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Abstract

This paper empirically analyzes the effects of *de jure* financial openness on institutional quality as captured by indicators on investment risk, corruption level, impartiality of judiciary system as well as the effectiveness of bureaucratic authorities. Using a panel data set of more than 110 countries and a time span from 1984 to 2005, we show that a higher degree of financial openness improves institutional quality in particular by reducing investment risks. We also study the effect of a single liberalization reform on the development of institutional quality. Again, we find evidence for the beneficial impact of financial liberalization with the exception of the level of corruption. We additionally show that if financial liberalization is supported by simultaneous political liberalization, the benign consequences of financial opening for the institutional performance are even larger, while financial deregulation in former socialist countries tends to worsen institutional quality.

JEL classification: F02, D72, P48
Keywords: financial integration, liberalization reform, institutional development, institutional dimensions

1 Introduction

For more than three decades, countries around the world have been undergoing a process of financial liberalization. According to Chinn and Ito (2008), between 1980 and 2005 the degree of financial openness increased by about 40 % worldwide, while for the emerging countries their indicator has even doubled its value.[1] The consequences of this development for economic performance have been intensively discussed in the academic area and are still a source of controversial debates. Recently, some authors have put forward the idea that financial liberalization might lead to better institutions and governance (see Kose et al. 2009; Dell'Ariccia et al. 2008; Obstfeld 2009). Already, Eichengreen (2001) pointed to this argument by writing: "[capital controls] weaken the market discipline on policymakers. They vest additional power with bureaucrats who may be even less capable than markets at delivering an efficient allocation of resources and open the door to rent seeking activities and resource dissipation by interest groups seeking privileged access to foreign capital." (p. 342). The abolition of the capital controls may then promote structural changes in financially liberalized countries towards more investment and business friendly public governance. Referring to this argument, in this paper, we empirically investigate the implication of *de jure* financial liberalization for the quality of institutions.

By focusing on *de jure* financial liberalization, our paper differs from other studies, which analyze the interaction between institutional quality and *de facto* financial liberalization, i.e. actual capital flows (the following section provides an overview of the related literature). However, while actual capital flows are driven by various factors (among others by institutions themselves), regulations of financial account transactions are the direct results of political decisions, and therefore under the control of policy makers. This explains a rather weak systematic relationship between *de jure* and *de facto* financial integration (see Kose et al. 2009 and the works cited therein). Exploring the consequences of *de jure* rather than *de facto* financial liberalization thus provides the respective decision makers with immediate policy implications with regard to the development of institutional quality.

A first glance at the data suggests a positive relationship between *de jure* financial liberalization and the quality of institutions, as demonstrated by Figure 1. Here, a country's average degree of financial openness, captured by the *kaopen* index of Chinn and Ito (2008), is plotted against its average institutional quality (*institute*) for the period between 1984 and 2005 within

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[1]See also Figure 2 in the Appendix, which depicts the development of financial openness on the basis of the so-called *kaopen* index constructed by Chinn and Ito (2008).

two different country samples. The measure of institutional quality, which is employed here, is an average of four different institutional dimensions. It consists of indicators which respectively measure perceptions of investment risk, corruption level, impartiality of the judiciary system as well as effectiveness of the bureaucratic authorities. In the following, we investigate this relation-
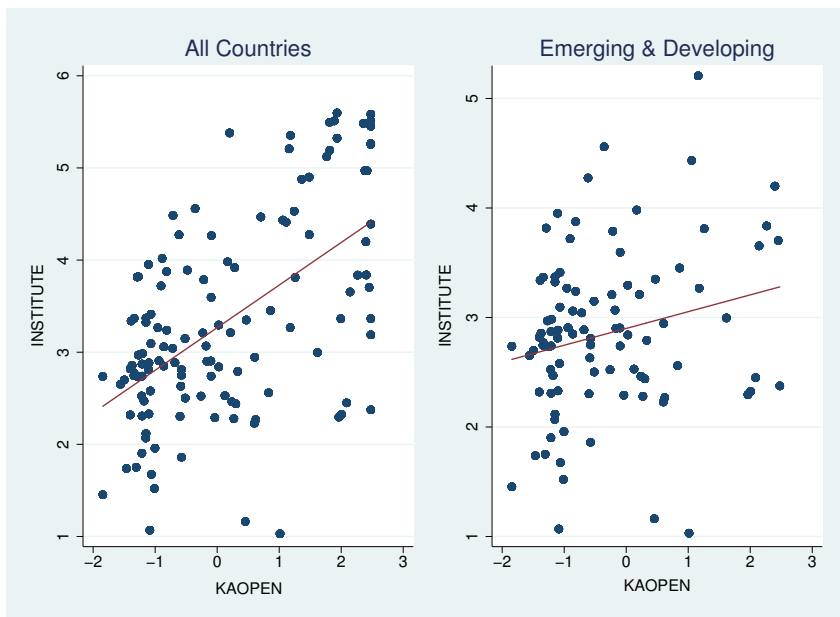

Figure 1: Financial Openness and Institutional Quality

ship more extensively, controlling for other variables which potentially may also influence this relationship. Using a data set of more than 110 countries and a period between 1984 and 2005, we first analyze the influence of a gradual variation in financial openness on institutional development. Here we apply a standard panel regression method, namely OLS with fixed-effects. We also use reduced frequency data to control for the argument that changes in financial regulation may involve long-term processes in order to affect the institutional quality. We then focus on the institutional development in the aftermath of a single financial liberalization reform. That is, we define financial liberalization as a treatment, which some countries experience and others do not, and estimate the causal effect of this reform on institutional outcomes by employing the difference-in-difference approach. When using an aggregate institutional index, such as *institute*, we may fail to detect the actual impact of financial liberalization, because financial openness may operate through different channels and thus have its own individual effect on various institutional dimensions. Therefore, with both approaches, we ad-

ditionally explore the effects of financial liberalization on each institutional sub-component.

Our results generally confirm the picture suggested by Figure 1: *De jure* financial openness improves institutional performance. However, as suggested above, the effects differ with respect to the institutional dimensions. The aggregate positive influence of financial liberalization is mainly a consequence of a strong benign impact on the investment risk, whereas the corruption level tends to increase as a result of financial deregulation. We suggest that on the one hand, investors may interpret decisions to deregulate the financial account as a signal for a better protection of their property rights, which results in lower perceived investment risks. On the other hand, financial openness may be associated with new business opportunities, which in turn may intensify rent-seeking, and thereby corruption. Testing the impact of a liberalization reform, we additionally show that a simultaneous political liberalization, in the form of democratization, amplifies the positive effects of a financial opening. We also find that financial deregulation in former socialist countries results in deteriorated institutional quality. These results support our "signaling-argument" since political liberalization might make local governments more credible in implementing structural reforms. By contrast, deregulation in former socialist countries might have gone along with a lack of confidence in the ability of new democratic governments to provide deep going structural reforms within an appropriate period.

The rest of the paper is structured as follows: Section 2 briefly overviews the relevant literature, highlighting related contributions. In Section 3, we present our data set as well as the results of the fixed-effects estimations. We then treat financial liberalization as a one-time reform and present the results of the corresponding difference-in-difference regressions in Section 4. Section 5 concludes.

2   Background and Related Literature

In this section, we first briefly review related literature on the interdependence between economic liberalization and institutional quality. We then describe relevant contributions which explore the endogeneity of institutional development. These studies will help us to derive the determinants of institutional quality which have to be controlled for when doing our empirical analysis.

Liberalization and Institutions
As mentioned above, some authors argue that financial liberalization not

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only directly influences economic performance, but may also have some collateral effects on the structural development, for instance via improvement of the institutional quality. However, theoretical and empirical works exploring these channels are not exhaustive. Bartolini and Drazen (1997), for example, provide a model, in which foreign investors interpret the government's current decision on capital controls as a signal for future policies. Financial deregulation is then associated with lower political risks and therefore with a better investment environment. Note that our findings support this argument: financial openness improves institutional quality via lowering *perceived* investment risks.[2] Ali et al. (2011) empirically analyze the influence of FDI inflows, i.e. of the *de facto* financial integration, on the quality of property rights, and identify here a positive relationship. In Ali et al. (2010), the same authors also empirically show that institutions are an important determinant of FDI flows. Thus, with both their articles, Ali et al. (2011, 2010) provide empirical evidence for a positive mutual relationship between FDI flows and the security of property rights.[3] Larrain and Tavares (2004) and Pinto and Zhu (2008) explore the impact of FDI inflows on the corruption level. While the first paper shows that FDI flows reduce the level of corruption, the authors of the second article find that this link works in democracies but not in autocracies.

There is also an increasing body of empirical literature analyzing the relationship between economic and political liberalization. Milner and Mukherjee (2009) offer a comprehensive survey, which is underlined with their own estimations, on the bilateral relationship between trade and financial openness and democratization. They conclude that while democratization promotes economic liberalization, evidence for the reversed causality is limited. However, using a much longer time horizon, which also captures the first wave of globalization in the 19th century, Eichengreen and Leblang (2008) find empirical evidence for the effects running in both directions.[4]

Persson and Tabellini (2006, 2008) and Giavazzi and Tabellini (2005) focus on the consequences of political liberalization for economic performance. The novel contribution of these authors is the application of micro-

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[2]Similarly, Rajan and Zingales (2003) argue from a perspective of an interest group theory that (trade and) financial openness foster market competition and thereby weaken incumbents who may oppose structural reforms. However, Dadasov et al. (2010) theoretically show that, in autocracies, efficiency gains caused by financial integration lead to more distortive policies: In order to increase its rent income, the ruling elite raises the expropriation rate in the aftermath of a liberalization.

[3]For the role of institutional quality in attracting foreign capital, see among others Alfaro et al. (2008); Busse and Hefeker (2007); Papaioannou (2009).

[4]See also Campos and Coricelli (2009) for a non-linear relationship between economic and political liberalization.

econometric approaches in this area. Particularly, they define the event of democratization as a one-time reform (treatment) and thereby analyze the consequences of this reform for economic development.[5] We follow their approach in the second part of our empirical investigation, in which we explore the consequence of a financial liberalization reform.

Determinants of Institutions

Since institutions have been widely recognized as a key determinant of economic development, researchers have increasingly addressed the question of the endogeneity of institutions.[6] Alonso and Garcimartin (2011) identify four main drivers of institutional quality: the level of development, trade openness, education, and income inequality. While the first three variables are found to positively affect institutional performance, higher inequality in income distribution has a negative impact. Alonso and Garcimartin (2011) stress that most of these findings are supported by previous studies, but they also point out that these effects might be sensitive to political regimes and/or regional characteristics (see among others Islam and Montenegro 2002; Rigobon and Rodrik 2005; Alvarez-Diaz and Caballero Miguez 2008 for later relevant studies). In addition, they do not find any robust evidence for the claim that historical and geographical conditions as well as ethnic fragmentation influence institutional performance. However, Hanson (2009), comparing most of the relevant prominent studies, concludes that a country's given characteristics (such as legal and colonial origin, latitude) do play a role in shaping its institutional quality.[7] Thus, in our own estimations, we will take into account time varying as well as time invariant variables as poten-

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[5]In a similar way, Giavazzi and Tabellini (2005) also analyze the impact of trade and political liberalization on institutional quality. Using the same approach, Tavares (2007) explores the effects of these liberalization processes on corruption. Persson and Tabellini (2008) additionally use a propensity score matching method to increase the similarities between treated and the control group. See also Nannicini and Ricciuti (2010) for a further related approach.

[6]See, e.g., Acemoglu et al. (2005) for a literature review on the role of institutions as an important determinant of long-run growth. Recently, Angeles (2010) and Commander and Nikoloski (2011) call these findings into question arguing that most of the empirical studies on this subject suffer from methodological as well as data weaknesses.

[7]These empirical findings are also quite consistent with theoretical works on endogenous development of institutions. For example, Acemoglu and Robinson (2006) comprehensively formalize the evolution of institutions establishing a dynamic link between political and economic institutions as well as the distribution of economic resources. In Acemoglu and Robinson (2008), they develop a model which explains the tendency of institutional outcomes to persist, thereby highlighting the role of historical factors. See also Engerman and Sokoloff (2005) for an argument supporting the long time patterns in institutional development.

tial determinants of institutional development. Finally, several studies have pointed to a phenomenon which is often referred to as a "political resource curse", a notion that many natural resource-rich countries suffer from deteriorated institutional quality (for empirical works, see among others Easterly and Levine 2003, for theoretical frameworks, e.g., Robinson et al. 2006; Bulte and Damania 2008; Mehlum et al. 2006). We will, therefore, also consider resource abundance in our analysis as a further potential explanatory variable.[8]

3 Fixed-Effects Estimation

In this section, we first construct our measure of institutional quality and then employ fixed-effects estimations to investigate the influence of financial openness on this measure. As we will show, a higher degree of financial liberalization leads to a better institutional quality. To identify the drivers of this relationship, we proceed by estimating the impact of financial openness on each sub-component of our institutional measure. Here the results suggest that the positive influence of financial openness mainly results from its mitigating impact on investment risks. To control for potential long lasting processes, which might be involved in the evolution of institutional quality, we then use annually averaged data and thereby test the validity of our findings.

3.1 Specification and Data

Our measure of institutional quality is based on data provided by the *International Country Risk Guide (ICRG)* division of The Political Risk Services Group (2008). It consists of four different indicators that capture different institutional dimensions: "investment profile" (*iprof*), assessing the investment risks resulting from direct or indirect forms of expropriation; "corruption" (*corrupt*), capturing not only financial corruption in form of demands for hidden payments and bribes in business activities but also immaterial forms of corruption, such as patronage, nepotism etc.; "law and order" (*laword*), measuring the strength and impartiality of the legal system; and "bureaucratic quality" (*burqua*), assessing the efficiency and the political autonomy of administrative authorities. Though having a perceptive nature, these in-

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[8]Investigating the determinants of expropriation risks, Harms and an de Meulen (2010) empirically show that a country's demographic structure also affects this institutional dimension. See Harms and an de Meulen (2011) for a theoretical exploration of the channel through which this effect might operate.

dicators are widely used in the empirical literature on institutional quality. Moreover, we believe that in the context of our work, these parameters are especially appropriate since they cover a broad variety of risks and impediments which (foreign) investors have to deal with.[9] Each of the institutional components has a minimum value of 0, but different upper bounds. In each case, a higher value implies a better respective institutional dimension, i.e., a higher corruption index implies a lower corruption level. To compute our aggregate institutional index - hereafter denoted by *institute* -, we rescale the values of each component to an identical range, namely from 0 to 6, and calculate an unweighted average of these standardized indicators. These data are available for 129 countries covering a time span from 1984 to 2005.

To capture the degree of *de jure* financial openness, we use the so-called *kaopen* index developed by Chinn and Ito (2008). This index builds on data of the IMF's *Annual Report on Exchange Arrangements and Exchange Restriction (AREAR)*, which contains information about the extent of regulation of external account transactions. The *kaopen* index is scaled in the range between -2.5 and 2.5, with higher values standing for larger degrees of financial openness. For being a continuous variable, this measure provides information about the intensity of financial openness and thus has an advantage over other mostly binary indices.[10] For almost all the countries, for which we have data on institutional quality, the *kaopen* index is available. Tables 18 and 19 present the summary statistics for all variables (which we use in our analysis), separating the full sample from the group consisting of middle and low income countries only.[11] As can be seen, there is a significant variation in institutional and *kaopen* data not only between the countries, but also intertemporally within the considered time span. Additionally, Table 20 shows the correlations between the *kaopen* index and the institutional indices. It is conspicuous that the relationship between the degree of financial openness and institutional quality is weaker for the sample of middle and low income countries (as has already been suggested by Figure 1). This finding

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[9] *World Governance Indicators (WGI)* by Kaufmann et al. (2010) provide an alternative widely used source of institutional data. Unfortunately, these data are available only from 1996 on (and on an annual basis only from 2000). However, the correlations between the *ICRG* indicators and their respective *WGI* counterparts are quite high, as demonstrated by Table 21 in the Appendix.

[10] Chinn and Ito (2008) use principal component analysis to transform the binary classifications of AREAR into one single continuous variable. They additionally show that the correlation between their indicator and other measures, which are based on AREAR, is very high. See also Brune and Guisinger (2007) for a comparison of different *de jure* measures on financial liberalization.

[11] The division of countries into different income groups is done according to the World Bank classification. See Table 25 for the list of countries in the respective income group.

emphasizes the necessity of separating the sample in the following empirical analysis. Moreover, this relationship differs substantially among different institutional dimensions. For example, within the middle and low income group, the correlation between *kaopen* and "investment profile" is 0.37, but between *kaopen* and corruption it is -0.03. In the following, we therefore will investigate not only the influence of financial liberalization on aggregate institutional quality but also on each institutional indicator separately.

As we argued in Section 2, it is reasonable to assume that the variation in institutional development as well as in independent variables might be additionally driven by some unobserved time invariant factors: Country-specific parameters, such as political culture and tradition, historical experiences and so on, might play an important role in the structural development of the respective country. We therefore estimate the following regression equation to investigate the impact of financial openness on institutional quality:

$$iq_{it} = a_i + b_t + \beta kaopen_{it} + \gamma x_{it} + \epsilon_{it}, \tag{1}$$

where the subscript i refers to countries, while the subscript t refers to years. iq_{it} either stands for our aggregate institutional indicator or for one of its sub-components, and $kaopen_{it}$ measures the degree of financial openness. Hence, β is our main coefficient of interest. x_{it} is a set of the control variables, which are described below. a_i and b_t denote country and year fixed effects and ϵ_{it} is the usual unobservable error term. The estimation results are based on robust standard errors, controlling for heteroscedasticity and serial correlation of errors by clustering over countries.

Estimating the influence of *de jure* financial integration on institutional performance, we assume that deregulation of capital controls is not affected by institutional quality itself. There are many studies examining the factors behind the use and removal of capital controls. Reviewing the relevant literature, Eichengreen (2001) identifies macroeconomic drivers, such as exchange rate regimes, domestic savings, tax revenues, and the degree of central banks' independence. Ariyoshi et al. (2000) present a detailed descriptive survey of the implementation and design of capital controls in 14 selected countries. They conclude that despite cross-country differences, general macroeconomic characteristics and policies not only influence the decision to liberalize but also the economic consequences of the financial liberalization. In a more recent study, Brune and Guisinger (2007), on the contrary, argue that capital account liberalization does not occur independently of the actions of other countries but instead as a reaction to the global adoption of liberal economic policies.[12] These arguments support our view that financial liberalization is

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[12]See also Simmons and Elkins (2004) and Chwieroth (2007) for similar arguments and

exogenous with respect to the countries' institutions. To account for the fact that the effect of financial liberalization potentially involves long-term processes, we reduce the data frequency by using four-year averages in subsection 3.3.

Drawing on the insights from the literature presented in Section 2, we control for the impact of the following variables on the institutional measure: Institutions, which shape socio-economic interactions, are determined among other things by the political environment. Therefore, we include two different measures of political institutions in our set of control variables: One accounts for the political regime and measures the level of democracy (*demacc*); the other measures the degree of political stability (*govstab*). Both indicators are also taken from *ICRG*. We also use an alternative democracy measure, namely Polity II (*polity*) from the Polity IV project by Marshall et al. (2010). While the *ICRG* democratic indicator measures the perception of accountability and responsiveness of the respective governments towards population, Polity II is based on the measurement of democratic institutions, capturing the electoral process, constraints on the executive power, and the degree of civil liberties. We expect a positive influence from a stable as well as a democratic political environment on institutions. To control for the influence of the economic development and performance on the countries' institutional quality, x_{it} additionally consists of the real per capita GDP (*gdppc*) as well as of its growth rate (*growth*), both taken from the *Penn World Tables (PWT)* provided by Heston et al. (2011). Again, the coefficients of both variables are supposed to have positive signs. To take into account the obvious problem of reversed causality, we consider the one-period lagged values of the respective variables. A further potential channel through which institutional development might be positively affected, is the accumulation of human capital. Our main measure here is the gross share of secondary school enrollment in the total number of pupils in the respective year (*school*). This data is taken from the *World Development Indicators (WDI)* provided by the World Bank (2011). Alternatively, we use the data by Barro and Lee (2001) (*bl_school*), which reports the average years of school attendance of the total population aged over 25 years.[13] Economic instability is supposed to influence the governments' structural policies and might, thereby, affect

findings from a political science view. Similarly, Kobrin (2005) empirically shows that the decision to liberalize in developing countries is primarily the result of competition for foreign capital.

[13]Since the Barro and Lee (2001) data are only available every five years, we used the values from a previous report as indicators for every subsequent year until the next reported value. However, as mentioned, these data serve only to check our results that are found with the *WDI* human capital measure.

institutional development too. We capture this notion by introducing two variables: the *WDI* data on inflation rate (*inflat*), to account for the consequences of macroeconomic instability, and income inequality (*inequal*), using the data of Galbraith and Kum (2005), to account for possible social tensions. For both variables we expect to obtain a negative influence. As the problem of endogeneity might also arise with respect to inequality as well as the schooling variables, we use the observation of the preceding period for the respective measure. Two more regressors are included in equation (1): The first one is the *PWT* measure of trade openness (*trade*) – as a sum of exports and imports relative to GDP in real terms – to control for the hypothesis that beside financial openness, trade liberalization might also influence institutional performance.[14] And finally, there is a vast literature on the (usually negative) impact of natural resources on economic but also institutional development. Here we also use two alternative measures to capture this channel: One is the ratio of fuel exports to total exports (*fuelex*), and the second measure reflecting the ratio of agricultural exports (*primex*) to total exports. Both measures stem from the *WDI* data bank. We take the natural logarithm of all control variables – except for the Barro and Lee (2001) schooling measure as well as the political indicators – because of the extreme variation in each of the variables in our sample. Since some of the data are not available for all countries and for the entire time span, our sample is unbalanced and the number of observations depends on which specification we choose in estimating the equation (1). Table 26 in the Appendix gives a detailed description of all data used in this paper with the respective sources.

3.2   Results

Table 1 presents the estimation results for equation (1), in which our aggregate index of institutional quality is used as a dependent variable. The results in the first five columns stem from regressions which are run over the full sample, while columns 6-10 reproduce the previous five regressions for the sample without high income countries: As has been previously mentioned, the relationship between financial openness and institutional quality differs among different income groups. Furthermore, since including our measure of income inequality in the regressions leads to a significant loss of observations, we run the baseline regressions without inequality, but introduce it as an additional control variable in the second column. In column (3), we

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[14]One might additionally control for the influence of a *de jure* measure of trade openness introducing, e.g., the widely used indicator which is developed by Wacziarg and Welch (2003). Due to the restricted data availability of this indicator, we stick to the *de facto* trade openness measure.

replace the *ICRG* democracy measure by the *polity* index. In column (4), the share of the primary exports in total exports is used instead of the share of the fuel exports, while column (5) reproduces our baseline regression with our alternative schooling measure taken from Barro and Lee (2001).

In all specifications, the coefficient of the *kaopen* index is significantly positive, implying that a higher degree of financial openness leads, on average, to a better domestic institutional quality. Moreover, the statistical as well as the economic significance of this variable is generally higher within the sample of the emerging and developing countries. Turning to the influence of the control variables, most of the coefficients exhibit the expected signs. A democratic regime as well as government stability has a positive impact on economic institutions and are highly significant throughout all specifications. Our baseline estimation results in both samples also confirm the view that a higher level of economic development tends to improve institutional performance. The same is true for the influence of economic growth, at least for emerging and developing countries. Also the notion that natural resource abundance on average results in deteriorated institutional quality can be verified by Table 1. All other control variables do not have any statistical relevance.

Through which institutional channel does the benign influence of the financial openness on the institutional quality work? To answer this question, in the next step we estimate equation (1) replacing iq_{it} by each subcomponent of our institutional index. When using "investment profile" and "corruption" as dependent variables, we additionally introduce two other sub-components of the aggregate institutional index, namely "law and order" and "bureaucratic quality". The reason for doing this is the assumption that the perceived expropriation risk as well as the extent of corruption is affected not only by the government system (which is captured by *demacc* or *polity*), but also by the reliability and independency of the government authorities. Note that, according to Table 20, *laword* and *burqua* are strongly correlated with *iprof* as well as with *corrupt*.

The first three columns of Table 2 show the regression results with "investment profile" as a dependent variable. The results in column (1) stem from our baseline specification. In column (2), *laword* and *burqua* are introduced as additional control variables. Column (3) introduces further income inequality as an additional regressor.[15] In all cases, the coefficient of *kaopen*

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[15]Note that in all three specifications, the measure of schooling does not enter as a lagged value into the respective estimation since it is quite unreasonable to believe that expropriation risk, in its turn, might affect the process of human capital accumulation. We ran these as well as the following regressions with the specifications which were also used in Table 1: We controlled for the alternative measures of democracy, schooling, and natural

is positively significant, having a much larger value than the corresponding estimate in Table 1. Interestingly, the effect of *laword* on the investment environment is negatively significant, although all other explanatory variables have the expected signs.[16]

In the next two columns, (4) and (5), the explained variable is "law and order", while in columns (6) and (7), this variable is replaced by "bureaucratic quality". In each case, we run the regression with and without the inequality measure. Whereas there is no impact of financial openness on the quality of judiciary institutions ("law and oder"), we see its positive significant influence (at the 90%-level) on the quality of the administrative institutions ("bureaucratic quality"). Coming to the influence of financial liberalization on the fourth institutional dimension, "corruption", we do not obtain a consistent picture. Therefore, we separately report the results of all regressions with "corruption" as the dependent variable in Table 3. Although always negative, the coefficient of *kaopen* is only significant in column (5), where we have introduced "law and order" and "bureaucratic quality" as additional control variables (similar to the specification in Table 2, column (2)). Furthermore, it should be pointed out that the signs of some control variables are quite surprising. For example, the coefficients of GDP per capita and inflation indicate an opposite impact to what one would have expected, implying that countries with less income and higher macroeconomic instability tend to be less corrupt. However, a higher level of democracy as well as better performance in other institutional dimensions tends to reduce the level of corruption, while resource wealth increases it on average. Both observations are in line with our presumptions and other empirical studies as well.[17]

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resource abundance. We also used a lagged value of the respective schooling measure. Our qualitative results, in particular with respect to the *kaopen* index, did not change.

[16]One possible explanation for this finding might be that due to high correlation between *laword* and some other control variables, including *laword* in the estimation, its partial explanatory power of the variation in "investment profile" becomes relatively marginal but negatively significant. For example, running the regression in column (2) only with *kaopen*, *demacc*, *burqua*, and *laword* as regressors led to a positive and significant coefficient of the latter variable. However, as we additionally controlled for the effect of government stability, the coefficient of *laword* became negatively significant. The value of the adjusted R^2 in the specification with x_{it} consisting of *kaopen*, *demacc*, *burqua*, and *govstab* was 0.46. Adding *laword* raised this value only to 0.47.

[17]According to Serra (2006), higher GDP per capita, sound democratic institutions as well as government stability reduce the level of corruption. Similar results can also be found in Treisman (2000). However, controlling for country and year-specific fixed-effects, Tavares (2007) finds a negative relationship between corruption and GDP per capita, as in our case. Since including fixed-effects reduces the probability of the omitted time invariant variables, these findings might be more appropriate.

Certainly, all the results shown in Tables 2 and 3 might be driven by the inclusion of developed countries. Hence, we repeat the estimations which are described above, considering only middle and low income countries. Table 4 presents the corresponding regression results. In the first two columns ""investment profile" serves as a dependent variable, in columns (3) and (4) we use "law and order" as iq_{it}, in columns (5)–(7), iq_{it} is replaced by "bureaucratic quality", and finally columns (8) and (9) report the estimation results for "corruption" as being the dependent variable. The results here generally confirm our insights gained from the regressions over the full sample. Again, the impact of *kaopen* on "investment profile" is positive and significant, while its influence on "law and order" cannot be determined. We get a significant positive impact of financial openness on "bureaucratic quality" once we use the *polity* measure for democracy instead of its *ICRG* counterpart. This impact remains if we additionally control for income inequality. Once we controlled for the influence of the additional institutional dimensions, "corruption" was negatively affected by *kaopen* in the full sample, whereas here this influence disappears in the corresponding estimation.

Before we summarize our results from this section, we present all our baseline results from estimating equation (1) for two additional subsamples. First, by excluding high and upper middle income countries, we show that all our previous results are also valid for developing countries, as demonstrated by Table 5. Financial openness positively influences the aggregate institutional quality. Moreover, we obtain here a higher value of the estimate of *kaopen* than in the corresponding regressions with other samples: In this sample, $\beta = 0.12$ and thus more than twice as high as within the full sample (see column (1), Table 1). That is, the relatively poorer countries tend to benefit more from financial openness in terms of better institutional quality. Second, our results might be influenced by the large wave of political liberalization which took place in the 1990s. Table 6 presents therefore the estimation results for a sample which does not contain former socialist countries.[18] Again, the effect of *kaopen* on the institutional quality is significantly positive. As previously, Tables 5 and 6 also show that in both subsamples, the positive influence of financial openness mainly results from its positive impact on the investment environment. In Table 5, we can also observe a positive impact of financial deregulation on the quality of bureaucracy, while

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[18]Table 24 lists the corresponding countries. To control for the special circumstances at that time, we also ran our regressions for two different sample periods: one which covered the time before 1991, and the other a period after 1991. We could not consistently verify the results presented in this section. These findings can be explained by the fact that most of the countries had started to deregulate their financial accounts only since the 1990s and that our entire time span begins with 1984.

there is no effect on the level of corruption and "law and order".[19] Hence, we can summarize that our findings presented in this section are robust to the selection of countries and alternative model specifications.

3.3 Estimation with average data

Although we could observe substantial variation in the institutional data as well as in the *kaopen*-index within our time span for many countries (see Tables 18 and 19 for the summary statistics), there are also some countries in which both indicators exhibit remarkable persistence over time. Moreover, political changes, such as financial regulation, may need a sufficient amount of time to have an effect on the institutional environment. Therefore, in this subsection, we use yearly averaged data in order to capture potential long-term processes. Particularly, for each variable we compute four-year averages (1986–89, 1990–93, 1994-97, 1998-2001, 2002-05), while the initial period (1984-85) covers only two years. Note that using yearly averaged data additionally allows us to mitigate potential endogeneity problems with some of our control variables more carefully: Having four-year averages and taking lags of the respective variables from the previous period is a stronger tool to control for reversed causality instead of operating with annual data in the same way. In the following, we present our main results from estimating equation (1) with averaged data, thereby proceeding in a similar way as in the previous section.

Table 7 reports our regression results with aggregate institutional quality as being the dependent variable for different samples. Particularly in columns (1)-(3), the regressions are run over the full sample of countries, while columns (4)-(6) reproduce the previous three regressions without high income countries, and column (7) presents the baseline results for a sample consisting only of developing countries. In addition to the estimation, which includes income inequality as an additional regressor – column (2) –, we also report the results of a regression in which we use the Barro and Lee (2001) schooling measure – column (3). This is the only specification in which the estimate of *kaopen* is not significant. In all other cases, the results show a positive significant influence of financial openness on institutional quality.[20]

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[19]The results presented in Table 5 remain stable if we use all alternative specifications which we have introduced in this section. When excluding former socialist countries, we also found a significant positive impact of *kaopen* on "bureaucratic quality" once we used the *polity* measure for democracy instead. Moreover, the results in Table 6 are based on a sample of middle and low income countries. However, they do not qualitatively change if we vary the composition of the sample with respect to the income groups.

[20]We ran all other regressions which are described in 3.2 for all samples.

Note that using the alternative schooling measure significantly reduces the number of countries, due to a lack of observations for this variable. The same specification for a sample of middle and lower income countries (as well as for a sample of low income countries only, which is not reported in Table 7) results in a significant coefficient of *kaopen*. Thus, we can state that even when considering potential long-term processes, which might be in place in shaping the institutional environment via financial liberalization, our results derived from using annual data remain robust.

Can we draw the same conclusion with respect to the impact of financial openness on the respective institutional dimension? Tables 8 and 9 present the corresponding results, verifying our findings from Section 3.2. First, we estimate equation (1), using each of the four institutional sub-components as a dependent variable over the full sample (Table 8). In each case, the regression is done with and without using the inequality measure as an additional regressor. The results of other specifications are not reported, since they do not change the general picture. Again, we can observe a high statistically as well as economically significant effect of financial openness on "investment profile". The coefficient of *kaopen* is also positively significant in regressions which investigate the impact on "bureaucratic quality".[21] As in our analysis with yearly data, there is no statistically significant effect of financial openness on the judiciary institutions. When having "corruption" as a dependent variable, we get a significant negative coefficient of *kaopen* only in a regression with two other institutional sub-components as additional regressors and at the same time omitting the inequality variable. Repeating the same exercise for the sample of emerging and developing countries and for the developing countries only does not change our results, as shown by Table 9.

We can conclude that all our findings previously derived from using yearly data are confirmed if we operate with annually averaged data instead. The beneficial effect of financial openness on the institutional environment is the consequence of its substantial mitigating influence on the expropriation risk in the countries under consideration.

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[21]If we use the *ICRG* democracy measure instead of *polity*, the coefficient of *kaopen* is also significant at the 90%-level and only significant at the 88%-level if inequality is additionally introduced as a regressor. Remember, we obtained similar results operating with yearly data – see Table 2.

4 Difference-in-Difference Estimation

The underlying assumption behind the fixed-effects estimation in the previous section has been that the selection of the countries into those which promote financial liberalization and those which do not is based on unobservable but fixed (time invariant) country characteristics. In this section, we treat financial liberalization not as a gradual abolishment of restrictions on foreign capital flows but as a single liberalization reform, and focus on the direct consequences for the institutional environment which occur in the aftermath of a financial liberalization. In particular, we compare the institutional development in countries which liberalized their financial account with the institutional development of those countries which did not experience such liberalization reform. In doing so, we follow the empirical approach of Giavazzi and Tabellini (2005) and Persson and Tabellini (2006, 2008), who implemented this strategy to estimate the causal effect of democratic transition on economic performance. The basic idea is to define the event of a reform – here financial liberalization – as a treatment which some countries implemented during the sample period while some countries did not, and to estimate the average causal effect of this treatment on the institutional environment by employing the difference-in-difference methodology. Thus, we aim to exploit differences in institutional performance before and after the treatment within the group of treated countries as well as these differences across the treated and non-treated, i.e. the control, group. Following this approach allows us to control for additional circumstances which may trigger liberalization reforms and influence institutional performance, further taking into account time-invariant unobservable heterogeneity between countries.

4.1 Methodology and Implementation

Implementing the difference-in-difference methodology, we estimate the following regression:

$$iq_{it} = a_i + b_t + \beta finlib_{it} + \gamma x_{it} + \epsilon_{it}, \tag{2}$$

where in comparison to equation (1), the variable *kaopen* is replaced by the variable *finlib* that stands for the liberalization reform and hence captures the treatment. It is a dummy variable, which takes the value of 1 in the years after the treatment and 0 otherwise, i.e., in the treated countries before the reform and in the control countries during the entire time span. The coefficient β therefore captures the causal effect of our interest: It measures the effect of financial liberalization by comparing the difference in institutional

quality before and after the treatment in the treated countries to the change in institutional environment in the control group during the sample period.[22]

We construct our treatment dummy using the *kaopen* index for financial openness from the previous section. Particularly, we consider all countries as financially liberalized if their *kaopen* values are positive. Accordingly, a strictly negative *kaopen* value indicates that the corresponding country is financially closed. Thus, the variable *finlib* takes the value of 1 if a country becomes financially open, given that it was closed in the previous period. Note that the mean value of the *kaopen* index is around 0 (see Table 18). Below we present some more observations and arguments in support of our treatment choice. However, this specification of the liberalization reform leads to some difficulties. Firstly, some liberalization reforms took place at the very end of our sample period. Taking into account that the reform requires some time to have an effect on institutional quality, we consider all liberalization events as treatments only if we have observations for at least three years in the post liberalization period. For example, in Brazil the *kaopen* index becomes positive only in 2005, i.e., in the last year of our sample period. This country is considered as never having liberalized its financial account, i.e., as a non-treated country. Secondly, some countries, especially in Latin America, experienced reform reversals: they became financially open and then again restricted foreign capital flows thereby becoming financially closed.[23] Argentina is a typical example for this kind of reform pattern. We implement two different options when constructing the treatment dummy: In the first case – denoted by $finlib_p-$, we consider only permanent reforms, i.e. without any reversal, as a treatment. That is, when running a regression with $finlib_p$ Argentina, for example, is used as a control country. In the second option, a reform is considered as a treatment if there was not a reversal for at least three years succeeding the reform. We denote the corresponding treatment

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[22]When using the difference-in-difference approach to estimate the effect of a single political reform, which has been implemented by a certain group of states at the same time, observations are collected at two points of time: before and after the treatment. In this case, the difference-in-difference regression is done by estimating an equation like: $y_{it} = \alpha + \gamma D_i + \lambda d_t + \delta(D_i \cdot d_t) + \epsilon_{it}$, where y is an outcome measure, D_i is a dummy which takes the value of 1 in a treated state and d_t is a time dummy that takes the value of 1 if the observation is obtained in the post treatment period. δ measures then the causal effect of the respective reform. If, however, reforms do not take place in all states at the same time, then the corresponding regression can be written as $y_{it} = \gamma_i + \lambda_t + \delta D_{it} + \epsilon_{it}$, where D_{it} indicates treatment states in post treatment periods. This is a general formulation of the estimation model and is similar to equation (2). See Angrist and Pischke (2009), ff. 233 and ff. 315, and Wooldridge (2002), ff. 254.

[23]Both issues also arise in the work by Giavazzi and Tabellini (2005), and are treated in a similar way.

variable as $finlib_t$ thereby expressing temporary liberalization events. In the case of Argentina, $finlib_t$ takes the value of 1 only from 1993 on to 2001, the year in which the country's *kaopen* index became and remained negative until the end of the sample period. Ecuador, for example, also experienced multiple reform events (in 1993, 1998, and 2003), but none lasting more than three years. Therefore this country, in contrast to Argentina, is considered as a control country in both options. Table 22 lists all countries which implemented a liberalization reform at least once, with the corresponding dates. According to our specification of the financial reform, most of the treatment dates are concentrated in the mid/end of the 1990s. This is not surprising against the historical background of the massive liberalization waves, which had started in most of the emerging and developing countries since 1990 (this is also consistent with the findings by Chinn and Ito 2008). As shown in Figure 2 in the Appendix, the mean *kaopen* index for the full sample of countries crosses the zero-line in about 1995, while the intercept of this line for the middle and low income countries lies at the beginning of 2000. Additionally, Table 23 presents the list of the non-treated countries, i.e., those ones which always remained open or closed during the observation time span. Treated and control groups are not only quite heterogenous, consisting of developed as well as developing countries, but relatively similar countries are also represented in both country groups: We have, for example, the Czech Republic, Paraguay, and Denmark as treated countries and the Slovak Republic, Uruguay, and Sweden as non-treated ones. Note further that most of the permanently open nations belong to the group of high income countries, while the group of permanently closed countries consists of relatively poor economies. All these observations assure us that our specification of the treatment is an appropriate choice and reflects real historical experiences.

According to Giavazzi and Tabellini (2005) and Persson and Tabellini (2006, 2008), two key assumptions underly the estimation methodology behind equation (2). The first one requires that *without* the liberalization reform the trend in institutional development in treated countries should have been the same as in the control countries conditional on observable characteristics (x_{it}). This is violated if, for example, financial liberalization coincides with other processes – such as political reforms or transformation of former socialist countries – which may influence the long-run institutional development. The second assumption states that the division into two groups – treated and control – occurs randomly, i.e., there are no common factors which determine the occurrence of the reforms and have causal effects on the performance. Following the literature, we implement different strategies in dealing with these assumptions.

We include dummies for different regions – Asia and Pacific, Latin Amer-

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ica and the Caribbean Islands, Subsaharan Africa, Western Europe and North America as well as North Africa and the Middle East – and a dummy for socialist legal origin interacting, the respective dummy with year fixed effects in all our regressions.[24] This enables us to capture institutional changes which might arise due to some time and regional specificities. To control for the fact that financial liberalization might have been accompanied by other processes, which in their turn might influence institutional performance, we introduce two more interaction dummies. First, we interact our respective treatment dummy with the dummy for socialist legal origin to take into account the special circumstances of the transformation of former socialist countries. The corresponding interaction term is denoted by $soc \cdot finlib_j$ $j \in p, t$. Second, we create a treatment dummy for political liberalization in a similar way as we did for financial liberalization, and following Giavazzi and Tabellini (2005) and Persson and Tabellini (2006, 2008). In particular, a country is considered to have experienced a transition towards more democracy if its $polity$ indicator switched from a negative to a positive value in the sample period. This dummy is then interacted with the respective $finlib$-variable to control for the possible influence of democratization processes which might have taken place during financial liberalization: $pollib \cdot finlib_j$ $j \in p, t$. For each specification which includes both these interaction terms, we calculate the $marginal$ effect $finlib_j$ $j \in p, t$ by using the sample means of the dummies indicating political liberalization and socialist legal origin, respectively. Furthermore, we use for each regression two alternative specifications of the control group: One consisting of countries which have always remained either financially open or financially closed, the other consisting of financially closed countries only.

For each estimation we report the t-statistics, which are calculated with heteroscedasticity-consistent standard errors as well as the t-values resulting from clustered regressions, which additionally control for possible serial correlation of errors at the country level. In most of the cases, previously significant effects of the corresponding treatment variables become statistically insignificant, once we use clustered regressions. Apparently, our findings are not robust against possible correlations within country groups and over time. This is less surprising against the background that the adoption of liberal economic policies tends to be clustered both temporally and spatially. As we mentioned above, most of the liberalization reforms are concentrated in the 1990s (see also literature review in Section 2). That is, there might not

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[24]The data on the countries' judiciary systems stem from La-Porta et al. (1999). This interaction term is included to capture the peculiarities of the former socialist countries in Eastern Europe and in the Soviet Union.

be sufficient variation in the treatment terms within country groups. In that case, country-clustered regressions would result in too high standard errors (see Angrist and Pischke, 2009, ff. 308).[25] In the following, we therefore also address the findings which are not statistically significant with clustered estimations.

4.2 Results

Table 10 presents the estimation results of equation (2) with our aggregate institutional index *institute* as a dependent variable and where only permanent liberalization is considered as a treatment ($finlib_p$). In the first three columns, we use the full sample of countries, while in columns (4)-(6), the same regressions are done for a sample without the countries which have always been financially open during the sample period. Column (1) reports the results of our baseline specification, while in column (2) we replace the *polity* variable by the interaction dummy, which captures the simultaneity of the political and financial liberalization ($pollib \cdot finlib_p$) and additionally introduced the interaction term $soc \cdot finlib_p$ to capture financial deregulation in former socialist countries. Column (3) introduces the inequality measure as an additional covariate.[26]

We observe a significant positive impact of the financial liberalization reform on institutional quality in both of our basic specifications. Moreover, the impact of a single permanent liberalization reform in the full sample is more than twice as large as the corresponding effect of a gradual financial deregulation (see column (1) in Table 1). If we additionally control for the influence of the simultaneous democratization and transition of socialist countries, the isolated effect of financial liberalization becomes weaker and even insignificant when only closed countries are used as a control group. The influence of the variable $pollib \cdot finlib_p$, in turn, remains positively significant throughout all specifications, implying that if financial liberalization is supported by democratization, these reforms have a stronger positive effect on institutional quality. By contrast, the coefficient of the interaction dummy $soc \cdot finlib_p$ is negatively significant, indicating that financial deregulation in former socialist states has even resulted in a deteriorated institutional quality. Note

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[25]As Angrist and Pischke (2009) point out, when using clustered data, a sufficiently large number of cluster and time series observations are required in order to obtain the asymptotic covariance matrix (see p. 294). They additionally stress that "...the question of how best to approach the serial correlation problem is currently under study, and a consensus has not yet emerged" (p. 318).

[26]As in Section 3, we do not include inequality in our baseline specification because of a lack of data on this measure.

that almost all of these countries are Eastern European countries and former Soviet republics, respectively. These findings, hence, confirm the view that although the former or current transition countries have experienced rapid economic prosperity, they have benefited less from liberalization in terms of better institutions. The marginal effect of the financial liberalization reform is significantly positive. Including inequality as an additional control variable eliminates the positive effect of the financial reform completely. While the effect of $pollib \cdot finlib_p$ remains positively significant, the coefficient of $soc \cdot finlib_p$ in column (6) becomes positive too. However, these findings are biased due to the sample selection since for almost all countries with socialist legal origin we do not have the inequality data, and therefore these countries are not considered in the corresponding estimations.

Turning to the impact of other covariates, we generally get a familiar picture: sound and democratic political regimes as well as higher income level and degree of trade openness are associated with better institutional quality, whereas macroeconomic instability in terms of high inflation and large oil and gas exports tend to lead to a worsening of institutions.

Investigating the influence of the temporary financial reforms, i.e., using $finlib_t$ as an independent variable, confirms our general findings from above. Table 11, which is constructed in a similar way to Table 10, presents the corresponding results. We find a positive effect of the liberalization reform on the institutional performance in the baseline estimation. This effect diminishes and becomes statistically insignificant once we additionally include the interaction dummies $pollib \cdot finlib_t$ and $soc \cdot finlib_t$. Again, economic opening in combination with political liberalization improves institutional quality, while having socialist legal origin results in a negative impact of financial opening on institutional performance.

What is the effect of the financial liberalization on each of the institutional dimensions? As in Section 3, we estimate equation (2), gradually replacing iq_{it} with each of the institutional sub-components. Table 12 reports the estimation results with "investment profile" as a dependent variable. In the first two columns, we use financially always open as well as financially always closed countries as a non-treated group, while in columns (3) and (4), only always closed countries serve as a control group. The subsequent four columns present the regression results in the same pattern with the temporary treatment. Accordingly, the next three tables are constructed in a similar way for "law and order" (Table 13), "bureaucratic quality" (Table 14), and "corruption" (Table 15).

In the previous section, we found that the positive influence of the financial liberalization on the institutional performance is the consequence of its benign effect on the investment environment and – quantitatively less

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stronger effect – on "bureaucratic quality". Employing the difference-in-difference methodology, liberalization reform again has its strongest effect on the investment environment. Here the results remain even robust within clustered regressions throughout all specifications. Moreover, the quantitative effect is much higher than the influence of $kaopen$ on this institutional dimension (see Table 2). Simultaneous political liberalization has no additional effect on $iprof$, while the coefficient of $soc \cdot finlib_j$ $j \in p, t$ is significantly negative. However, the marginal effect of the permanent as well as temporary financial reform on the investment environment remains significantly positive. We can draw nearly identical conclusions for the impact of liberalization reforms on the administrative institutions. Interestingly and in contrast to our findings from the previous section, liberalization reform negatively influences the quality of the legal system if we consider only financially always closed countries as a control group (i.e. basically excluding high income countries). Even including both interaction terms results in a negatively significant marginal effect of the reform in this case. Finally, financial deregulation negatively affects the corruption index, while its influence in combination with political liberalization on this institutional dimension is positive. (Remember, in the previous section, we obtained a negative but insignificant influence of $kaopen$ on "corruption" in almost all specifications.)

A possible explanation for these results might be as follows: As suggested by Bartolini and Drazen (1997), financial opening is interpreted by investors as a signal for better protection of property rights, which results in a reduction of the perceived investment risks. Furthermore, bearing in mind that the measure of financial openness captures inward as well as outward transactions, liberalization implies a potential risk for capital outflows. Structural policies targeting an improvement of investment environment might then be implemented to compensate for this effect. The positive effect of the financial liberalization on the "bureaucratic quality" supports this argument. Higher values for this institutional dimension imply that administrative authorities have a higher degree of autonomy from political pressure and are able to effectively provide the necessary services. This also helps in establishing a better climate for business activities. In this context, the finding that deregulation reforms in socialist countries have resulted in deterioration of these institutional dimensions can be interpreted as a lack of confidence that new democratic governments can provide deep going structural reforms within an appropriate period. Since socialist institutions could not meet the requirements for arms-length operations, rising challenges make them even worse.

However, the non-existent and even negative influence of financial liberalization on "law and order" in some of the specifications, is somewhat contra-intuitive: one might have also expected a positive impact on the in-

dependency and strength of the judiciary system. Yet, we also found an unexpected negative relationship between this institutional sub-component and investment profile. Although this finding might also be seen as an indication for a further consistency of our results, it is hard to find a plausible explanation for this relationship. Additionally, financial liberalization tends to stimulate corruption. This is less surprising, as one might think of increased rent-seeking activities as a consequence of economic openness. Remember, the corruption measure employed in our analysis does not simply capture illegal financial payments to authorities but also personal ties between private and state interests. Increased opportunities resulting from financial openness might open the door to increased nepotism and patronage. By contrast, if economic liberalization is supported by simultaneous democratization, these institutional malfunctions can be prevented, as our findings suggest. Analyzing the effects of trade liberalization, Tavares (2007) provides similar results and arguments: According to his findings, trade liberalization raises corruption, whereas if trade opening is followed by democratization, the corruption level decreases.[27]

4.3 An Alternative Specification of the Liberalization Reform

The results presented so far have been based on the assumption that the variable $finlib$ in equation (2) takes the value of 1 if a country's $kaopen$ indicator becomes positive, given it was negative in the previous year. Now we test our previous findings by using an alternative specification of the liberalization reform and defining a treatment as a *change* in the value of $kaopen$, regardless of its sign. In particular, the dummy $finlib$ is now defined as follows:

$$finlib_c = \begin{cases} 1 \text{ if } kaopen_{it} - kaopen_{it-1} \geq \Delta \text{ and } kaopen_{it+k} \geq kaopen_{it-1} + \Delta \\ 0 \text{ else,} \end{cases}$$

where $k \in \{1, 2, ..., T - t\}$, and T denotes the last year in the sample period. The index "c" indicates that a liberalization reform now refers to a change

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[27]In contrast, Giavazzi and Tabellini (2005) find that the isolated effects of trade as well as of political liberalization on the corruption level are negative, and if countries undergo both processes, these effects are stronger. Both works use the data provided by Wacziarg and Welch (2003) on *de jure* trade liberalization. However, as already mentioned (see footnote 10), this data is only available until 2000. Since most of the financial liberalization reforms are concentrated in the mid/late of 1990s, additionally controlling for the effect of the trade liberalization with the data provided by Wacziarg and Welch (2003) left us with insufficient numbers of observation in the post treatment period.

in the value of *kaopen*. That is, according to our definition, a liberalization reform occurs if $kaopen_i$ increases at least by Δ at time t, and there is not a reversal in all subsequent years until the end of the sample. We choose $\Delta = 0.86$, which approximately corresponds to the average within-country standard deviation of the *kaopen* variable in our sample (see Table 18).[28] Any increase in *kaopen* that occurs in the last two years of the sample period is not treated as a reform. To illustrate the conception of the treatment dummy on an example, consider the case of Botswana: in 1987, the country's *kaopen* value rises from -1.148 to 0.097, i.e., by more than 0.86. However, until 1996 this value falls to - 1.84, jumps to -0.79 in the next year and has been continuously increasing since then. Therefore, for Botswana, the variable $finlib_c$ takes the value of 1 from 1997 to 2005, and 0 from 1984 to 1996.

Tables 16 and 17 present our estimation results. In contrast to the results from section 4.2, there is not a positive effect of the liberalization reform on the aggregate institutional quality. However, as previously, the coefficient of the interaction term $pollib \cdot finlib_c$ is positively significant.[29] When looking at the influence of the reform on each institutional dimension, we find a familiar picture. We observe a positive and significant effect of the reform on the investment environment and a negative effect on the corruption level. Yet, in the latter case, there is a again a positive influence of financial liberalization if it is accompanied with political liberalization, although the marginal effect of $finlib_c$ remains negatively significant. Furthermore, we cannot observe any effect of the reform on "law and order" and on the "bureaucratic quality".

5   Conclusion

The aim of this paper was to estimate the causal effect of *de jure* financial liberalization on institutional quality. We used annual data of the so-called *kaopen* index, which measures the degree of financial openness, and an aggregate institutional index, covering investment risks, level of corruption, legal institutions as well as administrative effectiveness. Having a sample of more than 110 countries and a time span from 1984–2005, we first employed fixed–effects estimation. Here, we showed that financial liberalization improves aggregate institutional quality, the main influence resulting from a benign impact on investment risks. Our results were robust, regardless of model

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[28]Alternatively, we also set $\Delta = 0.26$, which is slightly less than the smallest increase in the value of $kaopen_i$ that we could observe within our time span. Our findings here did not differ significantly from the results obtained by assuming $\Delta = 0.86$. By contrast, they were in general even statistically stronger.

[29]The dummy *pollib* indicates as previously a switch in the sign of the *polity* variable.

specification and sample selection. To control for a possible long lasting effect of financial liberalization on institutional performance and for potential persistence in institutional as well as in financial openness data, we employed the same methodology, using annually averaged data. We could confirm all our results.

Applying fixed-effects estimations, we considered financial liberalization as a gradual process of deregulation of controls on foreign capital movements. In the next section, we considered financial liberalization as a single reform, and estimated its average causal effect by comparing the institutional performance in countries which administered liberalization reforms (treated group) with the same indicator in countries without this experience (control group). In general, we could confirm our findings derived from the fixed-effects estimations, obtaining even stronger quantitative impacts: Promoting financial liberalization leads to a better institutional quality. Additionally, we could show that these positive effects are even larger if financial integration is accompanied by political liberalization. By contrast, the consequence of financial integration in countries with a socialist legal origin was a deterioration of institutional quality. Again, the positive influence of the deregulation reform proved to be mainly due to its benign impact on the investment risks. However, we could also detect a negative impact of financial integration on the corruption index. We suggested that financial opening is interpreted by investors as a signal to provide better protection of property rights by local governments, which results in a lower perception of expropriation risks. On the contrary, our findings verify predictions, according to which economic liberalization might provide a ground for rent-seeking activities, thereby increasing the level of corruption.

Our work on the effect of liberalization reform offers some scope for extensions and improvement. Although historically in most of the cases, political liberalization and transition of former socialist states have gone along with economic liberalization, there might be more precise tools to detect those reform processes which might have accompanied financial deregulation and thereby influenced structural development. With relative comprehensive data, one could, for example, explicitly control for the parallel effects of trade liberalization. In this context, a further possibility might be to take into account the effects of participation on IMF programs which generally commit the participating countries to implement comprehensive structural reform. At a more disaggregate level, considering specific political programs, such as an anti corruption campaign or liberalization of civil rights, may also throw more light on this issue.

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Appendix A: Estimation Results

Fixed-Effects Estimations

Table 1: Financial Openness and Institutional Quality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
kaopen	0.052**	0.063**	0.080***	0.055**	0.060**	0.076**	0.108***	0.098***	0.083***	0.083**
	(2.05)	(2.22)	(2.85)	(2.30)	(2.00)	(2.47)	(2.95)	(3.00)	(2.90)	(2.09)
demacc	0.186***	0.187***		0.187***	0.204***	0.172***	0.143***		0.178***	0.201***
	(7.02)	(6.68)		(6.38)	(7.86)	(4.93)	(3.78)		(4.58)	(5.96)
govstab	0.091***	0.097***	0.086***	0.090***	0.079***	0.094***	0.102***	0.092***	0.090***	0.087***
	(6.58)	(6.66)	(5.30)	(6.38)	(5.79)	(4.90)	(4.62)	(4.10)	(4.78)	(4.89)
gdppc(-1)	0.352**	0.363	0.347	0.216	0.424**	0.107	0.190	0.061	-0.070	0.220
	(2.17)	(1.63)	(1.64)	(1.23)	(1.99)	(0.56)	(0.58)	(0.26)	(-0.35)	(0.84)
growth(-1)	0.013	0.016	0.019	0.013	0.023**	0.020	0.019	0.026	0.021	0.028**
	(1.13)	(1.12)	(1.44)	(1.09)	(2.05)	(1.43)	(1.09)	(1.65)	(1.46)	(2.11)
inflat	-0.021	-0.017	-0.029	-0.014	-0.013	-0.022	-0.005	-0.030	-0.013	-0.010
	(-0.93)	(-0.77)	(-1.21)	(-0.65)	(-0.35)	(-0.84)	(-0.21)	(-1.04)	(-0.55)	(-0.23)
trade(-1)	-0.096	-0.094	-0.016	-0.083	-0.222*	-0.0511	0.051	0.016	-0.048	-0.196
	(-0.77)	(-0.61)	(-0.10)	(-0.65)	(-1.77)	(-0.36)	(0.36)	(0.09)	(-0.34)	(-1.31)
school(-1)	-0.172	-0.117	-0.202	-0.188		-0.158	-0.024	-0.178	-0.185	
	(-0.96)	(-0.52)	(-1.13)	(-1.06)		(-0.71)	(-0.07)	(-0.79)	(-0.86)	
fuelex	-0.080***	-0.012	-0.023		-0.083***	-0.073	0.067	-0.038		-0.096**
	(-2.72)	(-0.23)	(-0.76)		(-2.76)	(-1.55)	(1.18)	(-0.74)		(-2.30)
inequal(-1)		0.251			0.009		0.307			
		(0.71)			(0.21)		(0.79)			
polity			0.025***					0.024**		
			(2.86)					(2.48)		
primex				-0.123					-0.176*	
				(-1.49)					(-1.95)	
bl_school(-1)										-0.010
										(-0.15)
N	1473	892	1419	1492	1534	932	499	923	948	968
Countries	112	91	108	113	92	82	62	81	83	63
Adj.R2	0.389	0.443	0.290	0.390	0.397	0.360	0.446	0.289	0.375	0.384

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *institute*. Columns (1)–(5) include all countries, columns (6)–(10) – middle and low income countries. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 2: Financial Openness and Institutional Dimensions: All Countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
kaopen	0.338***	0.325***	0.219**	0.006	0.085	0.061*	0.056*
	(3.80)	(3.53)	(2.09)	(0.10)	(1.31)	(1.75)	(1.73)
demacc	0.217*	0.247**	0.099	0.172***	0.217***	0.182***	0.186***
	(1.86)	(2.14)	(0.86)	(2.90)	(2.97)	(4.52)	(3.75)
govstab	0.429***	0.466***	0.580***	0.098***	0.071**	0.013	0.023
	(10.24)	(10.93)	(12.73)	(3.80)	(2.24)	(0.69)	(1.22)
gdppc(-1)	2.717***	3.015***	1.009	0.830*	1.417**	0.120	0.144
	(3.59)	(4.34)	(1.51)	(1.95)	(2.62)	(0.54)	(0.55)
growth(-1)	0.092**	0.086**	0.170***	-0.016	-0.035	-0.002	-0.0134
	(2.19)	(2.05)	(3.72)	(-0.85)	(-1.35)	(-0.17)	(-0.86)
inflat	-0.099	-0.117	-0.069	-0.051	-0.063	-0.037*	-0.033
	(-1.24)	(-1.65)	(-0.80)	(-0.98)	(-1.05)	(-1.87)	(-1.57)
trade(-1)	1.142***	0.984***	0.128	-0.344	-0.303	0.054	0.131
	(2.96)	(2.66)	(0.27)	(-1.19)	(-0.80)	(0.39)	(0.84)
school	-0.419	-0.362	-0.360				
	(-0.78)	(-0.66)	(-0.56)				
fuelex	0.214*	0.207	-0.034	-0.065	0.054	-0.083*	-0.009
	(1.66)	(1.63)	(-0.19)	(-1.04)	(0.56)	(-1.92)	(-0.13)
laword		-0.411***	-0.338***				
		(-4.58)	(-3.23)				
burqua		0.192	0.248				
		(1.02)	(1.00)				
inequal(-1)			1.434**		1.297*		-0.153
			(2.20)		(1.78)		(-0.51)
school(-1)				-0.008	-0.072	-0.021	0.023
				(-0.02)	(-0.15)	(-0.08)	(0.11)
N	1482	1482	892	1473	892	1473	892
Countries	113	113	92	112	91	112	91
Adj.R2	0.522	0.543	0.530	0.143	0.236	0.199	0.248

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample includes all countries. In columns (1)–(3) the dependent variable is *iprof*; in columns (3) & (4) – *laword*; in columns (6) & (7) – *burqua*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 3: Financial Openness and Corruption: All countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
kaopen	-0.065	-0.039	-0.031	-0.027	-0.085**	-0.076	-0.027	0.005
	(-1.59)	(-0.84)	(-0.73)	(-0.63)	(-2.11)	(-1.62)	(-0.73)	(0.13)
demacc	0.190***	0.224***		0.208***	0.094*	0.116*	0.038	-0.019
	(3.62)	(3.47)		(4.34)	(1.86)	(1.84)	(0.81)	(-0.34)
govstab	0.033	-0.004	0.021	0.012	0.002	-0.027	0.016	-0.001
	(1.39)	(-0.18)	(0.94)	(0.51)	(0.28)	(-1.44)	(0.57)	(-0.06)
gdppc(-1)	-0.915***	-0.493	-0.955**	-0.702*	-1.143***	-0.871	-1.203***	-0.543
	(-2.73)	(-0.88)	(-2.26)	(-1.86)	(-3.37)	(-1.59)	(-3.49)	(-1.09)
growth(-1)	0.014	0.017	0.022	0.030	0.018	0.029	0.018	0.022
	(0.71)	(0.80)	(0.98)	(1.62)	(0.96)	(1.39)	(0.94)	(1.11)
inflat	0.079*	0.067	0.080*	0.044	0.102**	0.092*	0.116***	0.118**
	(1.76)	(1.27)	(1.74)	(0.92)	(2.54)	(1.84)	(2.76)	(2.42)
trade(-1)	-0.638***	-0.386	-0.481**	-0.661***	-0.576***	-0.354*	-0.483**	-0.348*
	(-3.18)	(-1.58)	(-2.20)	(-3.04)	(-3.04)	(-1.68)	(-2.37)	(-1.83)
school(-1)	-0.524*	-0.342	-0.504*		-0.516*	-0.332	-0.690**	-0.850
	(-1.71)	(-0.67)	(-1.70)		(-1.71)	(-0.69)	(-2.02)	(-1.52)
fuelex	-0.224**	-0.046	-0.080*	-0.148***	-0.184*	-0.056	-0.040	-0.036
	(-2.34)	(-0.66)	(-1.71)	(-3.72)	(-1.75)	(-0.88)	(-0.65)	(-0.44)
inequal(-1)		-0.426				-0.685		-0.193
		(-0.63)				(-1.32)		(-0.37)
polity			0.019					
			(1.12)					
bl_school(-1)				-0.140				
				(-1.50)				
laword					0.229***	0.236***	0.234***	0.230***
					(4.94)	(3.96)	(5.32)	(4.35)
burqua					0.307***	0.304***	0.317***	0.369***
					(3.87)	(3.47)	(3.79)	(3.87)
N	1473	892	1419	1534	1473	892	932	499
Countries	112	91	108	92	112	91	82	62
Adj.R2	0.227	0.121	0.184	0.197	0.327	0.244	0.336	0.254

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample includes all countries. The dependent variable is *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 4: Financial Openness and Institutional Dimensions: Middle and Low Income Countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
kaopen	0.366*** (3.86)	0.307** (2.51)	0.000 (0.00)	0.120 (1.50)	0.068 (1.49)	0.096** (2.01)	0.080* (1.81)	-0.027 (-0.73)	0.005 (0.13)
demacc	0.357*** (3.35)	0.223 (1.60)	0.072 (1.10)	0.039 (0.45)	0.201*** (3.84)	0.020 (0.63)	0.036 (1.00)	0.039 (0.81)	-0.019 (-0.34)
govstab	0.298*** (6.11)	0.413*** (7.10)	0.146*** (5.08)	0.123*** (3.06)	0.022 (0.83)			0.016 (0.57)	-0.001 (-0.06)
laword	-0.155 (-1.63)	-0.214 (-1.54)						0.234*** (5.32)	0.230*** (4.35)
burqua	0.262 (1.42)	0.130 (0.46)						0.317*** (3.79)	0.369*** (3.87)
gdppc(-1)	2.542*** (3.88)	1.889** (2.14)	-0.068 (-0.14)	-0.276 (-0.34)	0.228 (0.78)	0.189 (0.59)	0.137 (0.41)	-1.203*** (-3.49)	-0.543 (-1.09)
growth(-1)	0.074* (1.72)	0.125** (2.37)	0.025 (1.14)	0.026 (0.77)	-0.006 (-0.32)	-0.001 (-0.05)	-0.012 (-0.59)	0.018 (0.94)	0.022 (1.11)
inflat	-0.184** (-2.30)	-0.153 (-1.35)	-0.052 (-0.96)	-0.027 (-0.46)	-0.027 (-1.17)	-0.031 (-1.15)	-0.017 (-0.46)	0.116*** (2.76)	0.118** (2.42)
trade(-1)	0.579 (1.50)	-0.053 (-0.09)	-0.175 (-0.59)	0.097 (0.27)	0.107 (0.70)	0.209 (1.01)	0.339 (1.46)	-0.483** (-2.37)	-0.348* (-1.83)
school	0.663 (1.22)	0.811 (0.99)							
fuelex	0.011 (0.08)	0.116 (0.66)	-0.117 (-1.36)	0.136 (1.18)	-0.052 (-0.77)	-0.010 (-0.13)	0.083 (0.78)	-0.040 (-0.65)	-0.036 (-0.44)
inequal(-1)		1.813*** (2.90)		1.135 (1.51)			-0.067 (-0.22)		-0.193 (-0.37)
school(-1)			0.069 (0.16)	0.460 (0.68)	-0.125 (-0.41)	-0.162 (-0.52)	-0.119 (-0.35)	-0.690** (-2.02)	-0.850 (-1.52)
polity						0.025* (1.81)	0.029* (1.96)		
N	938	497	932	499	932	923	493	932	499
Countries	83	63	82	62	82	81	61	82	62
Adj.R2	0.561	0.549	0.144	0.197	0.200	0.118	0.161	0.336	0.254

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ The data sample includes middle and low income countries. In columns (1) & (2) the dependent variable is *iprof*; in columns (3) & (4) – *laword*; in columns (5) – (7) – *burqua*; in columns (8) & (9) – *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 5: Financial Openness and Institutions: Developing Countries

	(1)	(2)	(3)	(4)	(5)
kaopen	0.121***	0.413***	0.028	0.140**	-0.041
	(2.77)	(3.70)	(0.33)	(2.36)	(-0.83)
demacc	0.148***	0.282**	0.090	0.140***	0.071
	(3.47)	(2.42)	(1.18)	(2.79)	(1.25)
govstab	0.090***	0.308***	0.166***	0.007	-0.005
	(4.00)	(5.56)	(5.06)	(0.22)	(-0.16)
gdppc(-1)	0.067	1.450**	0.525	-0.115	-0.869*
	(0.32)	(2.09)	(1.23)	(-0.35)	(-1.99)
growth(-1)	0.035*	0.100**	0.028	0.020	0.011
	(1.92)	(2.00)	(1.03)	(0.91)	(0.44)
inflat	-0.024	-0.193**	-0.041	-0.009	0.067
	(-0.81)	(-2.24)	(-0.70)	(-0.39)	(1.56)
trade(-1)	0.068	0.286	0.175	0.155	-0.356
	(0.36)	(0.60)	(0.55)	(0.80)	(-1.34)
school(-1)	-0.216		-0.293	-0.044	-0.663*
	(-0.84)		(-0.64)	(-0.12)	(-1.76)
fuelex	-0.112*	0.038	-0.203**	-0.089	-0.039
	(-1.98)	(0.21)	(-2.06)	(-1.12)	(-0.62)
laword		-0.038			0.206***
		(-0.35)			(3.49)
burqua		0.165			0.351***
		(0.78)			(3.54)
school		0.714			
		(1.21)			
N	661	666	661	661	661
Countries	61	62	61	61	61
Adj.R2	0.355	0.499	0.230	0.140	0.258

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample includes low income countries. In column (1) the dependent variable is *institute*; in column (2) – *iprof*; in column (3) – *laword*; in column (4) – *burqua*; in column (5) – *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 6: Financial Openness and Institutions: Excluding Former Socialist Countries

	(1)	(2)	(3)	(4)	(5)
kaopen	0.080**	0.344***	0.010	0.072	-0.026
	(2.36)	(3.61)	(0.14)	(1.44)	(-0.63)
demacc	0.193***	0.316***	0.110	0.220***	0.065
	(5.11)	(2.89)	(1.48)	(3.80)	(1.47)
govstab	0.095***	0.317***	0.144***	0.025	0.007
	(4.70)	(5.99)	(4.85)	(0.86)	(0.24)
gdppc(-1)	0.178	1.865***	0.101	0.278	-0.943**
	(0.83)	(2.80)	(0.17)	(0.82)	(-2.36)
growth(-1)	0.023	0.062	0.026	-0.002	0.028
	(1.52)	(1.39)	(1.11)	(-0.08)	(1.41)
inflat	-0.043	-0.167**	-0.085	-0.037	0.075
	(-1.53)	(-2.18)	(-1.53)	(-1.41)	(1.60)
trade(-1)	0.006	0.050	0.077	0.136	-0.364
	(0.04)	(0.12)	(0.22)	(0.80)	(-1.61)
school(-1)	-0.265		-0.172	-0.222	-0.849**
	(-1.16)		(-0.37)	(-0.72)	(-2.45)
fuelex	-0.092*	0.119	-0.175*	-0.073	-0.061
	(-1.80)	(0.82)	(-1.68)	(-1.00)	(-1.03)
laword		-0.100			0.211***
		(-1.04)			(4.67)
burqua		0.292			0.293***
		(1.51)			(3.33)
school		1.105**			
		(2.06)			
N	788	791	788	788	788
Countries	66	67	66	66	66
Adj.R2	0.390	0.541	0.181	0.205	0.288

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample includes middle and low income countries excluding former socialist countries. In column (1) the dependent variable is *institute*; in column (2) – *iprof*; in column (3) – *laword*; in column (4) – *burqua*; in column (5) – *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 7: Financial Openness and Institutional Quality: Average Data

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
kaopen	0.065**	0.073**	0.058	0.090**	0.110***	0.088*	0.116**
	(2.12)	(2.28)	(1.57)	(2.40)	(2.72)	(1.88)	(2.32)
demacc	0.196***	0.205***	0.222***	0.186***	0.209***	0.219***	0.145***
	(5.72)	(6.67)	(6.66)	(4.22)	(4.94)	(5.12)	(2.68)
govstab	0.103***	0.113***	0.0925***	0.100***	0.115***	0.100***	0.100***
	(6.17)	(6.38)	(5.34)	(4.67)	(4.84)	(4.64)	(3.77)
gdppc(-1)	0.321*	0.467*	0.350	0.160	0.371	0.187	-0.077
	(1.72)	(1.92)	(1.56)	(0.65)	(1.11)	(0.69)	(-0.26)
growth(-1)	0.017	0.015	0.048	0.008	-0.000	0.042	0.043
	(0.57)	(0.47)	(1.49)	(0.21)	(-0.01)	(1.01)	(1.00)
inflat	-0.004	0.001	-0.010	-0.017	-0.027	-0.020	-0.020
	(-0.10)	(0.03)	(-0.18)	(-0.33)	(-0.58)	(-0.31)	(-0.31)
trade(-1)	-0.241	-0.287	-0.320*	-0.279	-0.316	-0.343*	-0.220
	(-1.33)	(-1.57)	(-1.86)	(-1.30)	(-1.46)	(-1.70)	(-0.72)
school(-1)	-0.259	-0.211		-0.262	-0.261		-0.209
	(-1.23)	(-0.77)		(-1.04)	(-0.70)		(-0.77)
fuelex	-0.103***	-0.0339	-0.098**	-0.094	-0.052	-0.097	-0.126**
	(-2.70)	(-0.41)	(-2.15)	(-1.61)	(-0.53)	(-1.61)	(-2.03)
inequal(-1)		-0.442			-0.767*		
		(-1.16)			(-1.90)		
bl_school(-1)			-0.005			-0.070	
			(-0.08)			(-0.83)	
N	434	352	408	295	224	269	216
Countries	114	98	93	84	69	64	62
Adj.R2	0.387	0.430	0.400	0.350	0.410	0.377	0.334

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *institute*. The data sample consists of four- year averages (1986-90;...;2002-2005) while the initial period (1984-85) covers only two years. Columns (1)–(3) include the full sample, columns (4)-(6) include middle and low income countries, column (7) low income countries only. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 8: Financial Openness and Institutional Dimensions: Average Data

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
kaopen	0.294**	0.330**	0.0528	0.0444	0.107**	0.108**	-0.094*	-0.067
	(2.56)	(2.53)	(0.87)	(0.71)	(2.39)	(2.27)	(-1.89)	(-1.41)
demacc	0.313**	0.219	0.195***	0.206***			0.057	0.058
	(2.39)	(1.50)	(3.37)	(3.06)			(0.94)	(0.98)
govstab	0.530***	0.548***	0.164***	0.171***	-0.006	0.011	0.004	0.001
	(10.55)	(10.05)	(5.37)	(4.60)	(-0.24)	(0.32)	(0.12)	(0.05)
laword	-0.402***	-0.458***					0.194***	0.221***
	(-4.12)	(-4.12)					(3.76)	(4.67)
burqua	0.186	0.230					0.355***	0.356***
	(1.01)	(1.14)					(4.16)	(3.71)
gdppc(-1)	2.132***	2.162***	0.791**	1.262***	0.293	0.379	-1.016***	-0.839**
	(3.08)	(2.84)	(2.19)	(3.11)	(0.86)	(0.79)	(-2.79)	(-2.17)
growth(-1)	0.278***	0.240***	-0.050	-0.052	0.012	0.004	-0.077*	-0.055
	(4.16)	(3.09)	(-0.88)	(-0.80)	(0.36)	(0.10)	(-1.72)	(-1.29)
inflat	-0.279*	-0.084	-0.026	-0.027	-0.018	-0.023	0.118	0.126*
	(-1.72)	(-0.51)	(-0.30)	(-0.25)	(-0.39)	(-0.42)	(1.57)	(1.84)
trade(-1)	0.908*	1.144*	-0.813***	-0.926***	0.173	0.166	-0.716**	-0.739***
	(1.70)	(1.96)	(-2.95)	(-3.02)	(0.76)	(0.54)	(-2.41)	(-3.47)
school	-0.370	-0.151						
	(-0.59)	(-0.23)						
fuelex	0.472***	0.514*	-0.152	-0.125	-0.146*	-0.063	-0.146	-0.049
	(2.93)	(1.96)	(-1.65)	(-1.11)	(-1.78)	(-0.32)	(-1.00)	(-0.43)
inequal(-1)		1.690		-0.773		-0.547		-0.686
		(1.18)		(-1.01)		(-1.14)		(-1.35)
school(-1)			-0.542	-0.290	-0.242	-0.349	-0.542	-0.830*
			(-1.31)	(-0.57)	(-0.82)	(-0.90)	(-1.59)	(-1.82)
polity					0.022	0.033		
					(1.07)	(1.32)		
N	435	352	434	352	416	337	434	352
Countries	113	99	114	98	110	94	114	98
Adj.R2	0.629	0.649	0.188	0.198	0.0973	0.103	0.391	0.417

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample consists of four- year averages (1986-90;...; 2002-2005), while the initial period (1984-85) covers only two years and includes all countries. In columns (1) & (2) the dependent variable is *iprof*; in columns (3) & (4) – *laword*; in columns (5) & (6) – *burqua*; in columns (7) & (8) – *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

Table 9: Financial Openness and Institutional Dimensions: Average Data Middle and Low Income Countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
kaopen	0.313**	0.038	0.085	-0.020	0.283**	0.054	0.152**	-0.027
	(2.49)	(0.55)	(1.58)	(-0.39)	(2.17)	(0.63)	(2.25)	(-0.41)
demacc	0.409***	0.117*	0.211***	-0.009	0.328**	0.138	0.131**	0.015
	(3.29)	(1.76)	(3.24)	(-0.14)	(2.65)	(1.67)	(2.25)	(0.20)
govstab	0.374***	0.206***	-0.014	-0.015	0.379***	0.240***	-0.033	-0.046
	(6.72)	(6.30)	(-0.48)	(-0.42)	(6.35)	(6.35)	(-0.94)	(-1.03)
laword	-0.198*			0.233***	-0.045			0.246***
	(-1.76)			(5.04)	(-0.37)			(4.35)
burqua	0.213			0.372***	0.293			0.347***
	(1.19)			(4.22)	(1.44)			(3.62)
gdppc(-1)	1.104*	0.009	0.483	-1.031***	0.297	0.306	-0.003	-0.819*
	(1.76)	(0.02)	(1.04)	(-2.68)	(0.52)	(0.68)	(-0.01)	(-1.91)
growth(-1)	0.275***	-0.054	0.008	-0.056	0.280***	-0.033	0.066	-0.059
	(4.03)	(-0.78)	(0.18)	(-1.21)	(3.28)	(-0.44)	(1.37)	(-1.06)
inflat	-0.386**	-0.075	0.007	0.155*	-0.423***	-0.017	0.018	0.106
	(-2.46)	(-0.87)	(0.14)	(1.86)	(-3.50)	(-0.17)	(0.35)	(1.07)
trade(-1)	0.044	-0.874***	0.195	-0.514	-1.017**	-0.608	0.206	-0.110
	(0.08)	(-2.98)	(0.85)	(-1.53)	(-2.30)	(-1.57)	(0.64)	(-0.24)
school	0.951				1.043*			
	(1.50)				(1.69)			
fuelex	0.388	-0.266***	-0.141	0.059	0.686***	-0.352***	-0.205**	0.073
	(1.63)	(-2.85)	(-1.47)	(0.65)	(2.84)	(-3.59)	(-2.28)	(0.75)
school(-1)		-0.306	-0.181	-0.653*		-0.611	0.112	-0.727*
		(-0.65)	(-0.53)	(-1.67)		(-1.16)	(0.34)	(-1.70)
N	294	295	295	295	216	216	216	216
Countries	83	84	84	84	62	62	62	62
Adj.R2	0.646	0.218	0.172	0.402	0.657	0.291	0.129	0.311

t statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data sample consists of four-year averages (1986-90;...; 2002-2005), while initial period (1984-85) covers only two years and includes all countries. Columns (1) – (4) include middle and low income countries, while (5)–(8) low income countries only. In columns (1) & (5) the dependent variable is *iprof*; in columns (2) & (6) – *laword*, in columns (3) & (7) – *burqua*, and in columns (4) & (8) – *corrupt*. All regressions include country as well as year dummies. By country clustered standard errors are reported.

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Difference-in-Difference Estimations

Table 10: Permanent Liberalization Reform and Institutional Quality

	(1)	(2)	(3)	(4)	(5)	(6)
finlib_p	0.121	0.108	0.013	0.117	0.082	-0.193
	(2.68)***	(2.19)**	(0.23)	(2.02)**	(1.20)	(-2.38)**
	(1.09)	(0.92)	(0.13)	(0.80)	(0.46)	(-1.28)
ME of finlib_p		0.099	0.059		0.100	-0.093
		(2.23)**	(1.19)		(1.73)*	(-1.39)
		(0.92)	(0.70)		(0.68)	(-0.77)
polity	0.027			0.025		
	(4.78)***			(4.10)***		
	(3.30)***			(2.85)***		
govstab	0.127	0.129	0.144	0.126	0.127	0.139
	(12.19)***	(12.17)***	(10.74)***	(10.29)***	(10.23)***	(8.69)***
	(6.21)***	(6.24)***	(6.19)***	(5.75)***	(5.79)***	(5.39)***
gdppc	0.547	0.603	0.772	0.450	0.514	0.550
	(4.58)***	(4.96)***	(4.17)***	(3.43)***	(3.88)***	(2.50)**
	(2.06)**	(2.25)**	(2.36)**	(1.47)	(1.73)*	(1.43)
growth	0.014	0.013	0.017	0.015	0.013	0.015
	(1.45)	(1.26)	(1.36)	(1.34)	(1.11)	(1.05)
	(1.19)	(1.05)	(1.01)	(1.09)	(0.91)	(0.76)
inflat	-0.034	-0.026	0.001	-0.060	-0.052	-0.018
	(-2.54)**	(-1.94)*	(0.07)	(-3.73)***	(-3.25)***	(-0.99)
	(-1.44)	(-1.08)	(0.05)	(-2.13)**	(-1.99)**	(-0.77)
trade	0.146	0.172	-0.014	0.208	0.236	0.124
	(1.67)*	(1.90)*	(-0.09)	(2.30)**	(2.54)**	(0.86)
	(0.80)	(0.84)	(-0.05)	(1.27)	(1.25)	(0.52)
school	0.068	0.111	0.120	0.104	0.149	0.042
	(0.61)	(0.98)	(0.76)	(0.83)	(1.15)	(0.19)
	(0.26)	(0.42)	(0.40)	(0.36)	(0.50)	(0.11)
fuelex	-0.043	-0.038	-0.017	-0.031	-0.029	0.003
	(-2.03)**	(-1.75)*	(-0.37)	(-1.01)	(-0.98)	(0.05)
	(-1.23)	(-1.11)	(-0.21)	(-0.58)	(-0.59)	(0.04)
pollib·finlib_p		0.185	0.286		0.223	0.334
		(1.90)*	(2.55)**		(2.20)**	(2.82)***
		(0.80)	(1.41)		(0.99)	(1.89)*
soc·finlib_p		-0.384	-0.019		-0.295	0.358
		(-3.24)***	(-0.12)		(-2.36)**	(2.55)**
		(-1.43)	(-0.13)		(-1.10)	(1.91)*
inequal			0.083			-0.005
			(0.43)			(-0.02)
			(0.29)			(-0.02)
N	1465	1465	825	1101	1101	595
Countries	108	108	84	85	85	65
Adj.R2	0.914	0.912	0.935	0.868	0.866	0.912

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *institute*. In columns (1)-(3) the control group consists of always open and always closed countries; columns (4)-(6): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 11: Temporary Liberalization Reform and Institutional Quality

	(1)	(2)	(3)	(4)	(5)	(6)
finlib_t	0.098	0.077	0.017	0.085	0.043	-0.195
	(2.15)**	(1.56)	(0.32)	(1.45)	(0.65)	(-2.42)**
	(0.95)	(0.72)	(0.18)	(0.63)	(0.28)	(-1.29)
ME of finlib_t		0.076	0.062		0.072	-0.100
		(1.67)*	(1.25)		(1.23)	(-1.44)
		(0.75)	(0.74)		(0.54)	(-0.79)
polity	0.027			0.026		
	(4.79)***			(4.09)***		
	(3.28)***			(2.82)***		
govstab	0.127	0.129	0.143	0.126	0.127	0.141
	(12.14)***	(12.13)***	(10.75)***	(10.25)***	(10.21)***	(8.87)***
	(6.16)***	(6.20)***	(6.18)***	(5.69)***	(5.74)***	(5.49)***
gdppc	0.548	0.614	0.772	0.446	0.522	0.537
	(4.57)***	(5.05)***	(4.18)***	(3.38)***	(3.93)***	(2.44)**
	(2.03)**	(2.23)**	(2.37)**	(1.43)	(1.71)*	(1.40)
growth	0.015	0.013	0.017	0.016	0.013	0.014
	(1.47)	(1.25)	(1.37)	(1.38)	(1.11)	(0.96)
	(1.20)	(1.03)	(1.01)	(1.11)	(0.90)	(0.69)
inflat	-0.033	-0.025	0.002	-0.059	-0.051	-0.027
	(-2.43)**	(-1.84)*	(0.11)	(-3.60)***	(-3.15)***	(-1.45)
	(-1.36)	(-1.03)	(0.07)	(-2.03)**	(-1.95)*	(-1.20)
trade	0.146	0.170	-0.016	0.207	0.233	0.141
	(1.67)*	(1.87)*	(-0.11)	(2.30)**	(2.52)**	(0.98)
	(0.80)	(0.84)	(-0.06)	(1.27)	(1.25)	(0.61)
school	0.071	0.112	0.120	0.102	0.144	0.039
	(0.63)	(0.98)	(0.76)	(0.81)	(1.12)	(0.18)
	(0.27)	(0.42)	(0.40)	(0.35)	(0.48)	(0.10)
fuelex	-0.046	-0.040	-0.017	-0.036	-0.032	0.011
	(-2.15)**	(-1.86)*	(-0.37)	(-1.16)	(-1.08)	(0.24)
	(-1.32)	(-1.19)	(-0.21)	(-0.67)	(-0.65)	(0.16)
pollib·finlib_t		0.210	0.285		0.250	0.304
		(2.19)**	(2.62)***		(2.56)**	(2.74)***
		(0.90)	(1.47)		(1.15)	(1.89)*
soc·finlib_t		-0.368	-0.023		-0.273	0.362
		(-3.04)***	(-0.15)		(-2.13)**	(2.55)**
		(-1.34)	(-0.17)		(-1.01)	(1.87)*
inequal			0.084			-0.000
			(0.44)			(-0.00)
			(0.29)			(-0.00)
N	1465	1465	825	1101	1101	595
Countries	108	108	84	85	85	65
Adj.R2	0.914	0.912	0.935	0.867	0.865	0.912

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *institute*. In columns (1)-(3) the control group consists of always open and always closed countries; columns (4)-(6): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 12: Liberalization Reform and Investment Profile

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
finlib_p	0.585	0.739	0.825	1.001				
	(4.84)***	(5.19)***	(5.54)***	(5.41)***				
	(2.75)***	(3.26)***	(3.33)***	(3.75)***				
ME of finlib_p		0.561		0.821				
		(4.61)***		(5.36)***				
		(2.77)***		(3.48)***				
polity	0.025		0.023		0.025		0.023	
	(1.68)*		(1.33)		(1.72)*		(1.35)	
	(1.04)		(0.86)		(1.06)		(0.87)	
govstab	0.290	0.289	0.268	0.265	0.288	0.287	0.265	0.263
	(9.82)***	(9.86)***	(7.93)***	(7.89)***	(9.76)***	(9.78)***	(7.84)***	(7.78)***
	(6.39)***	(6.42)***	(5.33)***	(5.31)***	(6.30)***	(6.33)***	(5.21)***	(5.19)***
laword	0.028	0.023	0.008	0.009	0.0186	0.0100	-0.007	-0.010
	(0.48)	(0.38)	(0.12)	(0.13)	(0.31)	(0.17)	(-0.10)	(-0.15)
	(0.30)	(0.24)	(0.08)	(0.09)	(0.20)	(0.11)	(-0.07)	(-0.10)
burqua	0.529	0.547	0.484	0.494	0.543	0.565	0.505	0.518
	(5.84)***	(6.02)***	(5.02)***	(5.13)***	(5.99)***	(6.18)***	(5.26)***	(5.37)***
	(3.15)***	(3.22)***	(2.92)***	(3.00)***	(3.16)***	(3.22)***	(2.99)***	(3.05)***
gdppc	0.686	0.589	0.913	0.823	0.691	0.621	0.908	0.854
	(1.85)*	(1.54)	(2.25)**	(1.98)**	(1.86)*	(1.62)	(2.25)**	(2.07)**
	(1.03)	(0.87)	(1.19)	(1.08)	(1.03)	(0.89)	(1.18)	(1.10)
growth	0.089	0.090	0.078	0.079	0.089	0.090	0.080	0.080
	(2.75)***	(2.76)***	(2.19)**	(2.20)**	(2.77)***	(2.77)***	(2.26)**	(2.24)**
	(2.11)**	(2.13)**	(1.87)*	(1.89)*	(2.12)**	(2.11)**	(1.93)*	(1.92)*
inflat	-0.023	-0.019	-0.076	-0.076	-0.015	-0.008	-0.062	-0.058
	(-0.58)	(-0.47)	(-1.72)*	(-1.77)*	(-0.37)	(-0.20)	(-1.41)	(-1.35)
	(-0.39)	(-0.32)	(-1.18)	(-1.23)	(-0.25)	(-0.13)	(-0.98)	(-0.95)
trade	0.088	0.146	0.411	0.469	0.083	0.134	0.407	0.457
	(0.32)	(0.52)	(1.37)	(1.55)	(0.30)	(0.48)	(1.35)	(1.51)
	(0.18)	(0.29)	(0.81)	(0.91)	(0.17)	(0.26)	(0.79)	(0.87)
school	-0.081	-0.024	0.423	0.503	-0.066	-0.006	0.445	0.522
	(-0.28)	(-0.08)	(1.35)	(1.59)	(-0.23)	(-0.02)	(1.42)	(1.65)*
	(-0.16)	(-0.05)	(0.71)	(0.84)	(-0.13)	(-0.01)	(0.74)	(0.86)
fuelex	0.013	0.024	0.026	0.023	0.008	0.018	0.013	0.011
	(0.15)	(0.28)	(0.30)	(0.26)	(0.09)	(0.21)	(0.15)	(0.12)
	(0.08)	(0.15)	(0.21)	(0.19)	(0.05)	(0.12)	(0.11)	(0.09)
pollib·finlib_p		-0.079		-0.097				
		(-0.34)		(-0.40)				
		(-0.18)		(-0.22)				
soc·finlib_p		-1.208		-1.098				
		(-3.42)***		(-2.84)***				
		(-2.04)**		(-1.77)*				

continued on the next page

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *iprof*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 12: Liberalization Reform and Investment Profile

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							continued from the previous page	
finlib_t					0.561	0.687	0.795	0.929
					(4.52)***	(4.77)***	(5.25)***	(5.12)***
					(2.68)***	(3.02)***	(3.38)***	(3.69)***
ME of finlib_t						0.526		0.777
						(4.23)***		(5.07)***
						(2.60)***		(3.45)***
pollib·finlib_t						-0.006		0.005
						(-0.03)		(0.02)
						(-0.01)		(0.01)
soc·finlib_t						-1.200		-1.092
						(-3.38)***		(-2.81)***
						(-2.01)**		(-1.75)*
N	1465	1465	1101	1101	1465	1465	1101	1101
Countries	108	108	85	85	108	108	85	85
Adj.R2	0.805	0.806	0.789	0.790	0.805	0.806	0.789	0.790

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *iprof*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 13: Liberalization Reform and Law and Order

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
finlib_p	-0.085	-0.113	-0.270	-0.377				
	(-1.14)	(-1.30)	(-2.86)***	(-3.35)***				
	(-0.51)	(-0.62)	(-1.25)	(-1.45)				
ME of finlib_p		-0.099		-0.289				
		(-1.35)		(-3.12)***				
		(-0.62)		(-1.36)				
polity	-0.001		-0.009		-0.001		-0.010	
	(-0.09)		(-0.87)		(-0.08)		(-0.90)	
	(-0.05)		(-0.52)		(-0.05)		(-0.54)	
govstab	0.108	0.106	0.108	0.108	0.107	0.106	0.108	0.108
	(6.52)***	(6.50)***	(5.43)***	(5.45)***	(6.53)***	(6.50)***	(5.46)***	(5.47)***
	(3.49)***	(3.49)***	(3.01)***	(3.00)***	(3.53)***	(3.50)***	(3.06)***	(3.04)***
gdppc	1.155	1.199	0.907	1.004	1.153	1.170	0.917	0.978
	(5.29)***	(5.40)***	(3.76)***	(4.13)***	(5.28)***	(5.29)***	(3.79)***	(4.01)***
	(2.35)**	(2.50)**	(1.74)*	(1.97)*	(2.36)**	(2.45)**	(1.77)*	(1.93)*
growth	-0.024	-0.026	-0.020	-0.024	-0.024	-0.025	-0.021	-0.024
	(-1.53)	(-1.64)	(-1.10)	(-1.26)	(-1.53)	(-1.60)	(-1.15)	(-1.27)
	(-1.16)	(-1.25)	(-0.86)	(-0.98)	(-1.16)	(-1.22)	(-0.90)	(-0.99)
inflat	-0.097	-0.095	-0.129	-0.123	-0.095	-0.094	-0.131	-0.129
	(-4.18)***	(-4.18)***	(-4.54)***	(-4.43)***	(-4.10)***	(-4.12)***	(-4.58)***	(-4.56)***
	(-2.08)**	(-2.12)**	(-2.27)**	(-2.38)**	(-2.07)**	(-2.09)**	(-2.33)**	(-2.43)**
trade	0.421	0.405	0.498	0.455	0.417	0.407	0.499	0.465
	(2.84)***	(2.72)***	(3.22)***	(2.93)***	(2.79)***	(2.73)***	(3.21)***	(2.98)***
	(1.30)	(1.24)	(1.66)	(1.44)	(1.27)	(1.24)	(1.63)	(1.46)
school	0.247	0.242	0.199	0.160	0.248	0.246	0.204	0.171
	(1.36)	(1.34)	(0.93)	(0.75)	(1.37)	(1.36)	(0.95)	(0.80)
	(0.68)	(0.67)	(0.48)	(0.38)	(0.69)	(0.68)	(0.49)	(0.40)
fuelex	-0.083	-0.079	-0.070	-0.059	-0.077	-0.073	-0.059	-0.049
	(-2.32)**	(-2.19)**	(-1.22)	(-1.02)	(-2.16)**	(-2.03)**	(-1.03)	(-0.86)
	(-1.48)	(-1.44)	(-0.75)	(-0.64)	(-1.35)	(-1.32)	(-0.63)	(-0.54)
pollib·finlib_p		0.170		0.269				
		(1.12)		(1.69)*				
		(0.46)		(0.72)				
soc·finlib_p		-0.183		0.116				
		(-0.99)		(0.60)				
		(-0.45)		(0.28)				

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *laword*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 13: Liberalization Reform and Law and Order

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							continued from the previous page	
finlib_t					-0.018	-0.019	-0.190	-0.247
					(-0.24)	(-0.22)	(-1.96)**	(-2.17)**
					(-0.11)	(-0.10)	(-0.86)	(-0.93)
ME of finlib_t						-0.027		-0.195
						(-0.36)		(-2.05)**
						(-0.17)		(-0.90)
pollib·finlib_t						0.107		0.172
						(0.72)		(1.11)
						(0.29)		(0.47)
soc·finlib_t						-0.239		0.048
						(-1.31)		(0.25)
						(-0.60)		(0.12)
N	1465	1465	1101	1101	1465	1465	1101	1101
Countries	108	108	85	85	108	108	85	85
Adj.R2	0.867	0.868	0.826	0.827	0.867	0.867	0.825	0.825

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *laword*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 14: Liberalization Reform and Bureaucratic Quality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
finlib_p	0.210	0.194	0.268	0.258				
	(4.01)***	(3.87)***	(4.06)***	(3.82)***				
	(1.59)	(1.39)	(1.67)*	(1.39)				
ME of finlib_p		0.189		0.254				
		(3.91)***		(4.02)***				
		(1.48)		(1.60)				
polity	0.038		0.036		0.038		0.036	
	(5.18)***		(4.50)***		(5.20)***		(4.52)***	
	(2.90)***		(2.58)**		(2.92)***		(2.59)**	
govstab	0.072	0.076	0.068	0.070	0.072	0.075	0.067	0.069
	(5.69)***	(5.83)***	(4.42)***	(4.44)***	(5.66)***	(5.81)***	(4.37)***	(4.41)***
	(3.21)***	(3.10)***	(2.75)***	(2.66)***	(3.17)***	(3.07)***	(2.68)***	(2.61)**
gdppc	0.399	0.462	0.365	0.415	0.401	0.485	0.357	0.433
	(2.81)***	(3.41)***	(2.24)**	(2.64)***	(2.80)***	(3.55)***	(2.17)**	(2.73)***
	(1.29)	(1.56)	(1.01)	(1.22)	(1.26)	(1.57)	(0.96)	(1.22)
growth	0.012	0.010	0.018	0.016	0.012	0.010	0.019	0.016
	(0.96)	(0.83)	(1.29)	(1.12)	(0.98)	(0.80)	(1.35)	(1.13)
	(0.79)	(0.71)	(1.04)	(0.93)	(0.81)	(0.68)	(1.10)	(0.93)
inflat	-0.038	-0.028	-0.057	-0.050	-0.037	-0.027	-0.055	-0.046
	(-2.61)***	(-1.86)*	(-3.52)***	(-2.94)***	(-2.48)**	(-1.75)*	(-3.26)***	(-2.65)***
	(-1.45)	(-0.97)	(-2.46)**	(-2.10)**	(-1.36)	(-0.92)	(-2.19)**	(-1.88)*
trade	0.106	0.150	0.232	0.283	0.108	0.146	0.231	0.277
	(1.09)	(1.46)	(2.25)**	(2.61)***	(1.11)	(1.43)	(2.24)**	(2.55)**
	(0.46)	(0.58)	(1.05)	(1.13)	(0.47)	(0.57)	(1.04)	(1.10)
school	0.118	0.178	0.209	0.280	0.122	0.178	0.207	0.272
	(0.85)	(1.28)	(1.30)	(1.74)*	(0.88)	(1.28)	(1.28)	(1.69)*
	(0.34)	(0.49)	(0.53)	(0.67)	(0.35)	(0.48)	(0.51)	(0.64)
fuelex	-0.038	-0.033	-0.051	-0.053	-0.043	-0.038	-0.060	-0.059
	(-1.23)	(-1.12)	(-1.11)	(-1.23)	(-1.40)	(-1.29)	(-1.31)	(-1.38)
	(-0.76)	(-0.69)	(-0.68)	(-0.74)	(-0.87)	(-0.79)	(-0.80)	(-0.84)
pollib·finlib_p		0.165		0.192				
		(1.36)		(1.50)				
		(0.55)		(0.65)				
soc·finlib_p		-0.315		-0.392				
		(-2.66)***		(-3.01)***				
		(-1.18)		(-1.46)				

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *burqua*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 14: Liberalization Reform and Bureaucratic Quality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							continued from the previous page	
finlib_t					0.158	0.121	0.205	0.170
					(2.91)***	(2.20)**	(3.01)***	(2.39)**
					(1.23)	(0.89)	(1.33)	(1.00)
ME of finlib_t						0.134		0.190
						(2.56)**		(2.85)***
						(1.06)		(1.25)
pollib·finlib_t						0.221		0.257
						(1.80)*		(2.02)**
						(0.72)		(0.88)
soc·finlib_t						-0.275		-0.346
						(-2.26)**		(-2.57)**
						(-1.00)		(-1.25)
N	1465	1465	1101	1101	1465	1465	1101	1101
Countries	108	108	85	85	108	108	85	85
Adj.R2	0.882	0.877	0.822	0.817	0.881	0.877	0.821	0.816

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *burqua*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 15: Liberalization Reform and Corruption

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
finlib_p	-0.117	-0.187	-0.151	-0.247				
	(-1.79)*	(-2.39)**	(-1.96)**	(-2.62)***				
	(-0.89)	(-1.21)	(-0.88)	(-1.19)				
ME of finlib_p		-0.143		-0.178				
		(-2.16)**		(-2.27)**				
		(-1.09)		(-1.04)				
polity	0.023		0.031		0.023		0.031	
	(2.76)***		(3.28)***		(2.69)***		(3.22)***	
	(1.54)		(1.92)*		(1.50)		(1.89)*	
govstab	0.097	0.098	0.114	0.116	0.097	0.099	0.114	0.117
	(5.91)***	(5.91)***	(6.02)***	(6.04)***	(5.95)***	(5.96)***	(6.08)***	(6.13)***
	(3.97)***	(4.01)***	(4.13)***	(4.16)***	(4.00)***	(4.06)***	(4.19)***	(4.25)***
laword	0.173	0.166	0.158	0.144	0.174	0.169	0.156	0.144
	(5.30)***	(5.11)***	(4.31)***	(3.93)***	(5.35)***	(5.21)***	(4.30)***	(3.98)***
	(2.59)**	(2.53)**	(2.13)**	(1.98)*	(2.61)**	(2.58)**	(2.11)**	(2.00)**
burqua	0.186	0.208	0.200	0.229	0.187	0.206	0.203	0.229
	(4.31)***	(4.88)***	(4.21)***	(4.86)***	(4.34)***	(4.84)***	(4.34)***	(4.91)***
	(2.55)**	(2.77)***	(2.42)**	(2.69)***	(2.58)**	(2.75)***	(2.50)**	(2.73)***
gdppc	-0.304	-0.209	-0.420	-0.327	-0.303	-0.195	-0.425	-0.314
	(-1.61)	(-1.07)	(-2.07)**	(-1.53)	(-1.60)	(-1.01)	(-2.09)**	(-1.47)
	(-0.66)	(-0.44)	(-0.93)	(-0.69)	(-0.66)	(-0.41)	(-0.94)	(-0.66)
growth	0.019	0.016	0.010	0.007	0.019	0.015	0.010	0.005
	(1.41)	(1.17)	(0.64)	(0.41)	(1.38)	(1.12)	(0.61)	(0.33)
	(0.96)	(0.78)	(0.45)	(0.28)	(0.94)	(0.75)	(0.43)	(0.23)
inflat	0.065	0.073	0.061	0.070	0.061	0.068	0.055	0.063
	(2.86)***	(3.25)***	(2.21)**	(2.54)**	(2.72)***	(3.10)***	(2.03)**	(2.36)**
	(1.34)	(1.48)	(1.04)	(1.17)	(1.31)	(1.47)	(0.99)	(1.14)
trade	-0.167	-0.157	-0.405	-0.374	-0.161	-0.155	-0.401	-0.375
	(-1.41)	(-1.32)	(-3.04)***	(-2.80)***	(-1.36)	(-1.30)	(-3.03)***	(-2.82)***
	(-0.67)	(-0.62)	(-1.52)	(-1.36)	(-0.65)	(-0.61)	(-1.51)	(-1.38)
school	-0.211	-0.183	-0.433	-0.393	-0.216	-0.193	-0.453	-0.420
	(-1.39)	(-1.18)	(-2.60)***	(-2.28)**	(-1.42)	(-1.25)	(-2.72)***	(-2.44)**
	(-0.67)	(-0.58)	(-1.41)	(-1.23)	(-0.69)	(-0.61)	(-1.48)	(-1.32)
fuelex	-0.007	-0.003	0.043	0.043	-0.011	-0.006	0.037	0.041
	(-0.26)	(-0.11)	(1.03)	(0.98)	(-0.38)	(-0.21)	(0.89)	(0.93)
	(-0.16)	(-0.07)	(0.68)	(0.68)	(-0.24)	(-0.14)	(0.57)	(0.64)
pollib·finlib_p		0.253		0.255				
		(2.16)**		(2.04)**				
		(1.29)		(1.13)				
soc·finlib_p		-0.092		0.009				
		(-0.53)		(0.05)				
		(-0.29)		(0.02)				

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *corrupt*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 15: Liberalization Reform and Corruption

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							continued from the previous page	
finlib_t					-0.175	-0.252	-0.241	-0.348
					(-2.79)***	(-3.39)***	(-3.28)***	(-3.94)***
					(-1.46)	(-1.77)*	(-1.63)	(-1.95)*
ME of finlib_t						-0.195		-0.258
						(3.10)***		(-3.49)***
						(-1.65)*		(-1.77)*
pollib·finlib_t						0.280		0.292
						(2.40)**		(2.36)**
						(1.37)		(1.27)
soc·finlib_t						-0.044		0.087
						(-0.25)		(0.44)
						(-0.14)		(0.23)
N	1465	1465	1101	1101	1465	1465	1101	1101
Countries	108	108	85	85	108	108	85	85
Adj.R2	0.864	0.863	0.802	0.800	0.864	0.864	0.804	0.802

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is *corrupt*. In columns (1),(2),(5),(6) the control group consists of always open and always closed countries; in columns (3),(4),(7),(8): always closed only. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 16: Alternatively Specified Liberalization Reform and Institutional Quality, Investment Profile, and Corruption

	(1)	(2)	(3)	(4)	(5)	(6)
finlib_c	0.038	-0.037	0.274	0.321	0.078	-0.212
	(0.96)	(-0.76)	(2.48)**	(2.30)**	(-1.31)	(-2.95)***
	(0.40)	(-0.30)	(1.45)	(1.28)	(-0.62)	(-1.41)
ME of finlib_c		0.011		0.268		-0.111
		(0.28)		(2.36)**		(-1.88)*
		(0.11)		(1.37)		(-0.92)
polity	0.027		0.024		0.023	
	(4.71)***		(1.58)		(2.79)***	
	(3.24)***		(0.95)		(1.55)	
govstab	0.128	0.131	0.288	0.289	0.097	0.100
	(12.12)***	(12.26)***	(9.61)***	(9.70)***	(5.93)***	(6.03)***
	(6.08)***	(6.14)***	(6.12)***	(6.19)***	(3.97)***	(4.14)***
laword			0.014	0.011	0.175	0.167
			(0.24)	(0.18)	(5.38)***	(5.14)***
			(0.15)	(0.11)	(2.61)**	(2.53)**
burqua			0.569	0.594	0.179	0.198
			(6.24)***	(6.49)***	(4.19)***	(4.68)***
			(3.27)***	(3.37)***	(2.49)**	(2.70)***
gdppc	0.550	0.602	0.695	0.666	-0.305	-0.214
	(4.52)***	(4.82)***	(1.83)*	(1.71)*	(-1.61)	(-1.11)
	(1.98)*	(2.07)**	(0.98)	(0.90)	(-0.66)	(-0.47)
growth	0.015	0.013	0.089	0.090	0.019	0.015
	(1.46)	(1.25)	(2.75)***	(2.75)***	(1.39)	(1.10)
	(1.18)	(1.03)	(2.12)**	(2.12)**	(0.95)	(0.75)
inflat	-0.037	-0.026	-0.035	-0.030	0.067	0.079
	(-2.71)***	(-1.93)*	(-0.86)	(-0.75)	(2.97)***	(3.50)***
	(-1.49)	(-1.07)	(-0.58)	(-0.52)	(1.40)	(1.62)
trade	0.155	0.173	0.132	0.179	-0.176	-0.181
	(1.77)*	(1.91)*	(0.47)	(0.63)	(-1.48)	(-1.50)
	(0.85)	(0.85)	(0.26)	(0.34)	(-0.70)	(-0.17)
school	0.076	0.122	-0.025	0.018	-0.227	-0.195
	(0.67)	(1.04)	(-0.08)	(0.06)	(-1.49)	(-1.26)
	(0.29)	(0.45)	(-0.05)	(0.03)	(-0.72)	(-0.61)

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. In columns (1) & (2) the dependent variable is *institute*; in columns (3) & (4) – *iprof*; in columns (5) & (6) – *corrupt*. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 16: Alternatively Specified Liberalization Reform and Institutional Quality, Investment Profile, and Corruption

	(1)	(2)	(3)	(4)	(5)	(6)
					continued from the previous page	
fuelex	-0.051	-0.054	-0.019	-0.016	-0.002	-0.008
	(-2.42)**	(-2.60)***	(-0.22)	(-0.20)	(-0.09)	(-0.26)
	(-1.49)	(-1.63)	(-0.12)	(-0.11)	(-0.06)	(-0.17)
pollib·finlib_c		0.215		-0.063		0.320
		(2.84)***		(-0.32)		(3.24)***
		(1.20)		(-0.16)		(1.97)*
soc·finlib_c		-0.002		-0.290		0.218
		(-0.02)		(-0.93)		(1.46)
		(-0.01)		(-0.56)		(0.93)
N	1465	1465	1465	1465	1465	1465
Countries	108	108	108	108	108	108
Adj.R2	0.913	0.912	0.803	0.802	0.864	0.864

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. In columns (1) & (2) the dependent variable is *institute*; in columns (3) & (4) – *iprof*; in columns (5) & (6) – *corrupt*. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.

Table 17: Alternatively Specified Liberalization Reform and Law and Order, and Bureaucratic Quality

	(1)	(2)	(3)	(4)
finlib_c	-0.037	-0.106	0.069	0.014
	(-0.56	(-1.32)	(1.50)	(0.27)
	(-0.27)	(−0.66)	(0.61)	(0.10)
ME of finlib_c		-0.052		0.042
		(-0.80)		(0.92)
		(-0.39)		(0.35)
polity	-0.001		0.038	
	(-0.09)		(5.12)***	
	(-0.05)		(2.88)***	
govstab	0.108	0.108	0.072	0.077
	(6.53)***	(6.58)***	(5.66)***	(5.89)***
	(3.52)***	(3.56)***	(3.10)***	(3.03)***
gdppc	1.154	1.190	0.403	0.449
	(5.27)***	(5.40)***	(2.77)***	(3.17)***
	(2.36)**	(2.47)**	(1.22)	(1.31)
growth	-0.024	-0.026	0.012	0.011
	(-1.54)	(-1.67)*	(0.98)	(0.86)
	(-1.17)	(-1.27)	(0.80)	(0.72)
inflat	-0.095	-0.091	-0.043	-0.031
	(-4.11)***	(-4.05)***	(-2.87)***	(-1.99)**
	(-2.01)**	(-2.05)**	(-1.55)	(-1.04)
trade	0.415	0.392	0.122	0.162
	(2.78)***	(2.63)***	(1.25)	(1.60)
	(1.25)	(1.17)	(0.53)	(0.64)
school	0.240	0.238	0.132	0.197
	(1.32)	(1.32)	(0.94)	(1.39)
	(0.66)	(0.67)	(0.37)	(0.53)
fuelex	-0.078	-0.081	-0.051	-0.054
	(-2.19)**	(-2.23)**	(-1.67)*	(-1.83)*
	(-1.34)	(-1.34)	(-1.02)	(-1.08)
pollib·finlib_c		0.184		0.179
		(1.49)		(1.93)*
		(0.74)		(0.77)
soc·finlib_c		0.092		-0.094
		(0.62)		(-1.04)
		(0.35)		(-0.47)
N	1465	1465	1465	1465
Countries	108	108	108	108
Adj.R2	0.867	0.868	0.880	0.876

t statistics in parentheses (above: robust; below: clustered) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. In columns (1) & (2) the dependent variable is *laword*; in columns (3) & (4) – *burqua*. ME stands for marginal effect. All regressions include country dummies as well as year dummies interacted with regional dummies and socialist legal origin.
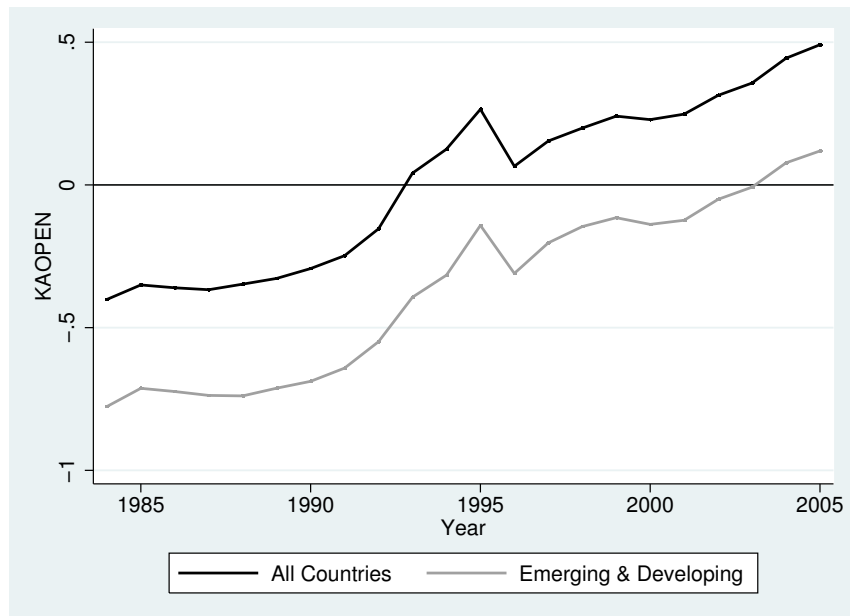
Appendix B: Descriptive Statistics

Figure 2: Development of Financial Openness

Table 18: Summary Statistics: All countries

Variable	Mean	Overall Std. Dev.	Between-country Std. Dev.	Within-country Std. Dev.	Min	Max	No. of Obs. (No. of Cntr.)
institute	3.342	1.240	1.120	0.502	0.188	6	2656 (129)
iprof	6.814	2.428	1.553	1.896	0	12	2656 (129)
corrupt	3.137	1.407	1.195	0.729	0	6	2656 (129)
laword	3.628	1.536	1.291	0.806	0	6	2656 (129)
burqual	2.130	1.229	1.104	0 .520	0	4	2656 (129)
govstab	7.416	2.329	1.143	2.070	0.667	12	2656 (129)
demacc	3.673	1.637	1.400	0.856	0	6	2656 (129)
polity	2.533	7.091	6.260	3.391	-10	10	2508 (123)
kaopen	0.137	1.590	1.358	0.864	-1.844	2.478	2559 (128)
gdppc	8.541	1.369	1.334	0.193	4.764	11.379	2623 (128)
growth	0.656	1.481	0.640	1.360	-4.183	4.497	2618 (128)
inflat	2.025	1.388	0.973	1.996	-4.615	10.076	2385 (122)
trade	4.095	0.670	0.619	0.246	0.034	6.063	2623 (128)
school	4.032	0.726	0.715	0.181	1.118	5.086	1993 (125)
fuelex	1.777	1.395	1.372	0.530	0	4.612	2011 (123)
primex	1.346	0.912	0.913	0.338	0.002	4.552	2043 (124)
bl_school	5.645	2.878	2.857	0.633	0.370	12.250	1991 (100)
inequal	3.718	0.165	0.153	0.083	3.250	4.164	1340 (111)

Here and in all the following tables, only countries are considered for which institutional data are available.

Table 19: Summary Statistics: Middle and low income countries

Variable	Mean	Overall Std. Dev.	Between-country Std. Dev.	Within-country Std. Dev.	Min	Max	No. of Obs. (No. of Cntr.)
institute	2.809	0.910	0.754	0.538	0.188	5.5	1925 (95)
iprof	6.208	2.224	1.370	1.816	0	12	1925 (95)
corrupt	2.642	1.078	0.801	0.730	0	6	1925 (95)
laword	3.043	1.257	0.972	0.841	0	6	1925 (95)
burqual	1.632	0.989	0.808	0.584	0	4	1925 (95)
govstab	7.093	2.401	1.120	2.186	0.667	12	1925 (95)
demacc	3.204	1.422	1.127	0.921	0	6	1925 (95)
polity	1.150	6.658	5.542	3.880	-10	10	1885 (94)
kaopen	-0.363	1.369	1.112	0.895	-1.844	2.478	1862 (95)
gdppc	7.918	1.066	1.050	0.201	4.764	10.170	1898 (94)
growth	0.540	1.596	0.695	1.473	-4.183	4.497	1896 (94)
inflat	2.321	1.479	0.998	1.112	-4.615	10.076	1676 (89)
trade	4.031	0.655	0.598	0.263	0.034	5.898	1898 (94)
school	3.769	0.739	0.718	0.208	1.118	4.696	1354 (93)
fuelex	1.862	1.466	1.453	0.493	0	4.612	1356 (90)
primex	1.481	0.955	0.943	0.376	0.002	4.552	1384 (91)
bl_school	4.380	2.237	2.336	0.612	0.370	10.520	1383 (70)
inequal	3.779	0.144	0.126	0.096	3.250	4.164	848 (78)

Table 20: Correlation between institutions and financial openness

	institute	iprof	corrupt	laword	burqua	kaopen
institute	1.000					
iprof	0.665	1.000				
corrupt	0.796	0.262	1.000			
laword	0.868	0.480	0.636	1.000		
burqua	0.906	0.517	0.669	0.687	1.000	
kaopen	0.507	0.454	0.303	0.467	0.435	1.000
institute	1.000					
iprof	0.666	1.000				
corrupt	0.648	0.131	1.000			
laword	0.765	0.401	0.396	1.000		
burqua	0.820	0.431	0.429	0.431	1.000	
kaopen	0.220	0.371	-0.026	0.166	0.134	1.000

Above: all countries; below: middle and low income countries

Table 21: Correlation between *ICRG* and *WGI* indicators

	icrg iprof	icrg laword	icrg burqua	icrg corrupt	wgi goveff	wgi rulelaw	wgi regqua	wgi corrupt
icrg_iprof	1.000							
icrg_laword	0.422	1.000						
icrg_burqua	0.557	0.623	1.000					
icrg_corrupt	0.376	0.641	0.663	1.000				
wgi_goveff	0.655	0.706	0.858	0.720	1.000			
wgi_rulelaw	0.643	0.774	0.813	0.722	0.957	1.000		
wgi_regqua	0.712	0.633	0.780	0.659	0.918	0.909	1.000	
wgi_corrupt	0.619	0.718	0.793	0.768	0.951	0.952	0.882	1.000
icrg_iprof	1.000							
icrg_laword	0.246	1.000						
icrg_burqua	0.435	0.300	1.000					
icrg_corrupt	0.202	0.386	0.352	1.000				
wgi_goveff	0.601	0.408	0.691	0.403	1.000			
wgi_rulelaw	0.574	0.565	0.584	0.445	0.892	1.000		
wgi_regqua	0.649	0.338	0.570	0.393	0.853	0.830	1.000	
wgi_corrupt	0.542	0.417	0.524	0.516	0.864	0.881	0.779	1.000

WGI indicators are also perceptive measures of different institutions, capturing following features:
goveff: the quality of public and civil services and the degree of their independence from political pressures;
regqua: the ability of the government to formulate and implement sound policies and regulations;
rulelaw: in particular the quality of contract enforcement, property rights, the police, and the courts;
corrupt: the extent to which public power is exercised for private gain, including both petty and grand forms of corruption. See Kaufmann et al. (2010).
Above: all countries; below: middle and low income countries

Table 22: Countries which experienced financial liberalization

Country	Year of financial liberalization
Denmark	1988
France	1994
Italy	1990
Norway	1993
Greece	1998
Iceland	1994
Ireland	1992
Portugal	1993
Spain	1993
Argentina*	1993
Bolivia	1990
Chile*	2001
Costa Rica	1995
El Salvador	1996
Guatemala	1991
Haiti	1997
Honduras*	1993
Mexico	1993
Nicaragua	1996
Paraguay	1997
Peru	1992
Venezuela, RB*	1996
Guyana	1996
Jamaica	1992
Trinidad and Tobago	1993
Islamic Rep. Iran	2002
Israel	1999
Jordan	1995
Egypt, Arab Rep.	1996
Sri Lanka	1992
Philippines	1992
Botswana*	1987/1998
Gambia, The	1991
Kenya	1996
Liberia	1998
Uganda	1997
Zambia	1996
Czech Republic	2000
Hungary	2001
Slovenia	2000
Poland	2002
Romania	2002

A country is classified as financially liberalized if its *kaopen* index becomes and remaines negative for at least three years. *Argentina, Chile, Honduras, and Venezuela experienced a reform reversal at some point of time and have remained closed since then. By contrast, after the first liberalization reform in 1987, Botswana closed its financial account in 1993 and then opened it again in 1998.

Table 23: Countries which remained either always financially open or always financially closed

always open	United States, United Kingdom, Austria, Belgium, Luxembourg, Netherlands, Sweden, Switzerland, Finland, Australia, New Zealand, Panama, Uruguay, Bahrain, Kuwait, Canada,Japan, Lebanon, Oman, Qatar, United Arab Emirates, Hong Kong (China), Indonesia, Singapore, Armenia, Georgia, Estonia, Latvia, Lithuania
always closed	Malta, Turkey, South Africa, Brazil, Colombia, Dominican Republic, Ecuador, Bahamas, Suriname, Cyprus, Iraq, Syrian Arab Republic, Bangladesh, Myanmar, India, Rep. Korea, Pakistan, Thailand, Vietnam, Algeria, Cameroon, Rep. Congo, Dem. Rep. Congo, Ethiopia, Gabon, Ghana, Guinea-Bissau, Guinea, Cote d'Ivoire, Libya, Madagascar, Malawi, Mali, Morocco, Mozambique, Niger, Nigeria, Zimbabwe, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Tunisia, Burkina Faso, Papua New Guinea, Azerbaijan, Belarus, Albania, Kazakhstan, Bulgaria, Moldova, Russian Federation, China, Ukraine, Slovak Republic

Table 24: Former socialist countries

Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Poland, Romania, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

Table 25: List of countries classified according to income class

High Income Class	United States,United Kingdom, Austria, Belgium, Denmark, France, Italy, Luxembourg, Netherlands, Norway, Sweden, Switzerland, Canada, Japan, Finland, Greece, Iceland, Ireland, Malta, Portugal, Spain, Australia, New Zealand, The Bahamas, Bahrain, Cyprus, Israel, Kuwait, Qatar, United Arab Emirates, Hong Kong (China), Rep. Korea, Singapore, Slovenia
Middle Income Class	Turkey, South Africa, Argentina, Chile, Costa Rica, Mexico, Panama, Uruguay, RB Venezuela, Trinidad and Tobago, Lebanon, Oman, Botswana, Gabon, Libya, Russian Federation, Czech Republic, Slovak Republic, Estonia, Latvia, Hungary, Lithuania, Poland
Low Income Class	Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Peru, Guyana, Jamaica, Suriname, Islamic Rep. Iran, Iraq, Jordan, Syrian Arab Republic, Arab Rep. Egypt, Sri Lanka, Indonesia, Philippines, Thailand, Algeria, Morocco, Tunisia, Armenia, Azerbaijan, Belarus, Albania, Georgia, Kazakhstan, Bulgaria, China, Ukraine, Romania, Haiti, Nicaragua, Paraguay, Bangladesh, Myanmar, India, Pakistan, Vietnam, Cameroon, Rep. Congo, Dem. Rep. Congo, Ethiopia, Gambia, Ghana, Guinea-Bissau, Guinea, Cte d'Ivoire, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Zimbabwe, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Burkina Faso, Zambia, Papua New Guinea, Moldova

The classification is done according to the World Bank Atlas method, which distinguishes, based on a country's GNI per capita, between four income groups: low income, $1,005 or less; lower middle income, $1,006 - $3,975; upper middle income, $3,976 - $12,275; and high income, $12,276 or more. We grouped together low income and lower middle income countries.

Table 26: Variable Description

Variable	Description & Source
bl_school	Initial value of the average years of school attendance of the total population aged over 25 years. *Source*: Barro and Lee (2001)
burqua	Measurement of the strength and quality of the bureaucracy. High points (maximum 4) are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. In the low-risk countries, the bureaucracy tends to be autonomous from political pressure and to have an established mechanism for recruitment and training. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions. *Source*: The Political Risk Services Group (2008)
corrupt	Assessment of corruption within the political system. The most common form of corruption met directly by business is financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans. Although this measure takes such corruption into account, it is more concerned with actual or potential corruption in the form of excessive patronage, nepotism, job reservations, 'favor-for-favors', secret party funding, and suspiciously close ties between politics and business. Maximum points of 6 indicate the lowest corruption level. *Source*: The Political Risk Services Group (2008)
demacc	Democratic Accountability is a measure of how responsive a government is to its people, on the basis that the less responsive it is, the more likely it is that the government will fall, peacefully in a democratic society, but possibly violently in a non-democratic one. The points in this component are awarded on the basis of the type of governance enjoyed by the country in question. Following types of regimes are distinguished: Alternating Democracy, Dominated Democracy, De Facto One-Party State, De Jure One-Party State and Autarchy. A maximum score of 6 indicates the highest level of democratic accountability. *Source*: The Political Risk Services Group (2008)
finlib	Dummy variable which indicates the implementation of a financial liberalization reform. It takes the value of 1 in the years after the treatment (i.e., after the reform) and 0 otherwise, i.e., in the treated countries before the reform and in the control countries during the entire time span. Three different types of a liberalization reform are distinguished: • finlib_p: takes the value of 1 if a country's *kaopen* indicator becomes positive at time t given it was negative in $t-1$ and remains positive until the end of the sample period. • finlib_t: takes the value of 1 if a country's *kaopen* indicator becomes positive at time t given it was negative in $t-1$ and remains positive for at least three years after the reform. • finlib_c: takes the value of 1 if a country's *kaopen* indicator increases by at least 0.86 at time t and remains always larger than the value of *kaopen* in $t-1$ plus 0.86 in all subsequent years until the end of the sample period. *Source*: Own calculation. Data on *kaopen* stems from Chinn and Ito (2008).
fuelex	Fuel exports as % of merchandise exports. Fuels comprise mineral fuels, lubricants and related materials. World Bank staff estimates from the Commodity Trade Statistics Database maintained by the United Nations Statistics Division. *Source*: World Bank (2011)

Table 26: Variable Description

Variable	Description & Source
gdppc	PPP Converted GDP Per Capita (Chain Series), at 2005 constant prices. *Source*: Heston et al. (2011)
govstab	Government Stability is an assessment both of the government's ability to carry out its declared program(s), and its ability to stay in office. The risk rating assigned is the sum of three sub-components (Government Unity, Legislative Strength, Popular Support), each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk. *Source*: The Political Risk Services Group (2008)
growth	Growth rate of PPP Converted GDP Chain Per Capita. *Source*: Heston et al. (2011)
inequal	Estimated household income inequality, derived from the econometric relationship between industrial payments inequality, other conditioning variables, and the World Bank's Deininger & Squire data set. *Source*: Galbraith and Kum (2005)
inflat	Inflation, as measured by the consumer price index, reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used. *Source*: World Bank (2011)
iprof	Investment Profile is an assessment of factors affecting the risk to investment that are not covered by other political, economic, and financial risk components. The risk rating assigned is the sum of three sub-components (Contract Viability/Expropriation, Profits Repatriation, Payment Delays), each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk. *Source*: The Political Risk Services Group (2008)
kaopen	Index measuring a country's degree of financial openness. *kaopen* is based on the binary dummy variables that codify the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). These variables are: • variable indicating the presence of multiple exchange rates; • variable indicating restrictions on current account transactions; • variable indicating restrictions on capital account transactions; • variable indicating the requirement of the surrender of export proceeds. The binary variables are transformed into a single index (*kaopen*) by using the principal component method. The index is scaled in the range between -2.5 and 2.5 with higher values standing for larger degrees of financial openness. *Source*: Chinn and Ito (2008)
laword	Law and Order are assessed separately. The Law component is an assessment of the strength and impartiality of the legal system, while the Order sub-component is an assessment of popular observance of the law. Both sub-component comprise zero (low quality) to three points (high quality). *Source*: The Political Risk Services Group (2008)

Table 26: Variable Description

Variable	Description & Source
polity	Measurement of a country's political regime. The "Polity score" is the difference between the DEMOC score and the AUTOC score, with a scale ranging from +10 (strongly democratic) to –10 (strongly autocratic). DEMOC measures the degree of institutionalized democracy conceived as three elements: 1. Presence of institutions and procedures through which citizens can express effective preferences about alternative policies 2. Existence of institutionalized constraints on the exercise of power by the executive 3. The guarantee of civil liberties to all citizens in their daily lives and in acts of political participation AUTOC is derived from codings of competitiveness of political participation, the regulation of participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive. *Source*: Marshall et al. (2010)
pollib·finlib_j	Interaction term, in which the dummy *pollib* takes the value of 1 if a country's *polity* indicator becomes positive at time t, given it was negative at $t-1$ and remains positive until the end of the sample period; $j \in c, p, t$. *Source*: Own calculation. The *polity* data stems from Marshall et al. (2010).
primex	Agricultural raw materials exports as % of merchandise exports. Agricultural raw materials comprise crude materials except fuels. World Bank staff estimates from the Commodity Trade Statistics Database maintained by the United Nations Statistics Division. *Source*: World Bank (2011)
school	Secondary gross school enrollment. Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Secondary education completes the provision of basic education that began at the primary level, and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers. *Source*: World Bank (2011)
soc·finlib_j	Interaction term, in which the dummy *soc* indicates whether a country has socialist legal origin and $j \in c, p, t$. *Source*: Own calculation. The data on the countries' judiciary system stems from La-Porta et al. (1999).
trade	Exports plus Imports divided by real GDP at 2005 constant prices, *Source*: Heston et al. (2011)