

Trust(ing) in Europe?

How increased social capital can contribute to economic development

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Executive summary

There is currently a multifaceted trust crisis in Europe. In the European South, people distrust the political system, the European Union (EU) and even local institutions, such as courts and the police. Moreover, throughout Europe, there is an evident distrust in banking. In many European countries, both in the periphery and the core, social and political extremism has spiked; a growing fraction of the population perceives, for example, that immigrants and other social groups are untrustworthy; racist violence has spiked, and there is an evident polemic against specific groups.

The spread of distrust matters both for social cohesion and for economics. Although trust is absent from the neo-classical paradigm in economics that assumes few, if any, frictions, it should come as no surprise that trust is necessary for any commercial transaction; moreover, since ancient times it has been observed that trust and civic virtue (social capital) is a feature of well-governed polities and societies and a necessary ingredient of prosperity.

This report surveys recent works in political economy showing that trust—and civic capital more generally—matter for various aspects of economic well-being and presents new evidence from European countries that trust has deteriorated considerably during the recent crisis in those European countries that have been affected the most by the ongoing economic downturn, mostly in the periphery.²

¹ I would like to thank Evangelos Aspiotis and Evgenia Passari for their superb assistance and Stefaan De Corte and Marina Souyioultzi for their valuable comments and feedback. All errors are my own.

² In this paper we use social capital and civic capital interchangeably. Conceptual and measurement issues are discussed below.

In the first part of the empirical analysis, using data from the World Values Survey (WVS) on trust and proxies of civic capital (such as beliefs in the role of luck as compared to hard work and success in life and participation in social activities), we show that civiness and trust are strong correlates of economic well-being.

The analysis starts by reporting cross-country evidence illustrating that countries where individuals trust more and engage more in civic society activities are both richer and more equal. We then report on recent works studying the channels of trust's influence on economic development that seems to operate mostly via affecting productivity. Trust correlates positively with innovation, investment in research and development (R&D) and both risk taking and risk diversification. Moreover, in countries with low levels of trust, firms tend to have a lower quality of management, as they are structured in a hierarchical (vertical) manner as opposed to the more horizontal, more decentralised, structure of firms in countries with a high degree of social capital.

At the macro level, trust is strongly correlated with various features that crucially affect economic development and total-factor productivity. Bilateral (between pairs of countries) trust matters for international trade and foreign direct investment. Most importantly, distrust and low levels of civic capital appear to be mirror images of corruption and red tape. Countries exhibiting low levels of trust in entrepreneurs and businesses tend to put numerous bureaucratic procedures in place that those starting new businesses are required to follow. These procedures, in turn, fuel corruption and slow down productivity. Similarly, distrust goes in tandem with legal formalism and the presence of numerous procedures in the resolution of disputes via the court system that results in sizable differences in the speed of the legal resolutions via the courts even within the high-income group of countries.

We then show that trust crucially shapes welfare state policies. In countries with a high degree of civic capital, welfare state policies are more efficient, as they depend more on unemployment insurance and the provision of social benefits for the underprivileged members of the society. In contrast, in countries with a high degree of distrust, people consider it justifiable to claim social benefits that they are not entitled to; moreover, in low civic capital countries, welfare policies take the form of inflexible labour market institutions aiming for job protection rather than job creation.

The combination of sclerotic labour market institutions, red tape and slow legal systems in countries exhibiting low levels of trust is particularly harmful for economic efficiency both because these features affect productivity directly (low innovation and R&D) and because these institutional frictions impede the Schumpeterian process of creative destruction; recent research shows that such barriers to entry and sclerotic labour laws slow down the efficient reallocation of labour and capital from declining sectors and inefficient firms to expanding sectors and entrepreneurs with innovative high value-added projects.

In the second part of the empirical analysis we examine the evolution of trust in Europe in the last decade, placing an emphasis on the role of the recent financial crisis in shaping beliefs, exploiting data from the European Social Surveys (ESS) that are available biannually from 2002 to 2010. A nice feature of this dataset is that, in addition to data on general trust, it reports information on people's trust in the local and international political system (for example members of the European Parliament, local political parties), domestic institutions (courts, police) and so on.

The descriptive analysis reveals that, although general trust (towards other people) has not been affected much by the economic crisis (at least as reflected in the 2010 surveys), people's trust in the local political system has deteriorated considerably. In crisis-hit countries, mostly Greece, Ireland and Portugal (and in the Ukraine and Hungary), trust in local politicians has plummeted. In contrast, in the countries of the European core that have (so far) weathered the crisis, trust in the political system has either been unaffected or has slightly increased. Attitudes towards European institutions—as reflected in a trust in the European Parliament question—have also deteriorated in crisis-hit countries though this effect is less pronounced as compared to trust in local political parties and politicians.

In the section Lessons and policy recommendations we discuss some recommendations that stem from the ongoing research that tries to identify the determinants of trust and civicism. The key message is that, because trust, civicism and beliefs matter crucially for economic and institutional development, countries must both monitor developments closely and pursue policies that cultivate civic-social capital and engagement (by promoting, for example, NGOs that assist the least privileged members of the society). This is urgently needed, as the crisis has led to a divergence of beliefs and trust across European countries. The bad news for policymakers is that research shows very high persistence in trust and beliefs. This implies that changing people's beliefs and promoting civic engagement will not occur overnight. It will require, so to speak, a cultural change. The good news for policymakers is that recent research points out that specific, targeted policies can increase civicism and promote social capital considerably.

First, promoting education seems crucial as, in addition to the immediate economic payoffs, a higher level of education cultivates social capital. For example, education is the strongest correlate of participation in NGOs, participation in local community affairs and organ and blood donation.

Second, trust and various proxies of social capital are stronger in countries where the educational system is less hierarchical (driven by teacher lectures and memorising) and more horizontal (based on group assignments and activities). This implies that countries with hierarchical educational systems, mostly in the European South and France, could promote trust by reforming the structure of the system.

Third, trust seems to be promoted by commerce, exporting and the openness of the economy; thus, it is important for policymakers to continue promoting the outward orientation of the economy as, in addition to the economic payoffs, this will cultivate trust.

Fourth, competition in product markets fosters social capital, most likely because, in competitive sectors, shirking and free-riding behaviour tend to be punished.

Keywords

Trust – Civic capital – Social capital – Development – Institutions – Crisis – EU – Education – Civic engagement – Competition – Openness

JEL Classification O11, O43, Z13

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Introduction

Motivation

The idea that civic capital and trust are key elements of a well-functioning polity/society and of an efficient economy is not new. Aristotle and Plato emphasised the importance of socialisation, mildness and virtue (*areté*) in laying the basis of an efficient society. These ideas were further developed by the worldly philosophers of the European Renaissance and the Enlightenment. Niccolò Machiavelli argued that both leaders (*princes*) and citizens need to work towards finding a common moderate ground.³ He also stressed that trusting and trustworthiness are joint virtues, necessary for the political, social and economic development of both city states and large kingdoms. In *The Second Treatise of Civil Government*, John Locke argued that trust between citizens and the government is a necessary condition for the establishment of an open society based on the rule of law.⁴ The founders of the United States also believed that laws are there to serve the common good and have to be obeyed, not because of coercion or fear but because of a deep belief in civility. James Madison and Benjamin Franklin explicitly tried to develop a Republic based on connectedness and social cohesion. In his influential analysis of American democracy, Alexis de Tocqueville observed that its basis was the high level of civic engagement, as Americans gathered on many occasions to discuss local and national politics and economic affairs while at the same time they pushed for an increased level of transparency in government affairs.⁵ Although these ideas that linked civicness with political and economic advancement

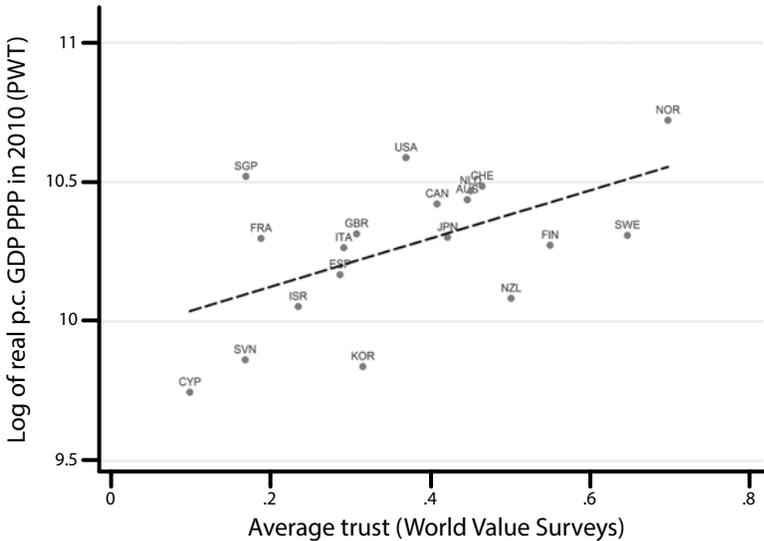
³ N. Machiavelli, *The Prince*, 2nd edn. (Chicago: University of Chicago Press, 1998).

⁴ J. Locke, *The Second Treatise of Civil Government* (London: Simon & Brown, 2012).

⁵ A. De Tocqueville, *Democracy in America* (Hertfordshire: Wordsworth Editions Limited, 1998).

Figure 1-B Trust and income

Unconditional relationship for high income countries



Sources: World Values Survey and Penn World Tables

economic development, as captured in (the logarithm of) real GDP per capita in 2010. Individuals in rich countries tend to report⁷ that they trust more other people, friends, neighbours, relatives, strangers and so on. than do individuals in poor countries. As Figure 1-B further illustrates, the strong association between trust and development is obtained also within the group of high-income countries, as defined by the World Bank.⁸ Although absent from the neo-classical paradigm, it should not come as a surprise that trust and development move in tandem: ‘virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time’.⁹ In the same vein, John Stuart Mill¹⁰ wrote that ‘There are countries

⁷ For example, *World Values Survey 1981–2008*, Official Aggregate v.20090901, 2009. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: ASEP/JDS, Madrid.

⁸ We discuss the data on trust and civiness in detail below.

⁹ K. Arrow, ‘Gifts and Exchanges’, *Philosophy and Public Affairs* 1 (1972), 343–62.

¹⁰ J.-S. Mill, *Principles of Political Economy* (London: John W. Parker, 1848).

in Europe . . . where the most serious impediment to conducting business concerns on a large scale, is the rarity of persons who are supposed fit to be trusted with the receipt and expenditure of large sums of money’.

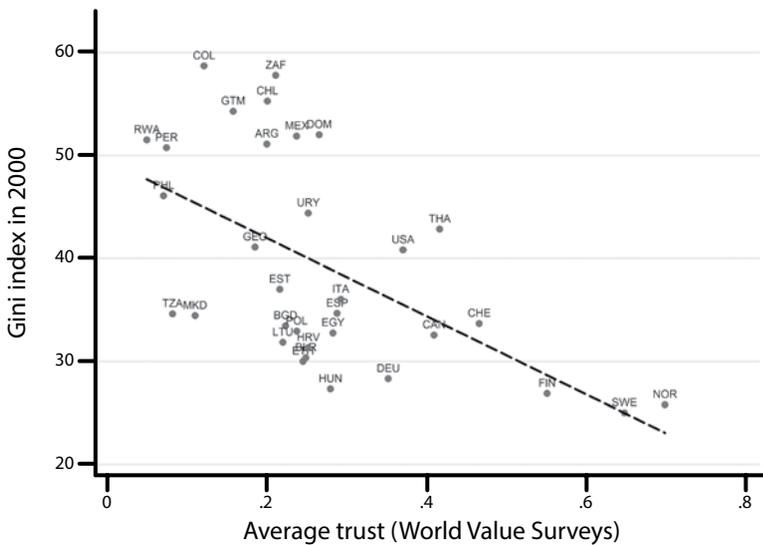
Trust matters for conducting business, as contracts are—almost by default—incomplete; it is expensive, time consuming and somewhat uncertain to resolve contractual disputes via the court system and other formal resolution mechanisms. But trust evidently matters for economic efficiency via numerous other channels. Perhaps the most straightforward example is international trade. Standard (‘Ricardian’) theories of comparative advantage suggest that trade is advantageous for both parties (firms/regions/counties); the exchange of goods and international transactions, however, depend crucially on trust and on other related values, such as tolerance and respect for other cultures. Similarly, trust is a necessary ingredient for almost any type of financial transaction, such as placing deposits in a bank, purchasing equity or bonds, investing in the stock market and so on. The close link between trust and finance became evident in the period that followed the freeze of the mortgage market in the US and the collapse of Bear Stearns and Lehman Brothers; governments, financial regulators and central banks intervened heavily in financial markets in an effort to restore trust. Trust matters also for (microeconomic) behaviour of firms and individuals. For example, firms are investing heavily in advertising and marketing in an effort to build trust with their customers. Furthermore, trust interplays with economic development through the type of the polity (democracy, dictatorship) and conflict. Aristotle was perhaps the first to notice that non-democracies are marked by low levels of trust; at the same time, trust and civic awareness are significantly lower in countries and even regions within countries with a history of conflict.¹¹

¹¹ For a theoretical exposition, see, for example, D. Rohner, M. Thoenig and F. Zilibotti, ‘War Signals: A Theory of Trade, Trust and Conflict’, *Review of Economic Studies* 80/1 (2013), 1–34.

Trust(ing) in Europe? How increased social capital can contribute to economic development

Trust—and civicsness more generally—are also related to the distribution of income within countries. Figure 2-A shows that there is a significantly negative association between trust and the Gini coefficient of income inequality (a commonly used proxy of disparities of income within countries); as Figure 2-B illustrates, the relationship is somewhat stronger when one focuses on high-income countries. Beliefs in fairness, trust in free-market institutions and the political system, and civicsness tend to affect and to be affected by redistribution policies and inequality. As shown by Alesina and Angeletos,¹² there is a strong relationship between income inequality and redistributive policies and individual beliefs in whether luck, rather than hard work and effort, determines success (income). Because in countries characterised by distrust there is a higher degree of bureaucratic barriers and

Figure 2-A Trust and inequality
Unconditional relationship

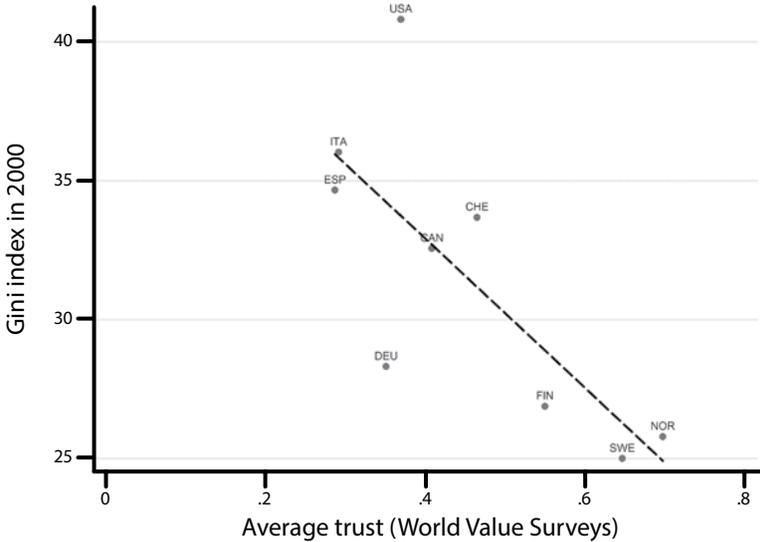


Sources: World Value Survey and World Development Indicators

¹² A. Alesina and G.-M. Angeletos, 'Fairness and Redistribution', *American Economic Review*, 95/4 (2005), 960–80.

Figure 2-B Trust and inequality

Unconditional relationship for high income countries



Sources: World Value Survey and World Development Indicators

corruption,¹³ this creates (unfair) inequality, which in turn raises the demand for redistribution, enlarging the size of government—though not necessarily improving the efficacy of the welfare state.¹⁴

Conceptual issues and definitions

Though social capital is related to the old idea of civic virtue, the terminology is new. The concept of social capital has been introduced and developed mostly in the second half of the twentieth century.¹⁵ And it was only in the 1980s and '90s that the concept of social (or civic) capital gained common acceptance.

¹³ P. Aghion et al., 'Regulation and Distrust', *Quarterly Journal of Economics* 125/3 (2010), 1015–49.

¹⁴ A. Alesina and G.-M. Angeletos, 'Corruption, Inequality, and Fairness', *Journal of Monetary Economics* 52/7 (2005b), 1227–44.

¹⁵ The concept was first introduced by L. J. Hanifan, 'The Rural School Community Center', *Annals of the American Academy of Political and Social Science* 67 (1916), 130–8, and then by P. Bourdieu, 'Outline of a Theory of Practice', Librairie Droz (1972).

But what exactly is social-civic capital? Bourdieu distinguished between economic, cultural and social capital, defining the latter as ‘the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition’.¹⁶ The network aspect is emphasised in Robert Putnam’s definition of social capital being ‘features of social life—networks, norms and trust—that enable participants to act together more effectively to pursue shared objectives’;¹⁷ Similarly, Coleman¹⁸ defines social capital as ‘a set of relationships that support effective norms (related to beliefs and social behaviour)’. Definitions of the related concept of civic capital are similar though they stress the engagement aspect. For example Almond and Verba define civic culture as ‘a set of beliefs, attitudes, norms, perceptions and the like, that support participation’.¹⁹

Although these (and other) definitions are not identical, there are common elements: trust and norms-beliefs regarding civic participation and enforcement within social networks. A common idea behind most works on civic virtue and social capital is that there is a payoff (economic, social and political) to trusting others and to participating in community affairs, either because of the presence of ‘collective action problems’ (that social capital overcomes) and/or because there are positive externalities to participation. Guiso, Sapienza and Zingales thus define civic capital as ‘those persistent and shared beliefs and values that help a group overcome the free rider problem in the pursuit of

¹⁶ P. Bourdieu, ‘The Social Space and the Genesis of Groups’, *Theory and Society* 1/6 (1985), 723–44.

¹⁷ R. D. Putnam, *Making Democracy Work*.

¹⁸ C. J. Coleman, *Foundations of Social Theory*. Regarding trust, Coleman (1990) writes that ‘an individual trusts if he or she voluntarily places resources at the disposal of another party without any legal commitment from the latter, but with the expectation that the act of trust will pay off’.

¹⁹ G. Almond and S. Verba, *The Civic Culture: Political Attitudes and Democracy in Five Nations*, 1st edn. (London: Sage Publications, 1963).

socially valuable activities'.²⁰ An additional—and quite interesting for our purposes—dimension of this economics-driven definition is that social-civic capital is a feature of groups, regions, ethnicities and countries-nations. Moreover, viewing civicness and trust as a form of 'capital' is in line with Putnam's idea that social capital has an inherently positive meaning.²¹ Although this approach has been criticised as socialisation that may lead to bad outcomes (for example fascist youth organisations during the interwar period), for the purpose of this study we follow the literature viewing social-civic capital and trust as 'good culture'.²²

In practice, delicate theoretical ambiguities on the exact definition of civic-social capital are hard to identify in the data, as measures of trust and civicness (littering, tax evasion, donations) are strongly correlated, both across countries and across individuals within countries. Therefore, in this paper we use the words social capital and civic capital interchangeably.

Measurement issues

A key challenge in identifying the origins and consequences of trust and civic-social capital is properly measuring these general concepts. Ideally, one would need to measure in a consistent and common way the key aspects, group and network formation, trust, cooperation on socially desirable projects, punishment of non-cooperative behaviour, group cohesion and inclusiveness (in line with this ideal, the World Bank has recently tried to collect cross-country data across these dimensions).²³

²⁰ L. Guiso, P. Sapienza and L. Zingales, 'Civic Capital as the Missing Link', in J. Benhabib, A. Bisin and M. O. Jackson (eds.) *The Handbook of Social Economics* (Amsterdam: North-Holland, 2011).

²¹ R. D. Putnam, *Making Democracy Work*.

²² See L. Guiso, P. Sapienza and L. Zingales, 'Cultural Biases in Economic Exchange?' *Quarterly Journal of Economics* 124/3 (2009), 1095–1131.

²³ World Development Indicators, The World Bank.

The literature has employed three broad approaches in measuring social capital. First, most empirical research relies on survey data. This paper follows this approach, as it has the merit of covering a large number of countries and regions within countries. Furthermore, surveys include questions on various aspects of trust (for example towards strangers, the political system, courts, the European Union) and questions on beliefs (for example on whether it is justifiable to claim social allowances to which one is not entitled or on whether tolerance and respect are important values).

Second, some studies use innovative data that capture specific aspects of civic engagement, for example, blood or organ donations,²⁴ and participation in elections, referenda and local councils.²⁵ Other proxies include participation in NGOs, dealing, for example, with environmental issues or civil liberties, donations and social voluntary work.

Third, a somewhat separate strand of the literature measures trust and civic capital using data from lab or field experiments, in which individuals (usually students) participate in 'games' aiming to capture cooperation, reputation building over time, punishment mechanisms of anti-social behaviour, trust and trustworthiness.²⁶ The merit of this approach is that the generated data map closely the theoretical concepts. Yet such experiments have limited (though expanding) coverage, and as such they are not particularly useful for our comparative perspective.

²⁴ L. Guiso, P. Sapienza and L. Zingales, 'The Role of Social Capital in Financial Development', *American Economic Review* 94/3 (2004), 526–56; M. Jacob and M. Tyrell, 'The Legacy of Surveillance: An Explanation for Social Capital Erosion and the Persistence of Economic Disparity between East and West Germany', *Mimeo*, European Business School Oestrich-Winkel (2010).

²⁵ L. Guiso, P. Sapienza and L. Zingales, 'The Role of Social Capital in Financial Development', 526–56; D. Acemoglu, T. Reed and J. A. Robinson, 'Chiefs: Elite Control of Civil Society and Economic Development in Sierra Leone', *NBER Working Papers 18691*, National Bureau of Economic Research, Inc. (2013).

²⁶ C. F. Camerer and E. Fehr, 'Measuring Social Norms and Preferences Using Experimental Games: A Guide for Social Scientists', in *Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies* (Oxford University Press, 2004).

The economic approach to the formation of civic capital and trust

The starting point of the theoretical work on civic capital in economics is modelling the formation and evolution of trust.²⁷ In the model of Tabellini²⁸ that builds on the earlier insights of Bisin and Verdier²⁹ and of Benabou and Tirole,³⁰ among others, parents decide whether they should pass on to their children the values of cooperation (civic engagement) and trust. The parents' maximisation problem is a function of the current economic, political and institutional conditions as well as of their beliefs about their children's welfare in the future. Because the benefits of cooperation and trust are larger when more people in the group (country, society) are trusting and trustworthy, parents will nudge their children towards civiness when there is already a high degree of cooperation. However, when distrust, cheating and anti-social behaviour are prevalent in the society, then parents will optimally 'teach/instruct' their children about the dangers associated with trusting others. Adding a conservative bias to parents' beliefs regarding their children's life (naturally arising from uncertainty about the unknown distant future) will make the transmission of socially beneficial values such as trust and cooperation even harder.

This game-theoretic modelling of the evolution of trust is similar to the popular prisoner's dilemma game; in this game both parties (prisoners) are better off if they cooperate (by pleading guilty), but individually each agent (prisoner) has an incentive to 'cheat'

²⁷ Of course parents and other people may cultivate civic capital and engage in social activities for inherently personal norms.

²⁸ G. Tabellini, 'The Scope of Cooperation: Values and Incentives', *Quarterly Journal of Economics* 123/3 (2008), 905–50.

²⁹ A. Bisin and T. Verdier, 'Beyond the Melting Pot: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits', *The Quarterly Journal of Economics* 115/3 (2000), 955–88 and 'The Economics of Cultural Transmission and the Dynamics of Preferences', *Journal of Economic Theory* 97 (2001), 298–319.

³⁰ R. Benabou and J. Tirole, 'Incentives and Prosocial Behavior', *American Economic Review* 96/5 (2006), 1652–78.

(plead not guilty so as to get a lesser punishment). Since agents (prisoners) act rationally and there is no external mechanism to enforce mutually beneficial cooperative behaviour, both parties decide to 'cheat' and they are 'stuck' on the unfavourable (for both) equilibrium. Social-civic capital acts as an informal mechanism that pushes both agents to choose the cooperative strategy. Since individuals can build, in a dynamic setting, a reputation for playing the socially optimal strategy, trust and social capital are endogenously developed and help further sustain the cooperative equilibrium.

Introducing institutions, formal cooperation mechanisms that penalise anti-social behaviour, leads to a high degree of persistence in both civiness and institutions. The reason is that the complementary nature of formal and informal mechanisms pushes groups/societies/nations either towards a 'good' equilibrium characterised by cooperation, social participation, high levels of trust and well-functioning institutions that punish anti-cooperative behaviour or towards a 'bad' equilibrium in which, due to generalised cheating, trust is suboptimal. Hence, in the 'bad' equilibrium, the society develops inferior institutions (such as slow and formalistic courts and bureaucracies) in which punishment of anti social behaviour is weak and not widely enforced. Thus corruption and illegality are prevalent, leading to a vicious cycle in which distrust fuels antisocial behaviour and corruption, which in turn verify the prior assumption (of distrust) leading to a dissipation of civic capital.³¹

These conjectures that civiness and social capital exhibit persistence are in line with the data. Although trust and civic capital do evolve over time, many empirical works document inertia. This explains Robert Putnam's influential thesis that the

³¹ For a dynamic model of cycles of distrust, see D. Acemoglu and A. Wolitzky, 'Cycles of Distrust: An Economic Model', *NBER Working Papers* 18257, National Bureau of Economic Research, Inc. (2012).

large differences in civic capital between the North and the South of Italy date to medieval times.³² Guiso, Sapienza and Zingales provide empirical evidence supportive of this idea showing that social capital is higher in regions where, during medieval times, there were semi-autonomous city states;³³ importantly, this applies even when one focuses within the northern or the southern parts of Italy. In the same vein, Greif and Tabellini trace contemporary differences in trust and beliefs across Europe and China to the divergent institutional development of the two regions after the Dark Ages.³⁴ In Europe, the emergence of city states fostered social capital and promoted (formal and informal) enforcement mechanisms of cooperation at the city, region and eventually country level; in contrast, in China, the centralisation of the imperial state led individuals to identify mostly with clans (kinship-based organisations) and extended families. Thus in China, general trust in strangers is lower than in Western Europe, but trust in people with whom there is some contact is higher in China.

Focusing on sub-Saharan economics, Nunn and Wantchekon trace the low levels of trust in Africa to the slave trades of 1400–1700.³⁵ Similarly, Nunn argues that the type of colonisation (extractive versus inclusive) has crucially affected social capital, former colonies developing divergent trajectories on trust and civic engagement.³⁶ Working on a global sample, Alesina, Giuliano and Nunn show that beliefs about the role of women have deep

³² R. D. Putnam, *Making Democracy Work*.

³³ L. Guiso, P. Sapienza and L. Zingales, 'Civic Capital as the Missing Link'.

³⁴ A. Greif and G. Tabellini, 'Cultural and Institutional Bifurcation: China and Europe Compared', *American Economic Review*, American Economic Association 100/2 (2010), 135–40 and 'The Clan and the City: Sustaining Cooperation in China and Europe', *Working Papers 445*, IGIER (Innocenzo Gasparini Institute for Economic Research), Bocconi University (2012).

³⁵ N. Nunn and L. Wantchekon, 'The Slave Trade and the Origins of Mistrust in Africa', *American Economic Review* 101/6 (2011), 3221–52.

³⁶ N. Nunn, *Culture and the Historical Process*, NBER Working Papers 17869, National Bureau of Economic Research, Inc. (2012).

roots related to the type of agricultural production, well before the Industrial Revolution took place.³⁷ Durante shows that trust is related to geographic and climatic conditions, even within countries.³⁸ He shows that, in European regions characterised by high year-to-year and spatial variability in precipitation/rainfall and temperature, there is a higher degree of trust, most likely because farmers built informal risk-sharing social arrangements and developed trust that persisted over time.

The econometrics of civiness and trust

Over the past few years, there has been burgeoning empirical research that tries to shed light on how civiness and trust affect various aspects of economic efficiency. This body of work is part of a broader strand of the literature in economics that aims at understanding how culture affects economic performance.³⁹ Overall, political economists have used data compiled by the WVS, the various Barometer Surveys (for example, Eurobarometer and Latinobarometer) and other agencies (for example Gallup Polls, European Social Survey) and analysed the factors that correlate with trust, specific beliefs (related to socialisation and civiness) and norms (family ties). Proxies of trust and social capital correlate with income (Figures 1-A-1-B), inequality (Figures

³⁷ A. Alesina, P. Giuliano and N. Nunn, *On the Origins of Gender Roles: Women and the Plough*, NBER Working Papers 17098, National Bureau of Economic Research, Inc. (2011).

³⁸ R. Durante, 'Risk, Cooperation and the Economic Origins of Social Trust: An Empirical Investigation', *Mimeo Sciences Po Paris* (2010).

³⁹ This body of research examines the impact of religious norms, family ties and ethnic features on various aspects of economic development, such as female labour force participation, income, trust, the level of political freedom, conflict and so on. From a methodological standpoint, empirical works on culture and economics either rely on 'quasi-natural' experiments or exploit variation on economic outcomes and culture across immigrants (usually in the US or in Western Europe), as this allows isolating the impact of culture from legal institutions (epidemiological approach). For eloquent reviews, see R. Fernández, 'Does Culture Matter?', in J. Benhabib, A. Bisin and M. O. Jackson (eds.), *The Handbook of Social Economics* (Amsterdam: North-Holland, 2011) and L. Guiso, P. Sapienza and L. Zingales, 'Does Culture Affect Economic Outcomes?' *Journal of Economic Perspectives* 20/1 (2006), 23-48.

2-A–2-B), economic growth across and within countries,⁴⁰ red tape,⁴¹ financial development,⁴² labour institutions,⁴³ trade⁴⁴ and organisational structure.⁴⁵

This body of research (reviewed in Trust and economic performance) has brought social-civic capital and trust at the centre of mainstream economic thinking. Building on these cross-country associations, ongoing works use micro-level data (at the individual level or at the regional level) trying (1) to establish causality and (2) to identify the main channels of social capital's influence in the economy. An additional nice feature of micro works is the use of novel proxies of social capital and civic engagement. For example, employing regional variation across Italy, Nannicini et al. show that electoral punishment of politicians engaged in corruption scandals is significantly larger in districts with a higher degree of social capital as captured by blood donation.⁴⁶ Similarly, Guiso, Sapienza and Zingales⁴⁷ show that, in Italian regions with a higher degree of participation in local referenda and in blood donations, households are more likely to use cheques, invest in the stock market and rely on formal (as opposed to informal) credit. Using data from East Germany, Jacob and Tyrell first show that social capital (as reflected

⁴⁰ G Tabellini, 'The Scope of Cooperation: Values and Incentives', 905–50 and, for example, Y. Algan and P. Cahuc, 'Inherited Trust and Growth', *American Economic Review* 100/5 (2010), 2060–92.

⁴¹ P. Aghion et al., 'Regulation and Distrust', *Quarterly Journal of Economics* 125/3 (2010), 1015–49.

⁴² L. Guiso, P. Sapienza and L. Zingales, 'Trusting the Stock Market', *Journal of Finance* 63/6 (2008), 2557–600.

⁴³ Y. Algan and P. Cahuc, 'Civic Virtue and Labor Market Institutions', *American Economic Journal: Macroeconomics* 1/1 (2009), 111–45.

⁴⁴ L. Guiso, P. Sapienza and L. Zingales, 'Cultural Biases in Economic Exchange?', 1095–1131.

⁴⁵ For example, R. La Porta et al., 'Legal Determinants of External Finance', *Journal of Finance* 5/3 (1997), 1131–50 and N. Bloom, R. Sadun and J. Van Reenen, 'The Organization of Firms across Countries', *Quarterly Journal of Economics* 127/4 (2012),

⁴⁶ T. Nannicini et al., 'Social Capital and Political Accountability', *American Economic Journal—Economic Policy* (forthcoming).

⁴⁷ L. Guiso, P. Sapienza and L. Zingales, 'The Role of Social Capital in Financial Development', 526–56. 1663–705.

in organ donation, electoral turnout and civic participation in local councils) is significantly lower in regions where the notorious STASI had many informants for surveillance during the Communist era.⁴⁸ They then show that the component of social capital that is driven by the legacy of surveillance and distrust correlates strongly with economic backwardness.

Structure of the paper

This paper is structured as follows. In the section Trust and economic performance, we discuss the findings of the empirical literature that studies the role of social-civic capital and trust in various aspects of economic efficiency. First, we discuss the main data on trust and civicism from the WVS, which cover close to 100 countries from all continents.⁴⁹ We then report results linking trust with development and economic growth both across and within countries. Next, we present results showing that trust tends to affect economic efficiency mostly by shaping formal institutional structures (such as administrative-bureaucratic barriers to entrepreneurship, graft, legal formalism and labour market regulation). In the section Trust in Europe during the recent period (2002–10), we use data from the ESS on trust covering the post-euro period (2002–10) to study cross-country differences both before and after the global financial crisis (2007–9) and during the ongoing economic crisis in Europe. In Lessons and policy recommendations, we discuss some immediate policy prescriptions-recommendations stemming from this research agenda. The Conclusion summarises the paper.

⁴⁸ M. Jacob and M. Tyrell, 'The Legacy of Surveillance: An Explanation for Social Capital Erosion and the Persistence of Economic Disparity between East and West Germany'.

⁴⁹ *World Values Survey 1981–2008*, Official Aggregate v.20090901, 2009.

Trust and economic performance

In this section, building on the findings of a fascinating body of empirical research, we present results linking trust with various aspects of economic efficiency. We start the analysis by presenting the main cross-country proxies of social capital that are based on the WVS. We then discuss the evidence on the association between trust and economic development. Next, we proceed to the analysis linking trust with institutional quality, administrative-bureaucratic burdens to entrepreneurship and legal enforcement, corruption and transparency. In the section Social capital and labour market institutions, we discuss how trust and beliefs shape labour market regulation and welfare state policies. In Social capital and financial development we present evidence linking social capital with financial patterns, and in Social capital and organisational structure we discuss recent works showing that trust shapes firms' organisational structure.

It should be stressed from the outset that the associations presented in Figures 1–20 do not necessarily imply causal relationships between trust (or social capital) and the various outcomes (for example income, growth, corruption and so on). The correlations may reflect the fact that more economically advanced countries are more capable in building trust and civic awareness, by improving, say, national institutions and by investing in education. Moreover, the cross-country correlations between trust and economic efficiency may be driven by a third (omitted) factor/variable, related for example to geography, culture and so on. Thus in each subsection we complement the cross-country (graphical) analysis by discussing the evidence of better-identified micro studies that push on the causality front (from trust to economic well-being); we also describe the logic of theoretical works that model specific channels of influence of trust on economic development and institutional quality, as they also help us understand how trust and civicness shape economic

performance. Durlauf and Fafchamps,⁵⁰ Guiso, Sapienza and Zinagles,⁵¹ and Algan and Cahuc⁵² provide complete reviews of the growing literature on social capital. Fernández⁵³ and Alesina and Giuliano⁵⁴ provide thorough surveys of the broader body of work on culture and development.

Data sources and definitions

In this section we use data on trust and beliefs from the WVS.⁵⁵ The WVS is an international body that has coordinated country-specific surveys since the early 1980s. So far there have been five waves, 1981–84 (first wave), 1989–93 (second wave), 1994–99 (third wave), 1999–2004 (fourth wave) and 2005–08 (fifth wave). Coverage changes across waves; for example in the first wave only a dozen countries were surveyed, whereas close to 80 countries have been covered in the latest rounds (see the Appendices for details). On average, each round is based on questionnaires of 1,500 individuals in each country; the WVS report ‘weights’, which we employ to construct representative country-level summary statistics. Following the standard practice in the literature, we use data from all waves; this approach maximises the country coverage and makes the country-level means more representative (as they are based on a large number of respondents.) To minimise concerns of comparability we use the aggregate harmonised database of the WVS that covers

⁵⁰ S. N. Durlauf and M. Fafchamps, ‘Social Capital’, in P. Aghion and S. Durlauf (eds.), *The Handbook of Economic Growth* (Amsterdam: North-Holland, 2005).

⁵¹ L. Guiso, P. Sapienza and L. Zingales, ‘Civic Capital as the Missing Link’.

⁵² Y. Algan and P. Cahuc, ‘Trust, Institutions and Economic Development’, in P. Aghion and S. Durlauf (eds.), *The Handbook of Economic Growth* (Amsterdam: North-Holland, 2013).

⁵³ R. Fernández, ‘Does Culture Matter?’ in J. Benhabib, A. Bisin and M. O. Jackson (eds.), *The Handbook of Social Economics* (Amsterdam: North-Holland, 2011).

⁵⁴ A. Alesina and P. Giuliano, ‘Culture and Institutions’, in preparation for the *Journal of Economic Literature* (2013). A. Alesina and P. Giuliano, *Family Ties*, NBER Working Paper 18966.

⁵⁵ World Values Survey 1981–2008, Official Aggregate v.20090901.

87 countries; in total, our data are based on the responses of 256,000 individuals. The sample is quite representative, as it includes industrial (European and non-European) countries, emerging economies (for example Brazil, India and China) and underdeveloped countries.⁵⁶ Appendix A provides details on the WVS.

Following the literature on social capital, we focus on the following question that aims at capturing general trust: Generally speaking, would you say that most people can be trusted, or that you need to be very careful in dealing with people? There are two answers: (1) Most people can be trusted and (2) Can't be too careful. We define a dummy (indicator) variable of general trust that takes on the value of one when the respondent answers that most people can be trusted and zero otherwise.⁵⁷ We then take the average across countries. Figure 3-A reports the average value on trust across European countries (blue bars indicate EU-member countries; red bars indicate non-EU countries). There is sizable variation on trust across Europe. In Nordic countries (Norway, Sweden and Finland) more than a third of respondents say that most people can be trusted. In Germany, a fourth of respondents believe that most people can be trusted. In contrast, in Cyprus, Turkey and the former Yugoslavian Republic of Macedonia, only a tenth of the population trusts other people. As Figure 3-B illustrates, variation on trust is even larger outside Europe: East Asian countries, Australia and New Zealand exhibit (relatively) high amounts of trust, and African and Latin American

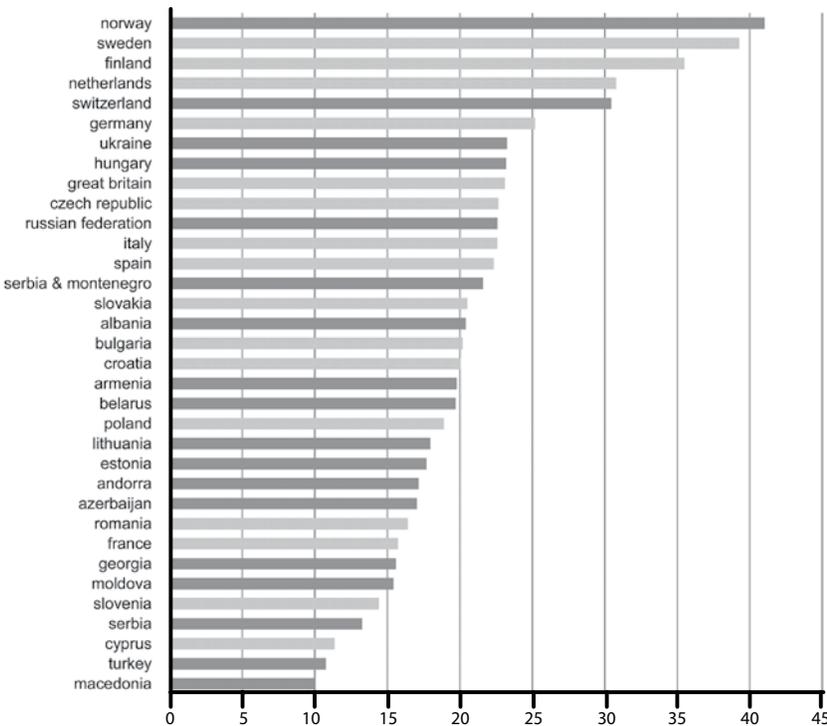
⁵⁶ Perhaps the only drawback of the harmonised sample of the WVS is that we lose information from some EU countries: Denmark, Greece, Belgium, Luxemburg, Portugal, Austria, Latvia and Iceland. These countries were covered by the EVS, which in the past was coordinated with the WVS.

⁵⁷ There has been a debate on whether replies to this (and related questions) do indeed reflect trust. Glaeser, E. et al., 'Measuring Trust', *Quarterly Journal of Economics* 115/3 (2000), 811–46 have argued that this index captures trustworthiness rather than trusting behaviour. However, Fehr et al. show that this index correlates with the outcomes on trust from (better identified) experimental games and detailed opinion polls. See Sapienza, P., Toldra-Simats, A. and Zingales, L., 'Understanding Trust', *The Economic Journal* (forthcoming) for a thorough discussion of these issues and additional results showing that the WVS question on trust does reflect (to some extent) trusting attitudes.

countries report that people should be quite careful when interacting with strangers.

We also use other than trust proxies of (un)civickness. Following Tabellini, we use the responses to three questions that measure social (cultural) capital.⁵⁸ The first variable takes on the value of one when an individual indicates that ‘tolerance and respect for other people’ is one of the five most important qualities that children should be encouraged to learn (and zero otherwise). We label this variable *respect*. Second, we define an *obedience* indicator that captures the percentage of people that regard

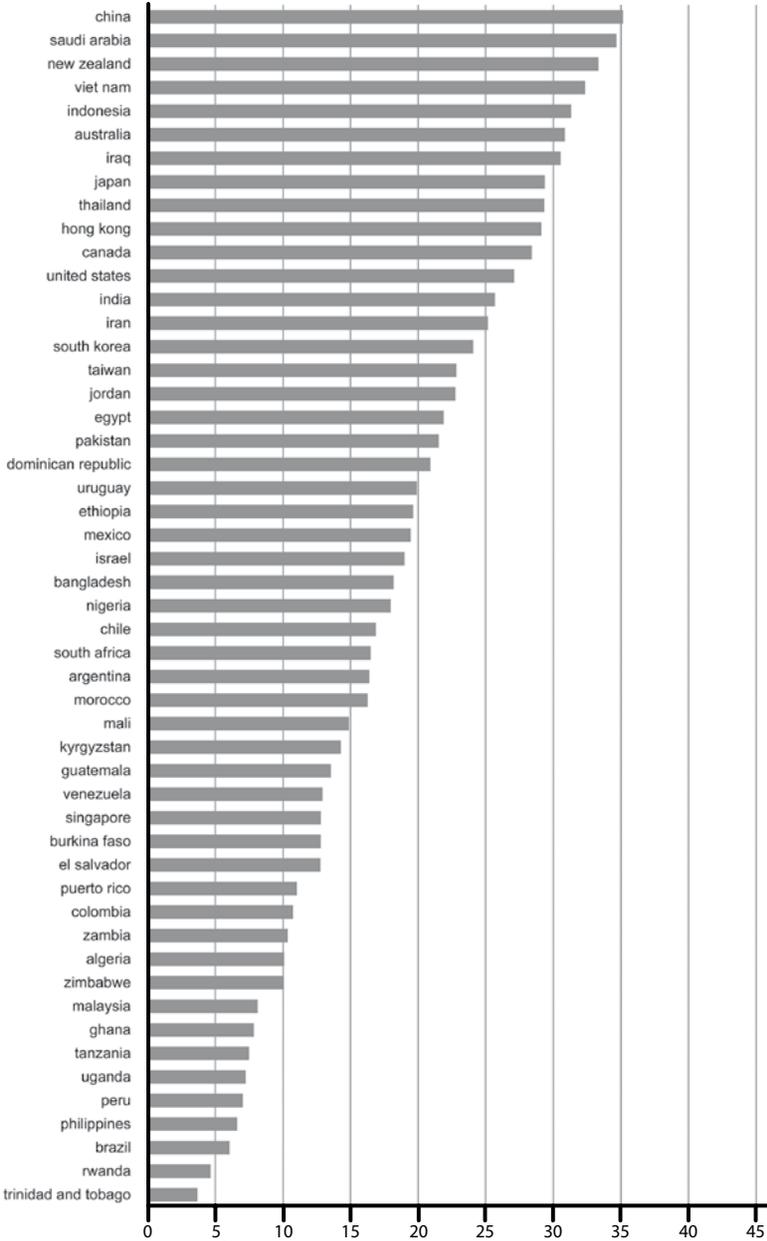
Figure 3-A Trust across European countries (%)



Sources: World Values Survey

⁵⁸ G. Tabellini, ‘Culture and Institutions: Economic Development in the Regions of Europe’, *Journal of the European Economic Association* 8/4 (2010), 677–716.

Figure 3-B Trust across the world (%)



Sources: World Values Survey

obedience as a key quality that their children should learn. Tabellini argues that this index captures the informal (cultural) coercion of the social environment.⁵⁹ In a society with coercive norms where the individual has been instructed to follow orders since childhood, there may be less cooperation. Third, we used data from a 0–10 scale self-control index based on answers to the following question: ‘Some people feel they have completely free choice and control over their lives, while other people feel that what we do has no real effect on what happens to them. Do you agree with the former, or the latter statement?’ A low score indicates a less hierarchical and less open society; when individuals reply that people control their lives, this indicates that personal effort—rather than luck—drives success in life.

After constructing the mean value of these three variables, we construct a composite index of social capital taking the first principal component, which captures the common part of the variance of these three measures. This procedure is often used, as it minimises noise and measurement error. The first principal component explains approximately half the total joint variance. Moreover, all three variables (lack of obedience, control, tolerance) load positively to the first principal component, suggesting that one can reasonably think of it as a composite index of social capital. Figures 4-A–4-B plot the mean value of the composite index of social capital. Appendix Table A gives the values of the composite index and the three subcomponents for each country. By construction, the cross-country mean of the composite index is zero; the countries with the highest level of social capital in Europe (Figure 4-A) are Finland, Sweden and the United Kingdom. Interestingly, France and Cyprus, which exhibit low levels of trust (see Figure 3-A), score above the mean in this alternative proxy of civiness. Eastern European countries score

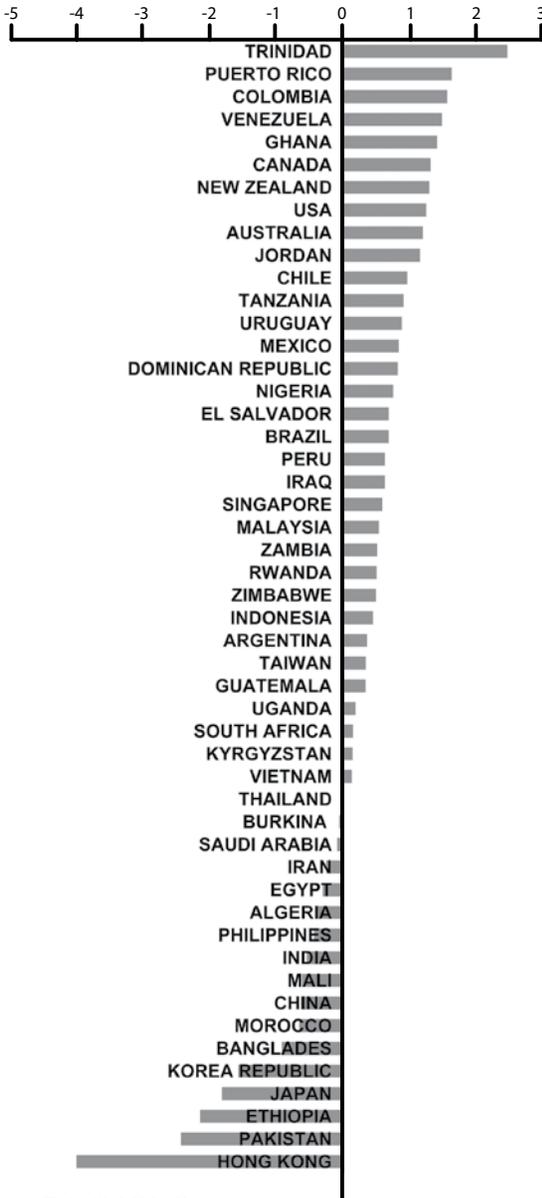
⁵⁹ Ibid., 677–716.

Figure 4-A Civic capital in Europe



Sources: Tabellini (2010)

Figure 4-B Civic capital across the world



Sources: Tabellini (2010)

relatively low in the composite index of social capital, perhaps because there is some persistence of Communism.⁶⁰

Social capital and economic development

Cross-country patterns

Figures 5-A–5-B show a similar pattern to Figures 1-A–1-B between development and the composite index of social capital, based on tolerance and respect for other people, freedom of choice and control of own actions as drivers of success, and lack of obedience. So, both trust and civiness are features of development.

Patterns across European regions

An important issue with these cross-country associations is that the observed pattern may be driven by an omitted factor, related to geography, culture, institutions and so on. Furthermore, trust, civiness and economic (and institutional) development are interlinked, making causal inference (that trust causes development) difficult. In an effort to account for some of these issues, Tabellini studied the association between trust and social capital across European regions within the same country.⁶¹ Because formal institutions (rule of law, bureaucratic efficiency, legal system quality, regulation) are similar within national boundaries, exploiting within-country cross-regional variation on social capital and development accounts for the confounding impact of these factors. Figures 6-A–6-B show that the positive cross-sectional correlation between development and trust is also present when one explores regional variation across administrative areas in the *same* country.

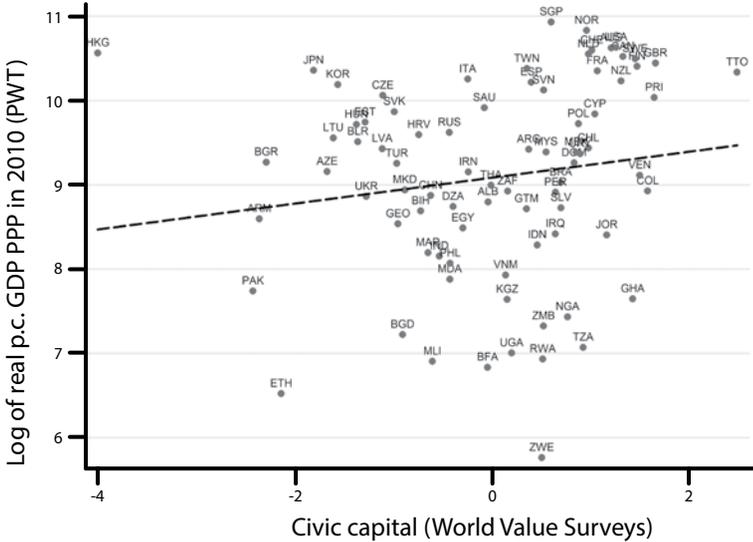
⁶⁰ See A. Alesina and N. Fuchs-Schuendeln, 'Good-bye Lenin (or not?): The Effect of Communism on People's Preferences', *American Economic Review* 97/4 (2007), 1507–28.

⁶¹ G. Tabellini, 'Institutions and Culture', Presidential Lecture, *Journal of the European Economic Association Papers and Proceedings* (2008).

Trust(ing) in Europe? How increased social capital can contribute to economic development

Figure 5-A Civic capital and income

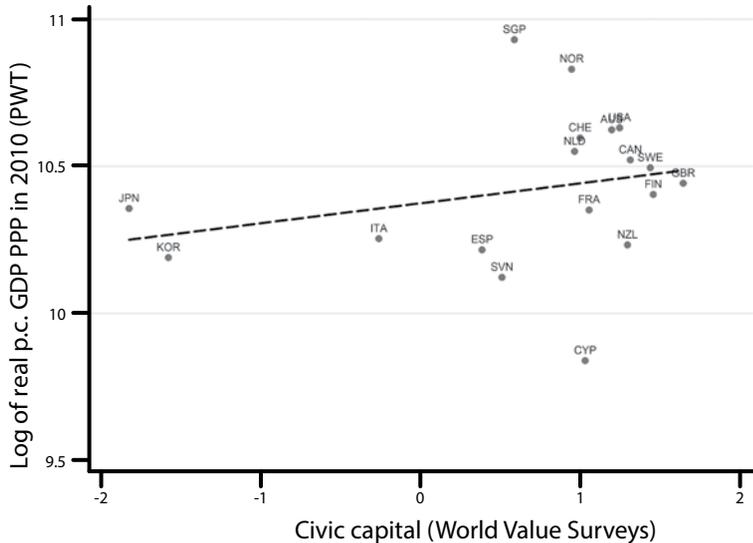
Unconditional relationship



Sources: World Value Survey and Tabellini (2010)

Figure 5-B Civic capital and income

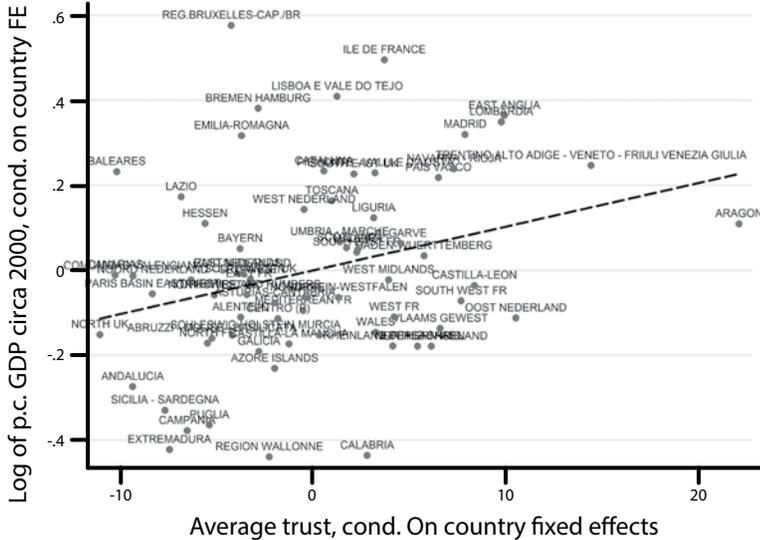
Unconditional relationship for high income countries



Sources: World Value Survey and Tabellini (2010)

Figure 6-B Trust and economic development across European regions

Conditional on country fixed effects



Sources: World Value Survey and Penn World Tables

Although the associations in Figure 6-B and Figures 7-A–8 account for some of the problems of purely cross-country associations, they are not a panacea, as even adjacent regions in the same country are different. Moreover, the regional correlation may reflect ‘reverse causation’, income affecting trust and social capital rather than the other way around. This is plausible, as richer countries (regions) can invest in informal institutions and build trust and civic capital. Moreover, richer regions are usually more commercial, more diverse and engage more in international trade, thereby cultivating tolerance and respect for foreigners. To (partly) account for these issues, Tabellini exploits historical differences across European regions in literacy and political freedom.⁶³ He shows that literacy in the late nineteenth century and executive constraints during the Enlightenment (1600–1850)

⁶³ G. Tabellini, ‘Institutions and Culture’.

explain a significant portion of contemporary differences in trust and social capital across regions in the same country. He then shows that the component of trust and social capital driven by these historical features is also strongly correlated with regional development. These results are quite important, as they show that the cultivation of social capital through early investments in education and a culture of openness in Europe can have sizable long-lasting effects on civicness and development.⁶⁴

Patterns from long-run differences

Another approach in accounting for country-level factors related to geography, culture or slow-moving formal institutional structures is to assess the association between trust and development over time.⁶⁵ A practical problem is that we lack comprehensive cross-country data on trust and/or civic engagement for many countries before the 1980s; and because civic capital and trust accumulate slowly there are small variations over the past two to three decades for which we have data. In an ingenious paper, Algan and Cahuc develop a novel approach to estimate the link between differences in trust and development.⁶⁶ The authors measure trust in a sample of 45 countries in the interwar period (in 1935) using data on beliefs of immigrants who live in the US. Using data on descendants of immigrants, the authors⁶⁷ first show with contemporary data (in 2000) that there is a positive correlation between trust in the home country (for example Italy) and trust of US immigrants from the same country (Italians).⁶⁸ The authors then use data from the US

⁶⁴ A limitation of these two-stage-least squares results is that early human capital and political openness may affect contemporary regional development via other than social capital channels, for example via trade and commerce.

⁶⁵ Accounting for omitted country-level factors is non-negligible, as recent works show that geographic, cultural, genetic, anthropological and historical traits have sizable long-lasting effects. For the complete reference, see page 86.

⁶⁶ Y. Algan and P. Cahuc, 'Inherited Trust and Growth', 2010, 2060–92.

⁶⁷ Ibid.

⁶⁸ Giuliano P., 'Living Arrangements in Western Europe: Does Cultural Origin Matter?' *Journal of the European Economic Association* 5/5 (2007), 927–52 and Fernández, R. and Fogli A., 'Culture: An Empirical Investigation of Beliefs, Work, and Fertility', *American Economic Journal: Macroeconomics* 1/1 (2009), 146–77, among others, show that cultural beliefs and family ties are similar in the home countries of US immigrants.

General Social Survey on trust exhibited by the descendants of immigrants in the US to construct a proxy of inherited trust in 1935. They examine whether changes in trust of the descendants of US immigrants correlate with changes in income per capita (growth).

Figures 8-A–8-B illustrate their results. Conditional on the initial (log) level of income per capita (that captures convergence) and regional effects, there is a remarkable positive association between changes in inherited trust and the log of per capita GDP.⁶⁹ Countries that experienced significant (relative) increases in trust, such as Finland, Ireland and Norway, also experienced a sizable increase in aggregate income. These results push crucially on the causal interpretation that trust does lead to economic growth. First, since the model is estimated on differences, the estimates do not capture the role of any time-invariant or slow-moving country factors. Second, because they are based on data from US immigrants, where all respondents are subject to the same environment, the estimates isolate quite cleanly the role of culture from that of institutions. Third, this correlation is robust to various other controls, capturing either individual features or changes in political institutions and education.

These results are quite important for policymaking, as they show that a country's level of trust (and civicness more generally) crucially affects economic development. The main issue with these correlations is that (by construction) they do not identify *how* trust affects development.

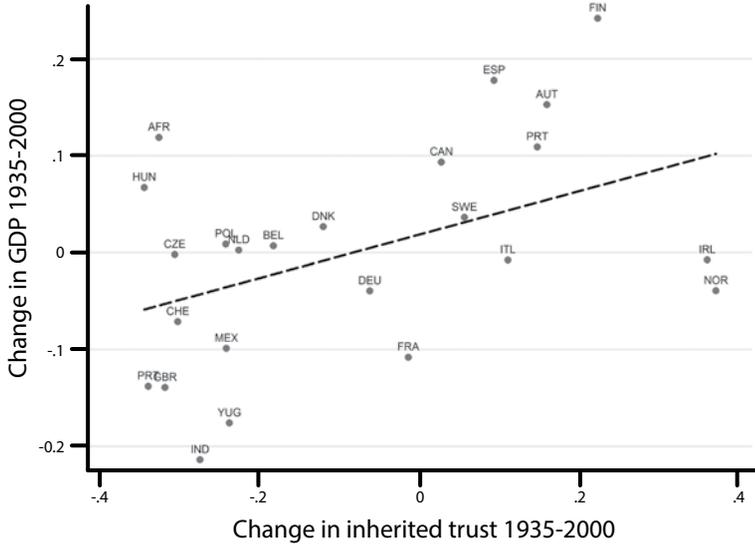
Trust and the sources of growth

For analytical purposes, growth-development economists break down total income (in levels or in growth rates) into factors of production, such as labour, land, physical capital or/and human

⁶⁹ See also Knack, S. and Keefer, P., 'Does Social Capital have an Economic Payoff? A Cross-Country Investigation', *The Quarterly Journal of Economics* 112/4 (1997), 1251–88 and Temple, J., 'Growth Effects of Education and Social Capital in the OECD Countries', in *OECD Economic Studies* (OECD Publishing, 2001), 57–101 for cross-country evidence linking various aspects of 'social infrastructure/capita' on cross-country growth.

Figure 8-A Change in inherited trust and GDP

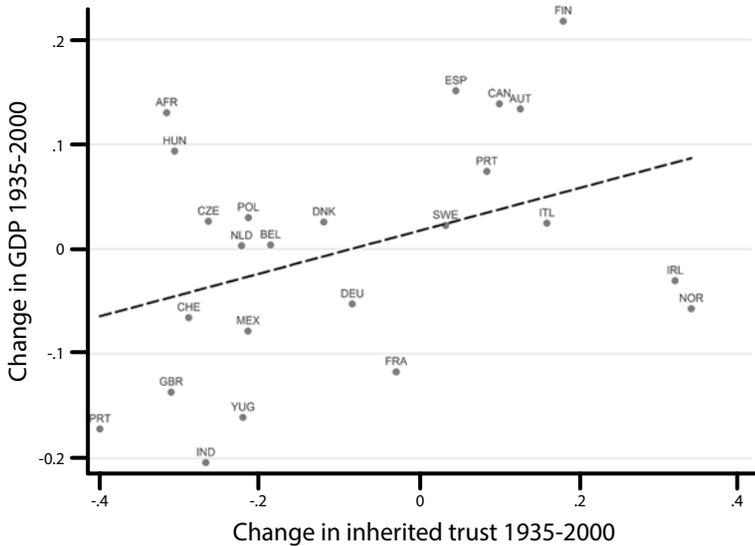
Conditional on GDP in 1935



Sources: World Value Survey and Algan and Cahuc (2009)

Figure 8-B Change in inherited trust and GDP

Conditional on GDP in 1935 and regional fixed effects



Sources: World Value Survey and Algan and Cahuc (2009)

capital, and an efficiency term that reflects how well the economy employs the inputs; this term is usually total-factor-productivity (TFP) (or the ‘Solow residual’).⁷⁰

Building on this framework, in Figures 9-A–9-B we assess the association between trust and human capital (as reflected in average years of schooling). Social and human capital move in tandem. Although it is close to impossible to make causal statements from this simple association, numerous micro-level studies that explore individual-level variation on schooling and various proxies of civicness suggest that education cultivates social capital, mostly through socialisation (discussed further in Lessons on policy recommendations).⁷¹ These associations are quite important for policy, as they imply that, in addition to its direct benefits on wages and productivity, education has indirect benefits by cultivating social capital.

Conceptually, trust, civic capital and social ‘openness’ should affect development via affecting the efficiency of production. Figures 10-A–10-B provide some tentative evidence in this direction. There is a very steep relationship between trust and expenditure in R&D as a share of GDP (in 2010). The same applies when one examines the link between trust and patents, new research or other proxies of innovation (results not shown for brevity). In the same vein, Algan and Cahuc show that trust correlates strongly with the Solow residual (TFP).⁷²

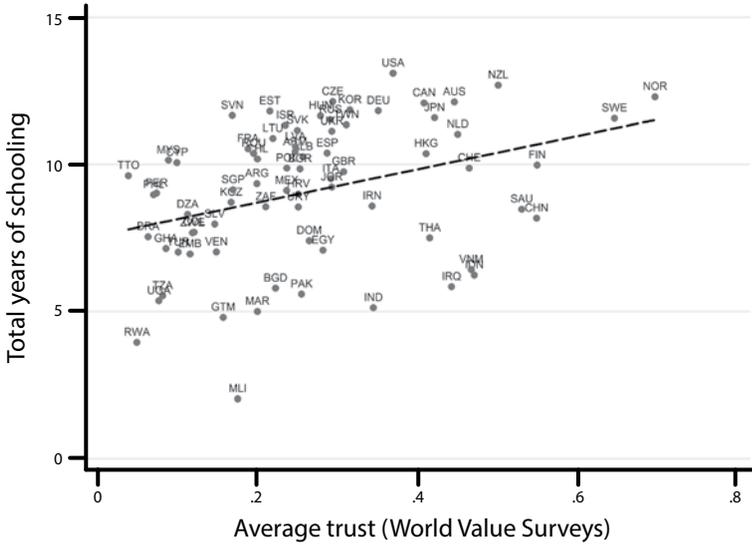
⁷⁰ See the work of Caselli for a review of development accounting and the work of Dale Jorgenson on growth accounting.

⁷¹ The results are similar if we use the composite index of civic capital or employ alternative proxies of human capital, such as measures of educational system quality and schooling enrolment rates.

⁷² Y. Algan and P. Cahuc, ‘Trust, Institutions and Economic Development’.

Figure 9-A Trust and education

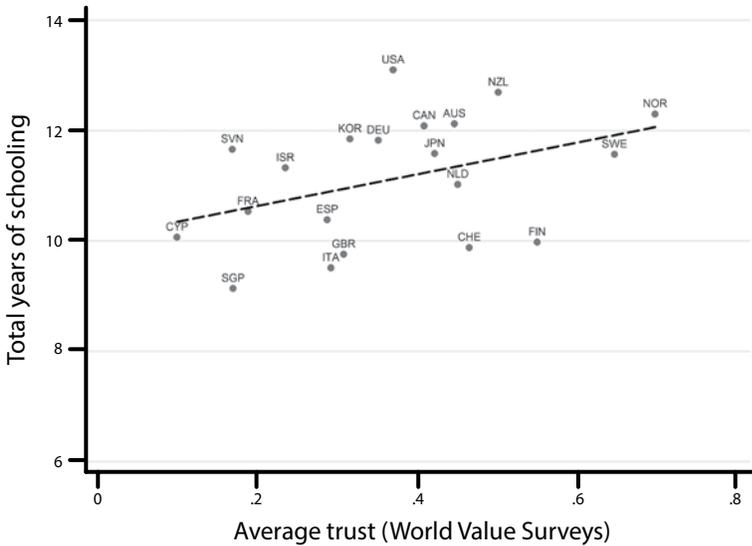
Unconditional relationship



Sources: World Value Survey and Barro-Lee

Figure 9-B Trust and education

Unconditional relationship for high income countries



Sources: World Value Survey and Barro-Lee

A key factor shaping TFP and economic efficiency is trade openness.⁷³ Guiso, Sapienza and Zingales use *bilateral* (country-pair) trust data from Europe and show that there is a strong association between trust and international trade.⁷⁴ The role of trust is more important for complex goods that require many heterogeneous inputs. Again, these findings carry important policy lessons, especially for countries that want to push their economy from ‘inward-oriented’ sectors to exports, pursuing export-led growth policies; a prerequisite of economic internationalisation and trade openness is trust.

Figure 10-A Trust and R&D

Unconditional relationship

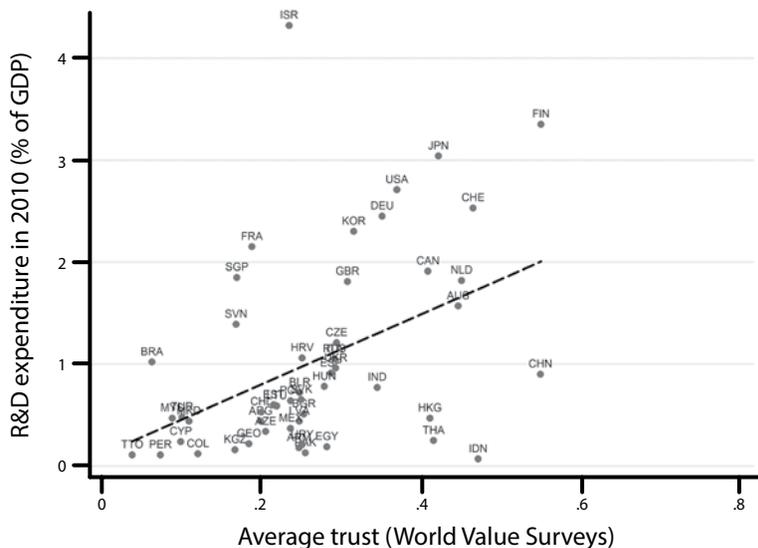
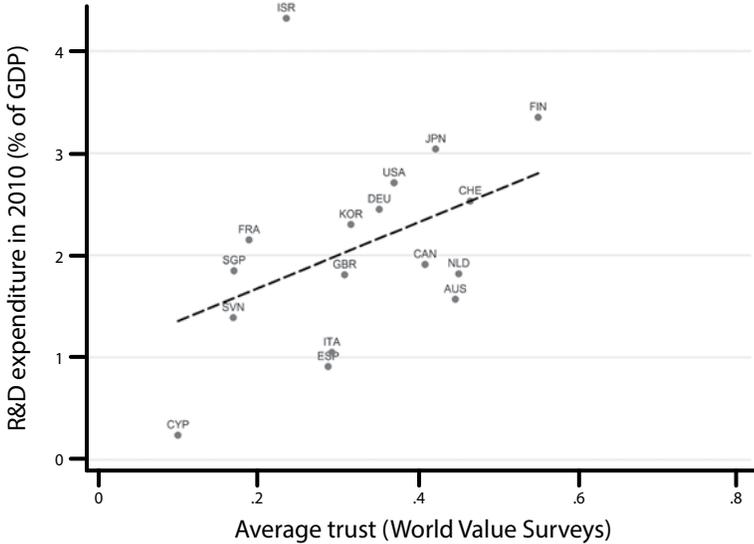


Figure 10-B Trust and R&D

Unconditional relationship for high income countries



Sources: World Value Survey and World Development Indicators

Social capital and institutions

Corruption and transparency

An implicit assumption of the worldly philosophers who pushed the idea that a well-functioning republic should be based on trust was that civic virtue will connect the society and protect it from corrupt practices and bureaucracies. Figure 11-A shows that there is a strong correlation between distrust and corruption (as reflected on a composite index compiled by the World Bank that ‘captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests’). Richer countries, mostly in Scandinavia and Western Europe, exhibit a significantly higher amount of trust and checks on corruption than do African and Latin American countries. A similar pattern is obtained with other proxies of

bureaucratic efficiency and the rule of law (results not shown for brevity). The link between trust and control of corruption is very steep, particularly in the group of high-income countries (Figure 11-B); all countries fall close to the regression line, and only Singapore is an outlier where a low degree of corruption is accompanied with low levels of trust. These patterns suggest that distrust is a mirror image of graft. From a policy standpoint, these simple associations imply that it may not be very easy to tackle corruption, as it is often accompanied by distrust and low levels of civic engagement. The evidence hints that, to tackle corruption, the society needs to change bottom-up. The immediate policy recommendation is fostering civic engagement, perhaps by assisting NGOs and groups that assist immigrants, the elderly and disenfranchised minorities. The close association between red tape, corruption and distrust may also explain why many anti-corruption programs and reforms fail in practice.

A usual critique of the available corruption indicators is that these measures are quite subjective, as they are based on surveys usually among businesspeople, multinationals and entrepreneurs. Moreover, perception-based measures capture both formal institutional features (of the administration or the legal system) and informal cultural traits. In Figures 12-A–12-B we thus examine the link between trust and a newly compiled *de facto* index of transparency of local politicians' financial and business interests. The index of the disclosure of politicians comes from Djankov et al.,⁷⁵ who measure the stringency of legislation in forcing members of parliament to publicly disclose their financials. For example, in 61 (out of the 175) countries, disclosure is neither required by law nor is applied. Moreover, in many countries (42 out of the 109 in which the law requires some disclosure), the forms are only available to committees and not to the general public. And of course, the strength and independence of the

⁷⁵ S. Djankov et al., 'Disclosure by Politicians', *American Economic Journal: Applied Economics* 2/2 (2010), 179–209.

registrar and the checking unit differs considerably even across high-income countries. Figures 12-A–12-B show that trust is a feature of countries with a high degree of transparency.

Red tape

But how do distrust and corruption relate? Aghion, Algan, Cahuc and Shleifer develop an intuitive theoretical model in which the two are linked via inefficient administrative-bureaucratic barriers to entrepreneurial activity.⁷⁶ In their set-up, distrust in entrepreneurial activity—because the public believes that businesses will pollute, exploit workers, fool consumers and not comply with safety standards—increases the demand for regulation; the public pushes the state to impose many regulatory procedures to firms and entrepreneurs, as it distrusts them. The high number of processes necessary to establish a new firm and/or the costs associated with meeting regulatory requirements for existing firms (for registering property, complying with safety and environmental standards and so on.) fuel corruption, as the numerous state agencies demand bribes. This further impedes the cultivation of trust, as (1) fewer people engage in creative entrepreneurial activity, seeking employment in the state, and (2) the initial beliefs of distrust get reinforced. Hence the somewhat paradoxical, though quite relevant, result that, in low-trust countries that are characterised by inefficient and usually large states, the public demands even more state interventions even though people know that the government is corrupt!

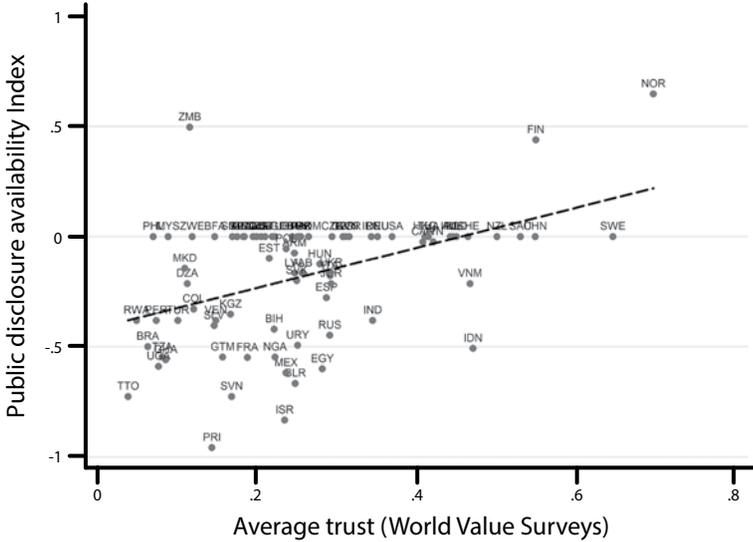
In Figures 13-A–13-B, we associate trust with an index of regulatory barriers to entry that reflect the (log) number of administrative procedures that an entrepreneur has to follow in order to obtain all the necessary licences to operate a small business.⁷⁷ The key theoretical conjecture is strongly supported in the data. Countries that exhibit

⁷⁶ P. Aghion et al., 'Regulation and Distrust', 1015–49.

⁷⁷ S. Djankov et al., 'The Regulation to Entry', *Quarterly Journal of Economics* 117/1 (2002), 1–37.

Figure 12-A Trust and transparency in politicians' disclosures

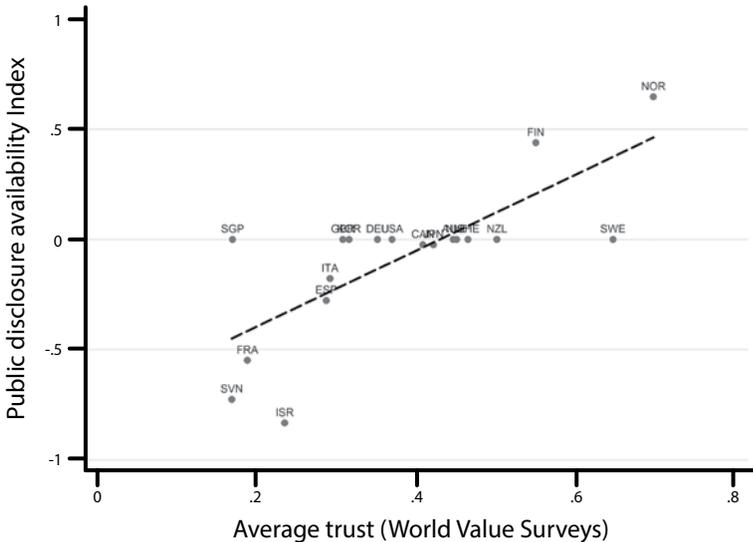
Unconditional relationship



Sources: World Value Survey and Djankov et al. (2010)

Figure 12-B Trust and transparency in politicians' disclosures

Unconditional relationship for high income countries



Sources: World Value Survey and Djankov et al. (2010)

high degrees of trust tend to place fewer administrative barriers to firm entry.

The link between distrust and red tape is important, as the presence of numerous administrative barriers has been shown to slow down efficient factor (labour and capital) reallocation, a key ingredient of a dynamic and productive economy.⁷⁸ Furthermore, the presence of a 'decentralised' system of corruption, in which entrepreneurs have to bypass various agencies, raises not only total bribes but also uncertainty; as such, it is extremely detrimental to growth.⁷⁹ Moreover, by fuelling corruption and leading to inefficient administrative and/or bureaucratic procedures, distrust blocks foreign investment.⁸⁰

Legal formalism

Countries with low levels of trust also heavily regulate the legal system. In Figures 14-A–14-B, we associate trust with an index of legal formalism and court inefficiency, based on the (log) number of days required to resolve a simple legal dispute through the courts.⁸¹ As shown by La Porta et al., countries differ enormously in the degree of both de jure and de facto protection of investors' rights.⁸² For example, Djankov et al. show that the range of the time (in business days) to collect a bounced cheque across Western Europe in the early 2000s was 39 (in the Netherlands) to 650 (in Italy); the analogous numbers for another simple and standardised dispute, evicting a tenant for non-payment, are 52

⁷⁸ See, for example, A. Ciccone and E. Papaioannou, 'Red Tape and Delayed Entry', *Journal of the European Economic Association* 5/2–3 (2007), 444–58, and C. Syverson, 'What Determines Productivity?' *Journal of Economic Literature* 49/2 (2011), 326–65.

⁷⁹ A. Shleifer and R. W. Vishny, 'Corruption', *Quarterly Journal of Economics* 108/3 (1993), 599–617.

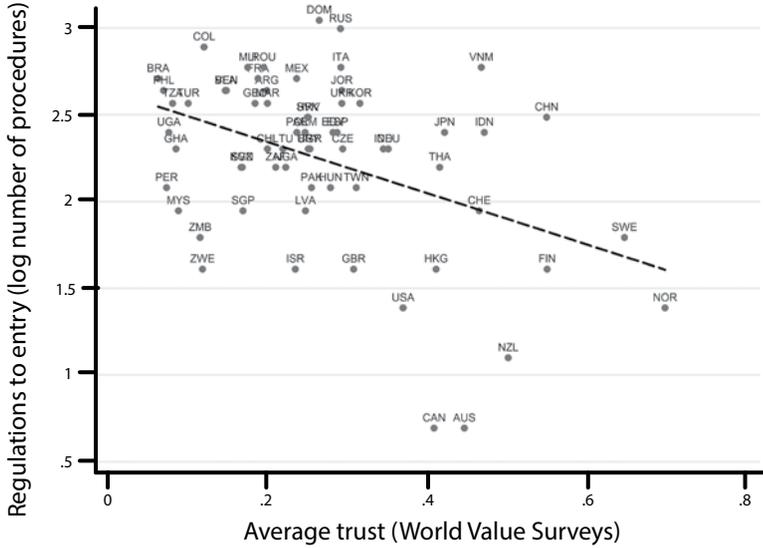
⁸⁰ In an important work (from a policy standpoint), Wei shows that corruption is more detrimental to foreign direct investment as compared to taxation.

⁸¹ S. Djankov, C. McLiesh and A. Shleifer, 'Private Credit in 129 countries', *Journal of Financial Economics* 84/2 (2007), 299–329.

⁸² R. La Porta et al., 'Legal Determinants of External Finance', 1131–50; 'Law and Finance', *Journal of Political Economy* 106/6 (1998), 1113–55 and 'The Economic Consequences of Legal Origins', *Journal of Economic Literature* 46/2 (2008), 285–332.

Figure 13-A Trust and regulation to entry

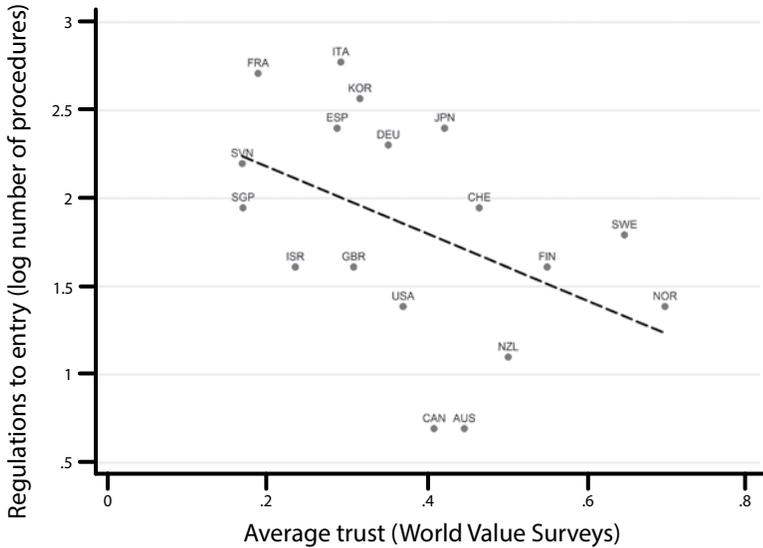
Unconditional relationship



Sources: World Value Survey and Djankov et al. (2002)

Figure 13-B Trust and regulation to entry

Unconditional relationship for high income countries



Sources: World Value Survey and Djankov et al. (2002)

(again in the Netherlands) to 630 (again in Italy, but Austria was close with 545).⁸³ In our sample there is also a high degree of variability. It takes more than a year to resolve through the courts a dispute of which the contested products/services are worth 50% of per capita GDP in Austria, whereas it takes half a year to settle the same dispute in Germany and only 48 days in the Netherlands; in Italy it is estimated that plaintiffs need 1,390 days to settle their disputes. The literature has mostly focused on the long-lasting effects of legal origin on court and legal efficiency, but Figures 14-A–14-B show that distrust and lack of civicness may also explain part of the extremely slow legal system in many parts of the world (and Europe).⁸⁴

The link between legal inefficiency and distrust carries important policy lessons. Inefficient contractual institutions, such as slow and formalistic court systems and poor de facto protection of investors (shareholders and creditors), have been linked to low levels of financial markets efficiency, the presence of unproductive firms and a low degree of innovation. Moreover, legal formalism has been linked to the lack of microeconomic industrial flexibility; as efficient reallocation is a core ingredient of an efficient capitalist system and the process of creative destruction, by enhancing legal formalism, distrust affects a key process of TFP and growth.

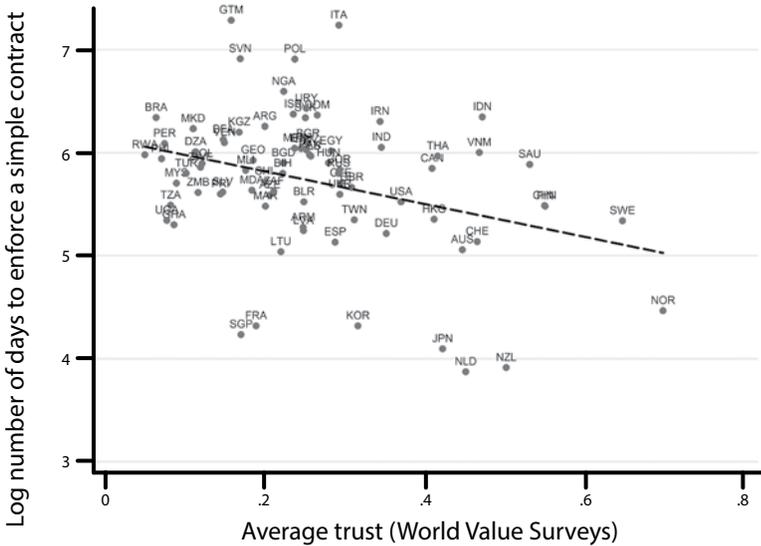
⁸³ J .Botero et al., 'The Regulation of Labor', *Quarterly Journal of Economics* 119/4 (2004), 1339–82.

⁸⁴ Glaeser and Shleifer provide a theoretical model and anecdotal evidence linking legal origin with trust, regulation, corruption and legal efficiency.

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Figure 14-A Trust and legal formalism

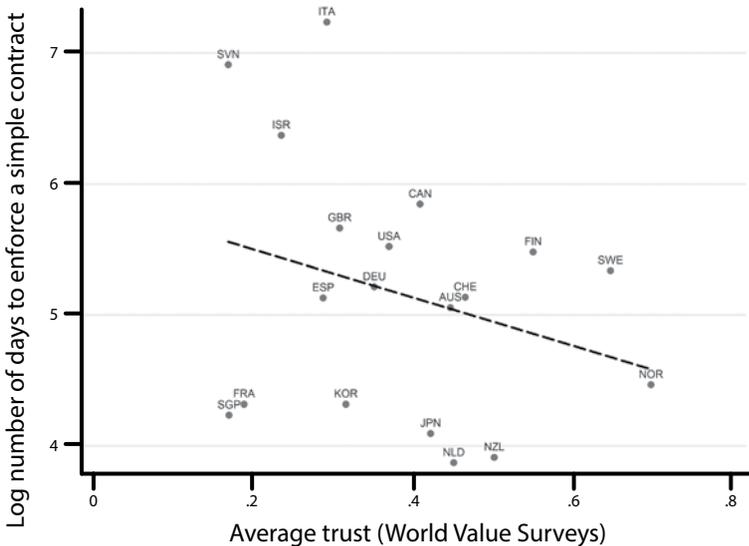
Unconditional relationship



Sources: World Value Survey and Djankov et al. (2007)

Figure 14-B Trust and legal formalism

Unconditional relationship for high income countries



Sources: World Value Survey and Djankov et al. (2007)

Social capital (trust) and labour market institutions

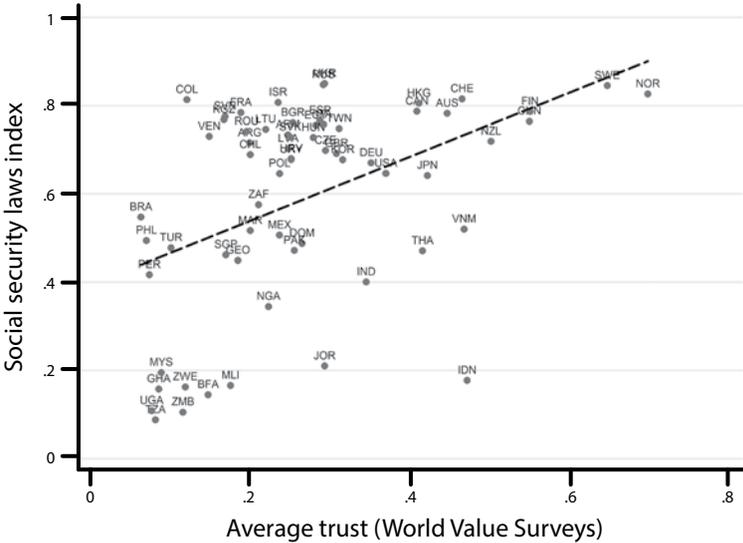
Trust and social capital affect the design of labour market institutions and welfare state policies. Scandinavian countries, where trust and social capital are high, tend to have large and efficient welfare state programs, whereas social policies in countries exhibiting low levels of trust, in the European south, are clearly less efficient.

As a first pass on the data, in Figure 15-A we relate trust with a composite *de jure* index of labour market regulation⁸⁵ based on three aspects: (1) employment laws (existence of alternative employment contracts, the costs of overtime, firing costs and the formality of dismissal procedures); (2) collective relations laws (capturing the power of unions and the legal protection of workers during collective disputes) and (3) social security (welfare state) laws (that reflected the level of old-age and disability benefits, health and sickness benefits and the level and duration of unemployment benefits). The correlation is positive but evidently weak; countries with a high level of trust tend to have more regulated labour markets, but there is considerable variation. In Figure 15-B we focus on the subcomponent of the labour market regulation index that captures welfare state (social security) benefits. The correlation is stronger; people in countries exhibiting

⁸⁵ J .Botero et al., 'The Regulation of Labor', 1339–82.

Figure 15-B Trust and labor market rigidity

Unconditional relationship for high income countries



Sources: World Value Survey and Botero et al. (2004)

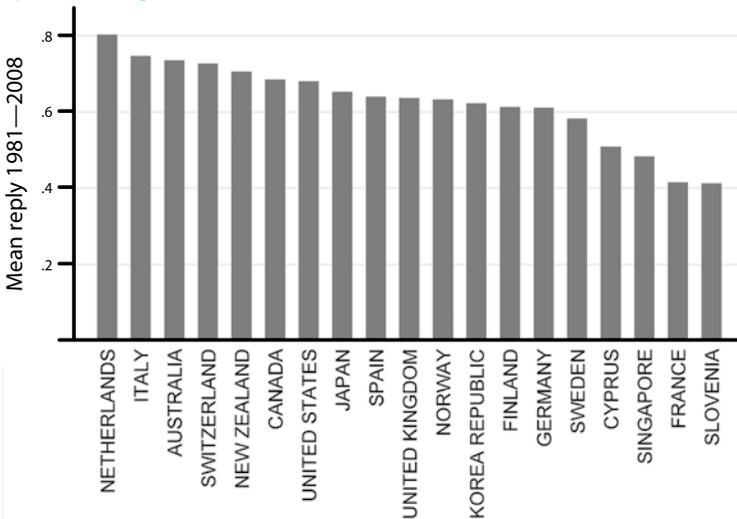
one if the respondent answered ‘Never justifiable’ and zero otherwise.⁸⁷ Figures 16-A–16-B show that there is sizable variation across Europe on whether or not it is justifiable to claim social benefits that one is not entitled to. Whereas in most countries more than 60% of the population believe that people should never claim social benefits that they do not have a right to, in Cyprus, France and Slovenia more than half the respondents argued that, at least in some instances, it is justifiable to claim benefits; and when one brings into the sample Greece (we have only one survey in 2000), almost 80% of the population replied that it is justifiable to get benefits from the state that one is not entitled to. This was an ‘early’ signal that Greek governments should have looked at.

⁸⁷ Y. Algan and P. Cahuc, ‘Civic Virtue and Labor Market Institutions’, 2009, 111–45.

Algan and Cahuc argue that social capital promotes efficient welfare state policies (mostly unemployment insurance) by solving moral hazard problems.⁸⁸ The authors then show that countries with a high degree of civic capital protect workers through efficient unemployment insurance and other forms of social benefits, whereas countries with low levels of civicness protect workers via job protection policies; since the latter impede the economy from reallocating resources towards innovative firms and fast-growing sectors, TFP growth is slower in countries with low levels of civic capital and sclerotic labour market institutions.⁸⁹

Figure 16-A Justification for unsound claims of benefits

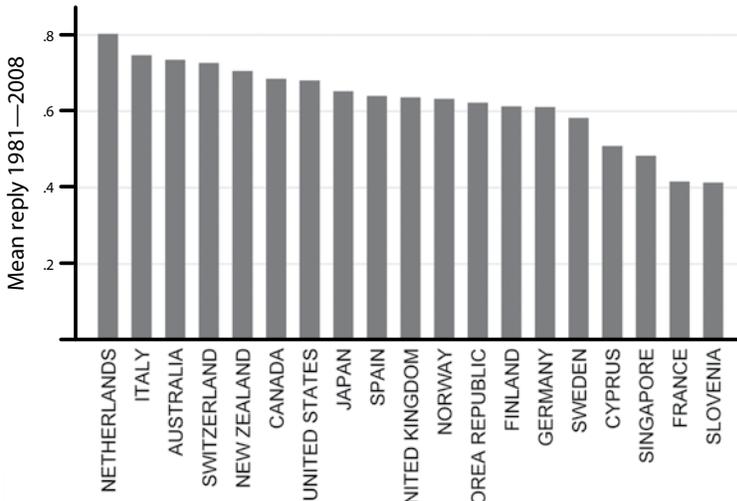
Replies for high income countries



Sources: World Value Survey and Algan and Cahuc (2009)

⁸⁸ Y. Algan and P. Cahuc, 'Civic Virtue and Labor Market Institutions', 2009, 111–45.

⁸⁹ For empirical evidence, see R. Caballero et al., 'Effective Labor Regulation and Microeconomic Flexibility', *Journal of Development Economics* 101 (2013), 92–104.

Figure 16-B Justification for unsound claims of benefits**Replies for high income countries**

Sources: World Value Survey and Algan and Cahuc (2009)

Social capital and financial development

In the terminology of Shleifer and Vishny, ‘finance is a nexus of incomplete contracts’.⁹⁰ Thus, trust is an important element that helps assuage problems emerging from asymmetric information, hold-up, moral hazard and other frictions. In practice, because it is costly and time-consuming (see Figures 17-A–17-B) to resolve contracts via the court system, trust plays a fundamental issue in financial markets. Voluminous empirical literature on corporate finance shows that trust is a strong predictor of various financial development proxies, such as the size and liquidity of stock markets, number of publicly traded firms and credit provided by banks and other financial institutions, among others.⁹¹

Guiso et al. use individual-level data from a dozen high-income

⁹⁰ A. Shleifer and R. W. Vishny, ‘A Survey of Corporate Governance’, *The Journal of Finance* 52/2 (1997), 737–83.

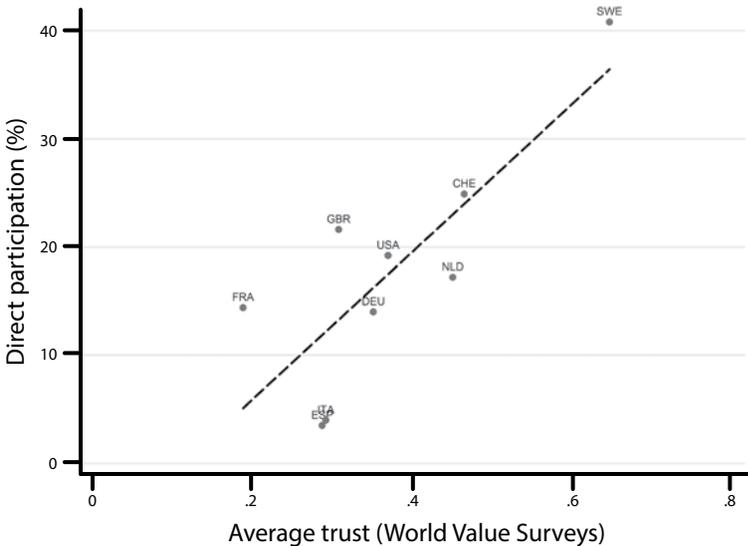
⁹¹ For a synthesis, see La Porta et al., ‘Legal Determinants of External Finance’, 1131–50 and L. Guiso et al., ‘Civic Capital as the Missing Link’.

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countries and show that trusting individuals invest significantly more in the stock market.⁹² Figures 17-A–17-B illustrate their results at the country level. In spite of the small number of countries, there is a very steep association between trust and (direct or direct plus indirect) stock market participation. Furthermore, the strong link between trust and stock market participation is present in all countries and works on top of many other relevant observable individual characteristics. These results are quite important for policymaking and research, as they help explain a puzzle in financial economics on the limited stock market participation in spite of the immediate benefits of risk diversification.

Recent works push crucially on the causal interpretation of these findings (from trust to economic development). Guiso et

Figure 17-A Trust and stock market participation
 Unconditional relationship for direct participation

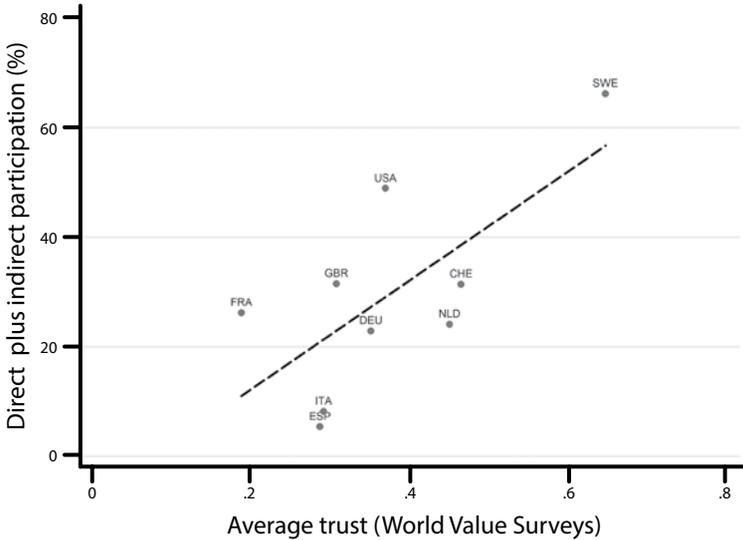


Sources: World Value Survey and Guiso et al. (2008)

⁹² L. Guiso et al., 'Trusting the Stock Market', 2008, 2557–600.

Figure 17-B Trust and stock market participation

Unconditional relationship for direct plus indirect participation



Sources: World Value Survey and Guiso et al. (2008)

al. show that bilateral trust (reflecting, for example, how much the Dutch trust the Italians as compared to the Portuguese and vice versa) is associated with a higher degree of foreign direct and portfolio investment across pairs of European countries.⁹³ In the same vein, but exploiting cross-regional variation, Ekinci, Kalemli-Özcan and Sørensen show that European regions with a high level of trust are more financially integrated with each other.⁹⁴

The most important push on causation comes from the ingenious study of Guiso et al. that establishes a strong link between social capital and local financial development across

⁹³ L Guiso et al., ‘Cultural Biases in Economic Exchange?’ *Quarterly Journal of Economics* 124/3 (2009), 1095–131.

⁹⁴ M. Ekinci, S. Kalemli-Özcan and B. Sørensen, ‘Financial Integration within EU Countries: The Role of Institutions, Confidence and Trust’, National Bureau of Economic Research Chapters, in *NBER International Seminar on Macroeconomics* (2007), 325–91. Development’, *American Economic Review* 94/3 (2004), 526–56.

Italian regions.⁹⁵ Using individual-level data, the authors first show that there is a significant positive association between two distinct proxies of social capital, blood donation and participation in referenda, when voting is not mandatory (as opposed to elections), with various proxies of financial development, such as the use of cheques and the proportion of financial wealth in stocks and mutual funds (as opposed to cash holdings). The authors further show that individuals with low levels of civiness are more likely to depend on informal credit markets. Second, the authors show that the positive correlation between social capital and financial development is particularly strong in regions with (relatively) inefficient judicial systems. Third, the authors present compelling evidence of persistence showing that the same associations emerge when they link the behaviour of movers to the conditions in the province where they were born.

Given the strong association between efficient financial intermediation and economic growth,⁹⁶ these findings suggest that cultivating trust and building social capital may crucially affect development via promoting financial efficiency. Moreover, because efficient financial intermediation may facilitate risk sharing, building trust may have indirect welfare benefits by ameliorating diversification.

Social capital and organisational structure

Recent work shows that social capital also shapes the organisation of firms. Figure 18-A provides some motivating evidence of the link between social capital and a key aspect of firm performance, management quality. The managerial quality index comes from

⁹⁵ L. Guiso, P. Sapienza and L. Zingales, 'The Role of Social Capital in Financial Development', *American Economic Review* 94/3 (2004), 526–56.

⁹⁶ For a review, see R. Levine, 'Finance and Growth: Theory and Evidence', in P. Aghion and S. Durlauf (eds.), *The Handbook of Economic Growth* 1/1 (2005), 1865–934.

Bloom, Genakos, Sadun and Van Reenen⁹⁶ and Bloom and Van Reenen⁹⁷ and is based on double-blind surveys (at the plant level) in a randomised sampling of firms in more than 10,000 organisations across 20 countries. The index captures managerial quality across 18 dimensions capturing three broad aspects: performance monitoring, target setting and incentives/people management. Although the sample is small, there is a clear positive association. Firms operating in countries exhibiting a relatively higher degree of trust are better managed.

But why is this so? Bloom, Sadun and Van Reenen provide an intuitive answer: due to the high amount of trust, firm executives in countries with a high degree of social connectedness and civic capital delegate more to lower-level managers and other subordinates. In contrast, if the level of trust is low, then senior managers and executives centralise the organisation of firms, as they feel that their subordinates will cheat. Thus trust leads to decentralisation and a horizontal (rather than vertical) organisational structure that leads to superior firm performance through three channels. First, decentralised decision-making allows the firm to be 'closer' to its customer base and thus be more efficient in product markets. Second, decentralisation allows firms to become larger and exploit economies of scale. This is in line with the evidence⁹⁸ that trust correlates strongly with firm size. Third, in countries with high levels of trust, the executive can leverage his or her skills focusing on complex tasks and not get involved in micro-management tasks (which can be delegated to subordinates). Figure 18-B shows that, in line with this idea, there is an evident positive association between trust and firm decentralisation, as captured by a standardised (mean zero) index of multinational firms that captures the power of plant managers

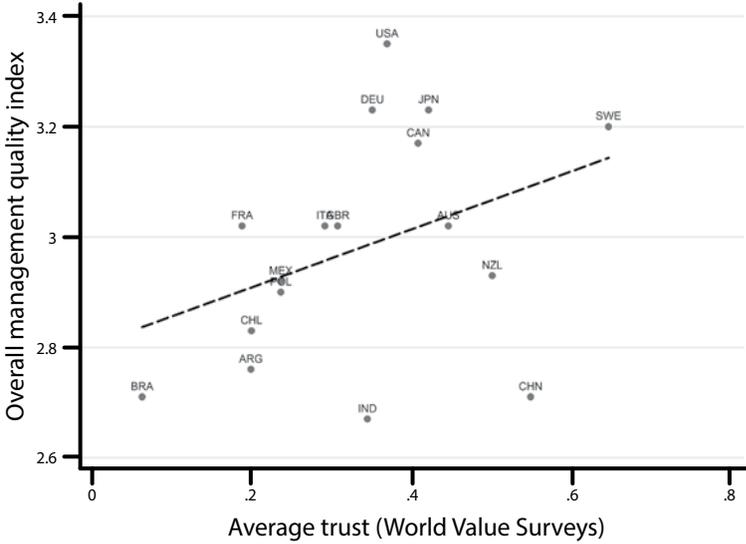
⁹⁶ N. Bloom et al., 'Management Practices Across Firms and Countries', *Academy of Management Perspectives* 26/1 (2012), 12–33.

⁹⁷ N. Bloom and J. Van Reenen, 'Measuring and Explaining Management Practices across Firms and Countries', Centre for Economic Performance (2006), London School of Economics and Political Science, London, UK.

⁹⁸ La Porta et al., 'Legal Determinants of External Finance', 1131–50.

Figure 18-A Trust and management quality

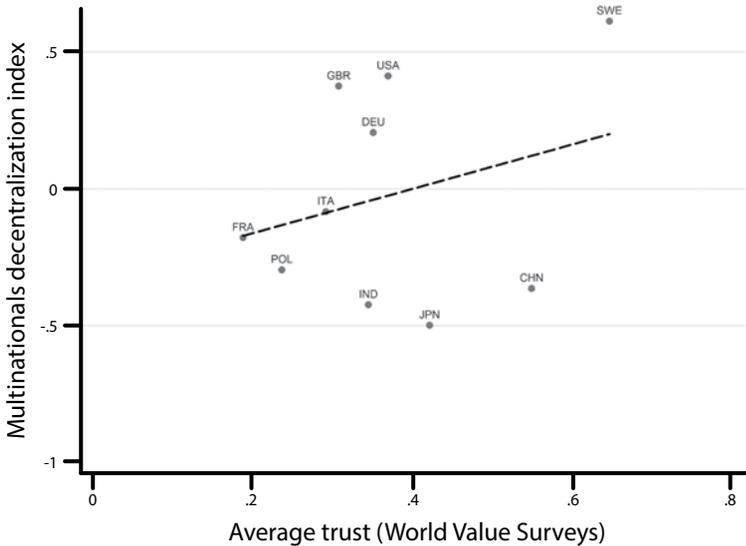
Unconditional relationship



Sources: World Value Survey and Bloom et al. (2012)

Figure 18-B Trust and decentralization

Unconditional relationship



Sources: World Value Survey and Bloom et al. (2012)

on investment, hiring, production and marketing decisions from the central headquarters. Bloom, Sadun and Van Reenen⁹⁹ further show that trust in the location where multinationals operate is positively associated with decentralisation. Moreover, the authors show that multinationals tend 'to export' the trust of the country where their headquarters are based.

Summary

The analysis in this section reveals many interesting patterns linking trust with economic development and growth. There is a strong correlation between trust and other proxies of social capital and economic development; this applies both across a large cross-section of countries, when looking within industrial economies and, most importantly, within countries across administrative regions and across time. These findings suggest that promoting trust and civicness will have sizable economic benefits (on top of social advantages). We then examined how trust and social capital affect economic development, documenting that there are various channels. First, people in countries with high levels of trust tend to be more educated. Second, there is a strong link between trust and various factors that shape productivity/efficiency, such as innovation and firm organisational structure. Third, international trade in goods and finance is higher between pairs of countries that tend to exhibit a high level of bilateral trust. Fourth, in countries and regions with a high level of social capital there are more developed capital markets, and individuals appear to invest more in the stock market, have better access to bank financing and rely less on informal (and usually expensive) sources of credit. Fifth, there is a strong positive association between social capital and various proxies of institutional development, suggesting that formal and informal rules are complements.

⁹⁹ N. Bloom et al., 'Management Practices Across Firms and Countries', 12–33.

Trust in Europe during the recent period (2002–10)

In this section we focus on the evolution of trust in Europe in the last decade. In the previous section, we mostly examined the cross-country links between trust and various aspects of economic well-being. In this section, we analyse the dynamics of trust in a more homogenous group of European countries since the inception of the euro. We start the analysis by discussing the data on trust from the ESS. We then present the aggregate and country-specific evidence on the dynamics of trust in Europe in the tranquil period (2002–8) and in the crisis period (2010). In The economic crisis and the break in trust, we present the results of our before-after analysis that examines how the severity of the European crisis, which differs considerably across countries, relates to changes in trust.

Data Sources and definitions

Our data come from the ESS. This is a biennial cross-sectional survey which covers 30 nations in Europe.¹⁰⁰ So far, there have been six rounds (in 2002, 2004, 2006, 2008, 2010 and 2012); unfortunately, the 2012 data have not been released yet. The ESS team interviews country residents 15 years or older, regardless of their nationality, citizenship, language or legal status. On average, each survey is based on approximately 2,000 individuals in each country. Using the sampling weights we construct a representative country.

¹⁰⁰ These countries are Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, the Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine and the United Kingdom.

There are three nice features of the ESS (as compared to the WVS). First, the much higher frequency of the surveys allows us to explore dynamics. Second, the scope of the ESS is much wider, as respondents are asked questions on beliefs and trust on various dimensions (the role of immigrants, the media and political parties). This is particularly desirable, as we can study not only general trust (that is reflected in three questions rather than one) but also trust in local politicians and institutions, members of the European Parliament, the United Nations and so on. Third, the ESS data on trust are not binary (trust, distrust) but are available on a 0–10 scale, as respondents are asked at the beginning of each question on trust: ‘Please tell me on a score of zero to ten how much you trust [people, political parties, the United Nations etc]. Zero means you can’t be too careful, and 10 means that most people can be trusted.’

From the ESS we study all 10 questions on trust.

General trust

The ESS general trust question reads: ‘Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?’ There are also two closely related general trust questions: ‘Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?’ and ‘Would you say that most of the time people try to be helpful, or that they are mostly looking out for themselves?’ Appendix Tables B2 and B3 give the country means and medians. In the Appendices we also explore the association between the trust measures from the ESS with the trust index from the WVS. As revealed in Appendix Figure B1, the correlation is strong (0.8).

Specific aspects of trust

We also use information from questions on trust in a country’s parliament, the domestic legal system, the police, politicians,

political parties, the European Parliament and the United Nations. Appendix Table B1 gives the country means for all countries; in many countries, we observe some extreme values, so we also report in Appendix Table B3 the median value for each country (as the latter are less sensitive to outliers).

Correlation structure

Appendix Table B4, Panel A and Panel B report the correlation structure of the three general trust aspects and the seven specific aspects of trust at the country level and at the individual level, respectively. A few noteworthy patterns emerge. First, the correlation of the variables capturing general trust at the country sample is very high (exceeding 0.9); this implies that across countries there is a common element of general trust that is reflected similarly in whether or not people trust other people and in whether or not they believe that others are fair and helpful. Second, this applies also at the individual level. Though the correlation somewhat falls (to 0.7–0.75), the same individual who replies that most other people can be trusted replies that other people are helpful and that other people are fair. Third, the correlation between general trust and the specific dimensions is positive but far from perfect. For example in the countries of the south, in spite of the low levels of general trust, there is even higher distrust in local political parties. At the other extreme, in the countries of the European core, trust in the legal system is much higher than the general level of trust (though the latter is also quite high). This variability is particularly useful, as it allows us to examine which aspects of trust were affected the most by the economic crisis.

Trust in Europe before and during the recent financial crisis

To examine whether the economic crisis that started with the collapse of Lehman Brothers, Bearn Stearns, AIG and the other big players in the US mortgage market in 2008 and continued with the huge recession in major advanced economies (in 2008–9) and the troubles in the European periphery (2009–today), we split the sample into two periods.¹⁰¹ For the ‘before’ crisis period, we use data from the ESS in 2002, 2004, 2006, and 2008. For the ‘after/during’ period, we use data from the 2010 round.¹⁰²

General trust

In Figures 19-A–19-B we tabulate the mean values of general trust before and after/during the recent crisis for the high-income group of countries and the middle-income group, respectively. Two features are evident. First, the cross-country patterns with this alternative source and slightly different question are quite similar to the evidence from the WVS (see Appendix Figure B–1). The countries of the European South, mostly Portugal, Greece and Cyprus, exhibit significantly less trust than do Scandinavian countries (Norway, Sweden and Denmark). Greece, most strikingly, scores quite low in the question on whether other people are helpful, and Greeks (and Cypriots) tend to strongly believe that most people try to take advantage of others. Second, and in line with the theoretical arguments discussed above, there is strong inertia in trust.

¹⁰¹ Unfortunately, when we perform the before-after analysis, we lose information from Austria, Croatia, Italy and Luxembourg, because for these countries we have only one survey.

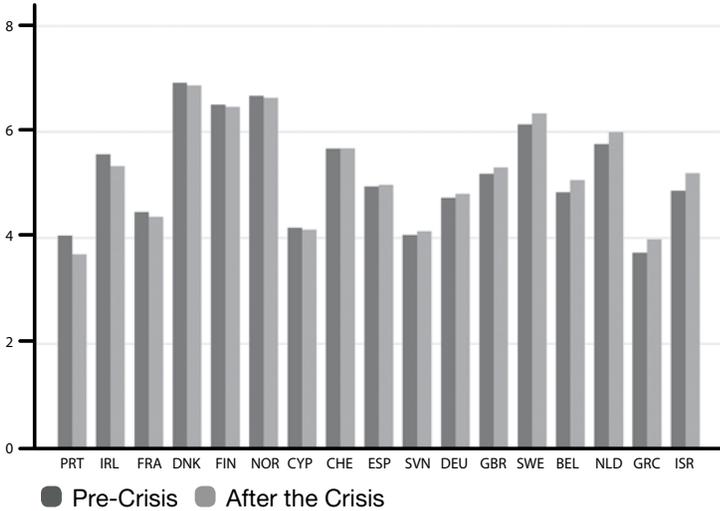
¹⁰² Ideally, we would also need data from the 2012 surveys that are not available yet. We also produced summary statistics and estimated simple empirical specifications excluding 2008, as the first symptoms of the crisis in the US appeared in late summer 2007. Yet trust and beliefs hardly move in the 2002–8 period, as the economic downturn starts becoming evident in the last quarter of 2008.

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Figure 19-A Do you think that most people can be trusted or that you can't be too careful?

0: You can't be too careful

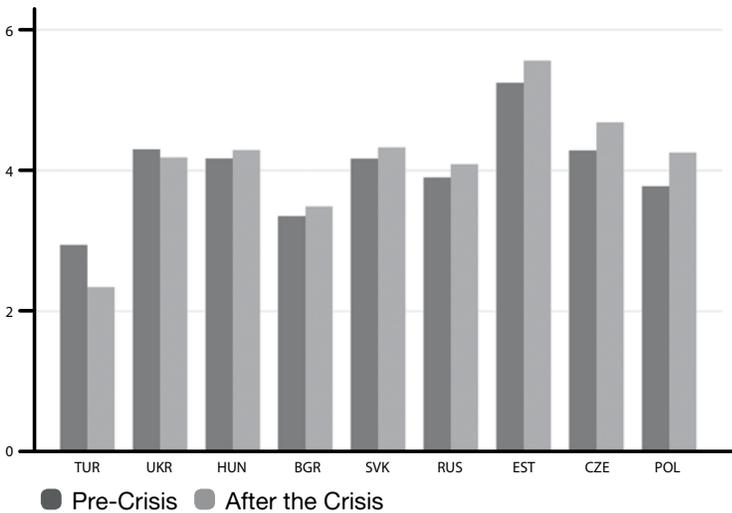
10: Most people can be trusted, high income countries



Sources: European Social Survey

Figure 19-B Do you think that most people can be trusted or that you can't be too careful?

0: You can't be too careful – 10: most people can be trusted, upper and lower mid income countries



Sources: European Social Survey

Specific aspects of trust in the political system, the police, courts and international organisations

The picture changes when we examine trust in the local political system (members of parliament, political parties and politicians), the courts and the police and international organisations (the European Parliament and the United Nations). In Appendix Figure B—3, we tabulate differences in all seven aspects of trust for the high-income countries before and during the crisis. For brevity, we examine the evolution of the (first) principal component of the seven aspects of trust, which captures the common variability in these features. (The first principal component explains 73% of the joint variance of all seven specific trust variables; thus, we can think of this variable as a factor capturing people's generic trust in the main government actors.) Figures 20–A–20–B plot the common factor (that is standardised to have a cross-country mean of zero) before and during the crisis period for the high-income group of countries and for middle-income countries, respectively.

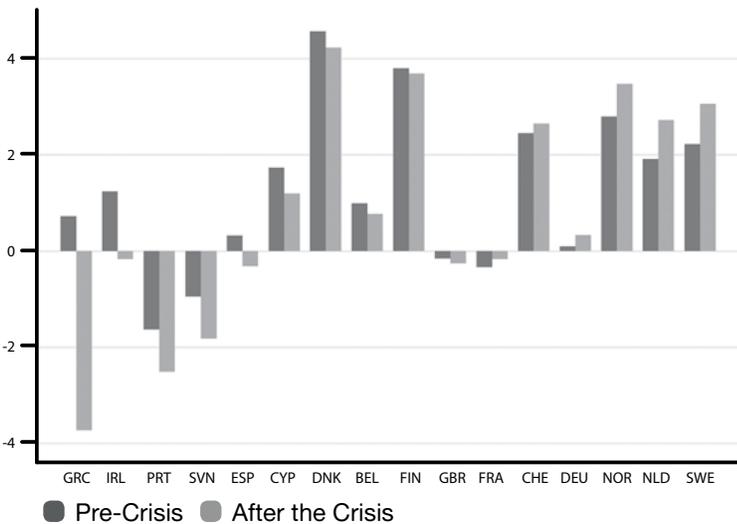
Some interesting patterns emerge. First, there are significant differences in the level of trust in legal or political actors. The countries of the South exhibit significantly lower trust than do Scandinavian countries, Switzerland and the Netherlands; the big three EU countries—France, the UK and Germany—score exactly at the average. Second, the crisis has led to a divergence of trust within Europe. In Greece, Portugal and Spain, although trust in the political system, the executive (police, legal system) and international organisations was below the mean before the crisis, trust has fallen further. The fall is especially strong in Greece, Ireland and Slovenia. In contrast, trust in the domestic and the international political system and the executive has either remained constant at high levels or increased further in countries that, before the crisis, had a considerable amount of trust.

Third, from the group of non-high-income countries, although trust falls slightly in all countries, only the Ukraine and Hungary have experienced a significant decrease in the level of trust.

In Figures 21–A–21–B we focus on the three variables that reflect trust in the domestic political system, aggregating the responses of individuals on the trust questions towards members of parliament, political parties and politicians.¹⁰³ Trust in who is active in national politics falls sharply in Greece, Ireland and Cyprus; a sizable drop is also evident in the Ukraine and Hungary.

Figure 20-A Principal component of specific trust before & after the crisis

0: No trust at all – 10: complete trust, high income countries

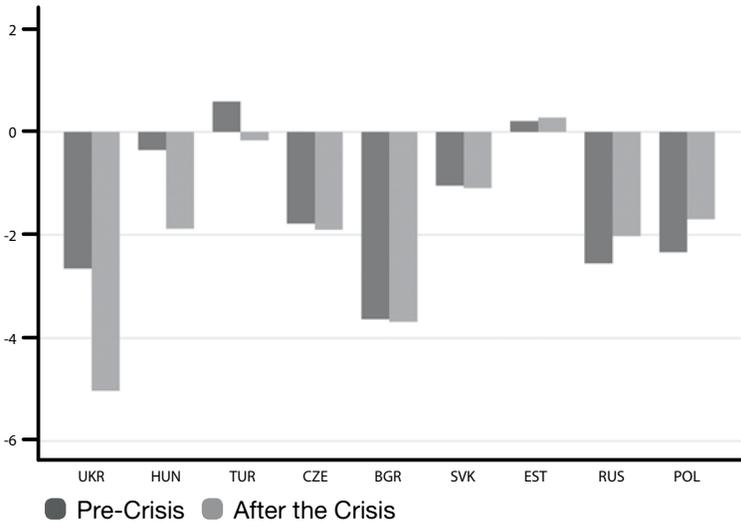


Sources: European Social Survey

¹⁰³ Going over the figures in the Appendices that plot the evolution of trust before and during the crisis, we see that trust in the police and the domestic legal system was not affected much. Only in Greece and Israel do we observe a significant drop in people’s trust in the police and the legal system.

Figure 20-B Principal component of specific trust before & after the crisis

0: No trust at all – 10: complete trust, upper and lower mid income countries



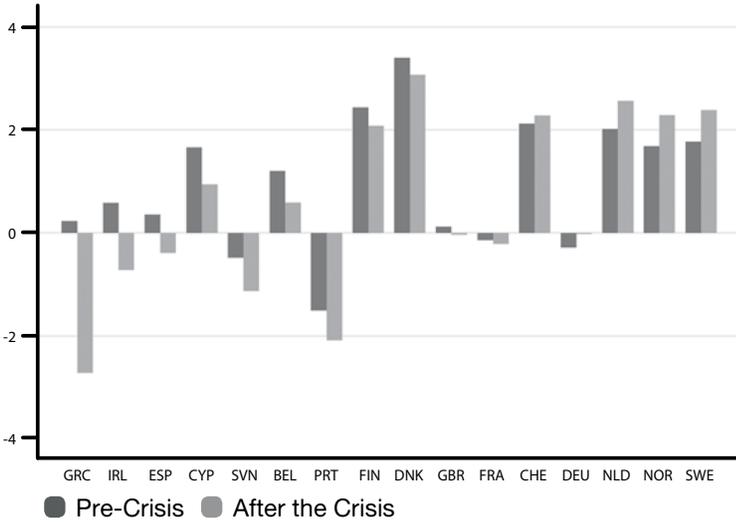
Sources: European Social Survey

Trust in MPs, local parties and politicians falls also in Spain, Slovenia, Belgium and Portugal; the fall in Portugal is particularly interesting because there, trust was the lowest even before the global financial crisis and the subsequent troubles in Europe. Trust in local politicians is little affected in the countries of the core (France, UK and Germany), and it increases somewhat in Sweden, Norway and the Netherlands.

In Figures 22–A and 22–B we compare the evolution of trust in high-income countries towards local MPs and towards the European Parliament; the European Parliament has not been very actively engaged in the management of the crisis, so we believe that the data on trust in it serve as a proxy of people’s attitudes towards the EU. Whereas in the countries of the European core and in Scandinavia, trust in the European Parliament has not been affected, people’s confidence in the European Parliament

Figure 21-A Principal component trust in national politics Before & after the crisis

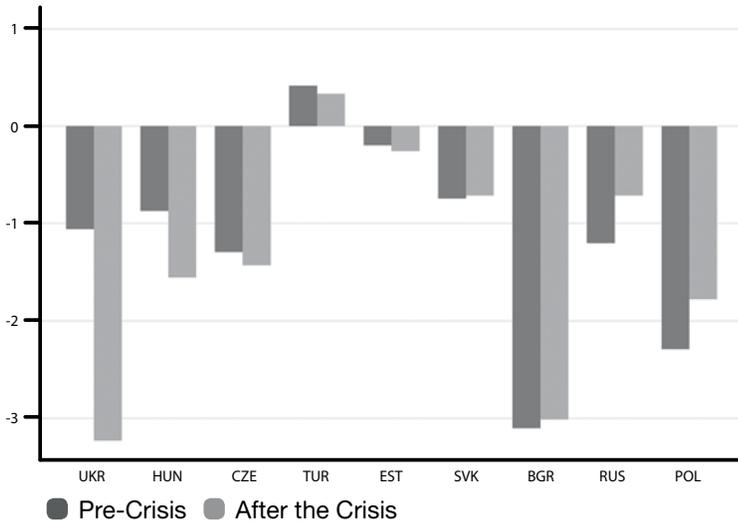
0: No trust at all – 10: complete trust, high income countries



Sources: European Social Survey

Figure 21-B Principal component trust in national politics before & after the crisis

0: No trust at all – 10: complete trust, upper and lower Mid income countries

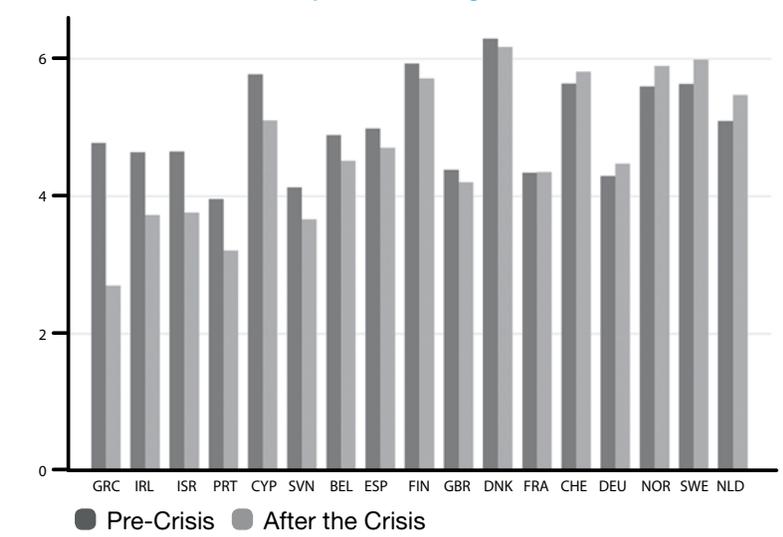


Sources: European Social Survey

has fallen in all countries of the periphery. The drop is sizable in Portugal and Ireland and a bit less pronounced in Spain and Slovenia. Again, Greece stands out. During the period 2002–8, trust in the European Parliament was the highest in Greece (and Cyprus). The popularity and trusting attitude of the Greek people towards the European Parliament stood in sharp contrast to the huge distrust of the Greeks towards local MPs (as well as all other aspects of trust) before the crisis. Yet in a two-year period, the average trust of the Greeks towards the European Parliament fell by half. Perhaps it is not absurd to speculate that trust has fallen even further since the severity of the crisis, and the anti-European sentiment in Greece has been much stronger in the past two years. The problem from the European standpoint is that Greece looks quite representative of most countries of the South; in Portugal, Spain and mostly Cyprus, European politicians looked much more popular than did domestic politicians before the crisis. Although we have data only for 2010, when perhaps

Figure 22-A Trust in country's parliament before & after the crisis

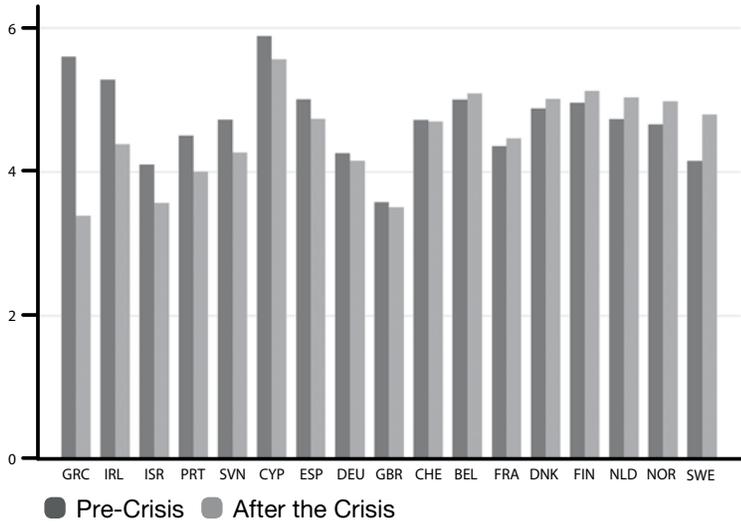
0: No trust at all – 10: complete trust, high income countries



Sources: European Social Survey

Figure 22-B Trust in European parliament before & after the crisis

0: No trust at all – 10: complete trust, high income countries



Sources: European Social Survey

the depth and duration of the economic downturn were not very clear, we clearly observe a drop in people’s trust in the European Parliament, and almost certainly European policy institutions more generally.

The economic crisis and the break of trust

The descriptive patterns hint that the drop in trust in the local political establishment may be related to the severity of the crisis. We thus examined the association between changes in output over the period 2008–10 across countries with changes in all aspects of general and specific trust over the two periods. Appendix Table B7 reports the results of the correlation analysis. Because general trust has moved slightly (see Figures 19-A–19-B), it is not surprising that there is no link between the severity of the economic crisis and respondents’ beliefs on trust. Yet there

is a strong association between changes in income and changes in trust in the political system. Figures 23-A–23-B illustrate the co-movement of growth with trust in the political system across Europe in the early stage of the economic downturn (2008–10).

The first pattern is that there is strong association between changes in trust in the political system and the crisis. Trust in the political system has fallen in these countries that have experienced sizable output contractions (most notably Greece, the Ukraine and Ireland). Moreover, most countries fall close to the (regression) line, and the pattern does not seem to be driven by a couple of countries. Only Estonia appears to be a noticeable outlier, as there, trust in the political system did not change at all, in spite of the considerable drop in output (GDP).¹⁰⁴

Second, there is a significant association between changes in people's trust in the political system and changes in output even when we focus on the more homogenous sample of high-income countries. If anything—and in spite of the drop in the sample—the correlation strengthens.¹⁰⁵ Figure 23-B further shows that although Greece is an outlier—since there, trust in the political system has fallen by more than 50%—the link between changes in trust and changes in income (growth) is not driven by Greece. In fact, the regression line, which illustrates the strength of the correlation, becomes steeper once we exclude Greece from the estimation.

Figures 24-A–24-B illustrate the link between changes in trust in the European Parliament and changes in income over 2008–10. In the full sample, the correlation is positive but weak and statistically indistinguishable from zero (see Appendix Table B5). Yet when we focus on high-income European countries, the

¹⁰⁴ The model fit is quite good (R^2 is 0.296), implying a significant correlation of changes in trust and changes in income in the full sample.

¹⁰⁵ The model fit in the high-income group of countries as reflected in the R^2 increases is good (R^2 is 0.296).

Trust(ing) in Europe? How increased social capital can contribute to economic development

correlation strengthens, implying that—to some extent at least—trust in European policy and legislative bodies has moved in tandem with the severity of the crisis. Although Greece is again an outlier, where both income and trust in the European Parliament have fallen considerably, the association is similar when we exclude Greece. Trust in the European Parliament has fallen in most crisis-hit countries, such as Ireland, Slovenia, Spain and Cyprus; only in Portugal, of the countries of the periphery, has people’s trust in the European Parliament not changed much.

Figure 23-A Trust in national politics and GDP per capita growth (all countries)

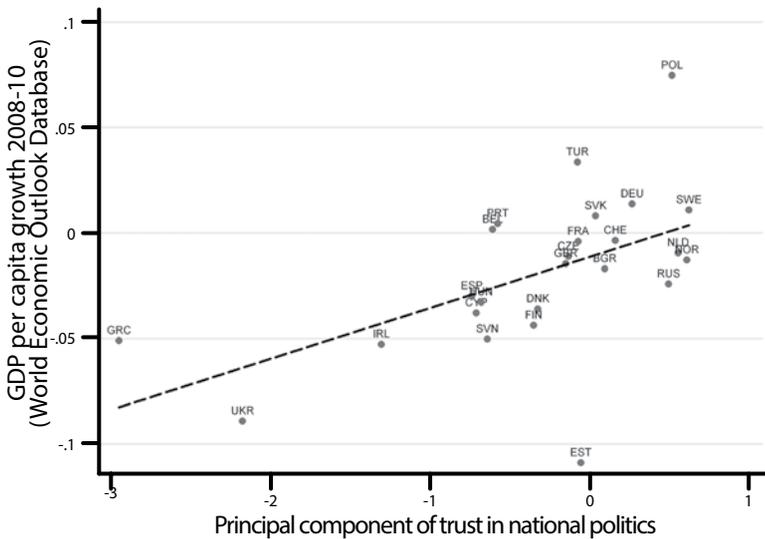
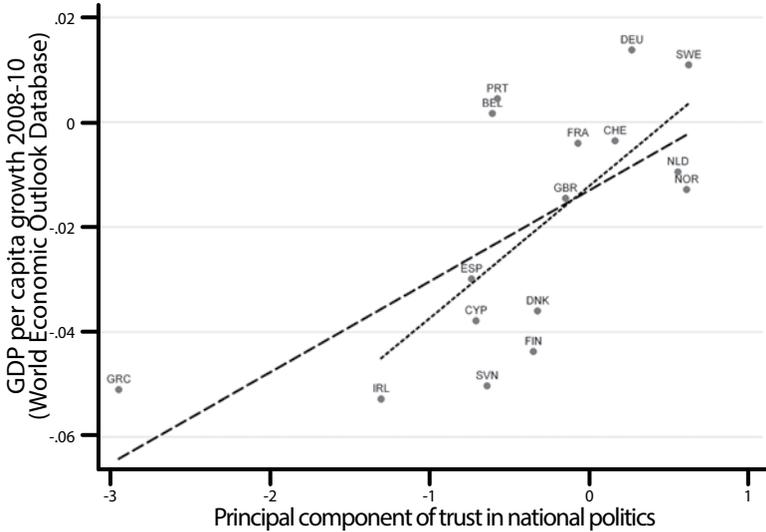
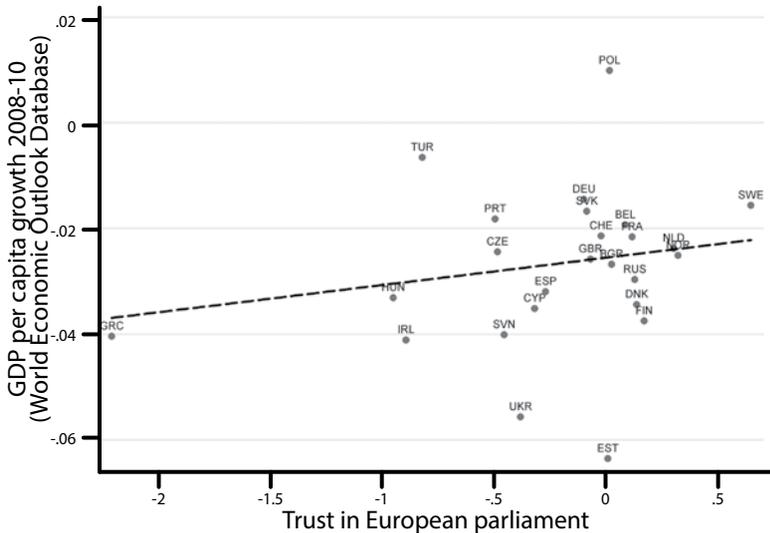


Figure 23-B Trust in national politics and GDP per capita growth (high income countries)



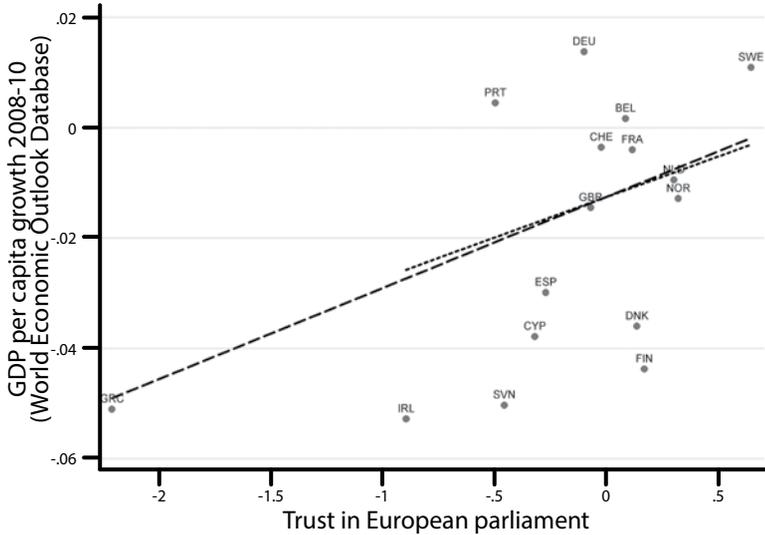
Sources: European Social Survey and World Economic Outlook Database

Figure 24-A Trust in European parliament and GDP per capita growth (all countries)



Sources: European Social Survey and World Economic Outlook Database

Figure 24-B Trust in European parliament and GDP per capita growth (high income countries)



Sources: European Social Survey and World Economic Outlook Database

Summary

The analysis of the evolution of trust across European countries before and during the ongoing financial and economic crisis (2002–10) reveals that, although general trust (towards other people) has not been affected much by the economic crisis, people’s trust in the local political system has been affected considerably.

In crisis-hit countries, mostly in Greece, Ireland and Portugal, and in Ukraine and Hungary, trust in the domestic political system has deteriorated sharply. In contrast, in Northern European and Scandinavian countries that have weathered the crisis, trust in the political system has either been unaffected or has slightly increased. Trust in the European Parliament has also deteriorated in crisis-hit countries though this effect is less pronounced as compared to trust in local political actors. The fact that we

observe a strong association between changes in trust (mostly deterioration) and changes in output (mostly sharp output contractions) over the 2008–10 period is particularly worrisome, as the crisis in Europe intensified mostly after 2009–10. Although it is always dangerous to extrapolate, most likely the deterioration in trust in local and European policymakers and institutions will be sharper in the 2012 surveys. On the positive side, the preliminary evidence suggests that general trust has not been affected much; until 2010 at least, distrust focused almost exclusively on the domestic political system and to a lesser extent on Europe.¹⁰⁶

Lessons and policy recommendations

Broad lessons

The **first broad message** that stems from the analysis is that **policymakers need to closely monitor beliefs, social capital and trust**, as these features crucially shape a variety of policies; and although trust, social capital and beliefs more generally tend to move slowly, they do get affected by major events, such as the deep recession that Ireland and the countries of the European South have been experiencing.

A **second message** is that, besides implementing serious structural reforms (in labour, product and capital markets) so as to foster productivity and innovation, **European policymakers should promote policies aiming to cultivate social capital, civic engagement and participation**. National governments and

¹⁰⁶ Of course, distrust may have increased among particular groups within countries. Because we have employed a (coarse) cross-country perspective, we cannot shed light on whether the crisis has affected differentially specific types of individual within countries.

EU policy institutions could promote civic organisations and non-state-driven initiatives, whereby individuals and local communities work together to, for example, care for disenfranchised members of society (people with drug addiction, homeless people, immigrants and minorities), protect the environment, promote women's rights and so on. The evidence reviewed in Trust and economic performance shows that pro-growth institutional capacity is the mirror image of mutually shared values related to trust, active participation in social and political affairs and so on.

The **third broad message** is that, due to the past persistence of beliefs, policy responses need to be bold, consistent and long-lasting. **Changing beliefs, norms, and trust will not happen overnight with smart policy intervention only.**

Specific policies

Besides long-term factors shaping trust, the academic literature has identified specific policies that can foster trust and build civic capital.

- **Education/schooling.** There is a strong association between schooling and civic participation and trust both across countries (Figures 9–A–9–B) and across individuals within countries.¹⁰⁷ The key question, of course, is whether or not these associations reflect a causal link from the quantity of education to civicism and trust. In an important push towards causation, Milligan, Moretti and Oreopoulos show that this is indeed the case,¹⁰⁸ the authors exploit

¹⁰⁷ For example, J. F. Helliwell and R. D. Putnam, 'Education and Social Capital', *Eastern Economic Journal* 33/1 (2007), 1–19, and E. Glaeser, G. Ponzetto and A. Shleifer, 'Why does Democracy need Education?' *Journal of Economic Growth*, Springer 12/2 (2007), 77–99.

¹⁰⁸ K. Milligan, E. Moretti and P. Oreopoulos, 'Does Education Improve Citizenship? Evidence from the United States and the United Kingdom', *Journal of Public Economics* 88/9–10 (2004), 1667–95.

variation across Canadian and British regions in changes in compulsory schooling laws and show that the increased degree of schooling that these policies brought led to a sizable increase in civic activities, such as political involvement and voting. Likewise, exploiting (exogenous) variation in the availability of junior and community colleges in the US, Dee shows that educational attainment has large and statistically significant effects on subsequent voter participation and support for free speech.¹⁰⁹ He also finds that extra schooling increases the quality of civic knowledge as measured by the frequency of newspaper readership. Oreopoulos and Slavanes further show (using US data) that individuals from the same socio-economic background but with a higher level of education are employed in occupations that offer more opportunities for social interactions;¹¹⁰ moreover, more educated individuals are more willing to help others, do voluntary work and cooperate. Most important of all demographic characteristics, education is the strongest and most robust correlate of trust. **Thus, the first specific message for policymakers is ‘Invest more in the educational system, aiming to increase the years (quantity) of schooling.’** Education is the silver bullet.

- **Structure of educational system.** In an important recent paper, Algan, Cahuc and Shleifer show that not only does amount of schooling matter but also the type of educational system matters crucially for the cultivation of trust and social capital.¹¹¹ The authors start with the observation that teaching methods in primary and secondary education differ considerably both across and within countries; there

¹⁰⁹ T. S. Dee, ‘Are there Civic Returns to Education?’ *Journal of Public Economics* 88/9–10 (2004), 1697–1720.

¹¹⁰ P. Oreopoulos and K. G. Slavanes, ‘Priceless: The Nonpecuniary Benefits of Schooling’, *Journal of Economic Perspectives* 25/1 (2011), 159–84.

¹¹¹ Y. Algan, P. Cahuc and A. Shleifer, ‘Teaching Practices and Social Capital’, *American Economic Journal: Applied Economics* (forthcoming).

are vertical practices, whereby teachers lecture, students take notes, read textbooks mechanically, and examination in turn is based on memorising notes and textbooks. But there are also horizontal practices, whereby students work in groups, conduct joint projects, and lectures are based on the interaction of students among themselves and with the teacher (the Socratic method). Using data on teaching practices from 25 countries, Algan, Cahuc and Shleifer document that students in Scandinavian countries, the US and Austria are mostly horizontal, based on group assignments.¹¹² In contrast, in most former socialist countries in Eastern Europe, as well as in Greece, Portugal, Cyprus and, to a lesser extent, Italy, teaching practices are mostly vertical, based on teacher lectures and student notes. The authors further show that there is a strong positive association between trust and the horizontal structure of the educational system; in countries where students work in groups from primary and secondary school, there is a higher degree of trust. Most importantly, the authors similarly show a strong positive (negative) association between students' beliefs that cooperation is beneficial, trust in domestic institutions, and civic participation and horizontal (vertical) teaching practices using individual (student) data within countries. **Therefore, the second message for policymakers is 'Restructure the educational system in a way that promotes teamwork and interactions among students.'**

- **Openness.** Most of the historical studies on the origins of trust stress the importance of a spirit of commerce, openness and trade. David Landes eloquently writes that 'if the gains from trade in commodities are substantial, they are

¹¹² Ibid. 1667–95.

¹¹³ D. S. Landes, *The Wealth and Poverty of Nations: Why Some Are so Rich and Some so Poor* (New York: W.W. Norton & Company, 1998).

small compared to trade in ideas'.¹¹³ Trust and most proxies of social capital are higher in cities and regions that in the medieval period were hubs of commerce.¹¹⁴ Voigtlander and Voth provide novel evidence showing the beneficial effects of openness, focusing on Germany.¹¹⁵ The authors report a strong association between deaths during the Black Death (1348–50), which in many regions was attributed to the Jews, and violence against the Jewish population (pogroms) in the 1920s (five centuries later); yet in cities with high levels of trade and immigrants this effect is absent, suggesting that openness helps attenuate distorted beliefs. **Thus, the third message for policymakers is 'Promote openness. This can take the form of pushing the export orientation of the economy, promoting the exchange of students (for example via the Erasmus Programme) and relaxing barriers to the movement of people across the EU.'**

- **Competition.** Montesquieu was perhaps the first to note that markets, commerce and competition shaped beliefs and cultivated trust.¹¹⁶ As shown in Trust and economic performance, trust correlates strongly with various proxy measures of competition, such as trade and financial openness, absence of entry barriers and so on. Yet causality can run both ways. In an ingenious recent work, the authors¹¹⁷ show that at least part of the correlation between competition and trust reflects causation from competition to trust. Specifically, the authors show that, following the intensification of competition in product markets that

¹¹⁴ L. Guiso, P. Sapienza L. Zingales, 'Long-Term Persistence', *NBER Working Paper*, 2008.

¹¹⁵ N. Voigtlander and H-J. Voth, 'Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany', *The Quarterly Journal of Economics* 127/3 (2012), 1339–92.

¹¹⁶ C. L. Montesquieu. *The Spirit of Laws*. Volume 2. Garnier: Paris.

¹¹⁷ P. Francois, T. Fuliwara and T. van Ypersele, 'How Does Competition Affect Trust? New Evidence of an Old Question'. *Mimeo*, University of British Columbia and Princeton University (2010).

followed the removal of bank branching restrictions across US states, more people replied that they trusted others. Moreover, using individual-level data, the authors carefully show that trust increased disproportionately more among workers employed in sectors that became more competitive. Competition most likely cultivated trust because, in a competitive environment, shirking and free-riding are more likely to get punished by the group (the firm, other workers or management). **Although we need more evidence on the link between competition and trust, the fourth message for policymakers is ‘Promote competition by removing barriers to entry, abolishing regulatory provisions that protect incumbents and lowering tariffs. Beside the immediate benefits to economic efficiency (innovation, productivity and investment) and redistribution, such policies can have long-term benefits by cultivating trust.’**

Summary

We have surveyed the burgeoning literature on the economics of trust and social-civic capital, placing emphasis on high-income (and) European countries. First, we discussed the origins of the literature on social capital and civic virtue, which dates to the Enlightenment. We also described the recent efforts of political scientists and economists to formalise these old ideas and measure trust and civiness.

In the second part of the paper, we presented cross-country evidence illustrating that trust and other proxies of social capital are strongly correlated with economic development. We also presented evidence linking trust with various features of well-

being and economic efficiency, such as innovation, absence of corruption and red tape, fast court cases, competent bureaucracies and efficient welfare state policies promoting job creation (rather than protection). These findings indicate that building trust and social capital can have sizable economic payoffs.

Third, we studied the evolution of general and specific aspects of trust across 25 European countries after the introduction of the euro, both before and during the ongoing financial and economic crisis (2002–10). In crisis-hit countries of the European South, trust in the domestic political system and local institutions has deteriorated sharply. In contrast, in the countries of the European core that have weathered the crisis, trust in the political system has been unaffected. Attitudes towards European institutions—as reflected in trust in the European Parliament question—have also deteriorated in crisis-hit countries though this effect is less pronounced than is trust in local political actors.

Fourth, we discussed a number of immediate policy implications. Policymakers should not discard the importance of social capital and trust; policy reforms are based on social awareness and connectedness. The strong complementarity between well-functioning institutions and trust further suggest that structural reforms (in the justice system, administration, welfare state, entry markets) are unlikely to be sustained unless the people get engaged in this process. Recent academic research suggests that specific policies can cultivate trust. In this regard, European policymakers should promote education and reform the educational systems so it becomes less dependent on teacher lectures and memorising (vertical) and more based on group assignments, projects and research (horizontal). Moreover, fostering competition, commerce and trade seems also to cultivate trust and social awareness. Thus, European policymakers must respond to the ongoing trust crisis

by removing barriers to entry, liberalising markets but at the same time promoting NGOs and social groups that assist the underprivileged members of society that are also more severely hit by the deep and prolonged recession.

⁶⁵ Complete footnote 65 from page 38: accounting for omitted country-level factors is non-negligible, as recent works show that geographic, cultural, genetic, anthropological and historical traits have sizable long-lasting effects, for example J. Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W. W. Norton & Co., 1997) and D. S. Landes, *The Wealth and Poverty of Nations: Why Some are so Rich and Some so Poor* (New York: W.W. Norton & Company, 1998). See, for example La Porta, R. et al., 'Law and Finance', *Journal of Political Economy* 106/6 (1998), 1113–55 and La Porta, R. et al., 'Legal Determinants of External Finance', *Journal of Finance* 5/3 (1997), 1131–50 and Acemoglu, D., Johnson, S. and Robinson, J., 'The Colonial Origins of Comparative Development: An Empirical Investigation', *American Economic Review* 91/5 (2001), 1369–1401 and Alesina, A. et al., 'Fractionalization', *Journal of Economic Growth*, Springer 8/2 (2003), 155–94 and Ashraf, Q. and Galor, O., 'Genetic Diversity and the Origins of Cultural Fragmentation', NBER Working Papers 18738, National Bureau of Economic Research, Inc. (2013) and Spolaore, E. and Wacziarg, R., 'The Diffusion of Development', *Quarterly Journal of Economics* 124/2 (2009), 469–529 and Michalopoulos, S. and Papaioannou, E., 'Pre-colonial Ethnic Institutions and Contemporary African Development', *Econometrica* 81/1 (2013), 113–52. Spolaore, E. and Wacziarg, R., 'How Deep are the Roots of Economic Development?' *Journal of Economic Literature* 51/2 (2013) provide a thorough review.

About the author



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Data appendices

Appendix A

Table A Sample (World Value Surveys)

	WVS 1981–4	WVS 1989–93	WVS 1994–9	WVS 1999–2004	WVS 2005–8
ALBANIA			1998	2002	
ANDORRA					2005
ARGENTINA	1984	1991	1995	1999	2006
ARMENIA			1997		
AUSTRALIA	1981		1995		2005
AZERBAIJAN			1997		
BURKINA					2007
BANGLADESH			1996	2002	
BULGARIA			1997		2006
BOSNIA			1998	2001	
BELARUS		1990	1996		
BRAZIL		1991	1997		2006
CANADA				2000	2006
SWITZERLAND		1989	1996		2007
CHILE		1990	1996	2000	2006
CHINA		1990	1995	2001	2007
COLOMBIA			1997, 1998		2005
CYPRUS					2006
CZECH REPUBLIC		1990	1998		

	WVS 1981-4	WVS 1989-93	WVS 1994-9	WVS 1999-2004	WVS 2005-8
GERMANY			1997		2006
DOMINICAN REP.			1996		
ALGERIA				2002	
EGYPT				2000	2008
SPAIN		1990	1995	2000	2007
ESTONIA			1996		
ETHIOPIA					2007
FINLAND	1981		1996		2005
FRANCE					2006
UNITED KINGDOM			1998		2005
GEORGIA			1996		2008
GHANA					2007
GUATEMALA				2004	
HONG KONG					2005
CROATIA			1996		
HUNGARY	1982		1998		
INDONESIA				2001	2006
INDIA		1990	1995	2001	
IRAN				2000	2007
IRAQ					
ISRAEL				2001	
ITALY					2005
JORDAN				2001	2007
JAPAN	1981	1990	1995	2000	2005
KYRGYZSTAN					2007
KOREA REPUBLIC	1982	1990	1996	2001	2005
LITHUANIA			1997		
LATVIA			1996		

	WVS 1981-4	WVS 1989-93	WVS 1994-9	WVS 1999-2004	WVS 2005-8
MOROCCO				2001	2007
MOLDOVA			1996	2002	2006
MEXICO	1981	1990	1996	2000	2005
MACEDONIA			1998	2001	
MALI					2007
MALAYSIA					2006
NIGERIA		1990	1995	2000	
NETHERLAND					2006
NORWAY			1996		2007
NEW ZEALAND			1998	2004	
PAKISTAN			1997	2001	
PERU			1996	2001	2006
PHILIPPINES			1996	2001	
POLAND		1989	1997		2005
PUERTO RICO			1995	2001	
ROMANIA			1998		2005
RUSSIAN FEDERATION		1990	1995		2006
RWANDA					2007
SAUDI ARABIA				2003	
SINGAPORE				2002	
EL SALVADOR				1999	
SLOVAKIA		1990	1998		
SLOVENIA			1995		2005
SWEDEN			1996		2006
THAILAND					2007
TRINIDAD					2006
TURKEY		1990	1996	2001	2007

	WVS 1981-4	WVS 1989-93	WVS 1994-9	WVS 1999-2004	WVS 2005-8
TAIWAN			1994		2006
TANZANIA				2001	
UGANDA				2001	
UKRAINE			1996		2006
URUGUAY			1996		2006
UNITED ST			1996	2000	
VENEZUELA			1996	2000	
VIETNAM				2001	2006
SOUTH AFRICA	1982	1990	1996	2001	2006
ZAMBIA					2007
ZIMBABWE				2001	

Variable definitions

Trust. This is the response to the following question: ‘Generally speaking, would you say that most people can be trusted, or that you need to be very careful in dealing with people?’ 1 Most people can be trusted; 2 Can’t be too careful. We have recoded the responses so that 0 is equal to 2. We then take the average over all the years for which we have data for each country (see Appendix Table A for country coverage).¹¹⁸

Civic capital. Following Tabellini (2010), we construct a measure of civic capital using cultural traits that aim at improving social interactions: variable respect, obedience and control. The data for these three variables come from the WVS.

The respondents are shown a list of qualities that children can be encouraged to learn at home. They are then asked to choose up to five. The (dummy) variables ‘tolerance and respect for other people’ and ‘obedience’ take the value of 1 if they are selected by the respondents; otherwise, they take the value of 0.

The variable *on control* ranges from 1 to 10 and is the answer to the following question: ‘Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale where one means “none at all” and ten means “a great deal” to indicate how much freedom of choice and control you feel you have over the way your life turns out.’

We first take the average of these variables over the period 1981–2008 for each country and then extract the first principal component of the three cross-country measures.¹¹⁹

¹¹⁸ *World Values Survey 1981–2008 Official Aggregate* v.20090901, 2009. World Values Survey Association (www.worldvaluessurvey.org).

¹¹⁹ *World Values Survey 1981–2008*.

Income. Natural logarithm of real GDP per capita at PPP 2005 constant prices in 2010.¹²⁰

Inequality. Gini Index in 2000. The Gini coefficient-index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, and an index of 100 implies perfect inequality.¹²¹

Change in inherited trust. This is the change between the level of inherited trust of descendants of USimmigrants in 2000 from the level of inherited trust of descendants of US immigrants in 1935.¹²²

Change in GDP. This is the change in per capita GDP between 1935 and 2000.¹²³

Education. Total years of schooling for the total population (15 years and over).¹²⁴

R&D. Research and Development expenditure in 2000 as a percentage of GDP.¹²⁵

Control of corruption. This variable captures perceptions of the extent to which public power is exercised for private gain,

¹²⁰ A. Heston, R. Summers and B. Aten, *Penn World Table Version 7.1*, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, July 2012. (Variable name in PWT: rgdp)

¹²¹ *World Bank – World Development Indicators* (<http://data.worldbank.org/data-catalog/world-development-indicators>).

¹²² Y. Algan, and P. Cahuc, 'Inherited Trust and Growth', 2010, *American Economic Review*, 100/5 2060–92

¹²³ Y. Algan, and P. Cahuc, 'Inherited Trust and Growth', 2010, *American Economic Review*, 100/5 2060–92

¹²⁴ Barro-Lee (2012) (<http://www.barrolee.com/data/yrsch.htm>)

¹²⁵ *World Bank – World Development Indicators* (<http://data.worldbank.org/data-catalog/world-development-indicators>).

including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private. We use the 2010 values for this variable.¹²⁶

Transparency in politicians’ disclosures. This is the difference between public availability and disclosure required. The variable for disclosures takes a value of 1 if the law or regulations of the country require MPs to provide financial and/or business interests disclosures. The variable takes a value of 0 otherwise. In turn, the public availability variable takes a value of 1 if we had access to the completed forms of the MPs’ financial and business interests’ disclosures in the country. The variable also equals 1 if the country has voluntary disclosures available to the public and we could access the forms of the MPs. The variable takes a value of 0.5 if the country has two different standards for public availability of disclosures for the financial and the business interest forms, and only one of them was available. The variable takes a value of 0 if we failed to get access to the completed forms of the MPs or if the country has no public disclosure required from MPs.¹²⁷

Regulation to entry. Log number of procedures required to start up a firm.¹²⁸

Legal formalism. The number of days needed to resolve a payment dispute through the courts. The data are based on the methodology in Djankov, La Porta, Lopez-de-Silanes and Shleifer (2003) but describe the number of calendar days to enforce a contract of unpaid debt worth 50% of the country’s GDP per capita. The variable is constructed as at January 2003.¹²⁹

¹²⁶ *Governance Indicators* (<http://info.worldbank.org/governance/wgi/index.asp>).

¹²⁷ Y. Algan, and P. Cahuc, ‘Inherited Trust and Growth’, 2010, *American Economic Review*, 100/5 2060–92

¹²⁸ Y. Algan, and P. Cahuc, ‘Inherited Trust and Growth’, 2010, *American Economic Review*, 100/5 2060–92

¹²⁹ Djankov, McLiesh and Shleifer (2007).

Stock market participation. Proportion of households investing in risky assets (direct stockholding). Data for European countries are computed from the 2004 wave of the Survey for Health, Age, and Retirement in Europe, and refer to 2003. Data for the US are drawn from the 1998 Survey of Consumer Finances. Data for the UK are drawn from the 1997–8 Financial Research Survey.¹³⁰

Overall management quality. The construction of this variable uses double-blind surveys and randomised sampling to construct an overall management quality index on more than 10,000 organisations across 20 countries.¹³¹

Firm decentralisation. This variable takes into account the decentralisation of investment, hiring, production and marketing decisions from the central headquarters to plant managers. The scores from the four decentralisation questions are converted to normalised z-scores with a mean of 0 and a standard deviation of 1. The unweighted average across all four z-scores is then used as the measure of overall decentralisation.¹³²

Labour market rigidity. This variable measures the protection of labour and employment laws as the average of (1) alternative employment contracts, (2) cost of increasing hours worked, (3) cost of firing workers and (4) dismissal procedures.¹³³

Welfare state legislation. Social security laws that govern the social response to needs and conditions that have a significant

¹³⁰ Giuso, Sapienza and Zingales (2008). 'Trusting the Stock Market', *Journal of Finance* 63/6, 2557–2600.

¹³¹ Bloom, Genakos, Sadun and Van Reenen (2012). *Academy of Management Perspectives* 26/1, 12–33.

¹³² Bloom, Sadun and Van Reenen (2012). 'The Organization of Firms across Countries', *Quarterly Journal of Economics* 127/4 (2012), 1663–705.

¹³³ Botero, Djankov, La Porta, Lopez-d-Silanes and Shleifer (2004). 'The Regulation of Labor', *Quarterly Journal of Economics* 119/4, 1339–82.

impact on the quality of life, such as old age, disability, death, sickness and unemployment.¹³⁴

Justification for unsound claims of benefits. This index is based on the answer to the following question from the WVS. ‘Do you think it can always be justified, never be justified, or something in between to claim government/state benefits to which you have no rights?’ The index ranges from 1, indicating that it is never justifiable, to 10 indicating that it is always justifiable to claim state benefits that one is not entitled to. Following Algan and Cahuc (2009), we create a dummy variable which takes on the value 1 if the respondent answered ‘Never justifiable’ in the WVS, and 0 otherwise.¹³⁵

Expenditure per unemployed. This is the public expenditure on unemployment benefits per unemployed person, as a percentage of GDP per capita. We take the average of this variable over the period 1980–2003.¹³⁶

Employment protection. This variable is the measure of employment protection, which draws upon the OECD indicator of the stringency of job protection over temporary and regular contract. This employment protection indicator combines both the procedural difficulty to lay off workers and the level of layoff taxes. The OECD indicator then adds up the country scores along these different dimensions of employment protection. It can take values between 0 and 6. The indicator takes on values ranging from 0.2 to 4.1. The higher the level of this index, the more stringent the employment protection becomes. We take the average of this variable over the period 1980–2003.¹³⁷

¹³⁴ Ibid.

¹³⁵ *World Values Survey 1981–2008*.

¹³⁶ Algan and Cahuc (2009). ‘Civic Virtue and Labor Market Institutions’, *American Economic Journal: Macroeconomics* 1/1 (2009), 111–45 and Cahuc (2009).

¹³⁷ Ibid.

Appendix B

Table B1 (European Social Survey) participation rounds 1–5

ESS Round(s):	1	2	3	4	5
Countries					
Austria	Yes	Yes	Yes		
Belgium	Yes	Yes	Yes	Yes	Yes
Bulgaria			Yes	Yes	Yes
Croatia				Yes	Yes
Cyprus			Yes	Yes	Yes
Czech Republic	Yes	Yes		Yes	Yes
Denmark	Yes	Yes	Yes	Yes	Yes
Estonia		Yes	Yes	Yes	Yes
Finland	Yes	Yes	Yes	Yes	Yes
France	Yes	Yes	Yes	Yes	Yes
Germany	Yes	Yes	Yes	Yes	Yes
Greece	Yes	Yes		Yes	Yes
Hungary	Yes	Yes	Yes	Yes	Yes
Ireland	Yes	Yes	Yes	Yes	Yes
Israel	Yes			Yes	Yes
Italy	Yes	Yes			
Luxembourg	Yes	Yes			
Netherlands	Yes	Yes	Yes	Yes	Yes
Norway	Yes	Yes	Yes	Yes	Yes
Poland	Yes	Yes	Yes	Yes	Yes
Portugal	Yes	Yes	Yes	Yes	Yes

Trust(ing) in Europe? How increased social capital can contribute to economic development

Russian Federation			Yes	Yes	Yes
Slovakia		Yes	Yes	Yes	Yes
Slovenia	Yes	Yes	Yes	Yes	Yes
Spain	Yes	Yes	Yes	Yes	Yes
Sweden	Yes	Yes	Yes	Yes	Yes
Switzerland	Yes	Yes	Yes	Yes	Yes
Turkey		Yes		Yes	
Ukraine		Yes	Yes	Yes	Yes
United Kingdom	Yes	Yes	Yes	Yes	Yes

Variable Definitions: ESS data

People trust. This is the response to the following question: ‘Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people? Please tell me on a scale of zero to ten how much you trust people. Zero means you can’t be too careful, and ten means that most people can be trusted.’

People are fair. This is the response to the following question: ‘Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair? Please tell me on a scale of zero to ten whether you think people are fair. Zero means that most people try to take advantage of you if they get the chance, and ten means that most people try to be fair.’

People helpful. This is the response to the following question: ‘Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves? Please tell me on a scale of zero to ten whether you think people are helpful. Zero

means that people are mostly looking out for themselves and ten means that people try to be helpful most of the time.'

**Trust in country's parliament/legal system/police/politicians/
political parties, the European Parliament/the United Nations.**

This is the response to the following question: 'Please tell me on a scale of zero to ten how much you personally trust each of the following institutions. Zero means you do not trust an institution at all, and ten means you have complete trust. How much do you personally trust []?'

**Table B2 country-level mean values of various trust measures
(European Social Survey)**

COUNTRY	People Trust	People Fair	People Helpful	Trust Parliament	Trust Legal	Trust Police
Austria	5,141	5,753	5,309	4,920	5,965	6,324
Belgium	4,928	5,720	4,562	4,812	4,759	5,829
Bulgaria	3,417	4,385	3,150	1,991	2,361	3,525
Switzerland	5,690	6,377	5,506	5,680	6,230	6,861
Cyprus	4,350	4,856	4,213	5,662	6,226	5,809
Czech Republic	4,448	5,244	4,165	3,324	3,899	4,579
Germany	4,797	5,804	4,906	4,381	5,662	6,673
Denmark	6,922	7,308	6,124	6,345	7,268	7,809
Estonia	5,309	5,613	4,749	4,193	4,950	5,767
Spain	4,961	5,301	4,410	4,999	4,571	5,906
Finland	6,496	6,841	5,744	5,946	6,950	7,986
France	4,480	5,725	4,468	4,394	4,904	5,753
Great Britain	5,231	5,656	5,579	4,365	5,087	6,100
Greece	3,781	3,688	3,163	4,410	5,527	5,843
Croatia	4,293	4,545	3,584	2,974	3,125	4,371
Hungary	4,151	4,627	4,200	3,687	4,440	4,880
Ireland	5,559	6,022	6,051	4,454	5,104	6,470
Israel	5,094	5,438	4,694	4,253	6,016	5,529
Italy	4,424	4,565	3,871	4,587	5,168	6,490
Luxemburg	5,095	5,574	4,645	5,739	6,182	6,453
Netherlands	5,811	6,274	5,336	5,198	5,631	6,065
Norway	6,667	6,957	6,031	5,634	6,485	7,078

COUNTRY	Trust Politicians	Trust Parties	Tust EU Parliament	Trust UN
Austria	3,351	3,350	4,082	4,592
Belgium	4,232	4,212	5,037	5,194
Bulgaria	1,650	1,730	4,740	4,898
Switzerland	4,885	4,686	4,740	5,420
Cyprus	4,429	4,325	5,956	4,549
Czech Republic	2,832	2,792	4,309	4,993
Germany	3,378	3,313	4,266	4,968
Denmark	5,568	5,660	4,922	6,551
Estonia	3,362	3,256	5,063	5,458
Spain	3,439	3,415	4,988	5,001
Finland	4,868	4,989	5,009	6,549
France	3,474	3,336	4,430	4,968
Great Britain	3,578	3,604	3,589	5,167
Greece	3,213	3,058	5,237	4,238
Croatia	2,112	2,293	3,617	4,082
Hungary	2,790	2,448	5,007	5,494
Ireland	3,685	3,734	5,145	5,738
Israel	3,063	3,059	3,961	3,987
Italy	3,365	3,244	5,178	5,369
Luxemburg	4,934	4,940	5,155	5,351
Netherlands	4,955	5,045	4,817	5,495
Norway	4,471	4,523	4,729	6,794

Trust(ing) in Europe? How increased social capital can contribute to economic development

COUNTRY	People Trust	People Fair	People Helpful	Trust Parliament	Trust Legal	Trust Police
Poland	3,856	4,674	3,380	2,908	3,569	4,909
Portugal	3,928	4,944	3,935	3,831	4,011	5,183
Russia	3,943	4,915	3,980	3,646	3,960	3,556
Sweden	6,191	6,619	6,009	5,661	5,990	6,587
Slovenia	4,115	4,821	4,488	4,192	4,140	4,912
Slovakia	4,162	4,641	4,004	3,814	4,007	4,642
Turkey	2,600	3,316	3,091	6,103	6,394	6,454
Ukraine	4,248	4,619	3,712	2,964	2,787	2,748

COUNTRY	Trust Politicians	Trust Parties	Tust EU Parliament	Trust UN
Poland	2,271	2,102	4,572	5,269
Portugal	2,412	2,319	4,454	5,013
Russia	3,109	3,024	4,034	4,255
Sweden	4,498	4,594	4,272	6,435
Slovenia	3,193	3,295	4,750	4,871
Slovakia	3,286	3,355	5,070	5,327
Turkey	3,041	3,121	3,962	3,630
Ukraine	2,447	2,535	4,130	4,056

Source: European Social Survey

**Table B3 country-level median values of various trust measures
(European Social Survey)**

COUNTRY	People Trust	People Fair	People Helpful	Trust Parliament	Trust Legal
Austria	4,186	4,972	4,308	4,143	5,023
Belgium	5,000	6,000	5,000	5,000	5,000
Bulgaria	2,416	3,840	2,305	0,839	1,260
Switzerland	5,140	5,418	5,060	5,151	5,318
Cyprus	3,714	4,331	3,714	5,053	5,663
Czech Republic	3,416	4,288	3,060	2,408	2,857
Germany	3,970	5,389	4,418	3,755	5,006
Denmark	7,000	8,000	6,000	7,000	8,000
Estonia	5,000	5,000	5,000	4,000	5,000
Spain	4,932	5,149	4,124	4,936	4,398
Finland	7,000	7,000	6,000	6,000	8,000
France	4,050	5,140	3,972	3,915	4,396
Great Britain	4,617	5,154	5,131	3,679	4,205
Greece	3,234	2,961	2,511	3,787	5,022
Croatia	3,513	3,686	2,788	2,180	2,292
Hungary	3,735	4,334	3,738	3,000	4,000
Ireland	4,773	5,568	5,568	3,977	4,583
Israel	4,008	4,209	3,574	3,138	4,836
Italy	3,970	4,052	3,393	4,345	4,927
Luxemburg	4,525	4,686	4,034	5,012	5,471
Netherlands	5,393	6,059	4,900	4,900	5,050
Norway	7,000	7,000	6,000	6,000	7,000

COUNTRY	Trust Police	Trust Politicians	Trust Parties	Tust EU Parliament	Trust UN
Austria	5,800	2,511	2,511	3,314	3,802
Belgium	6,000	4,994	4,959	5,000	5,047
Bulgaria	2,437	0,778	0,815	3,904	4,080
Switzerland	6,356	4,254	4,222	4,201	4,723
Cyprus	5,356	3,826	3,746	5,356	3,826
Czech Republic	3,595	1,931	1,904	3,186	3,929
Germany	6,258	2,761	2,695	3,755	4,538
Denmark	8,000	6,000	6,000	5,000	7,000
Estonia	6,000	3,000	3,000	5,000	5,000
Spain	5,778	3,163	3,212	4,936	4,936
Finland	8,000	5,000	5,000	5,000	7,000
France	5,169	2,921	2,807	3,960	4,450
Great Britain	5,256	3,092	3,078	3,078	4,290
Greece	5,050	2,511	2,511	4,222	3,366
Croatia	3,371	1,327	1,453	2,800	3,339
Hungary	4,560	2,001	1,288	4,805	5,000
Ireland	6,363	3,182	3,135	4,609	5,499
Israel	4,209	2,116	2,194	2,844	2,731
Italy	6,079	2,950	2,858	4,930	5,066
Luxemburg	5,861	4,386	4,257	4,425	4,560
Netherlands	5,879	4,900	5,050	4,314	5,097
Norway	7,301	5,000	5,000	5,000	7,000

Trust(ing) in Europe? How increased social capital can contribute to economic development

COUNTRY	People Trust	People Fair	People Helpful	Trust Parliament	Trust Legal
Poland	3,747	4,644	3,133	2,603	3,396
Portugal	2,911	3,851	2,930	2,890	3,016
Russian Federation	2,930	3,927	3,031	2,694	3,036
Sweden	7,000	7,000	6,000	6,000	6,000
Slovenia	4,000	5,000	5,000	4,000	4,000
Slovakia	4,000	4,000	3,074	3,000	3,137
Turkey	0,305	0,999	0,666	3,330	3,330
Ukraine	2,077	2,472	1,825	0,997	0,886

COUNTRY	Trust Police	Trust Politicians	Trust Parties	Tust EU Parliament	Trust UN
Poland	4,757	2,038	1,742	4,644	5,394
Portugal	4,180	1,672	1,669	3,559	4,031
Russian Federation	2,573	2,254	2,151	3,129	3,297
Sweden	7,000	5,000	5,000	5,000	7,000
Slovenia	5,000	3,000	3,000	5,000	5,000
Slovakia	4,000	2,967	3,000	5,000	5,000
Turkey	3,330	0,236	0,286	0,406	0,333
Ukraine	0,972	0,741	0,849	1,741	1,623

Source: European Social Survey

Table B4 Correlation structure various aspects of trust

Panel A: Country-level correlations (30 observations)

	Trust people	People are fair	People are helpful	Trust nat. Parliament	Trust legal system
People trust	1				
People fair	0.9540*	1			
People helpful	0.9264*	0.9311*	1		
Trust national parliament	0.5723*	0.5233*	0.5980*	1	
Trust legal system	0.6076*	0.5513*	0.6290*	0.9324*	1
Trust police	0.6655*	0.6224*	0.6792*	0.8608*	0.9048*
Trust politicians	0.7740*	0.7416*	0.7467*	0.8757*	0.8221*
Trust parties	0.7866*	0.7504*	0.7576*	0.8706*	0.8066*
Trust European Parliament	0,145	0,075	0,053	0,293	0,238
Trust United Nations	0.7826*	0.7798*	0.7282*	0.4155*	0.4074*

	Trust police	Trust politicians	Trust pol. Parties	Trust Europe Parliament	Trust United Nations
People trust					
People fair					
People helpful					
Trust national parliament					
Trust legal system					
Trust police	1				
Trust politicians	0.7707*	1			
Trust parties	0.7593*	0.9930*	1		
Trust European Parliament	0,270	0.4018*	0,358	1	
Trust United Nations	0.5896*	0.6149*	0.6103*	0.3748*	1

Source: European Social Survey

Panel B: correlations at the individual-level (159,267 observations)

	Trust people	People are fair	People are helpful	Trust nat. Parliament	Trust legal system	Trust police
People trust	1					
People fair	0.7596*	1				
People helpful	0.6903*	0.7187*	1			
Trust national parliament	0.5290*	0.5342*	0.5049*	1		
Trust legal system	0.5439*	0.5537*	0.5246*	0.7601*	1	
Trust police	0.5469*	0.5769*	0.5446*	0.6848*	0.7913*	1
Trust politicians	0.5132*	0.5140*	0.4925*	0.7815*	0.6839*	0.6334*
Trust parties	0.5129*	0.5150*	0.4948*	0.7661*	0.6769*	0.6181*
Trust European Parliament	0.4934*	0.5111*	0.4686*	0.6672*	0.6307*	0.5975*
Trust United Nations	0.5276*	0.5505*	0.5049*	0.6385*	0.6289*	0.6253*

	Trust Politicians	Trust pol. Parties	Trust Europe Parliament	Trust United Nations
People trust				
People fair				
People helpful				
Trust national parliament				
Trust legal system				
Trust police				
Trust politicians	1			
Trust parties	0.8983*	1		
Trust European Parliament	0.6657*	0.6800*	1	
Trust United Nations	0.6281*	0.6390*	0.8065*	1

Source: European Social Survey

Table B5 changes in income (2010-2008) and changes in trust

Panel A: all European countries (25 economies)

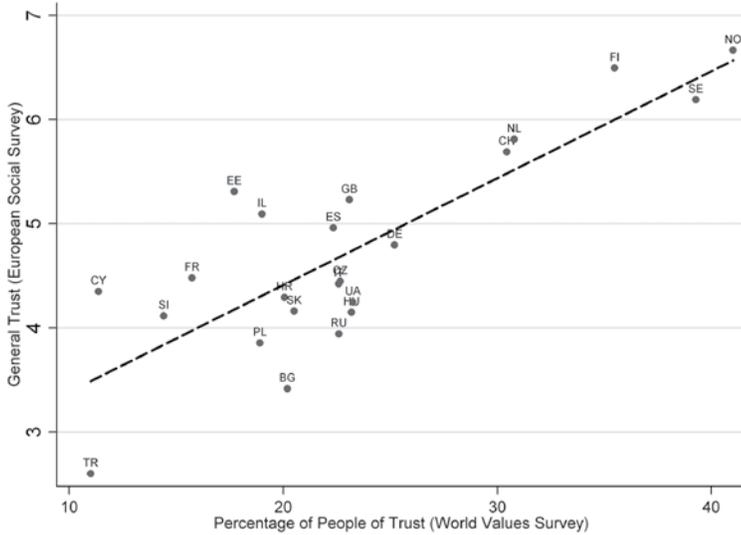
	Coefficient	Standard Error	t-stat	R2
People Trust	1	1,681	0,322	0,008
People are Fair	0,081	2	0,048	0,000
People are Helpful	0	1,512	-0,060	0,000
Trust in Local Parliament	6,947	3	1,998	0,195
Trust in the Legal System	4,176	3,386	1	0,095
Trust in Police	0,490	3,502	0,140	0
Trust in Politicians	5,648	2,832	1,995	0,214
Trust in Political Parties	7,110	2,960	2,402	0,303
Trust in the EU Parliament	2,697	2,734	0,986	0,035
Trust in the UN	0,180	1,664	0,108	0,000
Principal Component Specific Trust	13,686	6,718	2,037	0,203
Principal Component Trust in National Politics	12,224	5,120	2,387	0,296

Panel B: high-income European countries (17 economies)

	Coefficient	Standard Error	t-stat	R2
People Trust	2	1,712	1,208	0,100
People are Fair	2,468	1	1,768	0,187
People are Helpful	2	1,390	1,379	0,135
Trust in Local Parliament	8,117	8	1,065	0,127
Trust in the Legal System	1,674	8,112	0	0,007
Trust in Police	-2,061	8,506	-0,242	0
Trust in Politicians	8,847	5,316	1,664	0,243
Trust in Political Parties	15,411	4,692	3,285	0,492
Trust in the EU Parliament	9,191	7,571	1,214	0,152
Trust in the UN	2,343	3,900	0,601	0,036
Principal Component Specific Trust	32,524	14,198	2,291	0,365
Principal Component Trust in National Politics	24,867	8,840	2,813	0,432

Source: European Social Survey

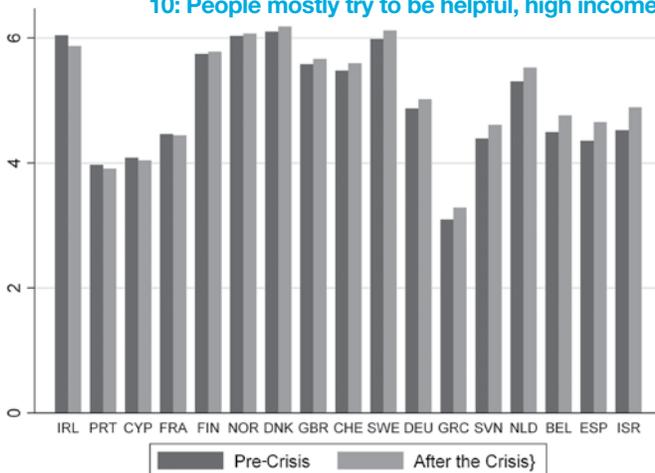
Figure B1 General trust: European social survey and world values survey comparison



Sources: European Social Survey and World Values Survey

Figure B2-A Do you think that most of the time people are helpful or that they mostly look out for themselves?

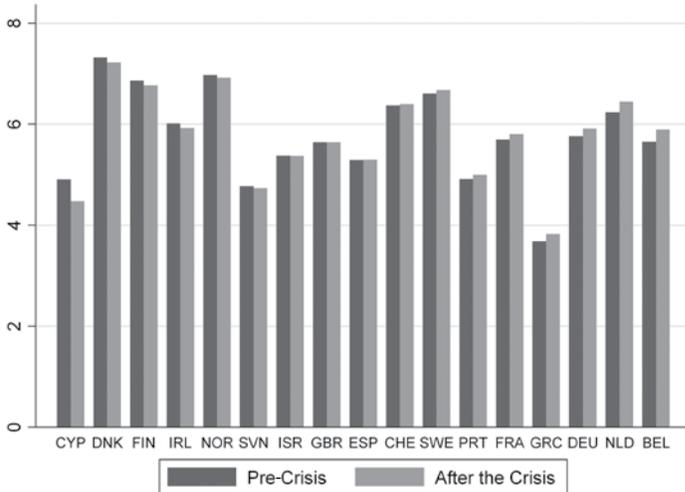
0: People mostly look out for themselves –
10: People mostly try to be helpful, high income countries



Sources: European Social Survey

Figure B2-B Do you think that most people try to take advantage of you, or they try to be fair?

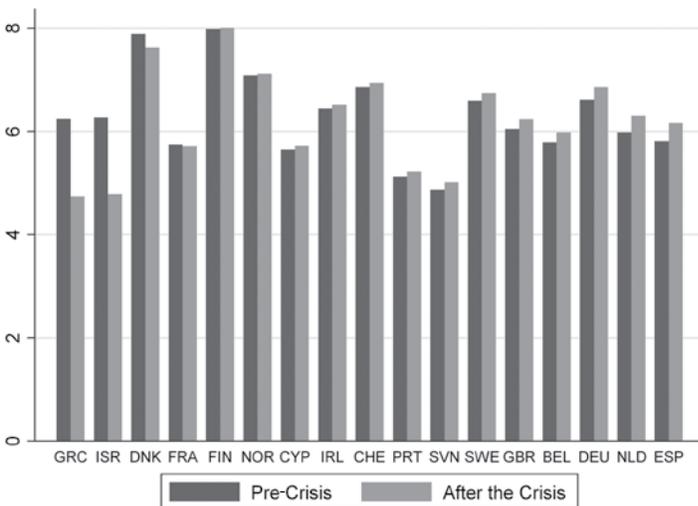
0: Most people try to take advantage of me -
10: Most people try to be fair, high income countries



Sources: European Social Survey

Figure B3-A Trust in the police before & after the crisis

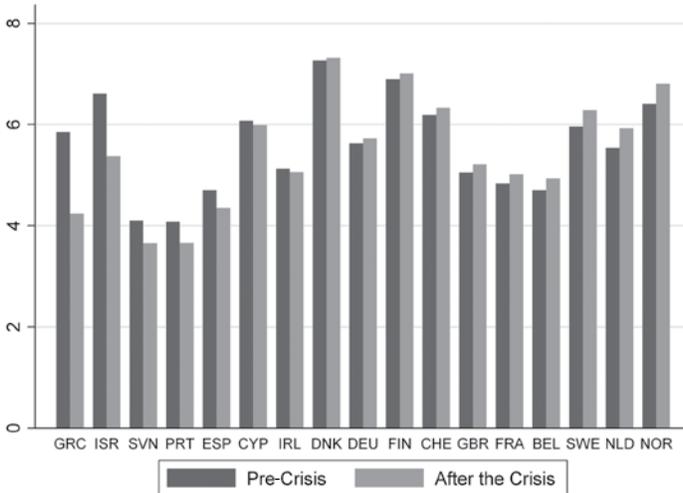
0: No trust at all -
10: Complete trust, high income countries



Sources: European Social Survey

Figure B3-B Trust in national legal system before & after the crisis

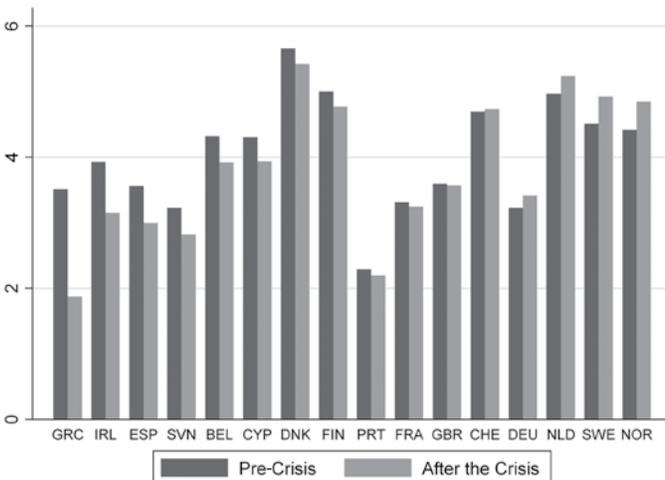
0: No trust at all –
10: Complete trust, high income countries



Sources: European Social Survey

Figure B3-C Trust in political parties before & after the crisis

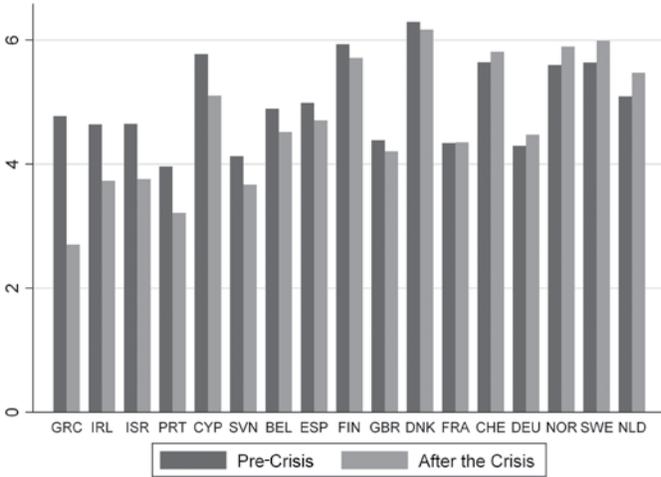
0: No Trust at all –
10: Complete trust, high income countries



Sources: European Social Survey

Figure B3-D Trust in country's parliament before & after the crisis

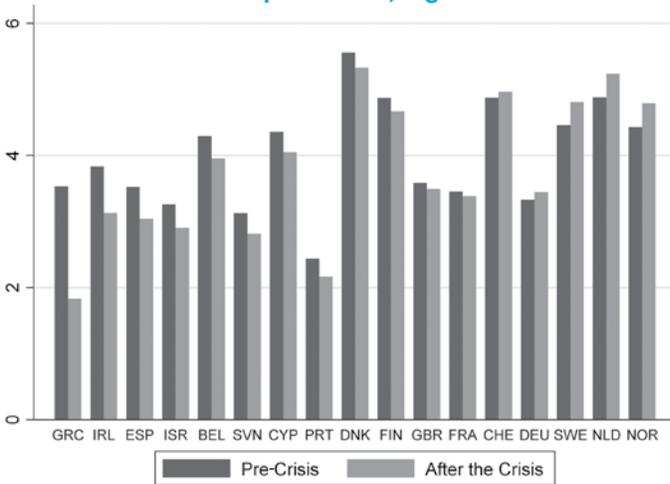
0: No trust at all –
10: Complete trust, high income countries



Sources: European Social Survey

Figure B3-E Trust in politicians before & after the crisis

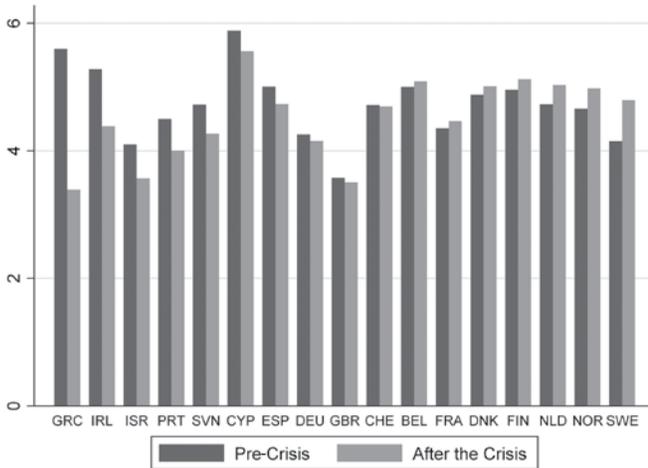
0: No trust at all –
10: Complete trust, high income countries



Sources: European Social Survey

Figure B3-F Trust in European Parliament before & after the crisis

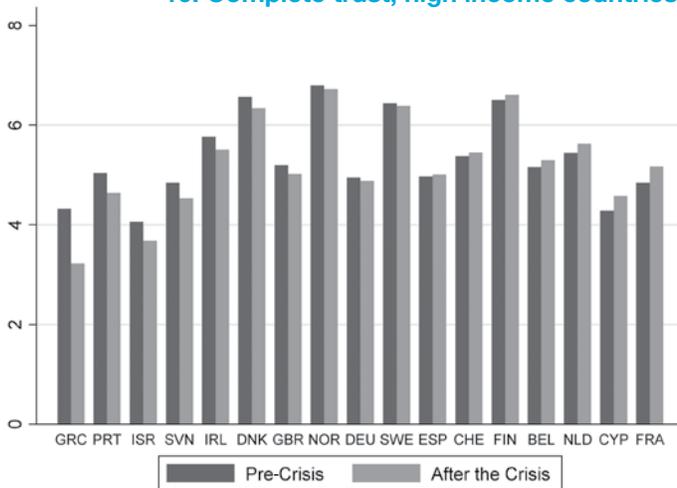
0: No trust at all –
10: complete trust, high income Countries



Sources: European Social Survey

Figure B3-G Trust in United Nations before & after the crisis

0: No trust at all –
10: Complete trust, high income countries



Sources: European Social Survey

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