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## ABSTRACT

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# Economic Integration and State Capacity: Evidence from the Eastern Enlargement of the European Union\*

We investigate whether and how economic integration increases state capacity. This important relationship has not been studied in detail so far. We put together a conceptual framework to guide our analysis that highlights what we call the Montesquieu, Weber and Smith channels. Each of these correspond to a series of mechanisms in three distinct institutional arenas: judiciary, bureaucracy, and competition policy. To test our framework, we introduce a new panel of institutional reform measures which allow us to investigate how changes in these three arenas interact with each other and what sequence of changes yields increase in state capacity. The yearly data set covers all the 17 countries that became candidates to join the European Union (EU) after the 1995 enlargement. Our main finding is that the relationship between bureaucratic independence and judiciary capacity seems to be the key engine of the process of state capacity building engendered by the prospect of EU membership. Deep integration, we find, can induce broad institutional change by providing incentives for simultaneous change in core state institutions. Yet early and abrupt removal of external anchors might generate significant backsliding, or reversals, in domestic institutional change.

**JEL Classification:** D72, D78, H23, P11, P16

**Keywords:** deep integration, state capacity, European Union accession, judiciary, bureaucracy, competition policy

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## 1 INTRODUCTION

The Great Recession and the Eurozone Crisis dented the consensus about the economic benefits from European Union (EU) membership. Economic research has strived to quantify these benefits but some of them have proven notoriously difficult to pinpoint (Crafts 2018).<sup>1</sup>

This paper argues that one of these potential yet broadly understudied benefits is the increase in state capacity. We investigate which role economic integration, specifically the prospect of European Union (EU) membership, play in building up the capacity of the state to uphold political and economic freedoms, enforce law and order, regulate economic activity, and provide public goods.<sup>2</sup>

One can enlist several arguments why deepening of integration among countries endowed with states at different levels of development may necessitate increase in state capacities. The more encompassing integration gets, the more sectors and policy fields are involved in rule harmonization allowing for the freer movement of goods, services, capital and labour. Integrating markets implies that the institutions of the member states should acquire the capacity to implement common transnational rules. These rules range from the capacity to uphold economic freedoms, to the capacity of implementing harmonized regulations and policies in dozens of policy fields (Bruszt and McDermott, 2014). Public and private actors in countries with more capable states might have high stakes in caring about institutional capabilities in countries with weaker states. The deeper is integration, the more

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<sup>1</sup> On the benefits of economic integration, see, among others, Baldwin et al. (2012), Beeson (2014), Brou and Ruta (2011), Mattli (1999), Robson (2012) and Hoekman (2016).

<sup>2</sup> According to Besley and Persson, “[T]he lack of attention to the role of state capacity by economists contrasts with other social scientists” (2014, p. 930). The scholarship on state capacity has a long tradition in social sciences (Tilly 1971, Evans et al. 1985). Besley and Persson (2010) focuses on fiscal capacity. Dinsecco and Katz (2016) and Chuaire et al (2017) provide supporting econometric evidence. Besley and Persson (2014) investigate complementarities among different state capacities (fiscal, legal and collective) as well as positive feedbacks between state capacity and income. Acemoglu et al. (2015, 2016) use case studies (Colombian inter-governmental relations and diffusion of U.S. post offices) of state capacity building. Bardham (2016), Savoia and Ken (2015), and Koyama and Johnson (2017) survey this nascent literature drawing on works from economic development and history.

will the benefits of the players in the stronger economies depend on the capacity of states in weaker economies to implement the common rules. Weak state capacities to implement the common rules might deprive economic actors in the stronger economies from the potential gains of more integrated markets. It might also induce a race to the bottom by allowing for competitive advantage to firms in the weaker economies and reducing the incentives of economic players in the stronger economies to play by the common rules. All in all, the deeper is economic integration, the more policy fields are regulated by common rules, the higher might be the incentives of actors in the stronger economies to care about states' capacity in the weaker economies.

External actors might rely on incentives, positive and negative sanctioning, and various forms of assistance to further institutional change in lesser-developed economies with weaker states. The dilemma of such externally induced institutional change is, however, that powerful domestic actors in countries with weak states might benefit enormously from the conservation of the institutional status quo and the potential domestic beneficiaries of state reform might be too weak to make a difference. State reform might deprive economic elites of stable flows of rents. Patrimonial political elites might see the economic bases of their political power undermined by reforms of core state institutions like the judiciary or the bureaucracy. Even if domestic elites might grudgingly introduce some of the externally demanded institutional changes, once external monitoring or sanctioning power declines they might revert to the old practices. The transition from a state manipulated by a rent seeking elite to an organization providing the framework for an efficient and integrated market economy remains a puzzle (Brousseau et al, 2010).

So, how can deep economic integration further state reform and yield major changes in state capacities? To answer this question, we put together a conceptual framework to guide our analysis that highlights what we call the Montesquieu, Max Weber and Adam Smith

channels. Each of these channels correspond to a series of mechanisms in three distinct institutional arenas, namely, the judiciary, bureaucracy, and competition (or anti-trust) policy. Our conceptual framework features ideas from political economy, the separation of powers and the benefits of enforcing competition. All present day theories on the interplay between state-making and market-making draw on one or the other of these classics and all share similar diagnoses: Development of states and markets is prevented either by the dominance of rent-seeking groups that might control the state and corrupt the market, or, even if states are not captured, their weakness prevents attempts to overcome the resistance of economic insiders, who are the beneficiaries of the status quo (Evans, 1992; Dewatripont and Roland, 1992; Åslund et al, 1996; Rajan and Zingales, 2003; North et al. 2009; Brousseau et al, 2010).

Based on the ideas of Adam Smith some authors hold that economic liberalization should be given priority (Åslund et al, 1996). Reforms that open markets and increase competition could bring in new players and foster the demand for institutional reform and state capacity building. State agencies shielded from the tainted parts of the state should open up the market and enforce competition and serve this way as an Archimedean point from where the liberation of the state could start (Rajan and Zingales, 2003). Other authors suggest starting with transformations on the supply side of institutional reforms, with an increase of the autonomy of the state, either through its capacity to design and implement public policies (“Weber channel”) or to uphold economic and political rights (“Montesquieu channel”) (Evans, 1992; Dewatripont and Roland, 1992; Brousseau et al, 2010).<sup>3</sup>

The Eastern Enlargement of the European Union provides a unique opportunity to investigate these issues. After the 1995 Enlargement (in which Austria, Finland and Sweden

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<sup>3</sup> Similar sequencing dilemmas are found within specific institutional arenas, like the judiciary or the state bureaucracy. Should the depoliticizing of the civil service precede its professionalization or is the right sequencing the other way around? Can the separation of the judiciary from the other branches of the state create an effective judiciary on its own or one has first to introduce measures that allow for the judiciary oversight of the two other branches of the state?

joined), the EU created a system of regular standardized monitoring of progress in institutional change in all the arenas that could affect the capacity of candidate countries to implement the rules of the Single Market. These correspond roughly to the individual chapters of the *acquis*, which of course need to be satisfactorily implemented before accession. Quantifying these yearly reports on progress towards accession of the European Commission (2017) generates a longitudinal database that reflects changes in key institutional areas. The reports detail the national paths towards meeting the institutional requirements of EU membership from the transplantation of regulations (Berkowitz et al 2003) to the creation of regulatory organizations endowed with the necessary powers, resources and personnel.

Our data set is the result of the quantification of these annual progress reports. Ours is a new data source encompassing *de jure* (independence) and *de facto* (capacity) institutional measures for 17 European Union candidate countries yearly since 1997.

This unique data set allow us to investigate how state capacity responds to changes in the relationship *between* these three arenas and to changes *within* each individual arena. We try to uncover which are the key relationships between inputs into and among the institutional outcomes of the judiciary, bureaucracy, and competition policy build-up. We understand these as reform implementation sequences. This is carried out in a simple and transparent manner using the strength of time lag relationships as criteria. We justify this choice by noting that although the theoretical literature on reform sequencing is voluminous (Roland, 2000), the empirical literature is almost non-existent and thus offers little guidance.

Our main findings are as follows. Starting from the “Weber channel,” we uncover evidence that inputs such as the training of civil servants and the quality of civil service law in the current period positively affect the capacity of the bureaucracy (a key outcome) in the next period, which in turn affects bureaucratic independence positively one-year ahead.

As for the “Montesquieu channel,” the only input we find driving judiciary capacity seems to be the courts’ workload, idem effectiveness of the Supreme Court driving judiciary independence. And without judicial oversight, there is no guarantee that supervisory agencies can monitor and enforce the rules of market competition effectively (the “Smith channel”).

Our most important finding rests upon the relationship between judiciary capacity and bureaucratic independence. We estimate that capable, independent courts are prime movers behind the development of a professional state bureaucracy, and vice-versa. Judiciary capacity in the previous year is positively correlated with bureaucratic independence in the current year. And uniquely among our results (i.e., the only self-reinforcing feedback relation we find), bureaucratic independence in the last period is positively related to judiciary capacity in the current year. The reforming of these two core state institutions together can generate the political basis for advancing institutional change.

Two additional results are noteworthy. First, this set of institutional reforms have important economic implications. For example, we find that a strong Supreme Court and a capable judiciary are positively correlated with per capita income, while countries with higher export to GDP ratios tend to have more competition policy capacity. Secondly, we find that correlations between our *de facto* and *de jure* measures and other widely used institutional variables (such as the Freedom House, Polity and political constraints on the executive indexes) are substantially higher than the correlations between these widely used measures and our inputs. This raises the possibility that there may be an over-abundance of measures of institutional outcomes, without similar attention to measuring “inputs.” To put it bluntly: we may now have a wealth of measures of the “same thing” (“outcomes”) but a dearth of indexes capturing factors that may play a role in determining these outcomes (“inputs”).

This paper is organised as follows. The next section presents the conceptual framework. Section 3 describes the data construction and collection procedures. Section 4

discusses identification and methodology issues. Section 5 presents our econometric results on the build-up of state capacity in three key areas, namely the judiciary, public administration and competition policy. Section 6 concludes.

## **2 A POLITICAL ECONOMY FRAMEWORK OF INSTITUTIONAL CHANGE**

How are paths of institutional change interlinked? Is there a right sequencing of change within and across key institutional areas that allows for progress in transforming key state institutions? What role does the sequencing of institutional change play?

We seek theoretical guidance for these questions from classic sources. We rely on the ideas of those political scientists, economists and sociologists who have stressed the dynamics of self-reinforcing or positive-feedback processes instead of timeless relations among diverse variables (Pierson 2000; Tilly 1984; Artur 1994; North 1990). In this approach, institutional transformations are described as a complex set of interlinked changes in multiple arenas whereby the timing of a change within a sequence effects how change happens and what effects it has on change in other institutional arenas. Early events can trigger self-perpetuating processes, or they can set in motion a backlash that hinders further institutional change (Stinchcombe, 1968; Pierson, 2000). The notion of sequencing institutional change is strongly interlinked with various conceptualizations of institutional complementarity (Aoki 2007, Amable, 2016) and clusters (Jellema & Roland 2011, Saleth & Dinar 2008). The common idea in these various approaches to institutional change is that it is not a specific institution that matters but the way it is combined and interacts with institutional change in other fields. Institutional change in specific organizational fields might set in motion virtuous or vicious circles, a series of interlinked institutional changes leading either to a new stable equilibrium providing benefits to a broader set of actors, or to stasis and low equilibrium trap blocking the possibilities for change. The dynamic notion of

institutional complementarity (Amable 2016) might be helpful to grasp the difference between these two outcomes. For a social group, two or more institutions are complementary when their joint presence reinforces the group or protects their interests (Amable, 2016). For political actors, complementarity can be defined with reference to the support they can obtain from a sufficiently large set of social groups. Complementary institutions are those which jointly contribute to creating or stabilizing a dominant social bloc through the widening of the space for political mediation (Amable, 2016). We can speak of a self-reinforcing virtuous circle if changes in one institutional arena can empower actors with stakes in institutional change in another institutional arena. If successful, the joint working of these institutions yields a new equilibrium that provides benefits to diverse groups, sufficient enough to sustain institutional change in the affected organizational fields. In a vicious circle, institutional change in one arena empowers actors to fight for preventing institutional change in other institutional arenas and set in motion a backlash that hinders further institutional change.

In this paper we ask which of the sequencing of externally induced institutional change can lead into a new self-sustaining equilibrium of more autonomous and capable states. The first, the demand side approach that we elaborate below claims that, as the state is corrupted, change should start outside of the core state institutions of the judiciary and bureaucracy. More specifically, change should start with institutions allowing for the entry of new players in the market and enforcing competition. These institutions should be shielded from the corrupted parts of the state by strong executives. According to the various versions of the second approach, state reforms should start with the bureaucracy or the judiciary. In this later camp neo-Weberians argue for starting change with the bureaucracy, present day followers of Montesquieu would argue for starting with the judiciary. Finally, constitutional political economists stress the strong complementarity between bureaucracy and judiciary and suggest simultaneous change in these two core state institutions (Brousseau et al. 2010).

We start with the ideas on the right sequencing of change within the judiciary and the state bureaucracy and proceed to competition policy and then to conflicting ideas about the right sequencing of change across the three key institutional fields.

### ***Judiciary: The Montesquieu channel***

From a theoretical perspective, the reform of judiciary represents a key institutional condition of credibly committing the aspiring member states to sanction the rules of the transnational market. But what are the institutional conditions of judiciary independence? In defining these conditions, we start with the ideas of Montesquieu.

*“... there is no liberty if the judiciary power be not separated from the legislative and executive. Were it joined with the legislative, the life and liberty of the subject would be exposed to arbitrary control; for the judge would be then the legislator. Were it joined to the executive power, the judge might behave with violence and oppression.”*  
(Montesquieu, 1777 pp. 221-237)

The institutional sources of judiciary independence have to do with the separation of powers. The judiciary should be independent of both the legislature and the executive and should restrict itself to applying the rules of the Single Market to particular cases in a transparent and consistent manner.

In formulating our first hypothesis, we rely on the late 18<sup>th</sup> Century reading of the ideas of Montesquieu by the founding fathers of American Constitution (Manin 1994.) Their starting point was the same as that of Montesquieu: key to the stabilization of the common market of the thirteen North American states lies with the creation of an independent judiciary. But, learning from the weaknesses of previous constitutional solutions, the American founding fathers were not satisfied with the notional separation of the different branches of the state. They thought that the constitutional declaration of the independence of judiciary would not suffice. Among the three branches of governments there was a hierarchy in the degree of legitimacy. Branches of government with stronger legitimacy, the executive

and the legislative, they argued, could encroach on the autonomy of the branch with weaker legitimacy, like the judiciary. Their conclusion therefore was that mechanical separation of powers will on their own not do and each branch should be empowered with the necessary powers to defend its boundaries from encroachment. In the case of the judiciary, these were the powers given to the judiciary to oversee the constitutionality of the legislative and the executive.

On this basis we can formulate as a guiding hypothesis that the sooner there will be progress in terms of establishing an independent constitutional court, the faster can countries create an independent judiciary.

We can add to this late 18<sup>th</sup> Century conditions two further ones: the professionalization of the judiciary and the endowing of the courts with sufficient resources to enable them to carry out their task in an efficient and timely level. Professionalization refers to the selection and promotion of judges on the basis of professional qualifications and performance, an added factor that is supposed to strengthen both the autonomy and the capacity of the judiciary. On the other hand, the endowing of the judiciary with necessary resources, skilled staff and financial and physical assets helps to process cases efficiently and in a timely manner.

Figure 1 shows how the ideas above guide our data collection and organize our thinking about the Montesquieu channel and the other two areas. We consider judiciary capacity and independence as ultimate outcomes of institutional development in this area. The EU progress reports allow us to distinguish three inputs into this process: the relative strength of the Supreme Court, the availability of necessary resources and the professionalization of judges.<sup>4</sup> We define in operational manner each one of these five

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<sup>4</sup> Note that Figure 1 does not represent any EU expectations about sequencing of change. During the first wave of Eastern enlargement Brussels left it to the aspiring member state to choose their own sequencing strategy. Further, Figure 1 represents only the core of EU mandated institutional changes in the applicant countries. A fuller picture

aspects in detail below.

[Figure 1 about here]

### ***State bureaucracy: The Weber Channel***

The other institutional arena that is crucial for integrating markets is public administration. Only a depoliticized, professional bureaucracy can efficiently implement, administer and enforce the rules of the common market. Market integration is about the removal of national level discriminations of goods, services, capital and labour coming from other member states in the integration. The impersonal rule that establishes integrated markets requires an unbiased bureaucracy, “a nameless, faceless, rule bound organization treating everyone the same without regard to their individual identity, relying solely on whether the rules are being correctly applied” (Wallis, 2011 pg. 60.) The expected self-reinforcing benefits of state reforms are the same as in the case of judiciary.

But, what could be the right sequence of reforms within the public administration? What should come first, the professionalization of the bureaucracy implying the meritocratic selection and promotion together with employment protection, or the establishment of the legal defences from politicization of the state bureaucracy?

Professionalization of the bureaucracy refers to depoliticization of the civil service on the basis of hiring, firing and promoting the state bureaucrats on professional, meritocratic basis. Highly selective meritocratic recruitment and promotion, and, in general professionalization of the bureaucracy were the key to create a cohesive bureaucracy with an *esprit de corps*, with its own professional criteria of success. Such a cohesive bureaucracy had stronger defences against re-politicizing and against capture by private interests (Evans 1995).

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would include the institutional requirements in more than 30 specific policy fields from environmental regulation to food safety regulation.

In formulating this hypothesis, we rely on the work of Max Weber who was the first to stress the intimate relationship between the spread of large-scale capitalist enterprise and modern bureaucratic state .

*<Compared to the Chinese state> “...very different is the rational state in which alone modern capitalism can flourish. Its basis is an expert officialdom and a rational law. The Chinese state changed over to administration through trained officials in the place of humanistically cultured persons as early as the 7<sup>th</sup> and 11<sup>th</sup> centuries but the change could be only temporarily maintained.” (Weber, 1924, p. 339)*

In the work of Weber, the state’s ability to support the market depended on the bureaucracy being a corporately coherent entity with its own independent selective criteria. That goal could be attained by “conferring a distinctive and rewarding status on bureaucrats... the concentration of expertise...through meritocratic recruitment and the opportunities for long-term career rewards” (Evans, 1992 p.146). Peter Evans, who did perhaps the most to translate and apply the Weberian ideas to the comparative study of evolving market economies (Evans, 1992, 1995) argued that key factor explaining variation in state capacities was the corporate coherence of the autonomous state: the existence of defences for the civil service from short-term political or economic interests.

Based on the above discussion we can formulate as a second guiding hypothesis that the sooner there will be progress in the implementation of reforms that strengthen the professionalization of the civil service, the faster will be progress in the implementation of measures that increase the independence of state bureaucracy. These reforms include civil service laws that establish sanctioned rules for the interactions between politicians and bureaucrats. Also, neo-Weberian scholars stress the need for the right level of competitive remuneration as a further condition for both the capacities and autonomy of the bureaucracy (Evans, 1992, 1995).

***Competition policy: the Smith channel (Sequencing across institutional channels starting with the demand side for institutional change)***

Above we have discussed two propositions about sequences of change *within* specific institutional arenas. We continue with three further propositions that are linked to the question about the ‘right’ sequencing of change *across* them. According to the first, institutional change should start with the institutions that induce and maintain competition; according to the second approach change should start with the reform of one of the core state institutions. Finally, according to the third approach change of core state institutions is interlinked, there is a strong complementarity between change in the Weber and the Montesquieu channels: a simultaneous change in both institutional arenas is the way to start.

The underlying idea that is in common in all these approaches is that the major hindrance before institutional change is in the wrong constellation of economic interests that hold the state captive in a bad *status quo*. Key economic and social actors have vested interests in maintaining the *status quo*; they paralyze the state and prevent change.

Change, according to the first approach should start outside the core state institutions, within the economy, by measures that are introduced fast and alter the composition and the preferences of the players. The structural changes in the economy are assumed to result in the liberation of the state from the hold of vested interests and allow for progressing with institutional change in other institutional arenas, including the sphere of civil service. The key is the speed of changes (Åslund et al, 1996 p. 217), not allowing time to react and resist the implementation of the right measures. If institutions are mentioned, this approach would prefer strengthening the institutions enforcing market competition as a sort of Archimedean point from where the war for liberating the state could start (Rajan and Zingales, 2003; Guriev and Rachinsky, 2005; Motta 2014). The enforcement of the rules of the freer movement of the various factors of production might lead to the coming about of a robust

coalition of domestic and external actors with high stakes in supporting encompassing institutional change that could lead to a better functioning state. In short, the liberation of markets will allow for the liberation of states.

We here call this the Adam Smith channel. In the *Wealth of the Nations*, Adam Smith highlighted the dangers of the presence of monopolies on the state:

*“The interest of the dealer, however, in any particular branch of trade or manufacture, is always in some respects different from, and even opposite to, that of the public. To widen the market and to narrow the competition is always the interest of the dealers.” (Smith, 1776, pp. 219-220)*

*“This monopoly has so much increased the number of some particular tribes of them that, like an overgrown standing army, they have become formidable to the government, and upon many occasions intimidate the legislature.” ...The legislature, were it possible that its deliberations could be always directed, not by the clamorous importunity of partial interests, but by an extensive view of the general good, ought upon this very account, perhaps, to be particularly careful neither to establish any new monopolies of this kind, nor to extend further those which are already established. Every such regulation introduces some degree of real disorder into the constitution of the state, which it will be difficult afterwards to cure without occasioning another disorder.” (Smith, 1776, p. 368)*

Based on the above discussion we can formulate the hypothesis that the sooner there will be progress in implementing institutional change in the field of competition policy, the faster there will be progress in civil service reform and the reform of the judiciary.

### ***Change the supply side of institutional change first (Montesquieu &/or Weber)***

A different view from the above is to have as first step in the complex processes of economic transformation is to build up the defenses of the state. Opening up the markets without first strengthening general state capacities could get to stalemate at best, or it could lead to state capture at the worse (see e.g. Dewatripont and Roland, 1992; 1995). The new entrants might not change the nature of the demand side for state reform; they might just exploit the weaknesses of the state. The implication of these arguments is that the better way is to start with the measures of state strengthening suggested on the basis of Montesquieu and Weber

and create first the institutional conditions of functioning judiciary and bureaucracy.

Putting in place an independent and capable judiciary could set in motion at least two interlinked mechanisms that would reinforce positive change in other institutional arenas. The evenhanded and predictable enforcement of rights can improve the position of a wider circle of economic and non-economic players and this way it can contribute to the broadening of the political basis for further state reform. The increasing economic and social returns of judiciary autonomy and efficiency can also alter the incentives of state incumbents to supply improved institutional conditions in more specific policy areas to further improve the revenue basis of the state.

One can formulate similar arguments for furthering reforms that could strengthen the autonomy and the capacity of the bureaucracy. Civil service reforms that increase the professionalization and depoliticization of the bureaucracy can increase general state capacity to provide public goods to broader groups of citizens, including various non-economic groups. Autonomous bureaucracies serve not only as the tool empowering decision makers but also as a third party between citizens and the ruling elite that prevents the latter from acting against constitutional and legal principles (Weber, 1922/1978; Merton, 1940; Wilson, 1989; Nee, 2000; Brousseau et al, 2010). Similar to the judiciary, the reforms of the bureaucracy can help incumbents to put together a broad supporting bloc for further institutional reforms within the state.

What is the relationship between these two core state institutions? Institutional economists stress the importance of the judiciary, specifically the need to create 'market preserving state capacities' first, states with the capacity to uphold market freedoms, freedom of property and contracting (North 1981; North and Weingast 1989; Besley and Persson 2011, 2014). Neo-Weberians stress the causal importance of coherent and autonomous state bureaucracies for inducing virtuous circles of institutional change allowing for economic

development (Evans, Rueschemeyer, and Skocpol 1985; Geddes 1994; Evans 1995; Weiss 1998; Acemoglu et al. 2006; Acemoglu et al. 2015). Finally, constitutional political economists would stress the robust complementarity between the two institutional arenas. Implementing reforms that increase the capacities of the judiciary will help to keep the bureaucracy within the boundaries of the rule of law and increasing its autonomy from political pressure whether it comes from within or outside of the state (Brousseau et al, 2010). Increased professionalization of the bureaucracy, its increased autonomy from political pressures, on the other hand, could further increase the capacities of the judiciary. As Brousseau and his co-authors put it,

*“...development is conditioned by a parallel and interacting development of the rule of law, whose central features are the formalization and hierarchization of norms within a consistent framework, and public bureaucracy, which is characterized by independence and technical capability. Together they guarantee the credibility and evolutivity of the social pact as well as the implementation of an institutional framework favoring division of labor, collective action, and innovation (Brousseau et al, 2010, pg 254).*

Based on this discussion we can formulate the hypothesis that the sooner there will be progress in implementing civil service reform or the reform of the judiciary, the faster will be progress in the field of competition policy. On the basis of the above mentioned political economy approach (Brousseau et al, 2010) we can add the other hypothesis that progress in judiciary capacity will yield progress in bureaucratic autonomy and vice-versa, progress in bureaucratic autonomy will yield increase in judiciary capacity

Reforms creating a judiciary endowed with institutional guarantees of independence, and a depoliticized civil service are expected to bring about two veto-points within the state and increase its capacity to resist capture. Such a state than is expected to have the capacity to induce positive feedback loops by undertaking sustainable institutional changes in the more specific regulatory fields, including those that could alter the demand side of integration.

### 3 MEASUREMENT

Our data set results from quantifying the annual reports about individual candidate countries progress towards their accession to the European Union (European Commission 2017). This generates a longitudinal database that reflects changes in three key institutional arenas, encompassing *de jure* (independence) and *de facto* (capacity) institutional measures for 17 European Union candidate countries yearly since 1997.<sup>5</sup>

It is important to mention that the Commission never differentiates between inputs and outcomes in the Progress Reports. It evaluates individually each of the aspects without considering the potential relationships among them. This call is entirely ours: based on our understanding of each regulatory area, we decided which variables are inputs and which are outcomes. For each of the three arenas, we identify two main outcomes (capacity and independence, which are the same across the three areas) as well as the various inputs into the delivery of these outcomes (which are different across the three areas.)<sup>6</sup> Table 1 summarises.

[Table 1 about here]

For each input and outcome, we develop a scale that ranges from “severe deficiencies in the conformity with EU requirements” to “full conformity with EU requirements.” This is a four-grade scale. These are categorical variables taking values between 1 and 4, with 4 indicating levels of institutional development comparable to EU Member States, 3 for satisfactory levels, 2 for deficiencies in conformity with EU requirements, and 1 reflecting severe deficiencies in conforming with EU norms.<sup>7</sup>

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<sup>5</sup> Our sample is as follows (in other words, Progress Reports exist and were coded for the following countries for every year in these intervals): Albania 2005-2013; Bosnia 2005-2013; Bulgaria 1997-2006; Croatia 2005-2013; Czech Rep 1997-2003; Estonia 1997-2003; Hungary 1997-2003; Kosovo 2005-2013; Latvia 1997-2003; Lithuania 1997-2003; Macedonia 2007-2013; Montenegro 2007-2013; Poland 1997-2003; Romania 1997-2006; Serbia 2005-2013; Slovakia 1997-2003; Slovenia 1997-2003; Turkey 1998-2013.

<sup>6</sup> For further details see data codebook (Bruszt and Lundstedt 2016).

<sup>7</sup> For example, in 1999 Poland was graded 2 by us in the legislative state aid dimension, which is part of the European Union competition policy. The European Commission writes “[i]n the area of State aid, Poland has undertaken to align its State aid award provisions with the *acquis* by way of adopting a comprehensive law on State aid. However, the adoption of this law is still pending which gives rise to concerns” (Poland Progress Report 1999:33). In 2003, for the same dimensions, the Commission concludes that the recent amendments to the state

Coders, all of them doctoral students dealing with European integration, used the *Atlas.ti* dedicated software to create a high degree of inter-coder reliability. Two coders independently from each other coded each chapter simultaneously. In cases of disagreements between coders a third coder has been brought in to make the final judgment. The use of the *Atlas.ti* software have the advantage of increasing the transparency of the coding process since it allows researcher to go over the coding and see on what basis a country was given a certain score.

The objective of this section is twofold: to discuss we operationalized each of the inputs and outcomes of the three regulatory arenas, and to present basic facts and trends reflecting how these arenas changed in the run-up to EU membership.

### ***Judiciary arena (Montesquieu channel)***

Let us start with the judiciary. Outcomes are measured in terms of both judiciary capacity and judiciary independence. Capacity refers to access to the necessary resources, expertise and training. EU norms establish basic parameters for the functioning of the judiciary. Conformity with these norms speaks to the workload and to delays in the workings of the judicial system. Judicial independence stresses its autonomy and is defined in terms of appointment, promotion and remuneration of judges.

Regarding the judiciary, we focus on three main inputs that we theorise can potentially contribute to the “production” of capacity and of independence. One regards the constitutional input (existence and strength of a Supreme Court), the second centres on the workload (“behavioural input”) and the third focuses on the “legal procedures input” of the judicial system.

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aid legislation have brought the rules into closer conformity with the EU requirements, and that the country now satisfies the basic requirements of EU norms (Poland Progress Report 2003:27); so our evaluation gave Poland a score of 3 for that dimension.

The constitutional dimension of the Judiciary centres on the existence and functioning of the Supreme (or Constitutional) Court. Constitutional control is sometimes referred to as the Supreme Court's ability to safeguard citizens' rights. Important features of a Supreme Court endowed with the necessary powers are the possibility of citizens to refer complaints to the Court, and when the parliament and/or the executive is not able to overturn decisions made by the Supreme Court.

The workload is key to the behavioural dimension of the operation of the judiciary. EU norms establish basic parameters for the functioning of the judiciary. Conformity with these norms speaks to workload and delays.

The third and last "input" into judiciary capacity and independence refers to existence and effectiveness of legal procedures. This dimension reflects ease of access to courts and the expected certainty of judicial decisions both in terms of their content and of their enforcement. The scale used reflects again the degree of conformity with EU practices.<sup>8</sup>

### ***Bureaucracy arena (Weber channel)***

Let us now turn to the bureaucracy or the quality of public administration. The evaluation on the public administration is based on the European Principles of Administration elaborated by the European Commission. Here we look at two key outcome dimensions of the quality of public administration: independence of the bureaucracy and administrative capacity.

The notion of administrative capacity in this context means that there is sufficient professionalism in the civil service and that a coherent institutional or organizational set of administrative structures exists so that the bureaucracy has capacity to deliver. This aspect is

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<sup>8</sup> This input covers three different aspects: (1) access to courts (e.g. the right to appeal); (2) the court procedure (e.g. legal certainty, which in turn includes a unified interpretation of the law by the courts, the requirement of justification for judicial decisions, and an evenly handled procedure); and (3) the enforcement of judicial decisions. It is also important to note that when corruption happens to be an issue identified with respect to the judiciary it is reflected in this last item.

thought of by the EU as centred on the career structure of the civil service, but it includes dimensions such as performance evaluation, recruitment, promotion, and employment security.

We consider three key inputs into the Weberian channel, namely (1) the extent and quality of the training of civil servants, (2) the structure of the salaries of public administrators, and (3) whether the civil service law in place is deemed appropriate and effective.

### *Competition policy arena (Smith channel)*

The third dimension we consider is competition policy. The national state-aid authority often goes under the name of Competition Office, Competition Council or Division of Competition and State-aid. Some countries divide the responsibilities between several bodies while others only have one responsible authority. These are in some cases responsible for both anti-trust and merger, and state-aid.

We evaluate three key inputs into the Smith channel: (1) alignment of anti-trust and merger legislation with EU requirements,<sup>9</sup> (2) the resources available for the enforcement of anti-trust and merger legislation, and (3) procedural structures for market surveillance (with reference to free movement of goods.)<sup>10</sup>

The “resource input” into competition policy refers to the quantity and quality of staff, physical resources (computers and buildings), and general financial/budgetary resources. Procedural structures consist of the ability of the agency to operate independently, its competences, and its powers. The powers refer to the strength of, for

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<sup>9</sup> Legislation on anti-trust and mergers includes legislation on competition, cartels, abuse of dominant market position, market concentration and restrictive practices.

<sup>10</sup> In the Progress Reports, these variables appear under “Competition Policy” and as indicated all refer to anti-trust and merger policy.

example, sanctions that the national anti-trust and merger authority can impose. Procedural structures in line with EU requirements mean responsible authorities are in place, they are independent and impartial, and they respect the principle of proportionality.

Outcomes from the Adam Smith channel again capture capacity and independence. In the case of competition policy, we define capacity as the quality of the enforcement of anti-trust and merger legislation and we define independence in terms of the freedom from interference enjoyed by the competition authority.<sup>11</sup>

### ***What does the data say?***

The objective of this section is to give a flavour of our measurement efforts by focusing on the six outcome variables. We compare the unweighted averages of capacity and independence of the bureaucracy, judiciary and competition policy for the 17 countries in our sample. For ease of exposition, we divided the sample in New Member States (NMS) and Candidate Countries. Progress Reports for most of the former are available between 1997 and 2005, while for the latter between 2005 and 2013. We take advantage of these common nine-year windows with each group based on a different time window: NMS 1997-2005 and Candidates 2005-2013.

There are three main observations we would like to make. The first is that irrespective of whether we examine New Member States (which most have joined the EU in 2004) or Candidate countries (of which none has acquired Member State status by 2013), in not one of the six institutional outcomes areas we obtain an average that indicates that these countries have reached a stage in which their institutions are satisfactorily comparable to those of the

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<sup>11</sup> The independence aspect of the outcomes from competition policy comes from a different chapter and refers to the capacity to deliver market surveillance. While all the three inputs and the capacity outcome for competition policy can be found under the chapter 2 entry in the codebook (“competition policy”), the independence measure originates from chapter 7 (“free movement of goods”) and refers to the extent to which the required procedures to deliver market surveillance are in place.

average EU member state. Among all these six outcomes, the independence of competition policy has the highest average. It reaches about 3.5 (out of 4) for the NMS group. This indicates that the team of experts preparing the Progress Reports do not view that all countries that joined the EU have achieved levels of institutional development fully comparable with the EU norm (there are no 4s.) This suggests that measurement error due to political influence is not severe.

The second observation is that there is unexpectedly little difference between NMS and Candidates at the start. Indeed, there is even one area (Judiciary capacity) in which the Candidates average score is higher than NMS score at the beginning of the period. Of course, the beginning of the period is different with 1997 for NMS and 2005 for Candidates which may have allowed catch-up among the latter group in various of these dimensions. Yet the possibility that the institutional (not the economic) gap between New Members States and Candidates is not considerable at the start of their process of EU accession is an argument that in our view is difficult to find in the literature.

The third observation is how surprisingly strong and clearly visible the pull from EU accession turns out to be. Although it is evident that the final levels tend to be higher for *de jure* dimensions (bureaucratic, judiciary and competition policy independence) than for *de facto* dimension (bureaucratic, judiciary and competition policy capacity), there is a very clear and strong EU pull in judiciary capacity and competition policy independence, almost no pull in judiciary independence, and a strong pull in the remaining three areas. What makes this pull remarkable is that these changes happen over nine years (not nine decades) and that the Candidate countries can not be treated as counterfactuals. These are all EU candidates and the EU pull happens to all.

## 4 IDENTIFICATION AND METHODOLOGY

The objective of this section is to discuss three main methodological issues and clarify the choices we make in this paper. One issue refers to our focus on implementation sequences, another to our identification strategy and the third to the implications for estimation of the fact that most of our variables of interest are categorical.

Regarding the first issue, we decided that all right-handed variables enter in one-period lags (one-year lag in this case). This choice ameliorates endogeneity concerns and lends itself quite naturally to a discussion of temporal implementation sequences.<sup>12</sup> A finding that a change last year is statistically associated with a change this year can be interpreted as a temporal sequence. Given the inertia in institutional change, as shown in the previous section, in all specifications we include the lagged dependent variable in the right-hand side.

The second important methodological issue refers to the structure of the conceptual framework we put forward above and how we go about testing it. Recall it centers on three arenas, namely the Montesquieu, Weber and Smith channels. We empirically implement this framework in two stages: first we estimate the effects *within* each channel and then we estimate the effects *between* channels. In the first stage, we estimate whether and how each of the two outcome measures (that is, independence and capacity) can be explained by the three inputs, while in the second we add to our estimates the effects of the other two channels.

There are various caveats and limitation one should bear in mind. One is that our results focus on temporal sequences, which obviously leave aside interesting possibilities of contemporaneous relationships that are not analyzed. There are other ways of carrying out this exercise (network analysis comes to mind) but we believe the step-by-step approach we favor above is more transparent and easier to communicate. Last, but not least, it is likely that

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<sup>12</sup> We assessed the trade-off between having the number of lags estimated specifically for each institutional area and decided for the benefits of transparency from the strategy of “1-year lag throughout.” The concern that institutions change very slowly to be captured by such choice is diminished in light of the results and discussion on the previous section.

other institutional reforms may be important, and their omission biases our results in important ways. The third issue is how to deal with the implications for the choice of estimation method of the fact that most of our variables are categorical. There are three obvious estimator choices. One is the OLS fixed-effects panel estimator which main advantage is that it is simple and standard. The use of country and year fixed-effects would be helpful to ameliorate omitted variable biases, which may be important in this context. The second choice is the System GMM (Blundell-Bond linear dynamic panel-data implemented in Stata *xtdpdsys* facility) estimator, which has as its main advantage correctly accounting for the presence of the lagged depended variable, and hence is the natural choice for the estimation problem at hand. One issue these two options do not address is that most of our variables of interest are categorical and thus an estimator like the Ordered Probit would be a more satisfactory way of handling this matter.

We first observe that the use of these three estimators yields qualitatively similar results. The key result (regarding the role of civil service law on administrative capacity) is robust across the three estimators. Also note that measures of goodness of fit in both the fixed-effects and ordered probit cases is quite satisfactory and that for the System GMM two-step estimator, the AR(1) and AR(2) tests suggest that the instruments are valid and that the model is correctly specified. Given institutional inertia and the absence of substantial differences between these results, we decided to report and focus our analysis on the System GMM results.

The System GMM estimator is designed for unbalanced panels with a “small T and large N” and the left-hand side variable is defined as dynamic in that it depends on its own past realisations (Plümper et al 2005). Moreover, the System GMM handles right-hand side variables that are not strictly exogenous and may be correlated with past and current realisations of the error term, (country-level) unobserved heterogeneity, measurement error

and omitted variables, as well as potential heteroscedasticity and autocorrelation within or across individual units' errors. We argue that the System GMM approach is the best option as results do not differ qualitatively following radical changes of estimator. We consider the following dynamic panel data model:

$$y_{it} = \sum_{j=1}^p \alpha_j y_{i,t-j} + x_{it} \beta_1 + w_{it} \beta_2 + v_i + \epsilon_{it} \quad i = 1, \dots, N \quad t = 1, \dots, T_i \quad (1)$$

Where  $y_{it}$  can be one of six options as it represents one of our measures of judiciary independence or capacity, bureaucracy independence or capacity, and competition policy independence or capacity. With  $\alpha_j$  and  $p$  as parameters to be estimated,  $\beta_1$  and  $\beta_2$  as vectors of parameters to be estimated and the panel effects ( $v_i$ ) and  $\epsilon_{it}$  assumed to be independent for each country  $i$  and across all years  $t$ . Importantly,  $x_{it}$  is a vector of exogenous covariates that includes within reform area variables (or inputs), while  $w_{it}$  is a vector of exogenous covariates that includes the remaining five reform area outcomes.

## 5 EMPIRICAL RESULTS

In this section, we first focus our presentation on the set of results for the Weberian channel (public administration or bureaucracy) and then use the diagrammatic scheme presented above to present all results succinctly and compare them with those we obtain for the judiciary and competition channels.

Table 2 presents our two-step System GMM estimates for the independence of the bureaucracy focusing on inputs from within the Weberian channel. One first noteworthy finding is that none of the three “inputs” into bureaucratic independence receives much empirical support. Civil service law, salaries or training in the previous period do not seem to

be empirically associated with current level of bureaucratic independence.<sup>13</sup> Instead, this is better explained by other outcome variables (that is, inter- rather than intra-channel) such as bureaucratic capacity, judiciary capacity and competition policy capacity.

[Table 2 about here]

Notice that these pattern of results (bureaucratic independence being better explained by other outcomes than by its own inputs) do not change if we split the sample between the countries that succeeded in becoming members of the European Union and those that did not (so far). Moreover, the model seems to be picking up well the fixed-effects characterizing individual county features because these results are also not affected by the addition of various other important controls such as their initial level of development (proxied by per capita income in 1989), their economic growth rates, trade openness (the ratio of exports plus imports to GDP) and the evolution of political rights (as proxied by the widely used Freedom House index.) We expect this to also ameliorate omitted variable biases.

The last three columns of Table 2 show the results of the effects of the other five outcome variables on the evolution across countries and over time of our quantification of the Commission's assessment of the level of bureaucratic independence. It shows the dominant role played by competition and judiciary capacity in this case.<sup>14</sup>

Now we turn our attention to the other outcome variable in the Weberian channel. Table 3 shows System GMM estimates for equations in which the dependent variable is bureaucratic quality. First, we examine the relative importance of its own inputs and the main findings here are quite different than those for bureaucratic independence: inputs seem to be more important than the other outcomes. Civil service law and civil servant training in the

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<sup>13</sup> This is confirmed by the results from the AR(1) and AR(2) tests that suggest the model in column 1 is not correctly specified (the other columns suggest this is because it excludes the other outcome variables as the results from these tests become supportive).

<sup>14</sup> Notice that the coefficient for competition policy independence is negative and statistically significant. When we estimate the specification in column 8 excluding competition policy capacity, the coefficient for competition policy independence becomes positive and statistically significant.

previous year are shown to be positively correlated (while salaries are negatively correlated) with the current level of bureaucratic quality. Another noteworthy difference is that in this case inertia is much stronger than for the other outcome: previous realizations of bureaucratic quality are strongly related to current levels of it while the same cannot be said for bureaucratic independence. Also note that we find previous levels of quality are positive related to current levels of independence so one can argue that the effects of the three inputs on independence is indirect, that is, it takes place through capacity.

[Table 3 about here]

The last three columns of Table 3 show the results of the effects of the other five outcome variables on the evolution across countries and over time of our quantification of the Commission's assessment of the level of bureaucratic quality. It shows that differently from the results we obtain for independence, the dominant role is not played by competition and judiciary capacities, but instead by inputs (that is, intra- rather than inter-channel), in particular by the alignment of the domestic civil service law with EU standards and by civil servant's training. Notice that accounting for the other outcomes makes the coefficient on salary, which was negative and statistically significant above into, statistically insignificantly different from zero. The level of inertia we observe for bureaucratic capacity or quality is much stronger than the one we estimate for independence. This seems intuitive to us because one can conjecture that bureaucratic independence better reflects balance of powers considerations and as such may vary more easily over time if either the judiciary or the executive become relatively more assertive.

We repeat the same exercise above for both the judiciary and competition (Montesquieu and Smith channels) but devise a more economical way to report and discuss our results than in the more standard tabular format. As a departure we use Figure 1 above which shows all three channels, their inter-relationships and all inputs we assess in each one

of them to construct Figure 2 below which only shows those links for which we find robust econometric support (represented by arrows).

Starting with the Montesquieu channel, our results indicate that the only input driving judiciary capacity is workload, while the only input driving judiciary independence is the effectiveness of the Supreme Court. Neither procedures nor the Supreme Court affects judiciary capacity in a sequential manner. By the same token, neither procedures nor the workload affects judiciary independence in a temporal manner. Yet, we find a link between judiciary capacity towards the Smith channel, more specifically with the quality of competition policy's antitrust enforcement.

However, the most important result from the Montesquieu channel is the intricate, self-reinforcing, bi-directional relationship between judiciary capacity and bureaucratic independence. Judiciary capacity in the previous year is positively related to bureaucratic independence in the current year. And uniquely among our results (as it can be seen in the Figure below this is the only case in which arrows go both ways), bureaucratic independence in the last period is positively related to judiciary capacity in the current year. It can be said that this "BI-JC node" is the key relationship because it is the end-point for all robust sequences we uncover from our estimation results.

There are other important sequences we identify with the Smith channel. We find that alignment with EU law and adequate resources in previous periods are associated with increases in the current period in the independence of the Competition Authority. This last factor, by its turn, is shown to increase bureaucratic independence. On the Montesquieu channel, we should also mention a sequence from Supreme Court in previous period towards improvements in current levels of judiciary independence that, by its turn, is related to improvements in the quality of the enforcement of competition policy in future periods.

In summary, using the measures and methods discussed above we are able to

document that deep integration indeed contributes to increases in key state capacities. Moreover, our analysis throws some light on how it does so. We identify various implementation sequences that depict the evolution of three important institutional areas across countries and over time, explicitly driven by the objective of becoming a full-fledged member of the European Union. In particular, inter-channel changes seem to predominate over intra-channel ones.

## **6 CONCLUSIONS**

The aim of this paper was to explore variation in the effects of deep integration on the development of state capacities from the perspective of strategies for sequencing institutional change that contribute to build-up state capacity. To do so, we furnish a conceptual framework (Montesquieu, Weber and Smith channels) and made use of a new panel data set on the accession process to the European Union of Central and Eastern European countries.

Regarding the Montesquieu channel, we find strong support to the notion that the sooner there is progress in establishing an independent constitutional court, the faster countries were able to put in place an independent judiciary. Our findings also support the shared expectation of Montesquieu and the authors of the Federalist Papers: progress in judiciary independence increases the capacity of the state to uphold the freedoms of market, by way of strengthening the enforcement of anti-trust regulations. We also find that early reforms that strengthen the professionalization of the civil service contribute to increasing the independence of state bureaucracy. The implementation of civil service laws and progress in the training of civil servants does significantly increase bureaucratic capacity. The later contributes by its turn to bureaucratic independence.

We find limited support for part of the Smith channel. On the one hand, improving the quality of competition policy has a positive effect on the autonomy of state bureaucracy.

Thus, changes in the demand side of state reform can contribute to the transformation of the properties of the state in a key dimension. But the enforcement of antitrust regulation does not have the expected effect on other key aspects of the state reform such as the transformation of the judiciary. To the contrary, it is the increase in judiciary capacity that seem to lead to improvements in enforcement of antitrust regulation. Thus, we find little support to the notion that market reforms will further state reform on their own.

Similarly, our empirical results do not support the hypothesis that supply-side reforms focusing solely on one of the core state institutions could own their own yield encompassing institutional change. Instead, we found an intricate, central and bi-directional relationship between judiciary capacity and bureaucratic independence. This crucial relationship is the only case for which we find evidence of a self-reinforcing relationship and this proves the political economy approach introduced in the theoretical section right (Brousseau et al.,2010). Complementary reform of these core state institutions forms a nucleus of the sequences of institutional reforms.

Our findings have key implications for the literature on externally induced institutional change in countries with fledgling markets and weak states. Deep integration might induce encompassing institutional change by providing incentives for and external anchoring of simultaneous change in core state institutions. While these changes might deprive strong domestic economic actors and patrimonial political elites from privileges and stable flows of rents, they might help the coming about of a new supporting bloc of actors. These might include diverse economic and non-economic groups whose rights were extended by a capable and autonomous bureaucracy, steered by a capable judiciary, a “nameless, faceless, rule bound organization treating everyone the same without regard to their individual identity, relying solely on whether the rules are being correctly applied” (Wallis, 2011 p. 60). Such move towards an “open access order” (North et al., 2009) might also

change the incentives of economic and political elites and lead to institutional lock-in. But, as the example of Hungary and Poland has recently demonstrated, the early removal of external anchors might set in motion also backsliding in domestic institutional change. Political elites in both countries have started re-establishing previous privileges by removing the independence of the constitutional court, retaking control over the judiciary and re-politicizing the bureaucracy. While the EU has mandatory standards about a diverse set of economic rights, the lack of enforceable EU standards on core state institutions have prevented effective external intervention in these processes.

We believe our results open many avenues for future research. We highlight three. One is that future research should go deeper and separately into each of the three key channels we discussed above. The second is that future researchers should consider adding arenas to our conceptual framework and try to empirically assess whether such alternative channels modify our findings and/or generate new facts. The third suggested direction for future research is to investigate the economic and political implications of these increases in state capacity. This could be done by addressing questions such as: Do they have clear effects such as increases in income or exports or decreases in inequality? What are the domestic political conditions that could help the stable lock-in of the upgraded core state institutions? When could the external anchoring of domestic institutional change be declared superfluous?

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**Table 1.**  
**Institutional Inputs and Outcomes**

(All variables are measured on a 1 to 4 scale,  
where 1 represents very low conformity with EU practices and norms,  
and 4 represents very high conformity)

<i>Channel</i>	<i>Concepts</i>	<i>Outcomes</i>	<i>Inputs</i>
Weber	Public administration (bureaucracy)	<ul style="list-style-type: none"> <li>• Independence (<i>de jure</i>)</li> <li>• Capacity (<i>de facto</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Training</li> <li>• Salaries</li> <li>• Civil service law</li> </ul>
Montesquieu	Judiciary (rule of law)	<ul style="list-style-type: none"> <li>• Independence (<i>de jure</i>)</li> <li>• Capacity (<i>de facto</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Workload</li> <li>• Procedures</li> <li>• Supreme Court</li> </ul>
Adam Smith	Competition policy (market regulation)	<ul style="list-style-type: none"> <li>• Independence (<i>de jure</i>)</li> <li>• Capacity (<i>de facto</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Procedures</li> <li>• Resources</li> <li>• Competition law</li> </ul>

**Table 2.**  
**Determinants of the Independence of the Bureaucracy**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bureaucratic Independence	0.558*** [0.110]	0.477*** [0.136]	0.816*** [0.276]	0.482*** [0.181]	0.546* [0.324]	0.401** [0.198]	0.600*** [0.167]	0.354 [0.253]
Bureaucratic Capacity	0.295*** [0.0924]	0.255* [0.152]	0.174 [0.127]	0.182 [0.143]	0.256* [0.128]	0.191** [0.0934]	0.293 [0.220]	0.329** [0.164]
Civil Service Law	-0.00374 [0.0387]	0.0529 [0.0939]	-0.0905 [0.0668]	0.0516 [0.0477]	0.0549 [0.0785]	-0.0793 [0.0560]	0.0237 [0.0660]	0.0369 [0.0648]
Training of Civil Servants	0.0194 [0.0221]	0.0534 [0.0874]	0.0134 [0.0247]	0.0311 [0.0290]	-0.0107 [0.0418]	-0.00943 [0.0230]	0.0201 [0.0572]	0.0586 [0.0571]
Civil Servant Salary	-0.104 [0.0904]	-0.0571 [0.148]	-0.0674 [0.0842]	-0.111 [0.100]	-0.0463 [0.0733]	-0.0328 [0.0942]	-0.284 [0.353]	-0.366 [0.348]
Income per capita in 1989		3.92e-05 [8.75e-05]						
Political rights (Freedom House)			-0.103 [0.0979]					
Economic growth				-1.05e-06 [7.64e-06]				
Trade openness					0.206 [1.408]			
Judiciary Capacity						0.325** [0.126]		0.208* [0.125]
Judiciary Independence						0.179** [0.0839]		0.104 [0.116]
Competition Policy Capacity							-0.0736* [0.0441]	-0.0807** [0.0383]
Competition Policy Independence							0.375*** [0.122]	0.318*** [0.0797]
Constant	0.684*** [0.121]	0.436 [0.534]	0.682* [0.400]	0.895*** [0.162]	0.836*** [0.212]	0.207 [0.363]	0.479* [0.277]	0.383 [0.404]
AB test AR(1)	0.0337	0.0248	0.0614	0.0782	0.0774	0.0417	0.0328	0.0655
AB test AR(2)	0.2533	0.3069	0.4720	0.3988	0.2571	0.544	0.8966	0.8022
Observations	104	84	104	93	94	104	104	104
Number of id	16	13	16	16	16	16	16	16

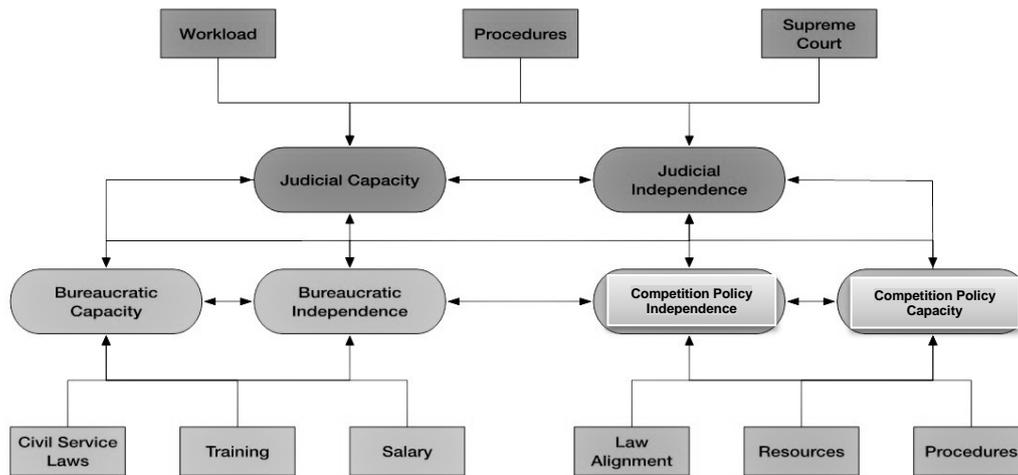
Notes: All right-hand side variables enter lagged one period (year). System GMM two-step Estimates. Standard errors in brackets \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3.**  
**Determinants of the Capacity of the Bureaucracy**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bureaucratic	0.724***	0.665***	0.748***	0.725***	0.684***	0.741***	0.593***	0.450*
Independence	[0.125]	[0.126]	[0.121]	[0.174]	[0.116]	[0.125]	[0.189]	[0.245]
Bureaucratic	0.0503	0.109	-0.0226	0.0813	0.0540	0.0623	0.0623	0.0415
Capacity	[0.0783]	[0.119]	[0.0482]	[0.0988]	[0.0805]	[0.0878]	[0.0731]	[0.0995]
Civil Service Law	0.124**	0.0473	0.158***	0.126*	0.132**	0.125*	0.110	0.137*
	[0.0606]	[0.0880]	[0.0462]	[0.0651]	[0.0555]	[0.0705]	[0.0755]	[0.0819]
Training of Civil	0.130***	0.185**	0.128***	0.105***	0.110***	0.129***	0.120***	0.114**
Servants	[0.0304]	[0.0819]	[0.0338]	[0.0352]	[0.0343]	[0.0433]	[0.0417]	[0.0507]
Civil Servant	-0.222**	-0.101	-0.269**	-0.276**	-0.204*	-0.236***	-0.191	-0.0812
Salary	[0.0983]	[0.127]	[0.125]	[0.108]	[0.113]	[0.0819]	[0.137]	[0.206]
Income per capita		3.02e-05						
in 1989		[8.05e-05]						
Political rights			-0.233**					
(Freedom House)			[0.0960]					
Economic growth				2.26e-05**				
				[1.05e-05]				
Trade openness					0.929			
					[0.818]			
Judiciary Capacity						-0.0257		0.0157
						[0.0523]		[0.0982]
Judiciary						0.0901		0.116
Independence						[0.134]		[0.170]
Competition Policy							0.0422	0.0323
Capacity							[0.0542]	[0.0497]
Competition Policy							-0.0840	-0.0573
Independence							[0.100]	[0.177]
Constant	0.367**	0.0538	0.935***	0.413**	0.548***	0.182	0.617**	0.318
	[0.165]	[0.511]	[0.251]	[0.196]	[0.168]	[0.319]	[0.247]	[0.574]
AB test AR(1)	0.0031	0.0557	0.0038	0.0118	0.0074	0.0034	0.0166	0.0417
AB test AR(2)	0.8413	0.2008	0.6095	0.2470	0.9590	0.6456	0.8264	0.9496
Observations	104	84	104	93	94	104	104	104
Number of id	16	13	16	16	16	16	16	16

Notes: All right-hand side variables enter lagged one period (year). System GMM two-step Estimates. Standard errors in brackets \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Figure 1 Intra- and inter-channel relationships in three key institutional arenas  
 (Bureaucracy/Weber, Judiciary/Montesquieu, Competition/Smith)





## **APPENDICES**

## **APPENDIX 1**

### **MONITORING THE EASTERN ENLARGEMENT PROCESS**

The fall of communism in Eastern Europe was reinforced by the desire to “return to Europe” as quickly as possible. This represented special challenges for the EU as it involved the integration to the European Single Market of countries with weak states and markets, countries still coping with the hardships of transforming the economies they inherited from socialist regimes.

The integration by the EU of the Central and Eastern European (CEE) economies seems to be a unique experience as it has involved the rapid abolition of all tariffs and the transfer of around 80 thousand pages of common regulations covering more than 30 policy fields. Besides the restructuring of key economic institutions, deep integration extended to the remaking of the two central institutional arenas of the state, the judiciary and the state bureaucracy.

The stress on state reform by the EU was linked to a key dilemma of deep economic integration. The creation and the extension of a common market presuppose the capacity of all members to play by common rules. Implementation of these rules might be costly and, at least as importantly, it might require considerable administrative and judicial capacities that could conceivably be in short supply (Balassa, 1967). An eventual large-scale non-compliance in countries with weaker states could undermine the integrity of the single market. Such vulnerability grows with the number of policy areas that are included in institutional harmonization and with the potential importance of the lesser-developed economies as trading partners or production sites.

The simultaneous initiation of accession negotiations with, first ten and then another seven, Central and Eastern European countries represented exactly such a challenge. Key EU actors perceived the Eastern enlargement as a factor potentially endangering the results of the previous waves of economic integration (European Commission, 1997). The first monitoring reports of the Commission published in 1997 painted a rather bleak picture of the institutional capacities of the applicant countries. These reports saw the need for major changes in public administration and judiciary in all these countries. At least as importantly, in most of the more than thirty policy fields of market regulation, the reports found that the institutional situation in the applicant countries was far away from the institutional requirements for

participating in the common market.

The definition of the economic criteria of eligibility for membership at the 1993 Copenhagen Summit signaled the EU's new awareness of the potential consequences of this enlargement. By adding to trade liberalization and implementation of EU market regulations the requirements of having a 'functioning market economy' and 'the capacity to withstand competitive pressure', the EU departed from its dominating policy paradigm that viewed these two latter factors as automatic outcomes of market liberalization. Original EU15 member states and the Commission feared repeats from the collapse of the East German economy partly caused by the unexpected consequences of fast liberalization and currency unification after the German reunification. The unfolding economic and political turmoil and the need for fiscal transfers convinced key players within the EU that they could not leave the task of integrating the lesser developed economies of the future members into the internal market solely to the power of (transnational) market forces.

Once having defined in a broad way the economic criteria of membership, the Directorate-General for Enlargement was assigned the task to assist CEE countries to meet the accession criteria while also allowing EU insiders to monitor institutional change in these countries. The Commission mobilized a large pool of experts and cooperated with international financial institutions to specify the state capacities in core state institutions and in more than 30 other different policy fields that would be required for a successful accession.

In 1997, the Council gave the Commission the task to monitor on a year by year basis the CEE countries progress towards accession. The outcome of this exercise was synthesized in the annual Progress Reports, which were intended to work as a mechanism to help the accession countries align their legislation with the *acquis* (European Council 1997:3). Legislative alignment was defined as the extent and quality of transposition of EU legislation into national law. However, alignment was understood more broadly than just legislative alignment, it also included the creation of the institutional conditions for the implementation of the EU regulations. Hence, the Progress Reports also assessed each candidate country's ability to implement the *acquis* (European Commission 1997). The Commission left it to the aspiring member states to choose their sequencing strategy and the speed of required institutional change.

The monitoring of a candidate's progress in meeting the accession criteria also used methods that allowed collecting and contrasting a big variety of dispersed information. Just to give the example of the preparation process of one progress report, desk officers in the country units

of DG Enlargement<sup>15</sup> and at various DGs enlisted business associations and NGOs from the EU member states and candidate countries, Central Banks and Chambers of Commerce. Rather than engaging in pure ‘checklist monitoring’ the Commission asked these experts to suggest solutions to overcome detected problems of the candidates and these trickled-down to EU technical assistance programs that were meant to help candidate countries to meet EU requirements.

Overall, the scope of EU pre-accession assistance should not be overestimated. Direct assistance programs to the ten candidate countries that entered the Union in 2004 totaled €28 billion in the period from 1990 to 2005 (Bruszt and Langbein, 2016).

The second dimension of monitoring reflected the presence or absence of organizations, regulatory agencies that could enforce on the ground the EU rules. The exact ramification of these organizations differed across the acquis chapters, but they usually implied the creation of an enforcement agency that was independent from political and private influence endowed with sufficient enforcement power to properly execute its duties.

The third dimension of monitoring have registered whether and to what degree is the given enforcement organization endowed with the necessary resources, meaning usually human, budgetary and physical resources. Last but not least, the Commission was concerned with the actual performance of the supervisory authority in specific regulatory fields. To evaluate this the Commission developed criteria for assessing progress to EU requirements that could include also indicators of the frequency of inspections, the number of fines imposed, and in general, the overall quality and predictability of rule enforcement.

A possible critique directed against the Progress Reports is a potential political bias, i.e., that the reports would tend to shy away from criticising countries because of political or other reasons. Albeit a possibility, it is difficult to find anything in the data that points in the direction of a systematic under- or overvaluation of one or more of the candidate countries. The final political decision whether to take a given country or not as member was just partly dependent on the evaluations by the Commission of progress towards meeting all the EU requirements. One of the interesting finding of our coding was that at the time of the final decision to take specific countries, the reports done by the desk-officers of the Commission had still lots negative evaluations (meaning still below EU standards) in several of the chapters. Furthermore, the Progress Reports are vulnerable to much of the same critique that has been directed to many of the other operationalization of institutional capacity, namely

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<sup>15</sup> In 2014 DG Enlargement was renamed DG NEAR (DG for Neighborhood and Enlargement Negotiations).

that the measure is based on subjective assessments rather than objective criteria. However, this is only partly true, the evaluations made by the country experts are based on criteria worked out by the Commission. The country experts had to evaluate each sector within a country in accordance with the standards laid down in the Guide to Main Administrative Criteria (European Commission, 2005). Although this does not go all the way to meeting the requirement of objective indicators, it at least provides a systematic assessment, which enables cross-country and cross-sector comparisons.

The first monitoring reports of the Commission published in 1997 painted a rather bleak picture of the institutional capacities of the applicant countries. These reports saw the need for major changes in public administration and judiciary in all these countries. At least as importantly, in most of the more than thirty policy fields of market regulation, the reports found that the institutional status quo in the applicant countries was far away from the institutional requirements for participating in the common market.

## APPENDIX 2

### BASIC STATISTICS

Variable	Obs	Mean	Std. Dev.	Min	Max
Buro Indep	123	2.04878	.9482828	1	4
Buro Cap	123	1.747967	.6085928	1	3
Judic Cap	142	1.78169	.5968736	1	3
Judic Indep	139	2.417266	.8838263	1	4
Comp Pol Cap	141	2.198582	.8637117	1	4
Comp Pol Indep	142	1.767606	.7211643	1	4
<u>Bureaucracy inputs</u>					
Civ Serv Law	123	2.317073	.986109	1	4
Buro Training	123	2.01626	.9833344	1	4
Buro Salary	123	2	.8097763	1	4
<u>Judiciary inputs</u>					
Legal Proc	138	1.710145	.6065686	1	4
Judic workload	138	1.572464	.6027635	1	4
Supreme Court	138	2.891304	1.316292	1	4
<u>Competition policy inputs</u>					
Align AT Law	141	2.77305	.77799	1	4
Procedures	141	2.539007	.8495186	1	4
Resources	141	2.453901	.8982139	1	4
<u>Controls</u>					
Init income	140	5425.518	2265.527	0	9200
Polit rights FH	135	3.272	1.885957	1	7
Growth	140	-1335.034	24421.55	-261274	116374
Openness	106	-.0542508	.0854174	-.3885414	.1465678

### APPENDIX 3: OUTCOME VARIABLES OVER TIME

Figure A3.1 Building up State Capacity: De Jure Dimensions of Bureaucracy, Judiciary and Competition  
Yearly Averages for New Member States (1997-2005) and Candidate Countries (2005-2013)

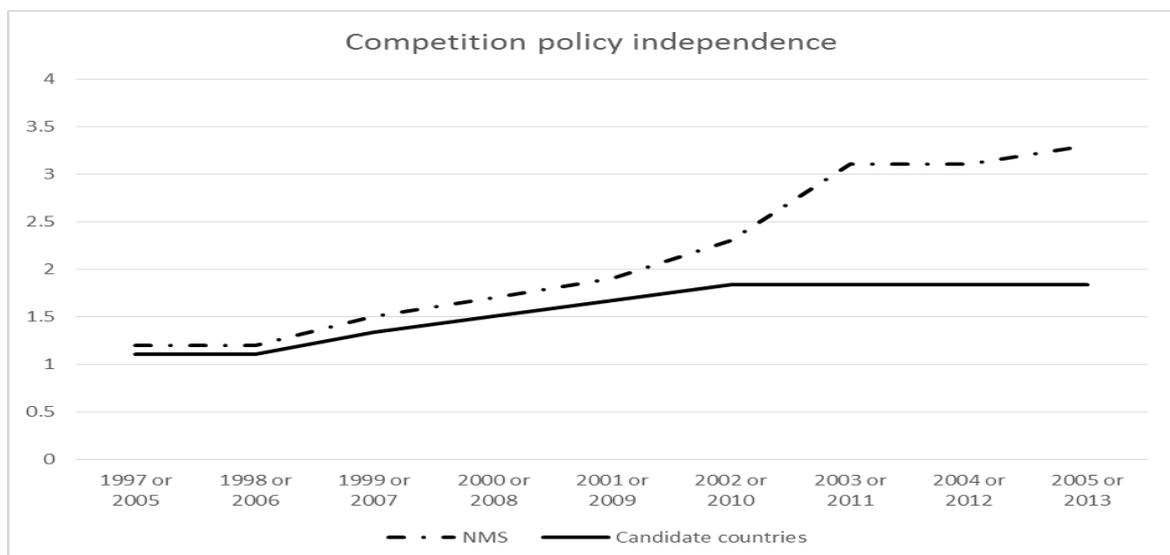
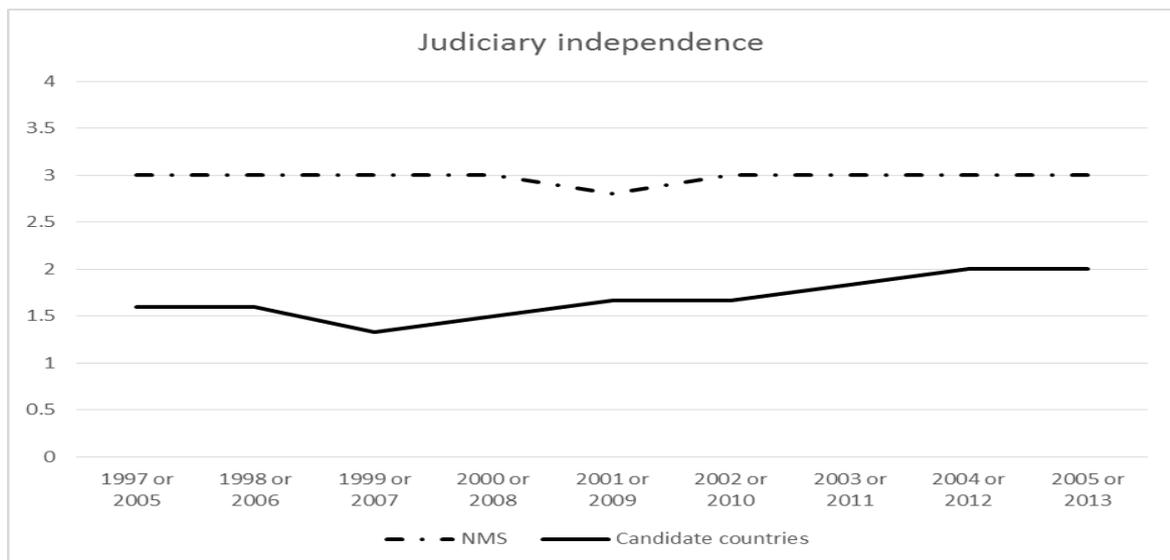
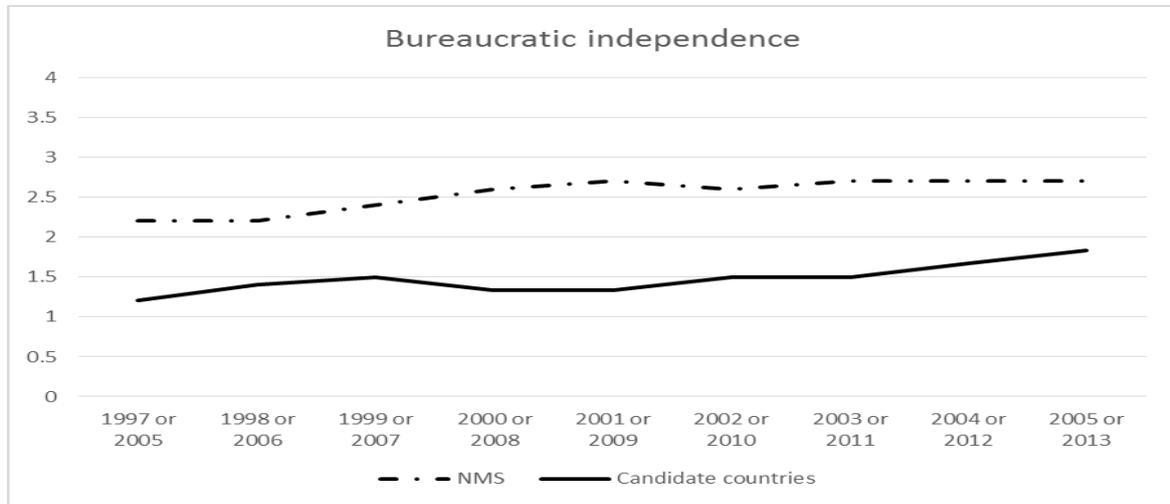
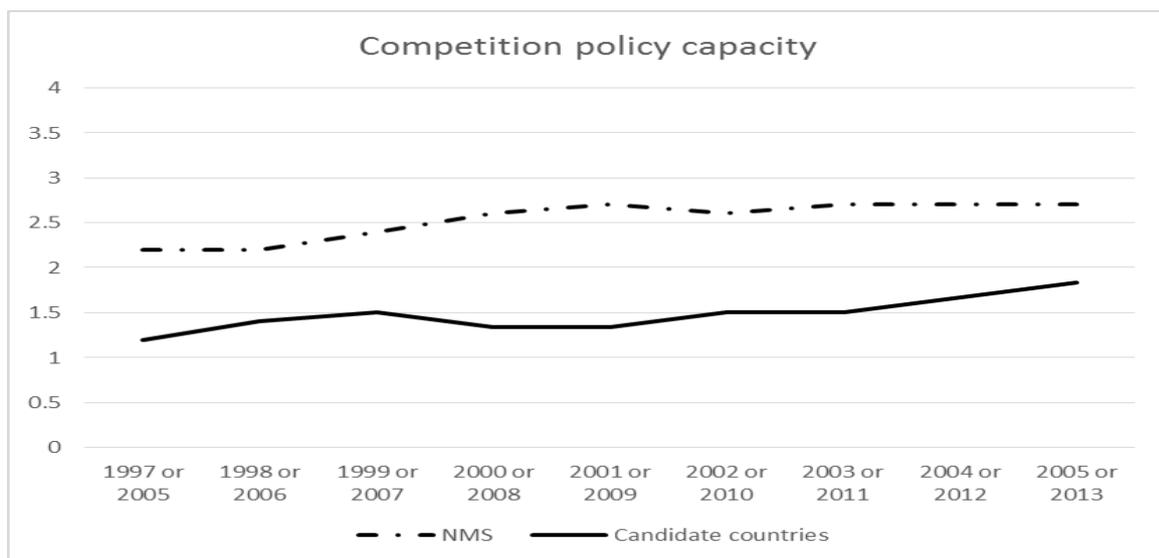
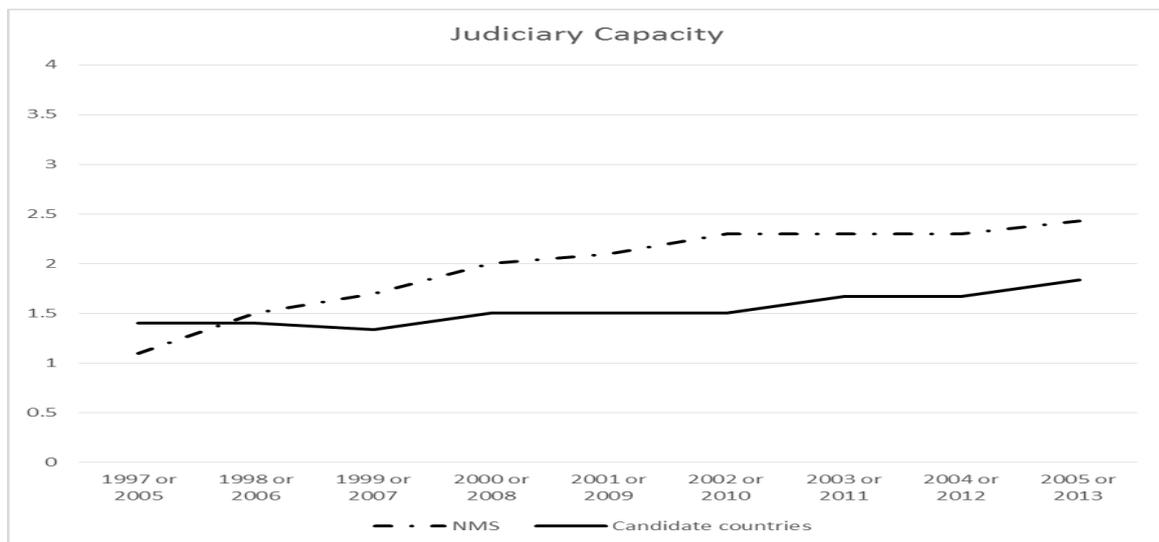
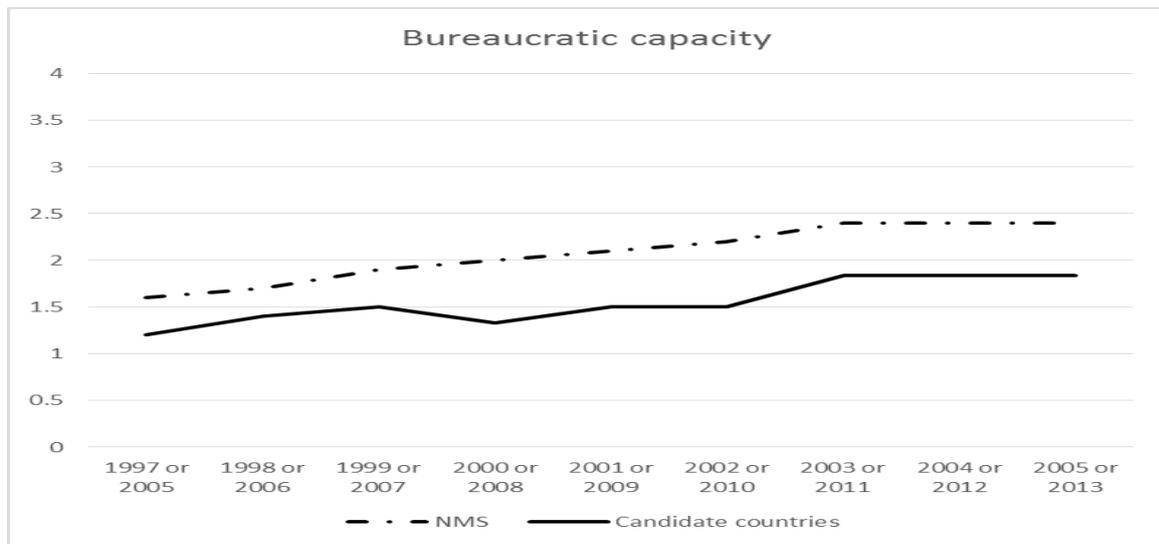


Figure A3.2 Building up State Capacity: De Facto Dimensions of Bureaucracy, Judiciary and Competition, Yearly Averages for New Member States (1997-2005) and Candidate Countries (2005-2013)



## APPENDIX 4

### Comparison of Fixed-Effects, System GMM and Ordered Probit Estimators

**Table A4.1**  
**Determinants of Administrative Capacity**

	(1) <b>Fixed Effects</b>	(2) <b>System GMM</b>	(3) <b>Ordered Probit</b>
One-year Lag Administrative Capacity	0.434*** [0.0670]	0.741*** [0.138]	6.597*** [1.639]
One-year Lag Civil Service Law	0.198** [0.0775]	0.152** [0.0626]	0.891* [0.537]
One-year Lag Civil Servant Training	0.0584 [0.0478]	0.110** [0.0486]	0.781 [0.492]
One-year Lag Civil Servant Salary	-0.190 [0.128]	-0.244** [0.114]	-1.412* [0.724]
One-year Lag Judiciary Capacity	-0.00754 [0.0798]	0.00614 [0.0687]	0.466 [0.615]
One-year Lag Judiciary Independence	0.117 [0.116]	0.0557 [0.144]	0.366 [0.394]
One-year Lag Competition Policy Quality	0.111** [0.0505]	0.0122 [0.0426]	0.626 [0.572]
Constant	0.383 [0.319]	0.301 [0.368]	
Observations	104	104	104
Number of countries	16	16	16
R-squared	0.527		0.655 (pseudo)
AB test AR(1)		0.0046	
AB test AR(2)		0.6141	

Notes: Robust standard errors in brackets. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## APPENDIX 5

### ECONOMETRIC RESULTS FOR JUDICIARY AND COMPETITION POLICY (MONTESQUIEU AND SMITH CHANNELS RESPECTIVELY)

**TABLE A5.1 Judiciary independence**

Judiciary Independence	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Judiciary Independence	0.622*** [0.0563]	0.581*** [0.169]	0.593*** [0.114]	0.750*** [0.101]	0.282 [0.191]	0.673*** [0.164]	0.594*** [0.110]	0.756*** [0.249]
Judiciary Capacity	0.0267 [0.0203]	0.0151 [0.0870]	0.0476 [0.0393]	0.0422*** [0.0163]	0.00750 [0.0422]	0.0246 [0.0583]	0.0232 [0.110]	0.00657 [0.147]
Legal procedures	-0.0151 [0.0267]	0.0453 [0.176]	-0.127** [0.0538]	0.240 [0.185]	-0.0315 [0.0538]	0.389 [0.250]	-0.123* [0.0652]	0.574 [0.429]
Workload	0.00145 [0.0210]	-0.0444 [0.104]	-0.00672 [0.0584]	-0.138 [0.112]	0.0124 [0.0314]	-0.146 [0.0943]	-0.0787 [0.104]	-0.236** [0.120]
Supreme Court	0.0655** [0.0332]	-0.108 [0.169]	0.144** [0.0656]	0.0966* [0.0510]	-0.0389 [0.0778]	0.140 [0.0906]	0.184** [0.0870]	0.201** [0.0824]
Initial income		4.21e-05 [5.01e-05]						
Political rights			-0.288*** [0.0761]					
Growth				2.04e-07 [3.36e-07]				
Trade openness					0.293 [0.506]			
Bureaucratic capacity						-0.114* [0.0583]		0.0295 [0.174]
Bureaucratic Independence						0.0402 [0.0499]		-0.263 [0.413]
Competition policy capacity							0.00927 [0.0364]	0.0338 [0.0568]
Competition policy independence							0.116 [0.213]	-0.0249 [0.229]
Constant	0.976*** [0.143]	0.859 [0.532]	1.748*** [0.287]	0.356 [0.351]	1.874*** [0.398]	0.518 [0.444]	1.080*** [0.340]	0.492 [1.111]
Observations	118	83	118	105	106	103	118	103
Number of id	17	13	17	17	17	16	17	16

Standard errors in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**TABLE A5.2 Judiciary capacity**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Judiciary Capacity</b>								
Judiciary Capacity	0.544*** [0.108]	0.564*** [0.114]	0.441*** [0.120]	0.455*** [0.114]	0.446*** [0.115]	0.0671 [0.227]	0.594*** [0.193]	0.315 [0.209]
Judiciary independence	-0.0157 [0.0464]	-0.0872 [0.110]	-0.0522 [0.0526]	0.00789 [0.0640]	-0.0946 [0.0921]	-0.188 [0.199]	-0.0913 [0.0565]	-0.0688 [0.0896]
Legal procedures	-0.0619 [0.0528]	0.00723 [0.180]	0.124 [0.151]	-0.0607 [0.0446]	-0.0170 [0.0513]	-0.0748 [0.301]	0.0101 [0.0642]	-0.441 [0.296]
Workload	0.193*** [0.0502]	0.264** [0.113]	0.154*** [0.0334]	0.170*** [0.0601]	0.183*** [0.0578]	0.245*** [0.0814]	0.245*** [0.0694]	0.327*** [0.0962]
Supreme Court	-0.0786 [0.0480]	-0.0618 [0.162]	-0.112** [0.0511]	-0.0361 [0.0612]	-0.0864* [0.0465]	-0.0345 [0.113]	-0.0997** [0.0408]	-0.0906 [0.0630]
Initial income		6.03e-06 [5.92e-05]						
Political rights			-0.0135 [0.0686]					
Growth				1.36e-07 [6.84e-07]				
Trade openness					-0.963* [0.584]			
Bureaucratic capacity						0.322 [0.197]		
Bureaucratic Independence						0.147 [0.0992]		0.259*** [0.0990]
Competition policy capacity							-0.0422 [0.0734]	-0.0137 [0.0757]
Competition policy independence							-0.0872 [0.0761]	0.0183 [0.0626]
Constant	0.759*** [0.133]	0.735* [0.424]	0.810*** [0.217]	0.877*** [0.161]	0.927*** [0.198]	1.085 [0.720]	0.912*** [0.156]	1.196*** [0.394]
Observations	118	83	118	105	106	103	118	103
Number of id	17	13	17	17	17	16	17	16

Standard errors in brackets  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**TABLE A5.3 Competition policy independence**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Competition policy independence</b>								
Competition policy independence	0.712*** [0.171]	0.386*** [0.150]	0.670*** [0.231]	0.625*** [0.178]	0.686*** [0.143]	0.456** [0.197]	0.408* [0.236]	0.346 [0.260]
Competition policy capacity	0.0887 [0.0739]	0.144 [0.111]	0.0950 [0.0746]	0.0929 [0.0799]	0.0895 [0.0901]	0.109 [0.0828]	0.156* [0.0841]	0.148* [0.0881]
Legal alignment	0.332*** [0.107]	0.236* [0.134]	0.371*** [0.116]	0.369** [0.144]	0.360*** [0.100]	0.315*** [0.121]	0.225* [0.131]	0.302** [0.140]
Procedures	-0.216*** [0.0525]	-0.0868 [0.170]	-0.211*** [0.0657]	-0.601** [0.250]	-0.236*** [0.0458]	-0.295*** [0.0661]	-0.134 [0.181]	-0.484 [0.442]
Resources	0.145* [0.0772]	0.361** [0.145]	0.169** [0.0859]	0.242*** [0.0777]	0.185** [0.0782]	0.312*** [0.0906]	0.206** [0.0971]	0.347*** [0.110]
Initial income		-8.05e-05 [6.85e-05]						
Political rights			0.117** [0.0596]					
Growth				2.17e-06 [1.59e-06]				
Trade openness					-1.743 [1.644]			
Bureaucratic capacity						0.0478 [0.125]		0.112 [0.222]
Bureaucratic Independence						0.0189 [0.0813]		0.0330 [0.152]
Judiciary Capacity							-0.0954 [0.608]	0.0149 [0.203]
Judiciary independence							0.184 [0.168]	0.315 [0.242]
Constant	-0.218 [0.293]	0.165 [0.485]	-0.624** [0.314]	0.509** [0.259]	-0.519 [0.372]	-0.128 [0.302]	-0.223 [0.545]	-0.541 [0.429]
Observations	125	84	125	112	112	107	122	107
Number of id	17	13	17	17	17	16	17	16

Standard errors in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**TABLE A5.4 Competition policy capacity**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Competition policy capacity</b>								
Competition policy capacity	0.224 [0.142]	0.0935 [0.135]	0.252 [0.161]	0.290* [0.151]	0.275* [0.161]	-0.261 [0.415]	-0.0633 [0.219]	-0.144 [0.259]
Competition policy independence	0.156 [0.122]	0.256 [0.174]	0.142 [0.134]	0.159 [0.117]	0.164 [0.127]	0.254* [0.139]	0.259** [0.119]	0.399 [0.268]
Legal alignment	0.0918 [0.0915]	0.176 [0.130]	0.0993 [0.105]	0.0819 [0.0979]	0.107 [0.119]	0.0637 [0.0844]	0.0536 [0.111]	0.194 [0.156]
Procedures	0.224** [0.103]	0.428** [0.194]	0.235** [0.111]	0.0765 [0.105]	0.0689 [0.132]	0.219** [0.101]	0.239** [0.117]	0.317 [0.419]
Resources	0.378*** [0.0921]	0.189 [0.174]	0.370*** [0.0938]	0.473*** [0.113]	0.489*** [0.112]	0.219 [0.348]	0.392*** [0.0991]	-0.298 [0.302]
Initial income		-3.19e-06 [7.17e-05]						
Political rights			0.00304 [0.127]					
Growth				1.19e-07 [4.05e-06]				
Trade openness					0.195 [1.694]			
Bureaucratic capacity						0.184 [0.179]		0.0577 [0.237]
Bureaucratic Independence						-0.0277 [0.587]		0.851* [0.510]
Judiciary Capacity							0.344*** [0.104]	0.285 [0.338]
Judiciary independence							-0.0733 [0.105]	-0.252 [0.218]
Constant	-0.167 [0.325]	-0.388 [0.478]	-0.239 [0.436]	-0.124 [0.276]	-0.191 [0.328]	0.759 [1.047]	-0.185 [0.245]	-0.452 [0.502]
Observations	124	83	124	111	111	106	121	106
Number of id	17	13	17	17	17	16	17	16

Standard errors in brackets  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## APPENDIX 6

### ECONOMETRIC RESULTS ON THE EFFECTS OF BUREAUCRACY, JUDICIARY AND COMPETITION POLICY (WEBER, MONTESQUIEU AND SMITH CHANNELS) ON INCOME, EXPORTS AND INEQUALITY

	GDP per capita (PWT 8.0)	Exports (Share of GDP)	Labour share in national income (PWT)	Income share lower 10%
L. dep var	1.035*** [0.0248]	-0.250 [0.409]	0.940* [0.548]	1.128** [0.502]
L.IndepJud1	387.2 [897.8]	0.0130 [0.0162]	0.0185*** [0.00351]	-0.360 [0.572]
L.ConstSC1	2,180*** [632.4]	0.0137* [0.00763]	-0.0219 [0.0227]	0.943 [0.709]
L.Behav_workload1	-396.1 [818.3]	0.0101 [0.00849]	0.000488 [0.00410]	-2.160** [1.020]
L.JudicCap	1,287 [824.7]	0.00299 [0.00600]	0.00134 [0.00307]	0.629 [0.601]
L.BuroIndep1	-657.2 [1,079]	0.0139 [0.0130]	-0.0160*** [0.00393]	-0.497 [0.561]
L.EnforceAntiTMer	-312.6 [443.4]	0.00758* [0.00417]	0.00733* [0.00424]	0.851** [0.428]
Constant	0 [0]	0.158* [0.0838]	0.0754 [0.376]	-0.677 [3.564]
Observations	98	98	87	42
Number of id	16	16	14	10

Standard errors in  
brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

	GDP per capita (PWT 8.0)	Exports (Share of GDP)	Labour share in national income (PWT)	Income share lower 10%
L.dep var	1.010*** [0.0277]	-0.0232 [0.328]	0.200 [0.269]	-0.345 [0.955]
L.CivServLaw1	673.3*** [130.0]	0.0113*** [0.00384]	-0.00326 [0.00316]	-2.717* [1.414]
L.BuroTrain1	-864.4* [501.2]	0.00442 [0.00454]	0.000684 [0.00188]	-0.955 [0.799]
L.BuroSalary1	-467.8 [531.2]	-0.00280 [0.00595]	-0.00495 [0.00527]	0.884* [0.475]
L.JudicCap	1,305*** [266.1]	0.00646 [0.00907]	-0.00421 [0.00375]	1.539 [1.438]
L.IndependJud1	971.0* [538.9]	0.0173 [0.0115]	0.00687** [0.00323]	-1.392 [0.863]
L.EnforceAntiTMer	478.0 [604.9]	0.00573** [0.00224]	0.00275 [0.00349]	-0.213 [0.180]
Constant	0 [0]	0.151* [0.0849]	0.463*** [0.174]	12.58** [5.450]
Observations	98	98	87	42
Number of id	16	16	14	10

Standard errors in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## APPENDIX 7

### CORRELATIONS BETWEEN OUR MEASURES OF BUREAUCRACY, JUDICIARY AND COMPETITION POLICY (WEBER, MONTESQUIEU AND SMITH CHANNELS) AND OTHER COMMONLY USED INSTITUTIONAL MEASURES

What is the relation between our Bureaucracy indexes (Weber) and Freedom House Civil Liberties, Freedom House Political Rights and Freedom House Democracy, and Executive Constraints Measures?

	AdminC~1	BuroIn~1	BuroTr~1	BuroSa~1	CivSer~1	fh_cl	fh_pr	fh_pol~2	p_xconst	p_parcomp
AdminCap1	1.0000									
BuroIndepl	0.6084	1.0000								
BuroTrain1	0.4587	0.4292	1.0000							
BuroSalary1	0.4237	0.3082	0.5436	1.0000						
CivServLaw1	0.4163	0.1997	0.4511	0.3033	1.0000					
fh_cl	-0.4437	-0.5442	-0.3540	-0.2301	-0.2312	1.0000				
fh_pr	-0.4245	-0.6649	-0.1658	-0.0026	-0.2233	0.6243	1.0000			
fh_polity2	0.4998	0.7398	0.2336	0.1358	0.1323	-0.7792	-0.8925	1.0000		
p_xconst	0.2706	0.3443	0.2546	0.2880	0.2390	-0.0210	-0.1038	0.1963	1.0000	
p_parcomp	0.4699	0.5989	0.1676	0.2166	-0.1427	-0.4360	-0.3826	0.6853	0.1595	1.0000

- Correlations are substantially higher with Capacity and Independence (“outcomes”) than with the three inputs (training, salary, education). We find correlations are substantially higher with Independence of the Bureaucracy than with Bureaucratic Capacity. Panel fixed-effect regressions support these results

**What is the relation between our Judiciary (Montesquieu) and Freedom House Civil Liberties, Freedom House Political Rights and Freedom House Democracy, and Executive Constraints Measures?**

	IndepJ~1	JudicCap	ConstSC1	LegalP~1	Behav_~1	fh_cl	fh_pr	fh_pol~2	p_xconst	p_parcomp
IndepJud1	1.0000									
JudicCap	0.1298	1.0000								
ConstSC1	0.6325	0.1797	1.0000							
LegalProcl	0.3878	0.1678	0.4046	1.0000						
Behav_work~1	0.2133	0.3452	0.2185	0.3999	1.0000					
fh_cl	-0.4233	-0.1386	-0.5955	-0.3464	-0.3090	1.0000				
fh_pr	-0.7148	-0.2382	-0.8559	-0.3975	-0.2018	0.7433	1.0000			
fh_polity2	0.6078	0.2364	0.7891	0.4653	0.3050	-0.8861	-0.9128	1.0000		
p_xconst	0.1665	0.1517	0.0639	0.1740	-0.0013	0.0562	-0.0322	0.0645	1.0000	
p_parcomp	0.3869	0.2277	0.4744	0.4657	0.3153	-0.5878	-0.5569	0.7732	0.0781	1.0000

- Lack of a clear pattern: correlations with formal aspects (Independence and Supreme Court) substantially higher than rest. At least all have “correct sign” (more political rights associated with more Judiciary independence, Supreme Court strength, and capacity). Yet correlations are particularly low with Capacity and Workload. Similarly unclear pattern emerges from panel fixed-effect regressions with or without lagging the Freedom House et al. variables

**What is the relation between our Competition Policy (Smith) and Freedom House Civil Liberties, Freedom House Political Rights and Freedom House Democracy, and Executive Constraints Measures?**

	MktSur-e	Enforc-r	Resour-r	ProcSt-r	AlignL-r	fh_cl	fh_pr	fh_pol-2	p_xconst	p_parcomp
MktSurveil-e	1.0000									
EnforceAnt-r	0.4910	1.0000								
ResourceSt-r	0.3503	0.6570	1.0000							
ProcStrAnt-r	0.3831	0.5335	0.7378	1.0000						
AlignLegAn-r	0.4235	0.5196	0.5003	0.5763	1.0000					
fh_cl	-0.2357	-0.0048	-0.0917	-0.2266	-0.2577	1.0000				
fh_pr	-0.2138	-0.1242	-0.2825	-0.3635	-0.4175	0.7327	1.0000			
fh_polity2	0.2738	0.0620	0.2261	0.3703	0.4010	-0.8817	-0.9109	1.0000		
p_xconst	0.1624	0.0698	0.1115	0.1815	-0.1005	0.0526	-0.0311	0.0655	1.0000	
p_parcomp	0.2202	0.0121	0.1980	0.3882	0.3629	-0.5860	-0.5589	0.7754	0.0799	1.0000

- We observe the lowest correlations for Competition Policy. They are much lower than for Bureaucracy (clear pattern of outputs vs input. They are also much lower than Judiciary, despite lack of clear pattern. Still have “correct sign” (more political rights associated with more Competition Policy independence and capacity). Similar lack of significance emerges from panel fixed-effect regressions