Regional integration and the rule of law[*]

Christian Danne[†]

September 30, 2014
Preliminary draft

Abstract

This article studies the effect of regional cooperation agreements (RCA) on the quality of institutions in a cross section of countries. I construct instruments for more than 40 RCAs that proxy for geographic eligibility in order to estimate the causal effect of membership in an RCA on institutional change. For a sample of 144 emerging and developing economies and controlling for initial conditions, the results show that a (prospective) membership in a RCA explains a significant part of the cross country variation in institutional reforms. Three key results emerge: First, EU and NATO-related agreements are an important reason why emerging markets in Eastern Europe and Central Asia have been better reformers despite their socialistic heritage. More importantly, RCAs a main factor why African economies are still doing very poorly in terms of institutional reforms. Third, there is some evidence that the newly founded Asian Cooperation Dialogue helps to foster institutional reforms in East Asia. The agreement effect is stronger for late-comers, i.e. if the joining country cannot bargain over the rules of the RCA. The results show the (un)willingness to give delegate sovereignty is an important transmission channel of how the colonial past of countries affects current institutions. (*JEL* Classifications: F53, F55, H11, O11, O19)

Keywords: Economic institutions, reforms, regional cooperation, generated regressor.

1   Introduction

Current work on economic institutions shows that institutional arrangements are very persistent over time. Abundance of natural resources and historical factors, such as colonial origins, are among the leading explanations why poor institutions persist (cf. Sachs and Warner, 2001; Acemoglu et al., 2001). Despite several international programmes that specifically aim for better institutional arrangements in countries little change can be observed over time (see International Monetary Fund (IMF), 2005 for an overview).

The empirical determinants of institutional reform processes are still not very well understood. A number of theoretical papers have identified a commitment problem as the fundamental cause why lumpy institutions persist (Acemoglu, 2003; Acemoglu and Robinson, 2006; Hoff and Stiglitz, 2008). Winners of potential institutional reforms cannot credibly commit themselves to compensate the losers, such that a small number of politically and economically powerful elite groups will block reforms in order to avoid utility losses. The non-existence of a political Coase-Theorem drives a wedge between private and social returns to economic activity resulting in sub-optimal allocations of resources and asset stripping as economic elites will be in favour of weak institutional arrangements (Sachs and Warner, 2001; Rajan and Zingales, 2006). Even in cases in which an easy-rents sector does not exist, preferences of individuals about institutions and redistribution may hinder institutional reforms when the income distribution that existed prior the reform does not match the post-reform distribution (Hoff and Stiglitz, 2008).[1] Regardless of the persistence of institutional settings, some emerging and developing economies have turned out to be better reformers than others, most notably the former socialist economies in Central and Eastern Europe.

This paper studies the effect of regional cooperation agreements (RCAs) on the quality of institutions in a cross section of countries using a sample of 144 emerging and developing economies. I test the effectiveness of over 40 regional policy agreements, ranging from pure technical assistance programmes and regional trade agreements to more binding forms of international cooperation such as defence alliances and supranational European Union (EU) type agreements. The results are as follows. First, EU and NATO related RCAs have a strong effect on changes in the rule of law in countries in (South) Eastern Europe and Central Asia and are the reason why institutional arrangements are converging towards industrialised European economies. Second, RCAs in Africa are a prime reason why institutional arrangements are still poor and hinder African economies to catch up in terms of economic growth, despite some improvements in institutional settings over the last decades. The results do not show any significant effects of cooperation agreements at the regional level on institutions in Latin America and Asia. Although there is some evidence that the newly founded Asian Cooperation Dialogue (ACD) has a positive effect on institutional settings in Asia.

---

[1]Also, political economy models of reform processes emphasise uncertainty, asymmetric information, and adjustment costs to a new set of rules as possible reasons for a lack of institutional reforms (cf. Alesina and Drazen, 1991; Fernandez and Rodrik, 1991; Dewatripont and Roland, 1992a,b).

The mechanism behind the two results can be described as follows. First, the EU and the NATO, as well as other European RCAs were founded on the principle cooperation and supranational intervention and, as part of the accession criteria, that countries have to give up sovereignty. The century-long fights over resources within Europe was the main reason for the establishment of the forerunner of the EU. In contrast to this, African RCAs, as well as several other RCAs in Asia and Latin America were based on the principle of non-intervention. Founding members of African, Latin American, and Asian RCAs are, by and large, former European colonies and the intention behind, for example the African Union and its forerunners, was to re-establish their independence and autonomy from their former colonial rulers. Thus, cooperation among member states was limited to keeping domestic and external influences undermining the independence of each individual state at bay.

Combined with economic incentives for future member states, such as access to European goods and capital markets provides and incentive for emerging market economies to align their institutional settings with the core EU members. Thus, RCAs can have a disciplining effect on the country's policy agenda and thereby can help to overcome reform inertia even in presence of poor initial conditions. In contrast to this, non-intervention due to the colonial past of RCAs in other parts of the world limits domestic and external influences towards a better institutional system. Therefore, the construction of RCAs is an important transmission channel of how historical events, such as the colonial history of African economies affect institutional settings today.

The robustness checks of the results show that the main effect of RCAs is due to the RCA itself and not due to the presence of a hegemonic power in the region, such as the the core EU-member states, Russia or China. The results are also robust to the effect of regional conflicts and changes of the political regimes in the countries.

The effect of international treaties and memberships in intergovernmental organisations on state behaviour is subject to endogeneity and self-selection. The decision to apply for a membership and eventually to join an intergovernmental organisation is subject to ratification of the treaty by the joining country. Focussing on regional agreements, rather than global ones, allows for constructing a synthetic, plausibly exogenous, and agreement specific instruments that proxy for eligibility for an RCA based on the geographical location of a country and the current member states. The geographical location of a country a is a necessary precondition for becoming a member of a regional policy agreement, whereas for membership in a global multilateral organisation it is not. Eligibility requires that certain minimum standards in terms of institutions and other economic factors are met in order to ensure the functionality of the RCA (Alesina et al., 2005). I use those factors to *predict* the geographic location of a country and use predicted location as an instrument for the membership variables.

The remainder is as follows. Section 2 discusses the various forms of regional integration and the mechanisms of how these agreements help to overcome the inertia of the reform process. Section 3 describes the estimation strategy and the data set. Section 4 reports the results and

tests the validity of the instruments. Section 5 concludes.

2 International cooperation and institutional reforms

Despite the well documented persistence of institutional arrangements, some emerging and developing economies have turned out to be better reformers than others and have improved their institutional quality over the last two to three decades.

Figure 1 compares the changes in the distribution of institutional quality between 1996 and 2012 in industrialised countries to the ones in emerging and developing economies in Emerging Europe, Asia, Latin America, the Middle East, and Sub-Saharan Africa.[2] Institutional quality is measured by the Rule of Law index provided by the World Bank's *Worldwide Governance Indicators* (WGI).[3] In addition, Table 1 reports the summary statistics of the rule of law index.

Looking at emerging and developing economies in Figure 1 and Table 1 two features stand out. Countries in Central Asia, Emerging Europe and Sub-Saharan Africa have (slightly) improved their institutional settings (moving from the centre to the right) while the countries in Latin America, the Middle East, and the pacific islands have moved to a lower level of institutional quality (moving from the centre to the left). During the same time period, institutional quality roughly remained at the same levels in South East Asia.

Industrialised countries have a very narrow distribution with the mass clustered around the mean suggesting that all industrialised economies are very similar in terms of institutional quality. In contrast to this, all emerging and developing economies show a much lower level of institutional quality and a much wider distribution. However, in regions where institutions have improved distributions have slightly become more narrow, implicating that institutional quality among countries is converging. So the key questions are: Why are some regions moving upwards while others do not? And what brings them closer together over time or drives them further apart?

A major difference between the emerging market economies in Europe and the rest of the world is that several emerging markets in Eastern Europe have joined the EU in recent years, or are actively working towards a membership. Even those countries in Eastern Europe that currently do not have (potential) candidate status, still have a reasonable prospect of entering the EU at some day. In addition to an EU membership, several former socialist economies in Central and Eastern Europe have joined the NATO in 1999 and 2004 respectively. While levels of institutional quality in those countries are still below the levels of institutional quality in industrialised European countries, a precondition for becoming an EU or a NATO member is that

---

[2]The group of industrialised countries consist of Australia, Canada, United States (US), European Union (EU) 15 countries.

[3]The index is a latent factor estimated from over 70 indices measuring the quality of economic institutions. The estimates are normalised on an interval from -2.5 (bad) to 2.5 (good) with the world average set to zero. The WGI Rule of Law index is defined as *"to which extent agents have confidence in and abide by the rules of society, including contract enforcement and property rights, the police, and the courts, as well as the likelihood of crime"* Kaufmann et al. (2010). For more information see `http://www.govindicators.org`.

Figure 1: Rule of law by region
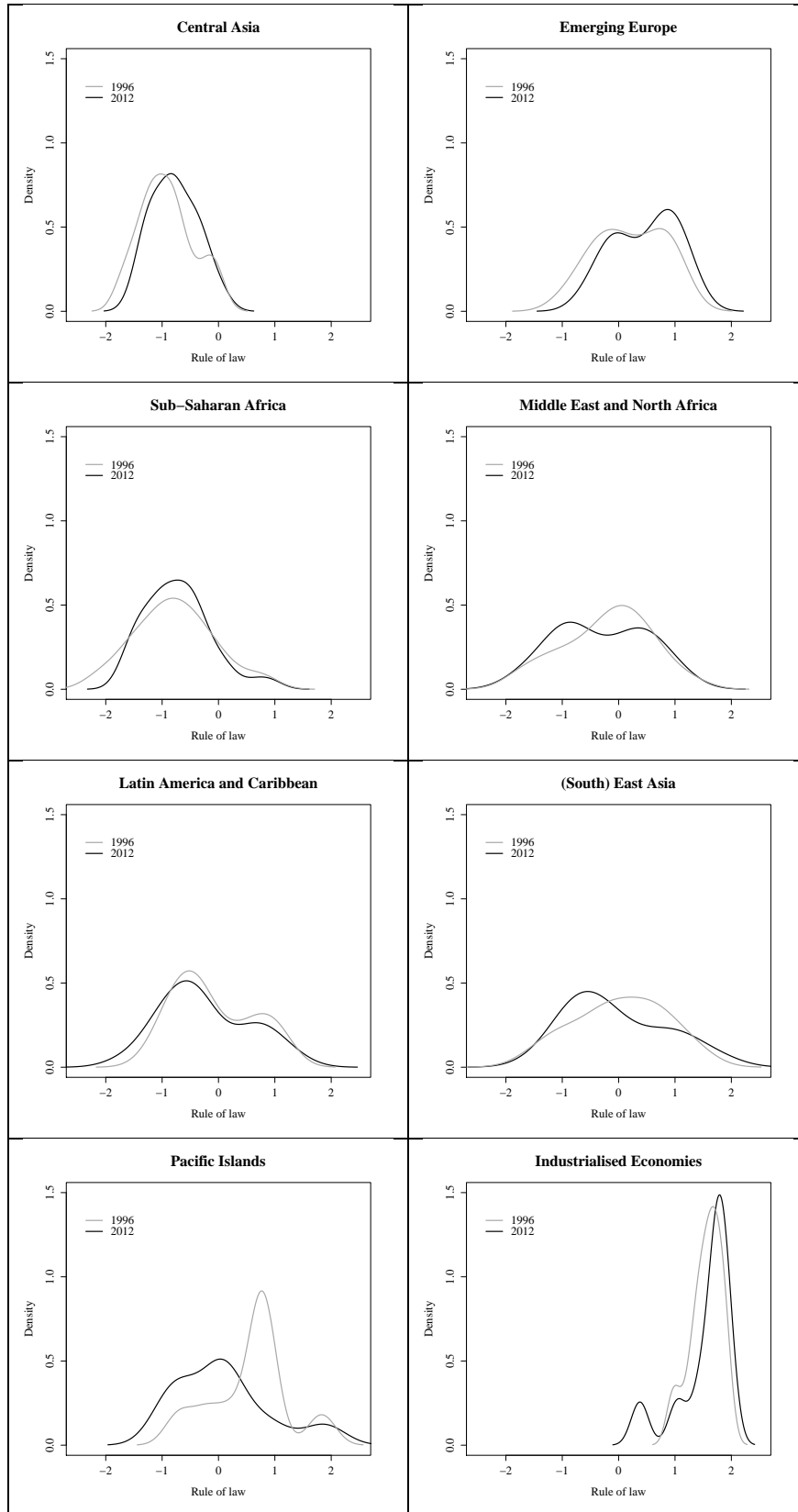
Source: World Bank (2014). Note: The index is standardised on the interval from -2.5 (bad) to 2.5 (good) with the world average set to zero in each year. For detailed information about the country groups, see Table A.1 in the Appendix. The group of industrialised countries consist of the United States, Canada, Australia, Japan, and EU-15 countries. Regional averages are unweighted averages of the country scores.

Table 1: Rule of law 1996 – 2012 summary statistics

Region	Year	Mean	SD	Min	Max	N
Central Asia	1996	-0.92	0.48	-1.69	-0.04	13
	2012	-0.78	0.40	-1.38	-0.03	13
Emerging Europe	1996	0.20	0.62	-0.93	1.06	17
	2012	0.47	0.57	-0.57	1.34	17
Sub-Saharan Africa	1996	-0.78	0.72	-2.23	0.86	42
	2012	-0.72	0.59	-1.65	0.94	42
Middle East and North Africa	1996	-0.20	0.78	-1.76	1.25	20
	2012	-0.31	0.82	-1.72	1.03	20
Latin America and the Caribbean	1996	-0.10	0.70	-1.19	1.09	27
	2012	-0.23	0.79	-1.69	1.37	27
Pacific Islands	1996	0.39	0.58	-0.70	0.77	8
	2012	-0.13	0.60	-0.86	0.90	8
South East Asia	1996	-0.12	0.71	-1.48	0.75	17
	2012	-0.23	0.72	-1.35	1.04	17

Source: World Bank (2014). Note: The index is standardised on the interval from -2.5 (bad) to 2.5 (good) with the world average set to zero in each year. For detailed information about the country groups, see Table A.1 in the Appendix. The group of industrialised countries consist of the United States, Canada, Australia, Japan, and EU-15 countries. Regional averages are unweighted averages of the country scores.

certain economic and legal institutions are in place and in line with the *Acquis Communitaire* and the NATO treaty respectively prior to the accession (European Commission (EC), 2007). As argued by Roland (2001), becoming a prospective EU membership has become an anchor for domestic policy making in several European emerging markets and has imposed important constraints not only on domestic economic policy, but also on other policy areas such as governance and human rights protection. Because an EU or a NATO membership offers considerable political and economic benefits for new member states, such as access to the EU's goods and capital labour markets both, the EU and the NATO, have been able to exert a strong influence on the political reform agenda in applicant states through its entry requirements and thereby strengthening legal and democratic systems (Di Thomasso et al., 2007; Grosjean and Senik, 2011).

While there have been several attempts to foster regional integration at the political and socio-economic level in other regions of the world since the 1950s, most attempts remained far less successful than the regional integration approaches in Europe.[4] Regional integration outside Europe only gained momentum after the economic success of the EU in the 1980s and 1990s. Baldwin (1997) and Mitchell (2006) provide a narrative account that the number of intergovernmental organisations has not only increased significantly since the 1950s but also that several organisations have intensified the level of cooperation over time especially in since the 1980s and 1990s. While the most notable examples of intensified cooperation are the intergovernmental organisations involving European countries, several organisations in Asia, Africa, and Latin America that have existed prior to the 1990s have tried to intensify regional cooperation through the declaration of new trade and human rights charters (Kelley, 2010). In addition, several new

---

[4]Examples for such early attempts of regional integration the Association of South East Asian Nations (ASEAN), the Arab League (AL), the Organisation of African Unity (OAU, later the African Union (AU)), the Latin American Free Trade Association (LAFTA), or the Organisation of American States (OAS).

regional cooperation agreements were signed in the 1990s. For example, in 1998 the Arab League (AL) declared a Greater Arab Free Trade Area (GAFTA) in which 17 of its 22 member states are currently participating. Similarly, the Gulf Cooperation Council (GCC) has introduced several charters that specifically try to harmonise regulations in the area of finance, trade, legislation, and administration. Also the Association of South East Asian Nations (ASEAN), has to put forward a single market initiative as well as a human rights charter. Besides that, the ASEAN also tried to push economic integration in the region through the foundation of the Asia Co-operation Dialogue (ACD). At the same time, non-ASEAN members in South Asia, such as India and its neighbours, started their own experiments with regional integration through the establishment of the South Asian Association for Regional Cooperation (SAARC) or the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). More importantly, a number of regional multilateral organisations have started to undertake specific actions in order to promote institutional change as part of their membership criteria in recent years similar to the EU and NATO accession programmes (Democracy Coalition Project (DCP), 2001).

Several papers have identified a commitment problem as the fundamental cause why lax institutional arrangements persist such that winners of institutional reforms cannot credibly commit themselves to compensate the losers (cf. Roland, 2001; Acemoglu, 2003). Even though countries as a whole would benefit from well functioning institutions, politically powerful groups might block institutional reforms and their political enforcement due to the risk of economic losses due to reforms.

Theoretical papers on endogenous commitment (cf. Roland and Verdier (2003), Hoff and Stiglitz (2008), and Caruana and Einav (2008)) show that, when internal commitment is not possible the conditionality of a (prospective) membership in a supranational organisation, such as the EU, that generates economic benefits can act as a commitment device for the (potential) member states to improve institutional settings. In the present case, one can interpret this as, a potential EU membership alters the incentive structures of political elites and helps to overcome the political commitment problem keeps the problem of time-inconsistency of political decision makers in check. Thus, the presence of the EU is a reason why economies in Central and Eastern Europe were quite successful in terms political reforms towards a market economy despite their socialistic heritage.[5]

Even if some countries are not interested in becoming an EU member in the long-run, governments put their business sectors at a competitive disadvantage, if they do not adjust their institutions, as long as other countries pursue a membership. Simmons (2009) points out that a lack of well functioning institutions is much less costly for a government, if its neighbours and

---

[5]While it is debatable, whether the potential compensations in the case with commitment are large enough to really force economics elites to not block reforms, models of time-inconsistent behaviour stress the importance of commitment in policy making in cases where the government's optimal ex post policy may differ from its optimal ex ante strategy and stress (cf. Phelps and Pollak, 1968; Kydland and Prescott, 1997; Barro and Gordon, 1983). One may interpret this an insurance mechanism against not sacrificing already conducted institutional reforms for short-term political and economic gains, once a first step towards EU integration has been made.

direct competitors on the world markets also lack sound institutional arrangements.[6]

The mechanism of how regional cooperation can trigger institutional change is as follows. First, there are expected gains from joining an RCA, either in the form of future economic gains though an increase in trade and access to the other member's capital markets, or other expected gains, such as external security or, in some cases, political reputation. If joining an RCA is conditional on certain institutional standards, countries have to ensure that membership criteria are met prior to joining through political and institutional reforms. Generally speaking, governments make a commitment, assuming that compliance is in their own interest to preserve their reputation or other economic gains. Moreover, for example an EU candidate status comes along various forms of technical assistance in order to transfer the know-how necessary for institutional reforms, to build the capacities to implement and enforce policies, as well as private sector development (EC, 2007).[7]

Supranational cooperation itself, however, is not enough to ensure institutional reforms in a region. Another significant difference between the economies in Central and Eastern Europe and emerging market economies in the rest of the world is that, prior to the fall of the communist regimes, the EU with its sound institutional framework was already in existence. In other regions of the world, emerging and developing economies did not have the opportunity to join an existing agreement rather than they have to establish it themselves.

A precondition for a supranational organisation to being able to affect institutional arrangements is, besides through setting entry requirements, is its member states' willingness to give up some of its sovereignty. Non-interference and the loss of sovereignty had a low priority in the founding of European supranational organisations and were rather driven by the threat of the communist East and a desire to avoid rouge state behaviour that had led to the rise of Nazi Germany and the Second World War, by sharing resources and committing each other to democracy and human rights (Baldwin, 2010). European economies have had a shock of history through the experiences of World War II that made the costs of giving up sovereignty seem negligible compared to the gains of cooperation. Germany, one of the largest states in Europe, has supported the creation of a supra-national structure to limit its own freedom. In the case of the EU, the delegation of sovereignty has created an increased level of interdependence among EU countries and thereby created further incentives for an even greater pooling of sovereignty. Thus, the willingness to give up sovereignty is a key issue in fostering institutional change through political and economic integration.[8]

---

[6]Also note that non-candidate countries in Emerging Europe are all members of The Central European Free Trade Agreement (CEFTA) that was set up at the EU's recommendation in order to prepare for membership by establishing free trade areas and has become a gateway to joining the EU. Kelley (2010) also provides a narrative account of how the Association Agreements signed by the EU and prospective member states have played an important role in the democratisation or Portugal, Spain, and Greece in the 1970s and 1980s.

[7]Also, other former soviet states benefit from the Technical Aid to the Commonwealth of Independent States (TACIS) programme, the predecessor of the Eastern Partnership (EAP) agreement, while this applies only of a limited extend, for example to the countries of the Barcelona Process/ EU Mediterranean Partnership (EC, 2007).

[8]A number of researchers have argued that, if the Rome Treaty would have to be signed today, chances are that they would not (Simmons, 2000).

The shock of the second World War and the fear of rogue states' behaviour opened a window of opportunity to set up strong and binding rules for regional integration. In contrast to this, most supranational organisations founded in Africa, Asia, and Latin America after the Second World War were based on the concept of internal non-interference.[9] Several countries in those regions are former colonies of European countries. Thus, the main focus was to re-establish their independence and sovereignty from the former colonists. The fear of intrusion has hampered regional integration in other regions of the world as has been observed in, for example, the functioning of the African Union, the Arab League, and the ASEAN (Kelley, 2010; Elsig and Milewicz, 2012).

When setting up regional cooperation agreements, preferences of the founding members about institutions and independence will be reflected in the membership rules and requirements for entry (Alesina et al., 2005). The different preferences over interference and sovereignty are reflected in the organisation's decision making process. The EU with its Commission and, to a lesser extend, the European parliament have the power to enforce changes in domestic law, whereas most regional organisations in other parts of the world, such as the ASEAN or the Organisation for Security and Co-operation in Europe (OSCE), have maintained strong consensus-based rules, giving each member state a *de facto* veto possibility and therefore makes it very difficult to enforce institutional improvements in its member states especially changes that potentially empowers their citizens against the state (Simmons, 2009).[10] Also, in the case of the Eastern European states that have recently joined the EU and those that are current candidate countries, the cost of giving up sovereignty can be assumed to be low. After decades of communist rule, the desire of these newly independent states to avoid a repeat of this oppressive past made the costs of loosing some of their sovereignty negligible. Plus, the benefits from accessing European goods and capital markets are high from those countries' perspective (Elsig and Milewicz, 2012). Regardless of the subject of the agreement, when setting up a new international cooperation the initial treaty will be set up in a way that the expected benefits are believed to outweigh the expected costs of compliance of the agreement and the loss in political autonomy. However, as the gains from regional cooperation are uncertain, countries are more likely to opt for the status quo rather than giving up sovereignty.

Another precondition for a functioning supranational organisation is that, when deciding about regional cooperation, the expected (economic) gains from more intensive cooperation have to be sufficiently large. Countries with small domestic markets and a large share of exports in GDP, such as Slovenia, are more likely to join and willing to give up sovereignty when compared to countries with large domestic markets, such as Russia and China. To the contrary, other countries at the periphery of China and Russia are likely trying to access Russian and Chinese

---

[9]Baldwin (1993) develops a stylised model in which a large economic shock can trigger a process of regional integration.

[10]Note that the OSCE only changed it's decision making process to "consensus minus one" in order to suspend the Federal Republic of Yugoslavia (FYR) after the FYR violated its OSCE commitments by attacking Bosnia and Herzegovina.

markets the same way as countries in East Asia are trying to access the EU markets. Thus, chances are that Russia and China, will have an influence on the set-up of political and economic institutions rather than the other way around. Hence, due to its size China and Russia are likely to influence the region in the same way as the EU influences its neighbours in the region.

3 Data, estimation, and identification

3.1 Data and the econometric model

The sample used for estimation is a balanced panel of 144 emerging and developing economies from 1996 to 2012. The countries used for estimation are listed in Table A.1 in the Appendix. As a proxy for the quality of economic institutions, the World Bank's WGI Rule of Law index is used. In total, I test the effects of more than 40 regional agreements. The agreements tested in the sample range from strong forms of cooperation such as the EU or the NATO down to softer forms of cooperation, such as the Ibero American Summit (IAS) or the Rio Group. Table A.2 in the Appendix provides a complete list of the agreements tested.[11]

As institutions within a country are very persistent, the focus is on the cross sectional variation in the data. The baseline model has the form

$$Q_{2012,i} = \beta_0 + \beta_1 Q_{1996,i} + \beta_2 R_{i,j} + \varepsilon_i \quad \text{for each} \quad j \in J \tag{1}$$

$$R_{i,j} = \alpha_0 + \alpha_1 Q_{1996,i} + \alpha_2 G_{i,j} + \upsilon_i \tag{2}$$

where $Q_{2012,i}$ and $Q_{1996,i}$ represent the quality of economic institutions in country i in 2012 and 1996 respectively and $R_{i,j}$ is an index indicating the number of years country i has spent under a particular agreement j. Institutional quality at the beginning of the sample is added in order to control for any developments prior to the beginning of the sample and to account for the persistence of economic institutions. An alternative interpretation of Q_{1996} could be analogous to the notion of historical "democratic capital" by Persson and Tabellini (2009) as "institutional capital". ε_i and υ_i are jointly normal distributed error terms with a heteroscedastic variance-covariance matrix of the form

$$\begin{bmatrix} \varepsilon_i \\ \upsilon_i \end{bmatrix} \sim N(0, \boldsymbol{\Sigma_i}) \sim N\left(0, \begin{bmatrix} \sigma_{i,\varepsilon\varepsilon} & \sigma_{i,\varepsilon\upsilon} \\ \sigma_{i,\upsilon\varepsilon} & \sigma_{i,\upsilon\upsilon} \end{bmatrix}\right) \tag{3}$$

where $\sigma_{\varepsilon\varepsilon}$ and $\sigma_{\upsilon\upsilon}$ as the variances of ε and υ respectively and $\sigma_{\varepsilon\upsilon}$ and $\sigma_{\upsilon\varepsilon}$ as the covariances between ε and υ respectively.

$G_{i,j}$ is an instrument variable satisfying the standard exclusion restriction of the form

---

[11]In total, more than 60 agreements have been tested. However, several of them where dropped due to the instrument being not sufficiently strong. The results are available upon request.

$$E[G_{i,j}, \varepsilon_i] = 0 \quad \forall i, j \tag{4}$$

3.2 Construction of the instrument

Becoming a member of a RCA is subject to exogenous and endogenous elements. While in many cases the decision about whether or not a country becomes a member of an RCA ultimately rests with the current member states, the choice of applying for a membership as well as accepting a membership offer is subject to self selection. Moreover, while a membership in an RCA might be an important driver of institutional change, especially in cases where a certain level of economic institutions and economic development is part of the membership criteria, a higher level of institutional quality will make it more likely for a country to be eligible for an RCA membership. Also, the time difference between the negotiations about the exact terms of accession and the ratification of the treaty are also likely reasons why R will not be strictly exogenous in practice.

In order to estimate the causal effect of being a member of a RCA on institutional change, I construct agreement specific instruments that proxy for the eligibility for a RCA by "predicting" a county's location in a region, conditional on other factors that would make a country more eligible join. The instrument relies on the idea that the location of a country in a certain world region is exogenous to a country.[12]

The construction of the instrument can be motivated as follows. Eligibility for a RCA, depends on the geographic location of a country but also on how similar a country is with respect to the current member states in terms of other criteria, such as the political and economic environment, or the level of economic development. "Closeness" of potential and current member states in terms of factors, such as economic development and preferences, is equally important for becoming a member in a RCA. Depending on the subject of the RCA, similarity in preferences over policies, such as institutions are for the functioning of an RCA.Moreover, countries have to have the capacity to implement the organisational and institutional commitments required by being a member (Kelley, 2010). Alesina et al. (2005) show in a theoretical model in which a group of countries decide to jointly provide a public good, such as external security or environmental quality, that the member states' heterogeneity in terms of preferences and their ability to implement the rules of the agreement have a strong impact on the overall functioning of the union and the provision of the good and makes the provision of the good more effective. Therefore, a heterogeneous group of countries within a RCA [LINK ALESINAS FINDING TO YOUR HYPOTHESIS]

The geographic location of a country can be seen as a necessary but not sufficient condition for joining an RCA. While the location of a country is strictly exogenous, several other factors related to the eligibility of a country are strongly correlated with the geographical location as

---

[12]The construction of the instrument is similar to the instrument variable (IV) strategy used by Alesina and Zhuravskaya (2011). Alesina and Zhuravskaya (2011) investigate the effect of internal ethnolinguistic fragmentation within countries on the probability of cooperation between two neighbouring countries by using predicted segregation and location of ethnolinguistic groups as an instrument for actual segregation.

well as with the quality of economic institutions. [EXPLAIN FACTOR MORE HERE.] These factors are used to "predict" the geographic location of each country and thereby predict the exogenous geographic eligibility of a country.

For each of the j agreements, the location of a country is predicted using an auxiliary regression on the whole sample from 1996–2012 of the form

$$\mathbf{G}_j = \mathbf{X}_j \theta_j + \nu_j \quad \text{for each } j \in J \tag{5}$$

where $\mathbf{G}_j$ is an $NT \times 1$ vector of dummy variables that take on the value 1 if country i is located in a region that makes the country geographically eligible for agreement j and zero otherwise. $\mathbf{X}_j$ is a $NT \times k$ matrix containing the k factors that predict regional closeness with respect to the current/other member states, as well as other factors that are correlated with geographic location; θ_j is a $k \times 1$ vector of coefficients; and ν_j is is an $NT \times 1$ vector of residuals with identical properties as the error terms in Eqs. 1 and 2.

The actual geographic eligibility ($\mathbf{G}$) for a RCA and other membership criteria are typically outlined in the initial treaty documents of a RCA. For example, Article 10 of the *Washington Agreement* states that a NATO membership is open to every European country which is in the condition to accept the Pact's principles and contribute to the security to the North Atlantic Area. In the simplest case, geographic eligibility of a country is determined by a being located in a certain world region, i.e. being generally eligible for becoming a member of the African Union requires a country to be located on the African continent. In other cases, such as the EU, geographic eligibility can be determined by other criteria. Regardless of, for example, the controversy about whether Turkey should become an EU member among the present EU member states, Turkey is a recognised EU candidate country, despite most of Turkey's land mass lies on the Asian continent. Similarly, some Central Asian economies have shown a desire to move closer towards the EU economically and politically. Thus, in the long run, the EU might expand further eastwards and include Central Asian economies as well. Even though the geographical eligibility is rather vague, no state has ever joined the EU without first joining the Council of Europe. Thus, a Council of Europe membership, currently comprising of 47 countries could be seen as a proxy for geographical eligibility. Table A.2 in the Appendix shows the geographical definition used for the construction of the instrument for each of the agreements tested in the next Section.

In the case of an existing agreement, the effect of the entry of a new member state has two main effects. First, it increases the utility by virtue of the internalised externalities. Second, a new member state changes the preferences of the median voter and the median member state as well as it increases the heterogeneity in terms of economic capacity and policy preferences. Lengthy debates increases or compromises about the provision of the good increases the cost of provision and lowers the quality of the public good. Thus, economic homogeneity or economic distance from the median member state, for example in terms of economic development

and growth, is an important criterion for the eligibility of becoming a member in a regional agreement. Only countries close enough to the median of the pre-existing union are accepted in order to ensure the functionality of the union. From a current member state's perspective, imposing accession criteria on future member states ensures that the functionality of the union is not endangered by an increasing level of heterogeneity in terms of economic and institutional development. In case of the EU, for example, those criteria are laid down in the *Copenhagen Criteria* and require countries to have a certain level of democracy, human rights/rule of law, a functioning market economy, and a public administration that is sufficient to implement EU laws in practice.

While there are clearly outlined accession criteria in the cases such as the EU or the NATO, most other regional agreements do not have a clearly outlined accession process and membership criteria for aspiring new member states. Other factors which may not explicitly be part of an agreement's membership criteria might also be directly or indirectly related to geographic and economic or political eligibility and the quality of economic institutions in a country. Trade and financial openness may be correlated with institutional change as countries with a large share of (potential) revenues from trade per GDP or a large share of foreign investment in total investment face opportunity costs in terms of forgone business opportunities as a result of bad governance. Similarly, factors, such as ethnolinguistic fractionalisation, climate, and historical factors are well documented correlates with both, geography and institutions (Acemoglu et al., 2001; Alesina and Zhuravskaya, 2011).

Thus, $\mathbf{X}$ is allowed to contain a wide range of factors in order to get the most precise estimate of the "predicted" region of a country. The set of variables contained in $\mathbf{X}$ are

$$\mathbf{X}_j = [1 \quad \Delta Q_j \quad \Delta GDP_j \quad \Delta POP_j \quad \Delta INF_j \quad \Delta TEMP_j \quad \Delta RAIN_j \\ \Delta FRAC_j \quad COL \quad LEGAL \quad TRADE \quad DEBT \quad BORROW] \tag{6}$$

where $\Delta Q_j, \Delta GDP_j, \Delta POP_j, \Delta INF_j, \Delta TEMP_j, \Delta RAIN_j, \Delta FRAC_j$ are the $N \times T$ sub-matrices containing the ratio of country i in terms of institutional quality Q, GDP and GDP per capita, population (POP), inflation (INF), temperature ($TEMP$), rainfall ($RAIN$), and ethnic, religious and linguistic fractionalisation ($FRAC$) over the median level of the respective variable in agreement j at time t. To be precise, let Δx_{ijt} be an individual entry of any of the sub-matrices of $\mathbf{X}$ above such that

$$\Delta x_{ijt} = \frac{x_{it}}{\widetilde{x}_{jt}} \tag{7}$$

where $\widetilde{x}_{jt}$ is the median of the variable of the current members of the RCA at time t and Δx_{ijt} is the country's realisation of the same variable.

In addition, COL and $LEGAL$ are sets of dummy variables for each country i and year t indicating whether country is a former colony of a western country (COL) and the legal origin ($LEGAL$) of country i. $TRADE$, $DEBT$, and $BORROW$ indicate the ith country's level of

openness measured as exports plus imports as a share of GDP, a country's general government debt as a share of GDP, and the general government's net external borrowing as a share of GDP respectively.

In order to illustrate the construction of $\mathbf{X}$, consider the following example. In cases where there is a structured accession process such in the case of the EU, the instrument is constructed as follows. If a country is a member of the Council of Europe and thus eligible for an EU potential candidate status, Δx_{ijt} is the ratio of country is GDP, rule of law, etc. and the median of the variable of the current potential candidates. Having potential candidate status makes countries eligible for an actual candidate candidate status. Thus, Δx_{ijt} is constructed from the realisation of the variable in country i and the current candidate countries, and so on. In cases where agreements do not have a structured accession process, the variables in X for each country are constructed with respect to the current member states.

The construction of the medians of the elements of $\mathbf{X}$ for an already existing agreement is straightforward. Membership criteria in already existing RCAs are already fixed and outlined in the treaty documents. Whereas the rules and accession requirements of newly set up regional cooperation arrangements the criteria are subject to negotiations and founding members have a significant influence on the initial treaty design and the things countries have to implement by the time the treaty gets ratified. While, other than in the case of an existing RCA, the median $\widetilde{x}_{jt}$ will not be exogenous to country i "closeness" of the founding member states still carries important information with regard to the eligibility and the functionality of the RCA. Thu, the medians of the founding members are used. By definition, all Δx_{ijt} are zero prior to the establishment of the agreement.

Data for GDP, GDP per capita, population, inflation, and net-borrowing is taken from the International Monetary Fund's *World Economic Outlook* database. Total GDP and GDP per capita are measured in purchasing power units. Trade and climate data is taken from the World Bank's United Nation's *UNCTAD* database and the *World Development Indicators*. Data on ethnic, religious and linguistic fractionalisation are taken from Alesina et al. (2003). The data on the colonial and legal origin of countries is taken from Hadenius and Teorell (2005) and La Porta et al. (2008) respectively. Data on general government debt is taken from the IMF's *Historical Debt database* compiled by Abbas et al. (2010). Table A.3 in the Appendix provides a more detailed description of the variables used and the data sources.

In order to account for potential non-linearities among the correlations between $\mathbf{G}_j$ and the elements of $\mathbf{X}_j$, quadratic terms of the variables are added when estimating Eq. 5. As some variables listed above in $\mathbf{X}$ turn out to be poor predictors of $\mathbf{G}$, some of the variables or some of the quadratic terms are dropped on a case-by-case basis. The exact specification of Eq. 5 for each $\mathbf{G}_j$ is selected by maximising the F-statistic of Eq. 5. Table A.4 in the Appendix provides a detailed list of the final specifications used for predicting $\mathbf{G}_j$.

Since the focus is on the cross-sectional variation in the data, timely averages from 1996–2012 of the predicted values for each agreement j are constructed and used for the estimation of the

model in Eqs. 1 and 2, such that G is replaced by

$$\bar{G}_{ij} = \frac{1}{16} \sum_{t=1996}^{2012} \widehat{G}_{ijt} \qquad (8)$$

where $\widehat{G}$ are the fitted values of Eq. 5.

The key identifying assumption here is that eligibility for a membership in one of the RCAs can affect the rule of law in a country only through becoming a member. There is little concern that the exclusion restriction is violated through correlation with observable macroeconomic variables since, by construction, the instrument is uncorrelated with other correlates of Q. The instrument can also be assumed to be uncorrelated with unobservable country characteristics unless those are uncorrelated with any of the variables in Eq. 5. A slightly bigger concern is that, for example, being eligible for an EU candidate status, makes a country equally likely to be eligible for becoming a NATO candidate country. Thus, $\bar{G}_j$ might be correlated with the error term in the second stage equation through correlation with other agreements due to the overlap of geographical eligibility and the overlap in the group of current member states. Section 4.2 specifically tests for a the potential violation of the exclusion restriction through overlapping agreements and in a more general way.

4   Estimation results

The model described in Eqs. 1 and 2 is estimated using two stage least squares (2SLS). In order to deal with the problem of a generated instrument (Pagan, 1984, 1986) bootstrapped standard errors clustered at the country level with 500 replications are used. The general estimation strategy is as follows. First, the effect of the various agreements in each region is estimated for the entire sample of emerging and developing economies. Second, in order to validate the effects of RCAs, I test whether the change in institutional quality is due to the agreement itself or the presence of a strong cooperation partner in the region, such as China, Russia, Brazil, or the EU that constitute a hegemon-like entity in the region. Third, since most international agreements, such as the AU or the AL do not have a structured accession process and the founding members have a chance to bargain over the rules of the RCA, I test the robustness of the results for those RCAs by focussing on countries who joined after the establishment of the RCA. Finally, the sensitivity of the results is checked with regard to two important covariates that influence the rule of law at the regional level.

A general concern regarding the dependent variable is that the rule of law indicator is standardised to have a zero mean and unit standard deviation in each period such comparisons over time are not possible. Kaufmann et al. (2010), however, document that there is no evidence of significant trends in world averages of the governance indicators. Thus changes in the WGI data at the country level can be interpreted as absolute changes. Further, the variables in the model are also standardised given that the dependent variable is a "metric-free" indicator with

mean zero and a one unit standard deviation.

4.1 IV estimates

Table 2 shows the 2SLS estimates of the effect of being a member of a European RCA on institutional change. Standard errors are reported in parentheses. In addition to the standard errors, Table 2 reports the standard Anderson-Rubin (1949, AR) test as an additional measure of inference endogenous regressor in the structural equation robust to weak identification. In all regressions in Table 2, the Stock and Yogo (SY) test statistic shows that the constructed instruments are sufficiently strong.

Table 2 shows that being a member of the European Monetary Union (EMU) does not have a significant effect on in institutional quality. In contrast to this, being an EU member or being an EU (potential) candidate country does have a significant effect on institutional quality in European emerging markets. All EU-based agreements are significant at the 1 percent level of significance and show a positive relationship between being a member of an EU. Being a potential candidate has a stronger effect than being an EU candidate and being an EU member respectively.

The same applies to NATO-based agreements. Being a NATO member as well as having a NATO Membership Action Plan (MAP) are both significant at the 5 and 1 percent level of significance respectively. Similar to the EU-based accession programmes, being a member of the NATO accession programme (NATO MAP) has a stronger effect on institutional quality than the agreement itself. In addition, the Central European Free Trade Area (CEFTA) is also significant at the 1 percent level. The CEFTA has an equally strong effect on institutional change as being an EU member or a potential candidate.

In all cases in Table 2, the AR tests in the bottom panel of Table 2 show qualitatively similar results as the standard inference in the top panel, with the exception of the result for being an EMU membership variable. Contrary to the standard t-test, the AR test suggests that being an EMU member is also significant at the 1 percent level.

Table 3 shows the results for being a member of an RCA in Central Asia.The first column in Table 3 indicates that the EU Technical Aid for the Commonwealth of Independent States (TACIS) has no significant effect on institutional change in CentralAsia. Similarly, having a Individual Partnership Action Plan (IPAP) with the NATO has no significant effect on the rule of law. In contrast to this, the two other NATO-based agreements in Central Asia, namely the NATO Partnership for Peace (PfP) or the Euro-Atlantic Partnership Council (EAPC), show a positive effect on institutional quality. Both agreements are significant at the 10 and 1 percent level of significance respectively. Moreover, being a member of an OSCE-programme also shows a positive effect on institutional change. On the other hand, the Russia and China-led agreements in Central Asia, such as the Shanghai Cooperation Organisation (SCO), the CSTO, or the Commonwealth of Independent States (CIS) do not have a significant effect on institutional

Table 2: RCA membership and the rule of law (Emerging Europe)

Dependent variable: Rule of law 2012							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rule of law 1996	0.6785***	0.7088***	0.7374***	0.7609***	0.7509***	0.7935***	0.7591***
	(0.0524)	(0.0591)	(0.0519)	(0.0538)	(0.0553)	(0.0483)	(0.0522)
EMU member	8.2077						
	(7.9256)						
EU member		1.7761**					
		(0.6940)					
EU candidate			1.9803***				
			(0.7000)				
EU potential candidate				5.0849***			
				(1.5339)			
NATO member					1.1272***		
					(0.3933)		
NATO MAP						2.6622***	
						(0.8709)	
CEFTA							1.8244**
							(0.7892)
Constant	-0.1996***	-0.1900***	-0.1924***	-0.2050***	-0.1622***	-0.1657***	-0.1742***
	(0.0456)	(0.0495)	(0.0512)	(0.0477)	(0.0490)	(0.0418)	(0.0446)
Observations	144	144	144	144	144	144	144
AR test (p-value)	0.000	0.000	0.001	0.000	0.004	0.000	0.000
SY test	44.55	52.97	29.57	33.06	43.45	60.69	45.01

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification..

change.

The AR tests in the bottom panel of Table 3 confirm the results of the standard tests of significance for PfP, EAPC, SCO, CSTO and the CIS. On the other hand, the AR test suggests that the IPAP coefficient is significant at the 1 percent level.

Table 4 reports the results for being a member of the African Union (AU) and of being a member of one of the various sub-agreements of the African Union. The result in the first column shows that being a member of the AU has a significant effect on institutional quality in Africa. Being a member of the AU reduces institutional quality by -.5178 for additional year under the agreement. In contrast to this, being a member of the ECOWAS does not have a significant effect on institutional quality Whereas being a member of either the Community of Sahel-Saharan States (CEN-SAD) or a member of the Common Market for Eastern and Southern Africa (COMESA) does have negatively significant on institutional quality in its member states. Both coefficients are significant at the 5 percent level. The effect appears to be the strongest for the COMESA agreement. On average, being a member of the COMESA reduces the level of institutional quality by -1.0407 for each additional year. Both sub-agreements appear to have a stronger effect as an AU membership. Being a member of the Southern African Development Community (SADC) or the West African Monetary Union (UEMOA) does not have a significant effect on institutional change in its member states.

The AR tests, by and large, confirm the results discussed above with the exception of the ECOWAS. While the standard t-test suggests that being a member of the ECOWAS does not

Table 3: RCA membership and the rule of law (Central Asia)

Dependent variable: Rule of law 2012								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rule of law 1996	0.8335***	0.8658***	0.8291***	0.8101***	0.8066***	0.8316***	0.8162***	0.8277***
	(0.0497)	(0.0531)	(0.0450)	(0.0470)	(0.0422)	(0.0570)	(0.0481)	(0.0476)
EU TACIS	0.4076							
	(0.3612)							
NATO IPAP		3.6729						
		(4.0302)						
NATO PfP			0.3135*					
			(0.1727)					
NATO EAPC				0.3184***				
				(0.1163)				
OSCE					0.3316***			
					(0.1116)			
SCO						0.4893		
						(1.6233)		
CSTO							0.1104	
							(0.3304)	
CIS								0.2239
								(0.2240)
Constant	-0.0988***	-0.1250***	-0.1172***	-0.1435***	-0.1487***	-0.0955**	-0.0865**	-0.0942**
	(0.0370)	(0.0388)	(0.0378)	(0.0428)	(0.0424)	(0.0379)	(0.0381)	(0.0377)
Observations	144	144	144	144	144	144	144	144
AR Test (p-value)	0.100	0.003	0.036	0.002	0.002	0.138	0.661	0.242
SY test	202.3	17.02	191.9	394.0	229.5	58.32	110.4	144.8

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification.

have any effect on institutional change in its member countries, the AR test suggests that the coefficient is significant at the 10 percent level.

While some countries in Northern Africa are already covered by the agreements in Table 4, there are several agreements that were specifically founded by the Arab countries in Northern Africa and the Middle East. Moreover, most of those agreements are not exclusively based on the geographic region rather than on ethnicity, religion, or resources, such as the Arab League (AL), the Organisation for Islamic Cooperation (OIC), or the Organisation of Petroleum Exporting Countries (OPEC). In these cases, a judgement call is made and the region variable G in Eq. 5 used for constructing the instrument is replaced by the share of Muslims in each country in the case of the AL and the OIC, and the share of petroleum-based exports as a share of total exports in the case of the OPEC. While, for example, the OPEC by and large consists of Middle Eastern countries, by definition membership in the OPEC is open to any oil exporting country in the world. The data for the share of Muslims in each country as well as the share of petroleum-based exports are taken from the Word Bank's *World Development Indicators*.

Table 5 shows that none of the RCAs in the MENA region have a significant effect on institutional quality. Neither those, set up by the countries in the region nor agreements that were facilitated by the EU or the NATO, such as the EU Mediterranean Partnership (EU MED) or the NATO Mediterranean Dialogue (NATO MED). Only in the case of the Gulf Cooperation

Table 4: RCA membership and the rule of law (Sub Saharan Africa)

Dependent variable: Rule of law 2012							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rule of law 1996	0.7363***	0.7735***	0.7597***	0.7430***	0.8116***	0.7773***	0.7922***
	(0.0564)	(0.0571)	(0.0530)	(0.0581)	(0.0465)	(0.0536)	(0.0470)
African Union	-0.5187**						
	(0.2032)						
ECOWAS		-0.3757					
		(0.2319)					
CEN-SAD			-0.5922**				
			(0.2482)				
COMESA				-1.0450**			
				(0.4475)			
SADC					0.1626		
					(0.1887)		
ECCAS						-0.3072	
						(0.4239)	
UEMOA							-0.4187
							(0.3427)
Constant	-0.0013	-0.0578	-0.0322	0.0241	-0.0990**	-0.0745**	-0.0658
	(0.0507)	(0.0392)	(0.0446)	(0.0590)	(0.0448)	(0.0379)	(0.0411)
Observations	144	144	144	144	144	144	144
AR Test (p-value)	0.014	0.057	0.009	0.000	0.421	0.242	0.110
SY test	68.42	76.80	73.26	25.96	64.86	66.15	67.80

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification.

Council (GCC) the AR test, contrary to the standard t-test, suggests that being member of the GCC is significant at the 5 percent level suggesting that an additional year increases the rule of law by .4719.

Table 6 shows the results for East Asian RCAs. The first two columns show that an ASEAN membership has no significant effect on institutional quality for East Asian countries. In contrast to this, the ACD appears to have a positive effect on institutional change in East Asia. Joining the ACD increases the quality of institutions by 0.5502. All remaining agreements in Table 6 turn out to be insignificant.

Looking at the results for the RCAs in Latin America in Table 7 displays a similar scenario as in Table 6. None of the agreements tested in Table 7 appear to have a significant effect on institutional change in Latin America. On the other hand, the AR test in column 3 suggests that the coefficient for the Ibero American Summit (IAS) is weakly significant at that 10 percent level.

4.2 Validity of the instruments

While the results in Section 4.1 appear to be robust to weak identification, since the SY test statistic in all regressions is sufficiently large. On the other hand, one might be concerned about the violation of the exclusion restriction in Eq. 4. Especially given the fact that several of the agreements geographically overlap might rise concern about the exogeneity of the instrument.

Table 5: RCA membership and the rule of law (Middle East and North Africa)

Dependent variable: Rule of law 2012							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rule of law 1996	0.8154***	0.8150***	0.7874***	0.8084***	0.8142***	0.7793***	0.8136***
	(0.0461)	(0.0445)	(0.0453)	(0.0451)	(0.0458)	(0.0562)	(0.0485)
Arab League	-0.1770						
	(0.2026)						
GAFTA		-0.1127					
		(0.2237)					
Gulf Cooperation Council			0.4769				
			(0.2943)				
EU MED				0.0566			
				(0.2606)			
NATO MED					-0.1366		
					(0.4975)		
OIC						-0.1875	
						(0.1526)	
OPEC							0.1171
							(0.3098)
Constant	-0.0605	-0.0710*	-0.1103***	-0.0871*	-0.0753*	-0.0260	-0.0913**
	(0.0437)	(0.0427)	(0.0409)	(0.0446)	(0.0401)	(0.0553)	(0.0437)
Observations	144	144	144	144	144	144	144
AR test (p-value)	0.293	0.581	0.032	0.829	0.621	0.149	0.629
SY test	89.55	77.47	198.2	72.85	74.57	65.84	55.32

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification..

While there is a variation in the duration in membership and countries have joined these over-lapping agreements at different times, the group of countries currently being NATO members strongly overlaps with the member states of the EU. Also, several countries that currently have an EU candidate status are also part of the NATOs membership action plan (MAP), and so on.

This section provides an indirect test of the exclusion restriction for each of the models of Section 4.1 by using an Hausman-type test that tests for the validity of the exclusion restriction developed by Hahn et al. (2011) and a test based on the modified 2SLS estimator by Conley et al. (2012).

The test by Hahn et al. (2011) is an overidentification test under the assumption of having one weak instrument (W) that is credibly exogenous but is only weakly correlated with the endogenous variable and one strong instrument (S) which has more explanatory power but which might not be exogenous such that the exclusion restriction in Eq 4 might not hold. Under the null, the rest is χ^2 distributed with 1 degree of freedom with $H_0 : E[S\varepsilon] = 0$ against the alternative that $H_1 : E[S\varepsilon] \neq 0$. Thus, a rejection of the null hypothesis puts doubt on the validity of the original instrument used a particular RCA. For a detailed description of the test see Hahn et al. (2011).

In order to construct the test, for each of the RCAs an additional instrument from the set of constructed instruments is chosen that is weakly correlated with the RCA in the test and also plausibly exogenous. The construction of the test is as follows. As shown by the results in Section 4.1, the constructed instruments are sufficiently strong with regard to endogenous

Table 6: RCA membership and the rule of law (East Asia)

Dependent variable: Rule of law 2012						
	(1)	(2)	(3)	(4)	(5)	(6)
Rule of law 1996	0.8137***	0.8156***	0.7995***	0.8080***	0.8094***	0.8147***
	(0.0470)	(0.0469)	(0.0492)	(0.0466)	(0.0486)	(0.0501)
ASEAN	-0.4267					
	(0.4338)					
ASEAN+3		-0.2888				
		(0.3098)				
ACD			0.5502*			
			(0.3094)			
SAARC				-0.2607		
				(0.8223)		
SAFTA					-0.2719	
					(0.6794)	
BIMSTEC						-0.6186
						(1.3022)
Constant	-0.0561	-0.0600	-0.1481***	-0.0711*	-0.0779*	-0.0533
	(0.0437)	(0.0430)	(0.0494)	(0.0419)	(0.0413)	(0.0561)
Observations	144	144	144	144	144	144
AR test (p-value)	0.167	0.300	0.039	0.388	0.676	0.106
SY test	38.57	40.33	58.47	51.91	73.30	32.66

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification..

variable for which they were constructed for. On the other hand, several agreements appear to have no effect on the rule of law. Thus, the instrument is plausibly exogenous with regard to other RCAs, especially with regard to RCAs in other regions of the world. Moreover, choosing an instrument that is (a) geographically very remote from the tested RCA and (b) picked from a group whose average rule of law score is different from the one in the test can be assumed to be weak with regard to the RCA in the test.

The following instruments are chosen in order to construct the test. For European-based agreements, the instrument for the African-based ECOWAS is chosen. For Central Asian RCAs, the MERCOSUR instrument is used. For African agreements, the IAS instrument is chosen. For RCAs in the MENA region and the Latin American RCAs, the CIS and the SADC instrument is selected respectively. For agreements in Latin America, the choice is the ASEAN instrument.

Table 8 shows the results for the re-estimated models using an additional instrument and the results for the Hausman test for the validity of the original instrument. For the sake of brevity, only the coefficients of interest are reported. The first two columns report the coefficients and the standard errors. The third column shows the standard SY test and the fourth column reports the Hausman test. In addition, the last column in Table 8 reports the p-values of the standard Sargan test for overidentification. for the re-estimated models.

The coefficients of the models in Table 8 are qualitatively the similar to the ones in the previous section. Only in the case of the GCC in the forth panel of Table 8, the coefficient now appears to be significant at the 10 percent level of significance. Apart from a few exceptions, such as the NATO IPAP, the SY statistic suggests that the two instruments are sufficiently

Table 7: RCA membership and the rule of law (Latin America and Carribean)

Dependent variable: Rule of law 2012						
	(1)	(2)	(3)	(4)	(5)	(6)
Rule of law 1996	0.8124***	0.8183***	0.8056***	0.8104***	0.8075***	0.8283***
	(0.0964)	(0.0469)	(0.0464)	(0.0474)	(0.0480)	(0.0466)
MERCOSUR	-0.2890					
	(15.0211)					
MERCOSUR 7		-0.3760				
		(0.4174)				
IAS			-0.4231			
			(0.2905)			
ALADI				-0.2870		
				(0.2186)		
Rio Group					-0.3967	
					(0.2735)	
CARICOM						-0.2793
						(0.4061)
Constant	-0.0743	-0.0629	-0.0346	-0.0608	-0.0319	-0.0597
	(0.3812)	(0.0447)	(0.0518)	(0.0446)	(0.0529)	(0.0461)
Observations	144	144	144	144	144	144
AR test (p-value)	0.558	0.211	0.097	0.115	0.101	0.373
SY test	30.55	69.48	28.07	130.7	28.75	36.41

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors in parentheses. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. Membership is measured as years under the agreement. SY test is the weak instrument test suggested by Stock and Yogo (2005). AR test is the p-value of the Anderson-Rubin (1949) test robust to weak identification..

strong.

In all cases in Table 8, the null of the Hausman test cannot be rejected. Thus, the original instrument appears to be credibly exogenous. In addition, although the test does not have the correct distribution in the presence of a weak instrument, the Sargan tests confirms the results of the Hausman test in the fourth column of 8 that none of the models appear to be overidentified.

An alternative way of testing the validity of the exclusion restriction is using the approach suggested by Conley et al. (2012). Suppose the model in Eqs. **??** and **??** rewritten in matrix form such that

$$Q_{2012} = \mathbf{Y}\beta + \bar{\mathbf{G}}\gamma + \varepsilon \quad \text{for each} \quad j \in J \tag{9}$$
$$\mathbf{Y} = \bar{\mathbf{G}}\alpha + \upsilon \tag{10}$$

where $\mathbf{Y} = [1 \ Q_{1996,i} \ R_{i,j}]$, $\beta = [\beta_0 \ \beta_1 \ \beta_2]'$, $\bar{\mathbf{G}} = [1 \ Q_{1996,i} \ \bar{G}_{i,j}]$, and $\alpha = [\alpha_0 \ \alpha_1 \ \alpha_2]'$. The difference between the model in Eqs. 9 and 10 and the standard 2SLS model in Eqs. **??** and **??** is the $\bar{\mathbf{G}}_j\gamma$ term in the second stage equation, where $\gamma = [\gamma_1 \ \gamma_2 \ \gamma_3]'$. γ_3 reflects the exogeneity error of the instrument, such that if $\gamma_3 \neq 0$, the exclusion restriction in Eq. 4 is violated and γ and β are not jointly identified.

The standard exclusion restriction of the 2SLS estimator can be viewed as a dogmatic prior such that $\gamma_3 \equiv 0$ (Conley et al., 2012). Relaxing this assumption and having prior information about the distribution γ_3 provides sufficient structure to construct a modified 2SLS estimator

Table 8: Overidentification tests

	Coefficient	Standard error	SY test	Hausman Test	Sargan test (p-value)
Emerging Europe					
EMU member	8.2697	9.6741	22.2052	0.3699	0.5277
EU member	1.7048***	0.5802	27.9717	0.4158	0.4632
EU candidate	1.9844**	0.7636	15.6064	0.0007	0.9755
EU potential candidate	4.9656***	1.4503	16.7980	0.2874	0.4852
NATO member	1.1086**	0.4378	21.6797	0.3794	0.4333
NATO MAP	2.6610***	0.9155	30.1410	0.0088	0.8869
CEFTA	1.8186**	0.7130	22.5114	0.0248	0.8837
Additional instrument:			$\bar{G}_{\text{ECOWAS}}$		
Central Asia					
EU TACIS	0.4071	0.3168	100.4371	0.0007	0.7127
NATO IPAP	3.5961	4.6418	8.9713	0.0208	0.8091
NATO PFP	0.3145*	0.1595	95.3543	0.0069	0.7421
NATO EAPC	0.3196***	0.1058	196.9202	0.0007	0.7583
OSCE	0.3329***	0.1100	114.4217	0.0005	0.7538
SCO	0.5258	1.3987	30.8742	0.5231	0.6061
CSTO	0.1115	0.3029	54.8260	0.0001	0.5739
CIS	0.2236	0.2321	71.8729	0.0001	0.6508
Additional instrument:			$\bar{G}_{\text{MERCOSUR}}$		
Sub-Saharan Africa					
African Union	-0.5049**	0.2108	34.0115	0.0002	0.0392
ECOWAS	-0.3768	0.2327	38.1270	0.8914	0.0984
CEN-SAD	-0.4846**	0.2420	38.6704	0.3380	0.0171
COMESA	-0.9209**	0.3916	13.7523	0.0520	0.0919
SADC	0.1425	0.1714	32.3911	0.0132	0.1161
ECCAS	-0.3066	0.6037	32.8414	0.0225	0.1125
UEMOA	-0.3489	0.3692	34.6997	0.0008	0.0619
Additional instrument:			$\bar{G}_{\text{IAS}}$		
Middle East and North Africa					
Arab League	-0.1970	0.2153	45.6499	0.8256	0.3465
GAFTA	-0.1249	0.2368	38.6451	0.9589	0.2785
Gulf Cooperation Council	0.4876*	0.2926	98.6860	1.5524	0.1459
EU MED	0.0257	0.2554	36.7225	0.0065	0.2306
NATO MED	-0.1669	0.3161	37.6030	0.8232	0.2699
OIC	-0.2010	0.1417	33.2517	0.0023	0.3411
OPEC	0.0769	0.3250	28.1258	1.3952	0.1987
Additional instrument:			$\bar{G}_{\text{CIS}}$		
(South) East Asia					
ASEAN	-0.4247	0.5131	19.1516	0.0083	0.5280
ASEAN+3	-0.2802	0.3594	20.0768	0.0036	0.4912
ACD	0.4438*	0.2663	31.5685	1.2258	0.1018
SAARC	-0.2675	0.9976	25.8124	0.0009	0.5148
SAFTA	-0.3242	1.1360	37.0766	0.0020	0.4592
BIMSTEC	0.6327	1.7522	16.3728	0.0141	0.6803
Additional instrument:			$\bar{G}_{\text{SADC}}$		
Latin America and Caribbean					
MERCOSUR	-0.3581	2.9468	15.3734	0.7647	0.1800
MERCOSUR 7	-0.3088	0.3888	35.5680	0.0106	0.1145
IAS	-0.2353	0.2372	20.5606	1.2766	0.1516
ALADI	-0.2813	0.2335	64.9262	0.0074	0.1338
Rio Group	-0.2128	0.2303	21.5573	0.2037	0.1459
CARICOM	-0.1283	0.3339	21.0963	0.0181	0.1512
Additional instrument:			$\bar{G}_{\text{ASEAN}}$		

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. SY test is the weak instrument test suggested by Stock and Yogo (2005). Hausman test refers to the instrument validity test by Hahn et al. (2011).

and conduct inference on β.

The logic behind conducting inference on β without assuming γ_3 to be exactly zero is as follows. First, suppose that the data is generated by a two-step data generating process in which realisations from the distribution for γ_3 are drawn first and the data of the model is generated conditional on the value of γ_3 (Conley et al., 2012). Second, assuming that the exogeneity error and the sampling error of β_2 are of the same order of magnitude such that $\gamma_3 = (\beta_2 - \hat{\beta}_2)/\sqrt{N}$, one can use approximations for β conditional on the distribution of γ in order to conduct inference on the parameters of the endogenous variable in the model, if the error is close to zero. Assuming $\gamma \sim N(\mu_\gamma, \mathbf{\Omega}_\gamma)$ with mean μ_γ and variance-covariance matrix $\mathbf{\Omega}_\gamma$, β follows a normal distribution of the form

$$\widehat{\beta}^{approx} \sim N(\beta + \mathbf{A}\mu_\gamma, \mathbf{V} + \mathbf{A}\mathbf{\Omega}_\gamma \mathbf{A}') \tag{11}$$

where $\mathbf{A} = (\mathbf{Y}'\bar{\mathbf{G}}(\bar{\mathbf{G}}'\bar{\mathbf{G}}))^{-1}\bar{\mathbf{G}}'\mathbf{Y})^{-1}(\mathbf{Y}'\bar{\mathbf{G}})$ and $\mathbf{V}$ is the asymptotic variance-covariance matrix of the 2SLS estimate of β.[13]

While in some cases the choice of a prior for γ is straightforward, in the present case this is rather illusive. A starting point is to assume that γ_3 is a fraction of the estimated coefficients for the various RCAs in Section 4. In the following, a weakly informative prior is chosen for γ such that γ_1 and γ_2 have a zero mean and zero variances and covariances in $\mathbf{\Omega}$ to zero. γ_3 is assumed to have a zero mean, but the variance is conditional on the baseline 2SLS estimate of β_2 such that $\Omega_{\gamma_3} = [.1\hat{\beta}_{2,2SLS}]^2$ where $\hat{\beta}_{2,2SLS}$ is the 2SLS estimate of the effect of the RCA from Section 4.1.

Table 9 reports the results modified estimates for β conditional on γ_3. For convenience, only the coefficient estimates and standard errors for the variables of interest are reported. Since $\mu_\gamma = 0$, the coefficient estimates in Table 9 do not differ from the estimates in Section 4.1. The standard error estimates, however, depend on the distribution of γ. The top panel in Table 9 shows the results of the re-estimated models for European RCAs. Comparing the results in Table 9 to the ones in Table 2 shows that the results for European RCAs remain qualitatively the same with the exception of EU potential candidate variable. While the coefficient, by construction, is the same as in Table 2, such that the standard error differs markedly and the coefficient is now insignificant. All remaining specifications for European RCAs still appear to have a significant and positive effect on the rule of law in membership.

The second panel reports the modified 2SLS estimates for Central Asian RCAs. The results are similar to the ones in Section 4.1. Being a member of the NATO PfP, the NATO EAPC, or the OSCE exerts a positive influence on institutional change in Central Asia. All three coefficients are positively significant at the 10 percent and the 1 percent level respectively. Whereas Table 9 shows no significant effects of being a member of the EU TACIS, the NATO IPAP, the SCO, CSTO, and the CIS.

---

[13]For a more detailed description of the estimator see Conley et al. (2012).

The third panel in Table 9 reports the results for African RCAs. Similar to the results above, the results do not show any changes in terms of significance when compared to the results of Table 4. As in the previous Section, the AU as well as the CEN-SAD, and the COMESA are significant at the 5 percent level of significance. All other RCAs appear to be insignificant.

The same holds true for the remaining results of Table 9. Similar to the results in Tables 6 and 7, all agreements in Latin America and East Asia, with the exception of the ACD appear to have no effect on the rule of law. In the case of the ACD, the results in the bottom panel of Table 9 shows a positive effect at the 10 percent level.

Since the prior choices are hard to justify, Figure 2 shows the sensitivity of the results for different prior choices for RCAs whose coefficients are significant in Table 9. For convenience, μ_γ is still set to zero, but the variance is allowed to vary between $[0.1\hat{\beta}_{2SLS}]^2$ and $\hat{\beta}_2^{\,2}$.

As shown by Figure 2 the results for European RCAs appear to be relatively robust to alternative prior choices. In particular, the results for an EU candidate status (top row, second panel) and being a member of the NATO (second row, first panel) appear to be very robust to alternative prior specifications. Even for a variance of $\hat{\beta}_{2SLS}^2$, the coefficient is still significant at the 10 percent level of significance. Similarly, the coefficient for the NATO membership does not change up to a level for the variance of γ_3 of $[0.85\hat{\beta}_{2SLS}]^2$. While the results are less strong for the remaining RCAs tested in Figure 2, besides being an EU potential candidate, all coefficients found to be significant in Table 9, confirm the results above for a variance between $[0.2\hat{\beta}_{2SLS}]^2$ and $[0.4\hat{\beta}_{2SLS}]^2$.

4.3 Late-comers vs. founding members

While the results in Section ?? match the ones in Section 4.1, the effects require some further investigation. A major difference between RCAs such as the EU and the NATO and RCAs in the rest of the world is that (a) both RCAs have a structured accession process, and (b) the countries in the sample eligible for joining either of the two, joined the RCA long after their establishment. Thus, countries in emerging Europe had no chance to renegotiate the rules of the agreement. whereas in most other cases in other world regions, countries were founding members of the RCAs that are going to be analysed. Thus, countries had a chance to influence the rules according to their needs and institutional desires. Thus Section 4.3 specifically tests whether there are different effects for late-comers compared to the founding members of those agreements.

In the following, I investigate whether the effect of RCAs on institutional quality differs for countries that join an agreement at a later stage and that are not part of the founding members. I construct an interaction term between the membership variable R_j and a dummy variable $L_{i,j}$ that takes on the value 1 if country i has joined the RCA not in the founding year and zero

Table 9: Local to zero approximations for $\beta_2|\gamma$

	Coefficient	Standard error	95 % confidence interval	
Europe				
EMU member	8.2077	10.3276	-12.0339	28.4494
EU member	1.7761***	0.6029	0.5944	2.9578
EU candidate	1.9803**	0.8271	0.3592	3.6013
EU potential candidate	5.0849	3.3328	-1.4473	11.6171
NATO member	1.1272**	0.4381	0.2686	1.9858
NATO MAP	2.6622**	1.3171	0.0808	5.2437
CEFTA	1.8244**	0.8047	0.2472	3.4016
Central Asia				
EU TACIS	0.4076	0.3401	-0.2590	1.0741
NATO IPAP	3.6729	4.3866	-4.9247	12.2705
NATO PfP	0.3135*	0.1670	-0.0137	0.6408
NATO EAPC	0.3184***	0.1157	0.0916	0.5451
OSCE	0.3316***	0.1226	0.0912	0.5720
SCO	0.4893	1.6952	-2.8332	3.8118
CSTO	0.1104	0.3119	-0.5010	0.7217
CIS	0.2239	0.2513	-0.2686	0.7163
Sub-Saharan Africa				
African Union	-0.5187**	0.2138	-0.9377	-0.0998
ECOWAS	-0.3757	0.2336	-0.8336	0.0822
CEN-SAD	-0.5922**	0.2676	-1.1167	-0.0678
COMESA	-1.0450**	0.4532	-1.9332	-0.1567
SADC	0.1626	0.1830	-0.1961	0.5214
ECCAS	-0.3072	0.2740	-0.8443	0.2299
UEMOA	-0.4187	0.4417	-1.2844	0.4469
Middle East and North Africa				
Arab League	-0.1770	3.3927	-6.8266	6.4726
GAFTA	-0.1127	0.2345	-0.5723	0.3469
Gulf Cooperation Council	0.4769	0.3013	-0.1137	1.0675
EU MED	0.0566	0.2789	-0.4899	0.6032
NATO MED	-0.1366	0.6266	-1.3647	1.0915
OIC	-0.1875	2.6650	-5.4109	5.0358
OPEC	0.1171	0.3205	-0.5111	0.7452
(South) East Asia				
ASEAN	-0.4267	0.4276	-1.2648	0.4114
ASEAN+3	-0.2888	0.3541	-0.9829	0.4052
ACD	0.5502*	0.3307	-0.0981	1.1984
SAARC	-0.2607	0.2934	-0.8357	0.3143
SAFTA	-0.2719	0.6962	-1.6364	1.0926
BIMSTEC	-0.6186	1.6845	-3.9201	2.6829
Latin American and Caribbean				
MERCOSUR	-0.2890	4.6868	-9.4750	8.8969
MERCOSUR 7	-0.3760	0.4348	-1.2281	0.4761
IAS	-0.4231	0.3058	-1.0224	0.1761
ALADI	-0.2870	0.2109	-0.7004	0.1264
Rio Group	-0.3967	0.2708	-0.9275	0.1340
CARICOM	-0.2793	0.3810	-1.0261	0.4674

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using the modified 2SLS estimator by Conley et al. (2012). Standard errors are bootstrapped standard errors clustered at the country-level using 500 replications. The models are identical to the models estimated in Section 4.1. Only agreement coefficients are reported. Imposed prior is $\gamma_3 \sim N\left(0, [0.1\hat{\beta}_{2SLS}]^2\right)$.

Figure 2: Alternative priors for γ
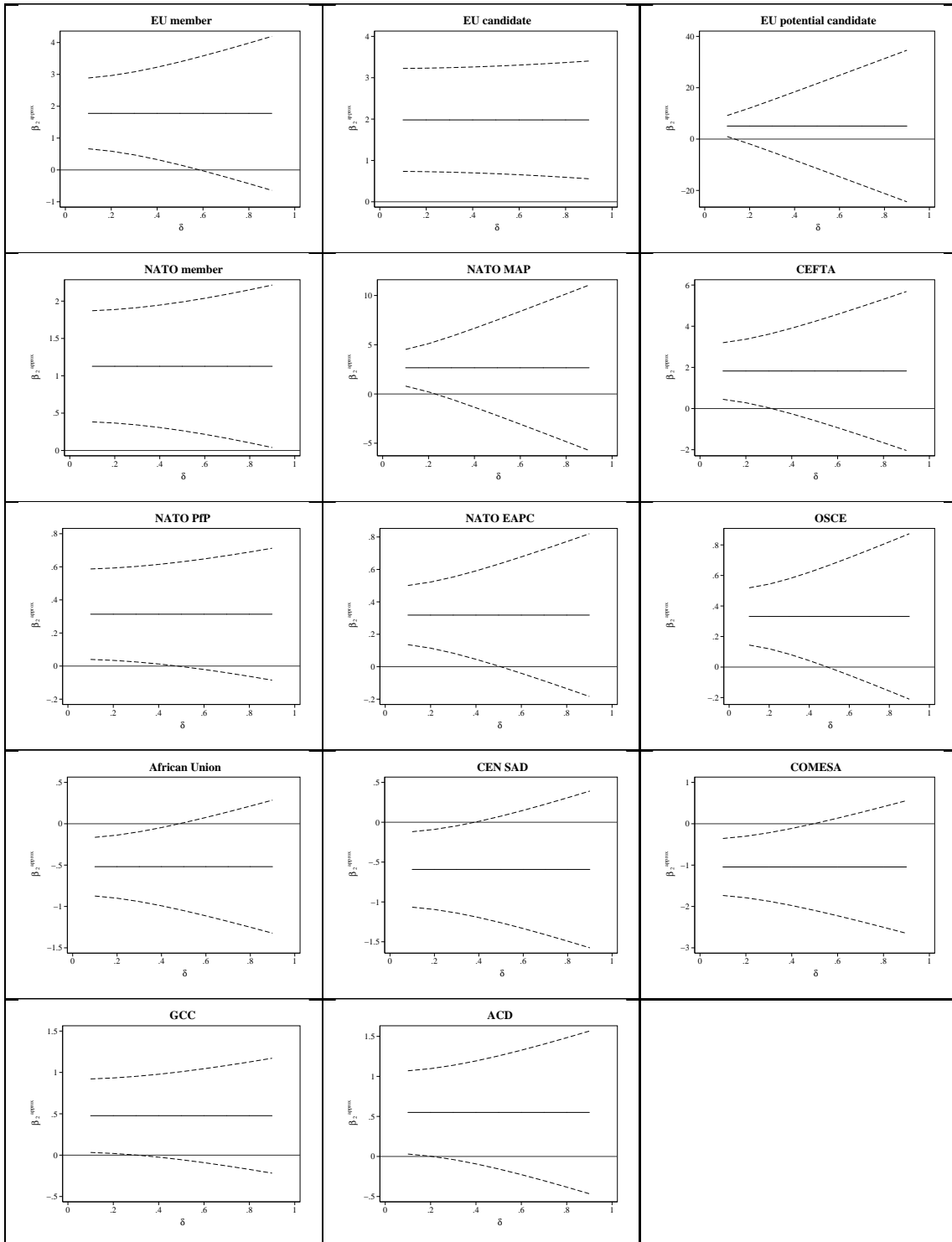
Note: Solid lines represent the coefficient estimates for β_2. Dashed lines represent 95 percent confidence intervals. Equations are estimated using the modified 2SLS estimator by Conley et al. (2012) for different choices of γ_3. Imposed prior is $\gamma_3 \sim N\left(0, [\delta\hat{\beta}_{2SLS}]^2\right)$ with $\delta \in [0,1]$.

otherwise. The revised model has the form

$$Q_{2012,i} = \beta_0 + \beta_1 Q_{1996,i} + \beta_2 R_{i,j} + +\beta_4 R_{i,j} * L_{i,j} + \varepsilon_i \quad \text{for each} \quad j \in J \qquad (12)$$

$$R_{i,j} = \gamma_0 + \gamma_1 \widetilde{G}_{i,j} + v_i \qquad (13)$$

The model in described in Eqs. 12 and 13 is identical to IV-estimator with endogenous interaction terms proposed by Rajan and Zingales (1998).

Table 10 shows the RCA effects for late-comers in Central Asia. In the case of the NATO IPAP and the NATO PfP all joint tests for significance indicate that there is a significant effect for late comers. In both cases, the effect is twice as strong for late-comers than for initial members. Also, Table 10 shows that in the case of the SCO there is also a significant effect for late-joiners as opposed to initial members countries. However, as the coefficients are similar in terms of magnitude and of opposite signs, the effect is virtually zero.

Table 10: Late-comers in Central Asia

Dependent variable: Rule of law 2012			
	(1)	(2)	(3)
Rule of law 1996	0.8658***	0.7883***	0.9331***
	(0.0557)	(0.0504)	(0.0785)
NATO IPAP	3.6729		
	(5.3705)		
NATO PfP		0.2081	
		(1.6008)	
SCO			17.9698**
			(8.0947)
Constant	-0.1250***	-0.1462***	-0.1382***
	(0.0387)	(0.0403)	(0.0463)
Observations	144	119	139
AR Test (p-value)	0.00293	0.819	0.0234
First stage F	17.02	53.64	0.723

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

In the case of the countries in the Middle East and North Africa, only the coefficients for the NATO Mediterranean Dialogue (NATO MED) are jointly significant. While there does not appear to be a significant effect for the initial members of the agreement, there seems to be a positive effect for late-comers joining the NATO MED.

Table ?? shows the results for late-joiners in Africa. Only in the case of the CEN-SAD, the COMESA and the ECCAS, the coefficients are jointly significant as indicated by the F-test. In the case of the CEN-SAD and the COMESA, the results indicate that being a late-joiner of one of the two agreements has a negative overall effect on institutional quality. In the case of the ECCAS, the overall effect is negative as well. However, the overall effect is less negative than for the initial ECCAS members.

In the case of the the RCAs in East Asia and Latin America none of the agreements show

Table 11: Late-comers in Middle East and North Africa

Dependent variable: Rule of law 2012				
	(1)	(2)	(3)	(4)
Rule of law 1996	0.7767**	0.8127***	0.9093	0.7907***
	(0.3244)	(0.0522)	(5.2809)	(0.0625)
EU MED	-8.6235			
	(107.5279)			
NATO MED		0.0373		
		(0.9790)		
OIC			4.3003	
			(366.7498)	
OPEC				-0.4670
				(7.2056)
Constant	-0.0551	-0.0762*	-0.2197	-0.0849*
	(0.3141)	(0.0438)	(5.2241)	(0.0484)
Observations	134	138	96	133
AR Test (p-value)	0.697	0.978	0.0263	0.932
First stage F	0.182	24.66	1.591	2.990

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

a significant effect for late-comers with the exception of the CARICOM agreement in Latin America. However, while the F-test suggests that the effect is overall significant for late-joiners at the one percent level of significance, the overall effect is only marginally above zero.

4.4 The presence of hegemons

In this section, the effect of whether the agreement itself or the presence of a politically and economically strong entity such as the EU is driving the results behind being a member of some agreements. Instead of the agreement itself, large economically and politically powerful countries in the region are able to "force countries" to adopt a particular set of rules, similar to her own in exchange for access to its goods and financial markets or offer political prestige and military protection. The estimation is restricted to agreements in Central Asia and Europe due to the lack of hegemonic powers in other regions and agreements.

The model described in Eqs. 12 and 13 is modified by replacing the dummy controlling for whether a country has joined after the establishment of the the agreement with the level of institutional quality of the EU-15 countries, in the case of EU-based agreements and with the the level of institutional quality of Russia in the case of RCAs centred around Russia. The average level of institutional quality is used when multiplying it with the time spent under the RCA.

Table 15 shows the results for the EU-based agreements in Europe. In all cases, the joint F-test shows that in all cases there is an additional effect besides the RCA stemming from the presence of the EU. However, in all cases the majority of the effect on institutional quality results from the agreement. In all cases, the effect from the presence of the EU amounts only

Table 12: Late-comers in Sub-Saharan Africa

Dependent variable: Rule of law 2012				
	(1)	(2)	(3)	(4)
Rule of law 1996	0.7609***	1.7127	0.8195***	0.7695***
	(0.0593)	(2.6307)	(0.2100)	(0.0536)
CEN-SAD	-0.8103**			
	(0.3690)			
COMESA		-55.2963		
		(148.3947)		
SADC			2.0797	
			(17.1809)	
ECCAS				-2.4929
				(1.6053)
Constant	-0.0247	0.9731	-0.1081	-0.0755**
	(0.0431)	(3.6753)	(0.5026)	(0.0371)
Observations	138	124	131	136
AR Test (p-value)	0.0109	3.49e-05	0.419	0.230
First stage F	45.00	0.0657	2.132	5.593

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

to 50 percent of the agreement effect.

Table 13: Late-comers in East Asia

Dependent variable: Rule of law 2012			
	(1)	(2)	(3)
Rule of law 1996	0.7755***	0.7881***	0.8553***
	(0.0738)	(0.0599)	(0.1839)
ASEAN	-1.8700		
	(2.8580)		
ACD		1.5245	
		(1.1291)	
BIMSTEC			-6.8471
			(27.7410)
Constant	-0.0645*	-0.1693***	0.0319
	(0.0388)	(0.0603)	(0.3427)
Observations	137	129	139
AR Test (p-value)	0.329	0.00680	0.0309
First stage F	4.159	26.08	1.283

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

Table 14: Late-comers in Latin America and Carribean

Dependent variable: Rule of law 2012				
	(1)	(2)	(3)	(4)
Rule of law 1996	0.7952***	0.8023***		
	(0.0457)	(0.0441)		
MERCOSUR 7	-0.8957			
	(2.3640)			
CARICOM		-3.9044		
		(2.7613)		
Constant	-0.0749*	-0.0571		
	(0.0416)	(0.0479)		
Observations	139	136		
AR Test (p-value)	0.270	0.237		
First stage F	49.85	2.097		

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

Table 15: Effect of the EU in Emerging Europe

Dependent variable: Rule of law 2012	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rule of law 1996	0.6979***	0.7178***	0.7523***	0.7654***	0.7597***	0.7953***	0.7706***
	(0.0490)	(0.0591)	(0.0516)	(0.0457)	(0.0499)	(0.0412)	(0.0507)
EMU member	20.3467***						
	(6.7957)						
EMU member * rule of law (EU-15)	-8.9796*						
	(5.1819)						
EU member		3.9880					
		(2.7139)					
EU member * rule of law (EU-15)		-1.5910					
		(1.9599)					
EU candidate			7.7408***				
			(2.8758)				
EU candidate * rule of law (EU-15)			-4.1216**				
			(1.9943)				
EU potential candiate				11.6504**			
				(4.8408)			
EU potential candidate * rule of law (EU-15)				-4.6844			
				(3.4810)			
NATO					4.4629**		
					(1.8936)		
NATO * rule of law (EU-15)					-2.3489*		
					(1.3330)		
NATO MAP						5.7339*	
						(3.0213)	
NATO MAP * rule of law (EU-15)						-2.2433	
						(2.2529)	
CEFTA							9.6579**
							(4.6560)
CEFTA * rule of law (EU-15)							-5.4980*
							(3.3079)
Constant	-0.1825***	-0.1805***	-0.1705***	-0.1943***	-0.1506***	-0.1570***	-0.1547***
	(0.0405)	(0.0534)	(0.0541)	(0.0470)	(0.0461)	(0.0448)	(0.0489)
Observations	144	144	144	144	144	144	144
First stage F (G)	28.72	37.78	18.98	17.52	26.88	30.55	
Frist stage F $(G \cdot R_{EU15})$	24.82	33.64	17.68	15.93	25.40	25.44	22.66
Second stage F (p-value)	0.000	0.001	0.001	0.000	0.002	0.000	0.000

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

In the case of Central Asian countries shown in Table 16 only the coefficients for the NATO IPAP, the NATO EAPC AND THE OSCE show joint significance for the agreement and the presence of the EU. However, while in the case of the NATO IPAP the additional effect of the presence of the EU is only marginal. However, in the case of the EAPC and the OSCE, the majority of the effect on institutional quality comes from the presence of the EU. The additional effect from the pure presence of the EU is more than twice the size of the actual agreement effect.

Table 16: Effect of the EU in Central Asia

Dependent variable: Rule of law 2012					
	(1)	(2)	(3)	(4)	(5)
Rule of law 1996	0.8479***	0.8662***	0.8334***	0.8101***	0.8067***
	(0.0477)	(0.0460)	(0.0479)	(0.0437)	(0.0444)
TACIS	-1.7501*				
	(0.9025)				
TACIS * rule of law (EU-15)	1.6139**				
	(0.6417)				
NATO IPAP		21.3218*			
		(12.9589)			
NATO IPAP * rule of law (EU-15)		-11.8435			
		(8.6197)			
NATO PfP			-1.3460*		
			(0.7217)		
NATO PfP * rule of law (EU-15)			1.1615**		
			(0.4813)		
NATO EAPC				0.8077	
				(0.8154)	
NATO EAPC * rule of law (EU-15)				-0.3331	
				(0.5420)	
OSCE					0.8378
					(0.9230)
OSCE * rule of law (EU-15)					-0.3441
					(0.6186)
Constant	-0.1087***	-0.1252***	-0.1255***	-0.1421***	-0.1472***
	(0.0369)	(0.0391)	(0.0381)	(0.0419)	(0.0445)
Observations	144	144	144	144	144
First stage F (G)	112.09	10.17	100.15	196.98	114.84
Frist stage F $(G \cdot R_{EU15})$	79.61	10.27	88.67	183.53	110.00
Second stage F (p-value)	0.014	0.019	0.006	0.0201	0.022

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

Table 17 shows the effect of the presence of Russia in Central Asia. As shown by Table 17 there is no additional effect resulting from the presence of Russia in Central Asian agreements. As indicated by the F-test for joint significance, the effect of Russia on the quality of institution though the RCAs is zero.

Table 17: Effect of Russia in Central Asia

Dependent variable: Rule of law 2012			
	(1)	(2)	(3)
Rule of law 1996	0.8234***	0.8247***	0.8425***
	(0.0488)	(0.0481)	(0.0477)
SCO	14.1889		
	(10.4944)		
SCO * rule of law (Russia)	15.4090		
	(11.6653)		
CIS		-0.8592	
		(0.8727)	
CIS * rule of law (Russia)		-1.2440	
		(1.1363)	
CSTO			-1.3978**
			(0.7085)
CSTO * rule of law (Russia)			-1.9783**
			(0.8565)
Constant	-0.0903**	-0.0916***	-0.1033***
	(0.0400)	(0.0352)	(0.0347)
Observations	144	144	144
First stage F (G)	32.42	81.04	60.51
Frist stage F ($G \cdot R_{RUSSIA}$)	31.15	61.72	42.19
Second stage F (p-value)	0.318	0.046	0.531

Note: ***, **, * denotes significance at the 1%, 5%, and 10%-level of significance respectively. Equations are estimated using 2SLS. Standard errors are bootstrapped standard errors clustered at the country-level using 300 replications. First stage F is the weak instrument test suggested by Stock and Yogo (2005) based on a frist stage F-test with H_0 that instruments are weak and a desired maximal "OLS" bias of the coefficient of the endogenous variable of 10 percent. Second Stage F indicates the p-value of the second stage F-test test for joint significance of the RCA coefficient and the interaction term.

5 Conclusion

This paper studies the effect of regional cooperation agreements (RCA) on the quality of institutions in a cross section of countries. I construct a set of instruments for more than 40 RCAs that proxy for geographic eligibility in order to estimate the causal effect of membership in an RCA on institutional quality. For a sample of 144 emerging and developing economies the results show that a (prospective) membership in an EU or NATO-related agreement explains a significant part of the cross country variation in institutional reforms despite credibility problems and poor initial conditions. This result is not limited to an actual EU or NATO membership. The effect of being an EU candidate or an EU potential candidate country is even stronger than being an EU member. In the case of being a NATO accession candidate or an EU potential candidate country, the effect is more than twice the size of an actual membership. At the same time, becoming a member of the euro area as no effect on institutional change. Thus, in the case of EU-based agreements in which recent joiners are still behind the founding members in terms of institutional quality, this can be interpreted as decreasing economic returns to joining a particular stage of the EU accession process with full access to EU goods and capital markets and adopting the single currency as an EU/EMU member as the final stage. The results also show a positive impact of EU and NATO based agreements in regions in which countries have a limited or no chance of ever becoming a member of the EU or the NATO, such as the NATO Partnership for Peace (PfP) or the NATO Individual Partnership Action Plan (IPAP). While

there is some effect of having an economically and politically powerful entity, such as such as the EU-15, China, or Russia as a partner, the results show that the agreements themselves, rather than the presence of a hegemonic power, is the main driver behind the results.

RCAs in other parts of the world, specifically in Sub-Saharan Africa, East Asia, and Latin America have, by and large, no or a negative effect on institutional reforms. Despite the increased efforts of regional integration in those parts of the world since the 1990s, the major reason for this is due to the difference in the construction of those regional agreements. While EU and NATO-based agreements were built to delegate sovereignty to an intergovernmental authority, such as the EU Commission, regional integration in Latin America, Asia, and Africa is based on the principle to non-interference and keeping neighbouring states and former colonial powers from intervening in domestic policies. There is some evidence of a positive of joining an RCA after its establishment for countries Latin America, Asia, and Africa suggesting a positive effect of countries not being able to bargain over the rules of the RCA. Thus, the unwillingness to delegate sovereignty is a potentially important transmission channel of how colonial history affects current institutions.

References

Abbas, S. A., Belhocine, N., El Ganainy, A., and Horton, M. (2010). A historical public debt database. *IMF Working Paper 10/245*.

Acemoglu, D. (2003). Why not a political Coase Theorem? Social conflict, commitment and politics. *Journal of Comparative Economics*, 31(4):620–652.

Acemoglu, D., Johnson, S., and Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91(5):1369–1401.

Acemoglu, D. and Robinson, J. A. (2006). Economic backwardness in political perspective. *American Political Science Review*, 100(1):115–131.

Alesina, A., Angeloni, I., and Etro, F. (2005). International unions. *American Economic Review*, 95:602–615.

Alesina, A., Devleeschauer, A., Easterly, W., and Kurlat, S. (2003). Fractionalization. *Journal of Economic Growth*, 8(2):155–194.

Alesina, A. and Drazen, A. (1991). Why are stabilisations delayed? *American Economic Review*, 81(5):1170–1188.

Alesina, A. and Zhuravskaya, E. (2011). Segregation and the quality of government in a cross section of countries. *American Economic Review*, 101:1872–1911.

Anderson, T. W. and Rubin, H. (1949). Estimation of the parameters of a single equation in a complete system of stochastic equations. *Annals of Mathematical Statistics*, 20(1):46–63.

Baldwin, R. E. (1993). A domino theory of regionalism. *NBER Working Paper 4465*.

Baldwin, R. E. (1997). The causes of regionalism. *The World Economy*, 20:865–888.

Baldwin, R. E. (2010). Sequencing regionalism: Theory, European practice, and lessons for Asia. *CEPR Discussion Paper 7852*.

Barro, R. J. and Gordon, D. B. (1983). Positive theory of monetary policy in a natural rate model. *Journal of Political Economy*, 91(4):589–610.

Caruana, G. and Einav, L. (2008). A theory of endogenous commitment. *Review of Economic Studies*, 75:99–116.

Conley, T. G., Hansen, C. B., and Rossi, P. E. (2012). Plausibly exogenous. *Review of Economics and Statistics*, 94:260–272.

Democracy Coalition Project (2001). *The Role of Regional and Multinational Organizations in the Promotion and Defense of Democracy*. Democracy Coalition Project, Washington, DC.

Dewatripont, M. and Roland, G. (1992a). Economic reform and dynamic political constraints. *Review of Economic Studies*, 59(4):703–730.

Dewatripont, M. and Roland, G. (1992b). The virtues of gradualism and legitimacy in the transition to a market economy. *Economic Journal*, 102(411):291–300.

Di Thomasso, M. L., Reiser, M., and Weeks, M. (2007). Home grown or imported? Initial conditions, external anchors and the determinants of institutional reform in the transition economies. *Economic Journal*, 117:858–881.

Elsig, M. and Milewicz, K. (2012). The politics of "rushing to pen". Treaty commitment and diplomatic ties that bind. *Mimeo*, University of Bern.

European Commission (2007). *Enlargement Strategy and Main Challenges 2007 – 2008*. European Commission, Brussels, Belgium.

Fernandez, R. and Rodrik, D. (1991). Resistance to reform: Status quo bias in the presence of individual-specific uncertainty. *American Economic Review*, 81(5):1146–1155.

Grosjean, P. and Senik, C. (2011). Democracy, market liberalization and political preferences. *Review of Economics and Statistics*, 93(1):365–381.

Hadenius, A. and Teorell, J. (2005). Assessing alternative indices of democracy. *ISPA Working Paper (Concepts and Methods) 6*.

Hahn, J., Ham, J., and R., M. H. (2011). The hausman test and weak instruments. *Journal of Econometrics*, 160(2):289–299.

Hoff, K. and Stiglitz, J. E. (2008). Exiting the lawless state. *Economic Journal*, 118:1474–1497.

International Monetary Fund (2005). *World Economic Outlook – Building Institutions*. IMF, Washington, DC.

Kaufmann, D., Kraay, A., and Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. *World Bank Policy Research Working Paper 5430*.

Kelley, J. (2010). The role of membership rules in regional organizations. *Asian Development Bank Working Paper 53*.

Kydland, F. E. and Prescott, E. C. (1997). Rules rather than discretion: The inconsistency of optimal plans. *Journal of Political Economy*, 85(3):473–491.

La Porta, R., Lopez-de-Silanes, F., and Shleifer, A. (2008). The economic consequences of legal origins. *Journal of Economic Literature*, 46(2):285—332.

Mitchell, S. M. (2006). Cooperation in world politics: The constraining and constitutive effects of international organizations. *University of Iowa Working Paper*, 1-1-2006.

Pagan, A. R. (1984). Econometric issues in the analysis of regressions with generated regressors. *International Economic Review*, 25(1):211–247.

Pagan, A. R. (1986). Two stage and related estimators and their applications. *Review of Economic Studies*, 53:517–538.

Persson, T. and Tabellini, G. (2009). Democratic capital: The nexus of political and economic change. *American Economic Journal: Macroeconomics*, 1(2):88–126.

Phelps, E. S. and Pollak, R. A. (1968). On second-best national saving and game-equilibrium growth. *Review of Economic Studies*, 35:185–199.

Rajan, R. G. and Zingales, L. (1998). Financial dependence and growth. *American Economic Review*, 88:559–586.

Rajan, R. G. and Zingales, L. (2006). The persistence of underdevelopment. *NBER Working Paper 12093*.

Roland, G. (2001). The political economy of transition. *The Journal of Economic Perspectives*, 16(1):29–50.

Roland, G. and Verdier, T. (2003). Law enforcement and transition. *European Economic Review*, 47(4):669–685.

Sachs, J. D. and Warner, A. M. (2001). The curse of natural resources. *European Economic Review*, 45(4):827–838.

Simmons, B. (2000). International law and state behaviour: Commitment and compliance in international monetary affairs. *American Political Science Review*, 94:819–835.

Simmons, B. (2009). *Mobilizing for Human Rights: International Law in Domestic Politics*. Cambridge University Press, Cambridge, MA.

Stock, J. H. and Yogo, M. (2005). Testing for weak instruments in linear IV regression. In Andrews, D. W. K. and Stock, J. H., editors, *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*. Cambridge University Press, Cambridge, MA.

Appendix A.1   Countries and agreements used for estimation

Table A.1: Countries used for estimation

Central Asia

Armenia	Azerbaijan	Belarus	Georgia	Kazakhstan
Kyrgyz Republic	Moldova	Mongolia	Russia	Tajikistan
Turkmenistan	Ukraine	Uzbekistan		

Central and Eastern Europe

Albania	Bosnia Herzegovina	Bulgaria	Croatia	Cyprus
Czech Republic	Estonia	Hungary	Latvia	Lithuania
Macedonia	Malta	Poland	Romania	Slovakia
Slovenia	Turkey			

Middle East and North Africa

Afghanistan	Algeria	Bahrain	Egypt	Iran
Iraq	Israel	Jordan	Kuwait	Lebanon
Libya	Mauritania	Morocco	Oman	Pakistan
Qatar	Saudi Arabia	Syria	Tunisia	United Arab Emirates

South East Asia

Bangladesh	Bhutan	Brunei	Cambodia	China
India	Indonesia	Laos	Malaysia	Myanmar
Nepal	Philippines	South Korea	Sri Lanka	Taiwan
Thailand	Vietnam			

Sub-Saharan Africa

Angola	Benin	Botswana	Burkina Faso	Burundi
Cameroon	Central African Republic	Chad	Congo (Dem. Rep.)	Congo (Rep.)
Djibouti	Equatorial Guinea	Eritrea	Ethiopia	Gabon
Gambia	Ghana	Guinea-Bissau	Guinea	Ivory Coast
Kenya	Lesotho	Liberia	Madagascar	Malawi
Mali	Mauritius	Mozambique	Namibia	Niger
Nigeria	Seychelles	Senegal	Sierra Leone	South Africa
Swaziland	Tanzania	Togo	Uganda	Zambia
Zimbabwe				

Latin America and Caribbean

Antigua Barbuda	Argentina	Bahamas	Barbados	Belize
Bolivia	Brazil	Chile	Colombia	Costa Rica
Dominican Republic	Ecuador	Guatemala	Guyana	Honduras
Jamaica	Mexico	Nicaragua	Panama	Paraguay
Peru	St. Lucia	St. Vincent & Grenadines	Suriname	Trinidad Tobago
Uruguay	Venezuela			

Pacific Islands

Fiji	Kiribati	Micronesia	Palau	Papua New Guinea
Samoa	Solomon Islands	Tonga	Vanuatu	

Table A.2: Regional cooperation agreements

Agreement	Region
Central and Eastern Europe	
European Monetary Union (EMU)	Exchange Rate Mechanism (ERM) II for 2+ years
EU candidate (CAN)	EU Potential candidate
EU potential candidate (PCC)	Council of Europe
European Union (EU)	EU Candidate
Central European Free Trade Area (CEFTA)	EUCAN or EUPCC before 2007. Any EU partnership agreement after 2007
North Atlantic Treaty Organisation (NATO)	North Atlantic neighbour (before 1999) / NATO Membership Action Plan (MAP) after 1999
NATO Membership Action Plan (MAP)	North Atlantic neighbour
Central Asia	
Collective Security Treaty Organization (CSTO)	Russia and Central Asia
Commonwealth of Independent States (CIS)	Russia and Central Asia
NATO Euro-Atlantic Partnership Council (EAPC)	Europe, Central Asia, and Russia
NATO Individual Partnership Action Plan (IPAP)	NATO Euro-Atlantic Partnership Council (EAPC)
NATO Partnership for Peace (PfP)	Europe, Central Asia, and Russia
Organisation for Security and Co-operation in Europe (OSCE)	Europe, Central Asia, and Russia
Shanghai Cooperation Organisation (SCO)	Asia and Eastern Europe
Technical Aid for the Commonwealth of Independent States (TACIS)	Central Asia and Russia
Sub-Saharan Africa	
Common Market for Eastern and Southern Africa (COMESA)	East and Southern Africa
African Union (AU)	Africa
Community of Sahel-Saharan States (CEN-SAD)	East, West, and North Africa
Economic Community of Central African States (ECCAS)	Central Africa
Economic Community of West African States (ECOWAS)	West Africa
Southern Africa Development Community (SADC)	Southern Africa
West African Economic and Monetary Union (UEMOA)	ECOWAS
Middle East and North Africa	
Arab League (AL)	Share of Muslims
EU Mediterranean Partnership (MED)	Mediterranean Sea neighbour
Greater Arab Free Trade Area (GAFTA)	Arab League
Gulf Cooperation Council (GCC)	Persian Gulf neighbour
NATO Mediterranean Dialogue (MED)	Mediterranean Sea neighbour
Organisation of Islamic Cooperation (OIC)	Share of Muslims
Organisation of the Petroleum Exporting Countries (OPEC)	Petroleum exporting country
(South) East Asia	
Asia Cooperation Dialogue (ACD)	Asia
Association of South East Asian Nations (ASEAN)	South East Asia
ASEAN plus China, Japan, and South Korea (ASEAN+3)	South East Asia
Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)	South Asia
South Asian Association for Regional Cooperation (SAARC)	South Asia
South Asian Free Trade Area (SAFTA)	SAARC
Latin America and Caribbean	
Caribbean Community (CARICOM)	Caribbean
Ibero-American Summit (IAS)	Central and South America and the Caribbean
Latin American Integration Association (ALADI)	South America
Rio Group (RIO)	Central and South America and the Caribbean
Southern Common Market (MERCOSUR)	South America
MERCOSUR plus associated members (MERCOSUR 7)	South America

Note: Region refers to the group of countries used as a dependent variable in Eq. 5 to estimate the instrument used in Eq. 2.

Table A.3: Variable description

Variable	Description
Rule of law	Index measuring the quality of economic institutions, defined as *"to which extent agents have confidence in and abide by the rules of society, including contract enforcement and property rights, the police, and the courts, as well as the likelihood of crime"* Kaufmann et al. (2010). The index ranges from -2.5 (bad) to 2.5 (good) with the world average set to zero in each year. Source: World Bank Worldwide Governance Indicators.
GDP	Gross domestic product based on purchasing-power-parity (PPP) valuation of country GDP measured in current international dollars. Source: IMF World Economic Outlook.
GDP per capita	Gross domestic product based on purchasing-power-parity (PPP). Per capita GDP is measured in current international dollars. Source: IMF World Economic Outlook.
Population	Total population of the country (mid-year estimates). Source: IMF World Economic Outlook.
Inflation	Average annual inflation rate (in percent). Source: IMF World Economic Outlook.
Temperature	Average temperature per year in degree Celsius. Source: World Bank World Development Indicators.
Precipitation	Average precipitation per year in millimetres. Source: World Bank World Development Indicators.
Ethnic fractionalisation	Combination of racial and linguistic characteristics. Probability that two randomly selected people will not belong to the same ethnic group in a country. The higher the probablility, the more fractionalised the country is. Source: Alesina et al. (2003).
Religious fractionalisation	Probability that two randomly selected people will not belong to the same religious group in a country. The higher the probablility, the more fractionalised the country is. Source: Alesina et al. (2003).
Linguistic fractionalisation	Probability that two randomly selected people from a given country will not belong to the same linguistic group. The higher the probability, the more fractionalised a country is. Source: Alesina et al. (2003).
Colonial origin	Index of former Western overseas colonialism since the year 1700. In cases of several colonial powers, the last one is counted. The categories are: (0) Never colonized, (1) Dutch, (2) Spanish, (3) Italian, (4) United States, (5) British, (6) French, (7) Portuguese, (8) Belgian, (9) British-French, and (10) British-French. Source: Hadenius and Teorell (2005).
Legal origin	Identifies the legal origin of a country. The categories are: (1) English Common Law, (2) French Commercial Law, (3) German Commercial Code, (4) Scandinavian Commercial Code, and (5) Socialist/Communist Laws. Source: La Porta et al. (2008).
Region	Variable indicating the region in which a country belongs in. The categories are: (1) Emerging Europe, (2) Middle East and North Africa, (3) Latin America and Caribbean, (4) Sub-Saharan Africa, (5) (South) East Asia, (6) Pacific islands, and (7) Central Asia. Source: See Table A.1.
Openness	Total imports plus exports of goods and services per year as share of GDP. Source: World Bank World Development Indicators, UN UNCTAD.
Debt	General government debt calculated as gross debt minus financial assets corresponding to debt instruments measured in percentage of GDP. Source: Abbas et al. (2010).
Net borrowing	General government net lending (+)/ borrowing (-) calculated as revenue minus total expenditure measured in percent of GDP. Source: IMF World Economic Outlook.

Note: Variables used for the construction of the instrument in Eq. 5 and for the OLS estimations in Section ??.

Table A.4: Specifications of Equation 5

RCA	Variables in $\mathbf{X}_j$
Central and Eastern Europe	
EMU	GDP per capita, GDP per capita^2, GDP, GDP^2, Rule of law, Rule of law^2, Population, Population^2, Inflation, Inflation^2, Borrow, Borrow^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation
EU	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
EU CAN	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
EU PCC	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2
CEFTA	GDP per capita, GDP per capita^2, GDP, Rule of law, Temperature, Temperature^2, Rainfall, Openness, Openness^2
NATO	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
NATO MAP	GDP per capita, GDP per capita^2, GDP, GDP, Rule of law, Rule of law^2, Population, Population^2, Inflation, Inflation^2, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Openness^2, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation, Religious fractionalisation^2, Borrow, Borrow^2, Legal Origin
Central Asia	
CSTO	GDP, GDP^2, Rule of law, Rule of law^2, Temperature, Temperature^2, Rainfall, Rainfall^2, Population, Inflation, Inflation^2, Openness, Openness^2, Ethnic fractionalisation, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation, Borrow, Borrow^2
CIS	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
NATO EAPC	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
NATO IPAP	GDP, GDP^2, Rule of law, Temperature, Temperature^2, Rainfall, Inflation, Inflation^2, Population, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation
NATO PfP	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
OSCE	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
SCO	GDP, Temperature, Temperature^2, Rainfall, Borrow
TACIS	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation

RCA	Variables in $\mathbf{X}_j$
Sub-Saharan Africa	
AU	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
COMESA	GDP per capita, GDP, GDP^2, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Inflation, Inflation^2, Borrow, Borrow^2
CEN-SAD	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
ECCAS	GDP per capita, GDP per capita^2, GDP, GDP, Rule of law, Temperature, Rainfall, Rainfall^2, Population, Population^2, Openness, Openness^2, Ethnic fractionalisation, Religious fractionalisation, Linguistic fractionalisation, Borrow, Borrow^2
ECOWAS	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
SADC	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Temperature^2, Rainfall, Rainfall^2, Inflation, Inflation^2, Population, Openness, Ethnic fractionalisation, Religious fractionalisation, Linguistic fractionalisation, Borrow, Borrow^2
UEMOA	GDP per capita, GDP per capita^2, GDP, GDP^2, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Inflation, Inflation^2, Population, Population^2, Openness, Openness^2, Ethnic fractionalisation, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation, Linguistic fractionalisation^2, Borrow, Borrow^2
Middle East and North Africa	
AL	GDP, Temperature, Rainfall, Rainfall^2, Religious fractionalisation, Religious fractionalisation^2, Inflation
EU MED	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Rainfall^2, Inflation, Inflation^2, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation, Religious fractionalisation, Religious fractionalisation^2, Borrow, Borrow^2
GAFTA	GDP, Rule of law, Temperature, Rainfall, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
GCC	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2
NATO MED	GDP, Rule of law, Temperature, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation, Religious fractionalisation^2
OIC	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
OPEC	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2
(South) East Asia	

RCA	Variables in $\mathbf{X}_j$
ACD	GDP per capita, GDP, GDP^2, Rule of law, Rule of law^2, Temperature, Temperature^2, Rainfall, Population, Population^2, Openness, Openness^2, Ethnic fractionalisation, Religious fractionalisation, Linguistic fractionalisation, Borrow, Borrow^2
ASEAN	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Inflation, Inflation^2, Openness, Openness^2, Ethnic fractionalisation, Religious fractionalisation, Linguistic fractionalisation, Linguistic fractionalisation^2, Borrow, Borrow^2
ASEAN+3	GDP per capita, GDP per capita^2, GDP, Temperature, Rainfall, Inflation, Inflation^2, Openness, Openness^2
BIMSTEC	GDP per capita, GDP, GDP^2, Rule of law, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2, Inflation, Inflation^2, Population
SAARC	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2
SAFTA	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Rainfall, Population, Population^2, Openness, Ethnic fractionalisation, Ethnic fractionalisation^2
Latin America and Caribbean	
CARICOM	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
IAS	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
ALADI	GDP per capita, GDP per capita^2, GDP, Rule of law, Rule of law^2, Temperature, Temperature^2, Rainfall, Rainfall^2, Population, Population^2, Inflation, Inflation^2, Openness, Openness^2, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation, Borrow, Borrow^2
RIO	GDP, Rule of law, Temperature, Temperature^2, Rainfall, Rainfall^2, Openness, Ethnic fractionalisation, Religious fractionalisation
MERCOSUR	GDP per capita, GDP per capita^2, GDP, GDP, Rule of law, Rule of law^2, Temperature, Temperature^2, Rainfall, Rainfall^2, Inflation, Inflation^2, Population, Population^2, Openness, Openness^2, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation, Linguistic fractionalisation^2, Borrow, Borrow^2
MERCOSUR 7	GDP per capita, GDP per capita^2, GDP, Temperature, Temperature^2, Rainfall, Rainfall^2, Inflation, Openness, Openness^2, Ethnic fractionalisation, Ethnic fractionalisation^2, Religious fractionalisation, Religious fractionalisation^2, Linguistic fractionalisation, Linguistic fractionalisation^2, Borrow, Borrow^2

Note: Note goes here.