

Globalization, Economic Freedom and Human Rights

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January 2011

Abstract

Using the KOF Index of Globalization and two indices of economic freedom, we empirically analyze whether globalization and economic liberalization affect governments' respect for human rights using a panel of 106 countries over the 1981-2004 period. According to our results, physical integrity rights significantly and robustly increase with globalization and economic freedom, while empowerment rights are not robustly affected. Due to the lack of consensus about the appropriate level of empowerment rights as compared to the outright rejection of any violation of physical integrity rights, the global community is presumably less effective in promoting empowerment rights.

Keywords: Human Rights, Globalization, Economic Freedom

Acknowledgement: We thank two anonymous reviewers for very helpful comments and Scott Jobson for excellent research assistance. The replication material for this article is available at <http://jcr.sagepub.com/supplemental/>.

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1. Introduction

At the beginning of the 21st century, governments' disrespect for human rights is still evident in all regions of the world. Human rights violations continue to be the norm rather than the exception. According to Amnesty International (2006), millions of people worldwide are still denied fundamental rights. That being said, governments' respect for human rights is higher in some countries than in others and over the last few decades improvements have been visible in many of these countries. At the same time, globalization and economic freedom have had dramatic consequences on policies and outcomes around the world.¹ In this paper, we argue that economic freedom and globalization are important determinants of governments' respect for human rights. Competition between economies has become tougher and expanded to an unprecedented worldwide level. Global investors in financial markets exploit even marginal differences in the rates of return and thus generate pressure on local governments. This global development is sometimes viewed as being responsible for disenfranchisement, exploitation, and other forms of human rights abuses (e.g., Rabet 2009). On the other hand, improvements in human rights are sometimes attributed to the spread of liberal ideas, which is one of the key dimensions of globalization (e.g., Rosenau 2003).

We extend the theoretical perspective on the determinants of human rights practice by Poe and Tate (1994) to include globalization and economic freedom. We then empirically investigate whether these aspects actually affect governments' respect for human rights, as measured by the Cingranelli-Richards Human Rights Dataset (CIRI, Cingranelli and Richards 2006).² Our study thus connects to the empirical literature on the determinants of human rights that has emerged through the availability of data on human rights violations.

The question of whether economic globalization affects human rights has been examined previously (Apodaca 2001; Evans 1999; Hafner-Burton 2005; Mitchell and McCormick 1988; Poe and Tate 1994). However, in previous studies the influence of

¹ See Dreher et al. (2008) for a comprehensive overview.

² The index divides human rights into 13 internationally recognized rights, aggregated to two sublevels—basic human rights (so called physical integrity rights) and broader civil liberties (i.e., empowerment rights).

globalization has been measured by the extent of capital controls, openness to trade, and the amount of foreign direct investment. From a policy perspective, the influence of all these individual elements of economic globalization on human rights is important. But most elements of economic globalization are highly correlated. Therefore, it is not advisable to include them all independently in one regression. Omitting dimensions on the other hand, causes biased coefficients. Due to a lack of data, the literature has focused on single aspects of economic globalization and human rights, instead of applying a comprehensive approach. Using aggregate indicators of globalization is preferable, because single negative effects could be neutralized by other positive effects, and it is the overall effect of economic globalization that is decisive for an evaluation of its merits. Hence, only an aggregate measure of economic globalization can be used to study the overall effect. We use the economic dimension of the KOF Index of Globalization (Dreher 2006a; Dreher et al. 2008), which aggregates the individual dimensions and allows us to provide the first comprehensive investigation of the effects of economic globalization on human rights violations.

As the KOF Index of Globalization also separates the political and social dimensions of globalization from the economic dimension, we are able to take an even broader perspective and comprehensively analyze the impact of these three distinct dimensions of globalization on human rights.

In addition to external integration and liberalization (globalization), internal economic liberalization has also been discussed as a potentially important determinant of human rights (e.g., Burkhart 2002; Huntington 1968; Marx 2002). Internal economic freedom comprises, for instance, voluntary exchange, free competition, and protection of persons and property within a national economy. Therefore, we also examine the impact of economic freedom on human rights. Again it can be argued that correlation between the variables of interest is important. Given the apparent correlation between economic freedom and the three dimensions of globalization (Bjørnskov 2006), not controlling for economic freedom when investigating the effect of globalization on human rights could bias the results, and vice versa.

In summary, this article provides the first comprehensive analysis of how economic freedom and the three dimensions of globalization affect governments' respect

for human rights. Our empirical analysis puts particular weight on gauging the robustness of the empirical relationship between the variables of interest. Specifically, we employ (variants of) the extreme bounds analysis (EBA), as proposed by Leamer (1983) and Levine and Renelt (1992). We also investigate whether causality does indeed run from globalization and economic freedom to human rights rather than the other way around.

We continue as follows. The next section motivates our control variables, building on the model of Poe and Tate (1994). Section 3 then expands the model and presents our main hypotheses. How we measure human rights, globalization, and economic freedom is outlined in section 4. Section 5 describes the method of estimation and our covariates, while the results are shown in section 6. The final section concludes.

2. The Determinants of Human Rights

Our starting point for analyzing governments' respect for human rights is the model of Poe and Tate (1994: 855-859), according to which a government's decision to respect human rights is determined by ten variables in six areas:

- (i) the level of democracy;
- (ii) the level of economic development and its growth rate;
- (iii) population size and its growth rate;
- (iv) the prevalence of a military and/or leftist regime;
- (v) British cultural influence, and
- (vi) (recent) experience with international and/or civil war.

In Poe and Tate's model, human rights repression is a tool for governments to solve conflicts. If a government is threatened, it reacts by repressing human rights, for instance, through imprisonment, torture or killings. Since in democracies political processes involve the bargaining of parties, conflicts can be solved in a more peaceful manner compared to autocracies (Poe and Tate 1994). In democracies, repressive governments can be ousted from office in elections. Moreover, the characteristic freedoms in democracies allow citizens to publicize and decry abusive actions. Overall, democracy is expected to improve governments' respect for human rights. We control for democracy

by using the Polity IV index (Marshall and Jagers 2000).³

Regarding economic conditions, Poe and Tate argue that human rights abuses should decrease with economic development, yet increase with economic growth. The better the economic situation, measured by the quantity and quality of goods and services available, the less scarce are goods. Consequently, the potential for conflict, and thus repression, decreases (Mitchell and McCormick 1988). The effect of economic growth is less obvious: Since economic growth is the engine of economic development, it should improve human rights practices in a country. However, growth usually involves winners and losers, and may, at least temporarily, increase inequality of income and wealth (Kuznets 1955). As a consequence, social and political tensions rise and the probability of abusive actions increases. To test these theoretical considerations, we employ GDP per capita and GDP growth in our analysis.⁴

Holding resources constant, scarcity of goods (and thus the potential for conflict) is higher in countries with larger populations (Poe and Tate 1994). Here the issue of distributing resources fairly among citizens becomes more crucial (Burkhart 2002). Moreover, the number of occurrences of coercive action is likely to be higher in a large population, simply as a matter of numbers. Population growth increases the scarcity of products and resources. Furthermore, rapid population growth increases the percentage of younger people in terms of the total population, which as a group are generally more destabilizing (Poe and Tate 1994). Therefore, both population size and population growth may increase the probability of repressive governmental actions. In addition to these two variables, we incorporate a country's area and urban population in order to control for potential rural-urban differences.

It is a tautology that the probability of repressive actions increases if the country is governed by a repressive regime. Military regimes depend on the power of the armed

³ We further account for the level of democracy by controlling for the timing of elections, the age of the state and its political actors, federal states and their representation as well as the presence of special interest executive parties.

⁴ As additional variables measuring economic development and growth, we use the Human Development Index, investment, education, proxies for a country's debt level, life expectancy and decentralization measures.

forces, and conflicts are frequently solved by military order and hierarchy. Hence, military regimes are likely to control a country through abusive actions and disrespect of human rights. Similarly, “leftist regimes,” which are defined as socialist or communist governments that do “not allow effective electoral competition with nonsocialist opposition” (Poe and Tate 1994: 858) are also likely to show less respect for human rights. Mitchell and McCormick (1988), for instance, provide clear evidence for both hypotheses. We therefore include dummies for socialist legal origin, left-wing governments, and military dictators.

There is also some discussion surrounding the cultural influence of past colonial powers. Mitchell and McCormick (1988) and Burkhart (2002) argue that the colonial experience has prejudiced the shape of present postcolonial political culture, and that the British colonial experience, in contrast to other experiences, was associated with postcolonial development of democracy. British cultural influence in this sense is therefore assumed to involve greater respect for human rights.

Finally, Poe and Tate point out that experience with external or internal war increases the probability of human rights violations. As Burkhart (2002: 158) puts it, civil liberties “disappear in even the most democratic of countries come wartime.” We measure war experience with a dummy variable that is equal to 1 if, in a given year, 1000 battlefield casualties occurred as a result of a civil and/or international war.

In addition to these standard variables proposed by Poe and Tate, the current literature has introduced a number of other potential determinants of human rights. The colonial legacy aspect of their model is a potential effect of former globalization. Besides the positive effect of British cultural influence, it can also be argued that Iberian (Spanish and Portuguese) colonies were based on strict hierarchy, authority, absolutism, and two-class systems, and may therefore be more likely to display a political culture that tolerates political repression and human rights violations as a means of maintaining order today (Inglehart 1988). Hence, we also include a variable controlling for Iberian cultural influence.⁵

Another important aspect related to colonialism is religion. The potential

⁵ Besides being a former British colony, we also control for whether the legal origin is British, French, German or Scandinavian.

difference between Iberian and British influence—if it exists—could originate from different religions. Basically, all major religions (in principle) teach peaceful and respectful human interaction. However, different ecclesiastic organization and traditions could affect the average respect its members have for human rights, especially in relation to followers of a different religion. While Orthodox and Roman-Catholic churches have hierarchal and authoritarian structures, these are much less pronounced in Protestant churches. Arruñada (2010: 895) argues that “Protestants show greater concern for social interactions, in terms of at least social control, rule of law and homogeneity of values.” Using survey data for 32 countries, he finds substantial evidence supporting this “social ethic” hypothesis. Therefore, we test whether countries with specific religions tend to have more respect for human rights.

An aspect which has not yet been directly considered is ethnic fractionalization, as well as other types of societal division. As argued above, the likelihood of a society being fractionalized increases with the size of its population. Moreover, it is obvious that in multiethnic countries (especially when they have only been independent for a short time), the probability of conflict is significantly higher. Divisions of any kind may increase the probability of human rights violations.

Recently, the role of major international organizations and their effects on human rights has come under scrutiny. Abouharb and Cingranelli (2006, 2009) examine the role that World Bank and IMF programs play in human rights violations. On the one hand, if the World Bank and the IMF improve economic performance, this could lead to better human rights practices. On the other hand, the conditions attached to loans from the two institutions could cause hardships and higher levels of domestic conflict, which could then reduce the level of respect for human rights. Abouharb and Cingranelli find that World Bank and IMF involvements deteriorate the human rights situation in borrowing countries.⁶

Huntington’s (1968: 41) finding that “[...] causes of violence in [... poor countries] lay with the modernization process rather than with the backwardness itself” addresses another important aspect related to the influence of the level of economic

⁶ We complement IMF and World Bank lending variables with the number of human rights NGOs present in a country.

development and growth discussed above, and a potential (indirect) link to economic freedom. In times of transition (modernization), economic freedom increases and the state is reorganized: “As social and economic change broadens, political participation increases, and the demands [...] are greater.” Hence, traditional sources of political authority are challenged. New political institutions are required to channel this newly mobilized citizenry. While these new institutions develop, instability, disorder and corresponding human rights abuses arise. Mitchell and McCormick (1988) assume that both very poor and very rich countries are therefore less likely to have substantial levels of human rights violations, but that those countries in the middle—due to the modernization process they are moving through—are more likely to exhibit patterns of human rights violations. Taking this into account, there should be a non-linear relationship between wealth and respect for human rights.

3. Hypotheses

On the basis of the previous theoretical and empirical literature, this section derives our hypotheses regarding the link between liberal policies and governments’ respect for human rights. Our hypotheses comprise two dimensions of freedom, an internal dimension covered by economic freedom within an economy, and an external dimension covered by three dimensions of worldwide integration (globalization). To some extent, both globalization and economic freedom imply a free domestic and a free world market.

3.1 Globalization and Human Rights Abuses

Economic, social and political integration can have different effects on the human rights situation in a specific country. The two sub-categories of the human rights measure from Cingranelli and Richards (2006)—physical integrity rights and empowerment rights—might both be affected in different ways by the three types of globalization. If we neglect this complexity, we will most likely end up with confusing or contradicting results.

As a matter of fact, the literature regarding the relationship between economic globalization and human rights does yield contradicting results. On the one hand, Evans (1999) argues that economic integration in trade and investment generates incentives for governments to abuse poor and disenfranchised people, so that repression, exploitation

and human rights abuses arise. While globalization may increase the size of the pie according to Rosenau (2003), it may be distributed less equally. This may increase the potential for conflict and human rights abuses.

On the other hand, Apodaca (2001), Mitchell and McCormick (1988), Poe and Tate (1994) as well as Rosenau (2003) argue that economic integration produces economic wealth, the establishment of the rule of law and a higher respect for human rights and (personal) freedom. Gelleny and McCoy (2001) also maintain that due to increased wealth and modernization, global integration leads to a higher level of political stability, so that governments are less tempted to violate human rights to maintain control. Similarly, Richards et al. (2001) state that globalization forms a “middle-class,” which has the power to demand (fundamental) human rights and freedom.

Internal and external conflict, ethnic tensions, law and order, and democratic accountability of governments are among the indicators that are of the most significance for the activities of multinational corporations (Busse and Hefeker 2007). If countries become involved in an unanticipated war, the probability of receiving foreign direct investment decreases, as does the magnitude of such investments (Li 2006). Hence, human rights abuses should decrease with a country’s level of economic globalization. Since economic globalization brings advantages for governments that participate in economic integration (Dreher 2006a), regimes have an incentive to respect human rights. There are theoretical arguments as well as empirical evidence that suggest trade or economic globalization reduce conflict in a country, because “the possible loss of trade reduces the willingness ... to fight” (Morrow 1999: 481).

While theory and previous evidence do not provide clear predictions, we test the following hypothesis:

Hypothesis 1: Economic globalization improves a country’s human rights practice.

The success of companies operating globally is dependent on aspects like reputation, which means that these companies also have an incentive to uphold international human rights and basic labor standards if non-commitment is likely to become globally

transparent. As the social integration aspect of globalization proceeds—for instance via the internet and other global communication media—the likelihood of human rights violations being discovered increases, and the negative effect of being caught magnifies. The skill revolution makes it easy to follow news about violations, however distant they may be (Rosenau 2003). Moreover, due to an increasing worldwide network of NGOs and other private groups (which is one aspect of social integration), the pressure on human rights violating regimes also rises. Hence, Rosenau (2003) points to the increased ease of mobilizing human rights supporters as a consequence of social globalization. Resistance against human rights violations can form more easily compared to a world where news spread less quickly. As one part of social globalization, international groups and networks are formed with the explicit goal of opposing repressive regimes. Successful concepts can then easily be identified and copied.

Social globalization can generate massive international pressure on a government or enterprise. Hence, social globalization produces internationally recognized social norms that give governments, politicians, and managers an incentive to follow (Akerlof 1980). If a country is highly dependent on tourism, social globalization offers a chance to attract tourists, but at the same time it incorporates the risk of losing them due to the negative publicity of human rights abuses. Overall, the increased visibility due to social globalization can make governments all over the world feel more obliged to publicly react to such violations. Thus, social globalization should function as an incentive device against human rights abuses by increasing the ramifications of such abuses. Moreover, Rosenau (2003) argues that another channel of social globalization is the direct effect of immigration (and tourism) on the potential acceptance of different lifestyles, be it the acceptance of different religions, ethnicity, gender or sexual preferences. This reduces the potential for conflict and human rights abuses.

Hafner-Burton (2008), however, provides evidence that repressive governments criticized by NGOs, news media and international organizations, often strategically reduce particular forms of violations by offsetting this improvement with increased violations in other areas. As Rosenau (2003) points out, the skill revolution enables perpetrators, as well as victims, to respond to mobilizing powers: “It is worth recalling that a major consequence of the skill revolution is the growing capacity of people

everywhere to know when, where, and how to engage in collective action, a capacity that can be just as easily put to the service of opposing as supporting what are regarded as human rights violations” (322-323). Migration flows lead to negative reactions by native citizens, in some countries giving rise to the success of right-wing parties and repressive policies. Still, on balance, we expect the positive effects of social globalization to dominate. We thus test the hypothesis:

Hypothesis 2: Social globalization improves a country’s human rights practice.

Compliance with social norms originates from several sources—due to metanorms, dominance, internalization, deterrence, social proof, membership, law, or reputation (Axelrod 1986). Neighbor states and the international community could punish human rights abuses, though this sword proved to be rather blunt in cases such as the Darfur conflict. Membership in particular international organizations provides advantages that member countries do not want to jeopardize by allowing human rights abuses to occur.⁷ This leads us to the third dimension of globalization—political globalization.

The European integration process via the European Union (EU) is an example of the positive role political integration can play in encouraging human rights. Potential new members will only be affiliated, and win the substantial benefits of membership, if they fulfill a number of preconditions. For instance, members have to sign the European Convention for the Protection of Human Rights and Fundamental Freedoms, as well as other standards. Human rights abuses are prosecuted by the European Court of Human Rights. The sanctions imposed by the UN Security Council and other supra-national organizations to punish human rights violations are further instances where political globalization might, at least to a small extent, affect human rights. Regarding prosecution of genocide, war crimes and crimes against humanity, the UN established the International Criminal Court (ICC); for Ex-Yugoslavia and Ruanda there were extra courts established to punish the culprits. Hence, political integration should improve a

⁷ See Vreeland (2008) on how international organizations, such as the UN Convention Against Torture can be abused by autocratic leaders.

government's respect for human rights.

An opposing view, first expressed by Chomsky and Herman (1979), and still being discussed today, argues that the amount of human rights violations would rise with the degree of economic association with power blocks like the United States or the European Union (Mitchell and McCormick 1988). According to this line of argument, developed economies further their own interests, for example through reforms at the World Trade Organization (WTO) or regional trade unions like the NAFTA (Stiglitz 2006). The formation of international organizations such as the WTO, NAFTA and the European Union, improve these nations' ability to build beneficial asymmetric global trade relations and other forms of power policy. As world markets are increasingly controlled by these power blocks, investment conditions are altered to the disadvantage of poorer nations, with persistent unemployment rising as a result (Stiglitz 2006). This power policy may prolong the impoverishment of countries in a stage of transition or backwardness (Stiglitz 2006). Following Poe and Tate (1994), this would impair human rights practices.

Though both arguments appear to be correct in practice, we assume that, on average, political globalization improves human rights practices:

Hypothesis 3: Political globalization improves human rights practice.

Thus, overall, we expect all three dimensions of globalization to improve governments' respect for human rights (on average). We next turn to the impact of economic freedom on human rights.

3.2 Economic Freedom and Human Rights Abuses

Economic freedom refers to the internal liberalization of economic rights, such as the "freedom to engage in economic transactions, without government interference but with government support of the institutions necessary for that freedom, including rule of law, sound money, and open markets" (Deardorff's Glossary of International Economics⁸). Economic freedom is therefore the "degree to which a market economy is in place, where

⁸ <http://www-personal.umich.edu/~alandear/glossary/e.html> (September 6, 2010).

the central components are voluntary exchange, free competition, and protection of persons and property” (Berggren 2003: 193) and a limited degree of interventionism in the form of government ownership, regulations, and taxes. There is clear evidence that economic freedom fosters growth-enhancing incentives (Berggren 2003; de Haan and Sturm 2003). It is a precondition for (economic) globalization because it promotes foreign capital investment and the flow of trade towards preference satisfaction and highest return. Based on hypothesis (ii) of Poe and Tate’s model, economic freedom should reduce human rights abuses.

As outlined above, a particular number of freedoms characterize democracies. Hence, there is a direct link to the literature on economic freedom and democracy (e.g., de Haan and Sturm 2003): While economic freedom promotes free markets, political freedom promotes democracy, so that both types of freedom are part of the same story. If economic freedom is significantly correlated with democracy, then hypothesis (i) of Poe and Tate’s model suggests that an indirect nexus exists between economic freedom and regard for human rights via its common link to democracy.

However, when looking back at the industrial revolution in Europe, we find a potentially negative effect of economic freedom on human rights. Entrepreneurs more or less had the right to treat their laborers in whichever way they saw fit. Political and economic leaders’ interests went hand in hand, and economic freedom was exclusively developed towards the advantage of citizens owning property. As large parts of society were poor, exploitation and further impoverishment of complete swathes of land occurred. Laborers had to work under degrading conditions, child labor was widespread, and laborers were disenfranchised (Marx 2002).

Today, in the countries where the industrial revolution originated, economic freedom is still comparably high, but Europe is nevertheless well known for a markedly good human rights record. Marx’s (1950) hypothesis that private property and a capitalistic system inevitably lead to disaster has not been proven to be true, arguably because the countries developed social security systems and labor protection standards, and the like, which reduced economic freedom but ensured greater respect for human rights. However, globalization might now spread a system of (pure) capitalism all over the world, so Marx’s suspicion concerning economic freedom is indeed topical again. We

thus test the following hypothesis:

Hypothesis 4: Economic freedom improves a country's human rights practice.

In the following we outline our measures of human rights and globalization, and confront our hypotheses with data.

4. Measuring Human Rights, Economic Freedom and Globalization

Our definition of citizens' human rights follows Cingranelli and Richards (1999). Their Human Rights Dataset (CIRI, Cingranelli and Richards 2006) was specifically designed to allow for the testing of theories about causes and consequences of human rights violations and is widely used to do so.⁹ It provides quantitative information on governments' respect for various internationally recognized human rights, on an annual basis and for almost all countries around the world.

The CIRI measure draws from two sources, the U.S. Department of State's Country Reports on Human Rights Practices, and from Amnesty International's (AI) Annual Reports. Both offer detailed descriptions of human rights practices for most countries in the world. They are analyzed by country experts who code the human rights situation in a particular country and year on an ordinal scale. Each country is evaluated by at least two trained experts, following a detailed set of instructions.¹⁰ Note that Cingranelli and Richards focus on actual human rights-related actions of governments, including all government agencies, such as police and military. In particular, the CIRI data refer to extrajudicial killings, people who have disappeared for political reasons, torture, political imprisonment, freedom of speech, freedom of religion, freedom of movement, political participation, and worker's rights. Each variable is coded on an

⁹ See, e.g., Richards (1999), Abouharb and Cingranelli (2006, 2009), United Nations (2006), or Dreher et al. (2010).

¹⁰ The detailed coding rules are fixed in a coding manual and available from the CIRI Human Rights Data Project (<http://ciri.binghamton.edu/documentation.asp>, accessed April 15, 2008).

ordinal scale, ranging between 0-2 and, depending on the variable considered, 0-4, where higher values reflect a better rating in the respective human rights dimension.

In this article we focus on two composite indicators provided by Cingranelli and Richards (1999) and Richards et al. (2001). The first composite index refers to physical integrity rights, which measures the absence of torture, extrajudicial killings, political imprisonments, and disappearance, on a scale of 0-8. The second composite refers to empowerment rights and comprises the freedom of movement, freedom of speech, workers' rights, political participation, and freedom of religion, ranging from 0-10.¹¹ Higher values represent better human rights practices.

The measure of globalization that we employ is the KOF Index of Globalization developed in Dreher (2006a).¹² It is based on 24 variables that relate to different dimensions of globalization. These dimensions are combined into three sub-indices—economic, political and social globalization—and one overall index of globalization.

More specifically, economic globalization is defined to have two dimensions. First, actual economic flows are taken: Trade, FDI, portfolio investment, foreign income payments. The second sub-index refers to restrictions on trade and capital flows, using hidden import barriers, mean tariff rates, taxes on international trade and an index of capital controls.

The KOF index classifies social globalization in three categories. The first covers personal contacts, the second includes data on information flows and the third measures cultural proximity. The personal contacts index is intended to capture the direct interaction among people living in different countries. It includes international telecom traffic, international letters sent and received, and the degree of tourism a country's population is exposed to. Government and workers' transfers received and paid measure whether, and to what extent, countries interact, while the stock of foreign population is included to capture existing interactions with people from other countries. The number of

¹¹ The correlation between the physical integrity index and the empowerment index is 0.51. Thus, the two indicators seem to be covering different aspects of human rights.

¹² We use the 2009 version of this index as documented in Dreher et al. (2008) which is available at <http://globalization.kof.ethz.ch/>.

international letters sent and received measure direct interaction among people living in different countries.

While personal contact data are meant to capture measurable interactions among people from different countries, the sub-index on information flows is meant to measure the potential flow of ideas and images. It includes the number of internet users, cable television subscribers, number of radios and daily newspapers traded. To some extent, all these variables proxy people's potential for receiving news from other countries—they thus contribute to the global spread of ideas and events.

As proxy for cultural proximity, the number of McDonald's restaurants located in a country is included. For many people, the global spread of McDonald's is synonymous with globalization itself. The number of IKEA located in a country is also included. Imported and exported books are used to proxy the extent to which beliefs and values move across national borders.

To proxy the degree of political globalization, the number of embassies and high commissions in a country, the number of international organizations in which the country is a member, the number of international treaties ratified, and the number of UN peace missions a country participated in are used.

In constructing the indices of globalization, each of the variables is transformed to an index on a scale of one to one hundred, where higher values denote greater globalization. Table A.I in the online Appendix reports the individual components. Economic, political and social integration carry roughly equal weights. The index is widely used as proxy for globalization in the recent literature.¹³

Turning to our measure of economic freedom, we employ the index provided by the Fraser Institute (Gwartney and Lawson 2008). The data are available in five year-intervals over the 1970-2000 period, and on a yearly basis thereafter. They cover five broad categories of market-oriented policies and institutions: Size of Government, Legal Structure and Security of Property Rights, Access to Sound Money, Exchange with Foreigners, and Regulation of Credit, Labor and Business. Each index ranges from 0-10, with 10 indicating the highest level of economic freedom. Table A.II in the online Appendix contains the individual sub-components. As an alternative, we employ a

¹³ See <http://globalization.kof.ethz.ch/papers/> for an extensive list of articles using the index.

second standard measure of economic freedom, that being the index developed by the Heritage Foundation and the Wall Street Journal (see Miller and Holmes 2009). Their Index of Economic Freedom is measured on a scale of 0 to 100 and is calculated as the mean of ten sub-components, which are measured on the same scale. The areas covered are Business, Trade, Money, Government, Fiscal Policy, Property Rights, Investment, Financial Freedom, Corruption, and Labor, where higher values indicate an economic environment or set of policies more conducive to economic freedom. Table A.III in the online Appendix shows the individual components with their definitions.

5. Data and Method

We estimate pooled time-series cross-section (panel data) regressions. The yearly data extend to a maximum of 106 countries and cover the 1981-2004 period. Since some of the data are not available for all countries or years, the panel data are unbalanced and the number of observations depends on the choice of explanatory variables.

To test our hypotheses we estimate equations of the following form:

$$RIGHTS_{it} = \alpha_1 RIGHTS_{i,t-1} + \alpha_2 Z_{i,t} + \mu_t + u_{it}, \quad (1)$$

where $RIGHTS_{it}$ represents our measure of human rights in country i at year t , and Z is a vector containing the variables testing for our hypotheses, as introduced below. Finally, μ_t are time fixed effects and u_{it} is a well behaved error term. Note that we also include the lagged dependent variable, as human rights develop only slowly over time. Following the previous literature, we estimate our model employing ordered probit, with standard errors clustered at the country level. As a consequence, we do not control for fixed country effects, as the resulting estimates would be biased due to the incidental parameter problem.

Before turning to the specific variables employed to test our hypotheses, we have to set up a baseline specification. As discussed above, the model of Poe and Tate (1994) gives guidance to what the core determinants of human rights are. Besides these, however, there is little consensus on what the additional determinants are, if any. Hence, we face the challenge of coming up with a robust empirical model. We tackle this problem by employing (variants of) the extreme bounds analysis (EBA), as proposed by Leamer (1983) and Levine and Renelt (1992). EBA enables us to examine whether the

proposed variables are indeed robust determinants of human rights, independent of which additional variables are also included in the set of control variables.

To conduct an EBA, equations of the following general form are estimated:

$$RIGHTS = \beta_M M + \beta_F F + \beta_Z Z + \nu, \quad (2)$$

where *RIGHTS* is the measure of human rights, *M* is a vector of “commonly accepted” explanatory variables and *F* is a vector containing the variables of interest. The vector *Z* contains up to three possible additional explanatory variables (as in Levine and Renelt 1992), which, according to the broader literature, are related to the dependent variable. The error term is ν . The EBA-test for a variable in *F* states that if the lower extreme bound for β_F —i.e., the lowest value for β_F minus two standard deviations—is negative, while the upper extreme bound for β_F —i.e., the highest value for β_F plus two standard deviations—is positive, the variable *F* is *not* robustly related to *RIGHTS*.

Sala-i-Martin (1997) argues that this criterion is far too strong for any variable to pass. If the distribution of the parameter of interest has both positive and negative support, then a researcher is bound to find at least one regression model for which the estimated coefficient changes sign if enough regressions are run. Consequently, in what follows, not only do we report the extreme bounds, but also the percentage of the regressions in which the coefficient of the variable *F* is statistically different from zero at the five percent level.

Moreover, instead of analyzing only the extreme bounds of the estimates of the coefficient for a particular variable, we follow Sala-i-Martin’s (1997) recommended procedure and analyze the entire distribution. Accordingly, we also report the unweighted parameter estimate of β_F and its standard error, as well as the unweighted cumulative distribution function, $CDF(0)$. The latter represents the proportion of the cumulative distribution function lying on each side of zero. $CDF(0)$ indicates the larger of the areas under the density function either above or below zero. So $CDF(0)$ always lies between 0.5 and 1.0.

We follow Poe and Tate (1994) in selecting the variables for the *M* vector. Applying a general-to-specific test to the model suggested by Poe and Tate we use the following variables: A proxy for democracy (Polity IV), population size, GDP per capita,

a set of dummy variables controlling for legal origin, plus a dummy variable indicating the presence of a civil and/or international war (and the lagged dependent variable).

As detailed in section 2, we have collected a total of 52 variables potentially influencing the level of human rights to test competing theoretical and empirical findings. All variables and their sources are listed in Appendix A. After evaluating the robustness of the baseline specification, including these variables in all possible combinations of up to three, each of these variables is included in the base vector singularly (i.e., represents the variable in the F vector), while the remaining 51 variables are used in the Z vector. Thus, the first part of the analysis evaluates whether the variables in the base model are robustly related to human rights practice. The second part shows whether additional variables should be among the explanatory variables when testing for the impact of globalization and economic freedom on human rights practice.¹⁴

The next section reports the results for the EBA; results for our specific hypotheses follow below.

6. Findings

6.1 EBA Results

The results for the EBA baseline models are presented in Table 1, while results for the additional variables are presented in Tables A.IV and A.V in the online Appendix. In order to take account of the two-sided nature of the test, we follow Sturm and de Haan's (2005) proposal to use a CDF(0) value of 0.95 as a threshold for which variables we consider to be robust. The upper panel of Table 1 shows the results for physical integrity rights, while the lower panel reports those for empowerment rights. As can be seen from both panels, the lagged dependent variable is clearly a robust determinant of current levels, with both CDF(0) being equal to one. The results also show that all additional variables included in the baseline model are robust determinants of physical integrity rights. In line with Poe and Tate, less populous and more democratic countries have higher levels of human rights. Protection of physical integrity rights is also more

¹⁴ Note that multicollinearity is not a major concern. Out of the 1771 pairwise correlations of the variables in the EBA, only 8 show a correlation of greater than 0.8.

pronounced in wealthier countries, measured by per capita GDP. Wars robustly reduce governments' respect for physical integrity rights.

In terms of legal origin, the four dummies are also robust determinants of physical integrity rights. When calculating F-tests for their joint significance, the average p-value amounts to 0.02, indicating the joint significance of the legal origin dummies. We find that relative to Scandinavian legal origin (the omitted benchmark category) all other country groups show less respect for physical integrity rights.

While the results imply that the baseline variables chosen for the M-vector on theoretical grounds are well matched to the data for physical integrity rights, the lower part of Table 1 shows that this holds to a lesser extent for empowerment rights. All coefficients are of the same sign as for physical integrity rights. However, only democracy exceeds the threshold of a CDF(0) of 0.95 and can therefore be considered as a robust determinant of empowerment rights. Population, per capita GDP, and war experiences are no robust determinants of empowerment rights. The legal origin dummies are, at least individually, also not robust. Note, however, that the average p-value for their joint significance is 0.08, indicating the joint significance of these dummies.

The results reported in Tables A.IV and A.V in the online Appendix show that the bulk of the remaining 52 control variables are not robust predictors of human rights. In fact, regarding physical integrity rights, none of the 52 variables passes the strict threshold of 0.95. With respect to empowerment rights, the share of Protestants turns out to be a robust determinant. As described in section 2, Protestants seem to be more tolerant and thus show greater respect for human rights. When testing our specific hypotheses below, we include the share of Protestants when focusing on empowerment rights to avoid the possibility of an omitted variable bias.

6.2 Hypotheses Tests

Table 2 shows the main specifications for physical integrity and empowerment rights, while Tables A.VI and A.VII in the online Appendix show the detailed results. Note that a potentially non-linear effect of GDP per capita could not be tested in the EBA framework, as in a non-linear model such as ordered probit a simple t-test on the squared term is meaningless (Ai and Norton 2003). One way of testing for the statistical

significance of the squared GDP per capita term is via a likelihood-ratio test (Greene 2010). However, this cannot be done in a meaningful way in the EBA. We therefore present two sets of results here: One with, and one without the squared term. For all models, likelihood-ratio tests provide evidence for a better fit when including the squared term at the one percent level of significance. For the non-linear models, we also report the turning point in terms of GDP per capita (PPP adjusted). As reported at the bottom of the tables, the turning point fluctuates between US\$ 2800-4800.

Turning to our variables of interest, we start by including one dimension of integration at a time and then include them jointly. Column 1-9 in Table A.VI report the results excluding GDP per capita squared, while columns 10-18 include the squared term. According to the results, governments' respect for physical integrity rights increases with economic integration, at the one percent level of significance. This is line with Hypothesis 1. The same holds true when we substitute economic globalization for social globalization or political globalization. Therefore, Hypotheses 2 and 3 are also supported by the data. When including the overall KOF Index of Globalization instead, it is significant at the one percent level, with a positive coefficient, as expected.

With respect to economic freedom, we find evidence for Hypothesis 4. The result shows that, at the five percent level of significance, governments' respect for physical integrity rights increases with greater freedom as measured by the Fraser index. Note however, that the number of observations is reduced to 611, due to missing data on economic freedom for many years. We therefore alternatively include the same index, but linearly interpolate the data in the years with missing observations. The result confirms the previous finding, at the one percent level of significance.¹⁵ When using the index provided by the Heritage Foundation as an alternative, the coefficient is marginally insignificant.

As argued above, not accounting for all dimensions of integration might lead to an omitted variable bias. Therefore, we include all three indices of globalization jointly with the (interpolated) Fraser index. As can be seen, economic globalization is no longer significant at conventional levels, which might be due to multicollinearity (column 1 of

¹⁵ When interpolating the data, we have to correct the standard errors to account for this. We do so by bootstrapping the standard errors with 1000 repetitions.

Table 2). When we enter the KOF Index of Globalization jointly with the Fraser index, both are significant at the one percent level (column 2 of Table 2). The results are very similar when squared per capita GDP is also included.

Interestingly, the political dimension of globalization seems to dominate the economic and social dimensions. If this were true, human rights policy should concentrate on pushing political integration. However, we do not know whether the economic and social dimensions are really irrelevant to human rights, or whether multicollinearity exists among the individual dimensions, which does not allow us to identify their effect. Overall, we conclude that the data support our hypotheses well, even if some ambiguity regarding the relevance of the economic and social dimensions remains.

Turning to empowerment rights, population and per capita GDP are not significant at conventional levels in most specifications (when GDP per capita squared is excluded), in line with the results for the EBA above. The same holds for war experiences and the dummies for legal origin. The dummies are, however, jointly significant at the five percent level in all specifications, except those shown in columns 7 and 16 in Table A.VII in the online Appendix. Note that according to the likelihood-ratio test, the model including GDP per capita squared again fits the data better. The implied turning point is similar to the one above, between US\$ 3100-6000.

The results show that social globalization seems to be the only dimension of globalization which is robustly related to empowerment rights (columns 5-8 in Table 2). The overall index of globalization is significant at the five percent level when GDP per capita squared is excluded, but not significant at conventional levels with its inclusion. To some extent, this could be explained by the fact that, in contrast to physical integrity rights, empowerment rights are not guaranteed to the same degree by international treaties (Hafner-Burton and Ron 2009). There is no clear consensus in the global community as to how these rights are exactly defined. Hence, the effect of liberal policies is likely to be more heterogeneous on empowerment, as compared to physical integrity rights, which makes it difficult to find statistically significant effects. Due to a lack of consensus, even the Western democracies prefer to focus on the more important physical

integrity rights, neglecting fuzzy empowerment rights at the political stage. For similar reasons, economic integration may not bear a significant effect.

With respect to economic freedom, the Fraser index is significant at the five percent level throughout, with a positive coefficient, while the Heritage index is not. Overall, the data thus support hypotheses 2 and 4, but not 1 and 3 concerning empowerment rights.

Our next step is to test for the robustness of our main results. We therefore replicate the EBA reported above including our measures of globalization and economic freedom. However, to reduce clutter, we do not report the results in tables. With respect to physical integrity, we focus on column 4 in Table 2 and include all additional variables in all possible combinations, as above. According to the results, the KOF Index of Globalization and the Fraser index are clearly robust determinants of physical integrity rights, with the CDF(0) being greater than 0.95 for both variables. Regarding empowerment rights, we focus on column 7 (of Table 2) given that the overall KOF index was not significant at conventional levels in column 8 in the first place. Our results show that neither globalization nor economic freedom are robust determinants of empowerment rights. Therefore, as outlined above, the incentives to respect human rights due to globalization and economic freedom seem too weak to affect empowerment rights. The lack of consensus over what is the appropriate level of empowerment rights might lead the “global community” at the social and political level into believing that complaining about a lack of empowerment rights in other countries, when compared to their own rights at home, represents an inadequate outside interference in national issues: While physical integrity rights involve violations of basic human rights which are considered as unacceptable, empowerment rights involve markedly less strong human rights violations, and thus might be more acceptable to international observers.

Finally, we address the question whether causality indeed runs from globalization and economic freedom to human rights practice. Arguably, greater human rights might also lead to more liberalization. Table 3 runs Granger causality tests to address the issue. Causality, as defined by Granger (1969), implies that a variable x is Granger-causing a variable y if past values of x help to explain y , once the past influence of y has been accounted for.

If we have N cross-sectional units observed over T time periods, the model is:

$$y_{it} = \sum_{j=1}^m \alpha_j y_{it-j} + \sum_{j=1}^m \beta_j x_{it-j} + \varepsilon_{it} \quad (3)$$

where $i=1, \dots, N$ and $t=1, \dots, T$. The parameters are denoted α_j and β_j , the maximal lag length is m , while ε_{it} represents the disturbance. According to our data, a lag length of two is appropriate. Moreover, we use a fixed effects panel estimator with clustered standard errors when the dependent variable is globalization or economic freedom, and the ordered probit estimator with clustered standard errors for human rights. To test whether x Granger-causes y in equation (3), we run an F-test on the β_j . We report the corresponding p-values in Table 3. Note that the null hypothesis of this test is that x does not Granger-cause y . The table reads as follows: The first entry of a p-value of 0.00 indicates that economic globalization Granger-causes physical integrity. The next entry in the same row (0.45) signals that physical integrity does not Granger-cause economic globalization (as we fail to reject H_0). Regarding physical integrity, we see that Granger causality only runs from globalization and economic freedom to human rights.

The picture is less distinct when it comes to empowerment rights. Despite the fact that, again, all globalization measures Granger-cause empowerment, there are also instances where the reverse is true. However, remember that we only found significant results for social globalization and the Fraser index in Table 2. Those two measures are not Granger-caused by empowerment rights.

To get a feeling for the magnitude of the estimated effects, we calculate the marginal effects at the mean of all significant variables and report them in Table 4. Note, however, that in the ordered probit model the marginal effects are not straightforward to interpret. We therefore calculate the estimated probabilities before and after a shock of one standard deviation on all of our physical integrity rights variables of interest. This is reported in Figure 1. According to the figure, the social component of globalization and the KOF Index of Globalization seem to have the largest impact on physical integrity. The estimated probability of observing the values of 3 and 4 are (at the means of all variables) 6.1% and 19.1%, respectively, while values 6 and 7 occur with a predicted probability of 26.6% and 14.9%. After an increase in the KOF Index of Globalization by one standard deviation, these predictions get substantially lower for low values, namely

3.1% and 13.5% for values 3 and 4, while they increase for the high values 6 and 7 to 30.8% and 21.0%, respectively. We conclude that these effects are not only statistically significant, but also quantitatively important.

How does this compare to the other covariates for physical integrity rights? A shock of one standard deviation in the (log) population size increases the probability of observing a human rights value of 4 by 5.0%, while it decreases the probability of observing the value of 7 by 5.6%. An increase in democracy by one standard deviation decreases (increases) the probability of observing an index value of 4 (7) by 4.4% (4.9%). Relative to Scandinavian legal origin, other countries have a probability of observing an index value of 4 which is between 12% to 17% higher, while the chance of observing a value of 7 is lower by 12% to 22%. Finally, a civil and/or international war increases the likelihood of lower human rights by 6.7% and decreases the probability of high human rights by 6.9%. As compared to the other variables that can be directly influenced by policy, population size and level of democracy, the influence of internal and external economic liberalization is at least as large, if not larger.

7. Conclusion

We extend the model of Poe and Tate (1994) to include economic freedom and three dimensions of globalization. We use the KOF Index of Globalization and two indices of economic freedom to empirically analyze whether globalization and liberalization affect human rights practice in a panel of 106 countries over the 1981-2004 period. We extend the literature in three important ways: (i) we provide the first comprehensive analysis of the effects of economic globalization on human rights practice that includes all dimensions of economic globalization; (ii) we additionally investigate the specific effects of social and political globalization; and (iii) at the same time, we analyze the effects of economic freedom on human rights. Investigating all these issues with the same data allows a comprehensive insight into the link between liberal policies and respect for human rights. While the main control variables have been derived based on theoretical considerations from the previous literature, we also provide extensive robustness tests using more than 50 additional variables in an extreme bounds analysis.

Our results show that physical integrity rights significantly increase with economic freedom as well as political, social, and economic globalization (when we include these variables separately). When we include them together, we find that only economic freedom and political globalization remain significant. However, we do not know whether this is due to multicollinearity or rather the actual irrelevance of the insignificant dimensions.¹⁶ In any case, the overall KOF Index of Globalization turns out to be a highly robust determinant of physical integrity rights, as is economic freedom.

Interestingly, we do not find similarly robust effects of economic freedom and globalization on empowerment rights. While we find that empowerment rights rise with social globalization and economic freedom, these results are not robust to the choice of control variables, as indicated by the extreme bounds analysis.

Overall, we conclude that the hypothesized incentives to respect human rights provided by globalization mainly work for narrow basic human rights (“physical integrity rights”), but not for the broader “empowerment rights.” This may be the case because (i) there is a lack of international consensus about what precisely comprises these empowerment rights and (ii) given that these are “weaker” human rights, violations are more readily accepted by international observers. The combination of lack of consensus and lower importance may therefore cause empowerment rights violations to be considered as internal national affairs.

¹⁶ Our result regarding economic globalization is in line with Hafner-Burton (2005). Hafner-Burton uses a more traditional measure of globalization—trade—and does not find a significant effect of economic globalization on human rights.

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Table 1: Results EBA – Baseline Variables, Ordered Probit**a) Physical Integrity Rights**

Variable	Avg. Beta	Avg.Std.E.	%Sign.	CDF-U	lwr Bound	upr Bound
Lagged dependent	0.574	0.039	99.96	0.9999	-1.076	1.672
Population (log)	-0.158	0.039	98.47	0.9960	-1.530	3.131
GDP p.c. (log)	0.239	0.082	86.16	0.9635	-20.094	5.060
Democracy	0.033	0.011	96.30	0.9845	-0.520	2.057
War	-0.404	0.160	88.90	0.9635	-4.542	3.725
Legal origin British	-1.262	0.239	88.30	0.9536	-15.034	2.120
Legal origin French	-1.272	0.242	91.15	0.9779	-13.544	2.442
Legal origin Socialist	-1.014	0.255	90.41	0.9821	-11.622	4.635
Legal origin German	-1.126	0.241	85.79	0.9932	-13.136	2.271

b) Empowerment Rights

Variable	Avg. Beta	Avg.Std.E.	%Sign.	CDF-U	lwr Bound	upr Bound
Lagged dependent	0.576	0.044	100.00	1.0000	-0.159	34.699
Population (log)	-0.040	0.041	41.79	0.7693	-2.179	9.091
GDP p.c. (log)	0.089	0.080	38.94	0.7499	-32.623	4.357
Democracy	0.091	0.015	99.58	0.9992	-0.802	12.221
War	-0.173	0.158	32.71	0.8541	-18.522	15.776
Legal origin British	-0.830	0.322	77.52	0.9185	-20.390	20.149
Legal origin French	-0.610	0.318	57.79	0.9016	-76.877	6.732
Legal origin Socialist	-0.930	0.363	67.70	0.9410	-88.412	10.638
Legal origin German	-0.610	0.363	21.14	0.8803	-64.582	10.068

Note: Results based on 22,146 (physical integrity) and 22,085 (empowerment) regressions, respectively, including time-specific fixed effects. ‘Avg. Beta’ and ‘Avg.Std.E.’ report the unweighted average coefficient and standard error, respectively. ‘%Sign.’ refers to the percentage of regressions in which the respective variable is significant at least at the 5% level. ‘CDF-U’ is the unweighted CDF as detailed in the text. The threshold to consider a variable robust is 0.95. ‘lwr Bound’ and ‘upr Bound’ give the lowest and highest value of point estimate minus/plus two standard deviations.

Table 2 – Results Physical Integrity Rights and Empowerment Rights, Ordered Probit

	Physical Integrity Rights				Empowerment Rights			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Lagged dependent	0.545 (29.70)***	0.541 (29.46)***	0.520 (26.52)***	0.513 (28.13)***	0.534 (19.08)***	0.539 (19.47)***	0.530 (18.64)***	0.533 (18.21)***
Population (log)	-0.165 (6.14)***	-0.130 (7.55)***	-0.196 (7.20)***	-0.152 (8.93)***	0.034 (0.98)	0.022 (0.89)	0.016 (0.45)	-0.005 (0.21)
GDP p.c. (log)	-0.081 (1.82)*	-0.063 (1.64)	-2.360 (6.81)***	-2.308 (6.72)***	-0.093 (1.27)	-0.069 (1.04)	-2.170 (4.15)***	-2.359 (4.65)***
GDP p.c. (log) squared			0.140 (6.69)***	0.136 (6.66)***			0.126 (3.99)***	0.139 (4.53)***
Democracy	0.023 (5.17)***	0.022 (5.39)***	0.029 (6.47)***	0.030 (6.95)***	0.082 (7.87)***	0.083 (7.99)***	0.089 (8.15)***	0.090 (8.71)***
War	-0.329 (3.41)***	-0.310 (3.21)***	-0.380 (3.85)***	-0.378 (3.78)***	-0.117 (1.03)	-0.088 (0.82)	-0.105 (0.97)	-0.079 (0.71)
Legal origin British	-1.267 (3.23)***	-1.333 (3.22)***	-1.064 (3.18)***	-1.159 (4.12)***	0.171 (0.71)	0.070 (0.32)	0.326 (1.35)	0.293 (1.32)
Legal origin French	-1.285 (3.29)***	-1.335 (3.23)***	-1.017 (3.05)***	-1.078 (3.82)***	0.611 (2.39)**	0.477 (1.96)**	0.921 (3.36)***	0.872 (3.38)***
Legal origin Socialist	-0.943 (2.34)**	-1.036 (2.49)**	-0.554 (1.59)	-0.663 (2.23)**	0.162 (0.59)	0.105 (0.41)	0.529 (1.86)*	0.548 (1.98)**
Legal origin German	-0.996 (2.46)**	-1.022 (2.37)**	-0.927 (2.69)***	-0.958 (3.14)***	0.353 (1.26)	0.334 (1.23)	0.465 (1.58)	0.480 (1.76)*
Protestant share					0.014 (5.96)***	0.012 (5.37)***	0.015 (6.16)***	0.014 (5.73)***
Economic globalization	3.2E-04 (0.11)		0.001 (0.28)		-0.006 (1.61)		-0.006 (1.60)	
Social globalization	0.008 (2.25)**		0.005 (1.31)		0.015 (3.18)***		0.010 (2.11)**	
Politicall globalization	0.008 (3.63)***		0.008 (3.72)***		0.002 (0.89)		-1.5E-04 (0.05)	
KOF globalization		0.015 (5.22)***		0.015 (4.91)***		0.010 (2.12)**		0.002 (0.46)
Fraser (interpolated)	0.158 (4.43)***	0.125 (3.66)***	0.161 (4.40)***	0.125 (3.84)***	0.140 (2.90)***	0.126 (2.78)***	0.143 (3.02)***	0.139 (3.01)***
Observations	2027	2090	2027	2090	1374	1374	1374	1374
Countries	104	107	104	107	70	70	70	70
R-sq	0.31	0.31	0.32	0.31	0.34	0.33	0.34	0.34
Turning point in \$			4576	4843			5492	4845

Notes: All regressions include dummies for each year. The standard errors were bootstrapped using 1000 replications. The R-squared reported is a pseudo R-squared. */**/** indicates significance at the 10/5/1-% level.

Table 3 – Granger Causality Tests

	[...] Granger-causes	[...] is Granger-caused by	[...] Granger-causes	[...] is Granger-caused by
	Physical Integrity Rights		Empowerment Rights	
Economic globalization	0.00	0.45	0.00	0.05
Social globalization	0.00	0.85	0.00	0.16
Political globalization	0.00	0.98	0.00	0.00
KOF globalization	0.00	0.70	0.00	0.00
Fraser	0.00	0.53	0.00	0.85
Heritage	0.00	0.32	0.00	0.12

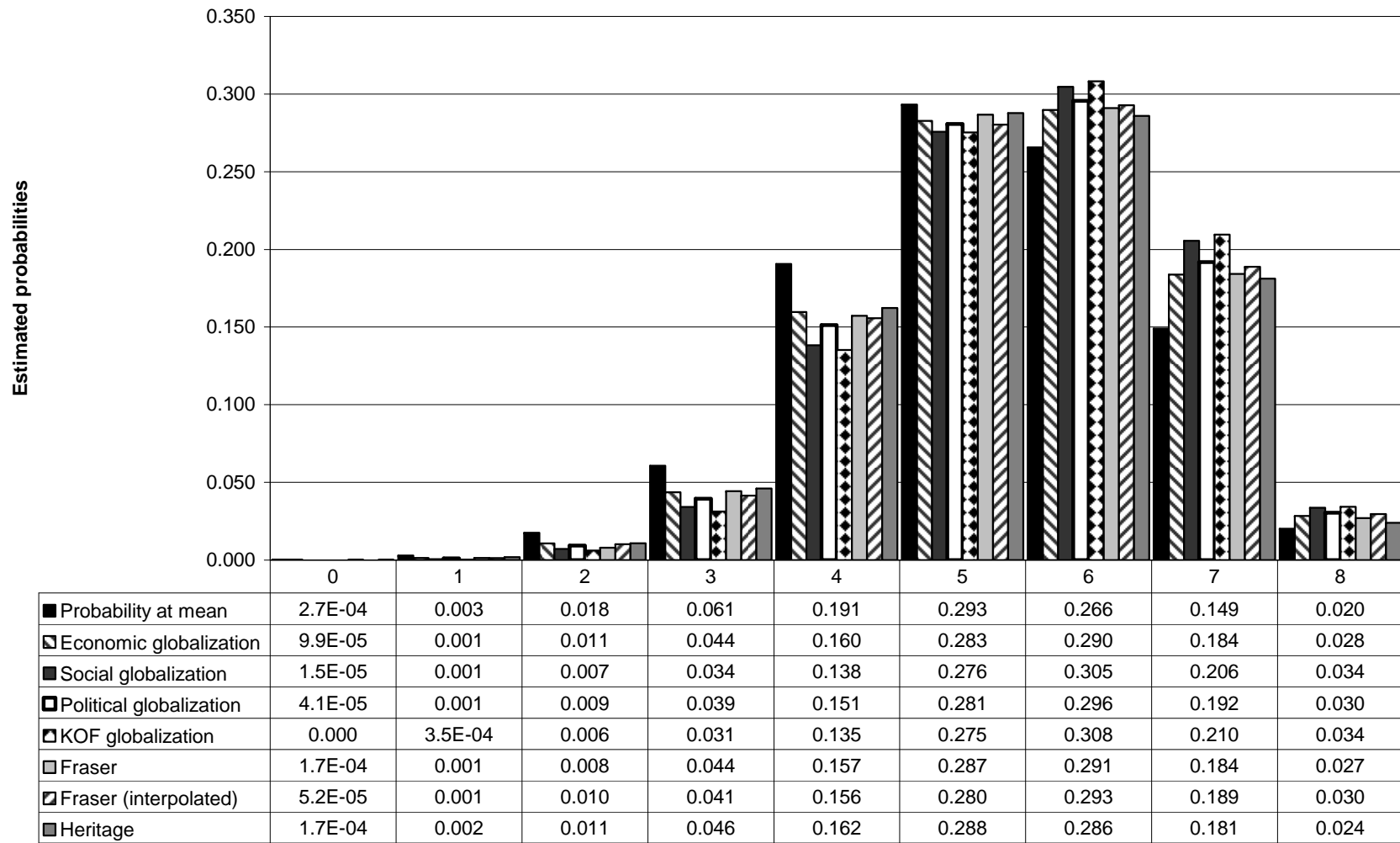
Notes: The table reports p-values for Granger causality tests using two lags. The H_0 is that variable A does not Granger-cause B. Therefore, the first two entries indicate that economic globalization Granger-causes physical integrity while physical integrity does not Granger-cause economic globalization.

Table 4 – Marginal Effects

Index value	0	1	2	3	4	5	6	7	8	9	10	E[y]
Physical Integrity												
Sample Frequency	0.043	0.051	0.074	0.091	0.132	0.137	0.140	0.168	0.164			5.014
Probability at mean	2.7E-04	0.003	0.018	0.061	0.191	0.293	0.266	0.149	0.020			5.246
Economic globalization	-9.2E-06	-7.7E-05	-3.7E-04	-0.001	-0.002	-5.6E-04	0.001	0.002	4.4E-04			0.011
p-value	0.14	0.08	0.07	0.08	0.08	0.09	0.08	0.07	0.09			0.07
Social globalization	-1.2E-05	-1.0E-04	-4.9E-04	-0.001	-0.002	-8.3E-04	0.002	0.003	6.4E-04			0.016
p-value	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Political globalization	-8.5E-06	-6.7E-05	-3.1E-04	-0.001	-0.001	-4.6E-04	0.001	0.002	3.9E-04			0.010
p-value	0.04	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00			0.00
KOF globalization	-1.9E-05	-1.5E-04	-6.9E-04	-0.002	-0.003	-1.1E-03	0.003	0.004	8.5E-04			0.022
p-value	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Fraser	-8.7E-05	-0.001	-0.008	-0.014	-0.029	-0.006	0.022	0.031	0.006			0.190
p-value	0.17	0.04	0.03	0.03	0.02	0.12	0.03	0.02	0.02			0.02
Fraser (interpolated)	-1.9E-04	-0.001	-0.006	-0.016	-0.030	-0.011	0.023	0.034	0.008			0.204
p-value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Heritage	-8.1E-06	-8.5E-05	-0.001	-0.001	-0.002	0.000	0.002	0.003	3.1E-04			0.015
p-value	0.21	0.13	0.09	0.07	0.07	0.13	0.06	0.07	0.11			0.06
Empowerment												
Sample Frequency	0.005	0.007	0.017	0.036	0.042	0.063	0.062	0.105	0.159	0.216	0.288	7.831
Probability at mean	1.6E-09	1.2E-07	5.8E-06	2.2E-04	0.002	0.019	0.056	0.174	0.334	0.319	0.095	8.158
Social globalization	-1.1E-10	-7.0E-09	-2.9E-07	-9.1E-06	-7.5E-05	-4.8E-04	-0.001	-0.002	-7.8E-04	2.4E-03	1.9E-03	0.012
p-value	0.54	0.47	0.42	0.25	0.19	0.10	0.08	0.09	0.11	0.10	0.08	0.08
Fraser		-2.2E-08	-2.6E-06	-6.3E-05	-0.001	-0.006	-0.018	-0.034	-0.016	0.044	0.031	0.196
p-value		0.58	0.47	0.33	0.21	0.05	0.03	0.03	0.05	0.03	0.02	0.02
Fraser (interpolated)	-1.8E-09	-6.8E-08	-3.6E-06	-1.1E-04	-0.001	-0.006	-0.013	-0.025	-0.011	0.032	0.025	0.156
p-value	0.53	0.41	0.22	0.03	0.01	0.00	0.00	0.00	0.00	0.001	0.001	0.00

Notes: The table reports the marginal effects of the individually significant core variables by index values (based on columns 1-7 of Tables A.VI and A.VII in the online Appendix). The row 'sample frequency' reports the observed frequency in the sample, while 'probability at mean' yields the probability for observing a given index value according to the estimated model.

Figure 1 – Marginal Effects



Notes: The figure visualizes the effects of a one standard deviation change of the core variables.

Appendix A: Sources and Definitions

Variable	Description	Source
Physical integrity	The composite index of physical integrity rights is the additive of torture, extrajudicial killings, political imprisonments, and disappearance, ranging from 0-8.	Cingranelli and Richards (2006)
Empowerment index	The composite index of empowerment rights is the additive of freedom of movements, freedom of speech, workers' rights, political participation, and freedom of religion indicators, ranging from 0-10.	Cingranelli and Richards (2006)
Democracy	Measures the general openness of political institutions on the scale -10-10 (-10 = low; 10 = high).	Marshall and Jaggers (2000)
Population (log)	Natural logarithm of a country's population.	World Bank (2009)
GDP p.c. (log)	Natural logarithm of GDP per capita, PPP (constant 2005 international \$)	World Bank (2009)
Legal origin	Dummies for British, French, Socialist, and German legal origin.	Easterly and Sewadeh (2001)
War	Dummy variable indicating a civil and/or an international war with at least 1,000 casualties.	Gleditsch et al. (2002)
Economic globalization	Economic sub-index of the KOF index of globalization	Dreher (2006a)
Social globalization	Social sub-index of the KOF index of globalization	Dreher (2006a)
Political globalization	Political sub-index of the KOF index of globalization	Dreher (2006a)
KOF globalization	KOF index of globalization	Dreher (2006a)
Fraser	Economic Freedom by the Fraser Institute	Gwartney and Lawson (2008)
Heritage	Economic Freedom by the Heritage Foundation	Miller and Holmes (2009)
Additional Variables used in the EBA		
Age of democracy	Defined as: $AGE = (2000 - DEM_AGE)/200$ and varying between 0 and 1, with US being the oldest democracy (value of 1).	Persson and Tabellini (2003)
Age of parties	Average age of political parties.	Beck et al. (2001)
Area (log)	Natural logarithm of land area (square kilometer).	World Bank (2009)
British colony	Former British colony.	CEPII (2010)
Catholic Share	Share of catholics in population.	Persson and Tabellini (2003)
Constituency	Indicates whether the constituencies of the senators are states/provinces.	Beck et al. (2001)
Debt service	Public and publicly guaranteed debt service (percent of GNI).	World Bank (2009)
Diversified exporters	Dummy for diversified exporters.	Easterly and Sewadeh (2001)
Dominant religion	Percent of dominant religion.	Alesina et al. (2003)
Election year, legislative	Dummy for legislative elections.	Beck et al. (2001)
Ethnic fractionalization	Index of ethnic fractionalization.	Alesina et al. (2003)
FDI	Foreign direct investment, net inflows (percent of GDP).	World Bank (2009)
Federalism	Dummy for federal states.	Norris (2009)
Fractionalization	Index of ethnolinguistic fractionalization, approximating the level of lack of ethnic and linguistic cohesion within a country, ranging from 0 (homogeneous) to 1 (strongly fractionalized) and averaging 5 different indexes.	Persson and Tabellini (2003)

Variable	Description	Source
Gap in schooling	Difference between years of schooling male and years of schooling female.	Barro and Lee (2000)
Government debt	Central government debt, total (percent of GDP).	World Bank (2009)
Government Fractionalization	The probability that two deputies picked at random from among the government parties will be of different parties.	Beck et al. (2001)
Government transfers	Transfers to sub-national from other levels of Government (% of total sub-national revenues and grants).	IMF's Government Finance Statistics
Growth	GDP growth (annual, percent).	World Bank (2009)
Human Development Indicator	Composite index based on measures of life expectancy, literacy, education, and standards of living.	United Nations (2005)
Iberian colony	Former Spanish or Portuguese colony.	CEPII (2010)
IMF program	Dummy for an IMF program which is at least five months in effect in a given year.	Dreher (2006b)
Infant mortality	Mortality rate, infant (per 1,000 live births).	World Bank (2009)
Investment	Gross capital formation (percent of GDP).	World Bank (2009)
Investment growth	Gross capital formation (annual percent growth).	World Bank (2009)
Language fractionalization	Index of language fractionalization.	Alesina et al. (2003)
Left government	Indicates whether the main government party is left-wing.	Beck et al. (2001)
Life expectancy	Life expectancy at birth, total (years).	World Bank (2009)
Military dictator	Dummy indicating whether the head of government is a current or past member of the armed forces.	Cheibub et al. (2010)
New state	Dummy for new states.	Gallup et al. (2001)
Number of human rights organizations	Number of human rights related NGOs being represented in a country.	Union of International Associations (2000)
Population growth	Population growth (annual %)	World Bank (2009)
Post election, executive	Share of the year within after 12 months of an executive election.	Dreher and Vaubel (2009)
Post election, legislature	Share of the year within after 12 months of a legislative election.	Dreher and Vaubel (2009)
Pre-election, executive	Share of the year within 12 months of an executive election.	Dreher and Vaubel (2009)
Pre-election, legislature	Share of the year within 12 months of a legislative election.	Dreher and Vaubel (2009)
Primary schooling	Average years of primary schooling in the total population.	Barro and Lee (2000)
Protestant share	Share of protestants in population.	Persson and Tabellini (2003)
Religious fractionalization	Index of religious fractionalization.	Alesina et al. (2003)

Variable	Description	Source
Revenue decentralization	Sub-national Revenues (% of total revenues)	IMF's
Special interests	Dummy for special interest executive parties.	Government Finance Statistics Beck et al. (2001)
Sub-national Tax Revenue	Sub-national Tax Revenue (% of total sub-national revenues and grants).	IMF's Government Finance Statistics
Tiers	Number of government tiers.	Treisman (2000)
Tiers, average	Average area first tier units (thousands square kilometers per unit).	Treisman (2000)
Trade	Exports and Imports (in percent of GDP).	World Bank (2009)
Urban population	Urban population (percent of total).	World Bank (2009)
Urban population growth	Urban population growth (annual %)	World Bank (2009)
Vertical imbalance	Intergovernmental transfers as a share of sub-national expenditures.	IMF's Government Finance Statistics
World Bank projects	Number of World Bank projects at least five months in effect in a given year.	Boockmann and Dreher (2003)
Years in office	Indicates the number of years the government chief executive has been in office.	Beck et al. (2001)
Years left	Number of years the government chief executive remains in office.	Beck et al. (2001)
Years of independence	Ranging from 0 to 250 (the latter value is used for all non-colonized countries).	Persson and Tabellini (2003)