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Entry and Exit Regulations - The World Bank's Doing Business Indicators

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Entry and Exit Regulations – The World Bank's Doing Business Indicators

Thomas Strobel*

Introduction

In modern growth literature institutions and regulations are considered fundamental causes for economic development shaping the incentives of investors and entrepreneurs to engage in business activities.[1] Moreover, the wealth of a nation has been recognized as being associated with its quality of regulation, whereas regulatory regimes are not indigenous and depend to a great extent on the colonial heritage in certain parts of the world, particularly in poor an developing countries. To investigate how regulations enhance and constrain business activities around the world, the World Bank in cooperation with the International Finance Corporation launched an annual series of Doing Business reports, which started back in 2004. These reports present quantitative indicators on business regulations and the protection of property rights that help to expand our understanding of regulations in an international context across more than 180 countries and to assess the repercussions of regulatory reforms in countries with high regulatory burdens.

To analyze the effects of regulation on business activity the Doing Business reports collect data on several distinct features of a country's business environment. In the Doing Business 2004 report the World Bank began with five business related indicators, namely, starting a business, hiring and firing workers, enforcing a contract, getting credit and closing a business. In the most recent report versions the indicators have been increased from five to ten to dealing with construction permits, registering property, protecting investors, paying taxes and trading across boarders. Ultimately, out of these indicators a general Ease of Doing Business indicator has been constructed that enables a ranking of countries by business regulations from most to least efficient.

A fundamental finding of the reports is that poor countries regulate businesses the most. While it takes several months for the top performers in industrialized countries to go through bankruptcy proceedings, in developing countries it is several years. In most cases heavier regulation is associated with higher inefficiencies in public institutions that generate low productivity and high costs. Furthermore, heavier regulation encourages informal business activities, e.g., in Bolivia, where 82 percent of business activities is located in the informal sector.[2] Poorer countries also tend to grant fewer property rights to their citizens. In industrialized countries creditors, for example, have considerable power to recover their money in case of a debtor's default, whereas developing countries often do not provide such rights.

Since the measurement of institutional regulations and quality is a non-trivial undertaking, the following research report intends to provide an overview of the applied methodology of measuring regulations and seeks to give an extended evaluation of the methodological assumptions underlying two selected Doing Business indicators. Those two indicators are Starting a Business and Closing a Business. Since the World Bank's overall Ease of Doing Business indicator comprises a range of several sub-indicators the two selected indicators covered in this report are chosen with respect to consistencies in their methodological setup, but also as entry and exit regulations are considered typical determinants of market structure, competition and growth in the economic growth literature.

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[1] For an overview on the various strands of the literature on institutions and economic growth, see Acemoglu (2009).

[2] Doing Business (2004), xv.

Methodology of business regulation indicators

The World Bank's methodology of constructing business regulation indicators in general, and the two entry (Starting a Business) and exit (Closing a Business) indicators in particular, rely on unique data collection via standardized surveys. Those surveys are designed by academic experts and employ a simple hypothetical business case which defines characteristic features of the studied business with respect to its legal form, size, location and nature of operations. By introducing a standardized business case the World Bank seeks to ensure comparability of country-specific regulatory effects on business activities across a wide range of countries as well as over time. Eventually, the survey is sent to more than 8,000 local experts, including, for example, lawyers, business consultants and government officials. In particular, about 1,400 and 860 professionals contributed to the entry and exit case study, respectively.[3] Taking the 2010 country coverage of 183 countries there is on average about 8 professionals for the entry and 5 professionals for the exit case study.

The aim of the entry and exit indicators is to measure the effects of government regulation on the business environment, and on entrepreneurs' and investors' decisions to take on the risk and costs of starting a business. Beyond the pure measurement of regulations, the collected data are also intended to assess the contribution of regulatory reforms to improve the business environment of countries ranked as having low quality and the least efficient business regulations. In doing so, the measurement of business indicators relies primarily on the determination of regulatory outcomes measured in terms of procedures to register a business or the time and costs required to go through bankruptcy, for example. At the same time, the indicators do not capture the effect of a country-specific law or rule, but the aggregate result after specific laws and rules within a country have been applied to the case studies. Due to various different aspects of country-specific regulations a set of entry and exit outcome indictors has been introduced to ensure wider coverage of potential impacts associated with business regulations.

Starting a Business indicator

According to Doing Business (2004), the case study assumptions for both entry and exit indicators define the object of investigation as a limited liability company. Selecting this specific kind of legal business form was done to ensure world-wide comparability of business forms as far as possible. Furthermore, in both case studies the company is assumed to be located in the country's most populous city and to be 100 percent domestically owned. Specifically, in the entry case the company is defined as having five owners, of whom none is a legal entity. The company's paid-in-cash start-up capital is ten times a country's income per capita and for the nature of operations the company is characterized as performing general industrial or commercial activities. Regarding the company size, it is assumed that one month after operations have started, the company will have at least 10–50 employees. The company's expected turnover is set to be at least 100 times income per capita.[4]

Methodology of the business entry indicator

Based on the previous assumptions, four outcome indicators are derived from the surveys that try to proxy for the main obstacles new firms are faced with when registering a business. The measured outcomes associated with business entry regulation are: number of procedures, time and cost to register, and minimum capital requirements (Djankov et al. 2002). The following explanations enlarge upon the single indicators:[5]

- *Number of procedures*: procedures are defined as the authorities or external parties an entrepreneur needs to encounter before he can start a business. Besides negative effects stemming from delaying market entry, encountering many official authorities before opening a business can also be compared to a "tollbooth" that stops the entrepreneur and collects money (Djankov et al. 2002). Both effects prolong the registration procedure and increase direct and indirect entry costs.
- *Time*: this indicator captures the median duration necessary to complete a registration procedure. It is assumed that the minimum time required for each procedure is one day. The time indicator accounts for actual registration as well as all pre- and post-registrations, whereas the entire registration procedure is assumed to be completed when all the final documents are received.
- *Cost*: the cost component of the registration process is measured as a percentage of the country's income per capita and includes all official

[3] The number of local experts changes over time and refers to the latest version of the Doing Business report; see data notes in Doing Business (2010), 77.

[4] For more details on the assumptions of the business case for the Starting a Business indicator, see Doing Business (2004), 106.

[5] For more details on the indicators, see Doing Business (2004), 107

fees as well as fees for legal or professional services, excluding bribes. If information on fee schedules is not available, estimates from government officers or incorporation lawyers are used alternatively.

- *Minimum capital requirement*: similar to cost the paid-in minimum capital requirement is measured as percentage of the country's income per capita. It reflects the amount of starting capital the entrepreneur needs to put into a bank account or with a notary before the actual registration procedure begins. The account is assumed to be frozen during business entry and remains so until the dissolution of the company.[6]

Corresponding to the reform recommendations in Doing Business (2004) only two registration procedures would be sufficient: notification of existence (for statistical purposes) and tax and social security registration (Doing Business 2004, 17). A reduction in procedures is motivated by the fact that burdensome entry regulations are associated with a reduction in private investments, administrative corruption and, in general, with a flourishing informal economy.[7] The idea of reducing registration procedures draws on Djankov et al. (2002), who analyzed competing approaches to public interest and public choice theory. While according to the theory of public interest, stricter entry regulations are connected with higher consumer welfare, public choice theory emphasizes that regulations primarily generate rents for bureaucrats and incumbent firms. As the empirical evidence mainly supports the public choice approach, according to which numerous entry procedures and rent extraction by politicians resemble a "tollbooth" with entrepreneurs having to pay a "fee" at each stage of the registration process (see McChesney 1987; Shleifer and Vishny 1993), reducing cumbersome registration burdens is associated with higher economic outcomes.

Another reputed pro-entry regulations argument based on the association that unregulated markets usually exhibit frequent market failures ranging from monopoly power to externalities (Stiglitz 1989), is declined by the World Bank's report.[8] Seeking to address market failures a benevolent government tries to increase economic and social outcomes by introduction of regulations that intend to prohibit market failures. However, empirical evidence based on World Bank studies shows that this is not the case. For example, enforcement of international quality standards actually decreases with an increase in the number of entry procedures, and investors are more reluctant to invest in such countries that are characterized by high entry regulations.[9]

Business entry regulation across countries

In their recent Ease of Doing Business index release (Doing Business 2010) the World Bank ranks countries from 1 to 183 in terms of best regulations and property rights protection. Therefore each country's aggregate Ease of Doing Business index rank is calculated from the average of each of its sub-indexes (as Starting a Business, Closing a Business, etc.) percentile rankings. The ranking of each sub-index is, in turn, derived from the average of the percentile rankings of its sub-components. For the index Starting a Business the country rank is calculated from the average of the percentile rankings of the four sub-components time, cost, number of procedures and minimum capital requirements.[10] For the calculation of the Starting a Business index rank it is assumed that reductions in the numerical values of all sub-components are associated with better regulations; hence, the lower the value of each sub-component the higher its percentile ranks and thus the higher the average percentile rank of a country on the Starting a Business index ranking.

Table 1 shows the most recent country ranking for the Starting a Business indicator from the Doing Business 2010 report (Doing Business 2010). The ranking shows that the top 10 group of countries that regulate business entry the least is dominated by high- and upper-middle income countries, particularly, by Anglo-Saxon countries like New Zealand, Canada, Australia and the United States. Upper-middle income countries with the highest ease in business entry regulations in 2010 are Belarus and Macedonia. The bottom 10 group mainly consists of poor and lower-middle income countries located primarily in Sub-Saharan Africa. Compared to previous country ranking releases most of these countries remained in the bottom 10 group.

[6] The minimum capital requirement is measured in terms of "paid-in" capital, as this amount is assumed to reflect the actual obstacle for business entry. In many countries, a part of the minimum capital requirement can be paid in advance, while the rest can be paid in later on (Doing Business 2010, viii).
[7] Doing Business (2004), 18.
[8] Doing Business (2004), 21 f.
[9] Doing Business (2004), 22.
[10] For an exemplary demonstration of ranking calculations, see Doing Business (2010), 97.

Table 1

Starting a Business (ranking 2010)

Top 10 Group	Rank
New Zealand	1
Canada	2
Australia	3
Singapore	4
Georgia	5
Macedonia, FYR	6
Belarus	7
United States	8
Ireland	9
Mauritius	10
Bottom 10 Group	**Rank**
Cameroon	174
Iraq	175
West Bank and Gaza	176
Djibouti	177
Equatorial Guinea	178
Guinea	179
Haiti	180
Eritrea	181
Chad	182
Guinea-Bissau	183

Sources: Doing Business Database (2010). The data cover the period June 2009 until May 2010.

The country rankings provide initial evidence that rich countries tend to have better business entry regulations than poor countries. A detailed look at the sub-components of the Starting a Business index offers further insight into which entry outcomes matter and underlines the relationship between less entry regulation and a country's income endowment. According to Figure 1a there is a negative, but less distinct relationship between the time required for registering a business and income. While there is a generally downward sloping trend from poor to rich countries, upper-middle-income countries also exhibit a high average registration time. However, the time required for registering is lowest in high-income countries (about 20 days). Upper-middle-income countries exhibit a registration time of almost 47 days on average[11], whereas in lower-middle-income and poor countries the average registration time is around 35 and 45 days, respectively.

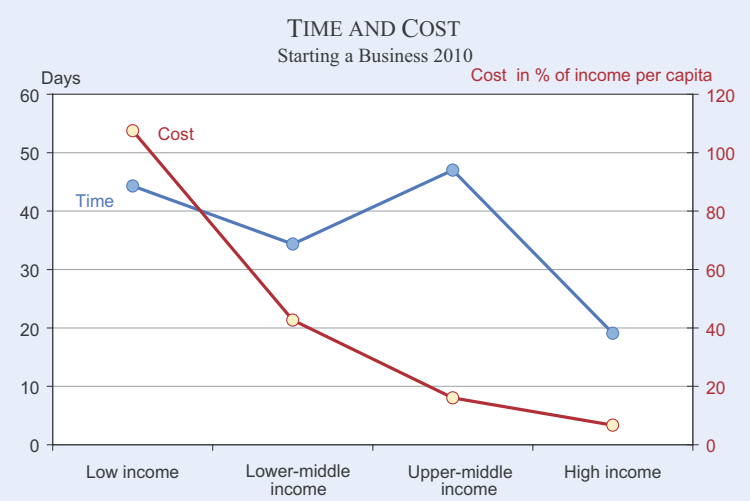
Regarding the cost sub-component (Figure 1a) there is a much more marked negative relationship between a country's income and the cost required to register a business. While high-income countries exhibit the lowest costs (< 7 percent of income per capita), upper-middle- and lower-middle-income countries' registration costs lie between 16 and 43 percent of income per capita. Low-income countries show the highest registration cost with more than 107 percent on average.

The sub-component of procedures in Figure 1b again reveals a negative relationship between income endowment and the number of registration procedures, although it is less pronounced than for costs. While throughout low-, lower-middle-, and upper-middle-income countries there is only a slight decrease in number of registration procedures, ranging from 8 to 9 on average, the number of procedures for high-income countries drops significantly to below 7.

On the contrary, for the last sub-component of the entry indicator a clearly negative relationship between a country's income endowment and the minimum capital requirement becomes apparent (Figure 1b). While rich and upper-middle-income countries require a capital deposit between 0 and 20 percent on average of income per capita, lower-middle-income countries complete the registration process after entrepreneurs have put in an average of 60 percent of income per capita before starting a business. For low-income countries the capital requirement reaches an astonishing 153 percent on average of income per capita.

High registration costs and minimum capital requirements, especially in poor countries are most

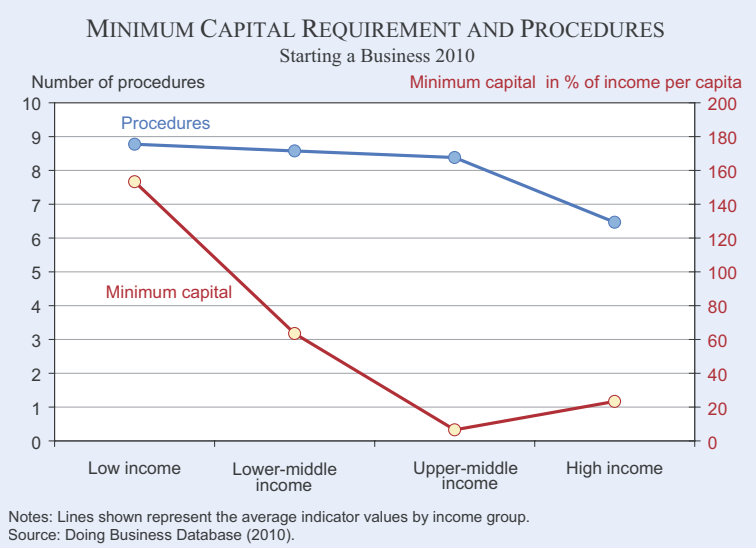
Figure 1a



Notes: Lines shown represent the average indicator values by income group.
Source: Doing Business Database (2010).

[11] The high registration time in upper-middle-income countries is due to Suriname with 694 days. Exclusion of this country results in an average registration time of about 31 days.

Figure 1b



Notes: Lines shown represent the average indicator values by income group.
Source: Doing Business Database (2010).

likely to put an enormous burden on potential entrepreneurs and thus drive people into the informal economy. Despite some less distinct relationships between single entry regulation outcomes and a country's income endowment, the Starting a Business sub-components support the general view that poorer countries tend to regulate business entries more than richer countries. Interestingly, as countries start to tighten business entry the single outcome indicators jointly increase, as they are highly correlated with each other (Doing Business 2004, 22).

Limits of the standard approach in measuring business entry regulations

This section evaluates the World Bank's methodology to measure entry regulation and regulation efficiency by referring to the assessment of the World Bank Independent Evaluation Group (IEG 2008) review. It discusses some of the main caveats underlying the standard approach that are specific to the Starting a Business indicator while a discussion of general limitations applying to both entry and exit indicators will be provided later on.

To start with, one drawback in the entry regulation outcome indicator is the time component that solely captures the duration necessary to complete the registration process (Doing Business 2004, 107), but neither takes into account the time of gathering information an entrepreneur is faced with before entering the registration process nor does it consider the entrepreneur's effort to collect information during the registration process. Utilizing the registration system is assumed to take place with ease and without wasting time. But according to the firm-level evidence provided by Hellman and Schankerman (2000), such a "time tax" plays an important role.[12] These time taxes usually arise from applying and interpreting laws and regulations, which is often connected with heavy state regulation.

Moreover, the approach of ranking countries according to their numerical outcome values, and thereby assuming that better regulations always go along with lower outcome values is not unproblematic. Although reducing burdensome regulations at a level of intolerable bureaucracy may without doubt enhance a country's business environment, the logic of lower minimum capital requirements and better economic outcomes in particular is not straightforward. Especially with regard to industrialized countries the demand for lower minimum capital requirements to increase firm entry and to foster economic growth in the long run has proven to be wrong in the wake of the financial crisis, especially in the banking sector. The aftermaths of deregulation in this specific sector have spilled over to the entire economy causing serious contractions to the overall business environment. Higher equity capital and lower leverage would have, in contrast, provided the necessary stabilizing measures for economic growth.

Another critique of the Starting a Business indicator's ability to assess a country's economic entry environment addresses the impact of entry regulations on new firm entry in principle. This critique goes beyond regulations, since the numbers of sub-components used in the Starting a Business context only capture a part of the overall costs relevant for firm entry and thus do not account for other potential factors. Regarding the cost sub-component De Sa (2005) and Klapper et al. (2007) argue, for example, that a decrease in entry costs will not automatically lead to new firm creation. Rather it is the overall costs that entering firms face as well as the entire investment climate that impact whether entrepreneurs will start a new business.[13] The regulation focus in the World Bank's approach thus may be appropri-

[12] IEG (2008), 27.
[13] IEG (2008), 28.

ate for detecting some relevant correlations between regulation and firm entry, but it is missing other fundamental factors of new firm entry.

Furthermore, according to the World Bank's recommendations to improve efficiency of entry regulations and make registering less burdensome, procedures should be limited to only two: notification of existence, and tax and social security registration (Doing Business 2004, 17). The fundamental idea behind this recommendation is once again that lower regulation is better in general, which may not be appropriate for every country. Countries far away from the world technology frontier may even benefit from more regulations, as they may function as possible stabilizing devices. Also, in addition to these two suggested measures, the World Bank reports that "other procedures, such as registering with the statistical office, obtaining environmental permits, or registering workers for health benefits […] seem to be socially desirable" (Doing Business 2004, 21). Following the World Bank's advice and constructing the Starting a Business indicator based on the two suggested procedures only, decreases the number of relevant entry factors further and, moreover, assigns the highest rankings to those countries with the best results in the two procedures. Hence, countries that excel in other measures that are socially desirable, but are not accounted for in the overall index, might be ranked significantly lower than they should be.[14]

Closing a Business indicator

When it comes to closing a business, the current global financial crisis provides a striking example of the necessity for appropriate institutions able to cope with bankrupt companies. Financial crises tend to trigger reform efforts as governments see existing regulations being tested under difficult economic situations. As stated by the World Bank in their most recent report, some countries have reacted quickly to the crisis (Doing Business 2010, 61). In Germany, for example, companies which have become insolvent during the present crisis but are potentially viable do not have to file for bankruptcy immediately. They can continue their operations for the duration of the crisis. However, this regulation change will expire at the end of 2010 and was thus meant to provide only immediate relief for the current economic downturn.

[14] IEG (2008), 27 f.

The importance of efficient bankruptcy regulations in general, but particularly during times of severe economic contractions, becomes especially obvious when keeping potentially viable but insolvent firms as going concerns and saving jobs is of the essence, or when a fast dissolution and new reallocation of input factors is necessary. By analyzing survey-based outcome indicators on bankruptcy procedures and constructing an overall Closing a Business ranking across countries, the World Bank has attempted to locate efficient bankruptcy regulations around the world and to provide appropriate reform recommendations to countries characterized by inefficient bankruptcy systems.

The business case assumptions for the exit indicator resemble those for the entry indicators with respect to legal business form, location and ownership, except that the business now faces bankruptcy proceedings instead of an entry registration process. In addition it is assumed that the chairman of the supervisory board of the insolvent firm is the firm's founder who owns 51 percent of shares, while other shareholders hold less than 5 percent. The company is assumed to be a hotel business valued at 100 times per capita income,[15] employs 201 workers and operates business relationships with 50 suppliers. It also has a bank loan from a domestic bank and a mortgage equal in value to the market value of the hotel.[16]

Methodology of the business exit indicator

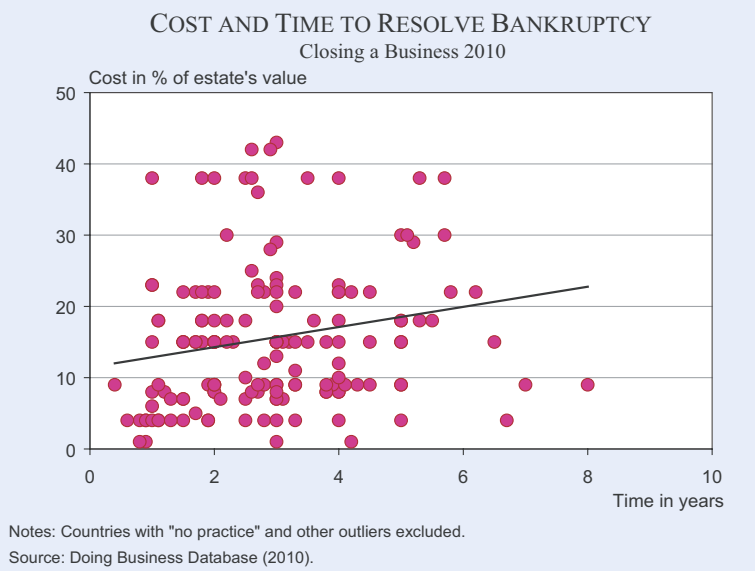
According to the World Bank, three central indicators assess the efficiency of bankruptcy regulation across countries (Doing Business 2004). Those indicators are time, cost and recovery rate, from which only the latter is employed to derive the World Bank's country ranking for Closing a Business. The following describes the single indicators in more detail and is based on the methodology of Djankov et al. (2008):[17]

- *Time*: the time indicator collects the judgement of local experts on the time required to recover creditors' debt measured in years. Possible delaying tactics as well as appeals and requests for extensions are included.

[15] The minimum value is set at US-$200,000 and is chosen according to whichever number is larger.
[16] For more details on the assumptions of the business case for the exit indicator, see Doing Business (2004), 112.
[17] For more details on the three indicators, see also Doing Business (2004), 113 f.

- *Cost*: the costs incurred during bankruptcy proceedings are recorded as a percentage of the business estate's value and are derived from the survey responses of insolvency practitioners. These costs include court fees as well as fees for all other contributors encountered during the bankruptcy proceedings.
- *Recovery rate*: this rate is measured in terms of cents on the dollar recouped by creditors as a result of bankruptcy proceedings. The measurement takes into account whether the business emerges from the bankruptcy proceedings as a going concern as well as costs and losses in the estate's value incurred during the shut down. In case of continuation the recovery rate is 100 cents on the dollar. If the company does not continue operations the initial 100 cents are reduced to 70 cents on the dollar, and the official costs of the bankruptcy procedure are deducted additionally. Ultimately, all other value lost – due to the time the money is tied up during the bankruptcy proceedings as well as deprecation – is accounted for.[18] The recovery rate reflects the present value of the remaining proceeds, based on financial statistics on lending rates at the end of 2007 provided by the International Monetary Fund.[19]

Figure 2



There are several aspects of why formal bankruptcy proceedings are important (Doing Business 2004, 72–7). One aspect mentioned in the World Bank's report is to maximize investors' value. If bankruptcy is an expensive, long-lasting undertaking, investors are likely to avoid it and the distressed company will possibly lose further resources necessary for its rescue. Also, suppliers and customers will try to discontinue business transactions with the insolvent business. Finally if the bankruptcy process takes too long, it will diminish prospects for a healthy recovery of the business. Figure 2 illustrates the associated positive relationship between costs and time of resolving bankruptcy.

Another argument for the introduction of formal bankruptcy proceedings is that rescuing a viable business as premature liquidation of companies in temporary distress may generate loss of value to the society and undesired worker layoffs. In general, bankruptcy procedures can end up with three outcomes: going concern, foreclosure and liquidation. A going concern is similar to a reorganization of the business, where the company is protected by court while attempting to rehabilitate itself. Foreclosure is a debt enforcement procedure aimed at recovering money owed to secured creditors, which can be entirely processed out-of-court. In case of liquidation a company is dissolved under court supervision leading most of the time to a sale of the company as a going concern.[20] The exit indicators account for these potential bankruptcy outcomes.

A third argument in favour of formal bankruptcy regulations is to keep the order of claims stable. This is essential as senior creditors will be reluctant to provide loans if they do not have a predictable priority to their claims after a company has gone bankrupt. This may possibly prompt senior creditors to block a company's entry into the bankruptcy procedure. Furthermore, unsettled claim priorities may encourage certain groups of creditors to force management either to prevent or to precipitate bankruptcy and thus promote wasting valuable resources.

[18] The recovery rate for countries reporting "no practise" is assigned zero. For a detailed description of the calculations of the recovery rate, see Djankov et al. (2008), 1132.
[19] The World Bank used lending rates from 2007 to avoid the biasing effects of the global financial crisis on data comparability over time (Doing Business 2010, 94).

[20] Some countries may have only one insolvency procedure that directs the company either to liquidation or reorganization, whereas others (like the US) have separate procedures as liquidation (Chapter 7) and reorganization (Chapter 11).

Business exit regulation across countries

In contrast to the entry index, the country ranking of the World Bank's Closing a Business index is derived only from the sub-component recovery rate. Table 2 shows the rankings for the most recent Closing a Business release (Doing Business, 2010).

Similar to Starting a Business mainly rich countries are ranked in the top 10 group of countries with most efficient bankruptcy proceedings. Particularly, European countries like Norway, Finland, Denmark, the Netherlands, and the United Kingdom are listed among the top performers. Japan and Singapore exhibit the most efficient bankruptcy regulations according to this indicator. The bottom 10 group comprises mostly poor and lower-middle income countries, similarly to the bottom 10 group in the entry indicator's case.

The country ranking for business exit regulations once again reveals the looming gap between rich and poor countries. But since Closing a Business captures only country ranks by recovery rate, a detailed examination of the index's sub-components is advisable to derive a more comprehensive picture of bankruptcy efficiency. Figure 3a shows an obvious negative relationship between a country's income endowment and the time of resolving bankruptcy. While high-income countries exhibit the shortest resolving time of around two years on average, upper-middle- and lower-middle-income countries require about one year longer. Low-income countries have the longest resolving time with about four years on average suggesting the least efficient bankruptcy proceedings among world economies with respect to time.

More efficient bankruptcy proceedings are typically associated with lower costs. This is supported by the fact that countries with better income endowment exhibit lower bankruptcy costs (Figure 3a). For the cost sub-component the association between bankruptcy efficiency and higher income is even more pronounced than is true for the time factor. The average costs of closing a business constitute less than 10 percent of a business estate's value in high-income countries. Upper-middle- and lower-middle-income countries exhibit bankruptcy costs ranging from 16 to 18 percent of a business estate's value. Poor countries' bankruptcy costs are highest with an average share of almost 20 percent of a business estate's value.

Plotting the recovery rate by income endowment clearly displays more efficient bankruptcy regulations in richer countries (Figure 3b), as already indicated by the Closing a Business index rankings in Table 2. High-income countries manage to recover about 61 cents on the dollar on average and are thus way ahead of other countries' recovery rate. Compared to rich countries, upper-middle-income countries only manage to recover 32 cents on the dollar, while lower-middle-income countries are quite close with almost 27 cents. Far behind are low-income countries recovering only 19 cents on the dollar on average and, hence, pose a substantial threat to stakeholders' investments.

The exit indicators once more suggest that a country's wealth significantly coincides with regulation efficiency in general and with efficiency of bankruptcy proceedings in particular. Similar to Starting a Business the outcome indicators for the exit case (time, cost, and recovery rate) are highly correlated with each other, especially in high-income countries.

Table 2

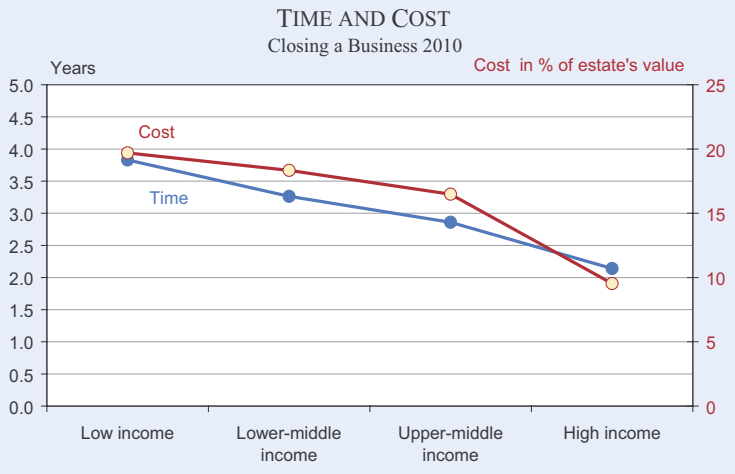
Closing a Business (ranking 2010)

Top 10 Group	Rank
Japan	1
Singapore	2
Norway	3
Canada	4
Finland	5
Ireland	6
Denmark	7
Belgium	8
United Kingdom	9
Netherlands	10
Bottom 10 Group	**Rank**
Liberia	148
Suriname	149
Mauritania	150
Venezuela, R.B.	151
Congo, Dem. Rep.	152
Philippines	153
Micronesia, Fed. Sts.	154
Haiti	155
Zimbabwe	156
Rwanda and others[a)]	157

[a)] Others consists of countries with the same ranking as Rwanda; those countries are (157–83): Madagascar, Afghanistan, Dominica, St. Vincent and the Grenadines, Albania, Grenada, Trinidad and Tobago, Bhutan, Seychelles, St. Kitts and Nevis, Lao PDR, Sudan, Kiribati, Burundi, Cape Verde, São Tomé and Principe, Timor-Leste, Central African Republic, Comoros, Cambodia, Iraq, West Bank and Gaza, Equatorial Guinea, Eritrea, Chad, Guinea-Bissau.

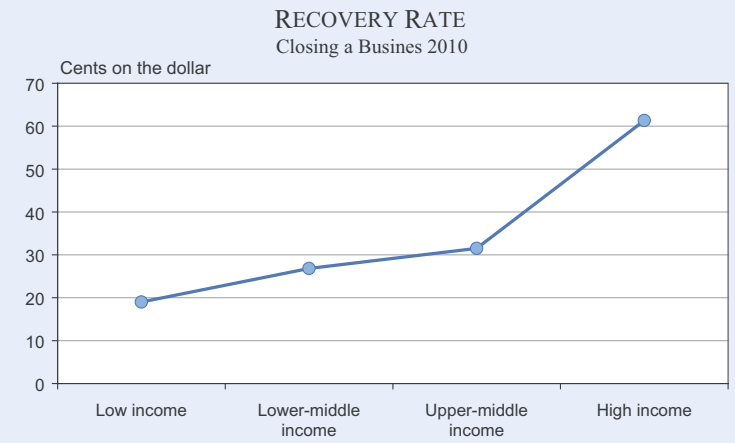
Source: Doing Business Database (2010). The data cover the period June 2009 until May 2010.

Figure 3a



Notes: Lines shown represent the average values by income group. Countries with "no practice" excluded.
Source: Doing Business Database (2010).

Figure 3b



Notes: Lines shown represent the average values by income group, Countries with "no practice" excluded.
Source: Doing Business Database (2010).

Limits of the standard approach in measuring business exit regulations

The World Bank methodology of measuring exit indicators is based on Djankov et al. (2008). As mentioned by the authors, their approach is subject to the caveat that the survey-based bankruptcy data only apply to a specific legal business form (limited liability) that operates in a specific sector (hotel business) and not to large firms with complex capital structures (Djankov et al. 2008, 1147). However, such large firms are very rare in developing countries and as Doing Business seeks to standardize insolvency cases for the majority of small- and medium-sized businesses around the world, it abstains from adjusting for large firms with more diversified capital structures. Moreover, large firms may possibly have special bankruptcy cases that do not apply to small- and medium-sized companies and thus would require separate treatment.

Nevertheless, with regard to the current financial crises, large companies with sophisticated financial structures, especially those in the banking sector, deserve more attention in the future. As the financial sector plays an important role in the intermediation process between creditors and entrepreneurs, bankruptcies in this sector engender severe repercussions for a country's economy. Therefore the existing exit indicators should be modified to additionally account for potential inefficiencies in the bankruptcy regulations of financial institutions. Since bankruptcy proceedings for businesses and financial intermediations differ substantially (Djankov 2009), a separate investigation of bankruptcy measures for the financial sector in addition to the existing business cases seems to be indicated. These differences stem from the fact that creditors or management initiate bankruptcy proceedings in the case of businesses, while governmental authorities are the initiators in the case of financial intermediations. Furthermore, applying the efficiency criteria of business bankruptcy to the financial sector may not be appropriate as, for example, the time-efficient bankruptcy trails of limited-liability companies in high-income countries (about two years) may take too long to resolve a banking bankruptcy. Disruptions in credit markets will create enormous negative feedback effects on the entire economy the longer the proceedings last.

In addition the current economic and financial situation of some distressed countries demands that we consider ways of how to measure the efficiency of country bankruptcy procedures. In the course of the current financial crisis governments have had to step into the breach and inject enormous economic stimulus packages for the economy, which have pushed

them to the edge of bankruptcy. Greece, Island and Argentina have already accumulated a tremendous debt that will be difficult if not even impossible to pay off. How to assess efficient bankruptcy procedures in these cases and to what extent these circumstances will eventually affect a country's business environment will have a profound impact on future generations of Doing Business indicators.

Another caveat to the World Bank's methodology of deriving exit indicators is that there are other potential factors that may determine whether a company gets rehabilitated or liquidated in addition to the well-established regulations for securing creditors' loans and property rights. The exit outcome indicators capture primarily the enforceability of debt contracts and the efficiency of proceedings, both of which are definitely important incentives for creditors to provide loans and create a beneficial business environment. However, other factors such as interest rates, the existence of appropriate financial intermediations and favourable market opportunities to keep a business as a going concern, may be vital factors affecting a company's prospects as well.

General limitations of the Doing Business methodology for the entry and exit indicator

This section evaluates the World Bank's methodology for both Starting a Business and Closing a Business indicators by presenting general limitations to the standard case study approach, as provided primarily by the review of the World Bank Independent Evaluation Group (IEG 2008).

Both case studies assume the company is located in the economy's most populous city (IEG 2008, 43). This implies a business environment specific to large, economically strong centers only and is not representative for other, more remote parts of the country.[21] Although the World Bank tries to address this issue by conducting research on sub-national indicators for selected countries, which was initiated in 2008, they do not cover a wide range of countries as they do for the established Doing Business indicators. Introducing more representative indicators for differentiated, economically relevant regions has become even more important, as the published sub-national studies have pointed out significant differences in the impact of regulatory reforms on the business environment of cities and regions within the same country (Doing Business 2010, 77).

Regarding the legal business form assumed in the case studies, the World Bank also concentrates solely on domestically owned limited-liability companies (IEG 2008, 7). As mentioned above for the specific indicators, this is done to standardize the results for the majority of business forms around the world. But this approximation comes at the cost of not being representative for country-specific regulations of other legal business forms, especially in industrialized countries. In Germany, for example, sole proprietorship in terms of private partnership (GBR) is a widespread business form that is subject to different regulations than a limited-liability company. This is also true for limited partnerships (KGs) or limited partnerships with limited-liability companies (GmbH & Co. KG), which are also prevalent German business forms. With regard to ownership structure, the domestically-owned nature of the business does not allow for any foreign corporate integrations nor for entirely foreign-owned companies. Regulations for these types of legal businesses may also differ substantially from those for entirely domestically-owned companies across countries, thereby reducing the representativeness of the businesses affected by regulations.

Another question concerning the business coverage of both indicators is to what extent the case studies really capture relevant business forms in poor and low-income countries. This is due to the World Bank's specification of hypothetical businesses being small and medium-sized and varying in size from 50 (for Starting a Business) to 201 employees (for Closing a Business). The regulations measured for these specific businesses are very unlikely to apply to wide-spread forms of micro-enterprises in developing countries (IEG 2008, 10). Moreover, the majority of micro-enterprises may not be operating in the formal sector and, hence, studies designed to measure formal sector regulations will inevitably fail to provide reliable information on the effects of reform on the business environment within countries that are characterized by large informal economies (IEG 2008, 10).

More fundamentally, a general limitation to the application of cross-country regulation indicators is that employing a standardized case study approach is unable to capture the precise regulation context that

[21] For example, high-tech clusters such as Silicon Valley in the US or Bangalore in India, which are thriving centers located outside the most populous cities, are not accounted for.

determines a country's specific business environment. This is due to the fact that the indicators are constructed from uniform criteria to ensure a standardized compilation of comparable cross-country data. To assess the impact of each indicator for a specific country comprehensively, researchers actually need to know and understand the country-specific regulations and idiosyncrasies as well. Applying only the standardized country outcomes without knowing the country-specific regulations will be misleading in assessing a country's business environment as well as in reform recommendations. This may be even more of a problem as the institutional settings of rich and poor countries often differ substantially from the start. Therefore, it would be useful to classify countries first according to their institutional level into, e.g., industrialized, emerging, and least-developed countries, and then apply class-specific modified case studies to these regions. In doing so, one could expect to get more reliable data on the specific regions by capturing more of their intuitional idiosyncrasies, instead of having one general case study applied to 183 countries, leveling all relevant country-specific institutions for the sake of generality.

Another fundamental limitation of the World Bank regulation indicators is their inability to distinguish clearly between correlation and causality, more precisely, to determine the effects of regulatory processes, laws and rules on observable economic outcomes. Changes of specific regulations need to be connected theoretically to changes in related economic outcomes before preliminary causal effects can be deduced. Empirically, both entry and exit indicators do not clearly determine a one-way direction of better regulations generating better economic outcomes, as is generally suggested by the reports. It could also be the other way round, for example, for a positively correlated association between a country's income endowment and its regulation efficiency. There is no definite empirically proven causality direction, whether more efficient regulations induce countries to prosper or whether inhabitants of advanced country simply demand more efficient regulations (IEG 2008, 5).

Another methodological drawback has to do with the confidence of the statistical inference and the reliability of the indicators and thus with the number of survey respondents within each country (IEG 2008, 13). According to the data notes of the Doing Business 2010 report more than 8,000 local experts administer the survey (Doing Business 2010, 77). The report lists 1,403 and 863 contributors for the indicators Starting a Business and Closing a Business, respectively. Breaking down these numbers for Germany, for example, results in 13 and 4 contributors, respectively.[22] Considering the extent of various German regulations based on business form, an increase in the current numbers of local experts would certainly help to reduce data insecurity. This argument becomes especially important due to the fact that the outcome indicators are based on the subjective judgement of experts, whereas for diverging survey responses median judgements are employed as surrogates. Hence, large numbers of local experts – as far as practically feasible – would definitely help to make estimates more precise in case of diverging responses.[23] Also, closely tied to the problem of subjective judgements is the difficulty of getting experts from different cultural and educational backgrounds to assess the legal facts (as designed in the case studies) in a similar manner. Inherent differences stemming from cultural predispositions may entail local experts of different countries to judge the same issue differently.

Finally, as pointed out in the discussion on bankruptcy, the general business transactions assumed in both case studies only reflect a specific standardized set of issues a company is potentially faced with and, hence, does not reflect other essential issues influencing the overall investment climate (IEG 2008, 3). The two indicators presented here as well as the other Doing Business indicators (not covered in this study) concentrate exclusively on the costs and burdens of regulations. But since doing business depends not only on regulation, but also on political (e.g., civil wars) and macroeconomic stability (e.g., inflation, sustainable budget deficits), infrastructure (fostering competition and private participation), and availability of qualified workers (IEG 2008, 4), the set of indicators should reflecte the investment climate in a more comprehensive manner.

Conclusion

Gathering and compiling international data on regulations enable the construction of indexes and indicators that help to study the relationship between economic rules, laws and processes and economical-

[22] Information on contributors by indicator and country can be obtained under http://www.doingbusiness.org/LocalPartners/ [accessed January 11, 2010].

[23] The number of respondents in poor and developing countries is of particular concern, e.g., Zambia (7 for entry case, 3 for exit case) or Vietnam (5 for entry case, 5 for exit case), where the number of local experts is too small to provide reliable outcome indicators.

ly related outcomes. These may include poverty, corruption, employment as well as market competition, entry and exit of new firms, and productivity. Setting up these indicators in an international context helps to develop and refine standardized methods for comparing different country regulations over time, and thus broadens our understanding of international regulations in principle.

The World Bank's Doing Business reports have become an invaluable tool for identifying the reform needs of a country's business environment. They provide the guidance to analyze underlying institutional patterns by capturing symptoms of defects via simple and understandable numerical outcome indicators. They also enable investigations across different sets of regulation indicators to assess regulatory reforms with respect to questions of, for example, how entry and exit proceedings that interact with labor and financial market regulations are able to enhance a country's business environment. Nevertheless, the indicators themselves are not the answers, although they may lead to answers. When properly interpreted and in due consideration of other vital micro- and macroeconomic factors, they provide the catalyst for identifying reform areas, where the costs and burdens of doing business can be reduced so that countries can grow and prosper.

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