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## **Doing business in a deals world**

The doubly false premise of rules reform

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**Abstract:** The World Bank’s Doing Business reports have evoked an intense policy debate about whether countries should simplify regulatory rules in order to stimulate investment and growth, or make them more stringent in order to achieve public policy objectives. Both sides of this debate, however, assume that the business environment in developing countries is defined and determined by the exact implementation of these rules by the state and by firms — an assumption demonstrated to be false by a number of studies. These studies seem to indicate that, rather than these rules, doing business in developing countries is based on deals struck between firms and the political or bureaucratic arms of the state. In this paper, we undertake a cross-country analysis of the relationship between the rules related to doing business and these deals, particularly in the context of the state’s capability in implementing them. Using data from the Doing Business reports, the World Bank’s Enterprise Survey and other sources, we show that (i) while there is a relationship between rules and deals, it is a weak one; and (ii) this relationship is itself dependent on the level of a country’s state capability, with the impact of rules on deals getting further weakened if the state capability is low; and (iii) with stringent rules and very low levels of state capability, the relationship becomes perverse, with more stringent rules leading to less compliance, rather than more. Based on these results, we provide a diagnostic approach to rules reform, where the appropriate reform depends on the level of stringency of the rules in a country, and the level of its state capability.

**Key words:** Doing Business, deals, rules, state capability, investment climate

**JEL classification:** E22, M1, O3, O4

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## 1 Introduction

Among the many, many ‘knowledge products’ generated by the World Bank, the Doing Business (DB) indicators almost certainly get the most media attention and exert the largest influence on developing country governments (World Bank 2016, 2017). Countries follow their performance on their DB ranking over time and improvements are met with delight, both among the politicians and the country’s national media and, conversely, falls in rankings are met with consternation, complaint and denial.<sup>1</sup> Underlying this attention is an assumption that improvements in DB ranking imply a reduction in the transaction costs of doing business and that these reductions will lead to higher investment, as well as an increase in the efficiency of investment, and hence higher growth (World Bank 2018). Further, the country’s ranking in the DB is taken as a reliable signal to foreign investors of the country’s attraction as a destination for foreign direct investment and, given the global competition for foreign direct investment, most Southern governments have a strong incentive to out-compete other developing country governments in signalling that their countries are a good place to do business.

The DB indicators have also generated the most controversy.<sup>2</sup> One recent critique of the DB has been on the sensitivity of aggregate country rankings to the small changes in the methodology.<sup>3</sup> But a more fundamental and influential critique has been against the underlying assumption: that improvement in DB is a desirable objective. This critique argues that laws and regulations are necessary for countries to meet their legitimate public policy objectives, such as collecting taxes, protecting workers’ rights, promoting health and safety standards in the workplace, and improving the natural environment. The laws and regulations that are needed for these public policy objectives may be seen as constraining the ability of firms to do business easily, but are nevertheless needed for overall societal welfare in the country in question (Altenburg and Drachenfels 2006; Berg and Cazes 2007; Lee et al. 2008).<sup>4</sup>

Unfortunately, both the DB and its critics have incorrect assumptions about the way business is actually done in the developing world. The DB indicators measure a country’s de jure processes for doing business: what *would* happen if existing regulations and policies were applied as written. *This view assumes that (i) firms get regulatory clearances according to a country’s rules, with few systematic deviations from these rules in actual practice; and (ii) states, via their agencies and organizations responsible for implementation, actually carry out due diligence before giving regulatory clearances to firms.* However, as Hallward-Driemeier and Pritchett (henceforth HP) (2015) have shown, the World Bank’s Doing Business (DB) reports do not provide an accurate picture of a country’s business environment. For three different

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<sup>1</sup> For example, there was widespread positive coverage of India’s jump up in the DB rankings in 2017 in the national media and by the Indian government (e.g., Mishra 2017).

<sup>2</sup> For example, see critical discussions in Gelb and Ramachandran (2017) and Sandefur and Wadhwa (2018).

<sup>3</sup> For example, India jumped up from 130th in 2016 to 100th in 2017 in the global ranking of the DB indicators, which the World Bank attributed to a sustained reform focus of the Indian government (see World Bank (2017)). However, when a consistent methodology is applied to the Doing Business data over time, India’s rise in the global ranking is much more modest (see Sandefur and Wadhwa (2018)). Similarly, the former chief economist of the World Bank, Paul Romer, criticised the Doing Business methodology in the case of Chile, where the addition of new components, such as the amount of time firms spend in dealing with taxes, led to the drop in Chile’s ranking in the DB indicator during the tenure of the socialist President, Michelle Bachelet (see Zumbun and Talley (2018)). This controversy led the World Bank to constitute an external audit of Chile’s ranking in the DB indicators in 2018.

<sup>4</sup> See Martin-Prével and Mousseau (2016) and Bretton Woods Project (2017).

indicators, HP compare the de jure times reported in the DB<sup>5</sup> with distribution of the times reported for those same three indicators from the World Bank's Enterprise Surveys (ES), which reflect the reported experiences of a sample of firms. HP show the DB and ES for the same questions produce completely different results about the business environment, both across countries (there is little to no correlation of DB and ES) and within countries (where there is massive discrepancy and large variance across firms). For example, according to the DB, de jure it *would* take about 180 days to get a construction permit in India in 2014. The ES data from firms that actually did get construction permits in that same year, showed huge variance across firms, as some firms reported needing only one day, while others needed up to 365 days. The average reported time was 33 days, *five months* less than the DB time of 180 days. HP argue that these massive discrepancies between DB and ES show that the DB de jure compliance times do not represent the actual *rules* of doing business, the reality is that firms do business in a *deals* environment.

A 'deal' implies that actual outcomes, what happens to any specific investor, depend in some, perhaps very small, part on the formal rules, but also on the ways in which my specific characteristics (e.g. relationship to those in power) and actions (e.g. bribes, lobbying, use of intermediary 'fixers') influence outcomes.

Deals can be based on relationships between businesses and political leaders and/or the bureaucracy. Fisman (2001) pioneered the use of stock market event studies to show that a substantial fraction of the market value of firms that were connected to the Indonesian president of that period, Suharto, was due precisely to that: their connection to Suharto. In 'Seize the state, seize the day' Hellmann, Jones and Kaufmann (2003) document the emergence in post-transition countries of a 'capture economy', in which favourable regulatory treatment was sold by public officials — which both advantaged the connected firms and disadvantaged their potential competitors. In the aftermath of the Arab Spring, Rijkers, Freund and Nucifora (2017) documented the enormous favouritism given to those connected to Ben Ali, which led to higher profits for connected firms, especially in highly regulated sectors. Mohamed Bouazizi, the street vendor who set himself on fire, and the Ben Ali clan, did not share of the same 'rules' for doing business. Similarly, Chekir and Diwan (2014) and Diwan, Keefer, and Schiffbauer (2015) show the many advantages enjoyed by the Egyptian firms connected to the president of Egypt, Hosni Mubarak, including regulatory favouritism to the connected and disadvantages to the unconnected firms in sectors that connected firms entered.

Connections or influence are not just at the national or provincial level, but can affect outcomes at the most local level. Local politicians or groups or parties can influence access to markets, the freedom to move goods regionally, and securing contracts; and local groups use illegal means to prevent local competition in basic services like taxis, security guards, etc. Moreover, in the absence of personal connections influencing outcomes, a 'deal' can be affected by actions of intermediaries. Interactions with government over routine matters like driver's licences or permits or legal documents are often mediated by 'brokers' or 'touts' or 'fixers', who collude with agencies to provide services for fees (Bertrand et al. 2007)

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<sup>5</sup> The DB reports assess 11 elements of a country's policies that relate to private firms, including starting a business, trading across borders, dealing with construction permits, enforcing a contract, and paying taxes. The measures for each element are created by experts (one to four lawyers or accountants) in each country, who are asked to estimate the 'typical' time and cost that it would take a hypothetical 'standard' firm (privately and domestically owned, limited liability company with 10-50 employees, operating in the country's largest city) to comply, based on their assessment of formal regulations as they exist on the books (see HP: 124).

The common definition that ‘institutions’ create the ‘rules of the game’, combined with the idea that ‘institutions’ can be “strong’ or ‘weak’, leads to confusion. With ‘weak’ institutions the ‘rules of the game’ are not *rules*, in the usual meaning of the word, but hyper-specific, personalised, and many times unpredictable (ex ante and ex post) and contested, *deals*. The predicted regulatory outcomes for specific firms, like how long it will take to receive a construction permit, or what taxes a firm will pay, or whether one is allowed to sell this product on this street, cannot be determined by examining the formal rules. The formal rules establish mappings between facts about states of the world and actions of publicly authorised agents, but these laws, regulations and policies are not the reality; reality is based on *deals*, which are based on characteristics and which influence actions.<sup>6</sup>

The weak capability for policy implementation of state organizations is a key feature that distinguishes countries by their level of national development (Andrews, Pritchett and Woolcock (APW) 2017). Across functions of the state, from taxation to regulation to law enforcement to provision of services, developing country governments have often taken on much more complex and demanding policies than they are able to implement. This mismatch of policies and capability for implementation creates a situation in which, across the board, the administrative ‘facts’ created by the state for purposes of regulatory implementation are often a complete fiction (Pritchett 2012). As just one example, Duflo et al. (2013) show that the pollution emissions reported by firms through environmental audits bore very little relationship to actual emissions, as firms clustered their reported emissions just below the allowed level and many firms reported their emissions as much *more* than their actual emissions. APW refer to this adoption of ‘best practice’ or ‘gold standard’ laws/regulations/policies from abroad that attempt to do ‘too much, too soon, with too little’ as ‘premature load bearing’. Premature load bearing is like attempting to drive a heavy truck across a half-built bridge — the attempt causes the bridge to collapse and the building process has to start from scratch. APW argue that the attempt to implement complex and onerous regulations puts organizational stress on the agents of the organization to deviate (as those being regulated create inducements for those agents and their organization) and that if this stress exceeds the countervailing motivation the organization is able to create, this can create a low-level equilibrium trap of organizational dysfunction with respect to purpose. This is a ‘trap’, because any incipient attempt to improve organizational capability, say through more ‘training’, is undermined by the existing pressures of premature load bearing and norms of non-compliance.

As HP (2015: 123) argue ‘when strict de jure regulations meet weak governmental capabilities for implementation and enforcement ... researchers and policy makers should stop thinking about regulations as creating “rules” to be followed, but rather as creating a space in which “deals” of various kinds are possible’. This suggests that any understanding of the business environment of developing economies makes it imperative to first empirically characterise the actually reported deals and try and understand what drives the observed patterns. This is the motivation of this paper.

In this paper, we contribute to the debate on Doing Business in developing countries in two important ways. First, we define a number of measures for the deals environment in developing countries, such that cross-country comparisons are made possible. Using data from the ES, we define these measures for all ES country-years that have a minimum of 30 firms in the ES sample

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<sup>6</sup> As Pritchett, Sen and Werker (2017) show, the type of the deals that are made offered by state actors to the business sector can explain economic growth episodes in developing countries, with ordered deals explaining accelerations in economic growth, where ordered deals are deals which the business sector can be confident will be delivered. Maintenance of rapid growth, on the other hand, requires deals which, while ordered, are open as well (that is, the deals are not confined to a few business actors, but are offered to a wide range of firms).

with data on the relevant indicators. The ES has conducted more than one survey corresponding to different years in some of these countries, so we have a sample of 136 country-years that satisfies the minimum number of 30 sampled firms. We find that the countries where firms report the highest proportion of *quick deals* (less than 15 days) are not a uniform group, but fall at opposite ends of a spectrum. *Both* failing states, such as Sudan, *and* high performing states, such as Malaysia, have predominately quick deals. This suggests that governance capabilities or regulatory stance alone may not be able to explain why we see such wide variation in deal-making across countries.

Our second contribution is an exploration of the correlates of deal-making across countries, focusing in particular on the interaction between the stringency of the de jure rules, as reported by Doing Business, and the level of state capability. We find that the association of the proportion of ‘quick deals’ (or, conversely, ‘slow deals’) and the DB depends on the level of state capability, as in states with low capability *increases* in regulatory stringency are associated with *increases* in the proportion of firms reporting *quick deals*, strongly suggesting that pre-mature load bearing from high levels of formal regulation *decreases* compliance. The potentially important implications for approaching ‘policy’ we discuss at the end of the paper.

To motivate the empirical analysis, we first present an illustrative example drawn from the DB indicators on taxation in Section 2. Section 3 empirically describes and classifies the nature and varieties of deals environments in developing countries. Section 4 defines some measures of the deals environment and carries out some preliminary investigation on their correlates. Section 5 carries out regression exercises to describe correlates of the deals environment. Section 6 discusses the implications of the results and their potential implications for policy choices. Section 7 concludes.

## **2 Is there a trade-off between easing rules and achieving public purpose? An illustrative example**

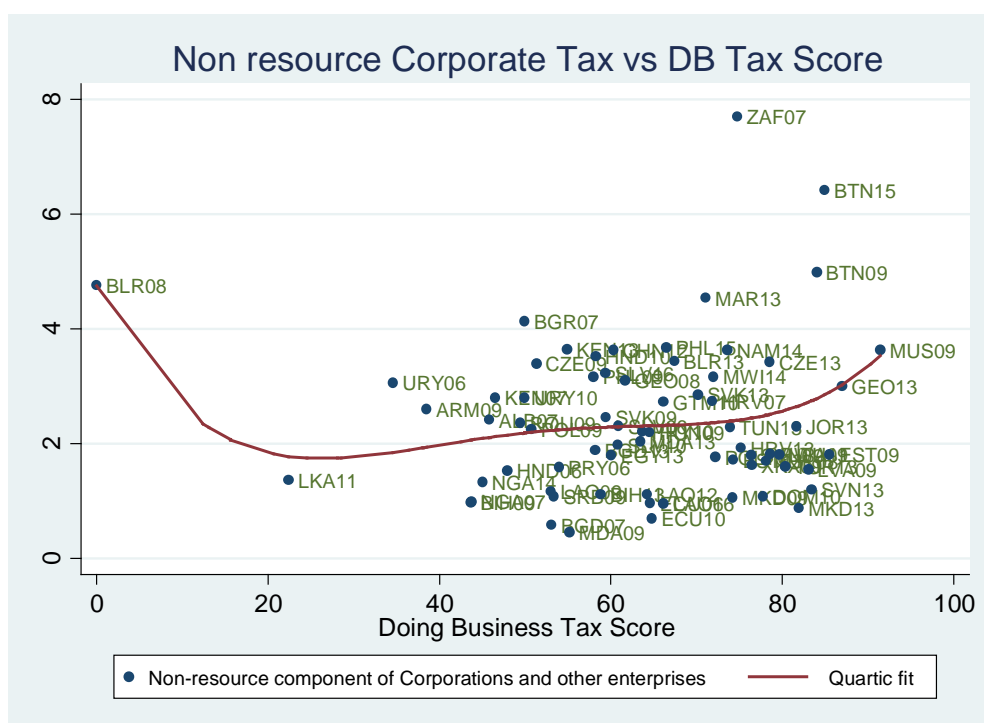
An important critique of the Doing Business indicators is that the relaxation of de jure rules which may be beneficial for investment and economic growth may come at the cost of compromising important public purpose objectives, such as achieving health and safety standards in the workplace or maintaining environmental quality or collecting taxes. If this is the case, we would expect a negative relationship between any given DB indicator and the corresponding public purpose outcome. Taxation is an important example. There is increasing emphasis — including from organizations like the IMF — that governments in developing countries need to raise levels of tax revenue in order to finance the critical public goods necessary for economic and social development (e.g. roads, schools, and health clinics). The DB indicators on taxation measure decrease in the ‘ease’ of doing business from the level and administrative burden of the tax system. Critics of DB would argue that making the taxation system less onerous to tax filers (corporations and individuals) may make it less possible for governments to increase their tax intake. But what is the empirical association of the DB measure of taxes and actual tax take?

Figures 1 and 2 show the relationship between the Doing Business indicator of taxes and actual corporate and income tax collections as a percentage of gross domestic product (GDP), respectively. The Doing Business taxes score is a ranking from 0 (worst, least ease) to 100 (best, most ease in Doing Business) based on equal weights in the ranking of: (1) the per cent tax on profits; (2) the hours to comply; (3) the number of payments per year; and (4) a post-filing index of time to recover VAT refund. The debate about Doing Business and public purpose would assume that countries with higher ease of Doing Business would achieve this only at the expense

of the legitimate public purpose of collecting taxes, which, as the ‘price of civilization’, are needed to achieve important public goals.

But there is roughly zero correlation of actual collections of taxes on firms as a percentage of GDP (either corporate taxes, Figure 1, or income taxes, Figure 2) and the DB measure. Countries with near the best measures of Doing Business — like Georgia, which has the third best score of 87 — collect about 3 per cent of GDP and that is exactly what a country near the worst ranking — Uruguay with the third worst score of 35 — collects. And countries with nearly the same rating on DB for taxes collect widely varying tax revenues. Among countries with the best scores (highest ease of Doing Business), Bhutan collects over 6 per cent of GDP, whereas Slovenia and Macedonia, with roughly the same score, collect only 1 per cent.

Figure 1: There is *no* relationship between DB indicators on taxes and actual corporate tax collected as a percentage of GDP



Source: Authors' calculations from DB and ES data.

As previous papers have demonstrated, there is little connection at the item and firm level between tax rates and tax collections. Pritchett and Sethi (1994) demonstrated in three countries the weak connection between the de jure *ad valorem* tariff rate on a given import item and the actual *ad valorem* collected rate (revenues divided by value). Particularly when tariffs were high, ‘deals’, in the form of exemptions and exclusions for specific importers or specific uses, proliferated (and this method could only measure formally recorded deals; informal accommodations and evasions would make these results even stronger). Gauthier and Gersowitz (1997) demonstrated the weak connection between firm sales tax rates, actual sales and actual taxes paid as firms engaged in a variety of tax aversion and evasion tactics. Our illustrative example provides further suggestive evidence that the relationship between de jure rules (as captured by the DB indicators on taxation) and de facto outcomes (as measured by the tax take) is weak at best, and probably non-existent, in a context where deals, not rules, characterise the economic environment. We next propose a simple and intuitive way to capture the deals environment in developing countries using available secondary data.

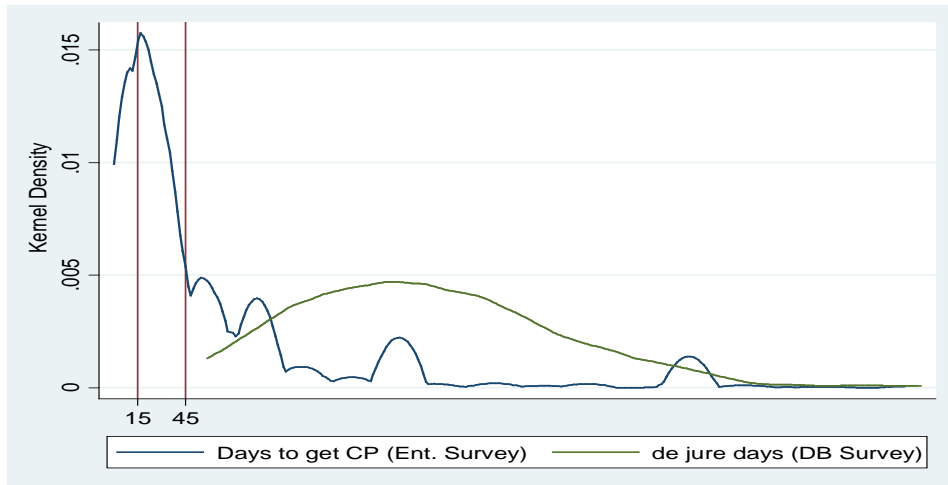




construction permit, as the number of surveys with adequate numbers of firms on operating licences is much lower.

Figure 3 presents kernel density functions for de jure rules (DB) and de facto days (ES) needed for construction permits, pooled across all the developing countries. The rules related to getting construction permits are not a description of their actual behaviour, as in practice they get their permits much faster than the rules stipulate. The modal number of days for DB is 180, whereas the modal days for ES is 15. This is so fast that it indicates the prevalence of some type of deal.

Figure 3: There is a vast discrepancy between de jure ‘rules’ and the de facto ‘deals’ outcomes



Source: Authors' calculations from DB and ES data.

We characterise deals as quick, moderate, or slow. Quick deals are those that complete the regulatory process within 15 days. Moderate deals are those that complete the regulatory process in between 15 and 45 days. If it took more than 45 days for firms to obtain the licence or permit, we define it as a *slow* deal. It may be noted that this nomenclature has no normative implication, but only provides a way to classify deals according to the time needed by firms in order to get their regulatory requirements processed.

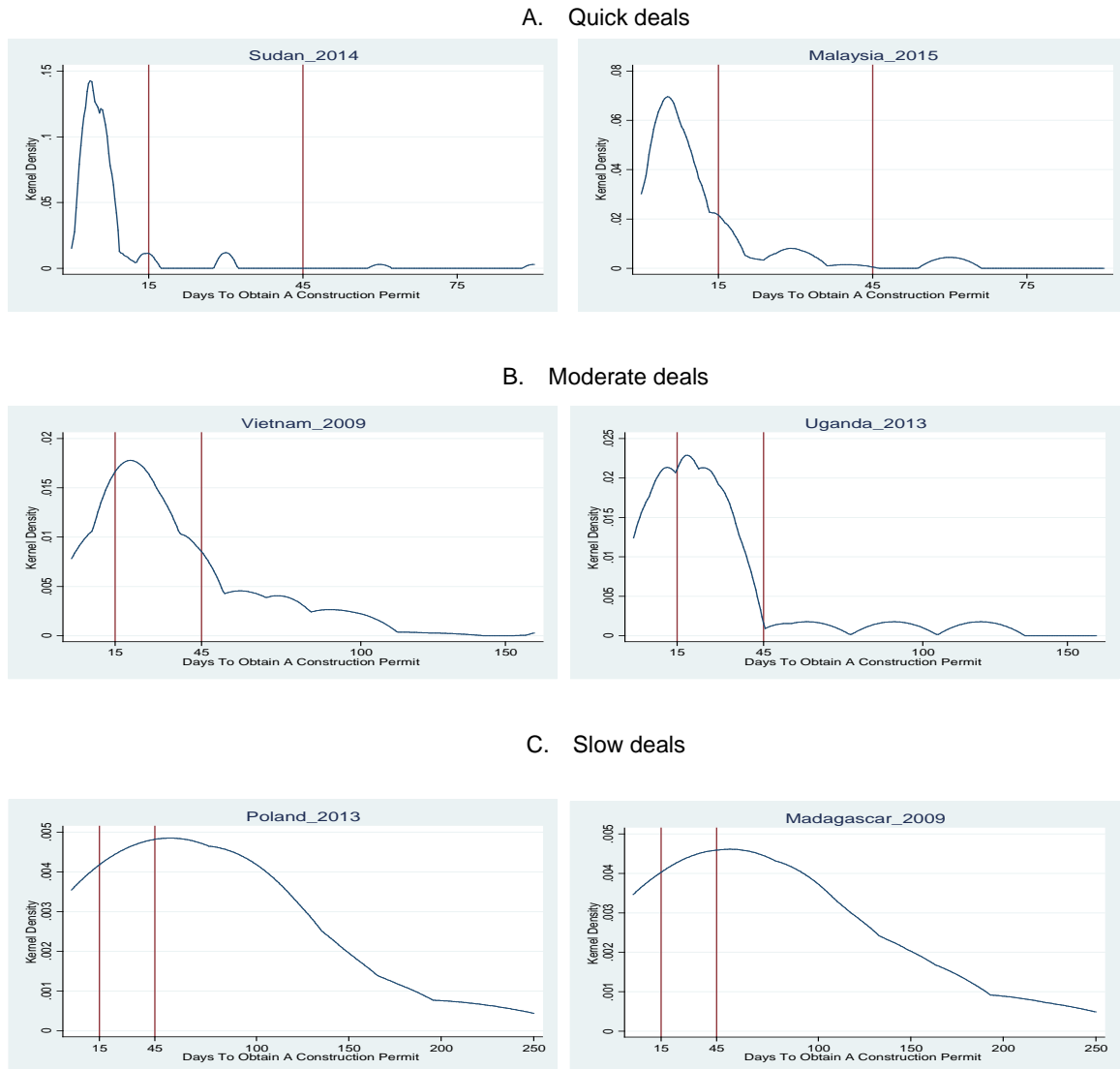
There are three important aspects of the ES days distribution. First, there is a significant portion of this distribution on the left tail, which involves regulatory clearances within very few days, which is likely too short a period to undertake any due diligence or substantive review. About a third of all firms in the ES report a ‘quick deal’.

Second, there is a significant portion on the right tail (a bump at 365 days) that takes ‘too many’ days to complete regulatory clearance — more than the de jure and order of magnitude larger than the typical de facto. These are either extraordinarily complex cases that legitimately take a long time to review, or, given the deals nature of the enforcement environment, it could, in effect, be inflicting harassment on the firms by delaying approvals. As seen in the distributions of DB and ES in Figure 3, two-thirds of all firm responses about construction permit compliance times are bunched below 45 days — below the *lowest* reported DB time and not anywhere near the middle of the de jure distribution of 180 days. Thus, a third of the distribution is firms with ‘slow’ deals.

Third, another third of the distribution are firms with ‘moderate’ deals, between 15 and 45 days. This distribution of ES reports contrasts with the distribution of rules, which is one observation per country/year. This is significantly flatter, indicating a larger variety of approaches to the policies towards ease of doing business across developing countries. The number and proportion

of firms under each of these types of deal for each ES country-year is given in Table A2 in the Appendix. Figure 4 represents the kernel distribution of deals for countries that have mostly *quick*, *moderate* and *slow* deals, respectively. While the horizontal axes of the graphs are not all to the same scale, there are (red) lines marking 15 days and 45 days in each graph, so that the distributions can be compared.

Figure 4: Countries are heterogeneous in deal making



Source: Authors' calculations from DB and ES data.

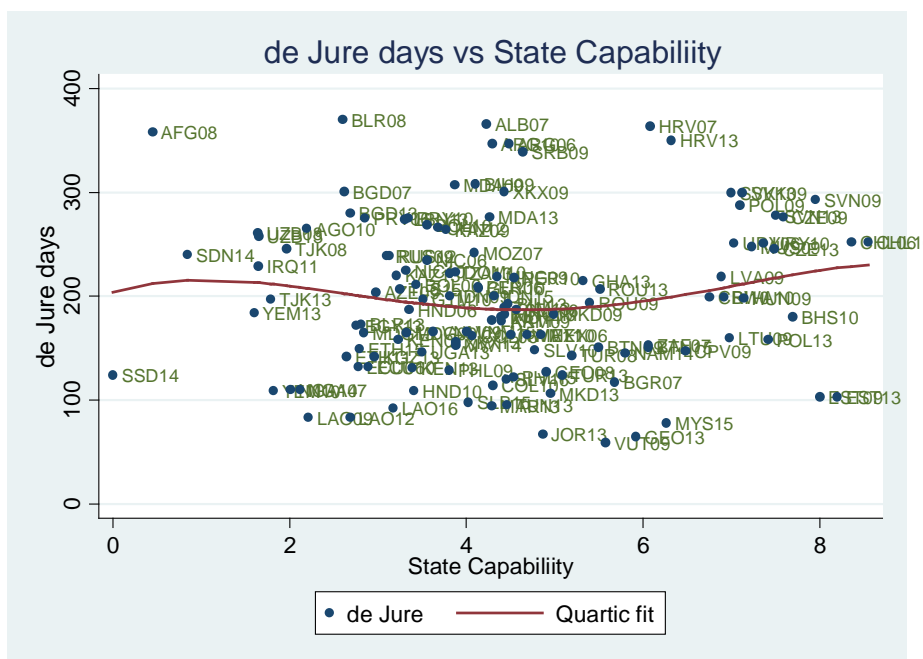
The quick deals environments are across very different income and governance levels. Countries with a predominantly quick deals environment include very high middle-income countries like Malaysia (83 per cent), but also much poorer countries without, shall we say, a strong reputation for governance, like Sudan (94 per cent). Countries with predominantly a *moderate* deals environment include high-income countries, such as Hungary (56 per cent moderate), as well as low-income countries like Uganda (44 per cent) and low-middle-income countries like Vietnam (38 per cent). Countries with a *slow* deals environment include high-income countries like Poland (68 per cent slow) as well as very low-income countries like Madagascar (60 per cent). Perhaps not surprisingly, the very high per cent 'slow' countries are dominated by Eastern Europe and Russia (nine of the 13 highest per cent slow countries).

#### 4 Deals environments, rules and state capability: a preliminary exercise

This section explores the cross-national relationship between the deals environment, de jure rules, and state capability. We use the proportion of *quick deals* ( $<15$ ), *moderate deals* ( $15 < ES < 45$ ) and *slow deals* ( $>45$ ) in line with the discussion in the previous section.<sup>7</sup>

There are two obvious factors that may influence deals. First, the de jure rules define the official approach to the state–business relationship. By legally fixing a process with few days required for compliance, governments could hope to provide better deals to firms. We use the DB report for the country-year of the ES to proxy for this factor. Second, state capability is sometimes defined as the ability to implement existing laws, regulations and policies. We create a state capability index based on principal components analysis of the six (strongly correlated) variables from the World Governance Index: (i) voice and accountability (ii) rule of law (iii) regulatory quality (iv) political stability (v) government effectiveness and (vi) corruption control. These two, official regulation and state capability, are conceptually independent and Figure 5 shows there is only a weak correlation (-0.11).

Figure 5: Relationship between Doing Business (construction permit) and state capability



Source: ? Authors' illustration based on [x] data??

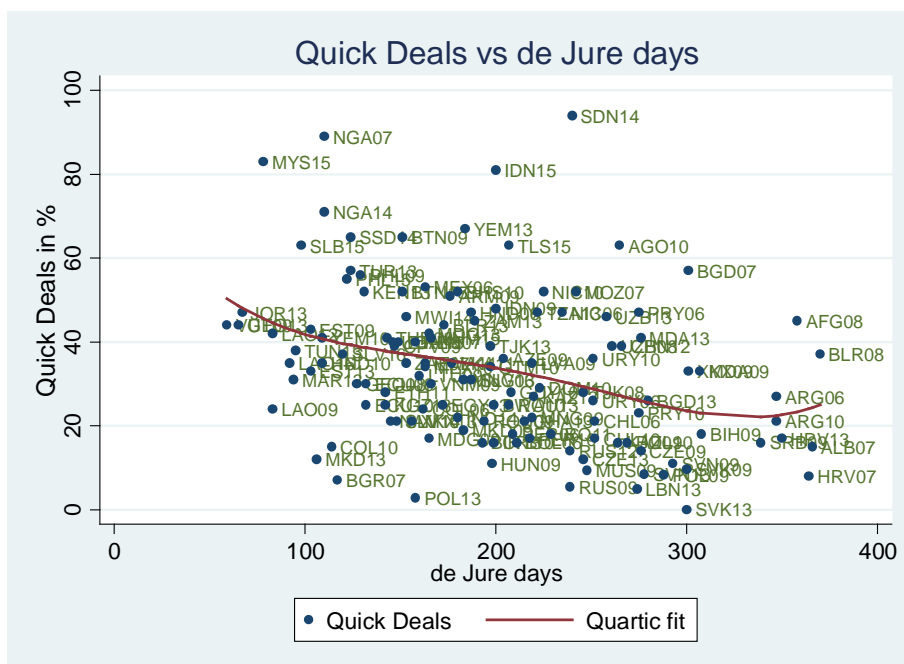
There is a fairly high correlation across countries of nearly all governance indicators and there is a literature on how many principal components these various indicators contain. The first principal component of six WGI variables captures close to 80 per cent of the joint variation. Many authors argue that there is really only one principal component in the standard governance indicators, while others argue that there are two or more, often with one representing the ‘democracy/human rights’

<sup>7</sup> While HP looked at variation in three measures of regulatory compliance in the Enterprise Surveys – days taken to obtain an operating licence, days taken to obtain a construction permit, and days taken to clear customs – we confine our analysis to construction permits, as there are enough firm-level observations of this variable to permit a robust measure of deals for a sufficient number of countries.

aspects of governance and another ‘state capability’ (Drumm 2015). For our present purposes, one rough-and-ready index based on the first principal component will do.<sup>8</sup>

The proportion of quick, moderate and slow deals is plotted against the Doing Business reported days in Figures 6 and Appendix Figures A1 and A2 (each of which shows an illustrative quartic fit). Figure 6 shows a lower proportion of quick deals, the higher the DB measure. There is some relationship between the deals environment and the DB, but it is weak, in two senses.

Figure 6: Relationship between quick deals and Doing Business (construction permit)



Source: Authors' calculations from DB and ES data.

First, the relationship is weak in the sense that *massive* increases in the DB are associated with modest decreases in the proportion of quick deals. Following the quartic fit, one can see that countries with a DB of 100 days have roughly 40 per cent quick deals, whereas countries with a DB of 300 days still have, on average, more than 20 per cent quick deals — firms who report taking *less than 15 days*. Obviously, if de jure regulations increased compliance times one for one — shifted the distribution of reported compliance times uniformly to the right — a 200-day increase in the de jure should completely eliminate quick deals. For that matter, even if each de jure regulatory day added uniformly *one-tenth of a day* to each firm’s reported compliance times, this should also drive the proportion of quick deals to zero (as even firms reporting zero days at DB of 100 would be at 20 if the uniform shift were even one ES day for each 10 DB days).

<sup>8</sup> There has been considerable debate on how best to measure state capability. While the World Governance Indicators (WGI) have come under some criticism for lack of consistency over time (see Apaza 2009), other measures such as ICRG’s Bureaucratic Quality, have been criticised for their subjective nature (see Savoia and Sen 2015). We use the WGI, as they cover all the countries in our sample. However, our results are robust to alternative measures of state capability, such as the ICRG measure of bureaucratic quality.

Figure 7A: Distribution of quick deals for Doing Business terciles

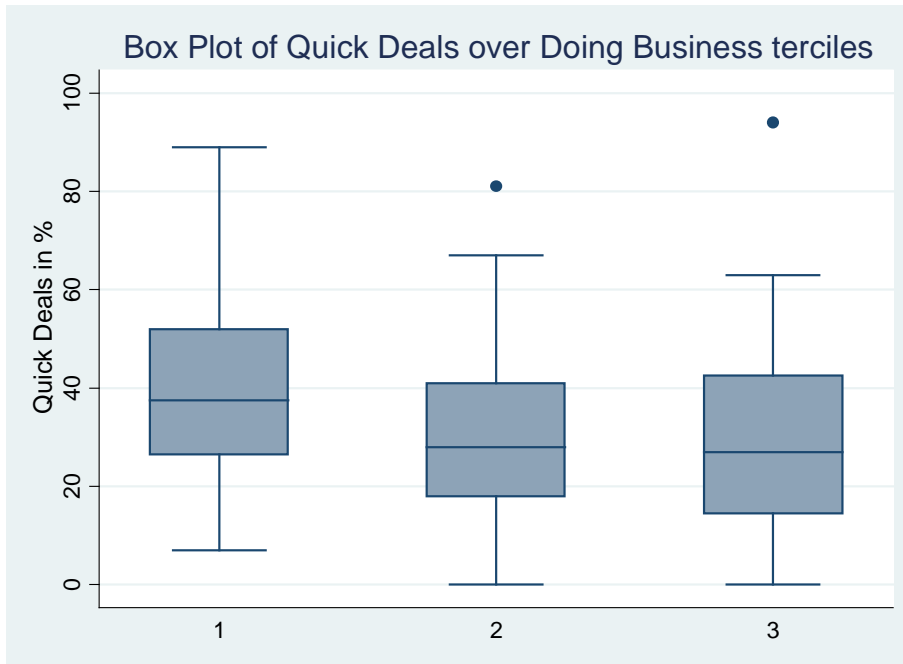
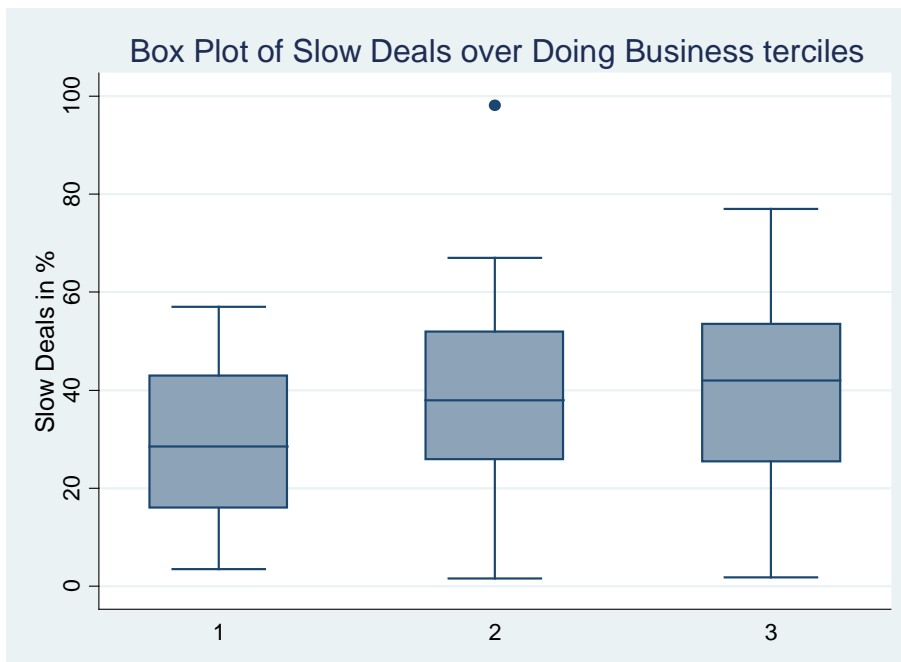


Figure 7B: Distribution of slow deals for Doing Business terciles



Source: Authors' calculations from DB and ES data.

Second, the relationship is weak in the more traditional sense that the ‘explanatory power’ of DB for reported times is weak. Figures 7a and 7b show the box plot of the distribution of ‘quick’ and ‘slow’ deals across the terciles of DB. The fraction of ‘quick deals’ does decline with the de jure DB measure of the rule — but only moderately from lowest tercile to middle tercile and not at all above that (so the median fraction of quick deals is roughly the same in the most restrictive tercile as the middle tercile). These 25<sup>th</sup>-75<sup>th</sup> boxes massively overlap. Even though the median DB days is 69 days higher for the middle tercile than the bottom tercile (least restrictive), the 75<sup>th</sup> percentile



As the deals environment is structured by informal institutions that work alongside (sometimes as a complement, sometimes undermining) formal contractual institutions, we also include measures of institutions from the literature: geography (temperate regions); history (of statehood); social factors (ethnic fractionalization); and economic structure (globalization, rents from different sources). We also control for per capita income, just as an omnibus control variable.

Tables 1 to 3 present the results for the measures quick deals, moderate deals and slow deals, respectively. The first equation (column 1) estimates the deals variable as a function of just the variables DB de jure days and state capability. Column 2 presents the spline regressions allowing for non-linearity. Column 3 includes the spline regressions and adds as controls per capita GDP and measures of institutions.<sup>9</sup> Column 4 drops the spline regressions, but includes interaction terms between de jure days and state capability and controls. Column 5 includes the spline regressions, a multiplicative interaction term between de jure days and state capability index and the control variables.

Table 1: Correlates of the percentage of quick deals (<15 days)

	1	2	3	4	5
DB de jure	-0.08*** (0.00)			0.07 (0.24)	
State capability	-3.73*** (0.00)			2.70 (0.37)	
DB (below median)		-0.09** (0.04)	-0.14** (0.01)		-0.02 (0.81)
DB (above median)		-0.08** (0.03)	-0.01 (0.95)		0.09 (0.14)
State capability (below median)		-6.15*** (0.00)	-6.00** (0.03)		-0.87 (0.81)
State capability (above median)		-2.05 (0.12)	-1.05 (0.64)		3.46 (0.28)
DB de jure x State capability				-0.03** (0.02)	-0.02* (0.06)
State history			-0.61 (0.94)	-0.03 (0.99)	0.23 (0.97)
Geography			-25.71** (0.04)	-29.62** (0.02)	-32.92** (0.01)
Per capita GDP			-3e-04 (0.63)	3e-04 (0.59)	3e-05 (0.96)
Globalization			0.12 (0.46)	0.11 (0.51)	0.13 (0.41)
Oil rent			-0.21 (0.37)	-0.10 (0.66)	-0.19 (0.42)
Gas rent			1.59 (0.39)	0.41 (0.81)	1.44 (0.43)

<sup>9</sup> Adding the control variables causes the sample size to fall modestly (from 129 to 98 observations), but the results of columns 1 and 2 on the reduced sample are essentially the same.

Forest rent			-0.08 (0.89)	-0.02 (0.97)	-0.02 (0.97)
	4.88		(0.62)	(0.53)	(0.64)
Constant	65.88*** (0.00)	75.65*** (0.00)	81.27*** (0.00)	29.93* (0.08)	54.23** (0.01)
Observations	129	129	98	98	98
R — squared	0.2463	0.2621	0.3516	0.3497	0.3787

Note: p-value in parentheses. Level of significance: \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10

Source: Authors' tabulations from DB and ES data.

Amongst the control variables, whether the country was located in a 'temperate' region shows a consistent relationship — negative and significant with quick deals, and positive and significant with moderate deals. This likely reflects the EE/FSU countries, which, as we noted above, were typically moderate- and slow-deal countries. None of the other variables, including per capita income, has any significant relationship with the deals variables. Hence we will focus on the complicated relationship between the de facto deals environment, state capability index, and de jure regulation.

The regression results in Table 1, columns 1 to 3, confirm the negative relationship between the quick deals variable and the DB de jure days and state capability variables. Column 3 (that includes controls) shows that, at levels of DB days below the median, increases are associated with fewer quick deals, but this is not true above the median (controlling for the temperate region). Similarly, increases in state capability from low levels decrease quick deals; less so above the median. Columns 4 and 5 suggest an interactive effect between the formal regulation (DB days) and state capability. With a linear interaction term, the estimated impact of increased DB regulatory days on the percentage of quick deals depends on the level of state capability. In column 4 the equation is:

$$\text{Percent quick} = \alpha + \beta * \text{DB days} + \delta * \text{State capability} + \gamma * \text{SC} * \text{DB} + \theta * Z$$

So the predicted impact on the percentage of deals that are quick from increasing the DB days by 100 days is:

$$\frac{d \text{ Percent quick}}{d \text{ DB}} * 100 = (\beta + \gamma * \text{State capability}) * 100$$

Table 2: Correlates of the percentage of moderate deals (15–45 days)

	1	2	3	4	5
De jure	-0.01 (0.26)			-0.02 (0.53)	
State capability	0.05 (0.92)			-0.08 (0.96)	
De jure (below median)		-0.02 (0.60)	-0.002 (0.94)		-0.004 (0.94)
De jure (above median)		-0.01 (0.57)	-0.03 (0.27)		-0.03 (0.48)
		0.19	0.63		0.57



State capability (below median)		(0.87)	(0.69)		(0.81)
State capability (above median)		-0.04	-0.13		-0.18
		(0.96)	(0.92)		(0.93)
De jure x state capability				0.001	0.001
				(0.86)	(0.97)
State history			-3.28	-3.27	-3.29
			(0.92)	(0.51)	(0.52)
Geography			27.17***	26.61***	27.25***
			(0.00)	(0.00)	(0.00)
Per capita GDP			-4e-04	-5e-04	-4e-04
			(0.20)	(0.15)	(0.22)
Globalization			0.07	0.08	0.07
			(0.46)	(0.42)	(0.47)
Oil rent			0.11	0.09	0.11
			(0.44)	(0.49)	(0.45)
Gas rent			-0.60	-0.39	-0.60
			(0.59)	(0.71)	(0.60)
Forest rent			0.12	0.13	0.12
			(0.71)	(0.70)	(0.71)
Ethnic fractionalization			0.74	0.52	0.75
			(0.88)	(0.91)	(0.88)
Constant	33.34***	33.09***	20.08**	25.16**	20.41
	(0.00)	(0.00)	(0.04)	(0.02)	(0.13)
Observations	129	129	98	98	98
R — squared	0.0099	0.01	0.186	0.1823	0.186

Note: p-value in parentheses. Level of significance: \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10

Source: Authors' tabulations from DB and ES data.

Table 3: Correlates of the percentage of slow deals (>45 days)

	1	2	3	4	5
De jure	0.09***			-0.05	
	(0.00)			(0.39)	
State capability	3.66***			-2.78	
	(0.00)			(0.36)	
De jure (below median)		0.11**	0.15**		0.02
		(0.01)	(0.01)		(0.81)
De jure (above median)		0.08**	0.03		-0.07
		(0.01)	(0.50)		(0.29)
		5.93***	5.31*		0.07
State capability (below median)		(0.00)	(0.05)		(0.98)
		2.08*	1.21		-3.39
State capability (above median)		(0.09)	(0.60)		(0.31)

De jure x state capability				0.02**	0.02*
				(0.02)	(0.06)
State history		4.63		3.98	3.76
		(0.59)		(0.63)	(0.66)
Geography		-1.79		2.92	5.56
		(0.89)		(0.82)	(0.68)
Per capita GDP		-5e-04		3e-04	7e-04
		(0.23)		(0.76)	(0.51)
Globalization		-0.19		-0.18	-0.21
		(0.26)		(0.27)	(0.22)
Oil rent		0.09		-0.002	0.07
		(0.69)		(0.99)	(0.77)
Gas rent		-0.96		0.01	-0.80
		(0.61)		(0.99)	(0.67)
Forest rent		-0.05		-0.11	-0.11
		(0.93)		(0.84)	(0.84)
Ethnic fractionalization		-4.75		-5.46	-4.47
		(0.56)		(0.50)	(0.58)
Constant	1.11	-8.79	-1.49	45.59**	26.16
	(0.82)	(0.31)	(0.93)	(0.01)	(0.23)
Observations	129	129	98	98	98
R — squared	0.2962	0.3116	0.3003	0.3102	0.329

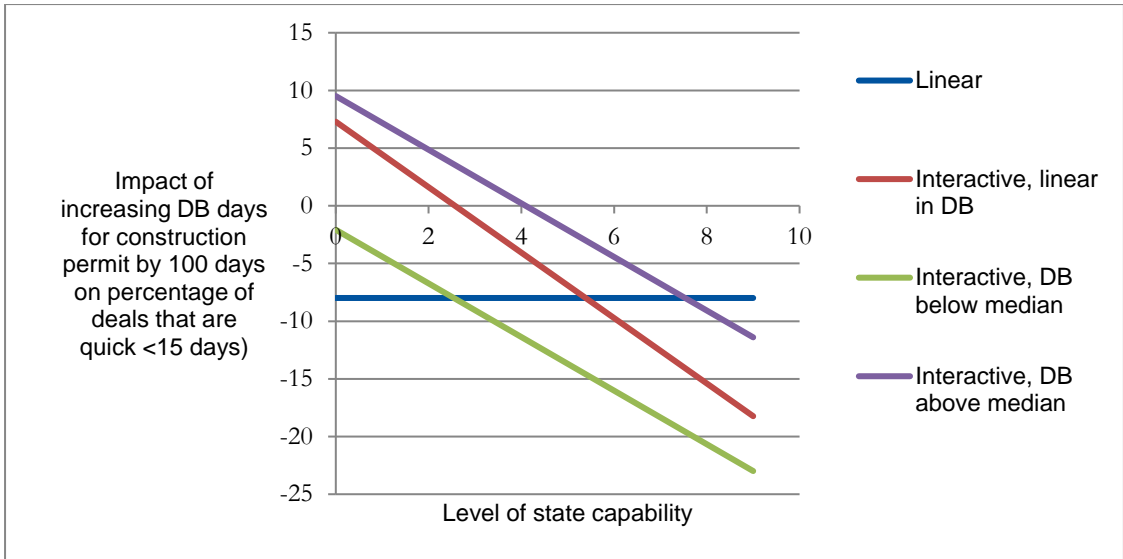
Note: p-value in parentheses. Level of significance: \*\*\* p <0.01, \*\* p <0.05, \* p <0.10

Source: Authors' tabulations from DB and ES data.

At the point estimates this is  $(.07-.03*SC)*100$  and is shown in Figure 9. Column 1 suggests that, on average, an increase by 100 days in the regulation is associated with 8 per cent fewer quick deals (the horizontal line). But the interactive effect suggests that, while this is true of the country with state capability of 5 (on a 0 to 10 scale), this is not true for countries with low capability. For a country of very low capability (an index of 1, roughly Sudan's level), the predicted effect of increasing the de jure regulatory days to get a construction permit by 100 days is to increase the percentage of firms which actually report completing the process in less than 15 days by 4 percentage points. That is, higher stringency of regulation is associated with less apparent compliance.

From column 5, we can also calculate the expected impact of increasing regulation on quick deals when the DB is either below or above the median (i.e., 193 days). What the estimates suggest is that the impact on the percentage of deals that are quick of an increase in the DB de jure rules, is the unexpected result of *increasing* the percentage of quick deals only for those countries which start from a higher than average DB regulation. This result therefore combines the non-linearity of the spline from column 3 with the interaction effect. This result is consistent with what we observe in the graphs above, where, for instance, Sudan and Afghanistan have very low state capability, above average DB de jure days, and yet also above average percentage of quick deals.

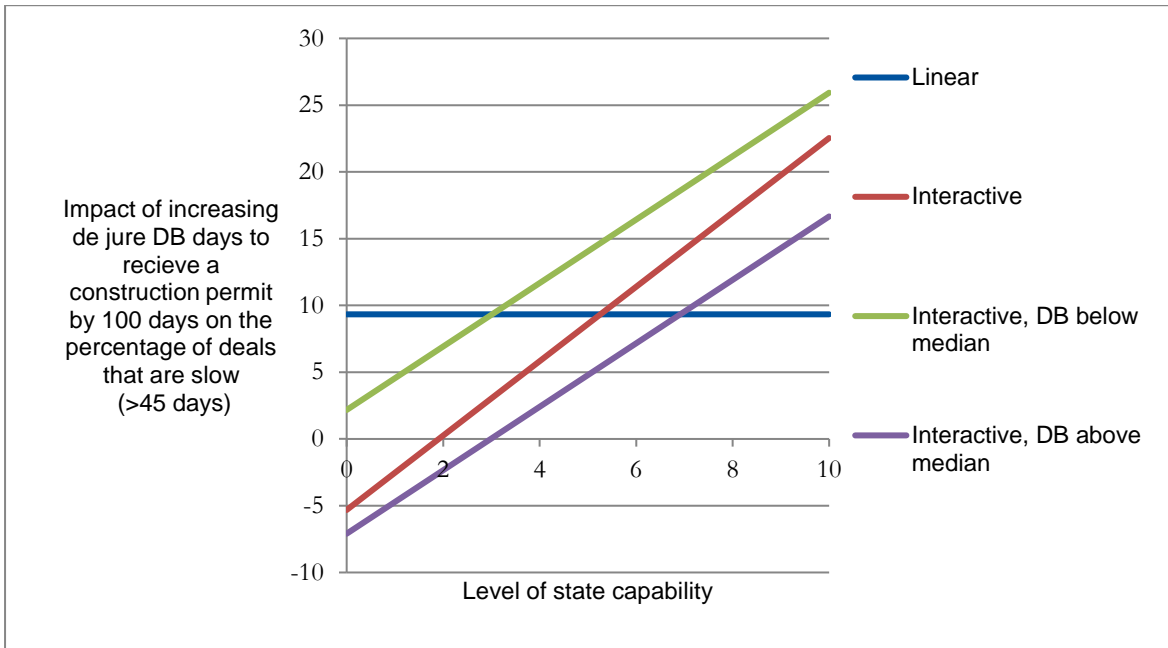
Figure 9: Increasing the de jure regulation reduces quick deals for higher-capability states, but not for weak capability states



Source: Calculations from regression coefficients in Table 1.

Figure 10 shows the same results for slow deals (>45 days), which are, reassuringly but not surprisingly, symmetric: increases in regulation *reduces* the fraction of deals that are slow for low-capability countries, particularly when regulation is above the median.

Figure 10: Increasing regulation increases the percentage of deals that are 'slow' in strong capability countries, not in weak capability countries



Source: Calculations from regression results in Table 3.

Table 4 reports the results of regressing the median of the reported days in the ES data on the DB de jure days.<sup>10</sup> The coefficient signs in Table 4 are expected to be opposite to those in Table 1, as higher median days is, all else equal, likely associated with fewer quick deals. Again reassuringly, but not surprisingly, the three key patterns from the quick and slow deals are produced with the interactive effects on the median days to compliance in Figure 11. The first finding is that the impact of de jure regulation on what firms report is non-linear, i.e., increasing the de jure regulation by 100 days increases the median reported days by only six days when the increase starts from above the median, but by 14 days when it is below the median. The second finding is the interactive effect that the impact of de jure on de facto is much weaker (and, for the weakest, in the opposite direction) in countries with weak state capability and stronger in states with strong capability. The third (in some sense a mechanical consequence of the above two) is that increasing regulation in very weak states actually *reduces* the median reported compliance times.<sup>11</sup>

Table 4: Correlates of firm reported median days

	1	2
	Median-days	Median-days
DB de jure_low	0.14** (0.04)	-0.01 (0.94)
DB de jure_high	0.06 (0.24)	-0.05 (0.51)
State capability_low	6.53* (0.05)	0.50 (0.91)
State capability_high	2.43 (0.39)	-2.87 (0.48)
De jure x state capability		0.03* (0.08)
State history	10.51 (0.32)	9.51 (0.36)
Geography	13.15 (0.41)	21.62 (0.19)
Per capita GDP	2e-04 (0.79)	-2e-04 (0.82)
Globalization	-0.16 (0.44)	-0.17 (0.39)
Oil rent	0.15 (0.61)	0.12 (0.68)
Gas rent	-1.29 (0.58)	-1.11 (0.63)
Forest rent	-0.69 (0.33)	-0.76 (0.28)
Ethnic fractionalization	4.96	5.28

<sup>10</sup> Given the results from the descriptive graphs (e.g. Figure 6) showing that the distribution of firm reported days to compliance is massively right-skewed (most firms reporting a small number of days, a few reporting very large values), the arithmetic average days is not a very reliable measure of central tendency, so we focus on the median days.

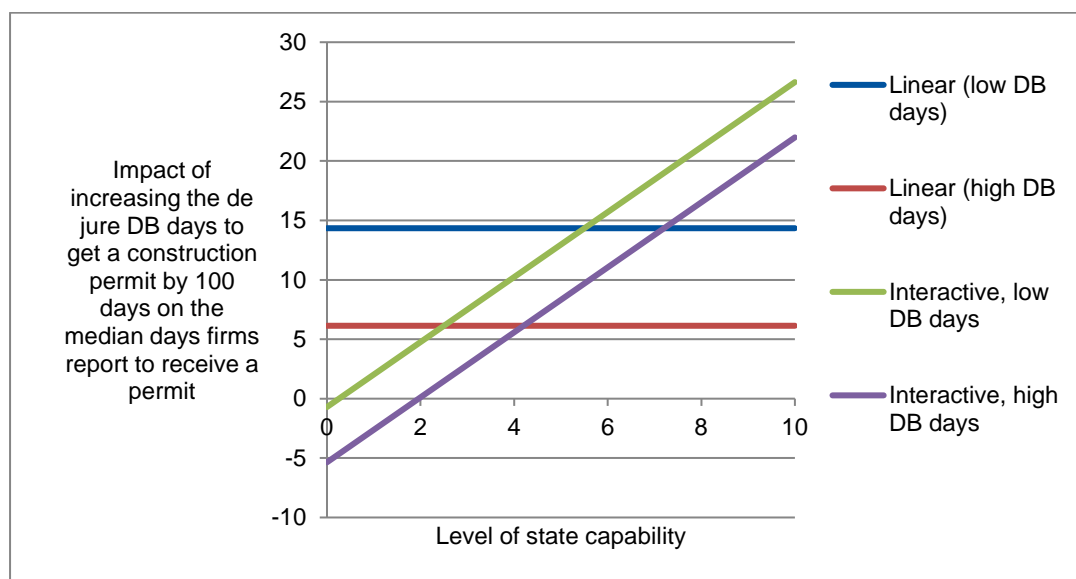
<sup>11</sup> Raj et al. (2019) also find a negative relationship between governance and deal making using Enterprise Survey data for Indian states.

	(0.62)	(0.59)
Constant	-17.00	14.81
	(0.40)	(0.58)
Observations	98	98
R — squared	0.2651	0.2915

Note: p-value in parentheses. Level of significance: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$ .

Source: Authors' tabulations from DB and ES data.

Figure 11: Interaction of Enterprise Survey reported median days with level of state capability index



Source: Authors' calculations from DB and ES data.

We wish to emphasise that these regression results are *descriptive* and *illustrative* and we are under no illusions that these represent causal parameters. We are using regression techniques as a data descriptive device to generate facts about the data — just as means and standard deviations and bivariate correlations are facts, so too are regression coefficients. But there is no one-to-one mapping from regression facts into causal models. Moreover, while the interactive effects are striking, we want to be the first to acknowledge the many weaknesses. Both the simple spline term at the median and the multiplicative interactive term are very, very strong and essentially arbitrary functional form restrictions that may not be benign. The measurement error in our variables generally, and in particular the large differences in the number of firm observations from each survey (some countries have just barely over 30, whereas eight countries have over 200 firm observations), has not been incorporated. That said, these results are the first large-scale cross-national data describing patterns of associations amongst rules, deals and state capability that have been predicted from individual cases, but never seen across countries.

## 6 What should a policy maker do?

Before we turn to policy options based on our findings, we need to discuss three important implications from these results and their interpretation, one purely numerical and two about what they reveal.

First, the coefficients on the de jure DB variable in Tables 1–4, and shown in Figures 9–11, are consistently very small, so small that we have to rescale it to changes of 100 days to be visible. In Table 1, column 3, the coefficient on de jure low (DB when lower than the median) is  $-0.14$  where the dependent variable is expressed as a percentage, and the regression constant is 81.3. This implies that an increase in de jure rules in this range by 100 days (the cross-national standard deviation is 81 days) decreases the proportion of quick deals only by 14 per cent, starting from the regression constant of 81 per cent to 67 per cent. This point is made even more clearly in Table 4. Here, column 1 corresponds to column 3 in Table 1, except that the explained variable here is median ES reported days to get a permit. Here, the coefficient of de jure low (in column 1) is 0.14, implying that an increase in de jure rules in this range by 100 days would increase the median number days to get a permit only by 14 days; and for de jure high it is only six days. While the ‘rules’ do impact the available ‘deals’, the relationship is nowhere close to being one-to-one (as we pointed out in the bivariate relationship, this has to be small, as quick deals do not fall to zero).

In order to understand the empirical relationship across countries between the reported DB de jure rules and the reality of de facto rules, one has to free one’s mind from what can be ‘natural’ or ‘intuitive’ ideas that there is (a) roughly full compliance (that the distribution of ES is centred on the DB) or (b) the distribution of reported compliance times is symmetric, as opposed to right-skewed. The median DB days across countries is 191, while the median of the median ES reports is 30 (the median of the average days is 63, showing the massive right-skewness in the ES distributions), so there is nothing like full compliance. Moreover, with anything like symmetric distributions of reported ES compliance times, one would expect much larger shifts in the proportion of quick deals from a shift of 100 days in DB. That is, supposing a country were at a typical value of 180 days for DB de jure and 60 days for mean of ES reported de facto and the distribution of compliance as a symmetric Gaussian normal; then one could observe a fraction of quick deals of 40 per cent only if the standard deviation were 180 — but that would imply that 35 firms had values below zero, which takes us back to a highly skewed distribution, as zero is a lower bound. This is just reinforcing the point that ‘rules’ thinking does not help understand the ‘deals’ world — massive changes in the ‘rules’ (moving the country de jure by more than a cross-national standard deviation) have very modest impact (association) on reported distributions of compliance, as the reported days for compliance are massively below the ‘rule’ and are right-skewed (most firms report very short times; a few very long times).

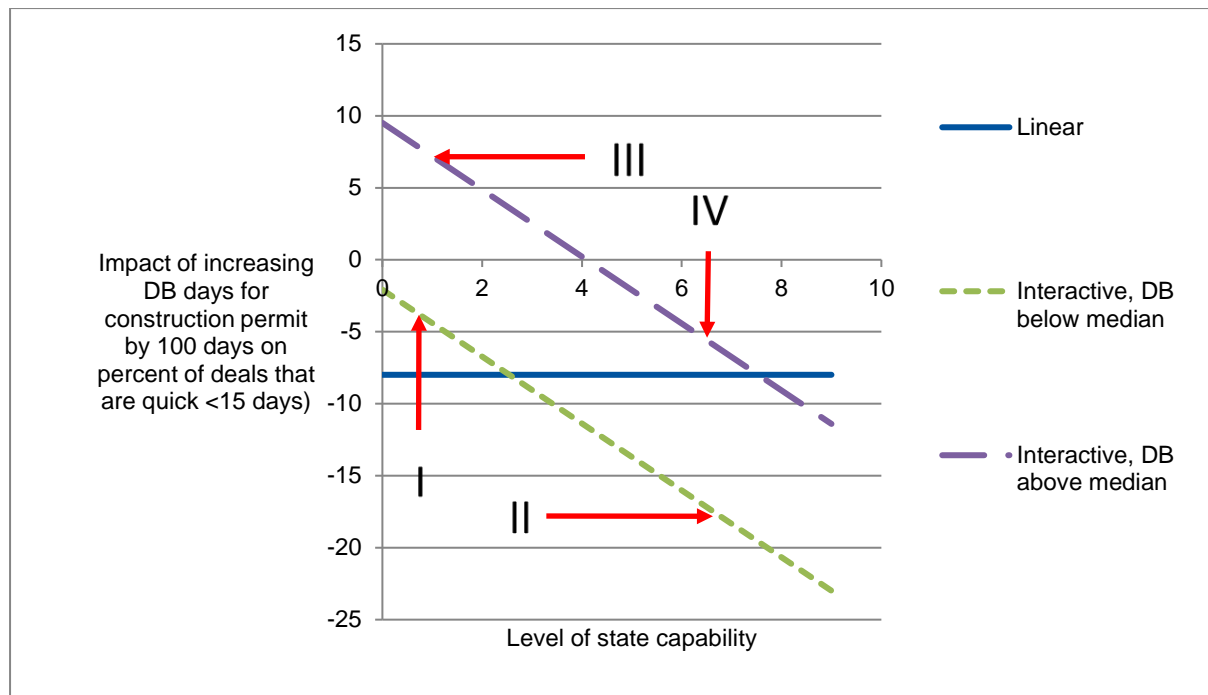
Second, the deep and important point is that these results are consistent with the notion from Andrews et al. (2017) of the negative effects on organizational capability of ‘premature load bearing’, which is that when regulations are much more stringent than can actually be enforced with existing organizations, this ‘excessive relative to capability’ regulation creates a downward spiral. The pressures for regulatory capture — either through high-level political connections or through direct influence on implementing agents — are too large for the organization to resist, the percentage of actual actions that are de facto ‘exempt’ from regulatory compliance grows, whatever incipient norms of purpose and performance in the organization are eroded, and the organization shifts to a low-level equilibrium trap, in which non-compliance is the (reinforced) norm of the organization as regulatory agencies become institutionalised as revenue sources from non-compliance. The danger is that ‘more is less’ — there appear to be thresholds in the degree of de jure regulation such that pushing regulation past that point actually reduces compliance.

Third, this returns us to the motivation of the paper. There is a critique of the Doing Business indicators that they are promoting one good thing, the Ease of Doing Business, that might promote investment, innovation and broadbased economic growth which leads to widespread improvements in wellbeing, at the expense of other good things — there are legitimate public

purposes in the regulation of business and its taxation that the market, left to its own devices, would not accomplish. Our results show that this debate assumes a trade-off between Ease of Doing Business and public purpose that is highly empirically contingent on the extent to which regulatory compliance is mediated by state capability. In weak-capability countries, those with low ability to implement regulations, we see that higher formal, de jure ‘rules’ lead to *less* compliance — more “‘quick deals’, deals which are likely to have undermined public purpose. With low state capability and high levels of de jure regulation, one is in the paradoxical situation that any attempts to achieve legitimate public purpose by *increasing* regulatory stringency can lead to even *less* compliance — and *less* likelihood of creating a positive dynamic in improving the regulatory agencies’ capability. And, it is not the case that increased regulation *decreases* the Ease of Doing Business; it just shifts the way business is done into non-compliance, which is associated with regulatory capture, either politically (for large, formal deals) or bureaucratically (for smaller deals) or both (in which the revenue flows from payments for non-compliance are shared between politicians and bureaucrats).

Now consider a policy maker in the ministry of industry in a hypothetical developing country or emerging economy. What do our results imply for his or her policy choices, when faced with the possibility of easing the Doing Business in some observable measure where the policy maker has the power to change the rules (say, simplifying the regulations to obtain a construction permit)? Our results suggest that the desired policy option for the official would depend on whether the country in question is a low- or high-capability state, and whether the DB rules in the country are higher or lower than the average, (that is, more stringent or less stringent). Therefore, what the official should do would depend on whether his or her country is placed in the -two-by-two quadrant below (we use median DB days to obtain a construction permit to categorise countries in the more stringent or less stringent de jure rules rows, and the median value of our state capability measure to categorise countries as being high or low state capability), as in Figure 12. We provide concrete country examples for each of the four cells to illustrate our argument.

Figure 12: Policy diagnostic map for doing business



Source: Authors’ calculations from DB and ES data.

Table 5: Doing Business diagnostics

De jure rules	State capability	
	<i>Low</i>	<i>High</i>
<i>Less stringent</i>	Nigeria (I)	Poland (II)
<i>More stringent</i>	Sudan (III)	Uruguay (IV)

Source: see text.

First consider Uruguay (case IV), which has high state capability as well as more stringent *de jure* rules.<sup>12</sup> Uruguay is the archetypical country for the DB case for easing regulations — with high state capability, compliance is high in Uruguay, so deals mirror rules to a large extent. Though there may be a case for not relaxing de jure rules to maintain public purpose objectives, there may be a stronger case for the ministry of industry official in Uruguay to ease DB, if it were to lead to higher investment and growth.

Now consider Poland (case II), also a country with high state capability, but with below median (less stringent) DB indicators.<sup>13</sup> For the Polish ministry of industry official, there would have to be compelling evidence that this particular element is an important obstacle to business, as further reductions may actually compromise on some important public purpose goal. In this case, the ministry of industry official in Poland would need to balance public policy objectives against the DB policy prescription of further relaxing the ease of doing business, and may choose not to do anything with the de jure rule.

Next consider Nigeria (case I), a country with low state capability *and* low de jure rules.<sup>14</sup> As we have seen from the previous section, for a country like Nigeria, with low state capability, de facto deals, and not rules, dictate the economic environment, and there is very limited compliance with regulations in these contexts. With an already low DB, there is very little that the ministry of industry official in Nigeria needs to do, and the overall policy message for such a country example would be to strengthen state capability, such that compliance can increase in the future.

Finally, consider Sudan (case II), a country with low state capability and high de jure rules.<sup>15</sup> One may consider Sudan as the prime candidate for DB reform, as arguably simplifying regulations in the country would bring in more investment and possibly lead to higher economic growth — a desirable policy objective for one of the poorest countries in the world. However, our results have already shown that there is very limited compliance in a country such as Sudan, and the deviation of deals from rules is the highest in this context. The case for lowering the formal rules is not that it would lead to greater ease in doing business, but rather, counter-intuitively, it is more likely to lead to accomplishing public purposes. By maintaining stringent and complex formal regulation in an environment where state capability is low, this risks being a lose-lose-lose policy. It loses in forcing firms into illicit or semi-illicit non-compliance. It loses in being undermined in a way that almost certainly thwarts the averred public purpose of the regulation. And it loses in creating a

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<sup>12</sup> The de jure number of days it takes to obtain a construction permit in Uruguay is 251, when the median is 193. Uruguay's state capacity measure is 7.03 when the median value is 4.26.

<sup>13</sup> Poland's DB value is 158 and the state capacity measure is 7.41.

<sup>14</sup> Nigeria's DB value is 110 and the state capacity measure is 2.11.

<sup>15</sup> Sudan's DB value is 240 and its state capacity measure is 0.84.



low-level capability trap in state capability, due to premature load bearing. Potentially, quite dramatic reduction in formal regulation could be win-win-win, rather than the difficult trade-off for Uruguay or possible losses for Poland.

## 7 Conclusion

The annual Doing Business exercises encourages countries to provide a better business environment by quantifying the difficulty faced by firms in fulfilling existing formal legal regulatory processes. The quantification is based on expert opinion on a large number of relevant rules and regulations in these countries and this encourages countries to change their legal procedures and rules, such that these regulatory processes are, *by law*, simplified and completed within a shorter period of time. Thus, better rankings on the DB index require countries to achieve an ‘ease of doing business’ by providing regulatory rules that are as simple as possible, and the required processing according to these rules needs to be as fast as possible. There are two interpretations to this Doing Business approach.

One interpretation is that it is based on a complete misunderstanding of the reality of how firms actually do business in developing countries. It is both obvious to the typical person in the street and easy to document empirically that the way business is done is through striking deals with the political and bureaucratic elite, either via connections or through intermediaries. These deals make the legal rules largely ineffectual, *both* as obstacles to business (but do strongly affect *who* can do business successfully) *and* in their (purported) public purpose, such as collecting taxes or enforcing regulations. Our study shows that for most firms in most developing countries in the world, the regulatory process we can document takes *massively* less time than is stipulated by the corresponding rules. In many countries in which the DB indicators state that getting a construction permit takes six months or more, the majority of firms report compliance times of less than 15 days.

The other interpretation of the politics of the advocacy exercise of Doing Business is that it understands this pervasive de jure–de facto gap, but it is predominately concerned with creating the conditions for *foreign* investment — and foreign investors are significantly impeded in their deal making abilities relative to domestic investors. Perhaps the Doing Business indicators could be labelled the ‘Doing Business for that small subset of foreign investors from developed countries, who must, due to their own domestic regulations — which, given high state capability, are actually enforced — try and comply with the laws of the country as written’. Of course, it is an open empirical question whether the foreign investors do in fact operate in greater compliance with de jure regulations, or whether they themselves simply operate in another deal-making space, in which foreign investors ask for, and get, formal and legal regulatory forbearance (or tax exemptions).

Since deals, as opposed to de jure rules, are firm specific, each country has a mixture of quick, moderate and slow deals (corresponding to different firms). Thus the overall business environment in a country is determined by which type of deals is most prevalent. Using this idea, this paper creates a number of measures of the business environment in a country, defining them as quick deals, moderate deals and slow deals. Since quick deals seem to indicate a complete lack of due diligence, while slow deals indicate harassment of firms by the regulatory authorities, respectively, neither of them seems to be very conducive to a sustainable and healthy business environment. Thus moderate deals, while still distinguishable from rules-based institutions, seem to be the best option for these countries’ business environments.

Clearly, a better understanding of these various outcomes needs to focus on the correlates of these deals environments in developing countries. As discussed above, the DB implicitly assumes that the business environment in a country is better if the regulatory processes are as simple and as fast as possible. Do more simplified de jure rules affect the deals environment? Our study finds that simpler rules indeed have a relationship with quick deals as well as slow deals, but none with moderate deals. More specifically, a simplification of the rules is associated with a higher proportion of quick deals and a lower proportion of slow deals — but only in countries with quite strong state capability. In countries with weak capability, *increases* in regulation (especially from very high levels) actually increase the likelihood of quick deals (through even reduced regulatory compliance).

Given the pervasiveness of *deals* in defining the business environment in most developing countries, and where existing formal regulations are creating an implementation capability trap, then *both* sides of the debate about the Doing Business indicators are wrong. On the one hand, if the regulatory processes faced by firms in actually doing business are not actually the de jure policies measured by the Doing Business indicators, then changing these may have no effect on the way in which business is done and hence not be related to improved investment, innovation or growth. On the other hand, if deals are subverting the public purposes of the policies and clearances are not happening according to the existing de jure laws, and due diligence is not actually undertaken before such clearances, then ‘relaxing’ these regulations may also have no effect on actual enforcement or achievement of public purpose. Given the wide and pervasive discrepancy between the de jure and de facto, it is not obvious that *either* simplifying or reducing rules and regulations from their existing levels to make it easier for business to invest, *or* strengthening these rules and regulations to safeguard health, safety, environmental and other public policy concerns, will *necessarily* (or even likely) have a material effect on the actual goals either to increase investment and growth or meet societal goals around better labour or environmental standards, especially in weak state capability contexts. Thus, the premise of rules reforms — that relaxing strong ‘rules’ will *either* improve the true ease of Doing Business or weaken the accomplishment of public purpose — becomes *doubly* false. Changing ease of Doing Business could affect *neither*.

Though the focus of our paper is on the Doing Business indicators, our findings speak to the wider debate on how to build state capability in weak regulatory contexts (see Pritchett et al. 2013, and Andrews et al. 2017). The conventional approach to state building in countries with weak institutional settings is to try and spread ‘best practice’, irrespective of organizational capability — or a realistic plan to build such capability — and low- and middle-income countries, for a variety of reasons, are asked to adopt formal laws and regulations. However, this creates an impossible environment for the implementing organization, as the pressures on them not to enforce the ‘beautiful’ but unrealistic law become unbearable and the organizational norm quickly becomes one of accommodating non-compliance (in a variety of ways). And, once that norm is established, this low-level trap is very difficult to escape. Firms facing tough laws and weak compliance do not really lobby for strong capability and better laws, as it is easier for any given firm to accommodate for itself via a deal, rather than lobby for new rules. The advocates for the purpose of the regulation, having achieved the passing of a ‘beautiful’ law, do not want it relaxed. The politicians and heads of organizations often directly benefit from the de facto discretion that tough regulation combined with low capability for enforcement gives them (as one Latin American leader said ‘For my friends, anything, for my enemies, the law’). And often the law is so far from the reality (in Sudan the law says 270 days, and the median firm says five days, so that ‘minor’ reform — say reducing 270 days to the world average of 190 in the case of Sudan — seems pointless). All of this reinforces the point that building state capability in any endeavour needs to start from the political authorization to solve locally nominated problems, not from the vague idea that equates capability with rule compliance.

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## Appendix 1: Summary statistics from Enterprise Survey and Doing Business

Table A1: Country-year-wise descriptive statistics of 'days needed to get a construction permit'

Sl. No.	Country Year	Summary statistics of the distribution of firm responses on days for compliance from Enterprise Survey								DB Days
		N	MEAN	MEDIAN	10th P	90th P	MODE	MIN	MAX	
	Median	59.5	63	30	7	145	30	1	435.5	191
	Standard deviation	78.4	71.2	37.2	8.4	177.6	42.1	2.2	515.0	198.4
1	Afghanistan2008	33	107	20	7	180	30	6	1080	356
2	Albania2007	41	167	90	7	540	30	1	730	352
3	Angola2010	52	25	15	5	22	15	1	600	265
4	Argentina2006	106	68	30	7	150	30	1	728	341
5	Argentina2010	214	69	45	7	180	30	1	720	341
6	Armenia2009	47	31	15	3	60	30	1	365	179
7	Azerbaijan2009	44	45	30	10	90	60	7	180	234
8	Bahamas2010	31	59	14	4	180	90	1	365	180
9	Bangladesh2007	79	45	15	6	105	6	3	700	269
10	Bangladesh2013	39	71	30	7	180	30	1	365	269
11	Belarus2008	41	51	30	3	100	30	1	360	129
12	Belarus2013	54	38	30	5	90	30	1	300	326
13	Bhutan2009	49	38	10	3	150	7	1	365	151
14	Bhutan2015	58	45	15	2	120	30	1	365	151
15	Bolivia2006	58	85	60	7	180	60	2	400	269
16	Bolivia2010	93	94	60	15	180	60	5	720	211
17	BosniaHerzegovina2009	98	103	50	15	300	30	1	730	308
18	BosniaHerzegovina2013	58	138	60	15	365	30	2	730	193
19	Botswana2010	32	115	90	5	360	180	1	365	199
20	Brazil2009	263	85	60	12	180	30	1	730	436
21	Bulgaria2007	114	100	60	20	240	30	3	715	97
22	CapeVerde2009	38	48	30	3	180	30	1	180	146
23	Chile2006	111	127	60	7	360	30	1	2190	219
24	Chile2010	234	113	60	10	360	30	1	730	219
25	China2012	143	33	25	7	60	30	1	180	244
26	Colombia2006	34	64	30	8	120	30	2	360	162
27	Colombia2010	116	80	45	15	180	30	2	365	114
28	CostaRica2010	122	96	60	15	180	30	4	730	199
29	Croatia2007	137	179	90	30	365	90	1	1825	344
30	Croatia2013	42	159	90	7	450	90	2	730	330
31	CzechRepublic2009	65	53	30	14	90	30	1	364	276
32	CzechRepublic2013	59	89	60	14	180	60	1	700	247
33	DominicanRepublic2010	42	88	52.5	7	200	60	2	600	223
34	Ecuador2006	57	57	30	7	120	90	2	365	132
35	Ecuador2010	63	70	30	8	180	30	2	365	132
36	Egypt2013	88	78	45	5	180	90	1	730	172
37	ElSalvador2006	84	72	30	6	180	30	1	730	190
38	ElSalvador2010	72	98	60	10	210	30	1	455	151
39	ElSalvador2016	76	112	30	6	365	90	1	730	151
40	Estonia2009	63	46	30	4	90	30	1	730	102
41	Estonia2013	45	58	30	7	180	30	2	465	102
42	Ethiopia2011	43	78	30	7	120	90	2	700	130
43	Ethiopia2015	113	78	30	2	180	30	1	365	130
44	FYRMacedonia2009	62	72	30	10	180	30	1	365	184
45	FYRMacedonia2013	41	130	40	10	365	30	1	730	111
46	Georgia2008	40	45	30	7	90	30	1	365	127

47	Georgia2013	34	34	20.5	4	60	30	1	180	65
48	Ghana2013	70	74	45	7	180	90	2	365	215
49	Guatemala2006	86	56	30	3	180	30	1	547	388
50	Guatemala2010	121	56	30	8	120	30	1	730	226
51	Guyana2010	43	56	30	10	90	60	5	548	208
52	Honduras2006	59	46	20	2	90	90	1	730	189
53	Honduras2010	60	62	30	3.5	140	30	1	730	109
54	Hungary2009	36	46	30	15	90	30	1	180	192
55	India2014	478	33	28	7	60	30	1	365	180
56	Indonesia2009	65	50	21	3	90	30	1	670	200
57	Indonesia2015	63	11	7	1	29	7	1	120	200
58	Iraq2011	78	36	35	10	60	40	1	140	229
59	Israel2013	41	329	320	90	730	730	30	730	209
60	Jordan2013	34	23	20	3	30	30	1	90	63
61	Kazakhstan2009	80	89	52.5	12	180	30	2	730	293
62	Kazakhstan2013	62	72	30	9	180	30	1	366	229
63	Kenya2007	40	34	25	7	60	30	3	180	160
64	Kenya2013	112	41	15	3	90	30	1	365	131
65	Kosovo2009	33	43	30	7	90	60	4	90	301
66	Kosovo2013	39	162	30	12	720	30	1	730	152
67	KyrgyzRepublic2013	53	66	30	7	120	30	1	730	142
68	LaoPDR2009	42	72	30	7	180	30	1	730	83
69	LaoPDR2012	53	67	30	7	120	7	5	365	83
70	LaoPDR2016	31	33	18	7	45	30	3	300	83
71	Latvia2009	74	59	30	7	180	30	1	730	219
72	Lebanon2013	61	134	90	30	270	60	1	730	244
73	Lithuania2009	34	64	30	6	90	30	2	730	160
74	Madagascar2009	48	149	90	10	540	90	4	730	165
75	Madagascar2013	31	42	30	5	60	30	1	365	165
76	Malawi2014	69	41	21	1	120	1	1	200	153
77	Malaysia2015	82	12	7	2	30	7	1	100	79
78	Mauritius2009	32	77	52.5	21	180	30	4	446	156
79	Mexico2006	34	23	15	3	60	30	2	120	86
80	Mexico2010	208	55	30	3	120	30	1	365	86
81	Moldova2009	69	61	30	5	180	30	3	420	307
82	Moldova2013	68	34	20.5	3	90	30	1	368	276
83	Mongolia2009	72	68	30	10	150	30	1	730	219
84	Mongolia2013	58	64	30	5	120	30	1	365	183
85	Morocco2013	54	137	30	6	435	30	1	730	94
86	Mozambique2007	33	35	15	7	60	30	1	365	242
87	Namibia2014	68	106	60	4	361	91	1	730	145
88	Nicaragua2006	57	55	21	2	90	60	1	547	235
89	Nicaragua2010	58	33	15	1	90	30	1	180	225
90	Nigeria2007	115	13	7	2	21	7	1	180	106
91	Nigeria2014	143	15	7	1	30	1	1	90	106
92	Paraguay2006	68	60	20	1	150	30	1	770	275
93	Paraguay2010	99	121	60	7	365	30	1	730	120
94	Peru2006	73	142	60	14	365	90	4	1460	218
95	Peru2010	235	87	60	14	180	30	2	425	209
96	Philippines2009	178	25	14	5	60	7	1	180	129
97	Philippines2015	146	28	14.5	5	60	7	1	365	122
98	Poland2009	60	118	55	25.5	300	30	5	730	288
99	Poland2013	36	139	60	30	400	90	14	730	158
100	Romania2009	115	76	30	7	180	30	1	730	207
101	Romania2013	93	94	40	6	200	30	1	730	194
102	Russia2009	129	126	90	30	360	30	1	720	239
103	Russia2012	277	167	60	14	500	30	1	730	239
104	Rwanda2011	31	60	30	5	120	30	1	490	163
105	Serbia2009	73	153	70	10	365	30	1	730	339
106	SlovakRepublic2009	52	66	38	20	120	30	10	365	286

107	SlovakRepublic2013	32	68	35	30	100	30	30	650	286
108	Slovenia2009	79	132	60	15	365	60	1	720	270
109	Slovenia2013	47	166	90	20	400	60	7	730	254
110	SolomonIslands2015	32	21	14	7	30	14	3	90	98
111	SouthAfrica2007	31	96	28	5	360	10	1	902	141
112	Southsudan2014	107	16	12	2	36	30	1	90	124
113	SriLanka2011	43	72	30	1	180	90	1	400	177
114	Sudan2014	108	8	5	2	14	3	1	120	270
115	Sweden2014	130	75	45	10	180	60	1	730	116
116	Tajikistan2008	47	47	30	7	90	30	1	360	242
117	Tajikistan2013	54	39	25	3	90	30	1	180	197
118	Tanzania2013	32	40	20	1	90	7	1	180	222
119	TimorLeste2015	35	21	7	2	60	30	1	90	207
120	Tonga2009	31	13	12	4	21	14	3	40	63
121	Tunisia2013	56	47	30	5	120	30	1	360	93
122	Turkey2008	160	44	30	3	90	30	1	730	143
123	Turkey2013	116	37	15	1	90	30	1	365	143
124	Uganda2013	55	38	21	7	90	30	1	270	146
125	Ukraine2008	66	105	39.5	10	365	30	1	730	510
126	Ukraine2013	81	3	1	1	1	1	1	90	351
127	Uruguay2006	42	88	42.5	7	180	30	1	730	251
128	Uruguay2010	111	101	30	3	365	30	1	730	251
129	Uzbekistan2008	38	64	30	2	200	30	1	730	261
130	Uzbekistan2013	59	33	30	1	90	30	1	365	258
131	Vanuatu2009	36	46	21	7	120	21	1	365	59
132	Vietnam2009	224	65	30	7	175	30	1	730	166
133	Vietnam2015	111	32	30	7	90	30	2	180	166
134	Yemen2010	44	48	25.5	4	120	30	1	360	184
135	Yemen2013	30	23	10	3	60	7	1	180	184
136	Zambia2013	85	57	30	3	124	30	1	365	189

Source: see text.

Table A2: Number and proportion of firms under different types of deals environment

Country-year	Total firms	Deals					
		Quick deals (1–15 days)		Moderate deals (16–45 days)		Slow deals (more than 45 days)	
		No. of firms	Percentage	No. of firms	Percentage	No. of firms	Percentage
Afghanistan2008	33	15	45.5	10	30.3	8	24.2
Albania2007	41	6	14.6	9	22.0	26	63.4
Angola2010	52	33	63.5	18	34.6	1	1.9
Argentina2006	106	29	27.4	32	30.2	45	42.5
Argentina2010	214	45	21.0	65	30.4	104	48.6
Armenia2009	47	24	51.1	18	38.3	5	10.6
Azerbaijan2009	44	16	36.4	11	25.0	17	38.6
Bahamas2010	31	16	51.6	3	9.7	12	38.7
Bangladesh2007	79	45	57.0	14	17.7	20	25.3
Bangladesh2013	39	10	25.6	12	30.8	17	43.6
Belarus2008	41	15	36.6	16	39.0	10	24.4

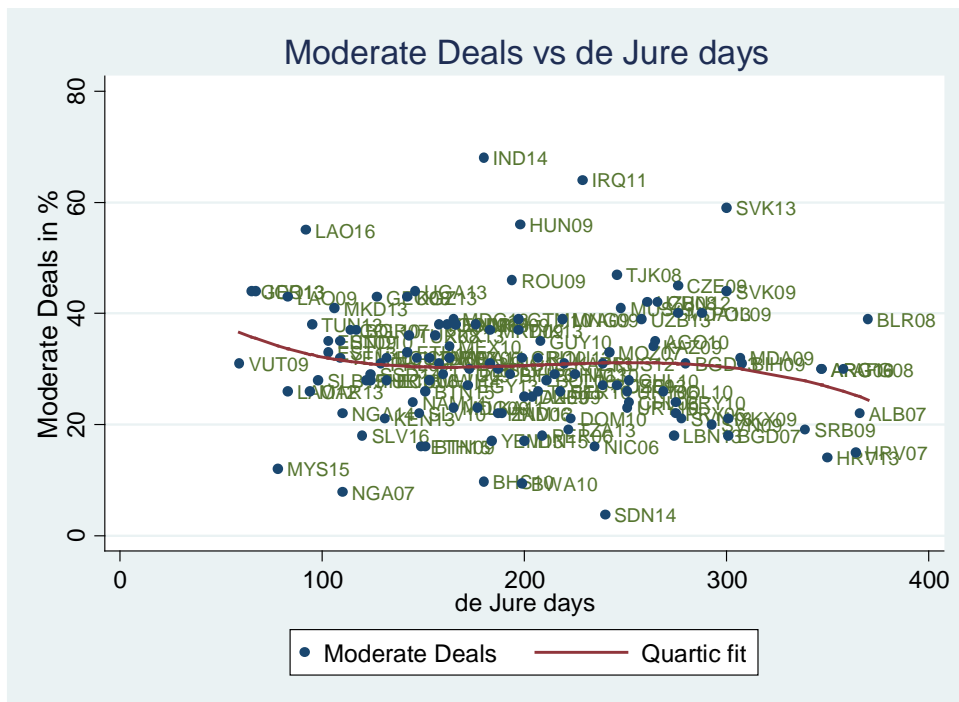
Belarus2013	54	24	44.4	16	29.6	14	25.9
Bhutan2009	49	32	65.3	8	16.3	9	18.4
Bhutan2015	58	30	51.7	15	25.9	13	22.4
Bolivia2006	58	9	15.5	16	27.6	33	56.9
Bolivia2010	93	15	16.1	24	25.8	54	58.1
BosniaHerzegovina2009	98	18	18.4	30	30.6	50	51.0
BosniaHerzegovina2013	58	9	15.5	17	29.3	32	55.2
Botswana2010	32	8	25.0	3	9.4	21	65.6
Brazil2009	262	51	19.5	77	29.4	134	51.1
Bulgaria2007	114	8	7.0	42	36.8	64	56.1
CapeVerde2009	38	15	39.5	12	31.6	11	28.9
Chile2006	111	23	20.7	27	24.3	61	55.0
Chile2010	234	40	17.1	66	28.2	128	54.7
China2012	143	56	39.2	60	42.0	27	18.9
Colombia2006	34	8	23.5	13	38.2	13	38.2
Colombia2010	116	17	14.7	43	37.1	56	48.3
CostaRica2010	122	19	15.6	39	32.0	64	52.5
Croatia2007	137	11	8.0	21	15.3	105	76.6
Croatia2013	42	7	16.7	6	14.3	29	69.0
CzechRepublic2009	65	9	13.8	29	44.6	27	41.5
CzechRepublic2013	59	7	11.9	16	27.1	36	61.0
DominicanRepublic2010	42	12	28.6	9	21.4	21	50.0
Ecuador2006	57	17	29.8	16	28.1	24	42.1
Ecuador2010	63	16	25.4	20	31.7	27	42.9
Egypt2013	88	22	25.0	24	27.3	42	47.7
ElSalvador2006	84	26	31.0	25	29.8	33	39.3
ElSalvador2010	72	15	20.8	16	22.2	41	56.9
ElSalvador2016	76	28	36.8	14	18.4	34	44.7
Estonia2009	63	27	42.9	22	34.9	14	22.2
Estonia2013	45	15	33.3	15	33.3	15	33.3
Ethiopia2011	43	12	27.9	14	32.6	17	39.5
Ethiopia2015	113	45	39.8	18	15.9	50	44.2
FYRMacedonia2009	62	12	19.4	23	37.1	27	43.5
FYRMacedonia2013	41	5	12.2	17	41.5	19	46.3
Georgia2008	40	12	30.0	17	42.5	11	27.5
Georgia2013	34	15	44.1	15	44.1	4	11.8
Ghana2013	70	15	21.4	20	28.6	35	50.0
Guatemala2006	86	23	26.7	39	45.3	24	27.9
Guatemala2010	121	41	33.9	47	38.8	33	27.3
Guyana2010	43	12	27.9	15	34.9	16	37.2
Honduras2006	59	28	47.5	13	22.0	18	30.5
Honduras2010	60	21	35.0	21	35.0	18	30.0
Hungary2009	36	4	11.1	20	55.6	12	33.3
India2014	478	104	21.8	323	67.6	51	10.7
Indonesia2009	65	31	47.7	16	24.6	18	27.7
Indonesia2015	63	51	81.0	11	17.5	1	1.6
Iraq2011	78	14	17.9	50	64.1	14	17.9
Israel2013	41	0	0.0	1	2.4	40	97.6
Jordan2013	34	16	47.1	15	44.1	3	8.8
Kazakhstan2009	80	13	16.3	27	33.8	40	50.0
Kazakhstan2013	62	17	27.4	19	30.6	26	41.9
Kenya2007	40	16	40.0	15	37.5	9	22.5
Kenya2013	112	58	51.8	24	21.4	30	26.8
Kosovo2009	33	11	33.3	7	21.2	15	45.5
Kosovo2013	39	8	20.5	14	35.9	17	43.6
KyrgyzRepublic2013	53	13	24.5	23	43.4	17	32.1
LaoPDR2009	42	10	23.8	18	42.9	14	33.3
LaoPDR2012	53	22	41.5	14	26.4	17	32.1
LaoPDR2016	31	11	35.5	17	54.8	3	9.7
Latvia2009	74	26	35.1	29	39.2	19	25.7
Lebanon2013	61	3	4.9	11	18.0	47	77.0
Lithuania2009	34	11	32.4	10	29.4	13	38.2
Madagascar2009	48	8	16.7	11	22.9	29	60.4
Madagascar2013	31	13	41.9	12	38.7	6	19.4



Malawi2014	69	32	46.4	19	27.5	18	26.1
Malaysia2015	82	68	82.9	10	12.2	4	4.9
Mauritius2009	32	3	9.4	13	40.6	16	50.0
Mexico2006	34	18	52.9	11	32.4	5	14.7
Mexico2010	208	71	34.1	70	33.7	67	32.2
Moldova2009	69	23	33.3	22	31.9	24	34.8
Moldova2013	68	28	41.2	27	39.7	13	19.1
Mongolia2009	72	16	22.2	28	38.9	28	38.9
Mongolia2013	58	18	31.0	18	31.0	22	37.9
Morocco2013	54	17	31.5	14	25.9	23	42.6
Mozambique2007	33	17	51.5	11	33.3	5	15.2
Namibia2014	68	14	20.6	16	23.5	38	55.9
Nicaragua2006	57	27	47.4	9	15.8	21	36.8
Nicaragua2010	58	30	51.7	17	29.3	11	19.0
Nigeria2007	115	102	88.7	9	7.8	4	3.5
Nigeria2014	143	101	70.6	31	21.7	11	7.7
Paraguay2006	68	32	47.1	15	22.1	21	30.9
Paraguay2010	99	23	23.2	24	24.2	52	52.5
Peru2006	73	13	17.8	13	17.8	47	64.4
Peru2010	235	40	17.0	60	25.5	135	57.4
Philippines2009	178	99	55.6	55	30.9	24	13.5
Philippines2015	146	81	55.5	41	28.1	24	16.4
Poland2009	60	5	8.3	24	40.0	31	51.7
Poland2013	36	1	2.8	11	30.6	24	66.7
Romania2009	115	24	20.9	53	46.1	38	33.0
Romania2013	93	23	24.7	30	32.3	40	43.0
Russia2009	129	7	5.4	35	27.1	87	67.4
Russia2012	277	39	14.1	86	31.0	152	54.9
Rwanda2011	31	11	35.5	10	32.3	10	32.3
Serbia2009	73	12	16.4	14	19.2	47	64.4
SlovakRepublic2009	52	5	9.6	23	44.2	24	46.2
SlovakRepublic2013	32	0	0.0	19	59.4	13	40.6
Slovenia2009	79	9	11.4	16	20.3	54	68.4
Slovenia2013	47	4	8.5	10	21.3	33	70.2
SolomonIslands2015	32	20	62.5	9	28.1	3	9.4
SouthAfrica2007	31	11	35.5	10	32.3	10	32.3
Southsudan2014	107	70	65.4	31	29.0	6	5.6
SriLanka2011	43	15	34.9	10	23.3	18	41.9
Sudan2014	108	101	93.5	4	3.7	3	2.8
Sweden2014	130	24	18.5	47	36.2	59	45.4
Tajikistan2008	47	13	27.7	22	46.8	12	25.5
Tajikistan2013	54	21	38.9	20	37.0	13	24.1
Tanzania2013	32	15	46.9	6	18.8	11	34.4
TimorLeste2015	35	22	62.9	9	25.7	4	11.4
Tonga2009	31	23	74.2	8	25.8	0	0.0
Tunisia2013	56	21	37.5	21	37.5	14	25.0
Turkey2008	160	65	40.6	57	35.6	38	23.8
Turkey2013	116	66	56.9	32	27.6	18	15.5
Uganda2013	55	22	40.0	24	43.6	9	16.4
Ukraine2008	66	11	16.7	25	37.9	30	45.5
Ukraine2013	81	79	97.5	1	1.2	1	1.2
Uruguay2006	42	11	26.2	11	26.2	20	47.6
Uruguay2010	111	40	36.0	26	23.4	45	40.5
Uzbekistan2008	38	15	39.5	16	42.1	7	18.4
Uzbekistan2013	59	27	45.8	23	39.0	9	15.3
Vanuatu2009	36	16	44.4	11	30.6	9	25.0
Vietnam2009	224	68	30.4	84	37.5	72	32.1
Vietnam2015	111	45	40.5	42	37.8	24	21.6
Yemen2010	44	18	40.9	14	31.8	12	27.3
Yemen2013	30	20	66.7	5	16.7	5	16.7
Zambia2013	85	38	44.7	19	22.4	28	32.9

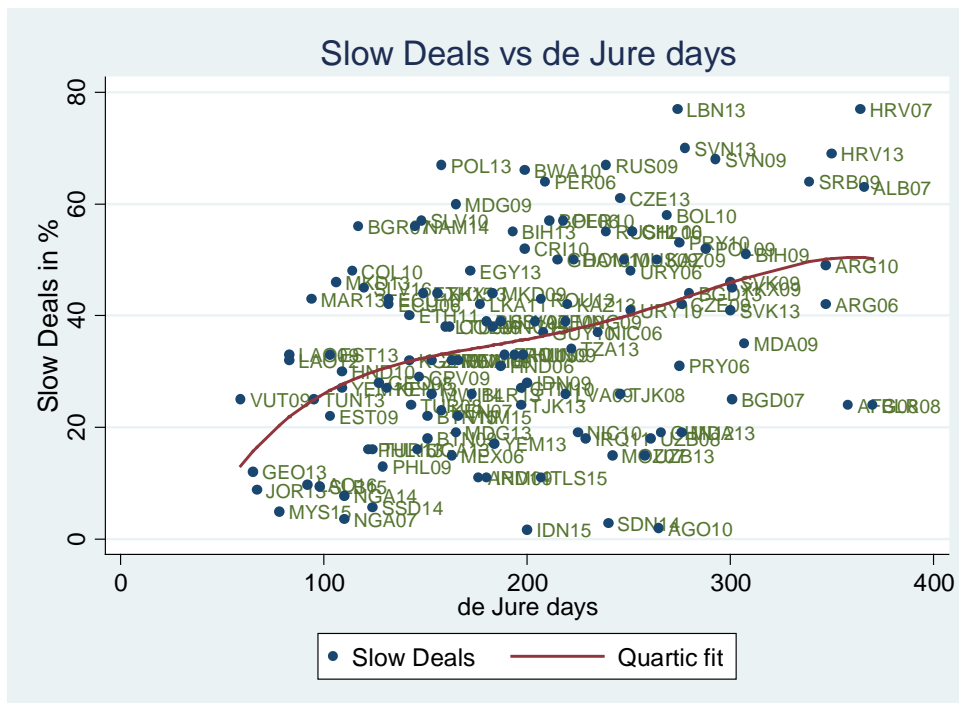
Source: see text.

Figure A1: Relationship between moderate deals and doing business (construction permit)



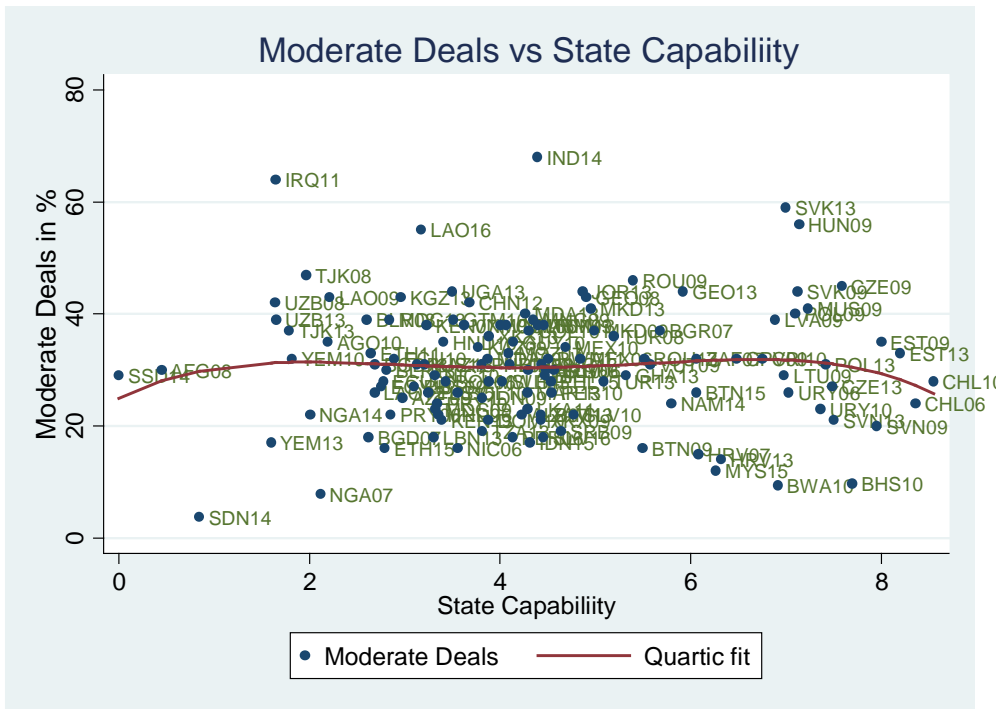
Source: Authors' calculations from DB and ES data.

Figure A2: Relationship between slow deals and doing business (construction permit)



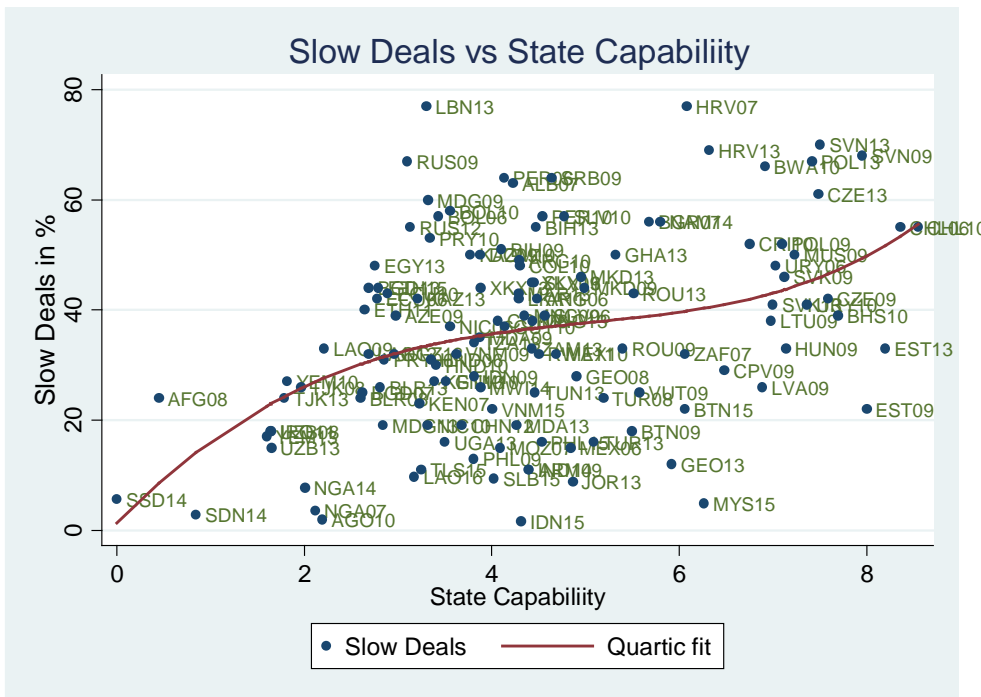
Source: Authors' calculations from DB and ES data.

Figure A3: Relationship between moderate deals and state capability



Source: Authors' calculations from DB and ES data.

Figure A4: Relationship between slow deals and state capability



Source: Authors' calculations from DB and ES data.