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How Do Political Institutions Affect Fiscal Capacity? Explaining Taxation in Developing Economies

Roberto Ricciuti (University of Verona and CESifo)

Antonio Savoia (GDI, University of Manchester)

Kunal Sen (GDI, University of Manchester)

ABSTRACT

A central aspect of institutional development in less developed economies is building tax systems capable of raising revenues, i.e., fiscal capacity. While it is recognized in the literature that fiscal capacity is pivotal for state building and economic development, it is less clear what explains its cross-country differences. We focus on political institutions, seen as stronger systems of checks and balances on the executive. Using a database on public sector performance in developing economies, we identify their long-run impact and we ‘unpack’ the concept of fiscal capacity, distinguishing between the accountability and transparency of fiscal institutions (*impartiality*) and their *effectiveness* in extracting revenues. We find that stronger constraints on the executive foster the *impartiality* of tax systems. However, there is no robust evidence that they also improve its *effectiveness*. The impact of political institutions on the *impartiality* dimension works through the rule of law and the performance of the bureaucracy.

Keywords: state capacity, fiscal capacity, governance, institutions, economic development

JEL Codes: O4, P5, N4

1. Introduction

There has been a revival of interest on the role of the state in economic development, both in the economics and political science literature (Kohli 2009, Besley and Persson 2011). At the intersection between political economy and development economics, the analysis of *state capacity*, defined as the institutional capability of the state to carry out various policies that deliver benefits and services to households and firms (Besley and Persson, 2011), has emerged as the cutting edge of research on the relationship between governance, institutions and long-term economic development.

The focus has been on two dimensions: fiscal and legal capacity, which are defined as the capability of raising revenues from taxes and the capability of enforcing contracts and property rights, respectively. Besley and Person (2011) argue that such capacities are complements and give rise to “development clusters”: groups of countries that are rich and have well developed fiscal and legal capacities, or groups of countries that are ridden by poverty and have weak state capacity. Up to this point, the literature has mainly been concerned with the causal effect of state capacity on economic development (Dincecco and Katz 2016). However, based on the interdisciplinary work on the historical origins of states (Spruyt 2002), it has also highlighted that building fiscally capable states is at the heart of state formation and performance in providing public goods (e.g., Acemoglu 2005 Charron et al 2012).

The strengthening of the fiscal capacity of the state is strategically important to economic development for two reasons. Firstly, greater fiscal capacity implies in most cases, greater access of the state to resources that are needed for public goods provision. Developing countries are only able to raise a small share of taxes over GDP relative to advanced market

economies (Besley and Persson 2014), whereas they would need higher revenues in order to invest in a number of economic and social areas that are crucial for their growth. Secondly, greater fiscal capacity is usually associated with the creation of a large, civilian bureaucracy that can itself become a distinct and powerful societal force, and provide an enabling environment for more capable states, with greater territorial reach (Moore 2004).

However, in spite of the importance of understanding the determinants of fiscal capacity, especially in the developing world, the existing evidence on the determinants of fiscal capacity is fairly limited and based mainly on conditional correlations (see Savoia and Sen 2015). In this paper, we make two contributions to this literature. Firstly, we provide a systematic econometric analysis of the long-run determinants of fiscal capacity in developing economies, specifically identifying the effect of political institutions on variations in fiscal capacity across developing countries. We focus on the political economy of fiscal capacity, looking at the role of political institutions that provide a system of checks and balances on the executive power. While the literature acknowledges that historical and geographical determinants may well explain cross-sectional differences in fiscal capacity, they have weak policy implications (Savoia and Sen 2015). Compared to history or geography, political economy explanations appear a more promising avenue to understand reforms or the inertia of fiscal systems in developing economies.

The second contribution we make to the literature is that we ‘unpack’ the concept of fiscal capacity, distinguishing between two aspects of taxation power: the accountability and transparency of fiscal institutions (*impartiality*) and their *effectiveness* in extracting revenues. Drawing from the institutional economics and political science literature, we posit that political systems that place strong constraints on the executive would be more likely to lead to taxation systems that have a higher degree of *impartiality*. In such political systems, non-state

actors can control and limit elites' access to resources, and are able to demand greater accountability on the part of the state with respect to the taxes they pay (Moore 2007). Therefore, greater constraints on the executive are expected to have a positive effect on the *impartiality* of the taxation system. In contrast, rational political elites, in both authoritarian regimes with limited constraints on the executive and democratic regimes with stronger constraints on the executive, are likely to invest in the *effectiveness* of the tax system in order to mobilize greater revenues, either for their own benefit or for greater public goods provision. Therefore, we would not expect any clear relationship between greater constraints on the executive and the *effectiveness* of the tax system.

To test the above hypotheses, we use a recently created set of indicators provided by PEFA (2006), the Public Expenditure and Financial Accountability project developed by a number of national and international organizations (such as the International Monetary Fund and the World Bank).¹ In particular, these indicators allow us to unpack fiscal capacity and evaluate its two core dimensions – the *effectiveness* and *impartiality* of the taxation system. Using cross-national data for 47 developing countries and a variety of estimation methods to address the possible endogeneity of political institutions, we find the existence of constraints on the executive (our measure for a limited government) increases the *impartiality* in the tax system, whereas this variable is often insignificant in explaining the *effectiveness* of the tax system. We also provide evidence on the channels through which the effect of political institutions works, finding that the impact of constraints on the executive on the *impartiality* dimension of fiscal capacity works through the rule of law and the performance of the bureaucracy.

¹ More in general, PEFA can be seen as a set of performance indicators related with Public Financial Management, or the set of laws, rules, systems and processes used by sovereign nations (and sub-national governments), to mobilize revenue, allocate public funds, undertake public spending, account for funds and audit results (Tommasi, 20013).

The paper is organized as follows. Section 2 discusses our measures of fiscal capacity, and explains how we will capture its *impartiality* and *effectiveness* dimensions. Section 3 provides the conceptual framework on the relationship between political institutions and fiscal capacity. Section 4 presents the empirical strategy, and Section 5 the results of our empirical analysis. Section 6 concludes.

2. Fiscal Capacity and Its Measurement

Fiscal capacity is defined as the capability of a fiscal system of raising tax revenues from a broad tax base (Besley and Persson 2011). This concept has often been proxied in cross-section of countries as the tax-to-GDP ratio or similar tax effort indicators. Slightly more refined measures are the share of income taxes on total taxes, the share of nontrade taxes on total taxes, the income-tax bias (the difference between income and trade taxes) and the formal sector share, which is inversely related with the ability of the government to raise taxes (Besley and Persson 2011). These alternatives are based on the observation that income is more difficult to tax than goods, and therefore it requires a more structured administration.

However, the total tax revenue as a share of GDP measure poses a number of problems. First, it strongly depends on the political preferences of a polity towards the size of the public sector, and the scope of redistribution, especially if we compare similar countries (Lieberman 2002). Second, consider two countries with the same tax-to-GDP ratio. They can afford that level in very different ways. One country could tend to expropriate its citizens, imposing a high administrative burden and giving them few or no rights to appeal; and once revenues have been raised, it could be inefficient in transferring the money to the spending ministers that will provide public services. If one country has these features that another one does not have, even if they have the same tax-to-GDP ratio, their fiscal capacity is arguably different. Other tax-effort based indicators do not provide better measures of fiscal capacity either. A

higher share of income taxes in total taxes may simply reflect a culture of tax compliance (that is, lack of tax evasion) in the country and does not tell us anything on the efficiency and effectiveness in which taxes are raised, and on the power that taxpayers have with respect to the revenue office.

More importantly, from our perspective, outcome based measures of fiscal capacity, such as the tax to GDP ratio, cannot differentiate between two quite different dimensions of fiscal systems related to the exercise of taxation powers. One has to do with their effectiveness in raising tax revenues, i.e., the ability to coerce citizens to pay taxes. We call this the *effectiveness* dimension. The other has to do with the fairness of the exercise of taxation powers: it is the ability of tax systems to make the state accountable and transparent to its citizens. We call this the *impartiality* dimension.

In this paper, we use six indicators selected from the Public Expenditure and Financial Accountability (PEFA 2006) Program database, which provide a clear way of differentiating between the *impartiality* and *effectiveness* of tax systems. They are described below:²

1. *Transparency of taxpayer obligations and liabilities*, which evaluates taxpayers' access to information on tax liabilities and administrative procedures;
2. *Quality of tax appeals*: assessing the functioning of a tax appeals mechanism;
3. *Controls in the taxpayer registration system*, assessing the quality and maintenance of a taxpayer database;

² Appendix 1 reports detailed definitions and scales of assessment of our six PEFA indicators. Full details of the PEFA framework, indicators and assessment method are given in the database codebook at http://www.pefa.org/sites/pefa.org/files/attachments/PMFEng-finalSZreprint04-12_1.pdf.

4. *Effectiveness of penalties for non-compliance*: it addresses failures in registration and tax declaration obligations assessing whether penalties for all areas of non-compliance are set sufficiently high to act as deterrence and are consistently administered;
5. *Quality of tax audit*: it assesses the planning and monitoring of tax audit and fraud investigation programs;
6. *Effectiveness in collection of tax payments*: looking at the frequency of complete accounts reconciliation between tax assessments, collections, arrears records and receipts by the Treasury.

The first two indicators capture the *impartiality* aspect of fiscal capacity, since they hinge on the relationship between the State and the public: empowering it against the taxation power of the former or making such power clearly defined and not subject to discretion. The last four measures assess the coercive aspects of the tax system: they are all desirable features of a tax machine aiming at raising revenues. As discussed in Andrews (2011), these are de facto measures. This is clearly important in our framework, since for effectiveness what matters is the actual working of the system and not what is merely written in the law. Table 1 provides descriptive statistics for the key variables of interest. Higher scores indicate greater levels of fiscal capacity: both *impartiality* and *effectiveness*.

Table 1: PEFA Measures of Fiscal Capacity

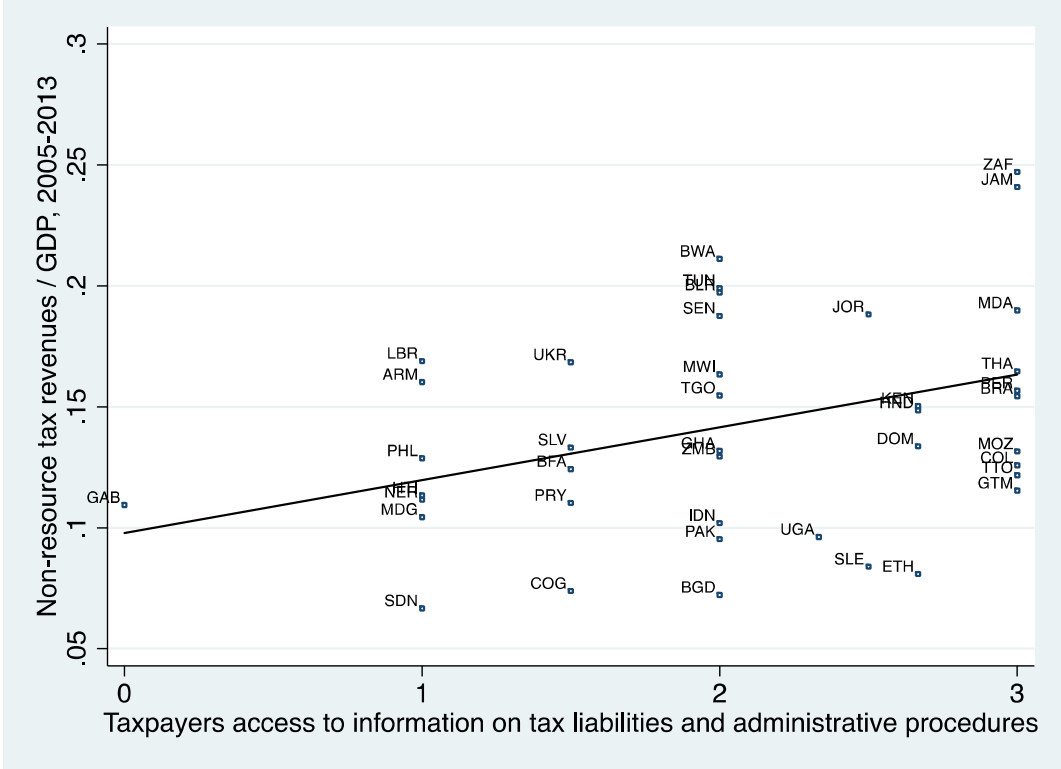
Variable	Mean	Std.Dev.	CV	Max.	Min.	N
<i>Transparency of taxpayer obligations and liabilities</i>	2.10	0.81	0.39	3.00	0.00	47
<i>Tax appeals</i>	1.68	0.71	0.42	3.00	0.00	47
<i>Controls in the taxpayer registration system</i>	1.50	0.78	0.52	3.00	0.00	47
<i>Effectiveness of penalties for non-compliance</i>	1.76	0.83	0.47	3.00	0.00	46
<i>Quality of tax audit</i>	1.62	0.88	0.55	3.00	0.00	45
<i>Effectiveness in collection of tax payments</i>	1.69	1.26	0.75	3.00	0.00	47

Source: PEFA (2006), our calculations.

How correlated are the six PEFA measures of fiscal capacity with the more conventional measure of fiscal capacity – that is, tax revenues as a percentage of GDP? In Figures 1a-1f, we present scatter plots of the six measures against non-resource tax revenues/GDP for our sample of countries.³ We find a clear positive relationship between the six PEFA measures capturing the *impartiality* and *effectiveness* of the tax system and tax revenue mobilization. In particular, the strongly positive correlation between the first two PEFA measures and tax revenue mobilization suggests that how a developing country does in the impartiality dimension is a good predictor of its government ability to raise tax revenues. Previous work by political scientists and fiscal sociologists on successful examples of tax reforms in developing countries also supports this point (see Brautigam et al 2008). In the next section, we discuss the political determinants of the *impartiality* and *effectiveness* dimensions of a taxation system.

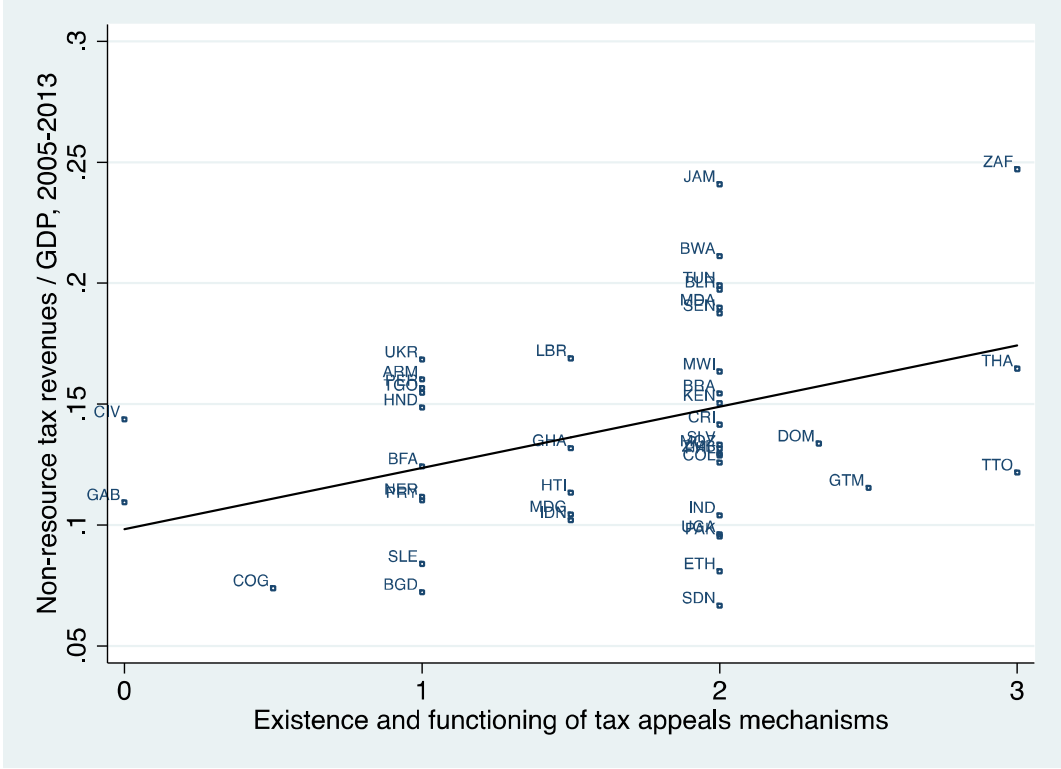
³ Tax revenues are defined as total non-resource revenues accruing to the central government, excluding social contributions as well as natural resource taxes. This variable is from Government Revenue Dataset (ICTD 2015), which improves on coverage and precision compared to existing sources.

Figure 1a: The Relationship between *Transparency of Taxpayer Obligations and Liabilities* and Tax Revenues/GDP



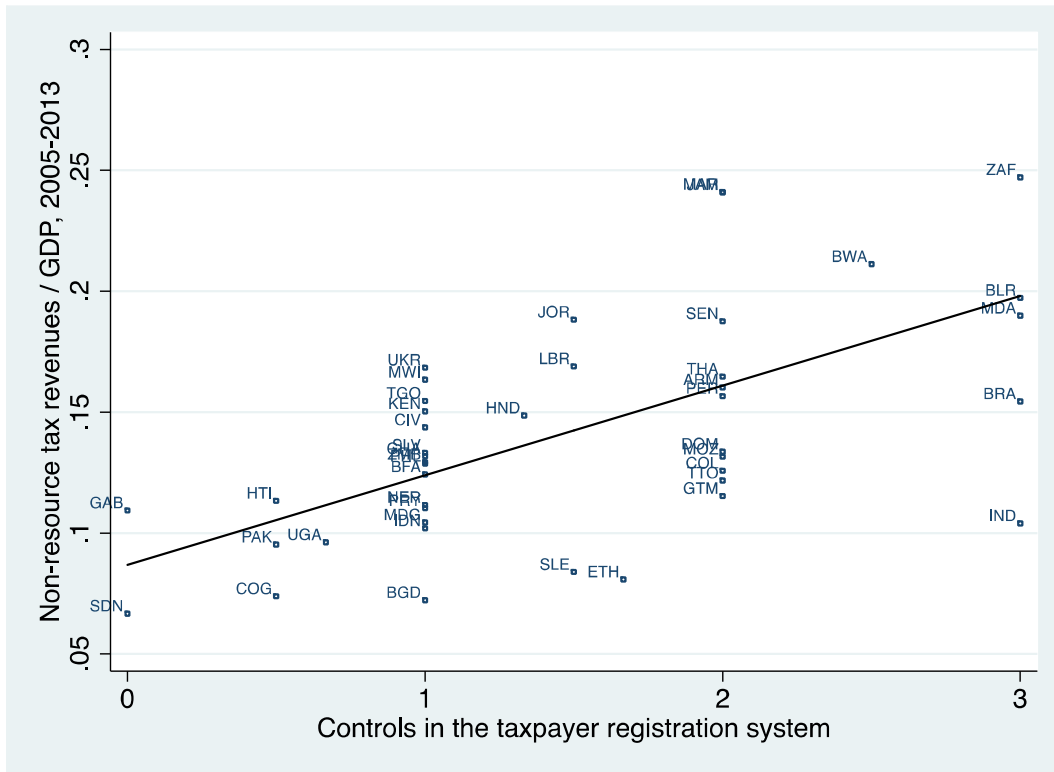
Source: PEFA (2006) and ICTD (2015); our calculations.

Figure 1b: The Relationship between *Quality of Tax appeals System* and Tax Revenues/GDP



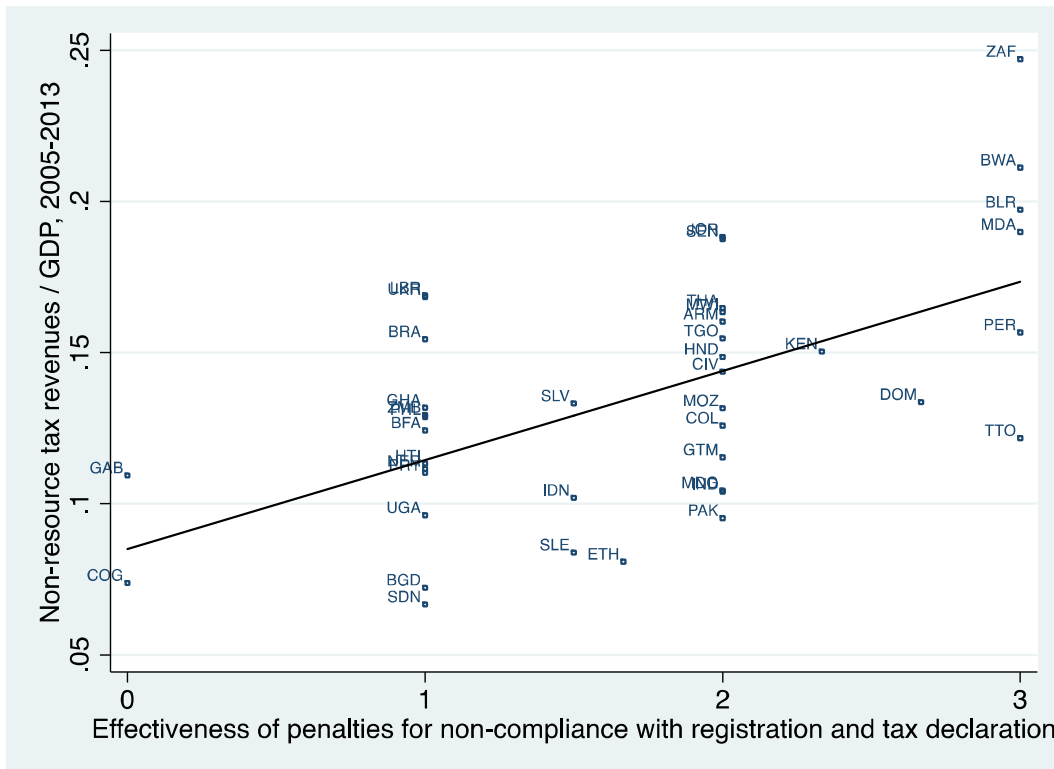
Source: PEFA (2006) and ICTD (2015); our calculations.

Figure 1c: The Relationship between *Quality of the Taxpayer Registration System* and Tax Revenues/GDP



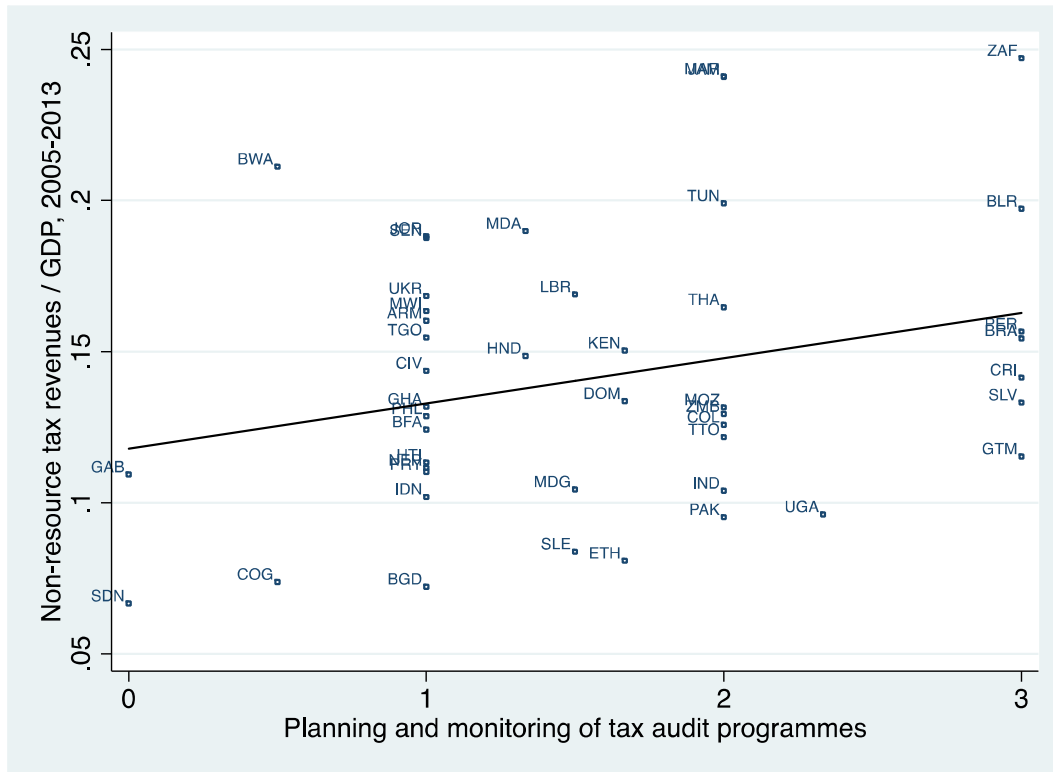
Source: PEFA (2006) and ICTD (2015); our calculations.

Figure 1d: The Relationship between *Effectiveness of Penalties for Non-compliance* and Tax Revenues/GDP



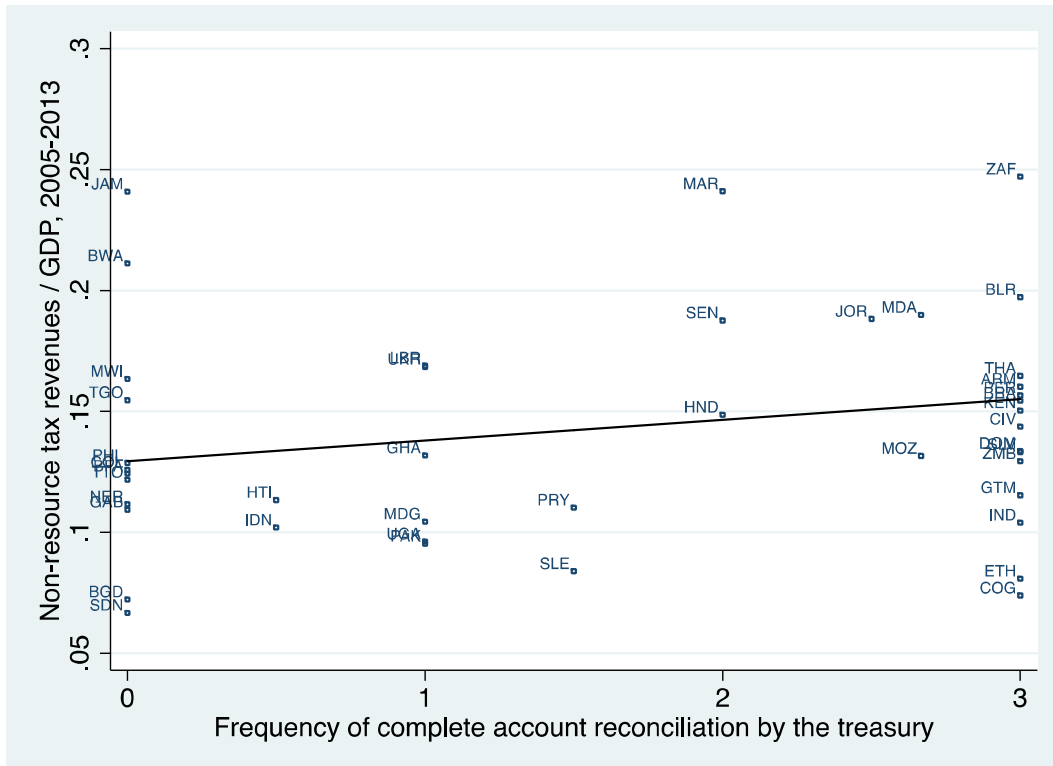
Source: PEFA (2006) and ICTD (2015), our calculations.

Figure 1e: The Relationship between *Quality of Tax Audit* and Tax Revenues/GDP



Source: PEFA (2006) and ICTD (2015); our calculations.

Figure 1f: The Relationship between *Effectiveness in Collection of Tax Payments* and Tax Revenues/GDP



Source: PEFA (2006) and ICTD (2015); our calculations.

3. The Political Determinants of Fiscal Capacity

In the recent literature on the political economy of development, fiscal capacity is seen as a “pillar” of economic development as the expansion of the tax base allows states to invest in the public goods essential for economic development (Acemoglu 2005, Besley and Persson 2011). Cohesive political institutions, seen as stronger system of checks and balances on the executive, are believed to be one key ingredient to improve tax systems, so developing infrastructures that can raise taxes from a broad base. Where subject to effective checks and balances, incumbents will tend to promote common interests rather than using the state to retain power or redistribute to their own cronies (Besley and Persson 2009). Thus, it follows from this literature that placing limitations on the executive power are an essential condition to develop fiscally (and legally) capable states. However, this literature does not differentiate between different aspects of a taxation system, and in particular, the *impartiality* and *effectiveness* of a taxation system: this is important to understand how political institutions affect the ability to raise revenues. We argue below that the causal effect of political institutions (as captured by the degree of constraints on the executive) may have on fiscal capacity may differ, depending on whether the effect is on the *effectiveness* dimension of fiscal capacity or on the *impartiality* dimension of fiscal capacity. In particular, we argue that the causal effect of political institutions on the *impartiality* dimension of fiscal capacity is likely to be positive, while the causal effect of political institutions on the *effectiveness* dimension of fiscal capacity is ambiguous, with no clear relationship between the degree of constraint on the executive and the *effectiveness* of taxation systems.

We first discuss the relationship between the nature of constraints on the executive and the *effectiveness* of taxation systems. Consider two types of rulers: an autocrat, who is a “stationary bandit (that) has an encompassing interest in the territory he controls and accordingly provides domestic order and other public goods” (Olson 1993, p. 569), and the

other, a ruler in a democratic system, who may also have a similar interest in providing law and order, and other public goods. In an authoritarian system, with little checks and balances on the ruler's authority, "wherever the dictator has a sufficiently short time horizon, it is in his interest to confiscate the property of his subjects, to abrogate any contracts he has signed in borrowing money from them, and generally to ignore the long-run economic consequences of his choices" (ibid, p. 572). However, for the rational autocrat (who is interested in staying in power, as well as maximizing long-term income to mobilize tax revenues both to provide public goods to his own citizens and to extract some of the revenues for his personal benefit), there is a strong incentive to invest in the *effectiveness* of the taxation system. By doing so, the autocrat can maximize tax revenues for a given tax rate. For rulers in democratic systems, the median voter hypothesis suggests that there will be an additional incentive to invest in effective tax systems, so that the party in power can provide the public goods necessary for re-election. In this case, there is no reason to expect why executives that have limited checks on their authority may behave differently than executives with significant constraints on their power with respect to making taxation systems effective in collecting more revenues for the state. Therefore, the relationship between constraints on the executive and tax system *effectiveness* is ambiguous – authoritarian and democratic regimes are equally likely to invest in the *effectiveness* dimension of taxation systems.

What about the relationship between the degree of constraints on the executive and the *impartiality* dimension of taxation systems? Here, we may expect authoritarian regimes may behave differently than democratic systems. Fairness in taxation systems may be seen as part of a "fiscal contract" between the state and its citizens (Moore 2004). Transparency and accountability of taxation systems are about state-society relations, involving an exchange of

tax revenues for services.⁴ Creating mechanisms of accountability and placing constraints on rulers facilitate the existence of a fiscal bargain, at the heart of the relationship between citizens and rulers. According to Levi (1988), it should reduce the transaction costs of taxing by making compliance “quasi voluntary” and by building “tax morale” (Doerrenberg and Peichl 2013; Luttmer and Singhal 2013). Citizens should be more willing to enter into a fiscal contract with the state, as they have more control over its actions and greater belief in its legitimacy (Bates and Lien 1985). Accountability and responsibility processes in tax systems “engage taxpayer-citizens collectively in politics and leads them to make claims on government for reciprocity, either through short-term conflict or long-term increases in political engagement” (Prichard 2010, p. 13). Such processes are more likely to emerge in cohesive political systems where there are significant constraints on the power of the executive, and where politicians have an incentive to signal the legitimacy of the state through making the tax system more transparent and non-discriminatory (Cheibub 1998). Furthermore, transparency in taxation systems is more likely to emerge in regimes where political elites are more constrained in their powers to evade taxes or bend tax rules in their favour (while in regimes with limited checks on the executive, elites face little constraints in avoiding taxes or in devising a non-transparent tax system that discriminates in their favour). This suggests that the Besley-Persson argument on the role of cohesive political systems in building fiscal capacity of the state applies more to the *impartiality* dimension of fiscal capacity rather than to its *effectiveness* dimension. We can re-state our argument on the

⁴ As Moore (2007, p. 26) argues, “taxation is always potentially coercive: state agents have authority to require citizens to hand over money, with no firm guarantee of reciprocity, in situations where they are perceived to have little or no choice”. In states where rulers have low constraints on their power to coerce, it is less likely that political elites will have an interest in fostering the contractual and consensual basis of the fiscal contract between the state and the citizen, and state tax agencies will face relatively few constraints on how treat citizens in the tax contract. This raises the question: if dictators are revenue-maximizing actors, and if *impartiality* in the tax system leads to greater revenues, why are not dictators incentivized to adopt measures of transparency and accountability? There are two possible reasons why dictators may not prefer more *impartiality* in the tax system. Firstly, impartiality could threaten the dictator's interests in other ways by removing tools that he finds useful for maintaining power (Acemoglu and Robinson 2009). Secondly, greater transparency may reduce the ability of rulers to extract revenues for themselves (Shleifer and Vishny 1993)

differing role that political institutions play in augmenting the various dimensions of fiscal capacity, by means of two propositions:

Proposition 1: There is no clear relationship between the degree of constraints on the executive and the effectiveness dimension of fiscal capacity. The effect of the higher constraints on the executive on the effectiveness of a taxation system is ambiguous.

Proposition 2: There is a positive relationship between the degree of constraints on the executive and the impartiality dimension of fiscal capacity. The effect of the higher constraints on the executive on transparency/accountability dimension of taxation system is unambiguously positive.

In the next section, we propose an empirical strategy that enables us to test the above hypotheses using cross-national cross-sectional data.

4. Econometric methods and identification

Since the objective of the paper is to look at the structural conditions under which countries develop capable states, regressions based on cross-section averages are a suitable approach as they test relationships whose mechanisms have long-run characteristics. This is an established methodological choice in econometric research on institutions (prominent examples are: Besley and Persson, 2009 and 2011; Acemoglu et al, 2001, 2002, 2003) and implies explaining the dependent variable using long-term averages of the explanatory variables to capture structural cross-country variation.⁵ Hence, the regression specification takes the form:

⁵ While a panel analysis may be in principle desirable, in our case, the PEFA variables ranges only from 2005 to 2013 and have a T-bar of 1.5, as well as exhibiting very little variation within countries. The scope for a panel approach becomes substantial only if one could obtain a panel covering a fairly extensive period of time.

$$FC_{i,T,T-1} = \beta_0 + \beta \cdot W_{i,t,t-1} + X'_{i,t,t-1} \cdot \phi + \varepsilon_{i,t,t-1} \quad (1)$$

where, $FC_{i,T,T-1}$ captures the quality of current fiscal institutions as the average of a given dimension of fiscal capacity of interest for country i between the end of the sample period, T , and $T-1$, captured here by the six PEFA indicators. Besley and Persson (2011) suggest that fiscal and legal capacities have common determinants and that investing in one dimension of state capacity simultaneously reinforces the other, i.e., there are complementarities. By extension, we apply this hypothesis to the different dimensions of fiscal capacity.

On the right-hand side, $W_{i,t,t-1}$ is the determinant of fiscal capacity of interest, averaged between times t and $t-1$, with $t < T-1$, and β represents its long-run effect on fiscal capacity. It is measured as the average value of *Constraints on the Executive* from the Polity IV dataset from 1965 (or independence year, if later) up to 2004 (Marshall et al 2011), since we are interested in the long-run component of these constraints (and not in the annual fluctuations). But taking this variable as a 2000-2004 average, as an alternative measure, delivers similar results (available on request). This variable measures the extent of constitutional limits on the exercise of arbitrary power by the executive, i.e., whether the executive power is subject to institutionalized checks and balances (on a scale from 1 to 7, where 1 indicates unlimited authority of the chief executive and 7 indicates executive parity or subordination, with intermediate values indicating moderate to substantial power limitations). Similarly, $X_{i,t,t-1}$ is a set of controls (described in the appendix and discussed in the results section). Finally, $\varepsilon_{i,t,t-1}$ is the error, capturing all other omitted factors.

Before estimating (1), we should first discuss whether estimating the impact of political institutions is subject to identification problems. Although there are good reasons to expect a

causal relationship between rulers' accountability and fiscal capacity development, OLS estimates are insufficient to document such a relationship. Building a political system is clearly an endogenous process, driven by a variety of social forces, including state actors. One such possibility is that taxation may lead to increased political representation (e.g., Timmons 2010 and Moore 2007). When estimating the relationship from the data, the effect of constraints on the executive could then be affected by reverse causality, hence subject to bias in OLS regressions. A concern is also that the effect of political systems may be endogenous in the statistical sense, namely correlated with the regression disturbances because of measurement error. Therefore, one might expect the coefficients on *constraints on the executive* both to be biased away from zero and toward zero. The magnitude of the two types of bias, and their combined effect, is an open question, but here we attempt to address the problem using an instrumental variable approach, presenting estimates from different methods.

Our instrument has a prominent place in the literature: historical settler mortality, as captured by the (log of) mortality rate due to the disease environment at the time of colonization. Acemoglu et al (2001) documented that such variable picks the exogenous variation in the type of institutions built in the ex colonies. Where European colonizers settled in mass, life was organized around inclusive institutions, i.e., subjecting the ruling elite to binding limitations to their power. Where they could not settle, due to adverse sanitary conditions, institutions were extractive, i.e., subject to little or no constraints on the rulers. This instrument was carefully justified and, perhaps for this reason, has proved to be resilient to criticism, which came on the grounds of data quality and associated historical records (e.g., Albouy 2012). Since it was proposed, it has been successfully exploited to identify the effect of the *constraints on the executive* variable (e.g., Acemoglu et al 2002, 2003). The variable

can be expected to meet the exclusion restriction as *settlers' mortality* should not directly affect level of fiscal capacity (other than through its effect on *constraints on the executive*).

5. Results

This section presents the results, in two steps. We first illustrate the basic results. Then, we show evidence on the channels through which the political institutions hypothesis may affect fiscal capacity.

5.1 Basic results and robustness checks for omitted variables

Using the log of *settlers' mortality* as an instrument for *constraints on the executive* and Two-Stage Least Squares (TSLS), table 2 shows that *constraints on the executive* predict a higher level of fiscal capacity in both its organizational aspects related to the *impartiality* of taxation power (first two variables) and in three of its *effectiveness* aspects. The magnitude of the effects is higher in instrumental variables than in OLS estimates, suggesting that the causal effect of *constraints on the executive* is actually understated by the OLS relationship. Constraints on the executive are, however, irrelevant when it comes to predicting the level of *effectiveness of penalties for non-compliance*.

Table 2: Basic results for fiscal capacity and constraints on the executive: OLS and Instrumental Variables (TSLS)

Panel (a)	Impartiality of taxation power				Effectiveness of taxation power	
Dependent variable:	<i>Transparency of taxpayer obligations and liabilities</i>		<i>Tax appeals mechanism</i>		<i>Controls in the taxpayer registration system</i>	
Estimator:	OLS	TSLS	OLS	TSLS	OLS	TSLS
<i>Constraints on the executive</i>	0.264*** (0.057)	0.364** (0.136)	0.242*** (0.057)	0.440*** (0.109)	0.301*** (0.046)	0.376*** (0.091)
Constant	1.149*** (0.257)	0.824* (0.469)	0.702*** (0.241)	0.049 (0.356)	0.374** (0.184)	0.128 (0.281)
F-stat	21.447***	7.173**	17.856***	16.166***	42.977***	16.944***
1 st -stage F		9.913		11.806		13.119
R-Sq.	0.281	0.240	0.305	0.101	0.443	0.416
Obs.	40	40	42	42	42	42
RMSE	0.686	0.704	0.624	0.709	0.576	0.589
Panel (b)	Effectiveness of taxation power					
Dependent variable:	<i>Quality of tax audit</i>		<i>Effectiveness of penalties for non-compliance</i>		<i>Effectiveness in collection of tax payments</i>	
Estimator:	OLS	TSLS	OLS	TSLS	OLS	TSLS
<i>Constraints on the executive</i>	0.241***	0.304**	0.232***	0.191	0.347***	0.471**

	(0.055)	(0.137)	(0.068)	(0.135)	(0.080)	(0.215)
Constant	0.817***	0.607	0.903***	1.034**	0.652*	0.268
	(0.253)	(0.481)	(0.275)	(0.478)	(0.379)	(0.706)
F-stat	19.072***	4.934**	11.718***	2.022	19.049***	4.809**
1 st -stage F		13.868		13.313		10.475
R-Sq.	0.223	0.208	0.212	0.206	0.193	0.168
Obs.	45	45	41	41	41	41
RMSE	0.788	0.796	0.720	0.723	1.110	1.127

Heteroskedasticity-robust standard errors in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%.

How much do *Constraints on the executive* matter as a determinant of fiscal capacity? A one standard deviation increase in the index (1.5 points) increases *Transparency of taxpayer obligations and liabilities* by over 0.7 standard deviations, quality of *Tax appeals mechanism* by 1 standard deviations (Table 3). The amount by which *Constraints on the executive* foster the impartiality aspects of fiscal capacity seems economically meaningful as well as statistically significant. Apart from the quality of the taxpayer registration system, the magnitudes of the effects are smaller for the other three variables capturing *effectiveness* aspects (and not always significant).

Table 3: Magnitude of effect on fiscal capacity of change in *constraints on the executive*

Dependent variable:	Coefficient on <i>constraints on the executive</i> in TSLS regression	Change in dependent variable in response to 1 standard deviation change in <i>constraints on the executive</i>	Ratio to 1 standard deviation dependent variable
<i>Transparency of taxpayer obligations and liabilities</i>	0.364	0.582	0.730
<i>Tax appeals mechanism</i>	0.440	0.742	1.004
<i>Controls in the taxpayer registration system</i>	0.376	0.633	0.831
<i>Quality of tax audit</i>	0.304	0.527	0.596
<i>Effectiveness of penalties for non-compliance</i>	0.191	0.305	0.380
<i>Effectiveness in collection of tax payments</i>	0.471	0.727	0.596

Table 4 expands on the basic results by adding a series of robustness checks for omitted variables. The literature on state capacity has proposed plausible alternatives (not exclusive) to the political institutions hypothesis. Some are historical in nature, i.e., length of statehood and the incidence of external and internal conflicts. Others are geographical, i.e., the reliance of the economy on natural resources rents and population density. The approach here is to control for each of these five determinants, in turn, taking each one as exogenous, while

continuing to run an IV regression of fiscal capacity on our *constraints on the executive* measure with the log of *settlers' mortality* rate as an instrument.

In line with a tradition of long-run theory of state formation (e.g., Tilly 1990), Besley and Persson (2009, 2011) argue that, in a society where groups compete for power, the incidence of external wars supports the demand for common-interest public goods (i.e., defense) that, in turn, increases the incentive to invest in fiscal (and legal) capacity. Vice versa, the incidence of civil wars promotes redistributive interests, reducing the incentive to invest in state capacity. To capture the historical relevance of external and internal conflicts, we use the proportion of years at war from independence up to 2000 and the proportion of years in civil war over 1950-2000. Both variables are from Besley and Persson (2011). Introducing such variables also leaves the significance of *constraints on the executive* unchanged with respect to variables on the *impartiality* of taxation powers. In fact, the magnitude of the *constraints on the executive* effect even increases in some cases, showing that the political institutions hypothesis survives when compared to the alternative conflict hypotheses. Interestingly, the incidence of external conflict wipes out its significance for one of dependent variables relating to the *effectiveness* of taxation powers (*effectiveness in collection of tax payments*) and reduces the magnitude of another (*controls in the taxpayer registration system*), showing that the coefficient of interest may be picking the effect of another common interest mechanism due to the need of a public good like national defense.

Length of statehood is captured by the *state antiquity index*, proposed by Bockstette et al (2002) and based on the intuition that longer histories of statehood lead to higher quality administration due to 'learning by doing' effects. In this case, the coefficient on *constraints on the executive* drops slightly, when controlling for length of statehood, for our dependent

variables relating to the *impartiality* of taxation powers, but it is still highly significant. It loses significance, instead, for the *effectiveness* measure on quality of tax audit.

Economies where a substantial part of national income accrues from natural resources, and to the extent that such resources flows accrue directly to the government, have less incentive to invest in fiscal capacity. For example, Isham et al (2004) argue that countries rich in resources extracted from a narrow geographic or economic base are predisposed to heightened economic and social divisions and have weakened institutional capacity. To capture such effect, we use the 1970-2004 average share of GDP accruing from total resource rents (as the sum of oil, natural gas, coal, mineral, and forest rents), from World Bank (2013). Similarly, inspired by Herbst (2000), it is organizationally more challenging to develop taxation infrastructures in sparsely populated states than in states where the population is concentrated in urban areas. To capture this effect, we use the share of urban population from World Bank (2013). Geography-based robustness checks are particularly important, as the settler mortality rate could be proxying for “resource curse” mechanisms or population density. For example, disease conditions may well be a determinant of where urban areas arise. So we can examine whether the *constraints on the executive* results survive when we independently control for geographical variables. They survive indeed in the case dependent variables relating to the *impartiality* of taxation powers, as such controls do not greatly affect the significance and magnitude of the coefficient of interest.⁶

⁶ We also do a set of robustness tests (available on request) to assess whether our instrument is weak and whether it meets the exclusion restriction. To account for potential instrument weakness, we re-estimate our regressions using Fuller’s version of LIML (Fuller 1977), which is more robust than 2SLS in the presence of weak instruments. We find that the LIML results are broadly comparable to the 2SLS estimates. To test whether the instrument meets the exclusion restriction, we run a test of overidentification, which is a direct test of our exclusion restriction. To run this test, we need another instrument – our second instrument is the distance of the country from the equator as geography is expected to affect development outcomes through political institutions rather than directly (Acemoglu et al 2001). The over-identification tests fail to reject the exclusion restriction at the conventional levels in all cases, and by a large margin in five out of six regressions, suggesting sanitary conditions, as captured by *settlers’ mortality*, affect fiscal capacity by no other channel other than political

Table 4: Robustness checks: effect of *constraints on the executive on impartiality* of taxation controlling for omitted variables

Dependent variable: <i>Transparency of taxpayer obligations and liabilities</i>						
Estimator:	TOLS	TOLS	TOLS	TOLS	TOLS	TOLS
Constr. on the executive	0.364** (0.136)	0.297** (0.113)	0.327** (0.150)	0.308*** (0.106)	0.392** (0.180)	0.349** (0.136)
Length of statehood		0.005 (0.005)				
Inciden. of external conflict			2.541 (6.231)			
Inciden. of internal conflict				0.585 (0.441)		
% urban population					-0.004 (0.010)	
Tot. resource rents						-0.014 (0.011)
Constant	0.824* (0.469)	0.552 (0.567)	0.907* (0.486)	0.906** (0.401)	0.854* (0.463)	0.973* (0.488)
F-stat	7.173**	4.458**	3.923**	4.628**	3.485**	4.515**
1 st -stage F	9.913	10.221	6.849	12.774	6.024	9.326
R-Sq.	0.240	0.312	0.270	0.306	0.222	0.276
Obs.	40	40	40	40	40	40
RMSE	0.704	0.679	0.700	0.683	0.723	0.697
Dependent variable: <i>Tax appeals mechanisms</i>						
Constr. on the executive	0.440*** (0.109)	0.401*** (0.109)	0.476*** (0.141)	0.383*** (0.099)	0.535*** (0.141)	0.428*** (0.111)
Length of statehood		0.003 (0.004)				
Inciden. of external conflict			-2.455 (4.266)			
Inciden. of internal conflict				0.480 (0.451)		
% urban population					-0.015 (0.009)	
Tot. resource rents						-0.017*** (0.005)
Constant	0.049 (0.356)	-0.100 (0.396)	-0.033 (0.402)	0.148 (0.320)	0.237 (0.362)	0.210 (0.374)
F-stat	16.166***	8.938***	7.044***	9.769***	7.424***	16.077***
1 st -stage F	11.806	10.993	7.745	13.177	7.676	11.290
R-Sq.	0.101	0.186	0.027	0.230	-0.010	0.166
Obs.	42	42	42	42	42	42
RMSE	0.709	0.684	0.747	0.665	0.761	0.692
Dependent variable: <i>Controls in the taxpayer registration system</i>						
Constr. on the executive	0.376*** (0.091)	0.320*** (0.082)	0.200** (0.091)	0.339*** (0.092)	0.352*** (0.112)	0.359*** (0.088)
Length of statehood		0.005* (0.003)				
Inciden. of external conflict			12.558*** (3.336)			
Inciden. of internal conflict				0.340 (0.382)		
% urban population					0.005 (0.008)	
Tot. resource rents						-0.018*** (0.005)
Constant	0.128 (0.281)	-0.186 (0.395)	0.506* (0.272)	0.184 (0.276)	0.064 (0.278)	0.310 (0.271)
F-stat	16.944***	8.307***	15.674***	9.049***	9.646***	13.695***
1 st -stage F	13.119	14.521	10.776	16.577	8.843	12.383
R-Sq.	0.416	0.481	0.564	0.450	0.441	0.472
Obs.	42	42	42	42	42	42
RMSE	0.589	0.563	0.516	0.580	0.584	0.568

Continued below

institutions..

Dependent variable: <i>Quality of tax audit</i>						
Estimator:	TOLS	TOLS	TOLS	TOLS	TOLS	TOLS
Constr. on the executive	0.304** (0.137)	0.212 (0.138)	0.185 (0.148)	0.289** (0.136)	0.252 (0.161)	0.277** (0.129)
Length of statehood		0.009** (0.004)				
Inciden. of external conflict			8.896 (5.448)			
Inciden. of internal conflict				0.157 (0.481)		
% urban population					0.009 (0.010)	
Tot. resource rents						-0.010 (0.015)
Constant	0.607 (0.481)	0.057 (0.529)	0.867* (0.498)	0.628 (0.481)	0.480 (0.462)	0.774* (0.421)
F-stat	4.934**	5.261***	3.699**	2.459*	3.884**	2.337
1 st -stage F	13.868	14.349	11.143	15.746	9.512	12.355
R-Sq.	0.208	0.301	0.273	0.216	0.253	0.231
Obs.	45	45	45	45	45	45
RMSE	0.796	0.756	0.771	0.801	0.782	0.793
Dependent variable: <i>Effectiveness of penalties for non-compliance</i>						
Constr. on the executive	0.191 (0.135)	0.156 (0.140)	0.190 (0.155)	0.182 (0.141)	0.211 (0.159)	0.166 (0.136)
Length of statehood		0.004 (0.004)				
Inciden. of external conflict			0.115 (5.668)			
Inciden. of internal conflict				0.085 (0.334)		
% urban population					-0.004 (0.010)	
Tot. resource rents						-0.011 (0.019)
Constant	1.034** (0.478)	0.798 (0.568)	1.037** (0.512)	1.046** (0.483)	1.098** (0.458)	1.198** (0.459)
F-stat	2.022	1.268	0.987	1.029	0.956	0.815
1 st -stage F	13.313	13.284	8.782	15.066	9.865	11.954
R-Sq.	0.206	0.207	0.205	0.203	0.218	0.212
Obs.	41	41	41	41	41	41
RMSE	0.723	0.732	0.732	0.733	0.727	0.730
Dependent variable: <i>Effectiveness in collection of tax payments</i>						
Constr. on the executive	0.471** (0.215)	0.343* (0.201)	0.259 (0.229)	0.427** (0.192)	0.369 (0.284)	0.488** (0.236)
Length of statehood		0.011* (0.006)				
Inciden. Of external conflict			14.197** (5.550)			
Inciden. Of internal conflict				0.426 (0.771)		
% urban population					0.016 (0.017)	
Tot. resource rents						0.012 (0.026)
Constant	0.268 (0.706)	-0.348 (0.746)	0.698 (0.702)	0.328 (0.666)	0.064 (0.649)	0.137 (0.859)
F-stat	4.809**	4.376**	7.044***	2.590*	5.545***	2.327
1 st -stage F	10.475	9.942	7.434	12.737	7.504	10.200
R-Sq.	0.168	0.255	0.268	0.190	0.240	0.168
Obs.	41	41	41	41	41	41
RMSE	1.127	1.081	1.071	1.127	1.091	1.142

Heteroskedasticity-robust standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%.

5.2 How does limiting executive power matter to fiscal capacity?

Our findings indicate that political institutions limiting the executive power tend to improve the transparency and accountability of fiscal systems. However, nothing has been done hitherto on identifying the specific channels of causation. This is an interesting task that also deserves careful study. We make a first pass here, building on the idea that the different dimensions of state capacity are complements and hence mutually reinforcing (Besley and Persson 2011). In particular, we consider three channels: (a) rulers subject to checks and balances are more likely to invest in bureaucratic and administrative capacity, recruiting an effective and independent civil service, rather than on the basis of patron-and-client ties; (b) improvements in bureaucratic and administrative capacity tend also to enhance transparency in public processes, hence promoting the integrity of civil servants; and (c) political systems with an effective system of checks and balances tend to invest in legal capacity, hence the judicial system may be more effective against any breach of tax laws or abuse in tax levy. These are to some extent overlapping mechanisms, and it may be too much to expect our data to deliver a clear quantitative appreciation for each of them. This caveat notwithstanding, the evidence seems to suggest that each of the above mechanisms may be at work.

Table 5 – Tests of three possible channels of causation from limited executive power to fiscal capacity

Panel (a): <i>Transparency of taxpayer obligations and liabilities</i>						
	1	2	3	4	5	6
Rule of law	1.053 (0.650)	0.445 (0.573)				
Constraints on the executive		0.217*** (0.059)		0.173** (0.079)		0.185*** (0.060)
Bureaucratic quality			1.437*** (0.485)	0.805 (0.614)		
Corruption in government					2.084** (0.811)	1.481* (0.820)
Constant	0.964* (0.543)	0.679 (0.541)	1.124*** (0.414)	0.815* (0.469)	0.896* (0.483)	0.555 (0.511)
F-stat	1.903	3.889***	5.875***	5.232***	2.609**	3.596***
Adj. R-Sq.	0.005	0.152	0.116	0.181	0.116	0.216
Obs.	45	45	45	45	45	45
RMSE	0.789	0.729	0.744	0.716	0.744	0.701
Panel (b): <i>Tax appeals mechanisms</i>						
	1	2	3	4	5	6
Rule of law	1.515** (0.606)	0.740 (0.612)				
Constraints on the executive		0.201*** (0.068)		0.180** (0.083)		0.176** (0.067)
Bureaucratic quality			1.349*** (0.477)	0.618 (0.580)		
Corruption in government					2.155*** (0.544)	1.419** (0.552)
Constant	0.527 (0.510)	0.378 (0.457)	0.928*** (0.319)	0.644* (0.356)	0.720* (0.366)	0.435 (0.357)
F-stat	2.881**	3.868***	3.197**	3.240***	4.825***	4.983***
Adj. R-Sq.	0.107	0.289	0.180	0.293	0.211	0.347
Obs.	47	47	47	47	47	47
RMSE	0.662	0.591	0.634	0.589	0.622	0.566
Panel (c): <i>Controls in the taxpayer registration system</i>						
	1	2	3	4	5	6
Rule of law	2.097*** (0.583)	1.362*** (0.384)				
Constraints on the executive		0.233*** (0.036)		0.240*** (0.054)		0.229*** (0.045)
Bureaucratic quality			1.340** (0.537)	0.424 (0.543)		
Corruption in government					2.334*** (0.657)	1.607** (0.603)
Constant	0.052 (0.391)	-0.224 (0.341)	0.800* (0.435)	0.386 (0.381)	0.499 (0.454)	0.051 (0.373)
F-stat	6.700***	12.979***	5.038***	8.655***	6.871***	11.967***
Adj. R-Sq.	0.302	0.503	0.285	0.452	0.327	0.522
Obs.	47	47	47	47	47	47
RMSE	0.667	0.563	0.675	0.591	0.655	0.552

All regressions are estimated by OLS and controlling for incidence of external an internal conflict, share of urban population, total resource rents and length of statehood. Heteroskedasticity-robust standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%.

To test each of the three channels above, we employ three indicators from the International Country Risk Guide (ICRG 1997). They are experts' subjective assessments of the *rule of law*, *bureaucratic quality* and *corruption in government*. Such indices range from 0 to 10, with higher values indicating greater rule of law, reduced corruption and superior bureaucratic institutions (and are calculated as 1985-2004 averages here). The results are reported in Table 5. Compared to a regression that features only *bureaucratic quality*, *corruption in government*

or *rule of law* (columns 1, 3 and 5), the introduction of *constraints on the executive* often renders such variables insignificant (columns 2, 4 and 6). By contrast, the estimated coefficient on *constraints on the executive* remains statistically significant, and is relatively stable. In all cases, including *constraints on the executive* drastically reduces both the magnitude of the coefficient of the channel variable and its significance.

We do not take these results as definitive evidence on the channels, which would clearly require more exploration in future research, but they do show that the political institutions hypothesis could plausibly be explained by the complementarity of fiscal, legal and bureaucratic capacities. As a tentative conclusion from this, we can say that the evidence supports the idea that this paper's central finding on the effect of political institutions on fiscal capacity works through the rule of law and the performance of the bureaucracy.

6. Conclusions

It is widely recognized that fiscal capacity is a crucial determinant of economic development as well as state formation in developing countries. However, it is less understood what determines fiscal capacity in a developing country context, with geography, history and political economy seen as complementary explanations of variations in state capacity across the world. In this paper, we examine the role of political economy, focusing on the degree of constraints that executives face as the key determinant of taxation capacity. Drawing from the political economy and political science literature, and differentiating between coercive and accountability/transparency dimensions of taxation capacity, we hypothesize that the effect of a higher constraint on the executive on taxation capacity would not be symmetrical across the two dimensions. Constraints on the executive is likely to exert a positive effect on the accountability and transparency of taxation systems, but its effect on the coerciveness of

taxation systems is likely to be ambiguous.

We then test our hypotheses using a recent data set on public financial management of developing countries compiled by the World Bank and other donor agencies to construct measures of taxation capacity for 47 developing countries. We find that there is a substantial positive effect between institutions that place constraints on the executive power and current fiscal institutions relating to the accountability and transparency of taxation power: quality of administrative procedures on tax liabilities and tax appeals mechanisms. We show that our findings are robust to different specifications, controls, and estimation methods. However, we find a much less robust effect that institutions placing constraints on the executive power affect current fiscal institutions relating to the effectiveness in raising revenues of tax systems, as captured by the quality of administrative procedures on the collection of tax payments and the quality of a taxpayers' database. We also present evidence indicating that the relationship between political institutions and the transparency and accountability aspects of fiscal capacity works through the rule of law and the performance of the bureaucracy. Our findings indicate that to build fiscally capable states a key route is the consolidation of cohesive political institutions, providing strong checks and balances on the discretionary power of the executive, as they facilitate a fiscal bargain between citizens and rulers.

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7. Appendix 1: Dependent variables definitions

<p>Transparency of Taxpayer Obligations and Liabilities (PEFA PI13(ii))</p>	<p>Definition: Taxpayers access to information on tax liabilities and administrative procedures. Average score over 2005-2013. Scoring method: 3. Taxpayers have easy access to comprehensive, user friendly and up-to-date information tax liabilities and administrative procedures for all major taxes, and the RA supplements this with active taxpayer education campaigns. 2. Taxpayers have easy access to comprehensive, user friendly and up-to-date information on tax liabilities and administrative procedures for some of the major taxes, while for other taxes the information is limited. 1. Taxpayers have access to some information on tax liabilities and administrative procedures, but the usefulness of the information is limited due coverage of selected taxes only, lack of comprehensiveness and/or not being up-to-date. 0. Taxpayer access to up-to-date legislation and procedural guidelines is seriously deficient.</p> <p>Source: variable PI.13(ii), <i>Public Expenditure and Financial Accountability Performance Measurement Framework</i>, PEFA (2006), at http://www.pefa.org/en/content/pefa-framework. Accessed in November 2015.</p>
<p>Existence and functioning of tax appeals mechanisms (PEFA PI13(iii))</p>	<p>Definition: Existence and functioning of a tax appeals mechanism. Average score over 2005-2013. Scoring method: 3. A tax appeals system of transparent administrative procedures with appropriate checks and balances, and implemented through independent institutional structures, is completely set up and effectively operating with satisfactory access and fairness, and its decisions are promptly acted upon. 2. A tax appeals system of transparent administrative procedures is completely set up and functional, but it is either too early to assess its effectiveness or some issues relating to access, efficiency, fairness or effective follow up on its decisions need to be addressed. 1. A tax appeals system of administrative procedures has been established, but needs substantial redesign to be fair, transparent and effective. 0. No functioning tax appeals system has been established.</p> <p>Source: variable PI.13(iii), <i>Public Expenditure and Financial Accountability Performance Measurement Framework</i>, PEFA (2006), at http://www.pefa.org/en/content/pefa-framework. Accessed in November 2015.</p>
<p>Controls in the taxpayer registration system (PEFA PI14(i))</p>	<p>Definition: quality and maintenance of a taxpayer database. Average score over 2005-2013. Scoring method: 3. Taxpayers are registered in a complete database system with comprehensive direct linkages to other relevant government registration systems and financial sector regulations; 2. Taxpayers are registered in a complete database system with some linkages to other relevant government registration systems and financial sector regulations; 1. Taxpayers are registered in database systems for individual taxes, which may not be fully and consistently linked. Linkages to other registration/licensing functions may be weak but are then supplemented by occasional surveys of potential taxpayers; 0. Taxpayer registration is not subject to any effective controls or enforcement systems.</p> <p>Source: variable PI.14(i), <i>Public Expenditure and Financial Accountability Performance Measurement Framework</i>, PEFA (2006), at http://www.pefa.org/en/content/pefa-framework. Accessed in November 2015.</p>
<p>Effectiveness of penalties for non-compliance with registration and tax declaration (PEFA PI14(ii))</p>	<p>Definition: Effectiveness of penalties for non-compliance with registration and tax declaration. Average score over 2005-2013. Scoring method: 3. Penalties for all areas of non-compliance are set sufficiently high to act as deterrence and are consistently administered; 2. Penalties for non-compliance exist for most relevant areas, but are not always effective due to insufficient scale and/or inconsistent administration; 1. Penalties for non-compliance generally exist, but substantial changes to their structure, levels or administration are needed to give them a real impact on compliance; 0. Penalties for non-compliance are generally non-existent or ineffective (i.e. set far too low to have an impact or rarely imposed).</p> <p>Source: variable PI.14(ii), <i>Public Expenditure and Financial Accountability</i></p>

	<i>Performance Measurement Framework</i> , PEFA (2006), at http://www.pefa.org/en/content/pefa-framework . Accessed in November 2015.
Quality of tax audits (PEFA PI14(iii))	<p>Definition: Planning and monitoring of tax audits programs. Average score over 2005-2013. Scoring method: 3. Tax audits and fraud investigations are managed and reported on according to a comprehensive and documented audit plan, with clear risk assessment criteria for all major taxes that apply self-assessment; 2. Tax audits and fraud investigations are managed and reported on according to a documented audit plan, with clear risk assessment criteria for audits in at least one major tax area that applies self-assessment; 1. There is a continuous program of tax audits and fraud investigations, but audit programs are not based on clear risk assessment criteria ; 0. Tax audits and fraud investigations are undertaken on an ad hoc basis if at all.</p> <p>Source: variable PI.14(iii), <i>Public Expenditure and Financial Accountability Performance Measurement Framework</i>, PEFA (2006), at http://www.pefa.org/en/content/pefa-framework. Accessed in November 2015.</p>
Effectiveness in collection of tax payments (PEFA PI15(iii))	<p>Definition: Frequency of complete accounts reconciliation between tax assessments, collections, arrears records and receipts by the Treasury. Average score over 2005-2013. Scoring method: 3. Complete reconciliation of tax assessments, collections, arrears and transfers to Treasury takes place at least monthly within one month of end of month; 2. Complete reconciliation of tax assessments, collections, arrears and transfers to Treasury takes place at least quarterly within six weeks of end of quarter; 1. Complete reconciliation of tax assessments, collections, arrears and transfers to Treasury takes place at least annually within 3 months of end of the year; 0. Complete reconciliation of tax assessments, collections, arrears and transfers to Treasury does not take place annually or is done with more than 3 months' delay.</p> <p>Source: variable PI.15(iii), <i>Public Expenditure and Financial Accountability Performance Measurement Framework</i>, PEFA (2006), at http://www.pefa.org/en/content/pefa-framework. Accessed in November 2015.</p>