Does Trade Liberalisation Lead to Better Governance? An Analysis of the Proposed ACP/EU Economic Partnership Agreements

Matthias Busse* and Steffen Gröning
Hamburg Institute of International Economics (HWWI)
Programme World Economy
Neuer Jungfernstieg 21
20354 Hamburg
Germany

Preliminary Study for Discussion
Comments Welcome

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*Corresponding author, phone: +49-40-340576-440, fax: +49-40-340576-776, e-mail: matbusse@gmx.de. The study has been conducted on behalf of the Friedrich-Ebert-Foundation. The authors benefited from helpful comments and suggestions by San Bilal, Axel Borrmann, Jose Luis Groizard, Georg Koopmann, Mariana Spatareanu, and various seminar and workshop participants in Bonn, Berlin, Brussels, and Hamburg. Fabian Barthel and Wendy Soh provided excellent research assistance.

Contents

Abbreviations

AB	Arellano-Bond
ACP	African, Caribbean, and Pacific Countries
CARIFORUM	Caribbean Forum of the ACP Countries
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale
EBA	Everything But Arms (Initiative)
EC	European Community
ECOWAS	Economic Community of West African States
EDF	European Development Fund
EPA	Economic Partnership Agreement
ESA	Eastern and Southern African (ACP countries)
EU	European Union
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMM	Generalised Method of Moments
GSP	Generalised System of Preferences
IMF	International Monetary Fund
ICRG	International Country Risk Guide
LDC	Least-Developed Country
NAFTA	North American Free Trade Agreement
NEPAD	New Partnership for Africa's Development
ODA	Official Development Assistance
PRIO	International Peace Research Institute
PRS	Public Risk Services
SADC	Southern African Development Community
WTO	World Trade Organisation

1. Introduction

"Good governance is perhaps the single most important factor in eradicating poverty and promoting development." (Kofi Annan, former United Nations Secretary General)[1]

Since the 1990s, it has been increasingly recognised around the world that governance matters for economic and social development – that institutions, rules and political processes play a major role in influencing whether economies grow, whether poverty is persistent, whether children attend school, whether human development moves forward or backward (World Bank 2005, Jütting 2003, Levine 2005). Thus, promoting human development is not just a social, economic and technological challenge: it is also an institutional and political challenge.

Though the term "good governance" is often used in development economics, there are various definitions and interpretations of what the term actually describes. As an often cited source, the World Bank (2007a) defines governance "as the traditions and institutions by which authority in a country is exercised for the common good. This includes (a) the process by which those in authority are selected, monitored and replaced, (b) the capacity of the government to effectively manage its resources and implement sound policies, and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them." Even though the definition itself is neutral, it is based on normative assumptions. It assumes, for example, that citizens should be able to mediate their differences or that (public or private) authorities should be monitored.

Another often-cited term, that is closely related to governance and that matters for development too, is institutional quality. Institutions can be defined as humanly devised constraints that structure political, economic and social interactions (North 1990). They are introduced by the setting of formal (constitutions, laws) and the development of informal rules of behaviour (traditions, taboos). In contrast to institutions, governance refers more to the outcome of the constraints that structure the interactions. However, the two terms are closely linked to each other, since institutional quality has a normative component as well. In the following, we will use the definition of governance, as we are mainly interested in the

[1] United Nations (1998).

outcome of institutions, that is, not how they are set up but rather, how effective they function in practice.

Similar to the World Bank, the International Monetary Fund (IMF) and bilateral aid donors, the European Commission acknowledges the importance of governance for development and aims to increase the governance quality in African, Caribbean and Pacific (ACP) countries. Accordingly, the Cotonou Agreement, signed between ACP countries and the European Union (EU) in 2000, includes a new perspective combining politics, trade and development. Negotiations on Economic Partnership Agreements (EPAs), which are part of the Cotonou Agreement, are intended – among other things – to foster regional integration in ACP countries and to establish free trade agreements between the EU and the six EPA groupings. In addition to trade liberalisation in goods, the EPAs aim to enlarge trade in services and to increase co-operation in trade-related areas like competition and investment. Importantly, the Cotonou Agreement also enhances the political dimension, explicitly addresses corruption, promotes participatory (political) approaches, and refocuses development policies on poverty reduction. In this respect, improving governance in ACP countries is one of the key topics and the EU is willing to assist the countries in reforming their institutional frameworks.

But how can good governance in ACP countries be promoted? What makes institutions and rules more effective, including transparency, participation, responsiveness, accountability and the rule of law? Obviously, there is no single answer to this broad set of questions. For any reform of the institutional setting as part of the EPA process, Borrmann and Busse (2007) pointed out the challenges that ACP countries face. Above all, there is no particular role model or path that these countries could imitate or follow. There seems to be an insufficient awareness of the real dimension of the institutional challenges stemming from the EPAs, including the size and structure of institutional problems and reform requirements.

Building upon our previous work, we intend to contribute to one of the key development questions, that is, how to promote good governance. More specifically, we focus on the particular role of trade liberalisation in supporting governance in ACP countries. From a theoretical perspective, there are three main channels through which openness to trade could affect governance in a positive way. Firstly, economic agents in open economies may learn from the experience in their trading partner's countries by adapting (or imitating) successful institutions and regulations. Secondly, international competition may force countries to

improve their institutional and regulatory setting as domestic producers would go out of business without reforms. Finally, rent seeking and corruption might be harder in more open economies, as foreign firms increase the number of economic agents involved (Rajan and Zingales 2003).

Surprisingly, the (empirical) literature on these linkages is almost non-existent. To our knowledge, only three studies have addressed the linkage between openness to trade and institutional quality directly. Wei (2000) pointed out that more open economies tend to have lower corruption levels, since they are more likely to devote resources to building good institutions. Islam and Montenegro (2002) examined the determinants of institutional quality for a sample of up to 104 countries. For all variables, they used averages for the 1980s and 1990s and, hence, a cross-country approach, including an instrumental variable estimation technique to deal with a number of endogenous variables. They showed that trade openness is robustly associated with institutional quality, whereas inequality and ethnic diversity are not. Finally, the IMF (2005) found that trade openness is positively associated with both institutional transitions and the quality of economic institutions. Yet the latter result is only robust in a cross-country analysis, but not in a panel setting over time.

Unfortunately, all three existing studies possess one or more weaknesses, which may lead to biased results and cast doubts on whether their results are reliable. Above all, the cross-country analysis used by all three studies might lead to biased estimations, due to the well-known problems of this econometric technique, such as reverse causality, measurement errors, omitted variables or simultaneity.[2] Even if instrumental variable techniques were used, the cross-country approach cannot capture the most important aspect of the linkage between trade and institutions, that is, the dynamics over time. Above all, we are most interested in the impact of trade liberalisation on changes in governance, as ACP countries ponder the possible effects of the EPAs.

To avoid the drawbacks of previous attempts, we use a dynamic Generalised Method of Moments (GMM) panel estimator. This technique deals effectively with endogeneity issues, as trade might not lead only to better governance but good governance might also increase

[2] Only the IMF (2005) study used a panel estimation technique. Yet they did not obtain a robust linkage between trade and economic institutions over time. It is unclear whether this outcome is the result of the specific method or the particular dataset on institutions used.

trade volumes through lower risk premiums of economic agents. Moreover, we are able to analyse the most important aspect, that is, the impact of trade openness (or trade liberalisation) on an appropriate governance indicator both over time and across countries.[3]

Obviously, trade liberalisation cannot (and should not) be the only way to improve governance in ACP countries. The European Commission advocates a more comprehensive approach, including, as mentioned above, a political dimension by explicitly addressing corruption and promoting participatory approaches. In addition to trade liberalisation, enhanced regional integration in ACP countries is supposed to encourage better governance at a national level by fostering institutional reforms at a regional level. Many ACP countries, in particular smaller ACP countries, currently lack an effective institutional framework in areas such as competition policy or public procurement. Effective *and* binding rules at a regional level are supposed to fill that gap, to ensure a more consistent and less erratic economic policy at a country level, and to improve governance.

In addition, ACP countries have reminded the EU that her financial support for institutional reforms is an important part of the EPA project. Though financial aid is not directly incorporated in the EPAs, the EU has indicated that it is willing to support ACP countries in reforming their institutional frameworks by providing technical and financial assistance.[4] In addition to trade liberalisation and regional integration, an increase in aid is thus likely to be provided to those ACP countries that conclude EPAs with the EU and that are willing to improve governance.

Against this background, we will address three principal research questions in our study:

(1) Does trade liberalisation lead to better governance? If so, do all countries benefit equally from trade openness?
(2) Can regional integration enhance governance?
(3) Is foreign aid helpful for improving governance?

[3] The GMM estimator will be explained in more detail in Section 2 and Appendix D.
[4] The EU has pledged that ACP countries will be primarily supported with resources managed by the European Development Fund (EDF). More specifically, the EU pledged to provide € 2 billion Aid for Trade by 2010, that is, € 1 billion by the European Commission (which includes the EDF), and € 1 billion by EU member states.

Though developed countries are included in the empirical analysis, the focus will be on developing countries and, in particular, on ACP countries. Obviously, the three main research questions do not cover the entire EPA negotiating agenda. Yet all of them are highly relevant for governance issues.

The results of the comprehensive empirical analysis can be summarised as follows: Firstly, we find that trade liberalisation can lead to better governance. Importantly, this applies to both developed and developing countries. Yet the estimated impact of trade is rather small; other (political) variables, such as press freedom and political constraints on the executive branch (and conflicts) have a considerably larger positive (negative) impact on governance. Moreover, we find that the impact of trade on governance is even smaller (or close to zero) for countries with low initial governance scores, that is, countries with "bad governance" in the past are less likely to benefit from trade openness in the future. What is more, countries with a high proportion of resource-intensive goods (namely, fuels and minerals) in total exports do not benefit from trade at all. For these countries, an increased extraction and export of primary resources will lead to a deterioration of governance.

Secondly, since deeper economic integration in many ACP regions has still to be achieved, we could not measure the direct impact of regional integration in those countries in the past but had to rely on the EU and NAFTA as external anchors. For developing countries or emerging market economies that joined NAFTA (i.e., Mexico) or the EU (various accession countries), we find that a closer link to a strong external anchor has had a positive (and large) impact on governance. Yet it is neither certain that the EU could act as an external anchor to ACP countries nor that anchor countries exist within all six EPA regions that are strong enough to exert their political and economic influence in a positive way.

Finally, we find that total aid flows are negatively associated with governance. Yet this result should be treated with some caution, as we do not distinguish between different forms of aid. Still, if aid effectiveness will not improve and/or the aid structure will not be changed, any increase in aid flows should be considered with caution. Instead, aid should be provided in ways that minimise any adverse risks to domestic institutions.

The study is structured as follows: In the next section, we will introduce the country sample covered, the indicators used to measure governance and the control variables, and the

econometric method employed in our analysis. Whereas Section 3 embraces the empirical results for the three main research questions mentioned above, Section 4 provides a discussion of the results, including various policy conclusions.

2. Variables, Country Sample, and Methodology

While there are many indicators available for measuring governance, most of them are either restricted to recent years or do not measure governance precisely enough. For example, the comprehensive good governance indicators provided by the World Bank (2007a) are available only since 1996, which is hardly sufficient for a panel analysis over time. Especially when looking at a causal relationship between trade and governance, profound data can be crucial for robust results.

The most detailed set of governance indicators for a longer period of time, that is, more than ten years, is compiled by Political Risk Services Group (PRS Group 2007a). In their International Country Risk Guide (ICRG), they provide detailed (monthly) data on various aspects of political risk since 1984. Though the indicators are perception-based, that is, they are based on expert surveys, they are considered as of high quality and are often used in the empirical literature.[5] Overall, the ICRG dataset consists of 12 sub-components. Three of these sub-components are both clearly linked to governance and highly relevant for development issues:[6]

- *Corruption* assesses the level of corruption within a political system. It includes on the one hand financial corruption, such as demands for special payments and bribes in connection with import and export licenses, exchange controls, tax assessments, or loans; on the other hand, it consists of excessive patronage, nepotism, job reservations, "favour-for-favour", secret party funding, and suspiciously close ties between politics and business.

- *Law & Order* includes measures for the strength and objectiveness of the legal system (law) and assesses the popular compliance with the law (order).

[5] See Busse and Hefeker (2007) for a survey of the literature.
[6] See PRS Group (2007a) for details.

- *Bureaucracy Quality* measures the strength and quality of the bureaucracy, which may act, for example, as a shock absorber that tends to minimize revisions of policy when governments change. Countries that do not have a high bureaucratic quality often have to cope with severe problems in policy formulation and day-to-day administrative functions after a change of government or other shocks.

All three sub-components are scaled (or rescaled) from 0 to 6, where higher values indicate less corruption, better law and order enforcement, and higher bureaucratic quality. Rather than using the sub-components individually, we compute a composite governance indicator (labelled *Govcomp*) by adding up the three sub-components. Accordingly, our dependent variable is measured on an ordinal scale and ranges from a 0 (very bad governance) to 18 (very good governance).

At a country level, governance is relatively persistent. Neither does it change frequently nor abruptly apart from a few exceptional situations in central and eastern European countries after the end of the cold war. Since we are not interested in examining the determinants of short-term fluctuations in governance, we compile three-year averages of *Govcomp* (and all other variables).[7] Our analysis comprises the period 1984 to 2004, which is the period for which we obtain relatively consistent data (for all variables). This leaves us with seven time periods, that is, 1984-86, 1987-89, and so on.

To find out what drives variations in *Govcomp*, we include a broad set of independent variables. As mentioned before, our main interest is to investigate the influence of trade liberalisation on governance. While we would have preferred to use the level of trade and non-tariff barriers as measures for trade liberalisation, exact figures for them are frequently not available over time in developing countries. As a remedy, we use a common proxy for trade liberalisation, that is, the sum of exports and imports of a country divided by its gross domestic product (GDP). This variable, labelled *Trade*, allows for a consistent calculation and the inclusion of a very large number of countries.

[7] By using both monthly data and three-year averages, *Govcomp* transforms from an ordinal to an almost steady scaled one, which ensures that we can use standard econometric methods.

Unfortunately, due to the lack of a credible and deep regional integration process, we cannot measure its impact on governance in ACP countries directly. As a remedy, we examine that link for other developing and emerging market economies. The accession to the EU (or European Community, EC) is a classical example, as it helped first southern (Greece, Portugal and Spain) and then central and eastern European countries to improve governance. The prospect and expected benefits of EU membership provided a strong impetus for domestic reforms in these countries, which made it easier for elected governments to push through the required reforms to improve governance significantly. Another example is the North American Free Trade Agreement (NAFTA), which helped Mexico to engage in a liberalisation and reform process that would have been more difficult to achieve without external pressure (Capital Markets Consultative Group 2003). Accordingly, we create a dummy variable, labelled *Anchor EU/NAFTA*, that takes the value one for those years that Mexico has been a member of NAFTA (that is, since 1994) and that accession countries have been members of the EC or EU, and zero for all other countries and/or years. We expect a positive influence of *Anchor EU/NAFTA* on our dependent variable.

The third independent variable of interest, the amount of official development assistance (ODA) a country receives, is measured by total ODA as a share of the recipient's GDP (*Aid*). In comparison to anchor links, the impact of aid on governance is less clear-cut. Foreign aid could release governments from binding revenue constraints and enable them to concentrate on enforcing bureaucracy quality, ensuring law and order, and fighting corruption effectively. In addition, aid could provide developing countries much needed technical assistance in building effective institutions to improve governance.

On the other hand, due to moral hazard problems and rent seeking, high levels of aid could delay or block necessary domestic reforms to improve governance (Bräutigam and Knack 2004). Furthermore, high transaction costs that accompany aid (on the side of the receiving country), donor fragmentation that multiple donor projects and agendas promote, problems of "poaching" qualified (government) staff members for aid projects, and the potential negative effects on raising taxes could all result in a deterioration of governance, even though entirely unintended. Hence, the net impact of *Aid* on governance is unclear at the outset.

In addition to these variables of main interest, we include a set of further control variables that are likely to influence governance:[8]

- *Press Freedom* measures the degree of freedom the press has; it takes the values 0 (no press freedom), 1 (partly free), or 2 (completely free). A higher degree of press freedom is expected to lead to better governance, since information is easier to access for the population. Press freedom can also act as a control for governmental policies and actions.

- *Conflicts* quantifies the incidence or the threat of incidence of internal and external conflicts, ranging from political violence, cross-border conflicts or civil disorder to civil (internal) war or an all-out war with other countries. The variable takes the number of casualties as a measure for the intensity of a conflict. It varies between 0 (no conflict), 1 (number of casualties in the range from 1 to 25), 2 (26 to 1000 casualties), and 3 (above 1000 casualties). While these numbers are necessarily arbitrary, they provide a useful dataset for any quantitative analysis as the intensity of each conflict is taken into account. Needless to say, we expect a negative impact of conflicts on governance.

- *Population* acts as a proxy for the country size and refers to the total number of people. It might be easier for a larger country to push through necessary reforms or required rules to improve governance, since it possesses a critical financial mass. Yet bigger countries might face more information asymmetry problems, higher transaction costs, and/or more intensive ethnical conflicts, which could impede improvements in governance. Therefore, the sign of this control variable is unclear.

- *Economic Growth* represents the (real) per-capita growth rate of GDP, which is likely to foster improvements in governance; a growing economy strengthens preferences of the local population for better governance and generates the required financial resources for the enhancement.

[8] Data sources and descriptive statistics can be found in Appendices A and B. While the economic determinants of governance are relatively straight forward, the choice of the political variables has been inspired by the extensive discussion in the African Governance Report of the United Nations Economic Commission for Africa (2005) and the Final Report of the Commission for Africa (2005). Due to a lack of time-series data, however, not all political variables that were discussed in these reports could be included. Still, the most important determinants of governance are covered in our analysis.

- *Inflation* stands for the annual change in the consumer price index. A high inflation rate is closely related to other forms of macroeconomic distortions, the absence of which in turn is required to improve governance. We thus expect a negative influence of *Inflation* on governance.

- *Education* refers to educational attainment levels, quantified by the average years of schooling of the population 15 years and older. A higher score is expected to have a positive impact on governance, as a better educated population is more likely to participate in (public) decision making and to demand better governance.

- *Political Constraints* assesses the degree of constraints on the (political) executive branch, ranging (steadily) from 0 (no checks and balances) to 1 (full set of checks and balances). A government that faces more checks and balances and that is accountable to a larger part of the population could be associated with political reforms that are enhancing governance. Thus, we expect this aspect to have a positive impact on governance.

Finally, we include year dummies for each time period to capture both a time trend and special developments within a particular period that are not caused by factors included in our analysis.

Overall, the country sample consists of 131 countries, including 96 developing countries.[9] In our analysis, we have incorporated all countries for which we obtained sufficient data for the dependent and independent variables. Our sample covers 37 ACP countries, which amounts to some 50 per cent of the entire ACP group. Though this percentage is not very high, we have to keep in mind that a considerable number of ACP countries, in particular those in the Caribbean and the Pacific, are tiny islands, for which we could not get governance data over time and/or information on the control variables. Still, we have covered a considerable share of the ACP group in our analysis, including almost all larger and mid-sized countries.

Not surprisingly, the average score for *Govcomp* is lower in developing countries in comparison to high-income countries (Table 1). Yet the average figure for the ACP group is even lower than the corresponding one for all developing countries. What is more, ACP

[9] According to the World Bank (2007b) criterion, a country is classified as a developing country if its Gross National Income per capita in 2005 is below US$ 10,725.

countries are – on average – less open to trade, enjoy a lower level of press freedom, have more conflicts, lower growth, higher inflation, lower educational attainment levels, and less political constraints. Partly as a consequence, they receive much higher aid levels.

Table 1: Mean for Main Variables and Country Groupings, Period 2002-2004

Variable	All countries	Developed countries	Developing countries	ACP countries
Govcomp	9.54	14.22	7.83	6.78
Trade	83.77	97.08	78.92	75.15
Press Freedom	1.05	1.68	0.83	0.82
Conflicts	0.25	0.09	0.31	0.32
ln Population	16.29	15.91	16.43	15.92
Economic Growth	2.71	1.83	3.02	1.34
Inflation	8.56	2.12	10.91	17.90
Education	6.55	9.47	5.20	3.64
Political Constraints	0.48	0.67	0.41	0.35
Aid	5.32	0.18[1]	5.92	11.72
Countries	131	35	96	37

Note: [1]Though they belong to the group of high-income countries, a few nations, such as Slovenia, Cyprus, Antigua and Barbuda (and some others), still received foreign aid in the period 2002-2004.

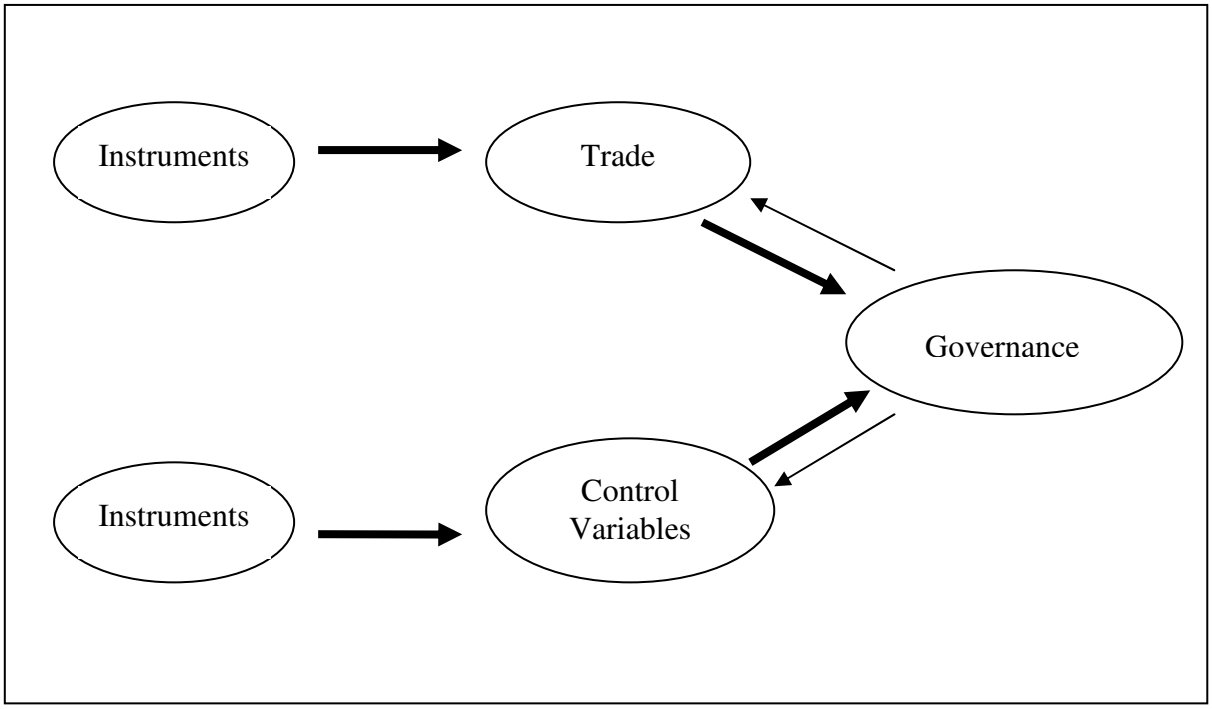
Apart from the population size, all independent variables are very likely to be endogenous, that is, they have an impact on governance but they are influenced by *Govcomp* too. Above all, various studies have shown that better governance will lead to enhanced growth rates, improved education, fewer conflicts (or better conflict management), more trade, lower inflation rates, and so on (World Bank 2005, Jütting 2003, Levine 2005). This calls for an appropriate instrumental variable approach. Consequently, we use a dynamic GMM panel estimator (system-GMM) that allows us to analyse changes across countries and over time (panel analysis). The estimator also effectively deals with reverse causality by using a set of instruments for the endogenous variables, and includes the lagged dependent variable to account for the persistence of the governance indicator.[10]

One of the main advantages of the system-GMM estimator is the fact that it does not require any external instruments other than the variables already included in our dataset. In fact, it uses lagged levels and differences between two periods as instruments for current values of the endogenous variable (Figure 1). For the trade indicator and period 1999 to 2001, for

[10] Appendix D provides a more formal presentation and further (technical) details on the estimator used.

example, the system-GMM method uses as instruments (a) levels of *Trade*, that is, data for the period 1996-1998 and previous periods, and (b) differences in *Trade*, namely, differences between the periods 1996-1998 and 1999-2001 (and preceding differences).[11] Importantly, the estimator does not use lagged levels or differences by itself for the estimation, but rather employs them to instrument the variation in the trade indicator in a given period to explain variation in the governance indicator. This approach ensures that all information will be used efficiently and that we concentrate on the impact of trade on governance and not vice versa.

Figure 1: Estimation Strategy



3. Empirical Results

Following the introduction of the variables and the econometric method used, we now turn to the empirical results. For a start, we use the entire sample of 131 countries and incorporate only openness to trade, press freedom, conflicts and population as explanatory variables (Model 1 in Table 2). For the first two variables, we obtain the expected positive sign of the coefficient and a 1 per cent statistical significance level. For the country size, proxied by the population, we also get a positive sign for the coefficient (and a 10 per cent significance

[11] In fact, the system-GMM approach consists of a simultaneous estimation of two equations; one in levels and another in differences (see Appendix D).

level). Whereas the number and intensity of conflicts in a country is negatively associated with governance, the significance level falls short of the conventional 10 per cent level.

Table 2: Determinants of Governance, All Countries

Dependent variable: Composite governance indicator (Govcomp)						
Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Govcomp (t-1)	0.986***	0.987***	1.007***	0.919***	1.001***	0.752***
	(21.4)	(21.5)	(23.1)	(17.8)	(21.6)	(4.72)
Govcomp (t-2)	-0.22***	-0.216***	-0.219***	-0.221**	-0.22***	-0.214***
	(-5.97)	(-6.1)	(-6.05)	(-6.51)	(-6.01)	(-6.13)
Trade	0.0074***	0.0046**	0.0062***	0.0039**	0.0073***	0.0043**
	(3.25)	(2.38)	(3.25)	(1.96)	(3.17)	(2.35)
Press Freedom	0.501***	0.522***	0.44***	0.178	0.502**	0.401**
	(2.6)	(3.05)	(2.74)	(0.82)	(2.44)	(2.31)
Conflicts	-0.190	-0.206*	-0.183*	-0.285**	-0.149	-0.200*
	(-1.56)	(-1.76)	(-1.66)	(-2.28)	(-1.3)	(-1.86)
ln Population	0.111*	0.076	0.095*	0.074	0.109*	0.074
	(1.82)	(1.26)	(1.73)	(1.11)	(1.77)	(1.28)
Economic Growth		0.030				0.037
		(1.09)				(1.51)
Inflation			-0.0003***			-0.00026**
			(-2.84)			(-2.34)
Education				0.271***		
				(3.81)		
Political Constraints					0.066	0.386
					(0.13)	(0.88)
Observations	601	596	600	460	596	590
Countries	131	130	131	92	130	129
Sargan (p-value)[1]	0.14	0.27	0.66	0.90	0.43	0.64
AB 2 (p-value)[2]	0.17	0.21	0.11	0.05	0.15	0.18
Instruments	82	101	101	101	101	110

Notes: Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively. Estimation based one one-step system-GMM estimator with robust standard errors; corresponding z-values are reported in parentheses. Constant terms and time dummies are always included but not reported.

[1] Sargan-test of overidentification.

[2] Arellano-Bond-test that second-order autocorrelation in residuals is 0; first-order autocorrelation is always rejected (not reported).

We then add the remaining control variables one by one to the benchmark specification (Models 2 to 5) and all of them simultaneously in Model 6 (except *Education*).[12] Overall, we find that *Inflation* and, in the majority of the model specifications, *Conflicts* have the expected negative impact on governance, while the opposite applies to *Education*, *Trade*, *Press Freedom*, and the population size. Only for political constraints on the executive branch, we do not obtain any significant impact on governance.[13]

[12] We exclude educational attainment levels in Model 6, since the number of countries for which we have educational data is much lower in comparison to the other (control) variables.

[13] We also tested various other explanatory variables, such as foreign direct investment (FDI), the black-market premium for foreign currency, and several other educational attainment measures. The results for other

These first results could be influenced by the fact that a considerable number of developed countries are included in our sample, which might bias size and significance levels of the coefficients. As a consequence, we run another set of regressions that excludes high-income countries but uses the same six model specifications. For the developing country sample (Table 3), we still obtain a positive impact of trade openness on governance, as the estimated coefficient is always positive and statistically significant at the 1 or 5 per cent level. Similar to the full country sample, having a larger population is associated with better governance, while the opposite applies to the inflation rate. On the other hand, the intensity of internal and external conflicts now has a much stronger and negative impact on governance.

In comparison to the full country sample, having checks and balances in the political system has a much larger (and highly significant) positive impact on governance in developing countries (Model 5). The significance level for *Press Freedom* declines somewhat, though the coefficients are still positive and significant in the first three model specifications. The smaller size of the estimated coefficient and the decline in significance levels, in particular in Models 5 and 6, might be due to the fact that both press freedom and political constraints measure both transparency and the accountability of the government and thus create multicollinearity in the regressions. Higher educational attainment levels do lead to a significant improvement in governance, though the impact is lower in developing countries (as opposed to the full country sample).

Even if significant in all specifications, the coefficient for *Trade* is quite small. In other words, statistical significance should not be confused with economic meaningfulness of a coefficient. For example, the *Trade* coefficient may be statistically significantly different from zero but so close to zero that the significance is of little relevance. In fact, the estimated coefficient for trade openness of Model 1 in Table 3 is 0.0085, meaning that an increase in *Trade* by one within standard deviation (14.0) leads to a rise in the governance score by 0.12.[14] While such an increase in trade openness is well within reach for a country that liberalises its external sector, the associated enlargement in *Govcomp* is fairly small.[15] In

independent variables, however, do not change much. While Busse and Hefeker (2007) found a positive impact of various indicators for political risk on FDI, we could not establish any robust impact of foreign investment on governance, meaning that causality runs from governance to FDI and not the other way around.

[14] The within standard deviation refers to the deviation from the mean at a country level.

[15] Note that *Govcomp* ranges from 0 to 18.

contrast to trade and inflation, increased transparency and a greater accountability of the government through press freedom and/or checks and balances in the political system have a much larger impact on governance. Likewise, reducing the intensity of conflicts (or avoiding them at all) also has a considerably stronger influence on governance as compared to trade openness.

Table 3: Determinants of Governance, Developing Countries

Dependent variable: Composite governance indicator (Govcomp)						
Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Govcomp (t-1)	0.932***	0.923***	0.969***	0.919***	0.917***	0.944***
	(19.0)	(18.2)	(21.2)	(15.5)	(17.6)	(18.9)
Govcomp (t-2)	-0.278***	-0.279***	-0.272***	-0.267***	-0.276***	-0.266***
	(-6.43)	(-6.55)	(-6.47)	(-6.32)	(-6.62)	(-6.85)
Trade	0.0085***	0.0067**	0.0054**	0.0083***	0.0062**	0.0047**
	(2.82)	(2.42)	(2.49)	(2.74)	(2.12)	(1.96)
Press Freedom	0.335*	0.346*	0.318**	0.244	0.139	0.050
	(1.72)	(1.95)	(2.09)	(0.95)	(0.71)	(0.24)
Conflicts	-0.463***	-0.516***	-0.403***	-0.497***	-0.435***	-0.395***
	(-3.30)	(-3.40)	(-3.35)	(-3.46)	(-3.23)	(-3.18)
ln Population	0.264***	0.242***	0.214***	0.305***	0.208***	0.162**
	(3.72)	(3.01)	(3.38)	(3.18)	(2.92)	(2.32)
Economic Growth		0.040				0.047
		(1.43)				(1.81)
Inflation			-0.0003***			-0.00027**
			(-3.37)			(-3.22)
Education				0.175**		
				(2.00)		
Political Constraints					1.103**	1.035**
					(2.44)	(2.12)
Observations	430	430	429	315	430	429
Countries	96	96	96	63	96	96
Sargan (p-value)[1]	0.44	0.68	0.56	0.74	0.93	0.78
AB 2 (p-value)[2]	0.92	0.86	0.83	0.67	0.78	0.88
Instruments	82	96	96	69	96	97

Notes: See Table 2. Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively.

So far, we have analysed the impact of trade (and other variables) on governance, taking all countries, or all developing countries, as a group. While this sheds light on the impact of trade on governance in the *average* country, it does not answer the question as to whether there are countries or sub-groups of countries for which this linkage does not hold. In other words, there might be non-linearities in the relationship between the two variables. In view of that, we examine whether the positive impact of trade on governance, however small it might be, is valid for numerous sub-groups. To begin with, we compute interaction terms between *Trade*

and the relevant regional groupings,[16] and add them one by one to the benchmark specification (plus the corresponding regional dummies). Yet we do not get any robust results for the linkage between trade and governance at a group or regional level.[17]

Next, we separate the group of developing countries into those that export primarily fuels and minerals and those that do not. For example, we construct a dummy (labelled *FuelMineralExportsAbove20*) that takes the value one if the share of fuel and mineral exports in total exports is larger than 20 per cent of total exports, and zero otherwise.[18] We then compute an interaction term *FuelMineralExportsAbove20 x Trade* and add both the interaction term and the dummy itself to the same model specifications as before.[19] As can be seen in Table 4, we always obtain a negative coefficient for the interaction term. In three out of five regressions, *FuelMineralExportsAbove20 x Trade* is significant at the 5 or 10 per cent level. Importantly, the coefficients for the interaction term are larger than those for *Trade* in all five regressions, meaning that for resource-intensive countries we obtain a negative net impact of trade on governance.[20] Yet the results are not robust, as the interaction term is not significant at conventional threshold levels in all model specifications.

In addition, we find that the introduction of the interaction term (and the dummy itself) lowers the significance levels for some of the control variables, such as *Conflicts*, *Inflation*, or *Political Constraints*. This means that the dummy catches some of the variation in *Govcomp* that previously has been explained by these three variables. In other words, resource-intensive developing countries have more (and more severe) conflicts, higher inflation rates and less political constraints on the executive branch. Needless to say, a considerable number of African ACP countries, such as Angola, the Republic of Congo, the Democratic Republic of Congo, or Nigeria, to mention a few, fit quite well into this picture.

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[16] More specifically, we tested the interaction terms of trade with the entire ACP group, ECOWAS, SADC, CEMAC, ESA, CARIFORUM, and ACP Pacific.

[17] These results, which are not reported, can be obtained from the first author upon request.

[18] We exclude high-income resource-intensive countries, such as Australia or Norway, from that group as we are particularly interested in the impact of resource-intensive exports on governance in developing countries.

[19] Yet we exclude Model 4 that includes *Education*. For this variable, we are not able to obtain data for a considerable number of countries that belong to the resource-intensive group. Our results would thus not be comparable to the other regressions.

[20] To obtain the net impact of *Trade* on *Govcomp* for those countries that belong to the *FuelMineralExportsAbove20* group, one has to add up the coefficients for the interaction term and *Trade*. We test the joint significance of *Govcomp* with the interaction term, using an appropriate *F*-test. The hypothesis that both coefficients are jointly zero cannot be rejected at the 1 or 5 cent level, depending on the model specification.

Table 4: Governance and Resource-intensive Countries, 20 Per Cent Cut-off Point

	Dependent variable: Composite governance indicator (Govcomp)				
Independent variables	Model 1	Model 2	Model 3	Model 5	Model 6
Govcomp (t-1)	0.989***	0.987***	0.994***	1.001***	0.997***
	(20.4)	(20.9)	(20.7)	(20.2)	(20.6)
Govcomp (t-2)	-0.213***	-0.211***	-0.214***	-0.217***	-0.214***
	(-5.75)	(-5.74)	(-5.91)	(-5.82)	(-5.89)
Trade	0.0060**	0.0035	0.0061**	0.0066***	0.0046*
	(2.25)	(1.58)	(2.42)	(2.71)	(2.13)
Press Freedom	0.368**	0.434***	0.328**	0.395**	0.388**
	(2.15)	(2.70)	(2.21)	(2.05)	(2.56)
Conflicts	-0.145	-0.168	-0.141	-0.103	-0.192*
	(-1.23)	(-1.41)	(-1.27)	(-0.94)	(-1.68)
ln Population	0.070	0.045	0.070	0.070	0.065
	(1.21)	(0.77)	(1.25)	(1.24)	(1.10)
FuelMineralExportsAbove20 x Trade	-0.0091*	-0.0069	-0.0087**	-0.011**	-0.0063
	(-1.74)	(-1.45)	(-2.04)	(-2.30)	(-1.62)
FuelMineralExportsAbove20	0.146	-0.0012	0.150	0.450	0.197
	(0.22)	(-0.0020)	(0.33)	(0.83)	(0.45)
Economic Growth		0.020			0.0227
		(0.74)			(0.92)
Inflation			-0.00019		-0.00017
			(-1.54)		(-1.25)
Political Constraints				0.220	0.435
				(0.53)	(1.14)
Observations	596	591	595	591	585
Countries	130	129	130	129	128
Sargan (p-value)[1]	0.66	0.41	0.98	0.77	0.97
AB 2 (p-value)[2]	0.11	0.12	0.10	0.11	0.15
Instruments	105	124	124	124	138

Notes: See Table 2. Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively.

We repeat the procedure for varying threshold levels for the share of resource-intensive exports, ranging from 15 to 30 per cent of total exports. While we get hardly any significant results for the interaction term and the 15 per cent cut-off point, the outcome changes dramatically as we increase the threshold level (Table 5). For the group of countries which has a share of fuel and mineral exports above 30 per cent of total exports, we always obtain a statistically significant negative coefficient for the interaction term that is larger than *Trade*. Accordingly, for these countries, shown in Box 1, we observe on average a negative impact of trade on governance.[21]

[21] We also analyse the impact of the trade structure with respect to manufacturing and/or capital goods on governance, but do not get any significant results.

Table 5: Governance and Resource-intensive Countries, Varying Cut-off Points

Dummy	Sign[1]	Number of regressions where interactive term *Trade x FuelMineralExportsAbove* dummy is significant[2]
FuelMineralExportsAbove15	-	1/5 (1 out of 5)
FuelMineralExportsAbove20	-	3/5
FuelMineralExportsAbove25	-	3/5
FuelMineralExportsAbove30	-	5/5

Notes: The dummy *FuelMineralExportsAbove15*, for example, refers to the set of countries in which fuel and mineral exports exceed 15 per cent of total exports; the other dummies differ only with respect to the threshold level.
[1]Sign of the coefficient.
[2]10 per cent significance level or better.

Box 1: List of Resource-intensive Countries in Which Fuel and Mineral Exports Exceed 30 Per Cent of Total Exports (FuelMineralExportsAbove30)

Algeria, *Angola,* Azerbaijan, Bhutan, Bolivia, *Cameroon, Cape Verde,* Chile, Colombia, *Republic of Congo*, Cuba, Ecuador, Egypt, *Gabon, Guinea,* Indonesia, Iran, Kazakhstan, *Liberia,* Libya, *Mauritania,* Mongolia, *Niger, Nigeria,* Oman, *Papua New Guinea,* Peru, Russian Federation, Syrian Arab Republic, Tajikistan, *Togo, Trinidad & Tobago,* Turkmenistan, *Zambia*

Note: ACP countries in italics.

In a third step, we examine the impact of trade on governance in those countries that have had relatively low governance scores in the first period of our analysis. To begin with, we create another dummy (*GovcompBelow4*) that is equal to one if a country has a *Govcomp* score of 4.0 or below in the period 1984-86, and zero otherwise. Again, we compute an interaction term *GovcompBelow4 x Trade*, and add both the interaction term and the dummy to all model specifications except the one that includes *Education* (Model 4). Similar to the higher cut-off points for resource-intensive countries, we obtain a negative coefficient for the interaction term that is significant in four out of five model specifications (Table 6). Yet the estimated coefficient for *GovcompBelow4 x Trade* is usually smaller than that for *Trade*, meaning that the impact for countries with "bad governance" in the first period is even smaller than that for the entire country sample but still positive. The countries that belong to the *GovcompBelow4* group are shown in Box 2.

Table 6: Governance and Countries with Low Governance Scores, Governance Cut-off Point 4

	Dependent variable: Composite governance indicator (Govcomp)				
Independent variables	Model 1	Model 2	Model 3	Model 5	Model 6
Govcomp (t-1)	1.027***	1.020***	1.033***	1.038***	1.032***
	(22.3)	(22.9)	(24.2)	(21.9)	(22.7)
Govcomp (t-2)	-0.286***	-0.266***	-0.285***	-0.288***	-0.267***
	(-6.85)	(-6.56)	(-6.97)	(-6.42)	(-6.05)
Trade	0.0096***	0.0075***	0.0094***	0.0097***	0.0070***
	(3.37)	(3.04)	(3.43)	(3.36)	(2.65)
Press Freedom	0.524***	0.533***	0.473***	0.562***	0.542***
	(3.46)	(3.65)	(3.50)	(3.00)	(2.64)
Conflicts	-0.245**	-0.223*	-0.233**	-0.199*	-0.226*
	(-2.27)	(-1.96)	(-2.23)	(-1.80)	(-1.89)
ln Population	0.14**	0.108*	0.14**	0.145**	0.111*
	(2.23)	(1.68)	(2.29)	(2.23)	(1.64)
GovcompBelow4 x Trade	-0.0066*	-0.0051*	-0.0062*	-0.0059*	-0.173
	(-1.89)	(-1.66)	(-1.89)	(-1.73)	(-0.54)
GovcompBelow4	-0.186	-0.097	-0.225	-0.253	-0.0044
	(-0.52)	(-0.32)	(-0.75)	(-0.69)	(-1.40)
Economic Growth		0.0403			0.046*
		(1.56)			(1.85)
Inflation			-0.00035***		-0.00026**
			(-2.66)		(-2.01)
Political Constraints				-0.190	0.205
				(-0.38)	(0.41)
Observations	579	574	578	574	568
Countries	116	115	116	115	114
Sargan (p-value)[1]	0.86	0.97	0.97	0.99	034
AB 2 (p-value)[2]	0.44	0.47	0.32	0.38	0.39
Instruments	105	118	118	118	114

Notes: See Table 2. Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively.

Box 2: List of Countries with Low Governance Scores in 1984-86 (GovcompBelow4)

Bangladesh, Bolivia, *Democratic Republic of Congo*, El Salvador, *Ghana*, Guatemala, *Guyana*, *Haiti*, Honduras, Indonesia, *Liberia*, *Mali*, *Nigeria*, Panama, Paraguay, Philippines, Romania, *Sudan*, *Uganda*

Note: ACP countries in italics.

We then increase the threshold level for the dummy from 4 to 6, 8 and 10 to check the outcome for a larger set of countries with scores for *Govcomp* that are below or close to the mean for the full country sample in the period 1984-86 (9.45). As can be seen in Table 7, the significance levels decline if we increase the threshold level, meaning that trade has a smaller (but still positive) impact on governance only in countries with very low governance scores in the first period. Conversely, countries with better governance scores (above the mean) benefit more from trade (results not reported). This outcome can partly be explained by the fact that

those countries that have had low *Govcomp* scores in the first place are also the ones that are resource-intensive. Importantly, these results do not imply that countries with a low *Govcomp* score in the first period have not been able to improve governance. Rather, they show that trade openness did not play a major role in that process, and that other (political) variables had been more important.

Table 7: Governance and Countries with Low Governance Scores, Varying Cut-off Points

Dummy	Sign[1]	Number of regressions where interactive term *Trade x GovcompBelow* dummy is significant[2]
GovcompBelow4	-	4/5 (4 out of 5)
GovcompBelow6	-	2/5
GovcompBelow8	-	0/5
GovcompBelow10	+	0/5

Notes: The dummy *GovcompBelow4* refers to the set of countries in which the composite governance in the period 1984-1986 is equal to or below 4.0; the other dummies differ only with respect to the threshold level.
[1]Sign of the coefficient.
[2]10 per cent significance level or better.

After examining the impact of trade on governance, we next turn to the second main research question: the role of regional integration in improving governance. As explained above, we cannot measure the direct influence of regional integration in ACP countries on governance. Rather, we analyse the impact of NAFTA on Mexico and EC/EU on accession countries. In the empirical analysis, we simply add the joint dummy *Anchor EU/NAFTA* to our regressions. In all six model specifications, the variable has the expected positive sign and is highly significant at the 1 or 5 per cent level (Table 8). Moreover, the coefficient ranges between 1.3 and 1.5, which is relatively large. The exception is Model 4, which includes *Education* as a further control variable. In this specification, the coefficient drops to 0.95. As mentioned above, this could be due to the smaller country sample, as data on educational attainment levels are not available for 35 countries in our sample, including a few EU accession countries, such as the Czech Republic or Lithuania.

Importantly, the coefficients for *Trade* stay significant at the 1 and 5 percent level and do not differ much from the estimates in the first set of regressions (Table 2). This means that both regional integration and trade openness explain variations in *Govcomp*. Crucially, the estimates for *Anchor EU/NAFTA* are quite large. Joining NAFTA or the EC/EU thus had led – on average – to an improvement by up to 1.5 points in our governance measure. While this figure is already clearly larger than the ones for all other determinants of governance, we have

to keep in mind that *Anchor EU/NAFTA* refers to the time of joining NAFTA or EC/EU accession. Since it is reasonable to assume that Mexico and European accession countries improve governance *before* they actually joined, the actual impact should be even larger. If we introduce time lags of one or two periods (not reported), that is, three or six years, the impact of having a link to a strong external anchor country is indeed up to two times as large in comparison to the coefficients shown in Table 8.

Table 8: Governance and EU/NAFTA as Anchor Links

Dependent variable: Composite governance indicator (Govcomp)						
Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Govcomp (t-1)	0.984***	0.985***	1.002***	0.920***	0.975***	0.984***
	(22.3)	(22.4)	(24.2)	(18.3)	(22.1)	(23.2)
Govcomp (t-2)	-0.242***	-0.237***	-0.239***	-0.240***	-0.24***	-0.236***
	(-6.50)	(-6.62)	(-6.51)	(-6.72)	(-6.56)	(-6.64)
Trade	0.0075***	0.0046**	0.0059***	0.0064**	0.0062***	0.0041**
	(3.38)	(2.35)	(3.37)	(2.39)	(2.89)	(2.03)
Press Freedom	0.34*	0.38**	0.333**	0.295	0.185	0.109
	(1.91)	(2.35)	(2.27)	(1.20)	(0.97)	(0.50)
Conflicts	-0.170	-0.188	-0.162	-0.309**	-0.134	-0.196
	(-1.38)	(-1.60)	(-1.46)	(-2.08)	(-1.16)	(-1.61)
ln Population	0.083	0.047	0.065	0.099	0.051	0.031
	(1.25)	(0.71)	(1.10)	(1.27)	(0.73)	(0.44)
Anchor EU/NAFTA	1.388***	1.311***	1.271***	0.954**	1.424***	1.533***
	(3.89)	(4.11)	(4.13)	(2.20)	(4.04)	(4.21)
Economic Growth		0.034				0.047*
		(1.21)				(1.74)
Inflation			-0.00030***			-0.00023**
			(-3.21)			(-2.54)
Education				0.285***		
				(3.40)		
Political Constraints					0.826*	1.036**
					(1.79)	(2.02)
Observations	601	596	600	460	596	590
Countries	131	130	131	92	130	129
Sargan (p-value)[1]	0.07	0.33	0.70	0.53	0.43	0.19
AB 2 (p-value)[2]	0.24	0.29	0.15	0.07	0.30	0.37
Instruments	100	119	119	81	119	109

Notes: See Table 2. Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively.

In addition to anchor links to the United States and the EU, we tested for the impact of joining the World Trade Organisation (WTO). It could be argued that the WTO has served the role of an external anchor by promoting competition and trade liberalisation. Being a member of the WTO could entail conditionality with potentially beneficial effects for governance. The WTO accession of China, for example, led to a (or accelerated) liberalisation process in the external sector of that country (Mallon and Whalley 2004). However, we do not find any empirical

evidence that WTO accession has had a positive impact on governance in those developing or ACP countries that are included in our sample (not reported).[22]

But this does not necessarily mean that joining the WTO has had no impact on governance at all. It might also be an indication that our indicator could be misleading. Above all, many (developing) countries joined the WTO shortly after the end of the Uruguay round of the General Agreement on Tariffs and Trade (GATT), regardless of their actual political situation or proceeding in the application process. Group behaviour rather than individual political situations could have been crucial in some situations for a pro-membership decision. This could render our indicator powerless in terms of giving an explanation towards the development of (good) governance.

The third and final principal research question addresses the influence of foreign aid on governance. Naturally, adding *Aid* to our model specifications reduces our country sample, as most of the high-income countries did not receive ODA in the period 1984 to 2004.[23] In all model specifications, we find a negative influence of aid on governance. Depending on the model specification, the estimated coefficients for *Aid* vary between 0.02 and 0.025 and are always significant at the 1 or 5 per cent level. Taken at face value, this would mean that an increase in aid by the within standard deviation (4.43 percentage points of Gross National Income), leads to a deterioration in *Govcomp* of some 0.09 to 0.11 points.

Though the impact of aid on governance is thus not very large, we are surprised that foreign aid – independent of the model specification – always has a negative impact on governance. Yet we have to bear in mind that *Aid* refers to total ODA, that is, it includes various forms of development assistance, such as grants, loans, debt relief, or military assistance.[24] It could be argued that our aid variable does not correctly measure the amount of development assistance a country actually receives. On the other hand, it could also be true that some aid forms do indeed foster good governance, whereas others do not, and the results are strongly influenced by the latter group. For both reasons, the results should be interpreted with caution. Only a

[22] Again, all non-reported results can be obtained from the first author upon request.
[23] In fact, the sample declines from 131 to 106 countries. Overall, 10 high-income countries did receive aid (or repaid loans) in the period 1984 to 2004, that is, they report positive (or negative) aid flows for that period.
[24] Likewise, our aid measure does not distinguish between budget or project aid.

profound analysis that distinguishes between different forms of aid can produce reliable results and should only then be used for detailed policy recommendations.[25]

Table 9: Governance and Aid

Dependent variable: Composite governance indicator (Govcomp)					
Independent variables	Model 1	Model 2	Model 3	Model 5	Model 6
Govcomp (t-1)	0.914***	0.904***	0.956***	0.902***	0.913***
	(19.7)	(18.7)	(21.5)	(18.91)	(19.1)
Govcomp (t-2)	-0.283***	-0.28***	-0.271***	-0.277***	-0.267***
	(-6.92)	(-6.91)	(-6.86)	(-7.12)	(-7.04)
Trade	0.010***	0.0097***	0.0079*	0.0085***	0.0059***
	(3.13)	(3.28)	(3.76)	(2.90)	(2.63)
Press Freedom	0.273	0.29*	0.249*	0.082	0.00396
	(1.63)	(1.71)	(1.73)	(0.43)	(0.18)
Conflicts	-0.338**	-0.397***	-0.3**	-0.304**	-0.336***
	(-2.39)	(-2.80)	(-2.56)	(-2.40)	(-2.77)
ln Population	0.131*	0.143*	0.109*	0.099	0.081
	(1.69)	(1.79)	(1.66)	(1.21)	(0.98)
Aid	-0.024***	-0.025***	-0.019**	-0.023**	-0.022**
	(-2.66)	(-2.83)	(-2.48)	(-2.33)	(-2.43)
Economic Growth		0.0099			0.022
		(0.49)			(1.04)
Inflation			-0.00029***		-0.00029***
			(-3.06)		(3.26)
Political Constraints				1.120**	1.178**
				(1.21)	(2.43)
Observations	475	470	475	470	465
Countries	106	105	106	105	104
Sargan (p-value)[1]	0.24	0.44	0.41	0.39	0.99
AB 2 (p-value)[2]	0.99	0.99	0.61	0.88	0.89
Instruments	96	102	102	102	110

Notes: See Table 2. Significance at the 10, 5, and 1 percent level is denoted by *, **, and ***, respectively.

4. Policy Implications

Overall, we find evidence that trade liberalisation can help to improve governance in developing countries. While this outcome can be generally considered as good news for many ACP countries that ponder the likely effects of trade liberalisation in their countries due to the EPAs, a few limitations have to be made. Most of all, the impact of trade on governance in developing countries has been relatively small. What is more, the impact has been close to zero for countries with low governance scores in the initial period and, even worse, negative

[25] Indeed, these results call for an extensive analysis of the impact of aid on governance. As our main interest is the impact of trade on governance, this is beyond the scope of our study. Based on the results, we will still draw some broader policy conclusions in the next chapter.

for resource-intensive countries. The results clearly showed that a country has to reach a particular development level first before it can benefit from trade openness. On the other hand, countries that are already governed well will benefit much more from trade liberalisation, but – intuitively – do not need the EPAs as much as those countries with "bad governance".

On the other hand, trade might have a more profound indirect impact if trade openness influences other determinants of governance. Yet this study has basically been limited to the direct impact of trade on governance.[26] The other economic determinants of changes in governance either have also a very small impact (like inflation as a proxy for macroeconomic distortions) or are not significant (such as economic growth), meaning that they are less likely to play a major (or the only) role in improving governance in ACP countries.[27] The exception is the educational attainment level of a country, which has a positive and stronger impact on governance.[28]

We find that the political dimension matters most, as political variables have a much larger impact on governance. In particular, this applies to having press freedom, ensuring political constraints on the executive branch, and avoiding internal and external conflicts. Ensuring that ACP countries do make considerable progress regarding these political variables, therefore, is an indispensable precondition to improving governance. The only political variable with a somewhat unexpected impact on changes in governance is the negative sign for aid flows. As has been pointed out, this applies to total aid flows only and should be interpreted with caution.

Regional integration, which broadly refers to another policy dimension, could also have a significant (and lasting) positive impact on governance. Our results for anchor links of developing countries and emerging market economies to the United States and the EU exemplify the potentially large and positive impact of having a link to a strong anchor in a

[26] A comprehensive analysis of all indirect effects of trade openness is quite complex and, again, far beyond the scope of this study.
[27] This interpretation, of course, applies only to those economic determinants that are included in our analysis. Yet size and significance levels of most of the variables included do not change much if we use other control variables, such as FDI or the black-market premium.
[28] While the educational attainment level is not a "classical" economic variable, such as trade or inflation, it still refers to human capital levels that are an extremely important factor in economic growth models. Still, it could be argued that education has a strong non-economic component that falls into the group of social (or political) variables.

regional grouping. If the EPAs do lead to closer economic (and political) links between the EU and ACP countries, governance in the latter group could improve significantly. However, it is questionable that signing an EPA with the EU has the same (quantitative) impact as joining the EU. The magnitude of having a strong link to the EU is thus very likely to be smaller for ACP countries.

On the other hand, if the intended regional EPAs lead to effective and binding rules at a regional level, governance in many ACP countries is very likely to improve. This outcome is supported by our observation that the size of a country, approximated by the population, has a positive impact on governance in developing countries. This is clearly relevant for a large number of small ACP countries that often lack high-quality institutions to promote good governance.

Nonetheless, it is uncertain whether strong anchor countries do exist in all six regional EPA groupings. For the Southern African Development Community (SADC), South Africa could be an anchor if the country would join the regional EPA (or form a similar regional agreement with the EU in the future). But what about the other five regional EPAs? If we take a closer look at the large countries within each grouping, the outcome is rather uncertain: Could Nigeria be a credible and strong anchor for the other members of the Economic Community of West African States (ECOWAS)? What about Papua New Guinea in the ACP Pacific grouping or Cameroon in the Communauté Économique et Monétaire de l'Afrique Centrale (CEMAC)? Does Kenya have enough political (and economic) clout in the Eastern and Southern African (ESA) group to play that role? What about Jamaica or Trinidad and Tobago in the Caribbean Forum of ACP Countries (CARIFORUM)?

While this list of countries is neither exhaustive nor “path breaking”, finding a strong anchor country seems to be both a likely requirement for the expected positive effects of regional integration and a considerable challenge for the majority of the regional EPAs. Above all, if economic factors do not play a major role, an external anchor could help a country to implement and, equally important, to lock in the necessary reforms. As has been pointed out, reforms of political and economic institutions to improve the quality of governance are much more likely to be successful (and lasting) if they are supported by a credible commitment mechanism (IMF 2005).

Potentially, the New Partnership for Africa's Development (NEPAD), formally established in 2001, could also have a positive role in providing an external anchor for promoting good governance in Africa. So far, however, the outcome has been limited. As of May 2007, NEPAD has completed the intended peer reviews, including the policy recommendations and action plans, for only three countries: Ghana, Rwanda, and Kenya (NEPAD 2007). Moreover, NEPAD might lack both credible commitment and enforcement mechanisms that are needed to enforce better governance in many African countries. From this perspective, the concept of promoting deeper regional integration through EPAs seems to be a more promising approach in enhancing institutional quality and governance in many African countries.

While our results support the EU approach towards deeper regional integration, there is an important drawback regarding the formation of EPA groupings. As we have highlighted, trade liberalisation does not help to improve governance in resource-intensive countries. Within each EPA grouping, we thus have a group of countries that is likely to benefit from trade openness, and another group of countries that is not. In fact, this outcome is fairly similar to that of the linkage between trade liberalisation and (long-term) growth rates, as some ACP countries have high-quality government regulations in place that are needed to benefit from trade, but others within the same EPA region do not (Borrmann et al. 2006, Borrmann and Busse 2007).[29] Also, some ACP countries are least-developed countries (LDCs) and might switch to trade preferences of the Everything but Arms (EBA) Initiative of the European Commission if they do not sign an EPA with the EU, whereas others are non-LDCs that would fall back to the less favourable preferences of the Generalised System of Preferences (GSP). In short, the "one-size-fits-all" approach at a regional level could put some ACP countries at a disadvantage and/or undermine regional integration, which contradicts the intentions of the EPAs.[30]

Another concern relates to our results for education attainment levels. While *Education* always has a positive (and highly significant) impact on governance, the EPA process still entails certain risks for relatively poor ACP countries. A considerable decline in tariff

[29] Borrmann et al. (2006) find that high-quality regulations are a precondition to harness the potential gains from trade. Without them, countries that open up to trade might experience a negative impact of trade liberalisation on income levels. This is partly due to high trade-induced adjustment costs and capacity constraints in the export sector.

[30] On the other hand, a more positive interpretation of the results would be that the positive effects of regional integration are so strong that even countries with low governance scores or resource-intensive countries would benefit from the EPAs *overall*.

revenues due to the preferential tariff elimination could erode the financial base for educational (and other) spending, in turn worsening governance.[31] Although the introduction of an effective value added tax or the improvement of tariff collection (for the remaining imports that still face duties) could theoretically make up for revenue losses, the implementation record is rather mixed. Baunsgaard and Keen (2005) show that the (fiscal) recovery rate from trade liberalisation is relatively low in developing countries. While middle-income countries are able to cover government revenue losses due to trade liberalisation in the order of some 45 to 60 cents for each dollar of lost trade tax revenue, the recovery rate drops to no more than 30 per cent in low-income countries.

To cope with revenue losses in trade taxes, foreign donors could fill the gap in the recovery rate by increasing aid for a limited time. In principle, this could enable ACP countries to adjust their tax system and keep (or increase) spending on education, infrastructure, and so on (Bräutigam and Knack 2004). On the other hand, simply increasing aid flows as part of the EPA process might bring about some other risks to governance, as our results indicate. While we do not claim that (total) aid always and for every country has a negative impact on governance, one has to take into account the above mentioned potential negative effects of aid on governance. Donors should reconsider current aid structures and aid effectiveness when increasing aid flows to ACP countries as part of the EPAs. Correspondingly, recipient countries need to rethink carefully the potential drawbacks of aid on governance at both a country and a project level, and try to minimise any likely harmful effects.

To sum up, our results indicate that political determinants could be much more important than many economic factors for the improvement of governance in ACP countries. This strengthens the political dimension (of the Cotonou Agreement) and calls for various participatory approaches during that process. In view of the risks involved, the EPAs have to be well designed to ensure that the outcome is pro-development and that all ACP countries are able to benefit from them. If the focus is only or too much concentrated on the economic aspects of the EPAs, such as trade liberalisation, more effective approaches to enhance governance would be neglected.

[31] At a country level, tariff revenue losses due to the EPAs could be of a sizeable amount (Busse et al. 2004, Karingi et al. 2005).

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Appendix

Appendix A: Definition of Variables and Data Sources

Variable	Definition	Source
Aid	Official development assistance (ODA) in per cent of Gross Domestic Product (GDP)	OECD (2007) and World Bank (2007b)
Anchor EU/NAFTA	Link to anchor partner, measured by year of accession to EU/NAFTA, 0-1	World Bank (2007b)
Conflicts	Incidence and intensity of internal and external conflicts: 0 (no conflict), 1 (number of casualties in the range from 1 to 25), 2 (26 to 1000 casualties), and 3 (above 1000)	CSCW (2007)
Economic Growth	Real growth of Gross Domestic Product per capita in per cent	World Bank (2007b)
Education	Average years of total schooling in the population of age 15 and over	Barro and Lee (2001), updated with UNESCO (2007)
Fuel Mineral Exports	Fuel and mineral exports in per cent of total exports	World Bank (2007b)
Govcomp	Composite governance indicator, including law & order, bureaucracy quality, and corruption, 0-18	PRS Group (2007b)
Political Constraints	Political constraints V, Henisz database, 0-1	Henisz (2000, 2007)
Population	Total Population	World Bank (2007b)
Press Freedom	Freedom of the press (0-2)	Freedom House (2007)
Trade	Total imports and exports of goods divided by Gross Domestic Product in per cent	Heston, Summers and Aten (2006)

Appendix B: Descriptive Statistics, Period 1984-2004

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Govcomp	878	10.11	4.11	1.00	18.00
Trade	856	74.12	46.53	11.79	396.72
Press Freedom	874	1.02	0.82	0.00	2.00
Conflicts	878	0.40	0.85	0.00	3.00
ln Population	878	16.17	1.58	12.31	20.97
Economic Growth	861	1.56	4.35	-42.27	37.99
Inflation	868	63.20	432.72	-8.62	8767.31
Education	652	5.94	2.81	0.49	12.13
Political Constraints	871	0.42	0.33	0.00	0.89
Anchor EU/NAFTA	878	0.12	0.32	0.00	1.00
Aid	681	5.90	9.45	-0.15	72.18

Appendix C: Country Sample

Albania, Algeria, *Angola*, Argentina, Armenia, Australia, Austria, Azerbaijan, *Bahamas*, Bahrain, Bangladesh, Belarus, Belgium, Bolivia, *Botswana*, Brazil, Bulgaria, *Burkina Faso*, *Cameroon*, Canada, Chile, China, Colombia, *Democratic Republic of Congo, Republic of Congo*, Costa Rica, *Cote d'Ivoire*, Croatia, Cuba, Cyprus, Czech Republic, Denmark, *Dominican Republic*, Ecuador, Egypt, El Salvador, Estonia, *Ethiopia*, Finland, France, *Gabon*, *Gambia*, Germany, *Ghana*, Greece, Guatemala, *Guinea*, *Guinea-Bissau*, *Guyana*, *Haiti*, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, *Jamaica*, Japan, Jordan, Kazakhstan, *Kenya*, Korea, Kuwait, Latvia, Lebanon, *Liberia*, Libya, Lithuania, Luxembourg, *Madagascar*, *Malawi*, Malaysia, *Mali*, Mexico, Moldova, Mongolia, Morocco, *Mozambique*, *Namibia*, Netherlands, New Zealand, Nicaragua, *Niger*, *Nigeria*, Norway, Oman, Pakistan, Panama, *Papua New Guinea*, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, Saudi Arabia, *Senegal*, *Sierra Leone*, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, *Sudan*, Sweden, Switzerland, Syrian Arab Republic, Taiwan, *Tanzania*, Thailand, *Togo*, *Trinidad and Tobago*, Tunisia, Turkey, *Uganda*, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela, Vietnam, Yemen, *Zambia*, *Zimbabwe*

Note: ACP countries in *italics*.

Appendix D: System-GMM Dynamic Panel Estimator

For the dynamic panel analysis, we start with a relative simple specification:

$$(1) \quad Govcomp_{it} = \alpha_i + \beta_1 Govcomp_{it-1} + \beta_2 Govcomp_{it-2} + \beta_3 Trade_{it} + \gamma' X_{it} + \lambda_t + \varepsilon_{it}$$

where $Govcomp_{it}$ stands for the governance indicator for country i in period t, α_i is the country fixed effect, $Govcomp_{it-1}$ represents the lagged dependent variable in the previous period, $Trade_{it}$ is the variable of interest, X_{it} denotes the set of control variables (as introduced in Section 2), λ_t is a set of time dummies which is supposed to capture period specific effects and changes in *Govcomp* over time, and ε_{it} stands for the error term. In subsequent regressions, we add $Anchor\ EU/NAFTA_{it}$ and Aid_{it} to explore their impact on governance too.

Estimating equation (1) by ordinary least squares for the typical pooled cross-country time series analysis with "small T and large N" is very likely to produce biased coefficients due to the well-known problems if independent variables are endogenous (which is true for our sample). As a remedy, we follow the procedure suggested by Arellano and Bond (1991) and, as a first step, eliminate the country-specific effects using first differences:

$$(2) \quad \Delta Govcomp_{it} = \beta_1 \Delta Govcomp_{it-1} + \beta_2 \Delta Govcomp_{it-2} + \beta_3 \Delta Trade_{it} + \gamma' \Delta X_{it} + \Delta\lambda_t + \Delta\varepsilon_{it}$$

where $\Delta Govcomp_{it} = Govcomp_{it} - Govcomp_{it-1}$. As a second step, we estimate equation (2) by GMM. By following this approach, we would get the Arellano and Bond difference-GMM estimator. This estimator, which can be thought of as an extension of the Anderson and Hsiao (1982) estimator, produces efficient (and consistent) estimates, since the latter estimator fails to take all the potential orthogonality conditions into account.

In two later papers, however, Arellano and Bover (1995) and Blundell and Bond (1998) reveal a potential weakness of the difference-GMM estimator. They show that lagged levels can be poor instruments for first-differenced variables, in particular if the variables are persistent. In their modification of the estimator, they suggest to include lagged levels along lagged differences. In contrast to the original difference-GMM, they term this expanded estimator system-GMM. In fact, the system-GMM approach estimates equations (1) and (2)

simultaneously, by using lagged levels and lagged differences as instruments. We favour the system-GMM estimator, as *Govcomp* is very likely to be persistent.

The consistency of the system-GMM estimator requires a lack of second-order serial correlation in the residuals. The regression statistics, reported in Section 3, show that there is no second-order serial correlation in the large majority of regressions, as the null-hypothesis has usually been rejected.[32] However, we obtain this result only by including the second lag of the dependent variable in addition to the first lag. In those (few) regressions, where we still have second-order serial correlation in the residuals, we have added the third lag of the dependent variable (results not reported). While this solves the econometric problem adequately, we further restrict the length of our panel. Apart from the size of some of the estimated coefficients, the sign and significance levels are hardly affected. For the interpretation of the size of the coefficient for the lagged dependent variable, one has to add up both coefficients, that is, the coefficient for lag one plus the coefficient of lag two. To test the appropriateness of the instruments used, we report the results of a Sargan test of over-identifying restrictions in all tables. The *J*-statistics show that the applied instruments are valid.

As we use lagged levels and lagged differences, the number of instruments can be quite large in a system-GMM estimator. Yet too many instruments can overfit endogenous variables and fail to expunge their endogenous components. Moreover, it also weakens the power of the Sargan test to detect overidentification. Since the risk can be quite high with this estimator, it has become common practice in the literature to keep the number of instruments below the number of observations, that is, the number of countries included in our sample. To avoid this bias, we reduce in a number of regressions, in particular when we include the education variable, the size of the instrument matrix by restricting the number of lags used.

[32] First-order autocorrelation of the residuals is always rejected by another Arellano-Bond test.