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The Quality of Governance in Europe:

A Guide for the Perplexed

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Abstract

This paper investigates the quality of governance in the European geographical area for the period 1995–2019 employing the six World Governance Indicators (The World Bank, 2020): control of corruption, government effectiveness, political stability and absence of violence/terrorism, rule of law, regulatory quality, voice and accountability. With regard to EU membership, we partition countries into three blocks: Historical Members, Entrants, and Outsiders. We check systematic differences, static and dynamic, between the three blocks to verify whether EU membership makes a difference. Results highlight a complex scenario: while statically Historical Members outperform Entrants and Entrants outperform Outsiders on all six dimensions, dynamically we find club convergence in growth rates for all variables across the three blocks. Historical Members stand in a high equilibrium club, except for Greece. In a single case, we even observe absolute convergence for a low club of voice and accountability. Several Outsiders stand consistently either in the high or the low club, while Entrants vary widely in their performances. The remote determinants of governance's quality are very difficult to identify because cultures, institutions and economies interact in complex and unexpected ways; moreover, natural experiments of EU memberships do not exist, so we cannot establish causal effects in the strictest sense. Nonetheless, for the first time, we establish a clear picture of all main dimensions of government's quality for the European area, achieving at least a number of robust empirical facts which can be used by scholars, policymakers, and European administrators.

Keywords: Quality of government, The European Union, Public institutions, Club convergence analysis.

JEL Classification: H11, H77, O52.

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1 Introduction

What do we talk about when we talk about good government in Europe? As the main political actor in the field is the European Union (EU), the question quickly turns into: "Does the European Union (EU) boost good government?" Five main factors determine a government's quality: absence of corruption, rule of law, democracy, efficiency and impartiality (Rothstein, 2013). The EU currently legislates on many topics, mostly economic, financial and social; yet, EU influences members' governance both directly with laws and indirectly by its core values to promote government's quality; also, the EU nudges national rulers way stronger than any other supranational organization known so far. Through a long and ongoing process of convergence on many areas, the EU shapes potential entrants's legal systems so achieving democratic stability, the rule of law, human rights and respect for and protection of minorities (Juncos and Pérez-Solórzano Borragán, 2016). This one-of-a-kind legal organization has also produced a judicial system serving straight the member states' citizens: people may appeal to EU courts citing EU acts even if not yet ratified by their home country.

Despite good governance importance, little is known about the impact of EU membership on the various facets of governance's quality: to the best of our knowledge the issue has not been satisfyingly addressed so far. This comes as a surprise given the EU form an economic and political block of 27 countries counting 447 million people, with a GDP of \$18.8 trillion in 2018 reaching around 22% of the global economy. The EU's specificity is also of interest: unlike other international organizations, it plays a big role in its citizens' lives, with far-reaching overtones for both member countries and their competitors (Bickerton, 2012).

All research in this field must face a major challenge to causal identification: no randomized treatment ever determines whether a country enters the EU. Indeed, the EU sets a high bar for joining its club and checks candidates' compliance with its demanding standards; nevertheless, the enlargement agenda is not given exogenously and successful accessions also depend on multilateral negotiations. Though EU's values and laws promote governance's quality, we cannot exclude that better governments (Charron et al., 2015) result from selection rather than intervention. Another source of empirical difficulties lies in confounders that can hide causal effects. As a case in point, consider fighting corruption, a EU's bedrock: while good government does not add up to mere corruption's absence, still the two variables correlate inversely (Rothstein, 2011). Entering the EU boosts a country's pro-market policies, free trade, and corruption fighting, but also spawns a sudden increase in laws' number: as more legal complexity opens new room to misconducts, credible estimates of the EU's direct causal effect on corruption are hardly attainable.¹

The European geographical area, as defined by the World Bank, can provide the necessary background to distinguish between the EU's historical members, the entrants in the years 2004 and 2007 (mostly countries from the demised Communist block), and the remaining countries not in the EU which either never applied for EU entrance or withdrew their application or whose application was put on hold by the EU. The Outsiders' group is a remarkably heterogeneous group as contains countries as diverse as Switzerland and Turkey. This partition allows for constructing two comparison groups for Entrants: these groups, while not qualifying as counterfactuals in the strictest causal sense, help showing dynamic properties of participating in the EU through contrast.

We measure good governance using the six World Government Indicators as released by the World Bank (Kaufmann et al., 2011) and included in the QoG dataset (Teorell et al., 2020). We study the differences between the three groups looking at stationarity, dynamic evolution and convergence for the six variables measuring governance's quality. Finally, the panel nature of our data, spanning from 1996 to 2019, allows studying club convergence (Phillips and Sul, 2007) across the European area to assess dynamic similarities going beyond EU's participation. Our

¹Miller (2010) estimates EU countries' laws incorporate a striking percentage of EU's laws and norms (6%-84%).

main contribution to the literature lies in the systematic convergence analysis for all dimensions of governance's quality across the European area, together with other compelling evidence on how these variables evolved during the last twenty-four years.

In this work, by analyzing via parametric and non-parametric methods the trend of several dimension of the governance, we study the differences among three groups: the EU historical members, the new entries and the outsiders. The EU evolved over time: since the so-called Pact of Rome of 1957 that instituted the European Economic Community (EEC), to the Maastricht treaty of 1992 that instituted the EU, going ahead with the Nice one (2001) that greatly reformed the functioning of the EU, and finally with the Lisbon treaty of 2007, the scope and the impact on national government and possibly governance of the EU, greatly changed. Of the 28 country actually belonging to the EU, including the United Kingdom that is pursuing a, so-far original procedure or secession, 15 entered before 1995, and thus before the Nice treaty that greatly changed the functioning of the Union.

Our results show that from a purely static point of view, we find that for governance indicator Historical Members' values exceed Entrants' and Entrant's values exceed Outsiders'. Entrants and Outsiders differ mostly on the voice and accountability dimension, suggesting that the EU indeed includes some of the most democratic countries in the European area. Also, longer EU membership is related to higher WGI scores, but an unexpected pattern also appears: we find that longer memberships do not match with more Political Stability.

Our most interesting results deal with global and club convergence, i.e., the dynamic properties of the governance's quality. First, we find that Government Effectiveness converges, albeit slowly, at the same growth rate across all the European area. For all remaining WGIs (except Voice and Accountability) we generally find a *high* club marked by high value of the corresponding WGI' mean value and substantial stationarity or very low convergence in growth rates. We also find a *low* club where convergence to low values, often towards to the world's mean, runs much faster.

We find that within the European area EU's Historical Members' follow similar dynamic patterns and achieve convergence in growth rate for all the six WGIs in the high club. The only exception is Greece which always appears in the low club and Italy that joins in the low club for Rule of Law. As expected, some Entrants appear in the low club, as Cyprus, Bulgaria, Poland. The major divide across the geographical area appears Control of Corruption, the index for which the largest low group is observed. In the Outsiders' group, Bosnia and Herzegovina, Ukraine and Turkey rank low in the change rates for almost all WGIs. These countries still appear quite distant from Entrants and other Outsiders that join the high club, like Switzerland or Norway.

In sum, we find evidence of substantial convergence in the growth rates for the main dimensions of good governance. While Historical Members firmly stand in the high club, several Entrants still do not catch up: especially for Control of Corruption, EU authorities and institutions still face a long way ahead before reducing differences between states.

The rest of the paper is organized as follows. Section 2 presents the necessary theoretical background; section 3 introduces a detailed discussion of data and descriptive analysis of the the WGIs across Europe; section 4 contains our estimates about convergence and club converges, along with a discussion of results; section 5 provides a brief summary or results and advances hints for reflection and future research. The paper also includes a methodological appendix and an online supplement with more extensive graphs and statistics.

2 Background

What is governance? The concept of governance has had over time many definitions from different scholars. According to the World Bank (1994) governance describes the way that public power is exercised, in order to manage its economic and social components. A different definition has been proposed by Rothstein and Teorell (2008) that define quality of governance as *the* *impartiality of institutions that exercise government authority.* On the other hand according to Kaufmann et al. (2011) the concept can be defined as *the traditions and institutions by which authority in a country is exercised.* This includes several dimensions: not only how the governments are selected by their constituency, how are them monitored and also replaced, but also the government's ability to effectively think, create and put in place policies, as well as the respect for the economic and social institutions (World Bank, WGI, 2019). They identify six basic dimensions of the governance, namely political stability, voice and accountability, government effectiveness, regulatory quality, control of corruption and the rule of law (Kaufmann et al., 2011). Lately, scholars have focus on the notion of good governance. According to the United Nations Development Programme (1997): "Good governance is, among other things, participatory, transparent and accountable. It is also effective, equitable, and it promotes the rule of law. Good governance ensures that political, social, and economic priorities are based on broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocation of development resources".

Why do we study the quality of the governance? To cite North (1991a), because that *institutions affect the performance of economies is hardly controversial*. Thus, to study the effects of entering the EU on the quality of the governance is important for a number of reasons. On one hand, there is relevance in helping to predict how the different dimension of governance of a new member will be affected in the next year. This may lead to important insights on this country economy, and more in general to predict the future trend of several important macroeconomic indicators. On the other hand, to assess the impact on governance of belonging to the EU, may help to disentangle the "real" effect of policies implemented by members, from the most general effect of belonging to this very peculiar international organization. Finally, to distinguish the effect of belonging to the Union on the several governance dimension, may help other international organizations to design their policy to foster desirable results in their members. Furthermore, several studies indicated that quality of governance is a determinant of many variables associated with the well-being of individuals within a country (Charron et al., 2014). In that sense to study what happens to quality of governance in EU members means to study how this joining affects the well-being of new European citizens.

The strand of the literature usually called New Institutional Economic has proposed the importance of a set of fundamental institutions for economic growth, such as, for instance, well-defined property rights, unbiased contract enforcement, reduced information asymmetry and stabilized macroeconomic conditions (among others: Acemoglu and Robinson (2012); Rodrik et al. (2004); Acemoglu and Robinson (2010); Greif (1994); North (1991b); North and Thomas (1973). Knack and Keefer (1997) on a similar line proved that both property rights and contract enforcement have positive impact on economic growth; Campos et al. (2019) proved a statistically significant positive impact of governance on economic development. For all these reasons seems that the impact of belonging to the EU on the quality of governance is a relationship very worth to be studied, especially given the heterogeneity of the EU members per other characteristics and also their own history.

3 Empirical evidence

3.1 The data

To measure the quality of governance we use the World Governance Indicators (WGI) released by the World Bank from 1996 to 2019 as distributed by the Quality of Government Institute (Teorell et al., 2020) in their QoG standard dataset. The WGIs are staples in the literature on governance because of strong internal consistency, robustness to alternative weighting aggregation schemes and invariance to excluding any of the underlying indicators (Charron, 2010).

The WGI indicators measure governance's quality on a yearly basis with a focus on six main areas: voice and accountability, political stability, government effectiveness, regulatory quality, rule

of law, and *control of corruption*. WGI indicators result from aggregating an extended set of observational and expert sources (Kaufmann et al., 2011) into a score whose values range from -2.5 to 2.5, with a zero value being equal to world average. Moreover, the World Bank acknowledges that some estimates are more reliable than others and then offers for each country and year a reliability weight that researchers can use to account for uncertainty in point estimates: in what follows, we use these weights whenever allowed by our estimators. Also, since we focus the long-run performance of government and their convergence, we employ the stochastic trend of the WGI indexes as extracted through a Hodrick-Prescott filter, as suggested by Phillips and Sul (2007).

Variable	Description
Control of Corruption	Perceptions of the extent to which public power is ex- ercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
Government Effectiveness	Perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
Political Stability and Absence of Violence/Terrorism	Perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.
Rule of Law	Perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the po- lice, and the courts, as well as the likelihood of crime and violence.
Regulatory Quality	Perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Voice and accountability	Perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Table 1: The World Bank's World Governance Indicators (WGI).

3.2 The countries

The European Union (EU) was formally established in 1993 by the Maastricht Treaty, but had its institutional antecedent in the European Economic Community (EEC) established in 1957 by the Treaty of Rome. The EEC had the much more limited scope of gradually establishing a customs union and a common market, along with directions for future integration of national policies; the EU followed EEC and went further promoting European citizenship and integration of a wider array of policies.

Our database contains the entry dates into the EU for 27 member countries (see tab. 2) as of 2019. We consider the entry year as the year in which EU *acquis communautaire* – namely, the process of negotiation and adaptation to EU norms by potentially entrant countries – was

completed and the country became a EU full member. The membership's seniority is calculated as the difference between 2019 and the year of entry in the EU.

Year	Countries	Seniority
1957	Belgium, France, Germany, Italy, Luxembourg, Netherlands.	62
1973	Denmark, Ireland, United Kingdom.	46
1981	Greece.	38
1986	Portugal, Spain.	33
1995	Austria, Finland, Sweden.	24
2004	Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta,	15
	Poland, Slovakia, Slovenia.	
2007	Bulgaria, Romania.	12
2013	Croatia.	6

Table 2: Entry years in the EU.

NOTE – The table reports the year of entry in the EU. The seniority years are calculated as the difference between 2019 and the year of entry in the EU. More details can be found in the text.

We complete our dataset by adding all countries coded by the World Bank's variable ht_region as located either in *Western Europe and North America* or in *Eastern Europe and post Soviet Union*. To construct our dataset we proceeded as follows: (a) from the first set we excluded Australia, Canada, New Zealand, and United States as they do not belong to Europe; (b) from the second set we dropped Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbek-istan because they lie in the Central Asian region. (c) we dropped Russia because of its transcontinental nature: only 23% of its territory is located in the European area; (d) we kept Armenia given its strong ties to EU's institutions and culture. (e) we included Turkey as it applied for EU membership in 1987; (f) we excluded San Marino, Serbia, Monaco and Montenegro given they lack a substantial number of observations for the WGI indexes.

The entry dates in the EU allow for partitioning the countries in the full dataset into three groups: (a) the *Historical Members* group containing countries which are original founding member or have later joined the EU until 1995 (i.e., before the World Bank's WGIs data collection started); (b) the *Entrants* group containing countries which became EU members during 1996 and 2019; (c) the *Outsiders* group containing countries which, though potential candidates to membership, have never been part of the EU.

EU status	Countries
Historical members	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United King- dom (15).
Entrants	Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia (12).
Outsiders	Albania, Andorra, Armenia, Belarus, Bosnia and Herzegovina, Croa- tia, Georgia, Iceland, Liechtenstein, Macedonia, Moldova, Norway, Switzerland, Turkey, Ukraine (15).

Table 3: The countries in the European region and their EU status (1996-2019).

Historical Members group contains countries which are original founding member or have later joined the EU until 1995. The Entrants group contains countries which became EU members during 1996 and 2019. The Outsiders group contains countries which have never been part of the EU.

The countries in the study, all located in the European area, form a contiguous group of countries with strong historical and geographical ties. At the end of the selection process, we obtain a strongly balanced panel of 42 countries of which 27 are members of the EU as of 2019 and 15 are actual or potential candidates to membership (see tab. 3). We decided to include Croatia in the outsiders' list because during most of the period under study stayed outside of EU, even though it actually became a EU member during in the second half of 2013.

3.3 The WGI indicators throughout the European area

We start our analysis by plotting six choropleth geomaps for each variable under study in fig. 1 for the year 2019: the stronger the color, the higher the value of the corresponding WGI. Even a cursory inspection of the graph reveals that generally the countries in Central and Northern Europe display the highest levels of governance' quality.



Figure 1: WGI indicators across Europe, 2019.

3.4 Differences in averages

A first crude measure of the difference in the WGIs across EU historical member, entrants during 1996 and 2019, and outsiders is displayed in tab. 4 where we report in the upper panel the average levels and the corresponding standard deviations of WGIs and in the lower panel a test for the difference in levels obtained through a variance-weighted least squares estimator that accounts for uncertainty in the original WGI estimates using the World Bank's indicators.

	(1	1)	(2	2)	(3)		
	H. members		Entr	ants	Outs	iders	
Averages	μ s.e.		μ	s.e.	μ	s.e.	
Control of Corruption	1.514	0.181	0.433	0.124	0.095	0.268	
Government Effectiveness	1.520	0.122	0.683	0.122	0.291	0.258	
Political Stability	0.813	0.107	0.709	0.086	0.190	0.238	
Rule of Law	1.489	0.126	0.684	0.122	0.101	0.244	
Regulatory Quality	1.423	0.098	0.939	0.086	0.265	0.189	
Voice and Accountability	1.328	0.058	0.867	0.072	0.197	0.220	
Average by group	1.380	0.105	0.506	0.148	0.324	0.268	
	(1)-	-(2)	(1)-	(1)-(3))–(3)	
Differences	Δ_a	p	Δ_b	p	Δ_c	p	
Control of Corruption	1.251	0.000	1.420	0.000	0.311	0.328	
Government Effectiveness	1.040	0.000	1.246	0.000	0.392	0.198	
Political Stability	0.376	0.036	0.656	0.022	0.544	0.048	
Rule of Law	1.104	0.000	1.393	0.000	0.545	0.069	
Regulatory Quality	0.842	0.000	1.174	0.000	0.647	0.007	
Voice and Accountability	0.822	0.000	1.157	0.000	0.664	0.011	

Table 4: WGI indicators across countries in the European area (1996-2019).

NOTE – The upper panel of the table reports the average values of WGIs in the European area for the (1) Historical Members, (2) the Entrants and (2) the Outsiders groups and their standard errors. The lower panel reports the mean difference between the groups and the corresponding p-values. Errors are clustered by countries. All estimates employ the reliability weights released by the World Bank.

Though the differences in WGIs between the three groups cannot be directly assigned a neat *causal* measure of entering or staying within the EU, nonetheless they have distinct and interesting interpretations. First, *the difference between Historical Members and entrants measures, among other things, the effect of membership seniority.* Second, *the difference between Historical Members and Outsiders also measures the gap in governance' quality between EU senior members and potential candidates to membership.* Third, *the difference between Entrants and Outsiders also measures what would change whenever eligible countries entered the EU.*

Finding 1 (Differences in WGIs across the European area) Averaging over all WGIs, Historical Members score consistently higher than Entrants (+0.906) and Outsiders (+1.174). Entrants' values exceed outsiders' by 0.517.

The first pattern we observe in the upper panel of tab. 4 is a precise ranking of scores' average levels across the three groups over each WGI index: The Historical Members systematically outperform Entrants and Outsiders, and Entrants' values exceed Outsiders'. Historical Members have precisely estimated scores above one (except for political stability, firmly below one), Entrants' values noisily float between 0.433 and 0.939, while Outsiders' values, also noisily, lie between 0.189 and 0.268: in this latter case, standard errors exceed the mean suggesting that averages can actually float around zero.

Finding 2 (Historical Members) Historical Members of EU and other groups differ most on control of corruption, with the former outperforming Entrants by 1.251 and Outsiders by 1.420. Historical Members and other groups differ least on political stability, with the former exceeding Entrants by 0.376 and Outsiders by 0.656.

The control of corruption appears as the major divide between Historical Members and other groups; quite surprisingly, political stability does not differ much between Historical Members and Entrants ($\Delta_a = 0.376$), while the difference almost doubles when compared to Outsiders ($\Delta_b = 0.544$). As we will see in the following pages, political stability (and absence of terrorism/violence) appear as an idiosyncratic aspect of a government's quality weakly affected by EU membership.

Finding 3 (Entrants and Outsiders) Entrants and Outsiders differ most on voice and accountability ($\Delta_c = 0.664$) and least on control of corruption ($\Delta_c = 0.311$).

The Entrants markedly surpass Outsiders on voice and accountability: the mean difference is only slightly lower than the gap between Historical Members and Entrants. Again, being a EU member makes a difference for controlling corruption and government effectiveness, but the increase in the WGIs is lower than observed for Historical Members and Entrants.

Another interesting pattern also emerges from fig. 2 where we plot the years of seniority of membership in the EU against the values of WGIs along with a linear trend line and its 95% confidence bands. Needless to say, this graph excludes by construction the Outsiders and just describes the currently observed relation by the two variables under study.

Finding 4 (Seniority) The longer a country stays in the EU, the larger the value of its observed WGIs.

Except for the case of political stability where a flat relationship is observed, all graphs display a positive relation, pointing to a positive effect of seniority on the quality of governance. Alternately, the historical members of the EU were from the beginning the countries with the largest potential for quality of governance amelioration.



Figure 2: Seniority as member of the EU and WGIs, 2019.

3.5 Temporal trends

Our next step focuses on WGIs' historical trends to establish some aggregate dynamic properties of the three groups, if any. We start with a graphical analysis of average WGIs calculated for all countries in fig. 3; then we move to the graphs by groups: the first, for Historical Members, in fig. (4) and the second, for the remaining two groups, in fig. 5. In all graphs, we also trace two dashed vertical lines to mark the years in which new countries entered the EU.

The European area



Figure 3: The WGI indicators in the European area (1996–2019), all countries.

For the European area, all WGIs appear weakly increasing or stationary, except for Political Stability which markedly displays a downward trend. All WGI values lie above the world's average and start in 1996 in the interval between 0.75 and 0.85 (leaving aside Political stability), while at the end of the period under study look more dispersed. This pattern testifies that over the 1996 and 2019, the WGIs have evolved have developed at different speeds, making the region more diverse regarding to quality of governance.

Historical Members





Finding 5 (Historical Members' trends) All WGIs appear either stable or weakly declining. Political stability displays a distinctive downward trend.

Already in 1996, with values gravitating around 1.4, the Historical EU members' group scored markedly higher than the world's average. The time series appear much less volatile and, except for Political Stability, all WGIs converge toward a value of 1.4. Differently from the European area as a whole, here WGI's values started quite dispersed and ended much more concentrated. The values are stationary or weakly decreasing; overall, the average quality of governance in the EU remained very high, compared to the world's average. Also in this case, Political Stability displays a clear downward trend.

Outsiders and Entrants





Finding 6 (Outsiders' trends) All WGIs show an upward time trend, except for Voice and Accountability which appears stable around its mean and Political Stability which varies considerably, but nonetheless around a given mean.

At the beginning of the period, Outsiders showed values around the world's average but, although noisily, all variables trended upward, except for Voice and Accountability which looks quite stable around its mean and Political Stability which varies wildly, nonetheless around a given mean. Differing upward trends translate into more spreading around the mean in 2019 compared to 1996: while these countries's WGIs performed better through time, they also changed the relative weight of governance's dimensions. In sum, upward trends for several key WGIs appear for the countries outside the EU, which suggests that some enhancement of these governments' efficacy took place independently of EU membership.

Finding 7 (Entrants' trends) All WGIs move upward through the years in the European area: this happens also for Outsiders, though the initial values for the Entrants' were already higher in 1996.

Panel B of fig. 5 shows the same WGIs plotted for the European countries which entered the EU after 1996, i.e., in the two waves of 2004 and 2006. Interestingly, the graph somewhat appears as a *continuation* of the panel pictured on the left side, with Entrants starting their upward paths at higher initial values of WGIs. Again, Voice and accountability appears markedly stationary and Political Stability very erratic. In sum, the non-entrants and the entrants show very similar

dynamic paths, but initial conditions differ considerably. This can taken as evidence that *before* Entrants became effective EU members, a mix of selection and compliance to the acquis was at work.

This result shows that being admitted in the EU appears not to radically change the trend observed before entrance. We also cursorily note a slight increase in Regulatory Quality and Political Stability in 2006, though they both tend to fade out in around five years.

Temporal rate of change

Provided that Entrants and Outsiders differ by their initial WGIs' values, we also check whether *the two groups differ in their temporal rate of change*. To this extent, we regress each WGIs on year separately for the two groups using the model

$$y_{it}^{ks} = \alpha_i^{ks} + \beta^{ks}t + \eta_i^{ks} + \varepsilon_{it}^{ks} \tag{1}$$

where *i* stands for the *i*-th country, $s \in \{E, O\}$ represents a country's status as either Entrant or Outsides, *t* is the year, *y* is the value of the *k*-th WGI, α is a country-WGI-status-specific constant, while η represents a country-WGI-status-specific error term and ε is the usual country-WGI-status-time-specific error term. In this model β represents the yearly rate of change of a given WGI. Choosing a linear model does not imply we maintain that the true temporal time paths are basically linear, but simply that we focus on a robust linearization of the yearly growth rate. The corresponding estimates are reported in tab. 5.

	Entr	ants	Outs	iders	$\beta_E - \beta_O$	
	β_E p		β_O	p	Δ	p
Control of Corruption	0.003	0.094	0.015	0.000	-0.013	0.000
Government Effectiveness	0.011	0.000	0.016	0.000	-0.005	0.032
Political Stability	-0.003	0.074	0.003	0.205	-0.006	0.051
Rule of Law	0.010	0.000	0.015	0.000	-0.005	0.012
Regulatory Quality	0.008	0.000	0.020	0.000	-0.012	0.000
Voice and Accountability	-0.003	0.004	0.004	0.005	-0.007	0.000

Table 5: WGI's temporal trends in the European area (1996–2019).

NOTE – The table reports the estimation results of equation (1) in the text.

Finding 8 (Speed of change) All WGIs show positive trends and Outsiders' yearly speed exceeds Entrants' in the case of regulatory quality and voice and accountability.

In the case of regulatory quality, Outsiders exceed Entrants' growth by a factor of 0.012: a linear projection of this difference over ten years means that Outsiders' score becomes 12% higher than Entrants'. The same type of projection for voice and accountability implies a 7% increase for Outsiders over Entrants. Since the average values of these variables are higher for Entrants, we conclude that Outsiders' rate of catching up is higher given the lower initial values.

3.6 Stationarity

A key aspect of the WGIs' dynamic character we touched cursorily in previous paragraphs is stationarity, i.e., whether countries' WGIs remain stable over time: in this section we employ a formal test of stationarity taking advantage of the panel nature of our data. The implication of stationarity are far-reaching: for entrant countries stationarity across the whole period 1996–2019 implies that EU entry provided no clear effect and we cannot clearly distinguish the observed

pattern from randomness. The absence of stationarity is compatible with several scenarios: increasing trends, decreasing trends, drifts, random walks.

Beforehand, we establish whether the WGIs are autocorrelated using a Wald test (Drukker, 2003): we find this is the case for all of them.² We then implement the Im-Pesaran-Shin test using the Akaike information criterion (Im et al., 2003) to select the autoregression's parameter optimal value and display the estimated p-values and lags in tab. 6. Usually, stationarity is checked by performing a unit root test: as the test fails, we have evidence that the variable is non-stationary, but we cannot readily assert that the same variable has a deterministic trend, a drift, or simply follows a random walk. We pick the Im-Pesaran-Shin test as it allows for heterogeneity between panels.

	Hist. n	nembers	Entr	ants	Outsiders		
Time lags	p Lags		p	Lags	p	Lags	
Control of Corruption	0.398	0.267	0.016	0.926	0.126	1.000	
Government Effectiveness	0.432	0.733	0.200	0.333	0.088	0.286	
Political Stability	0.366	0.533	0.000	0.667	0.100	0.500	
Rule of Law	0.000	0.733	0.499	0.630	0.422	0.571	
Regulatory Quality	0.011	0.800	0.175	0.852	0.539	0.929	
Voice and Accountability	0.000	0.800	0.000	1.222	0.085	0.786	

Table 6: Stationarity tests for the WGIs (1996–2019).

NOTE – The table reports *p*-values of Im-Pesaran-Shin tests for unit roots of WGIs calculated over several groups of countries and the number of lags selected by the Akaike criterion. Hypotheses under test: H_0 : All panels contain unit roots; H_1 : A statistical fraction of panels is stationary (Pesaran, 2012). The cells are colored in green when $p \le .01$ and point to stationarity.

Finding 9 (Historical Members' stationarity) *Rule of Law and Voice and Accountability show stationarity.*

For Historical Members evidence of stationarity delivers a mixed message: a stable WGI may either reflect a country's effort to keep steady an already high index's value or a failure to increase it any further. Though these countries have a long tradition of secure property rights, efficient contracts' enforcement, low levels of crime and marked efficacy of judicial systems, in principle we cannot exclude that the same countries could still have further margins for increase. *Inspecting the panel plots we find that only Greece and Italy*³ *have both non-stationary and low levels of the WGI for Rule of Law.* Moreover, *the panel plot for Voice and Accountability clearly shows that Greece, Portugal and Spain having a marked downward trend, with Greece having also the lowest overall values over the period under study.*

Finding 10 (Entrants' stationarity) *Political Stability and Voice and Accountability show stationarity.*

Stationarity for Entrants suggests that entering the EU members did not induce, for that variable, a detectable effect of membership: a sharp increase in the accession would have resulted in nonstationarity. Nonetheless, given that entrants started in 1995 with markedly lower values than members', this suggests that acquis and EU membership were surprisingly ineffective at changing some crucial dimension of government's quality. *Control of corruption displays an increasing trend for Estonia and a marked downward trend for Hungary, while Croatia's index rose from 1995*

²The test results are not reported here, but are available upon request.

³For all remarks about specific countries, see the online appendix.

to 2005 (probably because of the EU convergence process) and then remained stable around zero. Political stability remained stable and quite noisy across the period under study for all countries. Voice and accountability showed stationarity except for Hungary which displayed a clear downward trend.

Finding 11 (Outsiders' stationarity) No WGI displays stationarity.

4 Convergence

4.1 Convergence by groups

Since the unit-root test discriminates only between stationarity and non-stationarity, when we find evidence of non-stationarity, we need to move further to understand if these variables exhibit any trend or just evolve as random walks. Inspecting the WGIs plotted by each country, we find a gamut of dynamic trends. An interesting and robust way to study dynamic patterns is checking whether the WGIs converge within any of the three groups and if some sort of club convergence emerges through time for the whole European area. We start with a test of global convergence to check if some variables are globally converging to the same value. To this extent, we employ the Phillips and Sul (2007)'s log *t* regression test and display the results on tab. 7. This test is robust to any violation of stationarity of the time series. Following Phillips and Sul (2009) we estimate a nonlinear dynamic factor model for log of the *k*-th WGI of the type

$$\log \text{WGI}_{it}^k = a_{it}^k + x_{it}^k t = b_{it}^k \mu_t^k$$

where the first parameter *a* represents transitional dynamics of the *k*-th WGI and *x* is the country-specific temporal path: in practice, we decompose the time-series as the product of a common trend μ and an idiosyncratic factor *b* measuring the country-specific *share* of the common trend. In practice, this formulation allows for cross-sectional and temporal heterogeneity of convergence parameters.

	Hist. n	nembers	Ent	rants	Outsiders		
	$\hat{\gamma}$ <i>t</i> -stat		Ŷ	<i>t</i> -stat	Ŷ	t-stat	
Control of Corruption	-1.426	-15.856	-0.177	-1.894	0.482	3.612	
Government Effectiveness	-0.885	-5.744	0.385	3.744	1.001	7.253	
Political Stability	-0.845	-3.150	-1.346	-3.729	-2.247	-2.845	
Rule of Law	-1.611	-18.692	0.263	2.807	1.194	5.013	
Regulatory Quality	-2.188	-8.364	0.127	0.721	1.077	3.806	
Voice and Accountability	-1.668	-9.196	-0.632	-11.477	-0.387	-6.881	

Table 7: Phillips and Sul (2007)'s log *t* convergence test for WGIs (1996–2019).

NOTE – The table reports β and Student's *t* values from Phillips and Sul (2007)'s log *t* regressions calculated over several groups of countries. Hypothesis under test: H_0 : Panels converge; H_1 : Panels do not converge. Values of Student's *t* smaller than -1.645 imply rejecting H_0 . The green cells indicate support for convergence in growth rates.

Using the partition between the three types of countries, we run the $\log t$ regression and find that

Finding 12 (Historical Members' convergence) No WGI converges.

since all $\hat{\gamma}$ fall short of zero and the corresponding *t*-stats are less than -1.645 This result suggests that EU's WGIs do not converge, but this could also happen because Historical Members in equilibrium have different steady-state values.

Finding 13 (Entrants and Outsiders' convergence) Entrants and Outsiders converge in growth rates with regard to Government Effectiveness, Rule of Law and Regulatory Quality. Outsiders converges also for Control of Corruption.

Finding 14 (Entrants and Outsiders' convergence speed) Outsiders' growth rates converge faster that Entrants'. The ratio between Outsiders' and Entrants' speeds range from 3.8 to 8.5.

These results of rate of growth convergence can be given the following interpretation: EU countries have on average the highest WGIs and the more distant a country is from EU's values, the faster is its rate of growth. This testifies that a global catching up phenomenon is at work in the European area and Historical Members' standards represent a strong attractor.

Finally, we turn to the study of club convergence for the six WGIs in the European area to check whether we can find similarities and differences among the countries beyond their EU membership. Our analysis proceeds in two steps: 1. we first check if all countries in the European area converge and, if this is not the case, 2. we perform a club convergence analysis, and finally 3. we test whether convergence club can be merged.

The whole procedure has been described in the technical literature (Schnurbus et al., 2017; Phillips and Sul, 2009, 2007) and is briefly outlined in our appendices A.1 and A.2. All estimates are implemented in STATA using the command documented by Du (2017). In what follows, we limit ourselves to commenting only the final convergence club results.⁴

4.2 Club convergence

Control of corruption

Coming to the control of corruption index, our results show the absence of a convergence pattern between the whole sample analyzed. As a matter of fact, the Phillips and Sul algorithm suggests the presence of two different clubs, that are converging towards a different paces. The first, that we may define as high club, given that converges toward a higher speed than the other, is composed by 25 out of the 42 countries in our sample; the second is then composed by the remaining 17.

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-0.629	-10.577	No	-	35.7	28.6	35.7
1	Andorra, Austria, Belarus, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Nether- lands, Norway, Poland, Portugal, Slovenia, Sweden, Switzerland, United Kingdom (25).	0.041	0.376	Yes	1.295 (0.275)	12 80%	6 50%	7 47%
2	Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Greece, Hungary, Italy, Macedonia, Malta, Moldova, Romania, Slovakia, Spain, Turkey, Ukraine (17).	-0.175	-0.053	Yes	0.029 (0.195)	3 20%	6 50%	8 53%

Table 8: Club convergence for Control of Corruption (1996–2019).

NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%.

⁴The results for the first stage estimates are available by the authors upon request.

The first of the two groups is composed by countries belonging to each and any of the three main clusters identified, with a predominance of the countries belonging to the European Union (which are 18 out of 25, considering both countries from the Historical Members and the Entrants clusters). The vast majority of EU countries, from both clusters, belong to this club: the 80% of Historical Members, and the 50% of Entrants, belong to the high club. These countries show a level of Control of Corruption way over the world average, and among the highest standard registered in the world: the mean value towards they are converging is of 1.295.

On the other hand, the second club, definable in a complementary way as the low one, is mainly constituted by Outsiders and, of course, by the other half of the Entrants. It is notable that three Historical members belongs to this group: Greece, Italy (which is also a EU founding members), and Spain. This club also shows a convergence process, but toward a much lower speed than the other. The average value of this WGI roughly equals world's average with a mean of 0.029.

This index 'captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests'. The picture delineated, is in line with previous literature (Alfano et al., 2020) and anecdotical evidence, that sees country in Central and Northern Europe doing very well in terms of control of corruption, while the Mediterranean ones and the ones that used to belong to the Soviet block are performing more poorly to this regard. Apparently, results suggest that culture and long path dependence dynamics play a bigger role than belonging to a supranational organization such as the European Union, in terms of curbing corruption. It is also notable the presence in this club of several former socialist countries, that typically exhibit worse performances on corruption, such as Belarus, Czech Republic, Estonia, Georgia, Latvia, Lithuania and Slovenia.

We may thus conclude that we observe club convergence per control of corruption between countries very heterogeneous among them per history, status and characteristics of their societies, such as GPD, religiousness and political system. It is thus hard to find a precise effect of the European Union on corruption, both in terms of spillover effects in the area, and in terms of effects from being part of the Union. The mean toward the high club converges is of 1.295, a value lower than the average of Historical Members (which is of 1.514) but much higher than the average of both the Entrants (0.433) and of the Outsiders (0.095) that thus are the clusters from which countries benefit the most from being in this club.

On the other hand, the average value towards which countries in the low club converge (0.029), is much lower a value toward which to converge for the Historical Members in the club (Italy, Greece and Spain), and also of the many club member from the Entrants cluster. On the other line, this value is more in line with the average per Outsiders, that seems to be the standard towards which countries belonging to this club are converging.

Government effectiveness

The whole sample converges in growth rate per government effectiveness, albeit slowly. As a matter of fact, with regard to the measure of effectiveness of the governments, our results show the presence of a global convergence among all the countries analyzed. Apparently, the effectiveness of the governments (which we remember is a proxy of 'perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies') follows a path that it is not directly influenced by the membership of the European Union, but rather by a global increase over time in the standard of public efficiency in Europe.

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-0.096	-1.082	Yes	0.889	35.7	28.6	35.7

Table 9: Club convergence for Government Effectiveness (1996-2019).

NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%.

While the application of the algorithm suggests a pattern of convergence, it is important to notice that individual values of the observations are very different. The cluster composed by Historical Members has a government effectiveness mean higher (about the double) than the Entrants' one, which at the same time has a mean value higher (about the double) of the one of outsiders. It is also important to notice that all the clusters present a level of government effectiveness above the world average, making of Europe a region characterized by countries with very effective governments, in a world-wide perspective. While the absolute values of these indexes are not easily comparable in terms of magnitude, nevertheless their convergence suggests that the effectiveness of governments is increased in less effective governments, and remained stable or decreased in the governments that were most effective twenty-five years ago. This trend may be due also to the spread of 'social technologies' (Ewald, 1986) to former socialist countries after the fall of the Berlin wall. As a matter of fact, this transfer of best practices and services offered by the public, may have implied an increase in the quality of public services and of policies' implementation in these countries, while the correspondent levels in older democracies has not notably increased.

A consequence of this dynamic, is that the absolute level of government effectiveness is mainly driven by internal dynamics and possibly by the electoral cycles and the elections outcome, rather than by EU membership or by a given club convergence pattern. The absence of a common growth trend also confirms findings highlighted by previous literature (Garcia-Sanchez et al., 2013) suggesting that these dynamics are likely determined by the organizational environment and, only according to countries' income distribution, by political constrains and its organizational characteristics (such as gender diversity and government size).

Political stability

Coming to the political stability and absence of violence index, our results show also in this case once again the absence of a global convergence pattern in the European area. Nevertheless, the Phillips and Sul algorithm suggests that there is a club convergence among two different clubs. The first, that we may define high given that converge towards a higher value but at a lower rate (0.223 ÷ 2 = 0.112), is composed by 32 out of the 42 countries in our sample, while the second is composed by the remaining 10 which converge at a much higher speed (1.121 ÷ 2 = 0.56): thus all the countries analyzed converge, even if in two different groups, and at two very different speed rates.

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-1.301	-5.136	No	-	35.7	28.6	35.7
1	Albania, Andorra, Austria, Bulgaria, Croa- tia, Cyprus, Czech Republic, Denmark, Esto- nia, Finland, Georgia, Germany, Hungary, Ice- land, Ireland, Italy, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom (32).	0.223	1.659	Yes	0.814 (0.046)	12 80%	11 92%	9 60%
2	Armenia, Belarus, Belgium, Bosnia and Herze- govina, France, Greece, Latvia, Moldova, Turkey, Ukraine (10).	1.121	0.629	Yes	0.055 (0.351)	3 20%	1 8%	6 40%

Table 10: Club convergence for Political Stability (1996–2019).

NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%.

As a matter of fact, the first club includes countries from each of the three blocks (HIS, ENT, and OUT), and each of them contributes more of less equally, in terms of number of members, to the club, with a slightly predominance of the countries belonging to the European Union (both from the Historical members and the Entrants clusters). Nevertheless, the vast majority of EU countries, from both clusters, belong to this club. Indeed, 80% of Historical Members belong to the high club, while the share of entrants is equal to 91.7%. These countries show a level of Political Stability way over the world average, having a mean value of 0.811.

Of course this implies that, on the other hand, the second club is mainly constituted by Outsiders, that constitute more than half of the countries belonging to the club. It is nevertheless notable that there are also three Historical members (two of which are also EU founding members: Belgium and France) and an Entrant (Latvia). This club, as said, also shows a convergence process, but toward a much lower value, only slightly over the world average, having a mean of 0.055.

This index is a proxy of perceptions of the likelihood of political instability and politicallymotivated violence, including terrorism. While it is easy to imagine that belonging to a supranational entity may affect the political stability dynamic within the countries belonging to the Historical Members and Entrants clusters, it is harder to imagine a causal mechanism that lead to a convergence of political stability per the Outsiders, other than possibly the willingness of improving the internal situation in order to join the Union. As a matter of fact, rather than stabilizing the area, supra-national network may destabilize weaker countries in the area, being targeted by other regional player to avoid them becoming part of the European Union. Indeed, Russian Federation has often discouraged more or less actively some attempts from former soviet countries to enter into the orbit of the European Union.

We observe club convergence for political stability between countries that greatly differs among them per status and society characteristics, such as GDP, religiousness and political system: it is thus hard to imagine a common mechanism that made them to converge. The high club shows a mean of 0.811, a value slightly lower than the average value of Political Stability per the Historical Members cluster (which is of 0.813), but higher than the one of the Entrants (0.709). This value is also much higher if compared to the one of the Outsiders, that have a mean of 0.190. All this suggests a net benefit from this convergence process per both the Entrants and the Outsiders, that see their Political Stability levels to raise toward values closer to the ones of the Historical Members (which are among the highest in the world).

On the other hand, three countries belonging to the Historical Members block, namely Belgium, France and Greece, and one from the Entrants block, namely Latvia, do not belong to this high club. Even if the absolute value per Political Stability makes all these four countries in a top quantile of the distribution, at the same time they show a downward trend with regard to political stability in the time frame analyzed. This is likely to be due to the specific history of these countries, especially for Historical members, that have faced in the years analyzed important terrorist threats (France and Belgium), and economic crisis followed by an important rise of consent toward far-right parties (Greece).

On a final note, as already highlighted in the literature, also in our results once again we find no conclusive evidence on the relationship between economic growth and political stability. As a matter of fact, countries in both clubs are very heterogeneous among them both per GDP per capita and its growth. Paldam (1998) has noted that to this regard there are two possible hypotheses: *the good growth hypothesis*, according to which economic growth generates higher incomes and should make people approve of the government; and *the destabilizing growth hypothesis*, according to which generates changes in the society, and therefore instability. The fact that no clear pattern in terms of economic performances emerges, nor among the countries experiencing a convergence process, nor among the others, suggests that also in our case the economy has nuanced effects on the political stability.

Rule of Law

When it comes to the Rule of Law index, our results show the presence of two different clubs. The first and larger one, definable as a high club, converges at quite a slow rate $(0.024 \div 2 = 0.012)$ toward an average higher value than the second club. The high club includes about 75% of the sample, being composed by 31 out of the 42 countries in our sample; the second contains the remaining 11 countries.

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-0.310	-5.866	No	-	35.7	28.6	35.7
1	Andorra, Austria, Belarus, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Lux- embourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom (31).	0.024	0.537	Yes	1.186 (0.219)	13 87%	10 83%	8 53%
2	Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Greece, Hungary, Italy, Macedonia, Moldova, Turkey, Ukraine (11).	2.177	3.721	Yes	0.067 (0.186)	2 13%	2 17%	7 47%

Table 11: Club convergence for Rule of	f Law	(1996–2019	ı).
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NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%.

The high club is composed by countries belonging to each and any of the three main blocks identified, more or less equally, even if with a slightly predominance of the countries belonging to the Historical Members block. The vast majority of EU countries, both part of the Historical Members and of the Entrants blocks, belong to this club: the 87% of Historical Members, and the 83% of Entrants. These countries show a level of Rule of Law way over the world average: their mean value is 1.186.

The second club, which for coherence we may define as the low one, is mainly constituted by Outsiders. It is notable that two Historical members (Greece and Italy, which is also a EU founding member), and two Entrants (Bulgaria and Hungary) belong to this club.

Finding 15 (Rule of Law, convergence in levels) The low club including Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Greece, Hungary, Italy, Macedonia, Moldova, Turkey, Ukraine,, converge in levels to average value of zero ($\mu = 0.067$, s.e. = 0.186).

This second club shows the strongest convergence type, namely *convergence in levels*. Since $\hat{\gamma}$ is precisely estimated above two, then we have a club of countries which tend to appear similar non only in their speed of change, but also in their actual levels of the index; in other words, these countries follow a time path converging to the same level. In this case, this is exactly the world average.

This index is a proxy of the perception of the confidence in and the respect of the rules of the society. It especially regards the quality of contract enforcement and property rights, expressing consequently also the likelihood of crime and violence. The analysis suggests that countries in the European region are overall performing very well if compared to the rest of the world, in terms of Rule of Law. This is especially true within the European Union, that may in effect play a role in helping laws compliance, due to some mechanisms in place that give to European Union citizens the option (in some cases) to directly appeal to the European Courts to ask the enforcement of some rights. Notable exception to this frame are four countries: two Mediterranean Historical Members (Greece and Italy) and two Entrants (Bulgaria and Hungary). These countries are performing poorly in terms of rule of law, and are strongly converging toward a very low standard, considering the cluster they belong to.

We may thus conclude that, with the notable exception of two Mediterranean countries and of some Eastern European former socialist countries, we observe a beneficial effect on rule of law of the European Union, both directly per the members and on other countries in the region per spill-over effects. The current μ for the club is 1.186, a value lower than the average of Historical Members (1.489), but much higher than the average of both the Entrants (0.122) and of the Outsiders (0.265). We may thus conclude that the former two are the blocks from which countries benefit the most from being in this club.

On the other hand, the average value towards which countries in the low club converge (0.067), is much lower than Historical Members' values in the same club (Italy and Greece), and also of the Entrants cluster (Bulgaria and Hungary). This value, about equal to the world average, is a convergence value also lower than the average per Outsiders (0.101), that thus if belonging to this club are converging towards a lower standard than their average.

Regulatory Quality

Regulatory Quality deals with how citizens in general and entrepreneurs more specifically perceive the quality of governmental policies geared at fostering private enterprises competitive environment through legislation and regulations. The corresponding score captures the evaluation of a country's legal infrastructure directed at promoting free access to markets, nondiscriminatory legislation, and competitive procedures in the private sector.

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-0.298	-2.451	No	-	35.7	28.6	35.7
1	Albania, Andorra, Armenia, Austria, Belarus, Belgium, Bulgaria, Croatia, Cyprus, Czech Re- public, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxem- bourg, Macedonia, Malta, Moldova, Nether- lands, Norway, Poland, Portugal, Romania, Slo- vakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom (38).	-0.160	-1.345	Yes	1.083 (0.213)	14 93%	12 100%	12 80%
2	Bosnia and Herzegovina, Greece, Turkey, Ukraine (4).	-1.642	-0.970	Yes	0.188 (0.342)	1 7%	-	3 20%

Table 12: Club convergence for Regulatory Quality (1996-2019).

NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%.

Almost all countries in the European region converge in growth rates to a major *high* club, whose current value is $\mu = 1.083$ (s.e. = 0.213). The estimated growth rate γ is negative, but the corresponding *t*-stat is above the critical threshold of -1.645. Then, this a club marked by high and stable values of the WGI. By contrast, Bosnia and Herzegovina, Greece, Turkey and Ukraine converge more quite fast to a low *low* club of zero value (μ =0.188, *s.e.*=0.342). The strongly negative rate of change ($\hat{\gamma} \div 2 = -0.666$) marks a net decline in these countries' regulatory quality toward the world's average. Overall, the European area, with very few exceptions, has steadily adopted institutions and policies catching up with the highest standards observed for the EU (see also tabs. 5 and 6).

Among EU countries, only Greece joins the low club: contrary to other countries, Greece's regulatory quality started declining since 2004, the year Eurostat seriously questioned the quality of official Greek public finance data and changed the government balance from a surplus to a deficit. Nevertheless, EU's actions proved unable to prevent the steady decline of regulatory quality since 2004 with legislation enforcing special interests, inconsistent and discriminatory taxation, competition-restricting regulations took over Greece. The third and last Economic Adjustment Programme, signed on 12 July 2015 by the Tsipras government included an array of institutional reforms aimed at implementing pro-market adjustments: after the financial turmoil stopped and expectations adjusted accordingly, Greece's quality of regulation started to rise.

Broadly speaking, the Outsiders block has both countries with high and stable levels of regulatory quality, like Norway, Switzerland, Liechtenstein, Andorra and Iceland, and countries like Georgia, Belarus, and Albania which are rapidly catching up with the best countries (see fig. 6); the remaining countries in the low club, Bosnia and Herzegovina, Turkey, and Ukraine have stationary values floating around zero. Remarkably, all countries in the EU have high and stable values and all entrant countries lie in the high club, though the entrance in the EU apparently did not exert any effect on the observed scores (see fig. 7), since these countries already had high values before joining the EU.



Figure 6: Regulatory quality in the European area (1996–2019). Outsiders.

Figure 7: Regulatory quality in the European area (1996–2019). Entrants.



Voice and Accountability

Voice and Accountability combines two crucial aspects of a political system's efficiency. The first one, political voice, allows citizens to express dissent over current government's actions: this expression becomes effective when media are free from government pressure and citizens can effectively engage into political action, like organizing themselves into alternative parties competing in a free political market. To this extent, elections need respecting standards of transparency and correctness, while democratic procedures must work smoothly. The second aspect, accountability, ensures the necessary conditions for voice to count: unbiased, transparent and widespread information on government and public officials are essential to monitoring government's action. The combination of these aspects enforces political pressure on governments in charge, also allowing potential electoral competition by new entrants. This pressure helps aligning government actions with citizens' preferences, resulting in increased efficiency (see also Rothstein (2013)).

Club	Countries	Ŷ	<i>t</i> -stat	Conv.	μ	HIS	ENT	OUT
0	All countries	-0.701	-16.569	No	-	35.7	28.6	35.7
1	Andorra, Austria, Belgium, Cyprus, Czech Re- public, Denmark, Estonia, Finland, France, Georgia, Germany, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Netherlands, Portugal, Slo- vakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom (28).	-0.086	-0.869	Yes	1.089 (0.136)	14 93%	8 67%	6 40%
2	Albania, Armenia, Belarus, Bulgaria, Croatia, Greece, Hungary, Poland, Romania, Ukraine (10).	-0.515	-1.604	Yes	0.420 (0.306)	1 7%	4 33%	5 33%
3	Bosnia and Herzegovina, Macedonia, Turkey (3).	3.879	2.915	Yes	-0.338 (.)	_	_	3 20%

Table 13: Club convergence for Voice and Accountability (1996-2019).

NOTE – Abbreviations: Conv. = Convergence of the club, μ = mean value of the WGI and its standard error in parentheses for the latest year available (2019) in case of club convergence; HIS = number and percentage of all Historical Members in a given club; ENT = number and percentage of all Entrants in a given club; OUT = number and percentage of all Outsiders in a given club. If the *t*-stat for the log *t* regression exceeds –1.645, then we cannot exclude convergence at 5%. The only missing country in this table is Norway, which does not converge to any club.

Our results show three convergent clubs, each marked by a distinctive pattern. The high one, with an average value of 1.089 (s.e. = 0.136), includes all EU countries except Greece. The estimated speed of convergence is extremely low ($\hat{\gamma} \div 2 = -0.046$, t = -0.869) and points at a stable club with high average value. The medium one includes Greece, four entrant countries (Bulgaria, Hungary, Poland, Romania), and five outsiders (Albania, Armenia, Belarus, Croatia, Ukraine.) In this case the club shows a common negative rate of change ($\hat{\gamma} \div 2 = -0.258$, t = -1.604) and a current low value ($\mu = 0.420$, s.e. = 0.306). The third club includes Bosnia and Herzegovina, Macedonia, and Turkey, with average values below zero ($\mu = -0.338$): this group also shows *absolute* convergence ($\hat{\gamma} = 3.879$, t = 2.915). Finally, we also find that Norway does not converge to any club.

The components aggregated into Voice and Accountability have developed through time also as political rights, so it comes as no surprise that almost all EU historical members rank in the first club. Historical members's values appear both stable across time (see tabs. 5 and 6) and club-converging: these two facts picture a EU substantially homogeneous with regard to voice and accountability.

Hungary displays the most striking trend (fig. 7): while its score was firmly above one until 2007, it steadily declined down to 0.22 in 2019. Viktor Orban's first term as Prime Minister (1998–

2002) enacted pro-market reforms after the West European communist block's demise, but his second term registered a drastic switch toward populism and nationalism. During the years 2010–2011 decreased from 0.837 to 0.749 because of three new laws: (1) the new constitution's affirming nationalist values; (2) an electoral law halving the number of parliament's members and redrawing constituency boundaries; (3) a central bank law designed to defy EU and IMF warnings and reducing the bank's independence (The Economist, 2015).

The third club includes Turkey, whose scores never exceeded zero and declined from 2009 onward, because of President Recep Tayyp Erdoğan's policies restricting press' freedom and political dissent. Ukraine noisily floated below zero, without any upward trend. Finally, Bosnia and Erzegovina signed in 2007 a first preliminary treaty for applying to EU candidacy; nevertheless, in 2014 the national parliament failed to pass a constitutional reform to comply with the Convention for the Protection of Human Rights and Fundamental Freedoms: the corresponding graph lies around zero, showing no sign of enhancement.



Figure 8: Voice and Accountability in the European area (1996–2019). Entrants.

5 Final remarks

In this paper we have studied how the quality of governance evolved through the European area between 1995 and 2019. On average we find that for each *i*-th governance indicator

$$WGI_{i}^{\text{Historical members}} > WGI_{i}^{\text{Entrants}} > WGI_{i}^{\text{Outsiders}}.$$
 (2)

Entrants were probably selected as good candidates by EU's authorities since they started aligning to EU's standard before applying for acceptance. We do not detect any important change in their values in correspondence of entry dates. Overall, all the European area is marked by increasing quality of governance, though the initial values of the indexes differ wildly. Club convergence analysis shows that Government Effectiveness converges, albeit slowly, at the same growth rate across all the European area. Historical Members' follow similar dynamic patterns and achieve convergence in growth rate for all the six WGIs in the high club. Greece and Italy are the only EU countries appearing the low clubs, while several Entrants often appear in the low group also. A small group of outsiders systematically rank low and speedily converge to the low group.

In sum, we find evidence of substantial convergence in the growth rates for the main dimensions of good governance. While Historical Members firmly stand in the high club, several Entrants still do not catch up: especially for Control of Corruption, EU authorities and institutions still face a long way ahead before reducing differences between states. While this paper shows some robust evidence on the ongoing trends in the European area, more research is needed to assess causal relationships determining a country's change in WGI.

Appendices

A The Phillips and Sul (2007) model of convergence

A.1 Global convergence

Given a panel of countries, the time series for a given WGI of the *i*-th country can be written multiplicatively as

$$X_{it} = \delta_{it}\mu_i$$

where μ_t is the common trend of the WGI and δ_{it} is the time-varying, country-specific, fraction of μ_t . Using a methodology that does not rely on stationarity for X_{it} or μ_t , Phillips and Sul (2007) develop a test of convergence for δ_{it} such that

$$\lim_{t\to\infty}\delta_{it}=\delta$$

and the speed of of convergence, α , is strictly larger than zero. To this extent, the authors construct a relative transition parameter h_{it} measuring how X_{it} varies in a given year compared to the average of all countries.

$$h_{it} = \frac{X_{it}}{N^{-1}\sum X_{it}} = \frac{\delta_{it}}{N^{-1}\sum \delta_{it}}$$

As panels converge to the same δ , then each δ_{it} tends to one and H_t , the cross-sectional variance of h_{it} , goes to zero. Using a log *t* regression, this null hypothesis of convergence can be tested using the model

$$\log\left(\frac{H_1}{H_t}\right) - 2\log L(t) = a + b\log t + u$$

where $L(t) = \log(t + 1)$ and $\hat{b} = 2\hat{a}$ estimates the double of the convergence speed parameter \hat{a} . Then one can apply a unidirectional test to check whether the estimated $\hat{\alpha}$ is strictly larger than zero.

A.2 Club convergence

Since the absence of *global* convergence does not implies the absence of *club* convergence, Phillips and Sul (2009, 2007) have devised a recursive algorithm for checking the presence of convergence clubs which goes like this:

- 1. Starting from the latest observations available, order the entire panel from the most successful to the least one in terms of a given WGI.
- 2. Run the log *t* regression test over the whole panel.

- 3. If no convergence club if found, then all panels diverge. The algorithm stops here.
- 4. If some convergence club is found, we call this the *core club*.
- 5. Add a country and run the log *t* regression test again.
 - (a) If the test does not fail, add the country to the *club*.
 - (b) If the test fails, set apart the country apart for the moment.
 - (c) Repeat the test for all the remaining countries.
- 6. Run the log *t* regression test on all countries which do not belong to the *core club*.
- 7. Repeat recursively from step 5.
- 8. When a countries does not belong to any convergence club, it is said to *diverge*.

Phillips and Sul (2009, p. 1171) also note that "extremely conservative testing [...] tends to raise the chance of finding more convergent clubs than the true number. To avoid such overdetermination, we may run log t regression tests across the subgroups to assess evidence in support of merging clubs into larger clubs." Accordingly, they devise a further recursive procedure to check whether, previously identified clubs can be merged together. The algorithms proceeds as follows: a) take the first two groups detected and run the log *t* test; as the *t*-stat is larger than -1.645, these groups together form a new convergence club; b) add the next group until the basic condition (*t*-stat> -1.645) holds; c) if the test reject convergence, conclude that all previous groups converge, except the last one and start again the test merging algorithm from the group for which convergence did not hold.

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