-assisted personal interviews. We use the waves from 2002 to 2012. The sixth one (trust in financial institutions) comes from the database 'Gallup World Poll'.

The indicators of trust in political and legal institutions draw on the work of Sønderskov and Dinesen (2016) and Zmerli and Newton (2008). It measures citizens' confidence in various public institutions by asking the following question: 'please tell me on a score of 0–10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust'. We use trust in parliament and in politicians as measures of trust in political institutions[4] and trust in the judicial system and the police as measures of trust in legal institutions.

The indicator of trust in financial institutions is based on Gallup annual World Polls. The question asked was the following: 'In this country, do you have confidence in each of the following, or not? How about financial institutions or banks?'. The question was asked on samples of approximately 1,000 respondents between 2008 and 2018 on a yearly basis. The indicator gives us the share of respondents in the country who answered 'Yes', meaning that they are confident in these institutions.

The indicator of social trust, or trust in others, follows the methodology of Sønderskov and Dinesen (2016). It takes up three questions from the ESS. The first question concerns the trust that people place in strangers outside their family and friends: 'In general, do you think that you can trust most people, or that you can never be too careful in your dealings with others?' It is answered on an 11-point scale based on the following two opposite options: 'you can trust most people' and 'you can never be too careful'. To this first question are added two other questions to make the answer more robust. One concerns fairness: 'Do you think that most people would try to take advantage of you if they had the chance, or would they try to be fair?' The other relates to the representation that each person has of the other: 'Would you say that most of the time people try to be helpful, or that they care most about themselves?' We constructed an additive scale by averaging the three responses for each respondent (it showed a high degree of internal consistency with alpha values ranging from 0.76 and 0.80 from one wave to the next) and then aggregated the individual responses for each wave per country.

Table 1 summarizes the data used in this study. Our key hypothesis is that trust in political institutions is significantly and positively related to the private saving rate. We can also expect institutional quality, trust in legal and financial institutions and social trust to have a positive relationship with savings, but neither of them is necessary in view of our theoretical arguments. Indeed, there are logical reasons that could explain such positive relationships, but they are very likely to be less important than trust in political institutions. As one might expect a relationship between institutional quality and institutional trust, Appendix Table A1 provides a correlation matrix of these variables. Although all the correlations are statistically significant, they are of moderate intensity for political and financial institutions (of the order of 0.3), which supports our approach of studying the specific effect of each variable and not to rule out *a priori* the idea of substitutability between trust in institutions and institutional quality, the latter being based in part on the willingness to believe.

The expected impact of most control variables lies in debates arising from the opposition between Keynesian and classical macroeconomics. These two models are based on two propositions that could be summed up as follows: more income means more savings (i), and higher interest rates mean more savings (ii). Appendix Table A2 summarizes the results of existing studies for each variable.

[4]We exclude questions about the trust in government to avoid ideological influences, because people may answer according to their preference for the political power in place, whereas 'politicians' refer to the whole political spectrum.

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Table 1. Descriptive statistics

	Mean	Overall std. dev.	Within std. dev.	Min.	Max.	Unit	Source
Gross private savings	25.63	6.50	2.96	3.86	43.50	% GPDI	Grigoli 2018
Quality of political institutions	9.45	1.32	0.30	4	10	[−10; 10]	Polity5, Center for Systemic Peace
Quality of legal institutions	7.06	1.18	0.21	4.62	9.11	Scale [0; 10]	Fraser Institute
Quality of financial institutions	9.26	0.83	0.34	4.61	9.92	Scale [0; 10]	Fraser Institute
Trust in political institutions (parliament)	4.33	1.16	0.49	1.67	6.36	Scale [0; 10]	European Social Survey
Trust in political institutions (politicians)	3.46	1.05	0.38	1.39	5.53	Scale [0; 10]	European Social Survey
Trust in legal institutions (judicial system)	4.96	1.26	0.33	1.90	7.60	Scale [0; 10]	European Social Survey
Trust in legal institutions (police)	5.76	1.24	0.26	2.04	8.07	Scale [0; 10]	European Social Survey
Trust in financial institutions	47.54	17.48	10.37	15.37	84.18	%	Gallup
Social trust	5.05	0.88	0.14	2.77	6.76	Scale [0; 10]	European Social Survey
GPDI per capita (PPP)	975.58	39.14	7.31	841.68	1,038.54	Logarithmic scale	Grigoli 2018
GPDI growth rate	2.09	4.58	3.67	−10.26	23.81	%	Grigoli 2018
Real deposit rate	0.04	2.79	2.03	−12.18	14.42	%	Grigoli 2018
Terms of trade	462.46	10.26	4.18	444.01	520.80	Logarithmic scale	Grigoli 2018
Inflation	3.26	2.61	1.76	−1.60	20.13	%	Grigoli 2018
Flow of private sector credit	10.36	12.18	10.73	−27.34	55.71	% GPDI	Grigoli 2018
Old-age dependency ratio	23.16	4.02	1.04	4.02	9.99	%	Grigoli 2018
Urban population ratio	73.21	11.37	0.92	49.90	97.51	%	Grigoli 2018
Public saving	2.97	9.53	4.20	−29.40	57.46	% GPDI	Grigoli 2018
Years covered		2002, 2004, 2006, 2008, 2010, 2012					
Countries covered (32)		Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, Luxemburg, Netherlands, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom					
Number of observations (years×countries, unbalanced)		143 *Except for the quality of political institutions (N = 137; Bulgaria and Iceland missing) and for trust in financial institutions (N = 85; Croatia and Luxemburg, as well as the years 2002 and 2004, missing).*					

GPDI, gross personal disposable income.

Empirical strategy

We estimate the impact of our nine key explanatory variables (three indicators of institutional quality and six indicators of institutional trust) on the private saving rate by introducing them alternatively in a set of regressions relying on the approach of Grigoli *et al.* (2018). More precisely, for each key explanatory variable, we implement six different specifications, presented in order of increasing complexity, and corresponding to four analysis steps.

In the first step, we estimate the following model:

$$S_{i,t} = \alpha + \beta T_{i,t} + \gamma C_{i,t} + \tau_t + \varepsilon_{i,t} \quad (1)$$

where $S_{i,t}$ denotes private savings for country i at time t, $T_{i,t}$ refers to our key explanatory variable, $C_{i,t}$ refers to the set of covariates described above (see also Table 1), τ_t are time-fixed effects and $\varepsilon_{i,t}$ the error term. We use ordinary least squares (OLS) applied to our pooled panel sample, computing robust standard errors clustered at the country level.

In the second step, we account for the panel structure of the data and control for time-invariant unobserved variables at the country level, using both OLS fixed effects (OLS FE) and OLS first differences (OLS FD) models. These models rely on different assumptions regarding the idiosyncratic error (the FE model is optimal under independent identically distributed idiosyncratic error, while the FD model is optimal under idiosyncratic error following random walk). We consider that they provide plausible bounds for the actual estimates.

In the third step, we estimate the following model:

$$S_{i,t} = \alpha + \delta X_{i,t} + \eta D_{i,t} + \tau_t + \varepsilon_{i,t} \quad (2)$$

where $X_{i,t}$ refers to the set of strictly exogenous covariates (the log of the term of trade, the old-age dependency ratio and the share of urban population) and $D_{i,t}$ includes the endogenous covariates (all other explanatory variables). Endogeneity is addressed using the two-stage least squares (2SLS) estimator with the lags of endogenous variables as instruments. As in step 2, both FE and FD models are used to control for time-invariant omitted variables at the country level.

In the fourth step, we turn to a dynamic specification, including the lag of the dependent variable as explanatory variable:

$$S_{i,t} = \alpha + \theta S_{i,t-1} + \delta X_{i,t} + \eta D_{i,t} + c_i + \tau_t + \varepsilon_{i,t} \quad (3)$$

This model, which includes country- and time-fixed effects, is estimated using the two-step system-generalized method of moments (S-GMM) (Blundell and Bond, 1998), with the finite-sample correction of the two-step covariance matrix derived by Windmeijer (2005).

This last specification is the one preferred by Grigoli *et al.* (2018), in particular because it partially controls for possible reverse causality. Given the reduced size of our sample, this specification is less appropriate to our data. We report the results for illustrative purposes. In general, our interpretation of the results is mainly driven by the stability of findings across the six different specifications, which constitutes a sign of robustness.

Results

Table 2 summarizes our main results, reporting only the coefficients of interest of each regression. The structure used for this table is similar to that of Figure 1: we report the results regarding the quality of institutions in the left-hand panel and the results regarding trust in the right-hand panel; the different levels are represented by the rows of the table, respecting the assumed hierarchy. The full results (i.e. including the coefficients of control variables, number of observations, R^2, etc.) of all regressions are reported in the Appendix (Tables A3–A11).

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Table 2. Summary of the regression results

Quality of…	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM	Trust in…	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Political institutions	−0.865	−0.795	−0.884	−0.995	−3.982	0.304	Parliament	2.291***	2.079***	2.279***	1.268	2.510*	2.485***
	(0.823)	(0.694)	(0.841)	(2.449)	(3.907)	(1.068)		(0.819)	(0.665)	(0.725)	(0.959)	(1.319)	(0.918)
							Politicians	3.603***	2.289***	2.529***	2.523**	4.364***	2.148*
								(0.956)	(0.820)	(0.902)	(1.285)	(1.614)	(1.287)
Legal institutions	1.521	1.285	−0.509	−5.121	−4.559	−3.499	The judicial system	0.969	1.910**	2.278*	1.850	5.560***	3.529**
	(0.915)	(1.286)	(1.453)	(3.202)	(5.953)	(3.903)		(0.744)	(0.847)	(1.172)	(1.145)	(2.058)	(1.383)
							The police	0.578	2.233**	2.832*	5.131	7.034**	2.539
								(0.619)	(1.082)	(1.694)	(5.147)	(3.398)	(3.775)
Financial institutions	−1.221	−0.354	−0.245	−2.675	−0.117	−5.262*	Financial institutions	0.093*	−0.017	/	−0.043	/	0.074
	(0.975)	(0.514)	(0.820)	(4.148)	(6.207)	(2.823)		(0.046)	(0.071)	/	(0.071)	/	(0.082)
							Others (i.e. social trust)	4.525***	2.285	2.614	9.938	13.03	2.130
								(0.945)	(2.350)	(2.461)	(7.436)	(8.029)	(5.851)

The reported coefficients come from 52 separate regressions. For each regression, only the coefficient of interest is reported. Controls (GDPI per capita, GDPI growth rate, real deposit rate, terms of trade, inflation, flow of private sector credit, old-age dependency ratio, urban population ratio, public saving) and time fixed-effects are included in all specifications (coefficients not reported here; see the Appendix Tables A3–A11 for full results). Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Looking first at the results for the quality of institutions (left-hand panel), we observe that none of the coefficients is significant, implying that the quality of institutions, whether political, legal or financial, is not a determinant of savings. Turning to the trust-related measures (right-hand panel), we see that trust in political institutions (parliament and politicians) is significant in almost every specification. For instance, using a fixed-effects OLS regression model (OLS FE column), we find that an increase of one point (on a scale between 1 and 10) of trust in parliament increases the national level of private savings by 2.1 percentage points. For trust in politicians, the effect is slightly greater (2.3 percentage points increase). The results for trust in legal institutions are similar in magnitude (about 2 percentage points increase with the OLS FE model), but the significance of the coefficients is less stable across specifications (only three coefficients significant at the 5% level for trust in the judicial system and only two for trust in the police). The effect seems thus less clearly established. Regarding trust in financial institutions, the results of the 2SLS FE and 2SLS FD models are not reported because the sample size is too small (<30 observations). None of the remaining coefficients is significant. Thus, we find no significant effect of trust in financial institutions on savings. Finally, considering social trust as an explanatory variable, the coefficient is significant only in the pooled OLS specification, which suggests that this variable is not a robust predictor of private savings. Overall, these results corroborate our key hypothesis that trust in political institutions is a main determinant of the private saving rate. They also show that this effect is more important than that of trust in lower institutional levels, as well as that of the quality of institutions.

In addition to these main analyses, we conducted a series of complementary analyses to test the robustness of our results. For space reasons, the regression tables for points 3–6 below are not reported but are available on request from the authors.

1. Institutional quality and institutional trust are correlated with some of the other explanatory variables used as controls. If the explanatory power of institutional quality or institutional trust is stronger in these other macro variables, it could mask the effect of our variables of interest. To test for this possibility, we run all regressions without controls other than country and year fixed effects. We still find no consistent effect of institutional quality. We find mixed evidence of an effect of institutional trust (Appendix Table A12).
2. To confirm that trust in political institutions prevails over the quality of political institutions, we ran regressions including these variables simultaneously (quality of political institutions and trust in parliament on the one hand, quality of political institutions and trust in politicians on the other hand). This confirms the previous results: trust in political institutions is a significant determinant of the private saving rate, irrespective of the quality of political institutions (Appendix Tables A13 and A14).
3. To determine whether our results were dependent on the relatively small size of our sample (because of the lack of yearly data on trust), we ran a replication of the model of Grigoli *et al.* (2018), in which we do not include our key (and innovative) explanatory variables. Using the same large sample as Grigoli *et al.* (2018), we are able to replicate their results: all variables but the real deposit rate are significant in the two-step S-GMM specification (the one preferred by Grigoli *et al.*, 2018). But the model loses some explanatory power when it is run on our reduced sample: only four variables (GPDI per capita, growth rate, inflation and flow of private sector credit) remain significant. These results remain quite stable when we introduce our additional explanatory variables (Tables A3–A11). The differences between our results and those of Grigoli *et al.* (2018) (loss of significance of several variables) are hence mainly driven by the size of the sample rather than by the effect of the additional explanatory variables.
4. We checked the impact of the way of measuring the quality of political and legal institutions: we successively replaced the Fraser Institute indicator with the 'rule of law' indicator from the

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World Governance Index[5] and with the 'quality of institutions' provided by the International Country Guide Risk.[6] The results are similar to those presented in the main analysis, with no significant effect of the quality of political and legal institutions on savings.

5. We changed the indicator measuring social trust and trust in political and legal institutions. Instead of using the average score of trust of citizens per country between 0 and 10, we calculated the share of citizens who are trustful (number of respondents who had a score above 6/total of respondents). The results are qualitatively unchanged (i.e. the coefficients of interest remain significant at similar levels for each model) for trust in parliament and social trust. For trust in politicians, trust in the judicial system and trust in the police, we lose significance in several models.
6. We tested whether our main result – the significant impact of trust in political institutions – holds when using an alternative dependent variable inspired by Freytag and Voll (2013), i.e. computing private savings by subtracting government savings to gross national savings using the same sources (the World Economic Outlook from the IMF). This is the case although the coefficient of interest becomes non-significant in models using lagged variables.

Discussion

Our goal was to study the role of institutions and trust on the private saving rate at the macro level. Our main results are the following.

First, contrary to the institutional hypothesis that would predict a positive effect of institutional quality on savings, we do not find evidence of such a link. It is not in line with the results of Freytag and Voll (2013) who do not find an effect of the quality of high-order institutions (political) but find an effect of low-order institutions (property rights) on private savings. In general, differences in (i) data processing techniques, (ii) model controls, (iii) data (time period) and (iv) country sample can explain conflicting results. Here, the main explanation may be the nature of the sample since Freytag and Voll (2013) test their hypothesis on developing and emerging countries, whereas the test proposed in this study includes many developed countries. Differences in political regimes in developed and developing countries may induce differences in the nature and the level of protection of property rights. The protection of property rights is indeed not achieved in the same way in an autocracy and in a democracy. In a democracy, the protection of property rights is not at the discretion of those who govern, but the result of a social contract built around the legitimacy of property. This may explain the differences in results regarding the quality of institutions, but also the importance of trust in institutions on the level of savings.

This leads us to the second result of this study. Trust in political institutions, and more precisely trust in the institution responsible for passing laws (parliament) and trust in the group of actors operating at this institutional level (politicians), has a significant impact on private savings, even when controlling for the quality of institutions. This result is even more interesting given that there is a disconnect between trust in political institutions and the quality of these institutions, as shown in the correlation Table A1. The link between trust in political institutions and savings may be related to the fact that individuals who distrust current political actors and institutions are more likely to be pessimistic about the future economic situation (Brown and Stix, 2015). Importantly, it corroborates our hypothesis that trust in institutions is autonomous from the objective quality of institutions. As explained in the theoretical section of this article, this autonomy can be the consequence of the will to believe and/or of non-necessary reasons. Ultimately, there is no institutional determinism. There is always an element of interpretation. As such,

[5]The 'Global Governance Indicators' is produced by the World Bank. It is an aggregate and individual governance indicator for more than 200 countries between 1996 and 2018. Among the six governance dimensions of the database, we selected the 'Rule of Law' indicator, which is an aggregate measuring the quality of institutions and, in particular, 'the quality of contract enforcement, property rights, police and courts, and the likelihood of crime and violence'.

[6]The 'quality of government' is an indicator on a scale between 0 (bad quality of government) and 1 (good quality of government). It is calculated based on three dimensions: Corruption, Law and Order, and Bureaucracy Quality.

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our contribution is in line with recent attempts to introduce subjective variables such as trust or cultural values to understand saving behaviour (Fuchs-Sündeln *et al.*, 2020).

Third, we find mixed evidence of a significant effect of trust in legal institutions and no evidence of a significant effect of trust in financial institutions and of social trust. This is consistent with our pyramidal approach to trust, which implies that insofar as trust in political institutions (at the top of the pyramid) enables to favour savings, trust in lower-level institutions is not required to play such a role. Thus, according to our results, trust in political institutions and trust in lower-level institutions are substitutes. A simple interpretation of this result is that in countries with a high regulation level of financial institutions, the trust placed in the local banker or even the CEO of the larger corporate bank becomes less important when people have their deposits insured by the government. Instead, the primary concern of savers lies in whether or not they trust the politicians to deliver them their funds in a banking crisis and/or to undertake general economic policies that would not diminish the value of their saved cash. On the contrary, Cruz-García and Peiró-Palomino (2019) find no substitutive effects for formal and informal institutions (in their case, social trust) to account for private credit. Again, this could be due to a difference in sample composition. Indeed, our result may not hold in developing countries where the unregulated sphere of financial institutions is significantly larger and where, consequently, general social trust could matter more. More fundamentally, our results are theoretically supported by the fact that when people's trust is based on their willingness to believe, trust and formal institutions are substitutes. It is normal that trust is not related with the quality of formal institutions. Individuals without objective knowledge have the will to believe that their savings are safe. That is what our test shows. Individuals have no objective reason to believe that savings deposited in a bank will be put to good use, and that risks are low. They trust the state and its deposit guarantee laws, without really knowing whether these laws will be sufficient to protect their savings. They adopt a positive, optimistic attitude. Like individuals who know that men are evil, but refuse to take this truth into account when dealing with others.

This study has several limitations. A first one is that our sample is quite small (which is explained by a lack of availability of appropriate data). One consequence is that we may lack statistical power to reveal significant relationships. This can be seen when looking at the control variables: much fewer are statistically significant in our models than in those of Grigoli *et al.* (2018). The robust results we find are however similar to those of Grigoli *et al.* (2018). We notably find that the real growth rate of the GPDI and inflation have a positive impact on private saving in most models, while there is an eviction effect of public saving on private saving. This size sample limitation does not compromise the relevance of our results insofar as we are able to detect significant effects for several of our variables of interest. If our non-significant results on certain variables are explained by a lack of power, this implies that the size of the effect is smaller for these variables than for the variables for which we detect an effect, which would not invalidate our conclusions. A second limitation is related to the fact that our institutional quality and trust variables are rather crude. For example, we are not able to assess the role of trust in the banker (an intermediary between institutions and individuals in general), which could be a relevant level of influence on savings. Such data are unfortunately not available at the macro level. Also due to the unavailability of data (in longitudinal form), we were not able to take into account in our models government deposit insurance rates. Demirgüç-Kunt *et al.* (2014) note some variability in deposit insurance schemes around the world, both in terms of design and amount insured, but this variability is greatly attenuated when we consider high-income countries, especially European countries.[7] It should also be noted that it is unlikely that savers are aware of the details of these schemes, which should limit their potential role in the decision to save.

To conclude, our main contribution is that trust in political institutions is a determinant of private savings in OECD countries. Traditional institutionalist theory still emphasizes indicators of

[7]All the countries in our sample, with the exception of Israel, had explicit deposit insurance at the end of 2013. The mean ratio of the coverage limit to GDP per capita was of 520% in our sample, with a standard deviation of 372%, compared with a mean ratio of 620% and a standard deviation of 1168% when all countries are considered (calculated from the data in Table 2 of the article by Demirgüç-Kunt *et al.*, 2014).

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institutional quality and neglects the representation of this quality by individuals. Our results confirm the subjectivist approach of social phenomena. It is not the objective quality of the institutions that determines the level of savings, but rather the trust that citizens put in the political institutions of their country that are seen as a guarantee for the good functioning of savings institutions. The determinants of individuals' confidence in their institutions then become a key to a better understanding of savings differentials between countries.

References

Acemoglu D., Gallego F.A. and Robinson J.A. (2014). Institutions, human capital and development. *The Annual Review of Economics* **6**, 875–912.

Agnew J.R., Szykman L.R., Utkus S.P. and Youn J.A. (2012). Trust, plan knowledge and 401(k) saving behavior. *Journal of Pension Economics and Finance* **11**(1), 1–20.

Aquinas T. (1265–1274). *Summa Theologica*. https://www.ccel.org/ccel/aquinas/summa.html

Bachmann R. and Inkpen A.C. (2011). Understanding institutional-based trust building processes in inter-organizational relationships. *Organization Studies* **32**(2), 281–301.

Baidoo S.T. and Akoto L. (2019). Does trust in financial institutions drive formal saving? Empirical evidence from Ghana. *International Social Science Journal* **69**(231), 63–78.

Bailliu J.N. and Reisen H. (1998). Do funded pensions contribute to higher savings? A cross-country analysis. *Review of World Economics* **134**, 692–711.

Balloch A., Anamaria N. and Philip D. (2015). Stock market literacy, trust and participation. *Review of Finance* **19**(5), 1925–1963.

Bebczuk R. and Cavallo E. (2014). Is business saving really none of our business? Inter-American Development Bank No. IDB-WP-523. Washington, D.C.: Inter-American Development Bank.

Besley T. and Ghatak M. (2010). Property rights and economic development. In Rodrick D. and Rosenzweig M. (eds), *Handbook of Development Economics (Volume 5)*. Amsterdam: North-Holland, pp. 4525–4595.

Blundell R. and Bond S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics* **87**(1), 115–143.

Bohnet I. and Baytelman Y. (2007). Institutions and trust: implications for preferences, beliefs and behaviour. *Rationality and Society* **19**(1), 99–135.

Brown M. and Stix H. (2015). The Euroization of bank deposits in Eastern Europe. *Economic Policy* **30**(81), 95–139.

Callen T. and Thimann C. (1997). Empirical determinants of household saving: evidence from OECD countries. *IMF Working Papers* No. 97/181. Washington, D.C.: International Monetary Fund.

Chang H. (2011). Institutions and economic development: theory, practice and history. *Journal of Institutional Economics* **7** (4), 473–498.

Corbo V. and Schmidt-Hebbel K. (1991). Public policies and saving in developing countries. *Journal of Development Economics* **36**(1), 89–115.

Coupé T. (2011). Mattresses versus banks-the effect of trust on portfolio composition. *Kyiv School of economics and Kyiv economics institute Discussion Paper* **40**.

Couyoumdjian J.P. (2012). Are institutional transplants viable? An examination in light of the proposals by Jeremy Bentham. *Journal of Institutional Economics* **8**(4), 489–509.

Cruz-García P. and Peiró-Palomino J. (2019). Informal, formal institutions and credit: complements or substitutes. *Journal of Institutional Economics* **15**(4), 649–671.

Dayal-Gulati A. and Thimann C. (1997). Saving in Southeast Asia and Latin America compared: searching for policy lessons. *IMF Working Paper* No. 97/110. Washington, D.C.: International Monetary Fund.

De Serres A. and Pelgrin F. (2003). The decline in private saving rates in the 1990s in OECD countries: how much can be explained by non-wealth determinants? *OECD Economic Studies* **2003**(1), 117–153.

Demirgüç-Kunt A., Kane E. and Laeven M.L. (2014). Deposit Insurance Database. *IMF Working Paper* No. 2014/118. Washington, D.C.: International Monetary Fund.

Demsetz H. (1967). Toward a theory of property rights. *The American Economic Review* **57**(2), 347–359.

Ebeke C. (2014). Private saving accelerations. *IMF Working Paper* No. 14/223. Washington, D.C.: International Monetary Fund.

Edlund J. (2006). Trust in the capability of the welfare state and general welfare state support: Sweden 1997–2002. *Acta Sociologica* **49**(4), 395–417.

Edwards S. (1996). Why are Latin America's savings rates so low? An international comparative analysis. *Journal of Development Economics* **51**(1), 5–44.

Farrell H. (2005). Trust and political economy: institutions and the sources of interfirm cooperation. *Comparative Political Studies* **38**(5), 459–483.

Freytag A. and Voll S. (2013). Institutions and savings in developing and emerging economies. *Public Choice* **157**, 475–509.

Frolov D. (2023). Post-Northian institutional economics: a research agenda for cognitive institutions. *Journal of Institutional Economics* **19**(2), 175–191.

https://doi.org/10.1017/S1744137423000346 Published online by Cambridge University Press

Fuchs-Schündeln N., Masella P. and Paule-Paludkiewicz H. (2020). Cultural determinants of household saving behavior. *Journal of Money, Credit and Banking* **52**, 1035–1070.
Fukuyama F. (2000) Social capital and civil society. *IMF Working Paper* No. 00/74. Washington, D.C.: International Monetary Fund.
Gallagher S. and Petracca E. (2022). Trust as the glue of cognitive institutions. *Philosophical Psychology*, in press. https://doi.org/10.1080/09515089.2022.2134767
Greif A. and Mokyr J. (2017). Cognitive rules, institutions, and economic growth: Douglass North and beyond. *Journal of Institutional Economics* **13**(1), 25–52.
Grigoli F., Herman A. and Schmidt-Hebbel K. (2018). Saving in the world. *World Development* **104**, 257–270.
Guiso L., Sapienza P. and Zingales L. (2004). The role of social capital in financial development. *American Economic Review* **94**(3), 526–556.
Guiso L., Sapienza P. and Zingales L. (2008). Trusting the stock market. *The Journal of Finance* **63**, 2557–2600.
Gutiérrez M. (2007). Savings in Latin America after the mid-1990s. Determinants, constraints, and policies. *CEPAL Serie Macroeconomía del Desarrollo* **57**. https://www.cepal.org/sites/default/files/publication/files/5424/S0700037_en.pdf
Haque N.U., Pesaran M.H. and Sharma S. (1999). Neglected heterogeneity and dynamics in cross-country savings regressions. *IMF Working Paper* No. 99/128. Washington, D.C.: International Monetary Fund.
Hayek F. (1960). *The Constitution of Liberty*. Chicago, IL: University of Chicago Press.
Hondroyiannis G. (2006). Private saving determinants in European countries: a panel cointegration approach. *The Social Science Journal* **43**(4), 553–569.
Hong H., Kubik J.D. and Stein J.C. (2004). Social interaction and stock market participation. *The Journal of Finance* **59**(1), 137–163.
Horioka C.Y. and Terada-Hagiwara A. (2012). The determinants and long-term projections of saving rates in developing Asia. *Japan and the World Economy* **24**(2), 128–137.
International Monetary Fund. (2005). Global imbalances: a saving and investment perspective. *World Economic Outlook*, September 2005: Building institutions. Washington, D.C.: International Monetary Fund.
James W. (1897). *The Will to Believe*. London: Longmans, Green, and Co., Bombay and Calcutta.
Jordan J.L. (2001). Hayekian economic infrastructure as a foundation or sustained prosperity. *Contemporary Economic Policy* **19**(1), 20–26.
Karlan D., Mobius M., Rosenblat T. and Szeidl A. (2009). Trust and social collateral. *The Quarterly Journal of Economics* **124** (3), 1307–1361.
Kelsen H. (1967). *Pure Theory of Law*. Translation from the Second German Edition by Max Knight. Berkeley: University of California Press.
Lecce G. and Ogliari L. (2019). Institutional transplant and cultural proximity: evidence from Nineteenth-Century Prussia. *The Journal of Economic History* **79**(4), 1060–1093.
Loayza N., Schmidt-Hebbel K. and Servén L. (2000). What drives private saving across the world? *The Review of Economics and Statistics* **82**(2), 165–181.
López H., Schmidt-Hebbel K. and Servén L. (2000). How effective is fiscal policy in raising national saving. *The Review of Economics and Statistics* **82**(2), 226–238.
Masson P., Bayoumi T. and Samiei H. (1995). Saving behavior in industrial and developing countries. *Staff studies for the world economic outlook*. Washington, D.C.: International Monetary Fund.
McCannon B.C. (2011). Jury size in classical Athens: an application of the Condorcet jury theorem. *Kyklos* **64**(1), 106–121.
McCannon B.C., Asaad C.T. and Wilson M. (2018). Contracts and trust: complements or substitutes? *Journal of Institutional Economics* **14**(5), 811–832.
North D.C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge, MA: Cambridge University Press.
North D.C. (2005). *Understanding the Process of Economic Change*. Princeton, NJ: Princeton University Press.
Rocher S. and Stierle M. (2015). Household saving rates in the EU: why do they differ so much? *European Economy – Discussion Papers* No. 2015–005. Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.
Rodrik D. (2008). Second best institutions. *American Economic Review* **98**(2), 100–104.
Schmidt-Hebbel K. and Servén L. (2000). Does income inequality raise aggregate saving. *Journal of Development Economics* **61**, 417–446.
Seidler V. (2018). Copying informal institutions: the role of British colonial officers during the decolonization of British Africa. *Journal of Institutional Economics* **14**(2), 289–312.
Sobel R.S. (2008). Testing Baumol: institutional quality and the productivity of entrepreneurship. *Journal of Business Venturing* **23**(6), 641–655.
Sønderskov K.M. and Dinesen P.T. (2016). Trusting the state, trusting each other? The effect of institutional trust on social trust. *Political Behavior* **38**, 179–202.
Stix H. (2013). Why do people save in cash? Distrust, memories of banking crises, weak institutions and dollarization. *Journal of Banking & Finance* **37**(11), 4087–4106.
Williamson G. (2000). The new institutional economics: taking stock, looking ahead. *Journal of Economic Literature* **38**(3), 396–613.
Windmeijer F. (2005). A finite sample correction for the variance of linear efficient two-step GMM estimators. *Journal of Econometrics* **126**(1), 25–51.
Zmerli S. and Newton K. (2008). Social trust and attitudes toward democracy. *Public Opinion Quarterly* **72**(4), 706–724.

Appendix

Table A1. Correlation matrix of the main explanatory variables

	Quality of political institutions	Quality of legal institutions	Quality of financial institutions	Trust in political institutions (parliament)	Trust in political institutions (politicians)	Trust in legal institutions (judicial system)	Trust in legal institutions (police)	Trust in financial institutions	Social trust
Quality of political institutions	1.000								
	N = 137								
Quality of legal institutions	0.514	1.000							
	(0.000)								
	N = 137	*N* = 143							
Quality of financial institutions	0.626	0.467	1.000						
	(0.000)	(0.000)	*N* = 143						
	N = 137	*N* = 143							
Trust in political institutions (parliament)	0.267	0.743	0.299	1.000					
	(0.002)	(0.000)	(0.000)	*N* = 143					
	N = 137	*N* = 143	*N* = 143						
Trust in political institutions (politicians)	0.262	0.774	0.305	0.918	1.000				
	(0.002)	(0.000)	(0.000)	(0.000)	*N* = 143				
	N = 137	*N* = 143	*N* = 143	*N* = 143					
Trust in legal institutions (judicial system)	0.297	0.818	0.374	0.910	0.852	1.000			
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	*N* = 143			
	N = 137	*N* = 143	*N* = 143	*N* = 143	*N* = 143				
Trust in legal institutions (police)	0.539	0.873	0.515	0.804	0.747	0.898	1.000		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	*N* = 143		
	N = 137	*N* = 143	*N* = 143	*N* = 143	*N* = 143	*N* = 143			

Trust in financial institutions	0.295	0.575	0.327	0.681	0.644	0.608	0.501	1.000	
	(0.007)	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	$N = 85$	
	$N = 81$	$N = 85$	$N = 85$	$N = 85$	$N = 85$	$N = 85$	$N = 85$		
Social trust	0.277	0.857	0.311	0.673	0.789	0.722	0.752	0.507	1.000
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	$N = 143$
	$N = 137$	$N = 143$	$N = 143$	$N = 143$	$N = 143$	$N = 143$	$N = 143$	$N = 85$	

p-value in parentheses. *N*: number of observations. Shaded boxes for the correlation between quality and trust at the same institutional level.

Table A2. Summary of existing empirical studies on the determinants of private savings

Theory	Variable category	Specific variable	Expected sign	Main empirical findings	Other empirical findings
Neo-Keynesian hypothesis	Income	Income level: current	+	+ (1, 2, 3, 4, 8, 17, 18)	0 (5, 6, 14) 0 or + (10)
Permanent income hypothesis		Income level: permanent	+	0 (8)	
Neo-Keynesian hypothesis		Income growth	+	+ (5, 8, 10, 11, 12, 13, 14, 15, 16, 18)	0 (17) 0 or –(19)
		Income growth (expected future)	+	+ (15)	
Neo-Keynesian hypothesis		Inequalities/income concentration	Ambiguous	0 (3, 10, 18)	–(14)
Neo-classical hypothesis	Rates of return on financial assets	Interest rate	Ambiguous	0 (1, 3, 5, 7, 12)	+ (2, 5, 13, 15) –(8, 11) 0 (18) 0 or + (15)
Neo-classical hypothesis	Relative prices	Inflation	Ambiguous	0 (1, 2, 3, 5, 7, 11, 17)	+ (8, 13, 14, 18) –(4)
		Terms of trade (current, permanent and future)	Ambiguous	+ (2, 4, 7, 8, 11, 12, 18)	0 (14, 17, 19)
Knightian uncertainty hypothesis	Classical uncertainty (risk)	CPI inflation mean deviation	+ or ambiguous	+ or 0 (19)	
Knightian uncertainty hypothesis		Unemployment mean deviation	+ or ambiguous	+ (19)	
Knightian uncertainty hypothesis		Interest rate mean deviation	+ or ambiguous	0 (19)	
Life cycle hypothesis	Domestic borrowing constraints	Current credit flows	–	–(8, 12, 13)	+ (3) + or – (15)
		Current account deficit	–	–(1, 2, 3, 8)	
Life cycle hypothesis	Demographics	Old age dependency	–	–(2, 3, 4, 5, 8, 11, 12, 15, 17, 18)	0 (5,7, 14, 17) + (13)
Life cycle hypothesis		Young age dependency		–(8, 15, 17, 18)	0 (10)

		Age dependency ratio		0 (19)	
Life cycle hypothesis	Pension system	Pay-as-you-go pension transfers to old	Ambiguous	−(3, 4, 6)	
Life cycle hypothesis		Mandatory fully funded pension system contributions	−	+ (4)	
Life cycle hypothesis		Fully funded pension system contributions	+	0 or + (6)	
		Urbanization rate		−(3, 8, 16, 18)	
Ricardian equivalence hypothesis	Public finance	Public sector saving	−	−(1,3, 5, 8 11, 17, 18)	+ (16)
Ricardian equivalence hypothesis		Public sector budget balance (debt *versus* surplus)	0 or −	−(2, 5, 7,9, 12, 14, 19)	0 (4) + or −(13)
Ricardian equivalence hypothesis		Public consumption	Ambiguous	−(2, 7) 0 (9, 19)	

The sources for this table (shown in parentheses in columns 5 and 6 and based on Grigoli *et al*., 2018) correspond to regression tables from the following studies:
1. Corbo and Schmidt-Hebbel (1991) (Table 4).
2. Masson *et al*. (1995) (Table 2, column 'restricted model').
3. Edwards (1996) (Table 2, column 5).
4. Dayal-Gulati and Thimann (1997) (Table 4, column 2).
5. Callen and Thimann (1997) (Table 5, column 6).
6. Bailliu and Reisen (1998) (Table 1, columns 3 and 4).
7. Haque *et al*. (1999) (Table 5, columns 4 and 5).
8. Loayza *et al*. (2000) (Table 4, column 6; Table 7).
9. López *et al*. (2000) (Tables 4–6).
10. Schmidt-Hebbel and Servén (2000) (Tables 6, columns 7 and 8).
11. De Serres and Pelgrin (2003) (Table 2).
12. IMF (2005) (Table 2.2., column 1).
13. Hondroyiannis (2006) (Table 5, last column).
14. Gutiérrez (2007) (Table 5, regression 9).
15. Horioka and Terada-Hagiwara (2012) (Table 1, models 7–9).
16. Ebeke (2014) (Table 2, column 7).
17. Bebczuk and Cavallo (2014) (Table 3.1, columns 2 and 4).
18. Grigoli *et al*. (2018) (Table 2, column 6 and Table 3, column 9).
19. Rocher and Stierle (2015) (Table 2, columns 4 and 5).

Table A3. Regression results for the quality of political institutions

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.392
						(0.293)
Quality of political institutions	−0.865	−0.795	−0.884	−0.995	−3.982	0.304
	(0.823)	(0.694)	(0.841)	(2.449)	(3.907)	(1.068)
GPDI per capita (PPP)	0.102***	−0.00429	0.0407	0.247	0.255	0.101**
	(0.0293)	(0.0791)	(0.0944)	(0.285)	(0.213)	(0.0454)
GPDI growth rate	0.362***	0.263**	0.218*	0.223	0.212	0.472***
	(0.111)	(0.122)	(0.120)	(0.265)	(0.215)	(0.157)
Real deposit rate	−0.234	−0.408	0.267	−1.165	−0.655	1.179
	(0.210)	(0.298)	(0.343)	(0.923)	(0.816)	(0.821)
Terms of trade	0.0149	0.0395	0.0359	0.00630	0.0736	0.0111
	(0.0746)	(0.0626)	(0.0647)	(0.130)	(0.132)	(0.0880)
Inflation	0.299	−0.0248	0.667*	−0.671	−0.256	1.680*
	(0.328)	(0.346)	(0.391)	(1.090)	(1.042)	(0.932)
Flow of private sector credit	−0.144*	−0.0824**	−0.0720**	−0.194	−0.160*	−0.180
	(0.0726)	(0.0360)	(0.0352)	(0.127)	(0.0821)	(0.114)
Old-age dependency ratio	0.0480	0.213	0.288	−0.0807	1.572	0.0396
	(0.228)	(0.355)	(0.411)	(0.979)	(1.387)	(0.239)
Urban population ratio	0.0455	0.119	0.131	1.337**	1.220**	−0.0177
	(0.0989)	(0.305)	(0.478)	(0.619)	(0.578)	(0.0933)
Public saving	−0.180*	−0.228***	−0.277***	−0.0237	−0.120	0.157
	(0.103)	(0.0775)	(0.0957)	(0.261)	(0.217)	(0.137)
Lags/instruments						1/24
AR(1) *p*-val.						0.310
AR(2) *p*-val.						0.328
Hansen *J*-test *p*-val.						0.353
Observations	137	137	102	68	49	102
R^2	0.422	0.465	0.556	0.637	0.626	
Number of countries		30	28	19	19	28

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A4. Regression results for the quality of legal institutions

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.168
						(0.236)
Quality of legal institutions	1.521	1.285	−0.509	−5.121	−4.559	−3.499
	(0.915)	(1.286)	(1.453)	(3.202)	(5.953)	(3.903)
GPDI per capita (PPP)	0.0663*	0.0801	0.102	−0.0190	0.0909	0.156
	(0.0351)	(0.0997)	(0.109)	(0.267)	(0.263)	(0.108)
GPDI growth rate	0.370***	0.222*	0.155	0.388	0.206	0.224
	(0.125)	(0.120)	(0.123)	(0.377)	(0.283)	(0.200)
Real deposit rate	−0.165	−0.361	0.378	0.289	0.990	0.465
	(0.205)	(0.322)	(0.339)	(2.186)	(2.392)	(1.394)
Terms of trade	0.120**	−0.0281	0.0270	0.190	0.164	0.0514
	(0.0569)	(0.0986)	(0.0727)	(0.249)	(0.215)	(0.0867)
Inflation	0.319	−0.192	0.617	1.236	1.758	0.761
	(0.350)	(0.329)	(0.382)	(2.648)	(2.752)	(1.180)
Flow of private sector credit	−0.171**	−0.0823**	−0.0774**	−0.132	−0.126	−0.302**
	(0.0700)	(0.0341)	(0.0346)	(0.0803)	(0.0847)	(0.126)
Old-age dependency ratio	0.0135	0.572	0.552	−0.822	0.480	0.0163
	(0.193)	(0.444)	(0.513)	(1.269)	(1.627)	(0.236)
Urban population ratio	0.0341	0.398	0.433	0.288	0.0290	0.121
	(0.0779)	(0.336)	(0.472)	(0.601)	(0.695)	(0.148)
Public saving	−0.194**	−0.196**	−0.291***	−0.144	−0.255	−0.0391
	(0.0884)	(0.0915)	(0.104)	(0.171)	(0.171)	(0.207)
Lags/instruments						1/24
AR(1) *p*-val.						0.272
AR(2) *p*-val.						0.690
Hansen *J*-test *p*-val.						0.280
Observations	143	143	105	70	50	105
R^2	0.455	0.433	0.544	0.671	0.655	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A5. Regression results for the quality of financial institutions

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.476**
						(0.240)
Quality of financial institutions	−1.221	−0.354	−0.245	−2.675	−0.117	−5.262*
	(0.975)	(0.514)	(0.820)	(4.148)	(6.207)	(2.823)
GPDI per capita (PPP)	0.104***	0.0876	0.104	−0.0452	−0.125	0.158***
	(0.027)	(0.103)	(0.108)	(0.220)	(0.219)	(0.046)
GPDI growth rate	0.344***	0.217*	0.151	0.474	0.432	0.302
	(0.106)	(0.129)	(0.126)	(0.345)	(0.315)	(0.208)
Real deposit rate	−0.281	−0.424	0.384	1.065	1.693	0.304
	(0.260)	(0.343)	(0.336)	(2.398)	(2.233)	(1.277)
Terms of trade	0.097	−0.027	0.027	0.235	0.241	0.053
	(0.058)	(0.099)	(0.076)	(0.244)	(0.242)	(0.095)
Inflation	−0.00962	−0.267	0.599	1.880	2.624	0.308
	(0.406)	(0.384)	(0.383)	(2.788)	(2.536)	(1.616)
Flow of private sector credit	−0.161**	−0.076**	−0.078**	−0.139	−0.052	−0.187*
	(0.068)	(0.034)	(0.035)	(0.108)	(0.111)	(0.097)
Old-age dependency ratio	0.026	0.470	0.580	0.085	0.476	−0.069
	(0.197)	(0.409)	(0.486)	(1.362)	(1.601)	(0.192)
Urban population ratio	0.051	0.376	0.432	0.523	0.161	−0.042
	(0.076)	(0.341)	(0.475)	(0.658)	(0.732)	(0.065)
Public saving	−0.195**	−0.213**	−0.287***	−0.049	−0.338	−0.101
	(0.092)	(0.085)	(0.103)	(0.275)	(0.252)	(0.148)
Lags/instruments						1/24
AR(1) *p*-val.						0.122
AR(2) *p*-val.						0.887
Hansen *J*-test *p*-val.						0.534
Observations	143	143	105	70	50	105
R^2	0.442	0.429	0.543	0.686	0.618	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A6. Regression results for trust in political institutions (parliament)

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.489
						(0.337)
Trust in parliament	2.291***	2.079***	2.279***	1.268	2.510*	2.485***
	(0.819)	(0.665)	(0.725)	(0.959)	(1.319)	(0.918)
GPDI per capita (PPP)	0.0579	0.0825	0.106	−0.137	−0.110	0.0719
	(0.0344)	(0.0903)	(0.0857)	(0.215)	(0.180)	(0.0501)
GPDI growth rate	0.324***	0.119	0.0769	0.704*	0.449*	0.327*
	(0.108)	(0.0989)	(0.103)	(0.365)	(0.244)	(0.182)
Real deposit rate	−0.366	−0.242	0.508	2.139	2.418	1.195**
	(0.264)	(0.302)	(0.321)	(2.503)	(1.803)	(0.465)
Terms of trade	0.102**	−0.0158	0.0414	0.354	0.305	−0.00522
	(0.0498)	(0.0914)	(0.0620)	(0.248)	(0.190)	(0.0747)
Inflation	0.196	0.0527	0.856**	3.390	3.510	1.846***
	(0.426)	(0.287)	(0.361)	(3.110)	(2.203)	(0.592)
Flow of private sector credit	−0.201***	−0.102***	−0.0890**	−0.165	−0.0935	−0.197
	(0.0688)	(0.0319)	(0.0349)	(0.112)	(0.100)	(0.120)
Old-age dependency ratio	0.0550	0.361	0.562	0.718	0.818	0.0270
	(0.212)	(0.374)	(0.530)	(1.406)	(1.592)	(0.153)
Urban population ratio	−0.00124	0.389	0.552	0.240	0.173	−0.0927
	(0.0772)	(0.301)	(0.454)	(0.625)	(0.675)	(0.0786)
Public saving	−0.216**	−0.274***	−0.355***	−0.00216	−0.345	0.0506
	(0.0823)	(0.0922)	(0.102)	(0.257)	(0.216)	(0.175)
Lags/instruments						1/24
AR(1) *p*-val.						0.251
AR(2) *p*-val.						0.813
Hansen *J*-test *p*-val.						0.471
Observations	143	143	105	70	50	105
R^2	0.495	0.492	0.602	0.554	0.607	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A7. Regression results for trust in political institutions (politicians)

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.435
						(0.299)
Trust in politicians	3.603***	2.289***	2.529***	2.523**	4.364***	2.148*
	(0.956)	(0.820)	(0.902)	(1.285)	(1.614)	(1.287)
GPDI per capita (PPP)	0.0489	0.0730	0.106	−0.255	−0.268	0.0826*
	(0.0301)	(0.0952)	(0.0890)	(0.303)	(0.200)	(0.0492)
GPDI growth rate	0.254**	0.137	0.0900	0.728*	0.568**	0.347**
	(0.0930)	(0.0992)	(0.105)	(0.382)	(0.250)	(0.159)
Real deposit rate	−0.138	−0.257	0.485	1.720	2.308	1.280*
	(0.213)	(0.304)	(0.315)	(2.600)	(1.652)	(0.664)
Terms of trade	0.0955*	−0.00923	0.0386	0.376	0.344**	0.00417
	(0.0526)	(0.0922)	(0.0613)	(0.298)	(0.170)	(0.0832)
Inflation	0.427	0.0243	0.814**	3.014	3.585*	1.811**
	(0.359)	(0.293)	(0.356)	(3.238)	(2.003)	(0.856)
Flow of private sector credit	−0.209***	−0.0941***	−0.0913***	−0.0730	−0.00613	−0.199*
	(0.0690)	(0.0319)	(0.0350)	(0.0891)	(0.0788)	(0.105)
Old-age dependency ratio	0.139	0.389	0.546	−0.162	−0.0801	0.0819
	(0.219)	(0.379)	(0.516)	(1.131)	(1.552)	(0.186)
Urban population ratio	−0.0657	0.330	0.553	0.115	−0.0180	−0.102
	(0.0796)	(0.290)	(0.430)	(0.841)	(0.705)	(0.0671)
Public saving	−0.226***	−0.277***	−0.340***	−0.246	−0.526***	0.0611
	(0.0800)	(0.0918)	(0.102)	(0.165)	(0.140)	(0.171)
Lags/instruments						1/24
AR(1) *p*-val.						0.310
AR(2) *p*-val.						0.652
Hansen *J*-test *p*-val.						0.322
Observations	143	143	105	70	50	105
R^2	0.551	0.477	0.591	0.587	0.601	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A8. Regression results for trust in legal institutions (judicial system)

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.441
						(0.380)
Trust in the judicial system	0.969	1.910**	2.278*	1.850	5.560***	3.529**
	(0.744)	(0.847)	(1.172)	(1.145)	(2.058)	(1.383)
GPDI per capita (PPP)	0.0774**	0.0921	0.117	−0.232	−0.283	0.0658
	(0.0365)	(0.0936)	(0.0944)	(0.281)	(0.205)	(0.0474)
GPDI growth rate	0.380***	0.148	0.103	0.564*	0.592***	0.438***
	(0.123)	(0.106)	(0.109)	(0.304)	(0.224)	(0.163)
Real deposit rate	−0.232	−0.306	0.502	0.753	1.809	1.113*
	(0.229)	(0.315)	(0.318)	(1.887)	(1.526)	(0.632)
Terms of trade	0.103*	−0.0240	0.0377	0.293	0.307**	0.0146
	(0.0567)	(0.0945)	(0.0644)	(0.232)	(0.133)	(0.0773)
Inflation	0.241	−0.126	0.769**	1.792	3.032*	1.883**
	(0.400)	(0.312)	(0.369)	(2.353)	(1.809)	(0.812)
Flow of private sector credit	−0.170**	−0.0851***	−0.0771**	−0.0226	0.0667	−0.227*
	(0.0714)	(0.0329)	(0.0341)	(0.0978)	(0.0777)	(0.128)
Old-age dependency ratio	0.0579	0.520	0.791	−0.807	−0.674	0.0671
	(0.207)	(0.404)	(0.567)	(0.859)	(1.523)	(0.226)
Urban population ratio	0.0317	0.348	0.444	0.310	−0.0618	−0.159
	(0.0833)	(0.301)	(0.447)	(0.772)	(0.820)	(0.111)
Public saving	−0.200**	−0.238***	−0.333***	−0.316	−0.552***	0.0717
	(0.0910)	(0.0902)	(0.107)	(0.203)	(0.168)	(0.168)
Lags/instruments						1/24
AR(1) *p*-val.						0.412
AR(2) *p*-val.						0.473
Hansen *J*-test *p*-val.						0.396
Observations	143	143	105	70	50	105
R^2	0.446	0.463	0.573	0.651	0.606	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A9. Regression results for trust in legal institutions (police)

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.606
						(0.545)
Trust in police	0.578	2.233**	2.832*	5.131	7.034**	2.539
	(0.619)	(1.082)	(1.694)	(5.147)	(3.398)	(3.775)
GPDI per capita (PPP)	0.0854**	0.101	0.119	−0.386	−0.146	0.0771
	(0.0357)	(0.0944)	(0.0958)	(0.420)	(0.270)	(0.0909)
GPDI growth rate	0.399***	0.192*	0.150	0.916	0.578**	0.436
	(0.133)	(0.111)	(0.118)	(0.641)	(0.287)	(0.269)
Real deposit rate	−0.195	−0.313	0.494	2.784	3.020*	1.557
	(0.221)	(0.310)	(0.312)	(3.782)	(1.618)	(1.134)
Terms of trade	0.108*	−0.0371	0.0210	0.486	0.353**	−0.00539
	(0.0584)	(0.0950)	(0.0662)	(0.409)	(0.163)	(0.121)
Inflation	0.277	−0.140	0.738**	4.134	4.073**	2.386
	(0.373)	(0.322)	(0.362)	(4.592)	(2.018)	(1.454)
Flow of private sector credit	−0.167**	−0.0838***	−0.0803**	−0.00589	−0.0398	−0.214
	(0.0701)	(0.0318)	(0.0315)	(0.148)	(0.132)	(0.179)
Old-age dependency ratio	0.0245	0.502	0.736	0.220	1.078	0.0112
	(0.199)	(0.391)	(0.539)	(2.047)	(1.744)	(0.261)
Urban population ratio	0.0506	0.425	0.539	0.0687	0.355	−0.103
	(0.0778)	(0.332)	(0.450)	(1.252)	(1.028)	(0.187)
Public saving	−0.196**	−0.193**	−0.262**	−0.184	−0.279	0.109
	(0.0917)	(0.0846)	(0.112)	(0.379)	(0.256)	(0.148)
Lags/instruments						1/24
AR(1) *p*-val.						0.327
AR(2) *p*-val.						0.605
Hansen *J*-test *p*-val.						0.209
Observations	143	143	105	70	50	105
R^2	0.436	0.462	0.576	0.350	0.461	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A10. Regression results for trust in financial institutions

	Pooled OLS	OLS FE	OLS FD	S-GMM
Lag of gross private savings				0.444***
				(0.132)
Trust in financial institutions	0.093*	−0.017	−0.043	0.074
	(0.046)	(0.071)	(0.071)	(0.082)
GPDI per capita (PPP)	0.112***	0.356***	0.156	0.081*
	(0.024)	(0.104)	(0.143)	(0.046)
GPDI growth rate	0.530***	−0.077	0.012	0.495***
	(0.137)	(0.082)	(0.084)	(0.160)
Real deposit rate	−0.015	−1.231**	−0.481	0.380
	(0.228)	(0.517)	(0.608)	(0.568)
Terms of trade	0.095	−0.320**	−0.091	0.042
	(0.058)	(0.125)	(0.091)	(0.052)
Inflation	0.555*	−1.190*	−0.347	1.080
	(0.284)	(0.674)	(0.788)	(0.750)
Flow of private sector credit	−0.176***	−0.134***	−0.094*	−0.111
	(0.054)	(0.049)	(0.054)	(0.083)
Old-age dependency ratio	0.106	0.324	0.541	−0.009
	(0.160)	(0.490)	(0.684)	(0.142)
Urban population ratio	0.004	1.494***	0.375	0.042
	(0.062)	(0.488)	(0.632)	(0.062)
Public saving	−0.076	−0.098	−0.268*	−0.208
	(0.106)	(0.118)	(0.143)	(0.188)
Lags/instruments				1/23
AR(1) *p*-val.				0.037
AR(2) *p*-val.				0.098
Hansen *J*-test *p*-val.				0.167
Observations	85	77	51	77
R^2	0.579	0.727	0.758	
Number of countries		22	22	27

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A11. Regression results for social trust

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Lag of gross private savings						0.285
						(0.340)
Social trust	4.525***	2.285	2.614	9.938	13.03	2.130
	(0.945)	(2.350)	(2.461)	(7.436)	(8.029)	(5.851)
GPDI per capita (PPP)	0.0454**	0.0851	0.112	−0.110	−0.333	0.0605
	(0.0206)	(0.0989)	(0.103)	(0.230)	(0.311)	(0.0550)
GPDI growth rate	0.259**	0.221*	0.152	0.616**	0.679**	0.417
	(0.0991)	(0.119)	(0.122)	(0.290)	(0.323)	(0.265)
Real deposit rate	0.0429	−0.343	0.461	0.563	2.108	1.332
	(0.191)	(0.337)	(0.326)	(1.457)	(1.560)	(1.429)
Terms of trade	0.117**	−0.0321	0.0195	0.198	0.323**	0.0340
	(0.0539)	(0.0987)	(0.0712)	(0.158)	(0.163)	(0.111)
Inflation	0.560*	−0.107	0.735*	1.768	3.605*	1.430
	(0.295)	(0.335)	(0.381)	(1.940)	(2.013)	(1.554)
Flow of private sector credit	−0.205***	−0.0866**	−0.0871**	−0.0987	0.000178	−0.161
	(0.0530)	(0.0341)	(0.0364)	(0.0961)	(0.120)	(0.160)
Old-age dependency ratio	0.112	0.532	0.771	−0.256	0.295	0.0882
	(0.138)	(0.407)	(0.578)	(0.750)	(1.704)	(0.333)
Urban population ratio	−0.0548	0.470	0.523	0.798	0.504	−0.0407
	(0.0756)	(0.347)	(0.464)	(0.533)	(0.697)	(0.245)
Public saving	−0.205***	−0.208**	−0.272**	−0.134	−0.376	0.125
	(0.0529)	(0.0852)	(0.111)	(0.250)	(0.280)	(0.186)
Lags/instruments						1/24
AR(1) *p*-val.						0.538
AR(2) *p*-val.						0.924
Hansen *J*-test *p*-val.						0.266
Observations	143	143	105	70	50	105
R^2	0.580	0.436	0.552	0.626	0.468	
Number of countries		32	29	20	20	29

Time fixed-effects included in all specifications. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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Table A12. Summary of the regression results without control variables

Quality of…	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM	Trust in…	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Political institutions	−0.128	−0.255	−1.406**	4.512	−3.069	0.070	Parliament	2.378***	1.489*	1.569**	−10.59*	13.56	2.737***
	(0.514)	(0.577)	(0.712)	(2.963)	(8.186)	(1.525)		(0.740)	(0.877)	(0.759)	(5.701)	(13.70)	(0.762)
							Politicians	3.006***	1.732	1.729	−12.01**	14.82	2.715***
								(0.757)	(1.093)	(1.065)	(6.072)	(18.90)	(0.964)
Legal institutions	2.276***	1.588	0.034	−1.830	1.961	3.697*	The judicial system	1.807**	2.124*	1.397	−7.565	6.029	2.713***
	(0.764)	(1.207)	(1.623)	(7.547)	(37.40)	(1.895)		(0.663)	(1.249)	(1.378)	(5.691)	(6.108)	(0.793)
							The police	1.651**	2.665*	2.668	0.959	2.357	3.889***
								(0.675)	(1.551)	(1.706)	(10.79)	(3.959)	(1.171)
Financial institutions	0.849	−0.674	−0.617	−23.43	13.96	3.468	Financial institutions	0.097	−0.089		−0.157*		−0.305
	(0.607)	(0.966)	(1.875)	(19.32)	(24.59)	(4.016)		(0.065)	(0.069)		(0.091)		(0.513)
							Others	3.848***	0.245	0.739	−11.60	−7.079	6.608**
								(0.852)	(1.605)	(2.336)	(22.02)	(15.77)	(3.107)

The reported coefficients come from 52 separate regressions. For each regression, only the coefficient of interest is reported. No controls are included except time fixed-effects. Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table A13. Summary of the regression results including trust in parliament and the quality of political institutions simultaneously

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Quality of political institutions	−1.308	−0.369	−0.433	−1.821	−3.227	−0.811
	(0.802)	(0.436)	(0.631)	(2.747)	(3.183)	(1.307)
Trust in parliament	2.341***	1.736***	1.726***	−0.0418	2.428***	1.877**
	(0.797)	(0.571)	(0.503)	(0.958)	(0.724)	(0.876)

The reported coefficients come from six separate regressions. For each regression, only the coefficients of interest are reported. Controls (GDPI per capita, GDPI growth rate, real deposit rate, terms of trade, inflation, flow of private sector credit, old-age dependency ratio, urban population ratio, public saving) and time fixed-effects are included in all specifications (the coefficients are not reported here but are available on request from the authors). Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table A14. Summary of the regression results including trust in politicians and the quality of political institutions simultaneously

	Pooled OLS	OLS FE	OLS FD	2SLS FE	2SLS FD	S-GMM
Quality of political institutions	−1.712**	−0.542	−0.591	−0.0657	−2.766	−0.416
	(0.716)	(0.508)	(0.652)	(2.949)	(2.479)	(1.169)
Trust in politicians	3.996***	1.966***	1.901***	1.133	4.001***	1.435
	(0.865)	(0.733)	(0.619)	(1.503)	(1.024)	(1.091)

The reported coefficients come from six separate regressions. For each regression, only the coefficients of interest are reported. Controls (GDPI per capita, GDPI growth rate, real deposit rate, terms of trade, inflation, flow of private sector credit, old-age dependency ratio, urban population ratio, public saving) and time fixed-effects are included in all specifications (the coefficients are not reported here but are available on request from the authors). Robust standard errors clustered at the country level in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

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