

The responsiveness of entrepreneurs to working time regulations

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Abstract In this article, we analyse the impact of enforcement practices (proxied by judicial formalism) and the regulation of working time on entrepreneurial activity by opportunity. We find that higher enforcement formalism mitigates the negative impact exerted by rigid working time regulations on the number of entrepreneurs. While it is agreed that regulatory rigidities may increase labour transaction costs, we show that entrepreneurs are less sensitive to labour regulations the higher the level of enforcement formalism in which they operate. Higher formalism is associated with lower enforcing efficiency and lower probability of being punished for transgressing laws. A policy implication is that encouraging labour flexibility might not improve conditions for entrepreneurial activity in procedurally formalist countries. This is due to the fact that, in those countries, flexibility *de facto* characterises employment relations, no matter what the law says.

Keywords Judicial Formalism · Observance · Compliance · Entrepreneur · Labour contracts · Rigidity of hours · Working time · Opportunity entrepreneurship · GEM

JEL Classifications L26 · J83 · K31 · K42

1 Introduction

A number of empirical studies suggest that rigidities in the labour regulations have a negative impact on entrepreneurial activity (Klapper et al. 2006; Scarpetta et al. 2002; van Stel et al. 2007). This evidence supports the views of the Doing Business project. A combination of academic and regulatory advisory programme, the Doing Business project regards rigidities in labour laws as constraining economic development (Botero et al. 2004; Doing Business 2006). As examples of good regulatory practices, Doing Business reports labour market reforms in Eastern European and Central Asian countries (Serbia and Montenegro, Macedonia, Kyrgyz Republic, Armenia and Georgia). Basically, these reforms consisted of making work hours more flexible and reducing the administrative burdens on dismissals of redundant workers (Doing Business 2006, p. 22, 2007, p. 19).

Small firms inherently confront restricted combinations of factors of production. This competitive disadvantage is aggravated when additional contractual restrictions are imposed. Regulatory restrictions may thus impose fixed costs which are harder for smaller firms to meet. Self-employment is described as one possible strategy to circumvent rigid

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regulations, since aspects such as compensation and working time are totally unregulated. This may explain the high rate of self-employment observed in Italy (Henrekson 2007, p. 738). Another possibility is simply not complying with the regulation.

In developing countries, labour laws apply only to a minority of workers (Doing Business 2007, p. 20). Non-compliance and informal labour relationships are extended practices among countries with weak enforcement institutions (Bensusán 2007; Forteza and Rama 2001; Marshall 2007; Neri 2002; Schrank and Piore 2007). Almeida and Carneiro (2005, p. 12) find that Brazilian surveyed managers who report that labour regulations are a severe obstacle to business and are more likely to report employment of informal workers by similar firms operating in their industry. The difficulty of firing workers is one of the reasons why more than a third of economic activity in Uzbekistan takes place in the informal sector (Doing Business 2005, p. 28, 29). On the other hand, Lee et al. (2007) find that low-income countries tend to have less stringent working time regulations. The fact that in such countries the observance of standard legal hours is lower suggests that legal rules do not coincide with real practices.

In this article we find that procedural traditions are a major conditioning factor of the effectiveness with which labour regulations are currently enforced. Djankov et al. (2003, p. 459) suggest that, if countries select their legal procedures voluntarily, formalism may be an efficient adaptation to a weaker law and order environment. Alternatively, when procedural traditions are transplanted through conquest or colonization, we should attribute the consequences of legal formalism to the exogenously determined features of legal procedures, ‘and in this way consider the efficiency of alternative rules’. Although we do not discuss the comparative advantages of alternative procedures, we show that the effect of rigid regulations on the incentives to start a firm is stronger when these regulations are enforced by relatively less formalist institutions. The significance of formalism is tested against other quality enforcement measures such as the number of labour inspectors, the number of occupational injuries, the perceptions of rule of law or corruption.

The motivation in our analysis derives from the basic proposition in the Law and Economics literature that laws on the books need efficient enforcement

mechanisms to effectively influence the incentives’ structure in a society (see van Hemmen and Stephen 2005, for a discussion in the Law and Finance literature; and Stephen and van Hemmen 2008, for a wider institutional approach). We test this proposition in the context of entrepreneurship and the regulation of working time. With this contribution we add to our previous study showing that institutions (proxied by legal origins) account for a large proportion of the variance of the percentage of entrepreneurs by opportunity (Stephen et al. 2005). Here, we extend this idea to understand the potential impact of working time regulations, and the nature of the interplay between labour and enforcement institutions. While we acknowledge that informal factors significantly account for the probability of becoming an entrepreneur (see Veciana et al. 2005; Urbano 2006), we restrict our focus to formal legal institutions.

In the following section we comment on some recent papers that emphasize the relevance of business regulations to entrepreneurial activity. Section 3 identifies enforcing institutions which have been shown to be relevant in explaining the compliance rates of labour regulations. Section 4 presents empirical evidence suggesting that the sensitivity of entrepreneurship to working time regulations is conditioned by the quality of enforcing institutions. A discussion follows in Sect. 5. In Sect. 6, we conclude.

2 The relevance of business regulations to entrepreneurial activity

Djankov et al. (2002) show that administrative and bureaucratic costs of starting up a limited liability company vary significantly across countries. In a study which follows the methodological approach by Rajan and Zingales (1998) and Klapper et al. (2006) identify industries which should experience ‘naturally’ high entry rates of newly incorporated firms. They examine the differential effect of cross-country regulation variables across industries in a number of European developed and transition countries, concluding that costly entry regulations reduce the number of new limited-liability firms in sectors which should naturally have high entry rates, increase the average size of entrants (due to the fixed cost component of entry procedures), and reduce the growth rates of value added per employee of

incumbent firms in naturally high-entry industries. Thus, where the bureaucratic costs of incorporation are high, small young firms are screened out and forced to grow without the protection of limited liability until they reach a scale that makes such costs affordable (Klapper et al. 2006, p. 593). Similarly, using a sample of 15 old EU members plus the US, Grilo and Thurik (2005) find that the complexity of administrative procedures is perceived as an obstacle to start a firm.

An interesting result by Klapper et al. (2006, p. 619) is that, along with the impact of entry regulation, entry figures decrease in labour-intensive industries (measured by the number of employees to the amount of fixed assets) when they are subject to rigid labour regulation (as indexed by Botero et al. 2004). The importance of labour regulations is also stressed by Scarpetta et al. (2002). By using firm-level survey data for OECD countries, their study suggests that strict regulations on hiring and firing reduce entry rates in small and medium-sized firms (20–49 employees), but have an opposite effect (albeit significant at 10% level) for micro firms (fewer than 20 employees). According to these authors, the positive sign could be possibly explained by the fact that countries with relatively rigid labour regulation introduce exemption measures for smaller firms. However, they do not consider the possibility that the reduced significance of the coefficient may indicate that smaller firms are less subject to labour inspections and that lower unionization reduces the chances of labour rights being effectively protected.

In another article which models the dynamics of the transition from nascent to young firms, van Stel et al. (2007) stress that labour regulations, rather than entry procedures, exert a strong influence on the levels of entrepreneurial activity. In particular, labour regulations are shown to negatively impact nascent entrepreneurs. Entrepreneurs at early stages are expected to be more sensitive to entry regulation; however their results imply that the costs which labour rigidities would impose when the firm fully operates are sufficiently high to be taken into account in advance.

Various explanations were proposed as to the effects of labour regulations on entrepreneurial activity. van Stel et al. (2007, p. 182) comment that while higher flexibility may play a push effect on employees (increasing the possible number of

entrepreneurs), a pull effect would be exerted on potential entrepreneurs who would find it more attractive to run a firm in a flexible labour market context. Klapper et al. (2006, p. 620) suggest that compliance with these regulations may have fixed components which would make them particularly costly for small businesses to meet. A flexible cost structure is a necessary condition for small firms to survive downturns. On the other hand, Henrekson (2007) argues that the restrictive freedom of contracting reduces the possible combinations of factors of production, and that this restriction is particularly harmful for small and entrepreneurial employers. Entrepreneurs need flexible labour because they learn about workers' abilities over time and optimal assignments are likely to change.

While stressing the importance of labour regulations, we believe that the empirical contributions commented upon in this section wrongly assume that labour laws are effectively and uniformly enforced across all countries and firm sizes. As will be explained in the next section, this is far from being true.

3 The enforcement of labour regulations

Two basic mechanisms are devised for the supervision and enforcement of labour regulations: inspection, and courts with labour jurisdiction. These mechanisms take different forms across countries. Inspection may be entrusted to centralized institutions (inspectorates, which usually belong to the country's labour ministry) or by specialized bodies (which report to different government agencies or ministries). On the other hand, labour justice can be handled by specialized courts, or by civil courts. By drawing this stylized framework we do not deny the importance of other non-judicial solutions, such as arbitration and conciliatory mechanisms. However, legality basically depends on the efficiency of inspectorates and courts.

A variety of factors may explain low levels of compliance in most countries. A first frequently mentioned reason is the lack of resources suffered by enforcement institutions, particularly in poor and developing economies. Labour inspection systems are shown to be insufficiently staffed and funded in many Central American countries (Schrack and Piore 2007). The same reasons underlie the inefficient functioning of the courts with labour jurisdiction in

Latin America (Bensusán 2007, p. 32, 33; Sappia 2002, p. 13, 14). In Mexico, labour procedures may take 2 or 3 years to be solved (Bensusán 2006, p. 46). The lack of resources generates corruption, which increases the costs of access to justice for poorer workers. Still, the Dominican Republic stands out as a successful experience. According to a CAFTA-DR (2005, p. 28) report, in 10 years the number of labour judges has doubled in the Dominican Republic, which has eliminated delays in the labour section of the Supreme Court.

A closely related issue is the lack of expertise and specialization of both inspectors and judges. A major policy issue in Bulgaria has been the creation of specialized labour courts, where Civil courts rarely handle labour justice in less than one-and-a-half or 2 years. This measure is expected to alleviate the difficulties faced by workers in defending their rights (Neykov 2004; Economic and Social Council, Republic of Bulgaria 2006). On the other hand, from 1999 on, only professional lawyers serve as labour judges in Brazil, substituting the preceding practice of allowing the participation of labour union and business associations' members. Under the co-participation system reaching compromises was costly and time-consuming. The move towards specialized and resident judges allowed a significant reduction of the time needed to solve a dispute: by 2001 the average labour dispute had been cut from three to one and a half years (Doing Business 2004, p. 39).

Another explanation lies in the inadequacy of procedural norms. The case has been made for urgent reforms in countries such as Uruguay, where the 1989 General Procedural Code embraces all legal matters, including labour justice (Sappia 2002, p. 14). In other countries, lengthy labour procedures result from excessive formalisms such as giving priority to written documents, allowing meaningless procedural instances and appeals, rigid collection of evidence in the first instance and the need to supply additional evidence to the second instance. Bensusán (2006, p. 46) suggests that formalism accounts for a large part of the time needed to resolve a labour procedure in Mexico.

For lack of directly relevant data on labour procedures (as will be explained in the next section) we use the average of the Djankov et al. (2003) variables on two different procedures. These authors produced a detailed description of procedures for

collection of a bounced check and eviction of a non-paying tenant in 109 countries. Interestingly, legal origin alone was found to explain around 40% of the variation in their measures of formalism, with French legal origin countries showing the highest formalism. We believe that these indexes plausibly contain information which is useful to our purposes, for two reasons.

First, legal origin has been suggested to shape different regulatory areas, such as the labour one. In particular, Botero et al. (2004) show that the institutional technology for controlling labour markets is strongly influenced by legal origin. Given the relatively recent nature of labour regulation (as compared to other pieces of regulation, such as mercantile laws), their results suggest that transplanted institutional models condition the way countries produce new laws. A study by Sappia (2002, pp. 13–14) has traced the connexion between Civil law tradition and labour procedures. He observes that most Latin American labour procedures, which were designed in the first half of the twentieth century, narrowly follow the features of the previously existent civil procedures. Apart from the lack of resources, this author remarks that delays in labour courts are due to remnants of civil law in the labour procedure, that emphasize form over content.

In addition, as will be shown in the next section, our chosen formalism index is positively correlated with the number of non-fatal occupational injuries, suggesting that it conditions the effectiveness of labour enforcement. This evidence, together with the legal origin line of reasoning, persuades us of the validity of the Djankov et al. (2003) formalism measures as sensible proxies for the levels of formalism in the labour enforcement context.

Procedural inadequacy may explain why even in countries like Costa Rica (a Civil law country distinguished for its efforts to increase the number of judges and for the significant supply of financial resources to the judiciary) delays in labour courts remain an issue of major concern. Actually, a report produced by the trade and labour ministries of the Central American countries and the Dominican Republic specifically recommended the Costa Rican government a reform in the procedural labour regulation (CAFTA-DR 2005, p. 24). As Djankov et al. (2003, p. 511) point out, formalism brings extreme costs and delays, unwillingness by potential

participants to use courts, and ultimately injustice. Schrank and Piore (2007, p. 40) remark that, among other factors, time-consuming and bureaucratic judicial enforcement significantly account for the low compliance levels observed in Central American countries.

It can be argued that formalism only affects one of the two labour enforcement institutions, namely the courts, and that it is unrelated to the way the other one, inspectorates, operates. However, according to Schrank and Piore (2007, p. 13), formalism has also played a significant influence in the design of labour inspection mechanisms. Following Wallin's (1969) description of the origins and development of labour administration between the two world wars, they point out that in some European countries (particularly France and Spain) inspectors operated with procedures which heavily restricted their powers. A measure intended to combat corruption, formalism produced the plausibly unintended consequence of reducing inspectors to mere tutors or consultants. As Wallin (1969, p. 56) points out, at the beginning of the twentieth century, ineffectiveness and limited powers typically characterised labour inspectorates: 'The main function of the inspectorates could also be to give advice and instructions to employers on accident prevention and hygiene. However, activities were often hampered by restricted powers or rules of procedure which reflected the fear felt by many governments that inspectors would take high-handed action at the employers' expense'. Indeed, employers strongly opposed the creation of inspectorates, and even persuaded employees of the fraudulent nature of such institution (San Miguel-Arribas 1952, p. 42).

Different sorts of formalism have historically been denounced as reducing the efficiency of inspections. At the beginning of the twentieth century, labour inspection procedures in Spain were highly inefficient, with inspectors being compelled to put persuasion before sanctions and with the imposition of fines often lasting years. Also, it appears that remissions were not unusual, as employers easily declared bankruptcy to avoid payment (Silvestre 2006, p. 48). Spanish labour inspectors were also charged with other diverting responsibilities, such as filling statistical questionnaires which would serve governments for policy purposes (San Miguel-Arribas 1952, p. 59, 60).

Some decades later, Wallin (1969, p. 91) emphasises the difficulties of labour inspection in many countries: 'The readiness with which the courts accept the charges will depend on the weight given to unsupported evidence of a labour inspector. If he is still required, as is the case under the legislation of some countries, to collect statements by witnesses to corroborate his own observations, then his authority is clearly not strengthened. As for the effectiveness of prosecution and punishment, it is difficult to generalise. However, seem that the slowness of the procedure and the inertia of the authorities responsible for prosecuting offenders, coupled with inadequate penalties imposed in many countries, between them prevent this ultimate weapon of the labour inspectorate from having any real deterrent effect'.

Latin American countries adopted the Franco-Iberian tutelary model at the beginning of the twentieth century. The features of the tutelary inspection model plausibly explain why entrepreneurs in these formalist institutional environments are less responsive to rigid regulations, as the empirical analysis shown in the next section suggests. Indeed, one aspect which characterises this approach is that inspectors may balance the content in labour codes with other goals such as preserving employment and avoiding insolvency risks which would ensue if the law was strictly enforced. Under this system, the costs of non-compliance may also be perceived as being lower because inspectors usually grant the enterprise a period to adapt to the law (Schrank and Piore 2007, pp. 10–14).

In addition, under the tutelary model inspectors can potentially examine any provision that is included in the applicable labour codes. As Schrank and Piore (2007, pp. 32–33) point out, Latin American labour codes are so vast and complex that the inspector literally cannot check out or enforce every provision. This implies that there is virtually no limit on the number of actions (or procedures) that may be carried out during an inspection. Other aspects such as the allowance of a period for the inspected firm's presentation of evidence (a procedure described in Almeida and Carneiro 2005, p. 7) may also increase delays and reduce efficiency of inspections. All this is in contrast to Anglo-American model, where by narrowing the scope of inspectors' actions, direct economies of specialization are easily achieved.

4 The responsiveness of entrepreneurs to working time regulations

In this section, we empirically examine the sensitivity of total percentage of adult population who are entrepreneurs by opportunity to working time regulations. We specifically focus on entrepreneurs who respond to the Global Entrepreneurship Monitor questionnaire that they are currently pursuing attractive business opportunities (Reynolds et al. 2002). We start our assessment by successively testing the separate and joint explanatory power of the variables used in Lee et al. (2007) and the *Doing Business* rigidity of hours index. From year 2002 to 2005, the Global Entrepreneurship Monitor has covered data on opportunity entrepreneurship for 55 countries, all of which are included in the *Doing Business* project. The study by Lee et al. (2007) covers 48 countries. Merging these three sources produces a first sample, which comprises 23 countries. As shown in Table 3, this results in an unbalanced panel of 61 observations. Alternatively, Table 4 reveals that by just merging the Global Entrepreneurship Monitor and the *Doing Business* data a larger sample of 52 countries and 140 point observations is obtained (the sample is reduced from the 55 Global Entrepreneurship Monitor countries to 52 because of the introduction of control variables). In Table 1, we present the variables used in the analysis.

Prior to the examination of the interaction between the law and its enforcement, in Table 2 we present the correlations among a selection of available measures of enforcement quality. We observe that both formalism variables (Formalism and Dismissal procedures) are positive but weakly correlated. Interestingly, we also observe a positive and highly significant correlation between our averaged Formalism index and the rate of non-fatal occupational injuries. On the other hand, fatal injuries appear to be positively associated with dismissal procedures.

These measures can be interpreted as components of an enforcement production function which has the objective of reducing the number of occupational injuries. While the outputs of the enforcement function would be the number of fatal and non-fatal injuries, the other variables could be considered as inputs: Formalism (which in part reflects the organizational technology of the enforcement institutions), dismissal procedures (proxying for formalism in the

labour context), and the number of labour inspectors. We have run several regressions (not reported) and the link between formal procedural variables and occupational injuries holds even after adjusting for other control variables (such as per-capita income). Although we would have preferred using direct measures of formalism in all labour enforcing institutions (namely, inspectorates and labour courts), in the context of our article the significant association suggested by the correlations' Table allows us to infer that Formalism and Dismissal procedures contain relevant information regarding the quality of labour enforcing institutions.

Before we present the results obtained for the key variables, note that in all the regressions where opportunity entrepreneurship is taken as the dependent variable (Tables 3 and 4), three control variables have been included: a) the World Development Indicators' GNI per Capita index using Atlas method (current US\$), lagged one year; b) the World Development Indicators' GDP growth, also lagged one year; and c) the Global Entrepreneurship Monitor measure of the stock of Business Owners (see Reynolds et al. 2002). Although business ownership has been identified with the wider concept of self-employment (see van Stel 2005), the Global Entrepreneurship Monitor definition critically includes the circumstance that the entrepreneur has already paid wages for more than 42 months. It is worth remarking that the value and significance of coefficients is not substantially altered by introducing a larger number or combination of controls (we have mostly tested the ones appearing in van Stel et al. (2007) and in Klapper et al. (2006).

Using our restricted sample of 23 countries, regression 1 in Table 3 suggests that the number of normal statutory hours is positively associated with the rate of entrepreneurs by opportunity. As expected, less rigidity in normal hours' regulation is positively associated with entrepreneurship. It is worth pointing out that in the sample of 48 countries used by Lee et al. (2007), at least a 62.5% (30 countries) limit the normal statutory weekly time to 40 h. France is the well-known exception with its normal limit of 35 h. The remaining 35.42% countries have set a larger limit, with 10 countries reaching the maximum of 48 h (Bolivia, Ethiopia, Guatemala, Mexico, Pakistan, Panama, Peru, Thailand, Uruguay and Zimbabwe). Note that the United Kingdom and

Table 1 Description of the variables

Name in tables	Description	Source
Opportunity entrepreneurship	Entrepreneurs who respond to the Global Entrepreneurship Monitor questionnaire that are currently pursuing attractive business opportunities. This includes both nascent entrepreneurs (when they have committed resources or started a business) and new entrepreneurs (who own and manage a firm which has paid wages for more than 3 months but less than 42 months). See Reynolds et al. (2002).	Global Entrepreneurship Monitor (GEM). Data are obtained from several reports retrieved from the GEM Web site: http://www.gemconsortium.org/
Business ownership	Established entrepreneurs who own and manage an established business which has been in operation for more than 42 months. Reynolds et al. (2002).	Global Entrepreneurship Monitor (GEM). Data are obtained from several reports retrieved from the GEM Web site: http://www.gemconsortium.org/
Normal statutory hours	Number of weekly normal statutory hours of work without incurring in overtime.	International Labour Organization (ILO) Working Time Database. Downloaded from the ILO Web site: http://www.ilo.org/travail/database/servlet/workingtime
Observance in working time	Proportion of paid employees who are working at or below the standard statutory hours in each country as of year 2000.	International Labour Organization (ILO). Statistical Annex in Lee et al. (2007)
Effective hours	Average of the normalized values of the Normal Statutory Hours and Observance in Working Time. Using the authors own notation, the formula for normalization is $[(10/13 * (48-SH_i))] \text{ and } [(1/10 * OR_i)]$, where SH_i is country i 's statutory hours and OR_i refers to country i 's observance rate. The index ranges between 0 and 10, with higher values meaning stricter practices.	Statistical Annex in Lee et al. (2007)
Rigidity of hours	An index composed of 5 components: (i) whether night work is unrestricted; (ii) whether weekend work is unrestricted; (iii) whether the workweek can consist of 5.5 days; (iv) whether the workweek can extend to 50 h or more (including overtime) for 2 months a year to respond to a seasonal increase in production; and (v) whether paid annual vacation is 21 working days or fewer. For each of these questions, if the answer is no, the country is assigned a score of 1; otherwise a score of 0 is assigned.	Doing Business. Downloaded in July 2007 from the Doing Business Web site: www.doingbusiness.org
Non-fatal occupational injuries	Rates of total (male and female) occupational non-fatal injuries per 100,000 employees (average years 2002–2006).	Laborsta Internet Yearly Statistics, International Labour Organization. Downloaded from: http://www.ilo.org/global/What_we_do/Statistics/lang-en/index.htm
Fatal occupational injuries	Rates of total (male and female) occupational fatal injuries per 100,000 employees (average years 2002–2006).	Laborsta Internet Yearly Statistics, International Labour Organization. Downloaded from: http://www.ilo.org/global/What_we_do/Statistics/lang-en/index.htm

Table 1 continued

Name in tables	Description	Source
Number of inspectors	Number of labour inspectors per 100,000 employees (surveys for 2003–2006 International Labour Organization reports).	International Labour Office Committee on Employment and Social Policy, retrieved from ILO's Web site: http://www.ilo.org/public/english/standards/relm/gb/docs/gb297/pdf/esp-3.pdf When available, we have used the Schrank and Piore (2007) data for Central American and Caribbean countries Work force is obtained from World Development Indicators Online database: http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=135 Botero et al. (2004)
Dismissal procedures	This variable results from averaging the first four out of the seven dummy variables used by Botero et al. (2004, p. 1348, Table 1) to measure the costs of dismissal: '(1) if the employer must notify a third party before dismissing more than one worker, (2) if the employer needs the approval of a third party prior to dismissing more than one worker, (3) if the employer must notify a third party before dismissing one redundant worker, (4) if the employer needs the approval of a third party to dismiss one redundant worker, (5) if the employer must provide relocation or retraining alternatives for redundant employees prior to dismissal, (6) if there are priority rules applying to dismissal or layoffs, and (7) if there are priority rules applying to reemployment.' The last three cannot properly be interpreted as 'procedural' steps. Thus, we average the first four sub-indices.	
Formalism	We average the two formalism indexes by Djankov et al. (2003). Each formalism index for ranges from 0 to 7. The index is composed of the following sub-indices: (i) professionals vs. laymen, (ii) written vs. oral elements, (iii) legal justification, (iv) statutory regulation of evidence, (v) control of superior review, (vi) engagement formalities, and (vii) independent procedural actions. The index ranges from 0 to 7, where 7 means a higher level of control or intervention in the judicial process.	Djankov et al. (2003)
Ln GNP per capita	GNP per Capita index using Atlas method (current US\$), lagged 1 year.	World Development Indicators Online database: http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=135
GDP growth	Annual rate of GDP growth, lagged 1 year.	World Development Indicators Online database: http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=135
Informal economy	Estimates of the size of unofficial economy as a percentage of total GNI in the year 2000.	Schneider (2002)
Socialist	Socialist or former socialist countries.	CIA Factbook
Latitude	Absolute value of the latitude of the capital of the country, scaled to take values between zero and one.	CIA Factbook

Table 2 Quality of enforcement measures

Correlation matrix					
Pairwise correlations ^a	Occupational non-fatal injuries	Occupational fatal injuries	Formalism	Dismissal procedures	Number of inspectors
Non-fatal occupational injuries	1.000				
Fatal occupational injuries	−0.158 (0.3967)	1.000			
Formalism	0.5312 (0.0018)	0.0998 (0.5744)	1.000		
Dismissal procedures	0.16 (0.3818)	0.386 (0.0242)	0.1854 (0.1041)	1.000	
Number of inspectors	0.2722 (0.392)	−0.277 (0.359)	0.1518 (0.314)	−0.132 (0.4103)	1.000

^a Pairwise correlation coefficients between selected variables, significance levels in brackets

Germany are excluded because their regulations only impose a limit on maximum hours (including overtime).

In regressions 2 and 3 (Table 3) it is shown that observance rates also capture a relevant characteristic of working time practices: an increased proportion of employees working below the normal statutory limits reduce the observed rates of entrepreneurship. Examples of countries in our sample where a high percentage of employees work below the normal statutory limit are the Netherlands (97.2%), Russia (92.5%) and Norway (92.5%). While the introduction of observance increases the R-squared, the normal statutory limit coefficient does not change significantly. This suggests that both variables have a complementary effect on the rate of entrepreneurial activity. However, we cannot interpret observance as a proxy for law enforcement because it captures both the effects of employers who do not respect the normal statutory limits and those who legally surpass the normal limits by assuming the cost of paying extra hours.

In the fourth regression (Table 3), we assess the impact of the Lee et al. (2007) effective working time regulation variable. This variable has been constructed to capture de facto rigidity and results from averaging the normalized values of the normal statutory limits and observance rates.

As shown in column 4 (Table 3), the effective regulation variable produces an improvement in the fitness of the model. Overall, regressions 1–4 in Table 3 support the emphasis of Lee et al. (2007) on

de facto regulation, but do not exclude the possibility that de jure regulations have an impact by themselves.

Interestingly, the information contained in the variables used by Lee et al. (2007) refers to the issue of normal statutory weekly working time. This specific aspect is not covered in the Doing Business rigidity of hours index (see the description in Table 1).

As Lee et al. (2007) suggest, the Doing Business index is inadequate because it does not describe actual legal practices. Accordingly, we complement the Doing Business rigidity of hours index with two additional variables: a measure of the quality of enforcement, and its interaction with the Doing Business index. By introducing a measure of judicial quality we try to assess the extent to which the laws covered by Doing Business are effectively implemented.

We predict that the content of the law matters, but efficient enforcing mechanisms are needed. Specifically, we expect that sensitivity of entrepreneurial activity to working time regulation decreases with inefficiency levels of enforcement. Unfortunately, we have not found any convincing measure of the efficiency of labour enforcement institutions.

As discussed previously, the measure of enforcement quality we use is the average of the two Formalism indexes which appear in the paper ‘Courts’, by Djankov et al. (2003). Prior to commenting the last regression in Table 3, we should note that we have tested the interaction of the Doing

Table 3 Opportunity entrepreneurship: assessing its sensitivity to Statutory Working time and rigidity of hours

Model ^a	Dependent variable: opportunity entrepreneurship				
	(1)	(2)	(3)	(4)	(5) ^b
Ln GNP per capita (lagged 1 year)	0.0052956 (0.995)	−0.2712457 (0.721)	0.2565649 (0.743)	0.2873857 (0.715)	0.3084494 0.695
GDP growth (lagged 1 year)	0.3414259 (0.130)	0.4083516 (0.070)	0.3399748 (0.124)	0.3238763 (0.140)	0.3044098 0.157
Business ownership	0.1717291 (0.104)	0.2102414 (0.049)	0.1842969 (0.078)	0.1737278 (0.092)	0.1550326 (0.127)
Normal statutory hours	0.6683623 (0.044)		0.5998944 (0.044)		
Observance in working time		−0.1699629 (0.008)	−0.1644986 (0.009)		
Effective hours (statutory rigidity in practice)				−2.077545 (0.002)	−1.655042 (0.016)
Rigidity of hours (doing Business)					−0.3704604 (0.012)
Formalism ^c					−2.178812 (0.344)
Rigidity of hours × formalism					0.0932813 (0.040)
Constant	19.82448 (0.011)	−23.00846 (0.193)	−10.06536 (0.545)	15.22223 (0.033)	20.97257 (0.0720)
Obs.	61	61	61	61	61
R-squared	0.2437	0.3252	0.3643	0.3964	0.5562

^a Unbalanced panel data regression, *P*-values in brackets. Breusch and Pagan Lagrangian multiplier tests indicate that random effects are significant

^b Test effective regulation = -2.077545 Prob > $\chi^2 = 0.5389$

^c Formalism is the average of the Djankov et al. (2003) formalism index for check collection and eviction of a tenant

Business rigidity of hours index with the alternative enforcement related measures presented in Table 2, namely the Number of Inspectors, the Dismissal procedures, and the rates of occupational injuries. On the other hand, Marshall (2007, p. 13) suggests that levels of compliance are basically influenced by social tolerance to corruption. She contends that corruption may indicate the perceived (and real) enforcement levels, which in turn would stimulate non-compliance among the smallest firms. We have thus tested the possible interaction effect with perception indexes such as Rule of Law and Control of Corruption (see Kaufmann et al. 2004, 2007). However, no interactions other than the formalism one did show any impact on the number of entrepreneurs (not reported in the Tables).

Procedural formalism increases the costs of using the enforcing mechanisms: the higher the number of procedures, the costlier it is to enforce contracts. Formalism is associated with lengthy procedures and with a more intensive use of inspection and judicial resources. For any given level of resources, formalism reduces the efficiency of the system because more time and staff is needed for each case to be reviewed and resolved. If, as suggested by Djankov et al. (2003), procedural formalism practices are historically inherited and are embedded in the legal system, reverse causality concerns can plausibly be ruled out.

Following the authors' own description, the Formalism index measures substantive and procedural statutory intervention in judicial cases at middle-level

Table 4 Opportunity entrepreneurship: Interaction of rigidity of hours with judicial formalism and informal economy

Model ^a	Dependent variable: opportunity entrepreneurship						
	Interacting formalism			Interacting informal economy			
	(1) ^b	(2) ^c	(3) ^d	(4)	(5) ^e	(6) ^f	(7)
Ln GNP per capita (lagged 1 year)	−0.8153016 (0.043)	−1.356032 (0.072)	−0.68511 (0.077)	−0.2121811 (0.654)	−1.247849 (0.114)	−0.6487103 (0.218)	−0.1779505 (0.701)
GDP growth (lagged 1 year)	−0.0689718 (0.102)	−0.0915171 (0.060)	0.1871369 (0.169)	−0.0869681 (0.048)	−0.0994251 (0.046)	0.1323266 (0.354)	−0.0837615 (0.052)
Business ownership	0.0628106 (0.262)	0.0731918 (0.331)	0.0953487 (0.293)	0.0855861 (0.130)	0.0362274 (0.607)	0.1731718 (0.119)	0.0743935 (0.179)
Rigidity of hours (Doing Business)	−0.3166211 (0.000)	−0.0316719 (0.592)	−0.0770744 (0.001)	−0.1600119 (0.001)	−0.0326849 (0.549)	−0.0699605 (0.005)	−0.3673838 (0.000)
Formalism (g)	−0.2435745 (0.859)					−1.005265 (0.458)	
Rigidity of hours × formalism	0.06958 (0.010)					0.07207 (0.011)	
Informal economy				0.0742186 (0.462)		0.1341054 (0.168)	
Rigidity of hours × informal economy				0.0033722 (0.093)		0.0007513 (0.711)	
Constant	17.61262 (0.004)	21.55101 (0.001)	13.96364 (0.000)	10.16673 (0.064)	20.36615 (0.002)	13.76356 (0.013)	12.04235 (0.075)
Obs.	140	70	70	134	67	67	134
R-squared	0.4015	0.2802	0.4541	0.4350	0.3095	0.5367	0.5283

^a Unbalanced panel data regression, *P*-values in brackets. Breusch and Pagan Lagrangian multiplier tests indicate that random effects are significant^b A likelihood ratio test shows that we cannot impose the restriction that the interaction term is zero: LR $\chi^2 = 4.31$; Prob > $\chi^2 = 0.0379$ ^c The sub-sample includes observations with formalism *higher* than the median obtained in regression (1) observations^d The sub-sample includes observations with formalism *lower* than the median obtained in regression (1) observations^e The sub-sample includes observations with informal economy *higher* than the median obtained in regression (4) observations^f The sub-sample includes observations with informal economy *lower* than the median obtained in regression (4) observations^g Formalism is the average of the Djankov et al. (2003) formalism index for check collection and eviction of a tenant

civil trial courts, and is formed by adding up the several sub-indices (Djankov et al. 2003, p. 461). The first one is related to the degree of professionalism of judges and lawyers (basically court specialization, training received by judges and the need for legal representation). Secondly, a sub-index captures whether written presentation dominates the procedure as opposed to oral presentation. The third, known as *Legal justification*, indicating whether judgements are based on statutory law rather than on principles of equity. The fourth dimension covers the degree of freedom and flexibility with which the judge gathers evidence. The fifth element relates to the judicial internal organization: the extent to which first instance judges' decisions are subject to the actions of their superiors. The sixth sub-index captures the level of engagement formalities which have to be followed (notification requirements...). Finally, formalism also includes the number of independent procedural actions, defined as 'every step in the procedure, mandated by law or by court regulation, which demands interaction between law or by court regulation, which demands interaction between the parties or between them and the judge or court officer (Djankov et al. 2003, p. 475).

In short, Formalism describes the procedural practices with which contracts are enforced and captures the costs of enforcing institutions. Bureaucratic procedures reduce the quality of enforcement in many ways, one of which is the inefficient use of human resources involved in the task of enforcing laws and contracts. The index ranges from 0 to 7, where 7 means a higher level of control or intervention in the judicial process (Djankov et al. 2003, p. 469). Formalism is measured for two types of procedures: the procedure for collecting a bounced check, and the procedure to evict a non-paying tenant. As the correlation between these two indexes is very high (0.83), our results are similar, regardless of the chosen formalism index (not reported). In order to capture this dimension in the widest possible context, our variable Formalism results from averaging both formalism indexes.

Regression 5 in Table 3 shows that the effective working time variable is significant even after controlling for the effect of these additional three variables. Furthermore, we find that the interaction of the Doing Business rigidity of hours index and enforcement quality increases the fit of the model.

The coefficients show the predicted signs: the Doing Business de jure regulation index appears to exert a negative impact on entrepreneurship, but this effect is reduced as the levels of judicial formalism increase. The coefficient value of the effective regulation variable produced by Lee et al. (2007) decreases but it is still significantly different from 0 at the 98% level. An F-test shows that the decrease in the effective regulation coefficient is insignificant, suggesting that both de facto dimensions (i.e. the effective regulation on normal statutory hours and the enforcement of the Doing Business rigidity of hours index) have a complementary influence on the levels of entrepreneurship.

In Table 4 we continue our analysis of the effects of formalism by sacrificing Lee et al. (2007) variables to check the robustness of the interaction in a larger sample of countries. We start by running the model where the Doing Business index is interacted with the formalism index.

Regression 1 in Table 4 suggests that the negative impact of rigidity of hours on the rate of entrepreneurial activity decreases with higher levels of judicial formalism. The positive sign of the interaction implies that the burden imposed by labour regulation on entrepreneurs is reduced as the enforcement formalism increases. As formalism increases (enforcing mechanisms are inefficient), entrepreneurs are less concerned with the content of laws on the books. Indeed, our results suggest that for highly formalist and bureaucratic countries (basically Latin American and Iberian countries, see Table 6) the impact of working time regulations is virtually nil.

In order to rule out the possibility that the interaction term is mainly capturing the effect of the rigidity of hour's index, we split the sample in two groups: countries with lower than the median formalism levels (regression 2, Table 4) and countries with higher than the median formalism levels (regression 3, Table 4). Columns 2 and 3 (Table 4) confirm that working time regulations have a significant impact in less formalist judicial systems, but it is insignificant in the more formalist ones.

Our results, thus, suggest that the probability of laws having any impact on entrepreneurs depend on the levels of formalism in enforcement mechanisms. At this point, one may conjecture that historically originated inefficient enforcement institutions have generated higher rates of informal economy in the

long run, which currently increases the number of entrepreneurs who are able to elude working time regulation. Almeida and Carneiro (2005, p. 12) suggest that stricter enforcement mechanisms (measured in terms of number of fines) substantially reduce informal employment. Alternatively, as Marshall (2007, p. 2) points out, the factors affecting the size of informal economy and the extent to which labour laws are complied with do not necessarily coincide.

The impact of informal economy is considered in columns 4–6 (Table 4), by using a slightly smaller sample of 50 countries and 134 point observations. Regression 4 in Table 4 suggests that the interaction effect of informal economy is similar to the one observed when the formalism variable is interacted (regression 1, Table 4). Again, splitting the sample provides confirmatory evidence: when the informal sector is small, the impact of working time regulation is significant (regression 5, Table 4); however, laws

show no effect in countries with a larger informal sector (regression 6, Table 4).

As shown in Table 5 (panel A), the informal economy variable is significantly correlated with the formalism index. A possibility then is that the formalism index actually proxies for the level of shadow economy.

Furthermore, after controlling for other endowments, such as latitude and a socialist legal origin dummy, panel B in Table 5 suggests that formalism produces a long term effect on the size of the informal economy. These explanatory variables potentially provide a good instrument for the impact of the informal economy on the number of entrepreneurs. However, a Hausman test performed after running instrumental variable regression (not reported) suggests that formalism (along with latitude and the socialist legal origin) has no significant impact on entrepreneurship *through* informal economy ($\text{Prob} > \chi^2 = 0.1741$). In order to obtain further

Table 5 Association between informal economy and formalism

<i>Panel A Correlation matrix</i>				
Pairwise correlations ^a	Informal economy	Latitude	Formalism	Socialist
Informal economy	1.0000			
Latitude	−0.4038 (0.0000)	1.0000		
Formalism	0.3781 (0.0005)	−0.09470 (0.3392)	1.0000	
Socialist	0.3052 (0.0016)	0.3511 (0.0000)	0.0218 (0.8382)	1.0000
<i>Panel B Regressing informal economy on formalism and other long term controls</i>				
Model ^b	(1)	(2)	(3)	(4)
Formalism	6.040873 (0.001)	4.798661 (0.003)	6.14764 (0.000)	4.606944 (0.001)
Latitude		−29.0022 (0.000)		−36.90437 (0.000)
Socialist			21.80717 (0.002)	29.97287 (0.000)
Constant	9.343642 (0.153)	23.83624 (0.001)	7.852609 (0.205)	25.73565 (0.000)
Obs.	80	80	80	80
R-squared	0.1429	0.2919	0.2236	0.4495

^a Pairwise correlation coefficients between selected variables, significance levels in brackets

^b OLS regression, with *P*-values in brackets

Table 6 List of countries with higher and lower formalism

Country	Formalism in check collection	Formalism in eviction of a tenant	Formalism index ^a
<i>Countries with the highest formalism index in our sample</i>			
Venezuela	6.01	5.81	5.91
Peru	5.60	5.42	5.51
Argentina	5.40	5.49	5.44
Spain	5.25	4.81	5.03
Philippines	5.00	5.00	5.00
Ecuador	4.92	4.64	4.78
Mexico	4.71	4.82	4.76
Chile	4.57	4.79	4.68
Slovenia	4.26	4.26	4.26
Portugal	3.93	4.54	4.23
<i>Countries with the lowest formalism index in our sample</i>			
United States	2.62	2.97	2.80
Malaysia	2.34	3.21	2.78
South Africa	1.68	3.68	2.68
Uganda	2.61	2.51	2.56
United Kingdom	2.58	2.22	2.40
Jamaica	2.34	2.38	2.36
Canada	2.09	2.32	2.20
Hong Kong	0.73	3.13	1.93
Australia	1.80	1.99	1.90
New Zealand	1.58	1.25	1.41

^a In this column we average the indexes for check collection and eviction of a tenant

evidence, in the last column in Table 4 (regression 7), we test a model where both the informal economy and formalism (with their respective interactions) are introduced. This regression shows that the impact exerted by formalism is stronger, and that the size of this impact does not depend on the information contained in the informal economy variable.

On the whole, our results provide evidence that long term inherited inefficiencies of enforcement mechanisms (as proxied by the level of formalism) reduce the impact of working time regulations on the rate of entrepreneurial activity by opportunity. We finish this section by listing ten countries with the higher averaged Formalism index in our sample. It can be observed that there is only one country (i.e. namely, Slovenia) which is not a Latin American or Iberian country.

Table 6 also exhibits the 10 least formalist countries, all of which belong to the English legal origin group.

5 Discussion

In this article, we pay attention to the frequently neglected issue that the effectiveness of laws cannot be isolated from the quality of enforcement institutions. In the labour regulation context, however, several authors have already made this point. Botero et al. (2004, p. 1378) suggest that labour laws may have adverse consequences in countries where they are more likely to be enforced, namely the richer ones. Unfortunately, the authors did not show the regressions from which this conclusion can be obtained. Almeida and Carneiro (2005, p. 25) observe that, while stricter enforcement reduces informal employment, it has adverse effects on firm's wages, productivity and investment. In a paper which focuses on the impact of minimum wages and social security benefits on economic development, Forteza and Rama (2001, p. 27) point out that the success of labour regulation reforms depends on the extent to which regulations are effectively enforced. They observe that, although enforcement quality is higher in developed countries, there is a substantial variance among the developing countries, with low quality being associated with weak and corrupt labour inspection agencies.

Consistent with these studies, we provide evidence suggesting that when enforcement is efficient (i.e. less formalist) stricter labour regulations reduce the number of entrepreneurs by opportunity. We observe that this effect is weakened as formalism characterises enforcing institutions. In our empirical analysis we have used direct measures of one of the main labour enforcement institutions, namely the inspectorates. However, the number of inspectors did not affect the size if the marginal impact of working time hours on entrepreneurship. On the other hand, we have been limited by not having data on formalism in labour courts. Instead, we have used a variable which results from averaging the formalism indexes in the two non-labour procedures analysed by Djankov et al. (2003). As reasoned in Sect. 3, this variable plausibly contains information which is relevant to our purposes, since labour procedures

have been described as sharing common features with previously enacted civil procedures, which emphasize form over content (Sappia 2002, pp. 13–15). Similarities between civil and labour judicial procedures may be due to the fact that transplanted institutional models (i.e. legal traditions) condition the way countries produce new laws. Consistently, Schrank and Piore (2007) suggest that formalism has also taken part in the generation of the French–Iberian tutelary labour inspection model.

In contrast to potentially endogenously determined enforcement measures (as may be the case of corruption, as acknowledged by Marshall (2007), p. 13), our formalism explanatory variable is less subject to causality issues, since it is embedded in legal traditions and is likely to be stable in the long run. Additionally, in Sect. 5 we show that formalism is positively correlated with the rate of non-fatal occupational injuries, suggesting that the efficiency of labour enforcement institutions is conditioned by its levels of formalism. Thus, our evidence supports the measures by Djankov et al. (2003) as appropriate proxies of the formalism in the labour enforcement context.

An implication of our study is that, to improve legality, some countries should drastically reform procedural norms. This has been one of the most important conclusions in the labour survey produced by the Economic Commission for Latin America and the Caribbean (CEPAL 2003, p. 194). As Sappia (2002, p. 14) remarks, ‘the persistence of written procedures and double instance trials—two features that are characteristic of the civil procedure, where formal truth prevails over the judge’s decision—, have contributed to prevent the achievement of objectives such as simplicity and swiftness and affect Labour law principles such as speed, concentration, immediacy and even supremacy of reality’. Along with procedural reforms, non-judicial mechanisms should also be promoted, such as mediation and conciliation. However, it has been noted that the use of out of court mechanisms may imply a reduction of workers’ rights. Actually, this would be a supplementary product of inefficient judicial mechanisms and, of course, another expression of non-compliance. According to Bensúsán (2006, p. 46), in Mexico, where conciliatory solutions account for 40% or 50% of the cases, workers obtain only a half of what they would have obtained had they won the case in court. On the other

hand, real legality would only be achieved if justice was accessible to the poorest. Inefficient labour justice generates the incentives for non-compliant employers to threaten workers to file a procedure, particularly in countries where the latter risk bearing part of the judicial costs (as is the case in Argentina).

Another policy implication is that encouraging labour flexibility may not improve conditions for entrepreneurial activity in procedurally formalist countries. This is due to the fact that, in those countries, flexibility *de facto* characterises employment relations. This is in line with what Lee et al. (2007, p. 38, 43) observe with regards to statutory limits: low-income countries generally have lower observance rates *despite (not because of)* higher statutory limits. Thus, they conclude that it would be overstated to suggest that working time regulation in developing countries is unnecessarily rigid. Furthermore, they also conclude that the evidence on lower compliance in less stringent countries gives no reason to believe that stricter standards (i.e. shorter statutory normal hours) could lower observance (Lee et al. 2007, p. 63). Consistently, Forteza and Rama (2001, p. 27) also conclude that labour market deregulation might be effective on paper, but not necessarily on practice. Their analysis suggests, for instance, that repealing International Labour Organization conventions would be useless in terms of economic growth.

A related issue is that in some countries labour regulations may be relaxed to protect small firms and to promote entrepreneurship. This would provide an alternative explanation as to why in some institutional contexts entrepreneurs are less sensitive to regulation, as our results suggest. Nevertheless, it is unlikely that laws specifically regulating working time (that is, overtime, maximum hours of work, weekends, minimum holidays...) are not extended to all workers in the system. In addition, if this was the case, it is also unlikely that smaller firms in countries with higher formalism levels enjoy relatively better conditions than smaller firms in non-formalist countries.

Rather, studies on non-compliance in Latin American labour markets stress the problem of large proportion of workers being unprotected because poor enforcement institutions are unable to adequately monitor and penalise smaller firms (Marshall 2007, p. 16). Bensúsán (2007, p. 32) suggests that costly detection coupled with weak powers of inspectors (particularly if they are limited to actions based on

persuasion) explain ineffective enforcement, particularly in small firms. As Schrank and Piore (2007, p. 34) point out, ‘even in a country like France, where the inspectorate is well funded and staffed, the chances of violators getting caught and the penalties when they are exposed are so small that a cold cost benefit calculus will never induce compliance on its own. In addition this is infinitely more the case in Central America.’ They also state that administrative sanctions are unavailable in most Latin American countries (Schrank and Piore 2007, p. 40).

On the other hand, Schrank and Piore (2007, pp. 32–33) make the point that a full development of the tutelary model could produce efficient results in the Central American countries, that is, it would increase compliance rates without destroying jobs and entrepreneurial value. This is partly so because inspectors are able to treat each firm according to its specific characteristics, which is potentially beneficial to smaller firms. However, they acknowledge that, in these countries, the lack of resources have forced inspectors into a reactive posture, implying that the tutelary model has been more rhetorical than real (Schrank and Piore 2007, p. 10, 16). Still, according to their estimations, a third of the inspections in the region are proactive. Bensusán (2007, pp. 30–32) suggests that, in contemporary Latin America, allegedly actions to fight corruption have reduced inspectors’ detection and punitive powers, which has diluted the acceptance of their advise and recommendations. She also comments that, in Latin American countries, labour inspections have been highly sensitive to economic and political cycles. Fear to aggravate job destruction and external investment declines lead to reduced strictness in inspections during downturns.

In short, a multiple combination of factors appear to explain why entrepreneurs are less responsive to working time regulations in Latin America: lack of resources, reduced powers of inspectors, conciliatory interpretation of the law and, as our results suggest, inherited formalism in enforcement procedures.

6 Conclusion

While in our article, we do not consider the convenience of alternative procedural models, we show that labour regulations, whatever their content, appear to have a little effect on the decision to start a

firm in highly formalist countries. We thus believe that earlier approaches to the impact of labour regulation on entrepreneurial activity wrongly assume that laws on the books are uniformly and effectively enforced across countries.

Our analysis suggests that the quality of contemporary labour enforcement institutions is conditioned by the observed levels of procedural formalism across countries. Although it appears to be clear that legal traditions largely account for varying levels of formalism in current procedural norms, it is also possible that historical inefficiencies in enforcement institutions have developed into what Marshall (2007, p. 3) defines as ‘culturally dominant norm in acceptable levels of evasion’. While we do not provide evidence for the existence of such cultural channel, future efforts should be oriented to understand long term and short term effects of formalism.

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